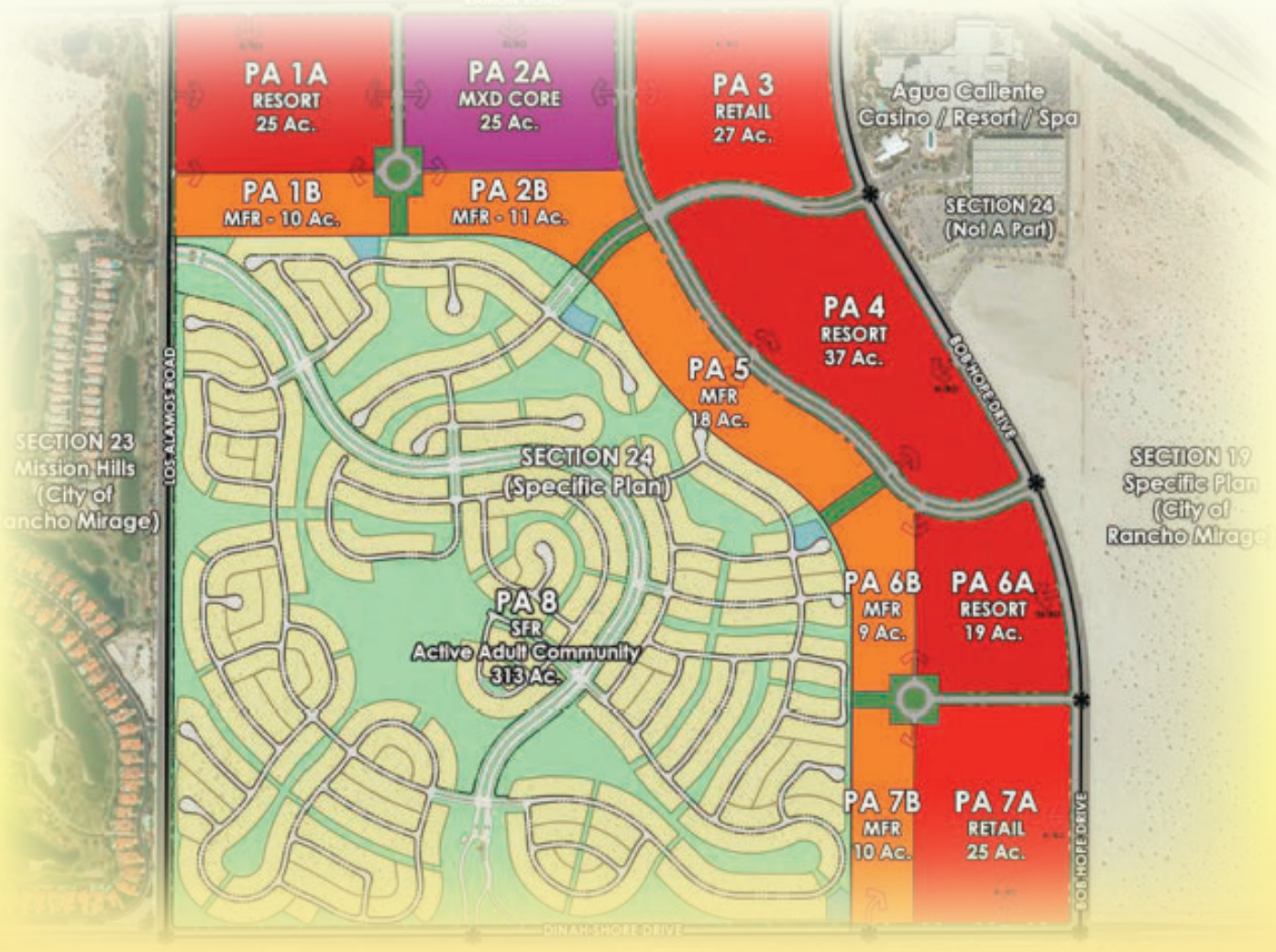
DRAFT

Agua Caliente Band of Cahuilla Indians
5401 Dinah Shore Drive
Palm Springs, CA 92264

Section 24 Specific Plan

Environmental Impact Statement



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NOVEMBER 2014

Draft

Environmental Impact Statement

Section 24 Specific Plan

Agua Caliente Band of Cahuilla Indians

(SCH No. 2014011035)

Prepared for:

Agua Caliente Band of Cahuilla Indians
5401 Dinah Shore Drive
Palm Springs, California 92264

Prepared by:

Meridian Consultants LLC
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Westlake Village, California 91361

November 2014

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1.0 INTRODUCTION

The proposed Project would provide entitlement approvals for up to 3,138,600 square feet of commercial retail, office, restaurant, hotel, and entertainment uses, and up to 2,406 residential units on approximately 577 acres of land on the Agua Caliente Indian Reservation ("Reservation"), as shown in **Section 3.0, Project Description, Figure 3.0-2**, **Project Location Map**. This Section provides information on the background of the Project, as further described in **Section 3.0** and assessed in this Draft Environmental Impact Statement (EIS), the environmental review process being conducted by the Agua Caliente Band of Cahuilla Indians ("Tribe") for this Project, and the organization and content of this Draft EIS. See **Section 9.0** for a definition of terms and acronyms used in this Draft EIS.

A. PURPOSE OF THIS ENVIRONMENTAL IMPACT STATEMENT

The Agua Caliente Tribal Environmental Policy Act (TEPA) (Tribal Ordinance No. 28) was adopted to ensure the protection of natural resources and the environment within the Reservation by establishing standards for the review and consideration of environmental impacts associated with development of the Reservation. When it is determined through preliminary review that a proposed project may result in significant impacts to the quality of the natural environment, preparation of an EIS in accordance with the process defined in TEPA is required.

The Tribe, acting as the Lead Agency for the planning and environmental review of this Project, has decided to prepare this EIS in compliance with both TEPA and the California Environmental Quality Act (CEQA), including the State *CEQA Guidelines* (California Code of Regulations Title 14 Section 15000 et seq.), to minimize the duplication of environmental studies and documentation by other public agencies involved with the review and approval of actions related to the Project that are required to comply with CEQA, including the City of Rancho Mirage ("City") and the Riverside Local Agency Formation Commission (LAFCo).

This EIS provides analysis of the potential environmental effects of the proposed Project and ways to reduce or minimize or avoid these effects. Analysis of a range of alternatives to the Project as proposed is also included in this EIS to provide additional information on ways to minimize the environmental effects of the Project.

This EIS, and the subsequent record of decision, will be prepared by the Tribe and will describe all potential environmental impacts of the Project, provide a Statement of Overriding Considerations for all environmental impacts that cannot be mitigated to a level of less than significant, adopt a Mitigation Monitoring Plan to ensure that all required mitigation measures are implemented during the course of the Project.

B. ENVIRONMENTAL REVIEW PROCESS

1. Notice of Intent

TEPA requires consultation with other public agencies with jurisdiction by law or special expertise related to any of the potential environmental effects of the Project. The Tribe initiated this consultation process by preparing and circulating a Notice of Intent (NOI) of the Section 24 Specific Plan EIS to other public agencies.

The NOI was released on January 16, 2014. The NOI was mailed to other public agencies, and the owners and residents of surrounding property (See **Appendix A** for the distribution list). The NOI was also sent to the Governor's Office of Planning and Research State Clearinghouse for environmental documents for distribution to State agencies for review, and was posted with the Riverside County Clerk and published in the Desert Sun. The NOI (also provided in **Appendix A**) described the proposed Project and proposed scope of environmental study.

Comment Letters

Nine comment letters from interested parties/agencies were received by the Tribe in response to the NOI. The State Public Utilities Commission ("PUC") letter (received on January 22, 2014) included the recommendation that the Tribe add language to the Specific Plan regarding any future development adjacent or near the railroad/light rail right-of-way. The PUC seeks to ensure that future development near the railroad corridors is planned with safety considerations. The Laborers International Union of North America, Local Union 1184 (received on January 27, 2014) responded with a comment letter to the Tribe requesting that any notice of actions or hearings regarding the Project be sent to their representative counsel. The Native American Heritage Commission letter (received on January 29, 2014) included comments concerning impacts on archaeological resources and identifies potential mitigation to reduce adverse impacts on archaeological resources. The fourth letter sent by the Coachella Valley Water District (received on February 12, 2014) included comments concerning stormwater and domestic water and sanitation system improvements relating to the Project. The Coachella Valley Water District also requested that any biological survey results for species protected under the Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP) be provided to the Coachella Valley Conservation Commission. The fifth letter sent by the City (received on February 12, 2014) included comments concerning cumulative impacts, aesthetics, air quality, hazards, hydrology and water quality, land use and planning, noise, population and housing, public services, recreational resources, traffic, and utilities. The sixth letter sent by the South Coast Air Quality Management District (received on February 12, 2014) included comments concerning potential adverse air quality impacts from construction and operation, air quality analysis with respect to regional and localized significance thresholds, and

appropriate mitigation measures to minimize adverse air quality impacts. The Southern California Association of Governments (received February 14, 2014) included comments concerning consistency of the Project with the 2012 Regional Transportation Plan/Sustainable Communities Strategy goals, strategies, and regional growth forecasts. Southern California Edison (received February 14, 2014) included comments concerning the Project's potential impact to overhead and underground 115 kilovolt sub-transmission lines on the north side of Dinah Shore and the east side of Bob Hope Drive, as well as their exclusive easement(s) and/or fee owned property. The ninth letter sent by the SunLine Transit Agency (received on February 18, 2014) included comments concerning the potential addition of a bus stops on both sides of Ramon Road at Los Alamos Road.

The NOI is provided in **Appendix A** of this EIS.

Public Scoping Meeting

The NOI also provided notice of the public scoping meetings the Tribe held on February 14, 2014, at 4:00 PM and 7:00 PM, at the Agua Caliente Casino Resort Spa, located at 32-250 Bob Hope Drive in Rancho Mirage. The purpose of the public scoping meetings was to provide an additional opportunity for comment on the potential environmental effects of the proposed Section 24 Specific Plan. No public comments were made or received.

2. Draft Environmental Impact Statement

The Tribe considered all comments received during this scoping process to determine the scope of study in this EIS. This Draft EIS includes research and analysis of potential environmental effects related to the following topics:

- Aesthetics
- Air Quality and Greenhouse Gases
- Biological Resources
- Cultural Resources
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation and Traffic
- Utilities and Service Systems

Public Review and Preparation of Final EIS

This Draft EIS was received by the Indian Planning Commission, and was released for a 60-day public review period in accordance with the provisions of TEPA. A Notice of Availability (NOA) of this Draft EIS was made available to those interested agencies and local jurisdictions. The NOA was also sent to all parties that requested notice of availability of the Draft EIS. In addition, the NOA and Draft EIS were made available on the Tribe's website at http://www.aguacaliente.org/.

Following the completion of this review period, the Tribe will review all comments received on the Draft EIS and prepare written responses to each comment. These comments and responses will be presented to the Indian Planning Commission for review. After receipt of these comments and responses, and consideration of any additional comments provided at a public hearing, the Indian Planning Commission will provide its comments on the Draft EIS and the Final EIS will be prepared.

A notice of availability of the Final EIS will be provided and the Final EIS will be presented to the Tribal Council. As required by TEPA, the Tribal Council will consider the information in the Final EIS, the written comments of the Indian Planning Commission, and any additional public comments before issuing a Record of Decision and implementing its decision on the Project.

Interested individuals, organizations, and public agencies can provide written comments on this Draft EIS to:

Agua Caliente Band of Cahuilla Indians
Planning and Development Department
5401 Dinah Shore Drive
Palm Springs, CA 92264
Attention: Margaret Park, Director of Planning & Natural Resources

Comments may also be sent by facsimile to (760) 699-6822 or by e-mail to mpark@aguacaliente-nsn.gov; include "Section 24 Specific Plan Draft EIS" in the subject line.

Please provide your name, address, and other contact information and/or a contact person at your agency who should receive future notices and correspondence related to this Project.

C. ORGANIZATION OF THE EIS

A description of the organization of this EIS and the content of each section is provided below. The Draft EIS is organized as follows:

Section 1.0, Introduction, provides information on the background of the Project, the environmental review process, and organization of the Draft EIS.

Section 2.0, Summary, presents a concise summary of the environmental information, analysis and conclusions in this EIS.

Section 3.0, Project Description, presents a description of the Project that addresses the location of the Project Site, the objectives of the Project, the characteristics of the proposed Planning Areas, and the approvals being requested from the Tribe.

Section 4.0, Environmental Setting, describes the existing physical setting of the Project Site and the surrounding area.

Section 5.0 Environmental Impact Analysis, contains information and analysis of the potential for the Project to result in significant environmental effects for each of the topics evaluated in this Draft EIS.

Section 6.0, Alternatives, discusses alternatives to the proposed Project that have been developed and analyzed to provide additional information on ways to avoid or lessen the impacts of the proposed Project. The alternatives include the "No Project Alternative" as required by the CEQA Guidelines along with other alternatives.

Section 7.0, Growth-Inducing Impacts, discusses the growth inducing impacts of the proposed Project.

Section 8.0, Other Environmental Impacts

- **Section 8.1, Effects Not Found to Be Significant**, discusses the potential impacts of the proposed Project that were determined not to be significant and were therefore not discussed in detail in this Draft EIS.
- **Section 8.2, Significant Irreversible Environmental Changes**, discusses the significant irreversible and irretrievable commitment of resources associated with the implementation of the proposed Project.

Section 9.0, Terms, Definitions, and Acronyms, provides a list of specially defined terms and acronyms used throughout this Draft EIS.

Section 10.0, Organizations and Persons Consulted, lists persons involved in the preparation of this Draft EIS or who contributed information incorporated into this Draft EIS.

Section 11.0, References, lists the principal documents, reports, maps, and other information sources referenced in this EIS.

Appendices to this EIS include technical information and other materials prepared for this EIS and the Tribe's environmental review of this Project.

2.0 SUMMARY

The proposed Project would provide entitlement approvals for up to 3,138,600 square feet of commercial retail, office, restaurant, hotel, and entertainment uses, and up to 2,406 residential units on approximately 577 acres of land on the Agua Caliente Indian Reservation ("Reservation"). This Section provides information on the background of the Project, as described in **Section 3.0, Project Description**, assessed in this Draft Environmental Impact Statement ("EIS"), and a summary of the information in this Draft EIS identifying the potential environmental impacts of the Project, the Project Design Features of the Project and the measures identified to mitigate these impacts, and the alternatives evaluated to provide additional information on ways to avoid or lessen these impacts. See **Section 9.0** for a definition of terms and acronyms used in this Draft EIS.

A. PURPOSE OF THIS ENVIRONMENTAL IMPACT STATEMENT

The environmental review process for this Project is being conducted by the Agua Caliente Band of Cahuilla Indians ("Tribe"). The Agua Caliente Tribal Environmental Policy Act (TEPA) (Tribal Ordinance No. 28) was adopted to ensure the protection of natural resources and the environment within the Reservation by establishing standards for the review and consideration of environmental impacts associated with development of the Reservation. When it is determined through preliminary review that a proposed project may result in significant impacts to the quality of the natural environment, preparation of an EIS in accordance with the process defined in TEPA is required.

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This EIS will be prepared and certified by the Tribe and will describe all potential environmental impacts of the Project, provide a Statement of Overriding Considerations for all environmental impacts that cannot be mitigated to a level of less than significant, and adopt a Mitigation Monitoring Plan to ensure that all required Mitigation Measures are implemented during the course of the Project.

B. OVERVIEW OF PROPOSED PROJECT

1. Regional and Community Setting

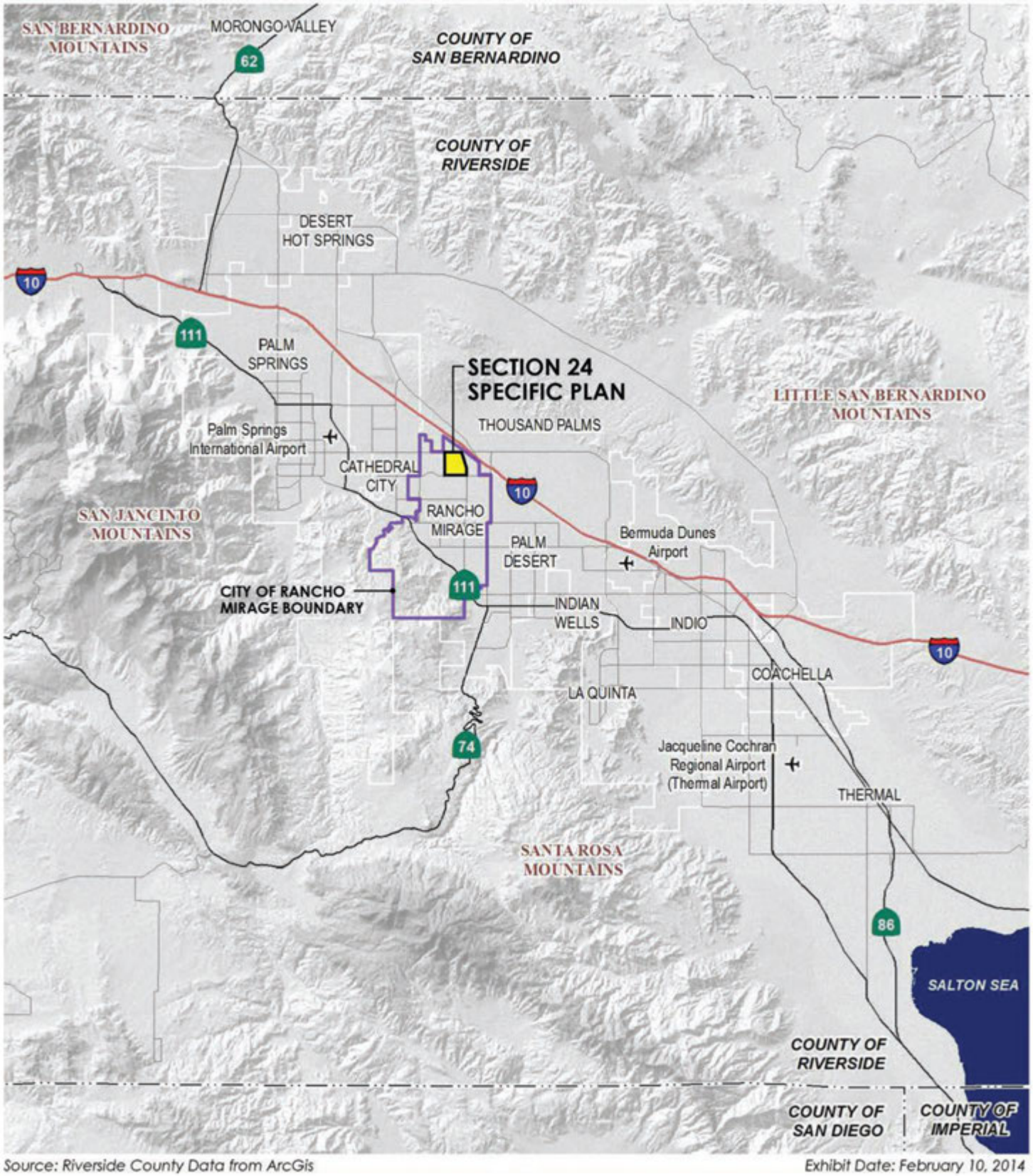
The Project Site is surrounded by the City which is considered to be in the heart of the Coachella Valley in Riverside County, nestled at the base of the Santa Rosa Mountains and conveniently located to utilize the southern California freeway system via Interstate 10 (I-10), as shown in **Figure 2.0-1, Regional Location Map**. The majority of future development in this area of the Coachella Valley is expected to occur near the I-10 corridor. Adjacent jurisdictions surrounding the Project Site include the City of Palm Desert to the southeast, Cathedral City to the west, and the City of Palm Springs to the northwest. **Figure 2.0-2, Project Location Map**, presents an aerial photograph identifying the location of the Project Site with respect to the City. The Project Site is bounded by the following roadways: 1) Ramon Road on the north; 2) Bob Hope Drive on the east; 3) Dinah Shore Drive on the south; and 4) Los Alamos Road on the west. The Section 19 Specific Plan is located directly east across Bob Hope Drive from the Project Site and directly southeast of the Agua Caliente Casino/ Resort/ Spa.

The Project consists of a specific plan for approximately 577 acres of the Reservation, located within the City Sphere of Influence designated as Section 24, Township 4 South, Range 5, and east of the San Bernardino Meridian. The Section 24 Specific Plan would be approved and adopted by the Tribal Council and serve as the zoning for the Project Site. The City would subsequently adopt the Specific Plan and approve any request(s) for annexation into the City.

2. Project Characteristics

The Project would provide a potential mix of up to 3,138,600 square feet of commercial, retail, office, restaurant, hotel and entertainment uses, and up to 2,406 residential units. The Project is designed to accommodate these uses through the creation of seven land use categories and eight Planning Areas. These land use categories include Mixed-Use Core, Resort Flex, Retail, Multi-Family Residential, and Single-Family Residential. The eight Planning Areas delineate and describe the amount, type, and distribution of development throughout the Project Site. The Planning Areas have also been constructed to recognize the current ownership patterns, thus enabling the Project to be constructed in an incremental fashion while still achieving a unified development. Each Planning Area is subject to a distinct list of allowed uses and development standards established among the seven different land use categories. Planning Areas 1 to 7 (“Tribal Planning Areas”) and Planning Area 8 (“the Active Adult Community”) are proposed within the Project Site.

The Tribal Planning Areas would total 217 acres in size and provide a mix of a potential mix of up to 3,138,600 square feet of commercial, retail, office, restaurant, hotel and entertainment uses, and up to



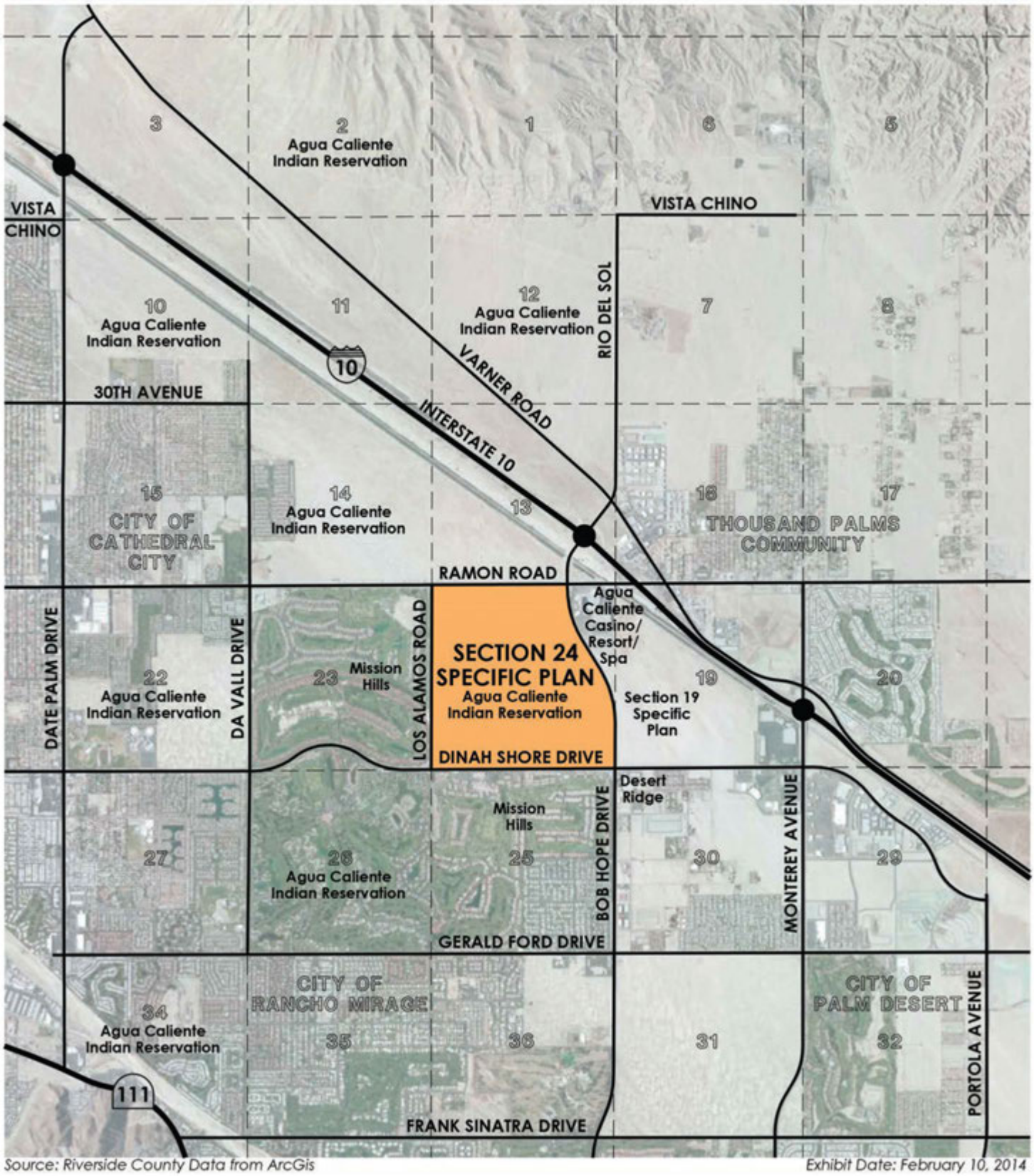
SOURCE: MSA Consulting Inc. - September 2014.

FIGURE **2.0-1**

SECTION 24 SPECIFIC PLAN

Regional Location Map

044-001-13



SOURCE: MSA Consulting Inc. - September 2014.

FIGURE **2.0-2**

SECTION 24 SPECIFIC PLAN

Project Location Map

044-001-13

1,406 multi-family residential units. The commercial and resort uses within the Tribal Planning Areas would primarily front the southern side of Ramon Road and the western side of Bob Hope Drive.

The Tribal Planning Areas would vary in maximum floor to area ratio (FAR) and lot coverage. The maximum FAR for retail uses would be 0.35 with maximum lot coverage of 35 percent. The maximum FAR allowed for resort flex uses would be 0.40 with maximum lot coverage of 40 percent. The maximum FAR allowed for mixed use core uses would be 1.0, with maximum lot coverage of 50 percent, and minimum unit size of 600 square feet. The Planning Areas that would allow multi-family residential units at a maximum density of 18 dwelling units per acre, maximum lot coverage of 50 percent, and a minimum unit size of 850 square feet. The multi-family residential uses would be located south of the commercial and resort areas and north of the Active Adult Community, thereby providing a transition from the less intense active adult units and the commercial and resort uses.

The Active Adult Community would be approximately 313 acres for the development of a master planned active adult community of up to a maximum of 1,200 single family dwelling units. The Active Adult Community would be master planned consisting of four neighborhoods accessed by a system of private streets and recreational open space amenities located in neighborhood parks and trail linkages. Resident amenities would include an integrated system of pedestrian, bicycle and golf cart trail linkages, neighborhood parks, water features, community club house/ pool/ spa, and complementary features. The Active Adult Community would have a maximum of 3.8 dwelling units per acre with lot coverage up to 35 percent.

Open Space

The Conceptual Open Space only identifies the location of a portion of the open space to be provided in order to allow each Planning Area to design and accommodate open space areas in a manner that works with individual projects. Each project and Planning Area would be required to connect to adjacent open spaces through the use of greenbelts or landscaped pedestrian walkways. The exact number, precise location, configuration, type, and amount of amenities and facilities, and size of the parks and open space areas would be established at the time of development of the tentative tract map(s) of the Project.

The amount of parkland required by the Specific Plan within the Project Site would total approximately 13 acres; the Active Adult Community requiring a total of 6.5 acres of parkland and the Tribal Planning Areas requiring a total of 6.5 acres of parkland primarily within the residential land use areas. The provision of parkland on-site is preferred and developments may satisfy parkland requirements by consolidating parkland into one or more locations.

Landscape

The Project's landscape treatment would incorporate a distinct theme to further define the different areas and roadways within the Project Site. Rock gardens and water features may also be used to enhance the landscape elements; however, water features shall be limited to key landscape areas for the purpose of water conservation.

Circulation

The ability to easily access and travel within the Project Site by multiple modes of transportation is an important element of the Project. The vehicular circulation system for the Project would include both regional and local roadways. This system of roadways would generally form a modified grid pattern to maximize access to each Planning Area and enhance walkability. The modified grid system would also allow for the overall Project to be developed in a phased approach without disrupting continuity or access for existing or developing projects. Within the Active Adult Community the internal private street system would provide connectivity to the grid of adjacent public arterial and collector roadways.

The Project circulation system would contain a hierarchy of access points and roadways to dictate the function and character of each intersection and roadway. Access points in the Project Site would be described as Primary Access or Right In/Out Access points. Public roadways would be classified as Major Arterial, Minor Arterial, Modified Major Collector, and Local Roadway. All public roadways in the Specific Plan area would be maintained by the owning jurisdiction (e.g. City, County, or Tribe). All private roads would be owned and maintained by the Master Homeowners Association, Neighborhood Association, and/or similar entities.

Pedestrian and Alternative Vehicle Circulation Plan

The Project would develop a comprehensive system of pedestrian, Neighborhood Electric Vehicle (NEV), golf cart, and bicycle travel throughout the Project Site and into the surrounding community.

Pedestrian

Pedestrian circulation would be provided by 5- to 8-foot-wide sidewalks along internal and perimeter roadways. Pedestrian circulation within each Planning Area would not be determined until site plans are developed by each property owner as the Project builds out. All development, however, would be designed to facilitate pedestrian access to surrounding Planning Areas.

Alternative Vehicle Circulation

Within the Project Site, Class I bikeways and golf cart paths (8 feet wide) are provided along Bob Hope Drive, Ramon Road, Dinah Shore Drive and Los Alamos Road as off-street pathways that allow bicyclists,

golf carts, and pedestrians to travel along the same route. These routes will connect to the existing golf cart circulation system, which provides paths along the south side of Dinah Shore Drive west of Bob Hope Drive and along the west side of Los Alamos.

Class II bikeways provide a striped, on-street lane (5 feet wide) for one-way bicycle travel on Bob Hope Drive, Ramon Road, Dinah Shore Drive, Los Alamos Road, and "A" Street Boulevard. The Class II facilities extend from the Class I pathways to provide dedicated access to the Project's residential and mixed-use interior. Golf carts are expected to gain access to the majority of the site's uses by traveling along Class I facilities and through parking lots and smaller access roads within Planning Areas. Additional internal access may be provided to golf carts on streets with designated speed limits no higher than 25 miles per hour.

This Specific Plan also envisions that the residents of Section 24 may purchase NEVs to make short trips to run errands, visit recreation facilities, or meet with friends. NEVs are public street-approved vehicles that have no emissions and can travel at a maximum speed of 25 mph. In contrast with golf carts, NEVs are able to travel on city streets with posted speed limits of 35 mph or less, and can cross intersections of roadways with higher posted speed limits (per California Vehicle Code Section 385.5). Commuter information boards should be placed at appropriate locations in each Planning Area identifying paths, routes, and schedules for alternative vehicles and public transit within the Project Site and throughout surrounding community.

Public Transportation

As development matures within the Project Site, sufficient demand may be generated to support additional bus lines or a change in routes to stop at two or three additional locations within the Mixed-Use Core or other Tribal Planning Areas along Bob Hope Drive and Ramon Road. The ultimate route alignment and stop location would be determined by SunLine as development of this area proceeds and needs and resources can be assessed. All existing and future SunLine bus stops shall be located and equipped per SunLine standards.

The potential for a future multimodal Transit Center in Section 13 could provide a significant long-term opportunity for residents and commuters within the Coachella Valley. Close coordination would be required with SunLine and adjacent property owners to identify appropriate short- and long-term uses of the Transit Center property. Such uses could include: SunLine Regional Bus Station; SunLine Neighborhood Circulator Station; temporary or permanent commuter parking solar energy generation, or a combination of all of these.

Infrastructure

Infrastructure improvements would be installed to support the Project development including water, sanitary sewer, drainage and flood retention systems, and utility improvements. All improvements proposed within the Project Site have conceptual designs and locations.

Development Timeline

Lastly, it is anticipated that the Project would be developed in two phases, with buildout of the first phase projected for 2022 and buildout of the final phase projected for 2035. The Active Adult Community would be developed during the first phase of construction and would require six to eight years to complete. Development of the Active Adult Community would consist of up to 1,200 single family units for senior adults. No timeframe has been established for the development of the Tribal Planning Areas.

In order to reduce the impact of the existing topography which has maximum slopes of over 8 percent, the proposed contours shift the highpoint to the center area of the Active Adult Community and gradually slope the land to the northeast at a maximum of 2.3 percent.

A vertical division of approximately 20 feet has been created to separate the Active Adult Community from the balance of the Tribal Planning Areas. A slope to the north, northeast, and east would be provided at a maximum slope of 3 to 1 at the property line between the Active Adult Community and the Tribal Planning Areas.

Intended Uses of this EIS

This Project consists of requests for approval of the following actions by the Tribe: Record of Decision of EIS; approval/adoption of the Section 24 Specific Plan; a "Parcel" Map to reconfigure allottee parcels; a consent to annexation; and approval of Tentative Tract Maps and permits for future development within its jurisdiction. Other potential requests for approval of the following actions by the City include: certification of the EIS; adoption of the Section 24 Specific Plan; approve request for annexation; and approval of Tentative Tract Maps and permits for future development within its jurisdiction. Finally, the Local Agency Formation of Riverside County would approve annexation of the Project Site into the City.

C. PROJECT OBJECTIVES

The *CEQA Guidelines* require an EIR, or for this Project the EIS, to include a statement of the objectives of the Project that address the underlying purpose. The Tribe is proposing to adopt a Specific Plan for the Project Site in order to promote its orderly development and to support any future annexations of the Project Site into the City of Rancho Mirage. More specifically, the objectives of the Project are to:

- Establish a vibrant, unified vision for the Project Site based upon a cohesive, complementary mix of land uses structured around a comprehensive set of circulation and infrastructure systems, and sensitivity to environmental sustainability issues.

- Promote the highest and best use of Reservation lands in order to maximize the economic development opportunities for the Tribe and its members, including Tribal land immediately adjacent to the existing Agua Caliente Casino Resort Spa.

- Plan for an appropriate mix of commercial, hotel, entertainment, office and residential uses, in order to meet the trade area's growing demand and build in the flexibility to respond to changes in the market over time.

- Create a new mixed-use project that compliments the Tribe's existing Agua Caliente Casino Resort Spa located across Bob Hope Drive to create a regional destination development.

- Apply planning and design solutions to create a unique and pleasant "sense of place" at multiple scales.

- Provide a range of contemporary housing concepts, including an "active adult" development, which will encourage residential opportunities that appeal to residents seeking shorter commutes to jobs, restaurants, and a broad selection of entertainment opportunities.

- Implement a "Complete Streets" circulation concept that optimizes both vehicular and pedestrian/ bicycle modes of traffic, internalizes pedestrian activity to buffer it from the vehicular traffic along perimeter roadways, and establishes connectivity between land use activities featuring pedestrian-friendly and walkable spaces.

- Create a community with a focus on water conservation through design that supports groundwater recharge, minimizes stormwater runoff and incorporates drought-tolerant/low water landscaping that acknowledges the desert environment.

- Provide infrastructure that incorporates "readiness" for sustainable technologies, such as solar power generation and plug-in electrical vehicle charging connections/stations.

These objectives provide overall guidance to the preparation of the Section 24 Specific Plan in order to maintain consistency with the vision for this area which is shared by all of the involved property owners.

D. SUMMARY OF ALTERNATIVES

The selected Alternatives provide a comparative analysis of the environmental effects of alternatives to the Project. This analysis has been prepared in accordance with the guidance provided by both the National Environmental Policy Act (*NEPA*) and *CEQA*. Analysis of a reasonable range of alternatives

would be required by both *NEPA* and *CEQA*. The purpose of the alternatives analysis is to explain potentially feasible ways to avoid or minimize the significant effects identified for the Project.

Based on the guidance provided by both *NEPA* and *CEQA*, several factors are relevant for consideration in determining a reasonable range of alternatives to be analyzed in detail. These factors include: (1) the nature of the proposed Project and the significant impacts identified for the Project, (2) the ability of alternatives to avoid or lessen the significant impacts associated with the Project, (3) the ability of the alternatives to meet the objectives of the Project, and (4) the feasibility of the alternatives.

The Alternatives to the Project evaluated in this Draft EIS include:

1. Alternative 1 – No Project/No Development
2. Alternative 2 – City General Plan
3. Alternative 3 – County General Plan
4. Alternative 4 – Project with all Standard Residential Development
5. Alternative 5 – Reduced Intensity Alternative

A brief description of each of these Alternatives is provided below with a summary of the evaluation of each.

1. No Project – No Project/No Development

Both *NEPA* and *CEQA* require consideration of a No Action or No Project Alternative, with the definition of this Alternative to be based on several factors, including consideration of what is likely to occur if the Project is not approved. As required by *NEPA* and *CEQA*, the analysis must examine the impacts that might occur if the Project Site is left in its existing condition, as well as what may reasonably be expected to occur in the foreseeable future if the Project were not approved, based on current plans and consistent with available infrastructure and community services.

Under the No Project/No Development Alternative, the Project Site would remain in its current and existing condition. The vacant undeveloped land would remain. These existing uses would continue and the existing environmental conditions would be maintained. The Project Site would retain its visual characteristics and the existing visual resources for the surrounding land uses would not be impacted.

None of the impacts associated with construction and operational activities would occur if the No Project/No Development Alternative was selected. No construction- and operation-related air quality emission impacts would occur, nor would construction-related noise impacts, vehicle noise operations at Project buildout and under cumulative conditions.

Summary of Comparative Impacts

As described above, the No Project/No Development Alternative would eliminate the potentially significant impacts associated with construction- and operation-related air emissions and construction and vehicle-related noise increases on local roadways. However, impacts related to land use and population and housing would be greater as the economic employment opportunities would not occur on Reservation land. This Alternative would result in similar impacts related to aesthetics and biological resources. The following impacts would be less under this Alternative: cultural resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, operation noise, population, public services, recreation, traffic, and utilities and service systems.

2. Alternative 2—City General Plan

This Alternative examines the impacts that would result from development of the Project Site with the type and intensity of land uses allowed by the City General Plan land use designations for the Project Site. The City's General Plan has a greater portion of the Project Site designated for residential development than the proposed Section 24 Specific Plan. The General Plan designates 414 acres for Medium Density Residential uses with a maximum allowed density of 4 dwelling units (DU) per acre, 39 acres of the Project Site as High Density Residential uses with a maximum allowed density of 9 DU per acre, and 80 acres as Community Commercial uses with a maximum allowed FAR of 0.35. The Community Commercial designation allows regional and community scale shopping centers and the definition states that hotels and motels may also be appropriate. For purposes of analysis, the residential development in this Alternative is not assumed to be age restricted.

The City's General Plan considers the amount of land typically needed for streets and estimates the resulting amount of development based on the remaining amount of land. For the 457 acres designated Medium Density Residential, the estimate of the land available for residential development after accounting for the amount of land typically required for streets, rights-of-ways, and easements would be approximately 414 acres. The estimated number of residential units is based on applying the allowed 4 units per acre to 414 acres. For the smaller 40 acre area designated for High Density Residential uses, about an acre would be required for streets and 39 acres would be available for development. The estimated number of residential units is based on applying the allowed 9 units per acre to 39 acres. About 5 acres of the 80 acres designated for commercial uses would typically be required for streets and the estimate of commercial development is based on applying the 0.35 FAR to 75 acres.

A total of 2,007 residential units and approximately 1.15 million square feet of commercial development would occur with this Alternative as compared to the 2,406 residential units and approximately 3.1 million square feet of commercial development the proposed Section 24 Specific Plan would allow. This

Alternative includes about 400 fewer residential units and 1.9 million square feet less of commercial development than the Project.

Summary of Comparative Impacts

Alternative 2 would result in incrementally reduced impacts when compared to the Project with respect to operation-related impacts to air quality, noise, demand for library services, recreation, traffic and transportation, and utilities and service systems. Impacts related to Alternative 2 would be similar to aesthetics, biological resources, cultural resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, population and housing, and fire and law enforcement services. Alternative 2 would result in greater impacts when compared to the Project on school services. No significant air quality or noise impacts would be avoided or substantially reduced by this Alternative.

3. Alternative 3—County General Plan

The County General Plan Alternative would allow for the development of the Project Site according to the County of Riverside (County) General Plan, which has a greater portion of the Site designated for commercial development than the Project as the General Plan designates 337 gross acres for commercial uses with a FAR of 0.35. The County's General Plan considers the amount of land typically needed for streets and estimates the resulting amount of development based on the remaining amount of land. For the 337 acres designated for Commercial Uses, the estimate of the land available for residential development after accounting for the amount of land typically required for streets, rights-of-ways, and easements would be approximately 252.75 acres. The 240 gross acres of residential development associated with Alternative 3 would only include Medium Density Residential uses.

Since the age restriction in the residential development land use designations would be removed for this site, the Medium Density Residential units will not be analyzed as an active adult community. A total of 1,200 residential units and approximately 3.9 million square feet of commercial development is allowed when compared to the 2,406 residential units and 3.1 million square feet of commercial development allowed under the Project. This results in a reduction of 1,206 fewer residential units (about a 50 percent reduction) and approximately 800,000 square feet more of total commercial square footage.

As with the Project, Alternative 3 would create a cohesive mixture of residential and commercial land uses with the incorporation of open space and recreational uses. This Alternative would still provide for restaurant and office/services and hotel uses within the commercial use designations. The substantial reduction in residential uses would result in a large reduction of direction population growth generated under this Alternative.

Summary of Comparative Impacts

Alternative 3 would result in incrementally reduced impacts when compared to the Project with respect to the demand for library services, demand on recreational facilities, and sewer demand. Impacts related to Alternative 3 would be similar to biological resources, cultural resources, geology and soils, greenhouse gas emissions (albeit a larger amount of emissions), hazards and hazardous materials, hydrology and water quality, land use and planning, noise, population and housing, fire and law enforcement services. Alternative 3 would result in greater impacts in comparison to the Project with respect to aesthetics along Dinah Shore Drive, operational air quality emissions, greenhouse gas emissions, schools, traffic, water demand, and solid waste. The Project's significant air quality or noise impacts would not be avoided or substantially reduced by this Alternative. It should be noted that this Alternative results in PM10 and PM2.5 exceeding the SCAQMD thresholds, which would not result from the Project.

4. Alternative 4—Project with all Standard Residential Development

This Alternative would include the proposed land use plan as identified in the Section 24 Specific Plan; however, the 55 and above age restriction associated with the 1,200 single family homes within Planning Area 8 would be removed. Therefore, this age restriction in the residential development land use designations will not be analyzed as an active adult community. The Project would still be implemented with each of the eight Planning Areas with the same land uses as established by the Section 24 Specific Plan.

The commercial designated land uses within Tribal Planning Areas 1 to 7 would still provide for restaurant and office/services and hotel uses and a mixture of single- and multi-family attached residential dwelling units and Planning Area 8 would still provide for single-family detached residential dwelling units. Additionally, Alternative 4 would incorporate the 13 total acres of open space and recreational opportunities throughout the Site as established in the Section 24 Specific Plan, such as parks, walkways and jogging paths, enhanced streetscapes, courtyards, and plazas to provide gathering spaces for people shopping, eating, or just enjoying the atmosphere. A population increase is anticipated to occur under this Alternative as a result of the removal of the 55 and older age restriction. Thus, there would be an increased demand for public services and utilities.

Summary of Comparative Impacts

Alternative 4 would result in similar impacts when compared to the Project. Incremental increases in impacts not identified as significant include air quality, greenhouse gas emissions, noise, schools, libraries, recreation, traffic and transportation, and water demand. The significant air quality and noise

impacts would not be avoided or substantially reduced by this Alternative, but rather, would be comparatively greater than the Project.

5. Alternative 5—Reduced Intensity Alternative

Alternative 5 considers implementation of the Project as proposed, with the intensity of all land uses reduced by 25 percent. This Alternative would include the development of 900 residential dwelling units within Planning Area 8, 904 total residential dwelling units within Tribal Planning Areas 1B, 2B, 5, 6B, and 7B, 953,700 square feet of Resort Flex uses, 582,750 square feet of Retail uses, and 817,500 square feet of Mixed-Use Core uses.

Under Alternative 5, the layout of the land uses would not change as compared to the Project. As a result of the 25 percent reduction of the amount of development on the Project Site, the construction duration of this Alternative would also be reduced. In addition, a reduction in the amount of residential dwelling units and commercial uses would reduce the amount of direct population growth and visitors that would be introduced to the Project Site, thus decreasing the demand for public services and utilities. While the acreage of open space and recreational uses required in accordance with the Section 24 Specific Plan would be reduced due to the decreased population generation, Alternative 4 would provide for an increased amount of open space and recreational opportunities. The 25 percent reduction in development on the 577 acre Project Site would allow for the ability to integrate more parks, walkways and jogging paths, enhanced streetscapes, courtyards, and plazas throughout the design of the site.

Summary of Comparative Impacts

Alternative 5 would result in a substantial reduction in air quality and vehicle-related noise during operation of the Project. Impacts related to Alternative 5 would be similar to aesthetics, biological resources, cultural resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, vehicle noise, population and housing, public services, recreation, traffic, and utilities and service systems. Alternative 5 does substantially reduce identified air quality and construction noise impacts; however, it does not avoid these significant impacts.

6. Environmentally Superior Alternative

As previously discussed, analysis of a reasonable range of alternatives is required by both *NEPA* and *CEQA*. The purpose of the Alternatives analysis is to explain potentially feasible ways to avoid or minimize the significant effects identified for the Project. Furthermore, State *CEQA Guidelines,* Section 15126.6(e)(2) requires an EIR, or for this Project the EIS, to identify an environmentally superior

alternative among those evaluated in an EIR. As stated throughout this document, this Draft EIS is also complying with the State CEQA Guidelines for the purposes of environmental analysis.

Of the alternatives considered in this Draft EIS Section, the No Project/No Development Alternative is environmentally superior to the other alternatives, because this alternative would avoid the significant and unavoidable impacts identified for the Project.

According to the State *CEQA Guidelines,* if the No Project/No Development Alternative is identified as the environmentally superior Alternative, the EIS shall also identify an environmentally superior Alternative among the other Alternatives. Of the other Alternatives considered, Alternative 5, a 25 Percent Reduced Intensity Project, would be considered environmentally superior, because it would result in the greatest incremental reduction of the overall level of impact when compared to the Project. Alternative 5 would reduce, but not avoid or reduce to a level of less than significant, the significant construction and operational air quality impacts related to VOCs, NOx, and CO, and the construction noise impacts identified for the Project.

While the Reduced Project Density Alternative would include all of the components proposed by the Project, such components would be reduced under this Alternative. A reduction in the number of homes would result in a 25 percent reduction in the amenity package as the reduced number of homes would not be able to support the level of amenities offered by the Project. As such, the 25 Percent Reduced Intensity Alternative would not be as effective in meeting the Project's purpose to create a regional destination development that stimulates economic development opportunities for the Agua Caliente Band of Cahuilla Indians and the greater community.

This Alternative would develop all of the components proposed by the Project, this Alternative would be consistent with the objective to establish a vibrant, unified vision for the Specific Plan, and plan for an appropriate mix of commercial, hotel, entertainment, office and residential uses, in order to meet the trade area's growing demand. However, since this Alternative would develop 75 percent of the Project and those amenities offered by the Project, this objective would not be achieved to the same extent as the Project.

Overall, the 25 Percent Reduced Intensity Alternative would not meet the Project's purpose and the objectives that support the Project's purpose to the same extent as the Project.

E. AREAS OF CONTROVERSY AND ISSUES TO BE RESOLVED

Some issues of concern were expressed through responses to the Notice of Intent (NOI). Concerns were expressed about the impact of future development near the railroad corridors, as addressed in **Section**

5.7, Hazards and Hazardous Materials. Potential archaeological resource impacts are addressed in **Section 5.4, Cultural Resources** and would be mitigated to less than significant with Mitigation Measures. Stormwater and domestic water and sanitation system improvements relating to the Project are addressed in **Section 5.8, Hydrology and Water Quality**, **Section 5.15.1, Utilities and Service Systems – Water Service**, and **Section 5.15.2 Utilities and Service Systems - Sewer**. Project Design Features and Mitigation Measures would reduce potential Project impacts to stormwater, flood facilities, water and sanitation systems to less than significant. Potential air quality impacts have been addressed in **Section 5.2, Air Quality** and potential greenhouse gas emissions have been addressed in **Section 5.6, Greenhouse Gas Emissions**. Project Design Features and Mitigation Measures have been identified to reduce impacts; however, potential construction- and operation-related impacts to regional air quality were identified. Project Design Features and Mitigation Measures would reduce greenhouse gas emissions impacts to less than significant. The Project was found to be consistent with regional and local policies, as addressed in **Section 5.9, Land Use and Planning**. Utilities and service system impacts have been addressed in **Section 5.15, Utilities and Service Systems**. Public transportation impacts are addressed in **Section 5.14, Traffic and Transportation**. All other related potential impacts resulting from the Project have been addressed throughout this Draft EIS. Impacts that would remain significant even with implementation of Project Design Features and Mitigation Measures include air quality and vehicular-related noise impacts.

F. SUMMARY OF ENVIRONMENTAL IMPACTS, PROJECT DESIGN FEATURES, AND MITIGATION MEASURES

A summary of the potential environmental impacts of the Project and the features of the Project and the measures identified to mitigate these impacts is provided below for each topic addressed in this Draft EIS. **Table 2.0-1, Summary of Project Impacts**, summarizes the significance of the impacts of the Project based on the information and analysis in **Section 5.0** of this Draft EIS.

Table 2.0-1
Summary of Project Impacts

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
Aesthetics			
Scenic vistas include the surrounding San Jacinto, Santa Rosa, and Little San Bernardino Mountains. The construction of new buildings and structures within the line of sight of a visual resource has the potential to create an adverse impact with respect to view blockage. Development would be controlled by the design standards and guidelines outline in the Section 24 Specific Plan, which requires minimum setbacks for development within the higher elevations at the southwest corner of the Project Site. Providing adequate building setbacks would help ensure that scenic vistas from various vantage points, such as surrounding roadways, are preserved. The Section 24 Specific Plan also outlines other provisions that would help preserve scenic vistas, such as the placement of buildings and structures, design of setback areas, and the landscaping and architectural design parameters.	Less than Significant with Project Design Features	No mitigation measures are necessary.	Less than Significant
A significant impact may occur if a project were to introduce incompatible visual elements on, or surrounding, the Project Site. The Project would develop land that is currently vacant and undeveloped. No scenic resources are currently within the Project Site. Therefore, the Project would not damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within the Project Site.	Less than Significant	No mitigation measures are necessary.	Less than Significant
The Project would substantially alter the visual	Less than	No mitigation measures are necessary.	Less than

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
appearance of the Project Site from vacant to developed land. Adherence to the Tribes Land Use Ordinance and development standards and design guidelines outlined in the Section 24 Specific Plan would ensure that the Project would be developed as a high-quality master planned community and would not negatively impact the aesthetic appearance of the Project Site or surrounding area. The proposed landscape plan would not only provide for high-quality landscape design, but would also help lessen any visual impacts of building and structures throughout the Project Site and along the site boundaries.	Significant		Significant
Chapter 5, Development Regulations of the Section 24 Specific Plan, outlines specific development standards that would ensure that buildings and structures proposed within the Project Site would be developed to be sensitive to and compatible with existing and future surrounding land uses. Chapter 6, Design Guidelines, of the Specific Plan includes standards and guidelines that would ensure high quality design and creativity in site planning and architectural design, while allowing for variation and flexibility. Chapter 4, Specific Plan Concepts, of the Specific Plan provides standards and guidelines for the treatment of areas within the Project Site, including the surrounding streets, parkways, development edges, project entries, and open space areas. The landscape palette in Chapter 4 not only provides a selection of desert-friendly trees and landscaping for the Project, but also includes ornamental varieties of trees, shrubs, groundcovers, and vines that would	Less than Significant	No mitigation measures are necessary.	Less than Significant

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
provide seasonal interest, color, texture, and form that would be appropriate to various land uses and areas of the Project Site. Therefore, the Project will be designed with uses and landscaping consistent with the uses to the south and west. Accordingly, impacts would be less than significant.			
Future development in accordance with the Section 24 Specific Plan would cause the introduction of new light and glare sources typical of residential, commercial, entertainment, office uses and recreational lighting in the Project Site. The existing billboards along Dinah Shore Drive within the Active Adult Community will be removed within a predetermined number of days. The billboards along Dinah Shore Drive and Bob Hope Drive within the Tribal Planning Areas would remain, and as development occurs, billboards would be removed. During the interim period prior to construction within the Tribal Planning Areas, the billboards would be a distance far enough from the Active Adult Community to not result in significant nighttime illumination. Nighttime illumination would also be used to highlight building design and landscape features and to create a feeling of security and safety for pedestrians and vehicles. Other sources of light would include security lighting, nighttime traffic, and sign illumination. Lighting from the Project Site would be visible from surrounding areas that are currently undeveloped or sparely developed. Project Design Features 5.1-1 through PDF 5.1-10 will require that individual projects adhere to "Dark	Less than Significant With Project Design Features	No mitigation measures are necessary.	Less than Significant

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
Sky-Friendly" lighting to minimize nighttime light pollution which could affect the Mount Palomar Observatory, require light fixtures to be hooded and directed downward to minimize light and direct glare impacts on neighboring properties, prohibit blinking/flashing signs, and maximize personal safety at night. Sign illumination will be directed in a manner to prevent glare from passing traffic. Therefore, although the Project would substantially provide additional light and glare sources, the impacts to the surrounding areas will not have a significant impact. Accordingly, impacts would be less than significant.			
Air Quality			
Short-term emissions associated with construction of the Project would exceed the South Coast Air Quality Management District (SCAQMD) volatile organic compounds (VOCs) thresholds for regional emissions for the Tribal Planning Area only and Project Buildout scenarios. Long-term emissions associated with the Project would exceed SCAQMD thresholds for VOCs under only Active Adult Community development, and would exceed VOCs, NOx, and CO under only Tribal Planning Area development, and Project Buildout scenarios even with Project Design Features (PDF) 5.2-1 through 5.2-7. The Project would account for approximately 1 percent of the anticipated increase of residents within the Coachella Valley Association of Governments (CVAG) boundaries between 2008 and 2035. These totals are within the growth	Potentially Significant	Mitigation Measures **MM 5.2-1** and **MM 5.2-2** shall be implemented.	Significant and Unavoidable

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
projections for CVAG as adopted by South California Association of Governments (SCAG). The development of the Specific Plan would result in population, housing, and employment projections consistent with SCAG projections. While development of the Specific Plan would result in short-term regional and localized impacts, Project development would not have a significant long-term impact on the region's ability to meet State and federal air quality standards. Therefore, the Project would be consistent with the projections in the AQMP.			
Construction and operation emissions would not exceed SCAQMD thresholds for sulfur oxides (SOx), particulate matter (PM10), and fine particulate matter (PM2.5) with PDF 5.2-1 through PDF 5.2-7. However, construction emissions would exceed the SCAQMD threshold for VOCs, and operation emissions would exceed SCAQMD threshold for VOCs, NOx, and CO. The primarily source of operational emissions would be generated mobile sources as a result of normal day-to-day activities on the Project Site. Mobile emissions would be generated by the motor vehicles travelling to and from the Project Site.	Potentially Significant	**MM 5.2-1** The contractor shall incorporate the following into construction plans and specifications, which shall be implemented to reduce VOC emissions resulting from application of architectural coatings: • Contractors shall use high-pressure, low-volume (HPLV) paint applicators with a minimum transfer efficiency of at least 50 percent. • Coatings and solvents with a VOC content lower than required under Rule 1113 shall be used. • Construction and building materials that do not require painting shall be used to the extent feasible. • Prepainted construction materials shall be used to the extent feasible. **MM 5.2-2** Construction equipment engines shall utilize Tier 4 engines or better.	Significant and Unavoidable
The Project would result in a cumulatively considerable net increase of VOCs, an ozone precursor, for which the Project region is in nonattainment under the federal and State ambient air quality standards.	Potentially Significant	Mitigation Measure **MM 5.2-1** shall be implemented.	Significant and Unavoidable

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
Construction and operational emissions would not exceed Local Significance Thresholds in relation to sensitive receptors to the south and west. Compliance to SCAQMD Rule 403 fugitive dust emissions during construction. All intersections analyzed by the Project projected to operate at LOS D or better would not increase the volume-to-capacity ratio by 2 percent. The increase in traffic volumes at the analyzed intersections would result in a de minimis increase in background CO concentrations which would not result in CO levels higher than 20 ppm 1-hour standard or the 9.0 ppm 8-hour for CO. The residential and commercial land uses associated with the Project are not anticipated to use hazardous or acutely hazardous materials in appreciable quantities.	Less than Significant	No mitigation measures are necessary.	Less than Significant
During Project construction, activities associated with the operation of construction equipment, the application of asphalt, the application of architectural coatings, and other interior and exterior finishes, and roofing may produce discernible odors typical of most construction sites. Any unforeseen odors generated by the Project will be controlled in accordance with SCAQMD Rule 1113. In addition, odors emitted from certain pieces of construction equipment would dissipate quickly and be short term duration. During Project operation, any unforeseen odors generated by the Project will be controlled in accordance with SCAQMD Rule 402 (Nuisance).	Less than Significant	No mitigation measures are necessary.	Less than Significant

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
		Biological Resources	
Development of the Project Site would result in the loss of native vegetation and habitats that support sensitive species. Identified sensitive species on-site include the Coachella Valley milk vetch, Coachella Valley fringe-toed lizard, flat-tailed horned lizard, burrowing owl, and the Palm Springs ground squirrel. Impacts to species could occur directly from habitat modification and roadway construction. Implementation of the Section 24 Specific Plan policies and programs that encourage the use of naturally occurring desert plant materials in Project landscaping would help minimize Project impacts to sensitive plant and wildlife species within the Project Site and vicinity. The Project would also pay the development mitigation fees identified by the Tribal Habitat Conservation Plan (THCP). In addition, the City of Rancho Mirage is a participant and permittee in the Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP) and is coordinating with the Tribe regarding the THCP. The Active Adult Community portion of the Project would also pay the development mitigation fees identified by the THCP. The Tribe will use mitigation fees collected to acquire conservation lands to implement the THCP. While the United States Fish and Wildlife Service (USFWS) has not yet approved the THCP or issued a 10(a) Permit, the Tribe has independent authority to implement the THCP to mitigate impacts to sensitive resources on Reservation lands.	Potentially Significant	**MM 5.3-1** Prior to the issuance of any grading permits, the THCP Conservation Fee shall be paid. **MM 5.3-2** To avoid impacts to burrowing owls during construction, the following actions, which are consistent with the Staff Report on Burrowing Owl Mitigation prepared by the California Department of Fish and Wildlife on March 7, 2012 and approved and accepted by the U.S. Fish and Wildlife Service, shall be taken: A preconstruction survey should take place not more than 30 days prior to any construction activities planned between February 15 and June 15, the breeding season for burrowing owls, project grading to determine the location of any active burrows on and within 550 yards of an approved project site. If no active burrows are found in the survey area, site disturbance may commence providing a biological monitor is onsite. A biological monitor, with the authority to halt or redirect grading, shall be present whenever grading or construction vehicles are present and operating on the project site. The function of the monitor is to protect burrowing owls that arrive on or near the project site after the clearance survey and during the construction period. **MM 5.3-3** To avoid impacts to Loggerhead Shrikes during construction, breeding surveys shall be conducted simultaneously with burrowing owls surveys, 30 days prior to any construction activities planned between February 15 and June 15, which is the breeding season for both species. If a shrike nest is found, a buffer shall be established in which construction activities are prohibited until all young have fledged. The width of the buffer shall be determined by a qualified biologist.	Less than Significant

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
No sensitive vegetation communities, including riparian habitat, were identified within the Project Site. The Project Site does not contain naturally occurring springs or permanent aquatic habitats. No blue-line stream corridors (streams or dry washes) are shown on U.S. Geological Survey maps for the Project Site nor are there botanical indicators of such corridors. Accordingly, no significant impacts to riparian habitat or other sensitive natural communities will result from the development of the Project Site.	Less than Significant	No mitigation measures are necessary.	Less than Significant
The Project Site does not contain naturally occurring springs or permanent aquatic habitats. No blue-line stream corridors (streams or dry washes) are shown on U.S. Geological Survey maps for the Project Site nor are there botanical indicators of such corridors. Accordingly, no significant impacts to any federally protected wetlands will result from the development of the Project Site.	Less than Significant	No mitigation measures are necessary.	Less than Significant
The Project Site does not serve as a wildlife movement corridor. The Project Site does not connect any otherwise isolated areas of habitat. Accordingly, no significant impacts to the movement of wildlife species would result from the development of the Project.	Less than Significant	No mitigation measures are necessary.	Less than Significant
Development of the Project as a whole will not conflict with any local policies protecting biological resources. The THCP is the primary local policy document protecting biological resources. The Project is consistent with the THCP and it is not located in any of the Target	Less than Significant	No mitigation measures are necessary.	Less than Significant

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
Acquisition Areas defined in the THCP. Accordingly, no significant impacts would occur.			
Development of the Project Site would be subject to the THCP, which is intended to address development and other activities taking place within the Tribe's jurisdiction and provide the means to protect and conserve federally listed species and others deemed by the Tribe and USFW) to be sensitive and potentially in need of listing in the future. The Project Site is not located within the Target Acquisition Areas identified in the THCP and with payment of the conservation fee, development would be consistent with the THCP. As previously discussed, the Tribe will use mitigation fees collected to acquire conservation lands to implement the THCP. While the USFWS has not yet approved the THCP or issued a 10(a) Permit, the Tribe has independent authority to implement the THCP to mitigate impacts to sensitive resources on Reservation lands.	Less than Significant	Mitigation Measure **MM 5.3-1** shall be implemented.	Less than Significant
Cultural Resources			
Five previously recorded resources are all historical-period isolated artifacts located within the Project Site. Although an isolated artifact identified during the records search was not relocated during the site survey, it is generally considered not eligible for listing in either the NRHP or CRHR and thus should not be considered further in the planning process. Therefore, impacts to historical period artifacts would be less than significant. Historical-period isolated artifacts were located within the Project Site. Although the isolated	Less than Significant	No mitigation measures are necessary.	Less than Significant

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
artifacts identified during the records search were not relocated during the site survey, they are generally considered not eligible for listing in either the NRHP or CRHR. Therefore, the Project would result in less than significant impacts on historical period artifacts within the Tribal Planning Areas.			
No known ethnographic villages associated with the Project Site were identified. However, because of the presence of the large sand dune, previously identified archaeological artifacts on the Project Site, SRI-1 identified during field surveys, and nearby prehistoric sites, the area is deemed sensitive for buried archaeological sites. The Tribe has specifically identified the Project as an area of concern for sensitive cultural resources. Therefore, the Project would have the potential to result in significant impacts to archaeological resources.	Potentially Significant	**MM 5.4-1** Prior to the start of any ground disturbing activities within the Project Site the Agua Caliente Band of Cahuilla Indians (Tribe) Tribal Historic Preservation Officer (THPO) shall be notified of the pending activities. A qualified archaeologist shall coordinate with the THPO during the drafting for the archaeological monitoring plan and shall the timing of when monitoring is no longer necessary. During earth moving disturbances that involve excavation activities, if there is any evidence of Native American resources (significant or otherwise), the THPO will be notified and construction activities modified in accordance with the archaeological monitoring plan. **MM 5.4-2** If prehistoric or historical-period artifacts or features are found during the course of construction and no archaeological or Tribe approved Native American cultural resource monitor is present, work within 300 feet of the discovery shall cease, and a qualified archaeologist and a Tribe approved Native American cultural resource monitor shall be brought in to examine the find to determine if it contains any historical or unique archaeological resources that require further mitigation. Additional fieldwork may be required to evaluate the sites for their eligibility for listing in the California Register of Historic Resources. If the archaeologist determines, in consultation with the THPO, that the resources are unique, the project applicant shall cease any disturbance of the soil within 300 feet of the find to allow sufficient	Less than Significant

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
		time for mitigation by avoidance measures and/or other mitigation options as specified in Public Resources Code (PRC), Section 211083.2.	
Paleontological resources are valued for the information they yield about the history of the earth and its past ecological settings. The Project Site contains recent alluvium which has a low potential to contain significant paleontological resources. Therefore, impacts would be less than significant.	Less than Significant	No mitigation measures are necessary.	Less than Significant
No human remains were found in the Project Site during the surveys. Based on the cultural sensitivity of the area, there is the potential to find human remains during subsurface grading activities. Project construction would require ground-disturbing activities, including grading and excavation, which could result in the discovery of previously unrecorded human remains, including Native American burials.	Potentially Significant	**MM 5.4-3** If human remains are identified during construction, all construction near the find must cease immediately and the area must be secured. The Riverside County Coroner's office must be contacted immediately, in accordance with the State Health and Safety Code (HSC) Section 7050.5(b). If the determination is made by the coroner that the remains are those of a Native American, HSC section 7050.5(c) requires that the coroner contact the NAHC by telephone within 24 hours. The NAHC will select the Most Likely Descendant and will coordinate the treatment and final disposition (repatriation) of human remains with that individual, according to the provisions of PRC section 5097.98 and any other legal requirements.	Less than Significant
The aboriginal group that occupied the northern Coachella Valley during the historical period was the Desert Cahuilla, who, along with the Mountain and Pass Cahuilla, constituted the ethnographic Cahuilla. There have been few archaeological studies of the historical-period Cahuilla, but testing at the former Mission Creek Indian Reservation, approximately 35 km northwest of the Project Site, identified occupations stretching from the Late Prehistoric period into the early twentieth century. Modern	Less than Significant	No mitigation measures are necessary.	Less than Significant

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
aerial photographs of the Project Site indicate little evidence of human activity. No unique ethnic cultural values were identified within the Project Site. As a result, Project development would not affect unique ethnic cultural values.			
The Project Site does not contain religious or sacred uses as identified in the cultural resources study. Development of the Project would therefore not restrict existing religious or sacred uses. However, there is potential to discover religious or sacred materials beneath the surface. As a result, construction impacts should be mitigated to be less than significant.	Potentially Significant	Mitigation Measures **MM 5.4-2** and **MM 5.4-**3 shall be implemented.	Less than Significant
Geology and Soils			
The closest fault to the Project Site that is located within an Alquist-Priolo Earthquake Fault Zone is the Banning Fault (approximately 1.5 miles to the north of the Project Site). Since the Project Site does not directly transect the Banning Fault, it would not expose people or structures to any substantial effects involving the rupture of a known Alquist-Priolo Earthquake Fault.	No Significant Impacts	No mitigation measures are necessary.	No Significant Impacts
While the Project Site does not directly transect any major faults, the nearest faults in proximity to the Project Site that could generate seismic activity and affect the Site are the Garnet Hill, Banning, and San Andreas (San Andreas Coachella Segment) Faults. The Project's close proximity to these three faults entails the likely prospect that seismic activity is bound to be experienced at the Site. However, Project development would adhere to minimum building standards and seismic safety requirements as established by the	Less than Significant with Project Design Features	No mitigation measures are necessary.	Less than Significant

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
Tribe's Building and Safety Code and/or the City Municipal Code if property is annexed into the City and becomes subject to the City's land use jurisdiction, or the County of Riverside, as applicable and identified in PDF 5.5-1.			
The Project Site is not included on any California Geologic Society prepared maps for a designated liquefaction zone. Since the Project Site is located within the City Sphere of Influence, the City's General Plan Safety Element does not identify the Site to be located within an area of high susceptibility to liquefaction. As a result of the nature of the Project Site's soil composition in combination with the lack of shallow groundwater depths (greater than 160 feet below ground surface), liquefaction is not likely to occur.	Less than Significant	No mitigation measures are necessary.	Less than Significant
The Project Site is relatively flat with gentle southwest or northeast sloping, thus slope instability and landslides are not considered an issue. The post-graded slopes within the Adult Active Community would have a maximum slope of 2.3 percent. Post-graded slopes within the Tribal Planning Areas would range from contour slopes 1.1 percent within Planning Area 7 to 3.2 percent slopes in Planning Area 4. The topography of these Planning Areas would provide relatively flat transitions between adjacent roadways and the rest of the Project Site.	Less than Significant	No mitigation measures are necessary.	Less than Significant
The Project Site is primarily composed of dune sands and quaternary-aged alluvial deposits. The dune sands are made up of loose to medium dense silty sand to poorly-graded find sand to	Less than Significant with Project Design	No mitigation measures are necessary.	Less than Significant

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
sand with silt. This soil combination gives the Project Site a very low expansion potential. Prior to start of construction activities, the applicant must develop and implement a Storm Water Pollution Prevention Plan (SWPPP) in order to minimize erosion impacts and pollutants from stormwater discharges, as identified in PDF 5.5-5. The applicant must also comply with the Tribe's Building and Safety Code and/or the City of Rancho Mirage Municipal Code if annexed into the City, which identifies standards for sediment and erosion control during grading activities. During operational activities, the Project would incorporate design features such as drought-tolerant landscaping, non-erosive drainage structures, stormwater retention/infiltration basins, parks, and bioswales to minimize loss of topsoil from water runoff as identified in PDFs 5.5-2 through 5.5-4.	Features		
The relatively flat topography of the Project Site and surrounding off-site areas precludes both stability and the potential for lurching. Additionally, ground surface water and groundwater are not found to be present within the Project Site. Therefore, the potential for hazards such as landslides, lateral spreading, subsidence, liquefaction, or collapse is considered low.	Potentially Significant	**Active Adult Community** **MM 5.5-1** As part of final design development, a detailed geotechnical and soils investigation shall be conducted by a registered engineering geologist for review and approval by the City of Rancho Mirage Building and Safety Division, if annexed into the City, the Tribe Engineer, or the County Engineer as applicable, prior to the issuance of grading and building permits. **MM 5.5-2** All grading and earthwork recommendations from the Project geotechnical and soils reports, including any updates, must be incorporated into the final Project design, including the final grading, drainage and erosion control plans, or other plans deemed necessary by the City of Rancho Mirage Building and Safety Division, if annexed into the City, the Tribal Engineer, or the County Engineer	Less than Significant

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
		as applicable, and must ensure they meet the City's Building Code requirements set forth in the City Municipal Code, the Tribe Land Use Ordinance, or the County Municipal Code as applicable. All grading activities must be supervised by a certified engineering geologist: Final grading, drainage, and erosion control plans must be reviewed and approved by the City of Rancho Mirage Building and Safety Division before the City issues a grading permit, by the Tribal Engineer, or the County Engineer, as applicable. **Tribal Planning Areas** **MM 5.5-3** As part of final design development, a detailed geotechnical and soils investigation shall be conducted by a registered engineering geologist for review and approval by the Agua Caliente Band of Cahuilla Indians Tribal Engineer prior to the issuance of grading and building permits. **MM 5.5-4** All grading and earthwork recommendations from the Project geotechnical and soils reports, including any updates, must be incorporated into the final Project design, including the final grading, drainage and erosion control plans, or other plans deemed necessary by the Agua Caliente Band of Cahuilla Indians Tribal Engineer, and must ensure they meet the Tribe's Building Code requirements set forth in the Tribal Building and Safety Code. All grading activities must be supervised by a certified engineering geologist: Final grading, drainage, and erosion control plans must be reviewed and approved by the Agua Caliente Band of Cahuilla Indians Tribal Engineer before the Tribe issues a grading permit.	
The soils that make up the Project Site are considered to have a low expansion potential due their lack of clay composition. It is recommended that the existing onsite soils found on the Project	Less than Significant	No mitigation measures are necessary.	Less than Significant

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
Site are suitable for reuse during grading activities. These undocumented fills must be free of debris and organic matter and will need to be recompacted in areas of planned development.			
The Project does not involve the use of septic tanks. The Project would connect to and use the existing sewage conveyance system in the City. Individual project proponents would pay the appropriate development fees for service with the Coachella Valley Water District (CVWD).	No Significant Impacts	No mitigation measures are necessary.	No Significant Impacts
There are no unique geologic or physical features located on the Project Site that would have the potential to pose potential impacts to any structure that would be developed on the Project Site.	Less than Significant	No mitigation measures are necessary.	Less than Significant

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
Greenhouse Gas Emissions			
The Project would result in short-term emissions of greenhouse gases (GHGs) during construction. Project operational GHG emissions for the Active Adult Community, Tribal Planning Areas, and Combined Development would be 8,879.39, 39,326.09, and 45,899.94 metric tons of carbon dioxide equivalents (MTCO2e) per year, respectively. Project Design Features 5.6-1 through PDF 5.6-3 require the incorporation of practices to reduce the Projects energy demand. However, the Active Adult Community would reduce GHG emissions from business as usual by approximately 25 percent which is greater than the required 17 percent reduction from business as usual target identified by the California Air Resources Board (CARB) Updated Scoping Plan or the 19.8 percent reduction target identified in the City's Sustainability Plan which is consistent with the Updated Scoping Plan. The Tribal Planning Areas would exceed the CARB Updated Scoping Plan 2035 target of 35 percent reduction from business as usual by 8 percent, and the Project would meet the 2035 reduction target of 35 percent. The Project as a whole would result in a reduction in emissions of approximately 35 percent from the business as usual scenario which would exceed the 17 percent reduction in GHG emissions from business as usual consistent with the 2020 and 2030 GHG emission reduction goals recommended in the 2014 Updated Scoping Plan. Furthermore, the Project's 35 percent reduction in GHG emissions from business as usual would be consistent with achieving the	Potentially Significant with Project Design Features	Mitigation Measures **MM 5.2-1** and **MM 5.2-2** shall be implemented. **MM 5.6-1** Prior to issuance of each building permit, the applicant shall provide a list to the Planning Department of the green building practices and design elements used in building that reduce GHG emissions. The green building practices and design elements shall be consistent with the current standards in the Voluntary Green Building Program and any other green building standards subsequently adopted either by the Agua Caliente Band of Cahuilla Indians (Tribe) or by the City of Rancho Mirage (City). **MM 5.6-2** Prior to the issuance of each building permit, the applicant shall provide evidence of its use of energy-efficient designs meeting and/or consistent with the standards in the current Voluntary Green Building Program and any other green building standards adopted by either the Tribe or City. In accordance with the Voluntary Green Building Program, all residential buildings shall, at a minimum, exceed Title 24 (2008) by 15 percent and all non-residential buildings shall, at a minimum, exceed Title 24 (2008) by 15 percent. This measure does not exempt buildings from meeting future energy efficiency obligations that may result from future revisions to the Title 24 standards. Furthermore, the Project shall commit to exceeding future Title 24 standards as close to the 15 percent target for residential and commercial buildings as possible, to the extent that it is feasible to do so based on technological and financial feasibility factors at the time of permit application. **MM 5.6-3** Prior to the issuance of each building permit, the applicant shall provide evidence to the appropriate Planning Department of its use of energy efficient lighting, heating and cooling systems, appliances,	Less than Significant

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
2040 reduction goal. Because the Project would exceed this performance standard, the GHG emissions that would be generated by the Project as a whole are less than significant.		equipment, and control systems, including the installation of ENERGY STAR-certified products, consistent with the standards in the Voluntary Green Building Program and any other energy efficiency standards adopted by either the Tribe or City. **MM 5.6-4** Prior to the issuance of each building permit, the applicant shall provide evidence to the appropriate Planning Department of the use of "cool" roofs or "green" roofs, and cool pavements for all roofs and pavements to the extent that such products are commercially available for the implementing Project. **MM 5.6-5** Prior to the issuance of each building permit, the applicant shall provide evidence to the appropriate Planning Department of the use of automatic covers, efficient pumps and motors, and solar heating for all pools and spas to the extent that such products are commercially available for the implementing Project. **MM 5.6-7** Prior to the issuance of each building permit, the applicant shall provide evidence to the appropriate Planning Department of the use of water efficient irrigation systems and devices, such as soil-based irrigation controls and use water-efficient irrigation methods consistent with measures recommended in the Voluntary Green Building Program, and any other green building standards adopted by the Tribe or City, and the Coachella Valley Water District water efficiency goals. In accordance with the appropriate program, the applicant shall provide evidence that building is consistent with the following Specific Plan-wide water conservation measures and/or does not prevent or conflict with the Specific Plan's ability to meet the following water conservation measures: • 90 percent of all builder-installed plumbing devices	

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
		in each residential buildings shall be low-flow and water-efficient. • 90 percent of all builder-installed plumbing devices in each non-residential buildings shall be low-flow and water-efficient. • Turf shall not exceed 20 percent of the total landscaped area of each lot, with the exception of parks and recreation centers. • 80 percent of public and common landscape areas shall use smart irrigation systems per project. • 80 percent of public and common landscape areas shall use drought-tolerant, native, and/or water-efficient plant materials per project. **MM 5.6-8** Prior to grading for the Project, the applicant or their contractor shall submit to the appropriate Public Works Department for review and approval of a site construction management plan for the reuse and recycle construction and demolition waste (including soil, vegetation, concrete, lumber, metal, and cardboard). **MM 5.6-9** Prior to the issuance of each building permit, the applicant shall provide evidence to the appropriate Planning Department of reuse and recycling measures in residential, industrial, and commercial projects consistent with measures recommended in the Voluntary Green Building Program or any other green building standards adopted by the Tribe or City. In accordance with the adopted green building program, the applicant shall provide evidence that the building is consistent with the following Specific Plan-wide recycling and waste reduction measures and/or does not prevent or conflict with the Specific Plan's ability to meet the following recycling and waste reduction measures: • Provide recycling containers within all multi-family	

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
		residential communities • Provide recycling containers within all commercial, office, and light industrial buildings. **MM 5.6-10** Prior to the issuance of each building permit, the applicant shall provide evidence to the appropriate Planning Department the use of employment based trip and vehicle miles traveled (VMT) policies that encourage the use of alternative transportation. Comprehensive employment based trip and VMT reduction policy measures shall be in compliance with City or Tribe mass transit programs and include but are not limited to the measures listed below: • Seek approval from the appropriate Planning Department(s) to waive minimum parking requirements and reduce parking from the minimum standards by as much as 20 percent for projects within a quarter mile of a transit station. • Use shared and/or centralized parking facilities consistent with a "park once" approach. • Require that employers provide information on public transportation options to employees. • Require that large employers (250 or more employees at a single work-site location) and encourage small employers (less than 250 employees at a single work-site location) to provide bicycle parking facilities, employee break rooms with refrigerators and microwaves, and automated teller machines (ATMs). • Require that large employers (250 or more employees at a single work-site location) provide a transportation demand management program, such as vanpools/carpools, ride-sharing/ride-matching, and/or "guaranteed ride home" services that allow	

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
		employees who use public transit to get a free ride home if they need to stay at work late. • Require that 1 electric vehicle charging station be provided for every application for 100,000 or more square feet of non-residential development.	
The Project would incorporate measures that reduce GHG emissions compared to a conventional project of similar size and scope. The Project would incorporate PDFs and Mitigation Measures to reduce operational GHG emissions. With implementation of these measures, the Project would result in a greater than 15 percent reduction in GHG emissions from 1990 levels by 2020, greater than 17 percent reduction by 2022 for the Active Adult Community, and greater than 35 percent reduction in GHG emissions by 2035 for the Project. The Project would be consistent with the 2020, 2030, and 2040 reduction in GHG emissions from 1990 levels set forth in the 2008 Scoping Plan, 2014 Updated Scoping Plan, and the City's Sustainability Plan. Therefore, the Project would not conflict with the 2008 Scoping Plan, the 2014 Updated Scoping Plan, and the City's Sustainability Plan.	Potentially Significant with Project Design Features	Mitigation Measures **MM 5.2-1, MM 5.2-2,** and **MM 5.6-1** through **MM 5.6-10** shall be implemented.	Less than Significant
Hazards and Hazardous Materials			
Construction activities of the Project would involve the transportation of hazardous substances that would be used on the Project Site, such as paints, solvents, and cleaners. Additionally, grading and other construction activities would require the transport, storage, handling, use, and disposal of hazardous	**Active Adult Community** Less than Significant **Tribal Planning Areas**	**Active Adult Community** No mitigation measures are necessary. **Tribal Planning Areas** **MM 5.7-1** The unidentified PVC riser on the southeastern portion of the Project Site shall be further assessed. If an	Less than Significant

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
materials such as fuels and greases. Prior to construction, the applicant must develop and implement a SWPPP in order to minimize any soil and groundwater contamination that may result from long-term construction impacts, as identified in PDF 5.5-5. Operational activities of the Project would involve the use of small amounts of hazardous materials such as pesticides, paints, household cleaners, and landscaping products. The use of these hazardous materials within the Active Adult Community are enforced and regulated by the Rancho Mirage Fire and County of Riverside Fire Departments. Within the Tribal Planning Areas, the use of hazardous materials must comply with Tribal regulations for safe and proper disposal. The Project Site does not contain any unidentified soil contamination or disturbance, nor is the Site identified as a hazardous site or contain any hazardous materials. However, caution should be taken during construction in regards to the unidentified PVC riser located within the Tribal Planning Areas portion of the Project Site. Furthermore, no hazardous materials that would create a significant hazard to the public would be used, transported, produced, handled, or stored on the Project Site during operations.	Potentially Significant	underground storage tank or other buried features are identified, they shall be removed in accordance with State and federal regulations. The Riverside County Fire Department must be notified if any underground storage tanks and/or other materials are found, and consulted during removal of such materials.	
The closest school located to the Project Site is the Rancho Mirage High School, located at approximately 0.55 miles from the northwest boundary of the Site. Since the school is located at a greater distance than the 0.25 mile radius, construction and operational activities would not release hazardous emissions within this radius.	Less than Significant	No mitigations measures are necessary.	Less than Significant

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
Additionally, storage and handling of hazardous materials on the Project Site would adhere to State, Tribal, and local regulations.			
The Project Site is not located on a hazardous materials site, it is not identified to be located on a Superfund hazardous materials site, nor is it located on a site that contains unusual characteristics that could cause public hazards when the Project undergoes construction. The Project is also not located within proximity to a hazardous site, thus the Project would not expose construction workers, residents, employees, or occupants to any significant hazards.	Less than Significant	No mitigation measures are necessary.	Less than Significant
The Project Site is not located with 2 miles of a public airport. Therefore, the distance from the nearest airport to the Project Site would not cause a safety hazard for people residing, working, or visiting on the Project Site.	No Significant Impacts	No mitigation measures are necessary.	No Significant Impacts
The Project Site is not located with 2 miles of a private airstrip. Therefore, the distance from the nearest airport to the Project Site would not cause a safety hazard for people residing, working, or visiting on the Project Site.	No Significant Impacts	No mitigation measures are necessary.	No significant Impacts
Construction of the Project Site would require a period of partial closures of Ramon Road, Dinah Shore Drive, and Varner Road and Rio Del Sol Road north of Interstate 10. The Project would comply with the Riverside County Fire Department's recommended standards for emergency accessibility and circulation and the City of Rancho Mirage's Multi-Hazard Functional Plan.	Potentially Significant	Mitigation Measure **MM 5.14-1** shall be implemented and would require a construction traffic management plan to reduce potential impacts in the event of emergency evacuations.	Less than Significant

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
The Project Site is located with a California Department of Forestry and Fire Protection Local Responsibility Area and is designated as an Unzoned, Fire Hazard Severity Zone. Additionally, the County of Riverside City of Rancho Mirage General Plans identify the Project Site to be located in an area with minimal fire risk. The Project would incorporate PDF 5.7-1 to ensure that there are adequate number of fire hydrants, fire flow, fire sprinkler, and conformance with the Riverside County Fire department's existing brush fire standards.	Less than Significant with Project Design Features	No mitigation measures are necessary.	Less than Significant
Hydrology and Water Quality			
The Project would implement BMPs during construction to minimize potential construction impacts that would contribute to water runoff exceeding the existing or planned storm water drainage systems. Development of the Project would increase the amount of impervious surfaces on the Project Site, which would potentially increase runoff within the Project Area. Project Design Feature PDF 5.5-1, PDF 5.15.1-6 and 5.15.1-8 would reduce on-site and off-site water quality impacts during construction and operation. The Project would include 15 retention basins in the Active Adult Community and up to 11 retention basins in the Tribal Planning Areas to ensure on-site flows do not exceed pre-project conditions. Storm drain improvements would convey runoff to the proposed on-site retention basins.	Potentially Significant with Project Design Features	**MM 5.8-1** Prior to grading final for each individual project proponent, a project-specific water quality management plan (WQMP) shall be submitted to the appropriate jurisdiction for review and approval. **MM 5.8-3** Prior to final grading, individual project proponents shall submit a detailed operation and maintenance plan to the appropriate jurisdiction and CVWD for review and approval of the as-built project conditions. **MM 5.8-4** Periodic inspection of the conditions of the open channels, retention basins, and storm drains will need to be performed year round and after significant precipitation events will be required to be performed by each homeowner association (HOA). Annual inspection reports shall be prepared by each HOA, and submitted to and filed with the Tribe, City if property is annexed, and/or CVWD by June 30th each year calendar year.	Less than Significant
The Project provides over 234 acres of open space and recreational amenities. These areas	Less than Significant	No mitigation measures are necessary.	Less than Significant

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
represent approximately 40 percent of the Project Site and will provide for groundwater recharge. Retention Basins proposed within the Active Adult Community and the Tribal Planning Areas would serve as multi-functional facilities and may include groundwater recharge. The Project would begin construction in 2016. Total water demand of the Project is estimated to be 1,780 acre-feet per year, which represents approximately 0.71 percent of the total CVWD water supply and 1.37 percent of the total groundwater supply for the CVWD without an increase in overdraft. As the remaining development of the higher-density mix of retail, entertainment, office, hotel and residential land uses will begin construction at a later date following the completion of the Active Adult Community component and occur over a longer period of time, the 20-year demand forecasts are considered conservative. Therefore, the Project water demand is within the CVWD groundwater supply projections. The CVWD assumes continued growth in demand and sets forth how that growth will be served. The Project includes Project Design Features which are consistent with the goals of the CVWD by incorporating the water conservation measures identified in PDF 5.15.1-1 through 5.15.1-5.	with Project Design Features		

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
Implementation of the Project will result in alteration of the site's surface and contours as well as introducing additional asphalt, concrete, and other impervious surfaces that do not currently exist on the site. Project Design Feature PDF 5.15.1-8 will require retention facilities to accommodate developed 100-year storm runoff through the Project Site. The State Water Resources Control Board (SWRCB) administers the National Pollutant Discharge Elimination System (NPDES) General Construction Permit, which applies to all projects disturbing areas of 1 acre or more during construction. For those areas of the Project under Tribal Jurisdiction that are exempt from the US EPA Construction General Permit, the Project Design Features will ensure that appropriate BMPs are implemented during construction. As the Project is constructed over approximately 20 years, each construction contractor would be required to file a notice of intent under these permits. The Project would implement other site design features that would help reduce erosion and siltation impacts. PDF 5.15.2-4 through 5.12.2-7 and PDF 5.5-3 and PDF 5.5-4 include the use of bioswales, particularly with native or drought-tolerant grasses, to collect and filter water runoff; the use of stormwater retention/infiltration basins; the use of wind-resistant non vegetative groundcover to allow for sand filtration; and the requirements to stabilize the sand and soil to minimize blowsand prior to and during site construction.	Less than Significant with Project Design Features	No mitigation measures are necessary.	Less than Significant
The Active Adult Community will be designed	Less than	No mitigation measures are necessary.	Less than

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
with 15 retention basins and the Tribal Planning Areas will be designed with 11 retention basins within the Planning Areas. The retention basins would be a maximum of 5-feet deep with maximum slopes of 5 to 1 unless erosion control methods are implemented. The top of the basin's elevation would have one foot of freeboard and would be one floor below the lowest building pad. The retention basin system will be designed to accommodate the 100-year stormwater runoff event during the 100-year flood event.	Significant		Significant
Initial analyses indicate that the proposed on-site stormwater conveyance system would not result in on-site flooding because the system incorporates existing drainage characteristics and would comply with Tribal, City, CVWD, and/or Riverside and County requirements for management of 100-year storm flows. As the preliminary analyses indicate that the stormwater drainage plan would not result in on-site flooding and more detailed studies will be required as the proposed Project is built out, impacts would be less than significant.	Less than Significant	No mitigation measures are necessary.	Less than Significant
The nearest 100-year flood zone is located approximately 0.5 miles north of the I-10, and is designated as AO (100-year risk of flooding one to two feet deep). However, a small portion of the northeast portion of the Project Site is within the floodplain limits of the Morongo Wash. Further discussion related to the placement of structures within this floodplain is discussed below. Proposed residential dwelling units would be located in the central, western, and southern portions of the Project Site. The locations of	Less than Significant	No mitigation measures are necessary.	Less than Significant

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
these units would be located outside of the 100-year floodplain identified by the CVWD. Therefore, the Project would not place housing within a 100-year flood hazard area.			
The Active Adult Community is located outside of an identified existing 100-year flood hazard area. Therefore, structures within the Active Adult Community would not impede or redirect 100-year flood flows. CVWD has developed more localized flood models which indicate that the northeast portion of the Project Site is located within a 100-year flood hazard area. The Project includes a drainage master plan designed to convey flows without substantial modification to existing off- and on-site drainage conditions. Off-site flows would be collected at natural concentration points along the northeastern boundary of the Project Site and within the southern portion of the site and conveyed via engineered channels that follow existing drainage patterns and CVWD facilities, as required by Mitigation Measure **MM 5.8-2.** The proposed drainage system is also designed to adequately detain and convey 100-year storm flows in accordance with Tribal, City, CVWD, and/or Riverside County requirements. As stormwater would be conveyed within the proposed drainage system to the Coachella Valley Storm Water Canal and would prevent on- and off-site flooding, proposed structures would not impede or redirect flood flows.	**Active Adult Community** Less than Significant **Tribal Planning Areas** Potentially Significant	**Tribal Planning Areas** **MM 5.8-2** Prior to the issuance of a grading permits for development within Tribal Planning Area 3; a detailed hydrology study shall be prepared and submitted to the Tribal Engineer, the City if property is annexed, and/or CVWD for review and approval. This study shall evaluate the potential flows from the Morongo Watershed and will identify facilities to be constructed to collect, route and discharge flows in a manner compatible with pre project/existing conditions across the Project Site. At the completion of construction of the flood control facilities, submit "as-built" topography, construction drawings and engineering analysis for CVWD review to verify that the design capacity is adequate.	Less than Significant
According to the Riverside County General Plan, the Project Site is not located within a levee or dam inundation zone. Therefore, the Project	Less than Significant	No mitigation measures are necessary.	Less than Significant

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
would not expose people or structures to a significant risk of loss, injury, or death involving flooding as a result of the failure of a levee or dam.			
The Project Site is not located downslope of any large bodies of water that could adversely affect the site in the event of the earthquake-induces seiches. The Project Site is not in a coastal area, therefore, tsunamis are not considered a significant hazard at the site. The Project Site is not located near any hillside area that could produce mudflows.	No Significant Impacts	No mitigation measures are necessary.	No Significant Impacts
Land Use and Planning			
The proposed residential Active Adult Community would be consistent in use and character with the surrounding use and generally with the pattern of development the City of Rancho Mirage and Riverside County General Plans identify for the Project Site. The maximum building heights for residential units would be 20 feet in height and 28 feet in height in the Single Family Attached Residential Overlay Area. The maximum height that would be allowed for the clubhouse and other non-residential structures within this Planning Area would be allowed 58 feet. The maximum height allowed for tower elements would be 72 feet. The retail commercial uses in Planning Areas 3 and 7A and the resort commercial uses in Planning Areas 4 and 6A would be compatible in use and character with the existing Agua Caliente Casino Resort Spa and the retail and resort commercial development permitted by the	Less than Significant	No mitigation measures are necessary.	Less than Significant

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
Section 19 Specific Plan on Bob Hope Drive. The Mixed-Use core uses in Planning Area 2A, the resort commercial uses in Planning Area 1A, and the retail commercial uses in Planning Area 3 would also be consistent with the regional commercial uses the City of Rancho Mirage General Plan allows in Section 13 to the north of the Project Site and Ramon Road. The multi-family residential development in Planning Areas 1B, 2B, 5, 6B and 7B would provide a transition in land uses between the higher intensity uses in the Planning Areas on Bob Hope Drive and Ramon Road and the Active Adult Community in Planning Area 8. Development of the proposed commercial and multi-family residential uses in the Tribal Planning Areas would not result in a conflict with, or divide, any established community.			
The Section 24 Specific Plan would be approved and adopted by the Tribal Council as the zoning for the Project Site. The Tribal Land Use ordinance permits Specific Plans to allow for greater flexibility and provide an opportunity to focus regulations and standards in a specific geographic area. Adoption of the Section 24 Specific Plan would be consistent with the stated intent and purpose of specific plans in the Tribal Land Use Ordinance. The Project would be consistent with the applicable policies of the City's General Plan, SCAG Regional Transportation Plan (RTP)/Sustainable Communities Strategies (RTP/SCS), and Riverside Local Agency Formation Commission (LAFCo) policies. Therefore, implementation of the Project would not result in	Less than Significant	No mitigation measures are necessary.	Less than Significant

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
significant land use impacts related to relevant to these plans.			
Development of this Project would be subject to the THCP, which is intended to address development and other activities taking place within the Tribe's jurisdiction and provide the means to protect and conserve federally listed species and others deemed by the Tribe and USFWS to the sensitive and potentially in need of listing in the future. Additionally, developers would be required to pay development mitigation fees in accordance with the current requirements and fee schedules of the THCP.	Less than Significant	Mitigation Measure **MM 5.3-1** shall be implemented**.**	Less than Significant
Noise			
Construction-related activities would occur over a period of up to six years for the Active Adult Community. Project-related construction activities would occur within the least noise-sensitive portion of the day between 7:00 AM and 7:00 PM as indicated in PDF 5.10-1. However, no construction timeline has been proposed for the Tribal Planning Areas, and as such, construction activities could occur up to 20 years near the sensitive uses to the west and south of the Project Site.	Potentially Significant with Project Design Features	**MM 5.10-1** The project applicant shall require that the following construction best management practices (BMPs) be implemented by contractors to reduce construction noise levels: • Two weeks prior to construction activities, the applicant must notify all surrounding land uses within 200 feet of a project site, of the construction schedule, including the various types of activities that will be occurring throughout the duration of the construction period. • Before any site activity, the contractor shall be required to submit a material haul route plan to the Agua Caliente Band of Cahuilla Indians (Tribe) Traffic Engineer and to the City of Rancho Mirage for review and approval. The contractor must ensure that the approved haul routes are used for all materials hauling, to minimize exposure of sensitive receivers to potential adverse noise levels from hauling operations.	Significant and Unavoidable

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
		• Ensure that construction equipment is properly muffled according to industry standards and in good working condition. • Place noise-generating construction equipment and locate construction staging areas away from sensitive uses, where feasible. • Stationary construction equipment, such as pumps, generators, or compressors, must be placed as far from noise sensitive uses as feasible during all phases of project construction. • Implement noise attenuation measures to the extent feasible, which may include, but are not limited to, temporary noise barriers or noise blankets around stationary construction noise sources. • Use electric air compressors and similar power tools rather than diesel equipment, where feasible. • Construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, must be turned off when not in use for more than 30 minutes. • Construction hours, allowable workdays, and the phone number of the job superintendent must be clearly posted at all construction entrances to allow for surrounding owners and residents to contact the job superintendent. If the Tribe, the City, or the job superintendent receives a complaint, the superintendent must investigate, take appropriate corrective action, and report the action taken to the reporting party. Contract specifications must be included in the proposed Project construction documents, which must be reviewed by the Tribe prior to issuance of grading permits.	
Exterior noise levels from vehicle traffic would	Less than	No mitigation measures are necessary.	Less than

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
not exceed the exterior State and local threshold of 65 dB(A) within the Project Site due to the masonry wall and noise attenuation. Assuming standard construction practices, interior noise levels would attenuate 20 dB(A) with windows closed, causing noise levels to be below the 45 dB(A) interior threshold.	Significant		Significant
The exterior noise levels along the Project's internal roadways from vehicle traffic would exceed the exterior State and local threshold of 65 dB(A) within the Planning Areas proposed for residential uses.	Potentially Significant	**MM 5.10-2** Prior to implementing project approval for each implementing project, for on-site residential lots located within the 65 dB(A) CNEL or greater noise contour for internal roadways (including Street "C" between Planning Area 1 and 2, Street "D" between Planning Areas 2, 3, 4, 5, and 6, and Street "E" between Planning Areas 6 and 7), an acoustic analysis shall be required to address requirements for determining and mitigating traffic noise impacts to residential structures. The acoustical analysis must be received, reviewed, and approved by the appropriate agency (such as the Agua Caliente Band of Cahuilla Indians or City of Rancho Mirage). Methods that may be implemented to meet the standards include, but are not limited to, providing noise walls of sufficient size to break the line of sight between roadways and residential areas, providing open-space buffers, providing natural barriers such as hills, berms, boulders, and dense vegetation, or a combination of these methods.	Less than Significant
Ambient noise level increases greater than 3 dB(A) where the noise levels exceed the land use compatibility criteria occur along the following roadway segments: • Ramon Road: east of Los Alamos, west of Los Alamos, and east of Da Vall Drive • Los Alamos Road: south of Ramon Road and north of Dinah Shore Drive	Less than Significant	No mitigation measures are necessary	Less than Significant Cumulative Impacts

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
• Bob Hope Drive: north of Dinah Shore Drive, north of Ramon Road, and north of I-10 interchanges • Rattler Road: north of Ramon Road. Overall, the Project's contribution to the noise level increases under Year 2035 conditions would be less than 3 dB(A), except for the segment south of Ramon Road along Los Alamos Road, and, therefore, not considered to be cumulatively considerable. Noise attenuating features including soft site conditions, distance, and masonry walls along the site boundary would reduce exterior and interior noise levels from vehicle traffic along Los Alamos below the State and local thresholds and, therefore, the Project's contribution would not considered to be cumulatively considerable.			
Stationary noise sources include loading docks, HVAC systems, and human activity–related noise. Noise generated by the Project's land uses would be consistent with the ambient noise levels in the Project Area, which ranged from 66 to 76 dB(A). Furthermore, all exterior equipment, except for solar collector panels, will be appropriately screened from public view as identified in PDF 5.10-4.	Less than Significant with Project Design Features	No mitigation measures are necessary.	Less than Significant
Single noise events from parking lots could be an annoyance to on-site and surrounding residents during certain time periods such as evening and morning hours and may exceed local standards at receptor locations. External truck loading and unloading docks associated with the Project would introduce potential stationary noise	Potentially Significant	**Tribal Planning Areas** **MM 5.10-3** Sound attenuation measures shall be incorporated into the design of individual projects to minimize noise from parking lots. These measures could include, but are not limited to, a noise barrier of sufficient size to break the line of sight, an open-space buffer, a setback, or a combination of methods shall be developed along	Less than Significant

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
sources. These sources would primarily be associated with the retail and commercial, resort flex, and mixed use core uses. The specific location of potential loading docks has not been determined. The operations at loading docks typically result in noise levels of 64 to 66 dB(A) at 75 feet. The noise from loading docks would not cause an increase in long-term average noise of more than 5 dB(A) on the time-weighted CNEL scale, and would not be significant from that perspective. However, single noise events could be an annoyance during certain time periods such as evening and morning hours to existing on-site and off-site residential land uses along Los Alamos Road, Dinah Shore Drive, and internal roadways. Noise levels may exceed local standards.		locations between parking lot noise and exterior usable areas within on-site and adjacent residential uses where these uses interface. Acoustical analysis shall be performed to demonstrate that the parking lot does not result in noise levels on sensitive uses within the City of Rancho Mirage that exceed the City Municipal Code L50 standard of 60 dB(A) between 7:00 AM and 6:00 PM, 55 dB(A) between 6:00 PM and 10:00 PM, and 50 dB(A) between 10:00 PM and 7:00 AM. These components shall be incorporated into the plans submitted by the applicant to the Tribe, prior to the issuance of building permits. **MM 5.10-4** Sound attenuation measures must be incorporated into the design of individual projects to minimize noise from loading docks. These measures may include, but are not limited to, designing loading docks to have either a depressed (i.e., below grade) loading area, an internal bay, or a wall to break the line of sight between on-site and adjacent residential land uses and loading operations. Acoustical analysis shall be performed to demonstrate that the loading dock does not result in noise levels on sensitive uses within the City that exceed the City's L50 standard of 60 dB(A) between 7:00 AM and 6:00 PM, 55 dB(A) between 6:00 PM and 10:00 PM, and 50 dB(A) between 10:00 PM and 7:00 AM. These components must be incorporated into the plans submitted by the applicant to the Tribe for review and approval, prior to issuance of building permits.	
Construction activities would be restricted to daytime hours when people are least sensitive to vibration intrusions, as identified in PDF 5.10-1. The residential neighborhoods nearest to the Project Site with regard to construction activities would not be affected given their distance from the Project Site (125 feet) as a result of the	Less than Significant with Project Design Features	No mitigation measures are required.	Less than Significant

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
attenuation of groundborne vibration.			
The Project Site is not within an airport land use plan, within 2 miles of a public airport or public use airport, or within the vicinity of a private airstrip. The nearest airport to the Project Site is the Palm Springs Airport located approximately 8 miles to the northwest, which would not expose people residing or working on the Project Site to excessive noise levels.	No Significant Impacts	No mitigation measures are necessary.	No Significant Impacts
The closest private airstrip is the Bermuda Dunes Airport, located approximately 8 miles to the southeast of the Project Site, thus not exposing residents or employees to excessive noise levels.	No Significant Impacts	No mitigation measures are necessary.	No Significant Impacts
Population and Housing			
While development of the Project would result in a population increase, this increase is consistent with projected growth in this portion of the City's Sphere of Influence (SOI) and within the County. The Project would account for approximately 1 percent of the anticipated increase in residents within the Coachella Valley between 2008 and 2035, which is consistent with the estimated growth projection for the CVAG subregion of SCAG. The projected population increase that would be generated represents approximately 37 percent of the population growth projected in the City's SOI south of I-10 between 2014 and 2030. The population increase within the Project Site would account for approximately 13 percent of the City population increase between 2014 and 2030 as identified in the City's 2005 General Plan. Impacts would be less than significant as this growth in population would be consistent with	Less than Significant	No mitigation measures are necessary.	Less than Significant

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
growth projections for this portion of the City's SOI. Furthermore, public service providers have indicated that they can accommodate the Project growth.			
Since the Project Site is currently vacant, the Project would not displace a substantial number of housing units on the site.	No Significant Impacts	No mitigation measures are necessary.	No Significant Impacts
The Project Site does not contain any existing residential development and therefore does not have an existing residential population.	No Significant Impacts	No mitigation measures are necessary.	No Significant Impacts
Public Services			
Fire Protection and Emergency Medical Services			
The Project would create additional demand on the Riverside County Fire Department (RCFD), specifically on Station No. 35 which would have first response duties to the Project Site. The Project would generate a total of 4,331 new residents to the Project Site. This increase in residents would increase the demand on the RCFD for services and facilities. Project Design Features 5.12.1-1 and PDF 5.12.1-2 ensure that the Project comply with Tribe, the City if annexed and becomes subject to the City's land use jurisdiction, and/or Riverside County Fire Department standards for fire flow and the fire hydrants. RCFD has indicated that a large section of non-property taxed area within the response areas for these two stations negatively impacts the ability to pay for necessary services in the future.	Potentially Significant With Project Design Features	**MM 5.12.1-1** Prior to the issuance of building permits, individual project proponents shall pay development impact fees for fire protection facilities, or their equivalent, to the City if annexed into City jurisdiction, or County as applicable.	Less than Significant
Law Enforcement			
The Project would create additional demand on	Less than	**MM 5.12.2-1** Prior to the issuance of building permits, individual	Less than

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
the Riverside County Sheriff's Department, specifically on the Palm Desert Station, approximately 4 miles southeast of the Project Site. The Project would generate a total of 4,331 new residents to the Project Site. The Sheriff's Department has indicated that in order to accommodate the increased requests for law enforcement services that would be associated with the Project, the service area would require an additional patrol deputies.	Significant	Project proponents shall pay applicable development impact fees, or provide equivalent funding, to offset the cost of additional law enforcement services for the Project.	Significant
Schools			
Due to the nature of the Active Adult Community being an age-restricted community, it is assumed it would not generate any additional students into the Palm Springs Unified School District. The Tribal Planning Areas would add 98 students to Sunny Sands Elementary for a projected enrollment of 1,072 students which would be below the operating capacity of 1,235 students; would add 42 students to Nellie N Coffman School for a projected enrollment of 1,177 students which would be below the operating capacity of 1,607; and would add 49 students to Rancho Mirage High School for a projected enrollment of 867 students which is below the operating capacity of 2,400 students. All schools serving the Project Site are currently operating under capacity and would not require the provision of new or physically alter existing school facilities. However, individual project proponents will be required to pay applicable development fees to Palm Springs Unified School District to ensure that school facilities are not adversely impacted.	Potentially Significant	**MM 5.12.3-1** Prior to the issuance of building permits, individual project proponents shall pay applicable development fees to PSUSD.	Less than Significant

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
Libraries			
The Project would create additional demand on the Rancho Mirage Public Library for services and facilities. It is currently operating below capacity and has plenty of room for growth. However, the Project would increase demand on the Rancho Mirage Public Library.	Potentially Significant	**MM 5.12.4-1** Prior to the issuance of building permits, individual project proponents shall pay applicable development impact fees, or provide equivalent funding, to the City if annexed and under City jurisdiction or County as applicable.	Less than Significant
Recreation			
The Project would generate a total of up to 4,331 new residents and would provide for a minimum of 13 acres of parkland. The Active Adult Community and Tribal Planning Areas would offset 6.5 acres and 6.5 acres, respectively. Approximately 85 acres within the Active Adult Community would be provided for private parks and open space. The Active Adult Community would consist of a combination of neighborhood parks, trail linkages, water features, clubhouses, plazas, courtyards, jogging paths, and community pools as identified in PDF 5.13-1. Parkland within the Active Adult Community would complement the natural desert context of the Coachella Valley and would incorporate public art and water features combined with enhanced vegetation providing recreational opportunities within the development, as identified in PDF 5.13-2.	Potentially Significant With Project Design Features	**MM 5.13-1** Prior to the issuance of building permits, individual project proponents shall pay applicable in-lieu parkland fees, or equivalent, to ensure adequate funding for parks and recreation improvements.	Less than Significant
The Project would include recreational amenities throughout the development which would consist of neighborhood parks, trail linkages, water features, clubhouses, plazas, courtyards, jogging paths, and community pools. These recreational amenities are incorporated into the design of the Project and would be constructed concurrently	Potentially Significant with Project Design Features	Mitigation Measures identified throughout this table shall be implemented.	Less than Significant

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
with the Project. The short-term impacts, applicable Project Design Features, and Mitigation Measures associated with the construction of these facilities are addressed in Sections 5.2, Air Quality, 5.5 Geology and Soils, 5.6, Greenhouse Gas Emissions, 5.7 Hydrology and Water Quality, 5.10, Noise, and 5.14, Traffic and Transportation. Construction of the recreational amenities would not result in significant impacts, but would contribute to the overall construction impacts.			
Traffic and Transportation			
Project construction is anticipated to last approximately 6 to 8 years for the Active Adult Community and up to 20 years for the entire Project. Construction for the Active Adult Community is expected to commence during or after 2016. Temporary impacts would occur during the construction of infrastructure improvements serving the Project, including the widening of Bob Hope Drive, and other offsite roadway and infrastructure improvements. Construction of these infrastructure improvements would cause short-term impacts related to noise, dust, and traffic flows as a result of temporary lane closures.	Potentially Significant	**MM 5.14-1** Prior to obtaining a grading permit, the individual project proponent shall prepare and submit to the Agua Caliente Band of Cahuilla Indians, City of Rancho Mirage and/or Riverside County for review and approval detailed construction traffic management plans, including street closure information, detour plans, haul routes, and staging plans as necessary for any off-site work that would encroach on public right-of-way. The construction traffic management plans shall include the following elements, as appropriate: • Provisions for temporary traffic control during all construction activities adjacent to public right-of-way to improve traffic flow on public roadways (e.g., flag person); • Construction-related vehicles shall not park on surrounding public streets; • Provision of safety precautions for pedestrians and bicyclists through such measures as alternate routing and protection barriers; • Schedule construction-related deliveries to reduce travel during peak travel periods;	Less than Significant

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
		• Obtain the required permits for truck haul routes from the Tribe, City of Rancho Mirage and/or Riverside County prior to the issuance of any permit for the project; • Obtain a Caltrans transportation permit for use of oversized transport vehicles on Caltrans facilities; • Outline adequate measures to ensure emergency vehicle access during all aspects of the project's construction, including, but not limited to, the use of flagmen during partial closures to streets surrounding the Project Site to facilitate the traffic flow until construction is complete; and • Include the implementation of security measures during construction in areas that are accessible to the general public to help reduce any increased demand on law enforcement services, including fencing construction areas, providing security lighting, and providing security personnel to patrol construction sites.	
<u>Existing Conditions (Active Adult Community)</u> The addition of Project traffic, associated with the initial phase of the Project, to existing traffic volumes, would result in minimal change to the peak hour level of service at Bob Hope Drive and Casino (Intersection 9). The Monterey Avenue at Dinah Shore Drive (Intersection 16) and Bob Hope Drive at Gerald Ford Drive intersections (Intersection 17) are under the jurisdiction of both the City of Rancho Mirage and the City of Palm Desert. The Key Largo Avenue at Dinah Shore Drive intersection (Intersection 15) is not yet fully improved, but not expected to exceed level of service (LOS) C, and maximum feasible intersection improvements have been	Less than Significant with Project Design Features	No mitigation measures necessary.	Less than Significant

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
implemented at Intersection 16. Intersection 17 would require additional queue storage length to prevent spillback into the adjacent through lane. The City has included improvements to this intersection in the 2014-2015 Capital Improvement Program (CIP). Construction is scheduled to start in May 2015 and end in October 2015. These improvements would provide an adequate level of service at this intersection in 2035. Based on the City of Rancho Mirage performance standard for intersection operations, and the other performance standards identified by Riverside County and nearby cities, the Project would not result insignificant impacts on the operation of the intersections studied. Furthermore, roadway improvements will be made consistent with City and/or County requirements (PDF 5.14-1 through PDF 5.14-5) and improvements will be made at Intersection 9 (PDF 5.14-6).			
<u>Existing Conditions Plus Full Project Development</u> The addition of traffic from full development of the Project would potentially impact the unsignalized intersection of Westin Resort Villas at Dinah Shore Drive [Intersection 13]. A traffic control signal would be installed in conjunction with the site access connection proposed opposite Intersection 13 and activated when warranted by site traffic volumes. With traffic signal control, this intersection would operate at LOS A during the morning peak hour and maintain LOS C operation during the evening peak hour.	Less than Significant with Project Design Features	No mitigation measures are necessary.	Less than Significant

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
All intersections in the City of Rancho Mirage would continue to operate at an acceptable level of service based on the City's performance standards for intersection operations with existing plus full project development traffic volumes and the site access improvements proposed at the Los Alamos Road at Via Bella intersection (Intersection 8), Intersection 9, and Intersection 13. The level of service is projected to drop from LOS C to LOS D at the Da Vall Drive at Ramon Road intersection (Intersection 3), Intersection 16, and Intersection 17. With the installation of a traffic signal at Intersection 13 all of the intersections studied would provide acceptable levels of service with existing plus full Project development volumes and the site access improvements. Furthermore, roadway improvements will be made consistent with City and/or County requirements (PDF 5.14-1 through PDF 5.14-5 and PDF 5.14-7) and improvements will be made at Intersection 8, Intersection 9 (PDF 5.14-6), Intersection 13, and Intersections 18 through 21 (PDF 5.14-8 and PDF 5.14-9).			
<u>Future Year 2022 With Initial Phase</u> All intersections will operate at acceptable levels of service in the year 2022 and the initial phase of the Project will not result in any significant impacts. Furthermore, roadway improvements will be made consistent with City and/or County requirements (PDF 5.14-1 through PDF 5.14-5) and improvements will be made at Intersection 9, Intersection 12, and Intersection 8 (PDF 5.14-6).	Less than Significant with Project Design Features	No mitigation measures are necessary.	Less than Significant with Project Design Features

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
<u>Future Year 2035 with Project Development</u> Additional improvements to Intersection 17 are needed to maintain an acceptable level of service. The City will be constructing these improvements in 2015 and with these improvements, this intersection will operate at an acceptable level of service in 2035. Four intersections are projected to operate at LOS D or better without mitigation. Two of these intersections, Intersection 3 and Intersection 17 are projected to operate at an unacceptable level of service. The remaining intersections would be improved with the development of the Project to accommodate site access and these improvements would result in an acceptable level of service, as identified previously in PDF 5.14-1 through PDF 5.14-9. The intersection of Bob Hope Drive and Gerald Ford Drive is projected to operate at an unacceptable level of service in 2035. The eastbound left-turn volume on Gerald Ford Drive at the intersection of Bob Hope Drive will require additional queue storage length in the future. The City has approved and funded improvements to this intersection planned for completion in 2015. The planned improvements will provide dual left-turn lanes and a dedicated right-turn lane on all four approaches at this intersection, which will ensure an adequate level of service is maintained. The intersection of Da Vall Drive at Ramon Road is also projected to operate at an unacceptable level of service in 2035 and additional improvements will be needed to maintain an	Less than Significant with Project Design Features	No mitigation measures are necessary.	Less than Significant

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
acceptable level of service. Both Ramon Road and Da Vall Drive are included in the Regional Arterial Program and eligible for Measure A and TUMF funds for these improvements. Future improvements to Da Vall Drive are identified in CVAG Transportation Project Prioritization Study (TPPS). While not currently identified for funding, these improvements would be funded in the future when needed to maintain an acceptable level of service.			
Future conditions at the three signalized site access intersections proposed opposite the existing Intersections 9, 12, and 13**.** Signalized full-turn site access connections are proposed at 0.25-mile spacing intervals along Ramon Road and Bob Hope Drive. Full-turn site access connections along Dinah Shore Drive are proposed opposite the existing signalized intersection providing access for the Westin Mission Hills Golf Resort and Spa (1,780 feet east of Los Alamos Road) as well as opposite the unsignalized access for the Westin Resort Villas (1,220 feet west of Bob Hope Drive). With site traffic, the peak hour traffic signal warrants would be met and new traffic control signals would be installed at these intersections concurrent with development, as identified in PDF 5.14-6.	Less than Significant with Project Design Features	No mitigation measures are necessary	Less than Significant
Adequate inbound and outbound capacity shall be provided to accommodate the site traffic volumes. The proposed traffic control type at the site access intersections appears to be appropriate. The proposed site access plan incorporates joint access (the sharing of a	Potentially Significant	**MM 5.14-2** Appropriate right-of-way shall be provided by individual development projects to accommodate the ultimate improvement of the abutting public roadways, and these roadways sections shall be fully improved in conjunction with the adjacent development project.	Less than Significant

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
driveway access point by two or more Planning Areas), which is a desirable and effective means of minimizing the adverse impacts of site access connections on adjacent streets.		**MM 5.14-3** To ensure compliance with applicable roadway and access design standards when individual development projects are processed, their final layout and site access design shall be subject to review and approval by the Tribe and, as appropriate, the City of Rancho Mirage and/or Riverside County. The need for street widening to accommodate entry drives, the internal circulation design, and other features shall be accommodated on a project by project basis. A traffic signing and striping plan may also be required for review and approval in conjunction with detailed construction plans for any individual development project within the Project Site.	
Future sidewalk/bikeway/golf cart paths are planned on the perimeter of the Project Site (along Ramon Road, Bob Hope Drive, and Los Alamos Road) in the *Rancho Mirage General Plan* that would link with the integrated system being developed throughout the study area.	Potentially Significant	**MM 5.14-4** All individual development projects shall comply with applicable requirements in the Section 24 Specific Plan and construct the future combination sidewalk / bikeway / golf cart paths along Ramon Road, Bob Hope Drive, Dinah Shore Drive and Los Alamos Road.	Less than Significant
All intersection studies along the intersections and roadway segments within the Congestion Management Program (CMP) System of Highways and Roadways would operate at an acceptable LOS (LOS D or better) under existing and future (Year 2022) conditions. Maximum feasible improvements have been implemented for those intersections under the City of Palm Desert performance standard. Additionally, the Project will pay the CVAG Transportation Uniform Mitigation Fee (TUMF), or an in-lieu fee equal to TUMF, which is the major source of regional roadway improvement fees in the Coachella Valley.	Potentially Significant	**MM 5.14-5** The developers of individual development projects within the Project Site shall make a fair-share contribution to the cost for planned future roadway improvements by paying an in-lieu fee equal in amount to what the CVAG Traffic Uniform Mitigation Fee (TUMF) would be for that project at the time building permits are issued. **MM 5.14-6** The project proponent shall pay applicable fees to the appropriate jurisdictions to ensure that a fair-share contribution is made to Cathedral City for improvements to the intersection of Da Vall Drive and Ramon Road, such as the TUMF program.	Less than Significant
Palm Springs International Airport is located	No Significant	No mitigation measures are necessary.	No Significant

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
approximately 3.6 miles west of the Project Site, within the City of Palm Springs. This commercial airport is located north of Ramon Road and south of Vista Chino, between Gene Autry Trail and Farrell Drive. Air traffic patterns would not result in any safety risks to the Project.	Impacts		Impacts
Controlled primary entryways to the Active Adult Community will include provisions to facilitate access by emergency vehicles.	Less than Significant with Project Design Features	No mitigation measures are necessary.	Less than Significant
The amount of parking will vary depending on the number of units' proposed and square footage of the non-residential uses. Within the Project Site, there is the potential to share a pool of parking that is smaller than the amount that would be required for each land use individually. However, because shared parking reductions depend on the specific type and size of land uses within a project, the specific parking demand ratio for each land use requires further study involving the specific type of land use and peak-hour demand. The applicant will have to demonstrate that the proposed uses have different peak hours of parking demand or that the total parking demand at any one time will be adequately served by the total number of parking spaces provided.	Less than Significant	No mitigation measures are necessary.	Less than Significant
Utilities and Service Systems			
Water Service			
Potable water would be provided by a combination of the Mission Hills Pressure Zone, the Sky Mountain Pressure Zone, and up to seven pumping plants and well sites on-site.	Less than Significant with Project Design	No mitigation measures are required.	Less than Significant with Project Design

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
The conceptual potable water plan illustrates the location of existing and proposed domestic use water lines and up to seven well sites on-site that would be provided within the Project Site. The on-site potable water lines would be a combination of 18-inch, 12-inch, and 8-inch lines. The proposed 18-inch water lines would serve the central, southern, and western portion of the Active Adult Community and all of the Tribal Planning Areas. The proposed 12-inch and 8-inch water lines would branch off the 18-inch water lines to supply the remaining areas of the Active Adult Community with potable water. Project Design Feature 5.15.1-1 provides an agreed upon easement for the construction of the proposed 18-inch water lines which would connect to Ramon Road. Project Design Features 5.15.1-2 and PDF 5.15.1-3 will ensure that the construction of the potable water lines at POC 1, 2, and 3 are consistent with Tribal, City standards if property is annexed, and/or CVWD design standards. Similar to the 12-inch and 8-inch water lines, the 18-inch water line would be designed consistent with CVWD standards as identified in PDF 5.15.1-3. A total of seven well sites are proposed within the Project Site; four within the Active Adult Community and three within the Tribal Planning Areas. Project Design Feature 5.15.1-4 will ensure that all future wells developed on-site would be constructed consistent with the CVWD Development Design Manual.	Features		Features
Variations in supply and demand during dry and multiple dry years are expected to be minimal	Less than Significant	No mitigation measures are required.	Less than Significant

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
due to the water supply planning and projects undertaken by CVWD. In general, all CVWD water supply sources can provide for 100 percent of the demand in the Coachella Valley for a substantial period of time, including the increased demand of 1,780 acre-feet per year, which corresponds to approximately 3.1 acre-feet per year per acre, resulting from development of the Project. In addition, the Project would implement a number of Project Design Features (PDF 5.15.1-5 to PDF 5.15.1-11) for water conservation which would further reduce water demand, including the use of drought-tolerant plants and the use of grey and recycled water for irrigation. The Project's demand of 367 gallons per capita per day (gpcd) is below the per capita target of 473 gpcd, or 0.53 afy, necessary to manage the groundwater basin. The Project is consistent with the application of the conservation requirements of the CVWD regulations including the Landscape Ordinance 1302.1, which requires reduced water allowances for landscaped and recreational areas. Similarly, the Project is consistent with the Agua Caliente Land Use Ordinance. Specifically, Article VII of the Tribal Land Use Ordinance, Landscaping Standards, ensures maximum water efficiency in comprehensive landscaping plans, irrigation plans, plant materials, and decorative water features. The Project is also consistent with the County of Riverside Ordinance No. 859, Water Efficient Landscape Requirements Ordinance, which establishes provisions for water management practices and water waste prevention for new and rehabilitated landscapes. Therefore, there would be sufficient water	with Project Design Features		with Project Design Features

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
supplies available to serve the Project from existing entitlements and resources, and new or expanded entitlements would not be required.			
Sewer			
The Project is in jurisdiction of the Colorado River Basin RWQCB, which issues NPDES permits for non-Tribal projects the area. Treatment of water at WRP-7 currently meets secondary and tertiary standards, allowing treated wastewater not used as recycled water to be discharged into percolation pools and used for irrigation. The Project wastewater flow would increase the existing average annual flow by approximately 44 percent to 3.0408 million gallons per day (mgd). The Project increase to WRP-7's secondary treatment capacity would be within the existing secondary treatment capacity of the treatment plant. However, the Project's increase would exceed WRP-7's existing tertiary treatment capacity. The CVWD 2010 UWMP identifies that the treatment capacity of WRP-7 would increase as buildout of the CVWD service area occurs and indicates that WRP-7 would have the capacity to treat 7.5 mgd of wastewater. The Project is projected to build out by 2035, and as such, WRP-7 is expected to treat 7.5 mgd.	Less than Significant	No mitigation measures are required.	Less than Significant
The onsite wastewater collection system for the Active Adult Community would connect proposed 8-inch sewer lines to the existing 15-inch sewer line within Los Alamos Road. Project Design Feature PDF 5.12.2-2 and PDF 5.12.2-3 will ensure that the construction and connection of the 8-inch sewer lines at POC 1, 2, and 3 are	Potentially Significant with Project Design Features	**MM 5.15.2-1** Prior to the issuance of the first occupancy permit, individual project proponents shall pay applicable fees, or provide equivalent funding, to CVWD to update the sewer line beneath Varner Road east of Cook Street, as requested by CVWD, and to cover the Project's fair share from the cumulative need to expand WRP-7.	Less than Significant

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
consistent with Tribal, City standards if property is annexed, and/or CVWD design standards. The proposed 12-inch sewer line would connect to the existing 15-inch sewer line within Ramon Road and serve the central and northeastern portion of the Active Adult Community and the Tribal Planning Areas. Project Design Feature PDF 5.12.2-1 provides an agreed upon easement for the construction of the proposed 12-inch sewer lines which would connect to Ramon Road. Similar to the 8-inch proposed sewer lines, the 12-inch sewer lines would be designed consistent with CVWD standards as identified in PDF 5.12.2-3. All onsite sewer lines will gravity feed to the existing sewer lines. However, CVWD has indicated that the sewer line beneath Varner Road east of Cook Street which serves WRP-7 is currently at capacity. As such, the Project would potentially result in significant impacts on CVWD's existing sewer system.			
Development of the Project will incorporate a conceptual storm water drainage plan**.** The Project is designed to provide 15 retention basins within the Active Adult Community and up to 11 retention basins within the Tribal Planning Areas for a total of 26 retention basins. Retention basis will be a maximum of 5-feet deep with maximum slopes of 5 to 1 unless control methods are incorporated. Project Design Features 5.12.2-4 through PDF 5.12.2-7 identify water facilities which would connect to the water retention basins as well as reduce the flow of on-site storm water into the retention basins. The Active Adult Community would have the	Less than Significant with Project Design Features	No mitigation measures are necessary.	Less than Significant

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
capacity to retain 40.98 acre-feet of stormwater runoff and the Tribal Planning Areas would have the capacity retain 51.18 acre-feet of stormwater runoff, for a total capacity of 92.16 acre-feet. The conceptual plan would accept 100 percent of the 100 year flood event generated on-site to maintain existing on-site runoff volumes. Accordingly, the Project would maintain existing storm water runoff rates into the existing storm drain system.			
Solid Waste			
The Project would contribute 27.1 tons of solid waste per day, or 1.4 percent of remaining daily capacity, to the Edom Hills Transfer Station, which averages 1,500 tons per day of solid waste. The 27.1 tons of solid waste would then transfer to the El Sobrante Landfill, which has a permitted daily capacity of 5,000 tons. The El Sobrante Landfill has an average intake of 2,201 tons per day and an estimated closure date of 2045. The Project would contribute approximately 1 percent of the remaining daily intake permitted at El Sobrante Landfill. Since there is adequate daily intake capacity at existing landfill, impacts would be less than significant.	Less than Significant	No mitigation measures are necessary.	Less than Significant

Project Impacts	Impact without Mitigation	Mitigation Measures		Impact with Mitigation
To ensure that the Project is consistent with State and local regulations, Mitigation Measures **MM5.15.3-1** through **MM 5.15.3-6** would require that each individual development proponent implement a waste diversion program in an effort to reduce solid waste impacts on existing landfill capacities, similar to the State's waste diversion goal of 75 percent as identified by State law (SB 1016 and AB 939). The Project would be required to divert up to 75 percent of its operational solid waste by 2020.	Potentially Significant	**MM 5.15.3-1**	Prior to implementing individual project approval, a Waste Recycling Plan (WRP) shall be submitted and approved by the appropriate Planning Department and provided to the appropriate Department of Building and Safety prior to the issuance of building permits. At a minimum the WRP shall identify the materials (e.g., concrete, asphalt, wood, etc.) that would be generated by construction and development, the project amounts, measures/methods that would be implemented to recycle, reuse, and/or reduce the amount of materials, the facilities and haulers that would be utilized, and the targeted recycling or reduction rates to be achieved.	Less than Significant
		MM 5.15.3-2	Each individual project proponent shall recycle, reuse, and/or reduce, to the maximum extent feasible, the amount of construction and demolition materials (i.e., concrete, asphalt, wood, etc.) generated by development of the Project that would otherwise be taken to a landfill. This diversion of waste must exceed a 50 percent reduction by weight. The Project shall complete a Construction and Demolition Waste form as evidence to ensure compliance. The reporting form must be approved by the appropriate Planning Department and submitted to the Department of Building and Safety prior to the issuance of certificate of occupancy/final inspection.	
		MM 5.15.3-3	All commercial and residential refuse generated from the Project shall be delivered to regional transfer stations; any residual waste that these transfer stations could not accept shall be disposed of at the Lamb Canyon Landfill or El Sobrante Landfill or other locations as determined by the Riverside County Waste Management Department.	
		MM 5.15.3-4	The Homeowners Association established for the	

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
		proposed development shall establish green waste recycling through its yard maintenance or waste hauling contracts. Green waste recycling includes such things as grass recycling (where lawn clippings from a mulching-type mower are left on the lawn) and on- or off-site composting. This measure shall be implemented to reduce green waste going to landfills. If such services are not available through the yard maintenance or waste haulers in the area, the HOA shall provide individual homeowners with information about ways to recycle green waste individually and collectively. Homeowners shall be notified of such in the CC&Rs. **MM 5.15.3-5** Prior to issuance of building permits for any multi-unit residential or commercial facilities, the project proponent shall obtain clearance from the applicable Waste Management Department to verify compliance with local jurisdiction requirements, including providing adequate areas for collecting and loading recyclable materials. **MM 5.15.3-6** Prior to implementing project approval, individual project proponents shall submit for review and approval to the appropriate Planning Department landscape plans that provide for the use of xeriscape landscaping and the use of drought tolerant low maintenance vegetation in all landscaped areas of the Project.	

3.0 PROJECT DESCRIPTION

This Section identifies the location, objectives, and characteristics of the Project, and the intended uses of this EIS, as required by the Agua Caliente Tribal Environmental Policy Act (TEPA). In addition, although not required, the Agua Caliente Band of Cahuilla Indians ("Tribe") has decided to prepare the EIS in compliance with the provisions of the *California Environmental Quality Act (CEQA) Guidelines.*[1] This Section provides a general description of the Project's technical, economic, and environmental characteristics. Please see **Section 9.0** for a glossary of terms, definitions, and acronyms used in this Draft EIR.

A. PROJECT LOCATION

1. Regional Setting

The Section 24 Specific Plan area is surrounded by the City of Rancho Mirage which is considered to be in the heart of the Coachella Valley in Riverside County, nestled at the base of the Santa Rosa Mountains and conveniently located to utilize the southern California freeway system via Interstate 10 (I-10), as shown in **Figure 3.0-1, Regional Location Map**. The majority of future development in this area of the Coachella Valley is expected to occur near the I-10 corridor.

2. Community Setting

The Project consists of the development of a Specific Plan for a portion of Section 24, an approximately 577-acre area of the Agua Caliente Indian Reservation ("Reservation") located within unincorporated Riverside County ("Project Site"), which is surrounded on all four of its sides by the City of Rancho Mirage ("City") as illustrated on **Figure 3.0-2, Project Location Map**. The Project Site is bounded by the following roadways: (1) Ramon Road on the north; (2) Bob Hope Drive on the east; (3) Dinah Shore Drive on the south; and (4) Los Alamos Road on the west. The Section 19 Specific Plan is located directly east across Bob Hope Drive from the Project Site and directly southeast of the Agua Caliente Casino/Resort/Spa.

B. PROJECT OBJECTIVES

The *CEQA Guidelines* require an EIR, or for this Project the EIS, to include a statement of the objectives of the Project that address the underlying purpose. The Tribe is proposing to adopt a Specific Plan for

1 California Code of Regulations, Title 14, Section 15000 et seq.

the Project Site in order to promote its orderly development and to support any future annexations of the Project Site into the City of Rancho Mirage. More specifically, the objectives of the Project are to:

- Establish a vibrant, unified vision for the Project Site based upon a cohesive, complementary mix of land uses structured around a comprehensive set of circulation and infrastructure systems, and sensitivity to environmental sustainability issues.

- Promote the highest and best use of Reservation lands in order to maximize the economic development opportunities for the Tribe and its members, including Tribal land immediately adjacent to the existing Agua Caliente Casino Resort Spa.

- Plan for an appropriate mix of commercial, hotel, entertainment, office, and residential uses, in order to meet the trade area's growing demand and build in the flexibility to respond to changes in the market over time.

- Create a new mixed-use project that compliments the Tribe's existing Agua Caliente Casino Resort Spa located across Bob Hope Drive to create a regional destination development.

- Apply planning and design solutions to create a unique and pleasant "sense of place" at multiple scales.

- Provide a range of contemporary housing concepts, including an "active adult" development, which will encourage residential opportunities that appeal to residents seeking shorter commutes to jobs, restaurants, and a broad selection of entertainment opportunities.

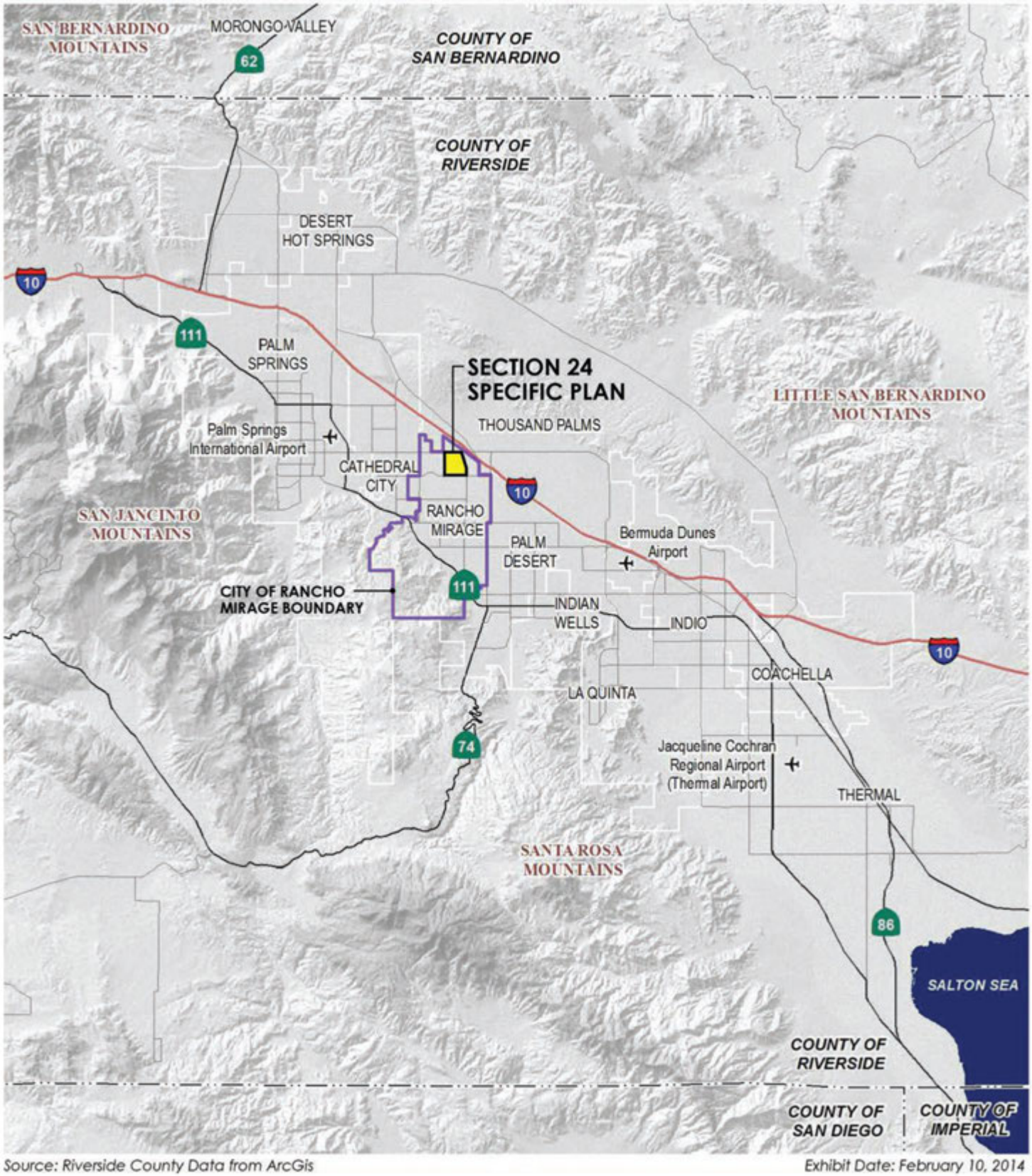
- Implement a "Complete Streets" circulation concept that optimizes both vehicular and pedestrian/bicycle modes of traffic, internalizes pedestrian activity to buffer it from the vehicular traffic along perimeter roadways, and establishes connectivity between land use activities featuring pedestrian-friendly and walkable spaces.

- Create a community with a focus on water conservation through design that supports groundwater recharge, minimizes stormwater runoff, and incorporates drought-tolerant/low water landscaping that acknowledges the desert environment.

- Provide infrastructure that incorporates "readiness" for sustainable technologies, such as solar power generation and plug-in electrical vehicle charging connections/stations.

C. PROJECT CHARACTERISTICS

The Project consists of a specific plan for approximately 577 acres of the Agua Caliente Indian Reservation, located within the City of Rancho Mirage Sphere of Influence designated as Section 24, Township 4 South, Range 5, East of the San Bernardino Meridian. The Section 24 Specific Plan would be

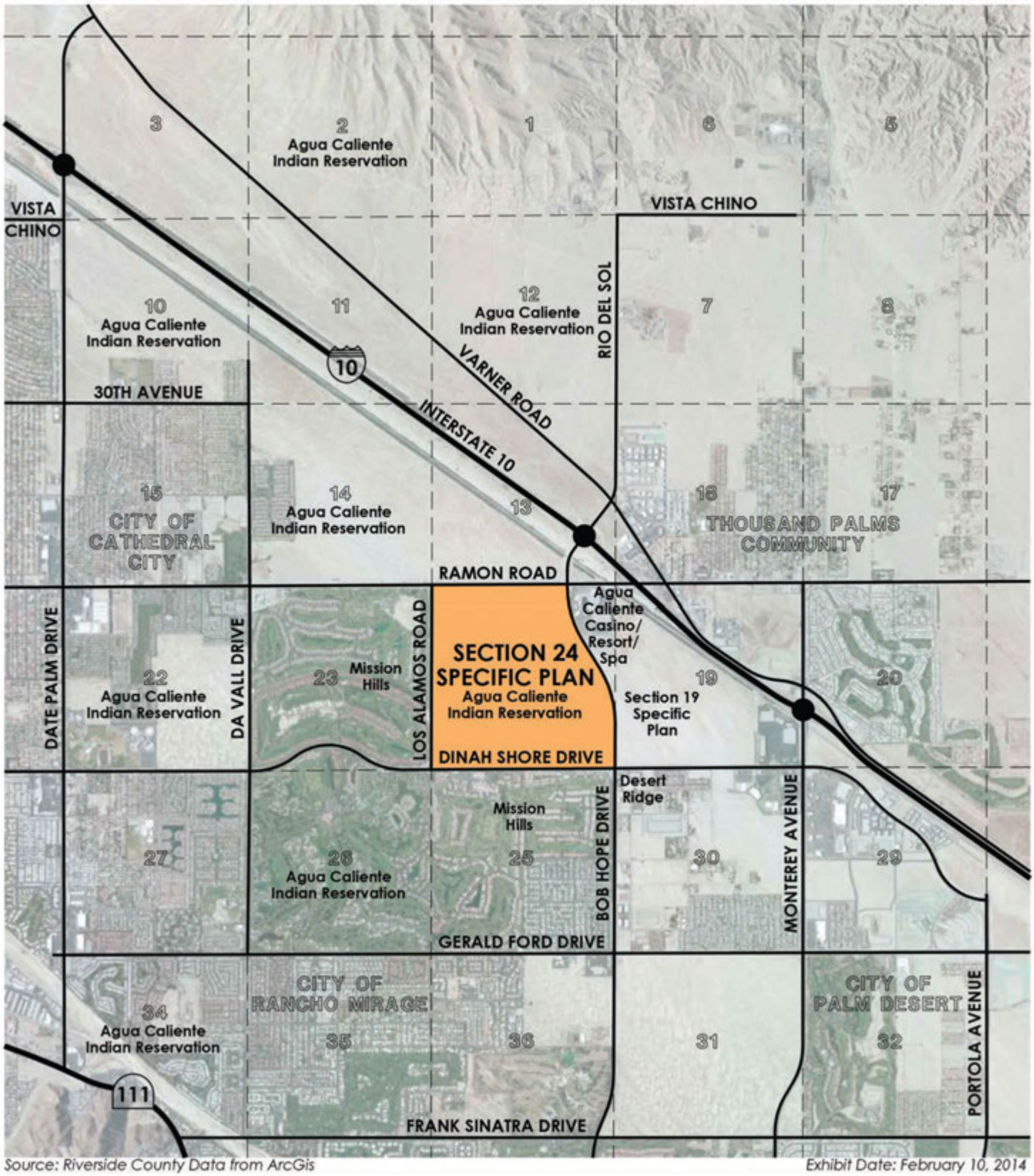


SOURCE: MSA Consulting Inc. - September 2014.

FIGURE **3.0-1**

SECTION 24 SPECIFIC PLAN

Regional Location Map



SOURCE: MSA Consulting Inc. - September 2014.

FIGURE **3.0-2**

SECTION 24 SPECIFIC PLAN

Project Location Map

044-001-13

approved and adopted by the Tribal Council and serve as the zoning for the Project Site. The City would subsequently adopt the Specific Plan and approve any request(s) for annexation into the City. The Specific Plan would establish the necessary plans, development standards, regulations, infrastructure requirements, design guidelines, and implementation programs on which subsequent project-related development activities would be founded.

It is intended that local public works projects, design review plans, detailed site plans, grading and building permits, or any other action requiring ministerial or discretionary approval applicable to the Project Site would be consistent with the Specific Plan. The Project would provide a potential mix of up to 3,138,600 square feet of commercial, retail, office, restaurant, hotel and entertainment uses, and up to 2,406 residential units. The Project is designed to accommodate these uses through the creation of seven land use categories and eight Planning Areas that cover approximately 529 acres, as shown in **Figure 3.0-3, Conceptual Land Use Plan**. These Planning Areas, in addition to approximately 48 acres for public street rights-of-way, would total approximately 577 acres for the Project Site. The land use categories and Planning Areas would allow for a greater variety and flexibility of land uses and development standards, as shown in **Table 3.0-1, Land Use Plan Summary**.

1. Land Use Categories

Mixed-Use Core

The Mixed-Use Core (MXD CORE) land use category would provide the most intense and compact component of the Project Site, supporting the potential vertical integration of housing with ground floor retail commercial uses and services. Located within an approximately 25-acre area of the Project Site, the mix of uses is intended to produce a unique and walkable shopping, working, and living experience. The Mixed-Use Core category permits the widest range of uses, including community retail, restaurants, lifestyle mixed-use center, professional office, single-family residential, and attached multifamily residential with a possible maximum Floor Area Ratio (FAR) of 1.0. Although this category would allow for various land uses, it does not require a specified mix of uses.

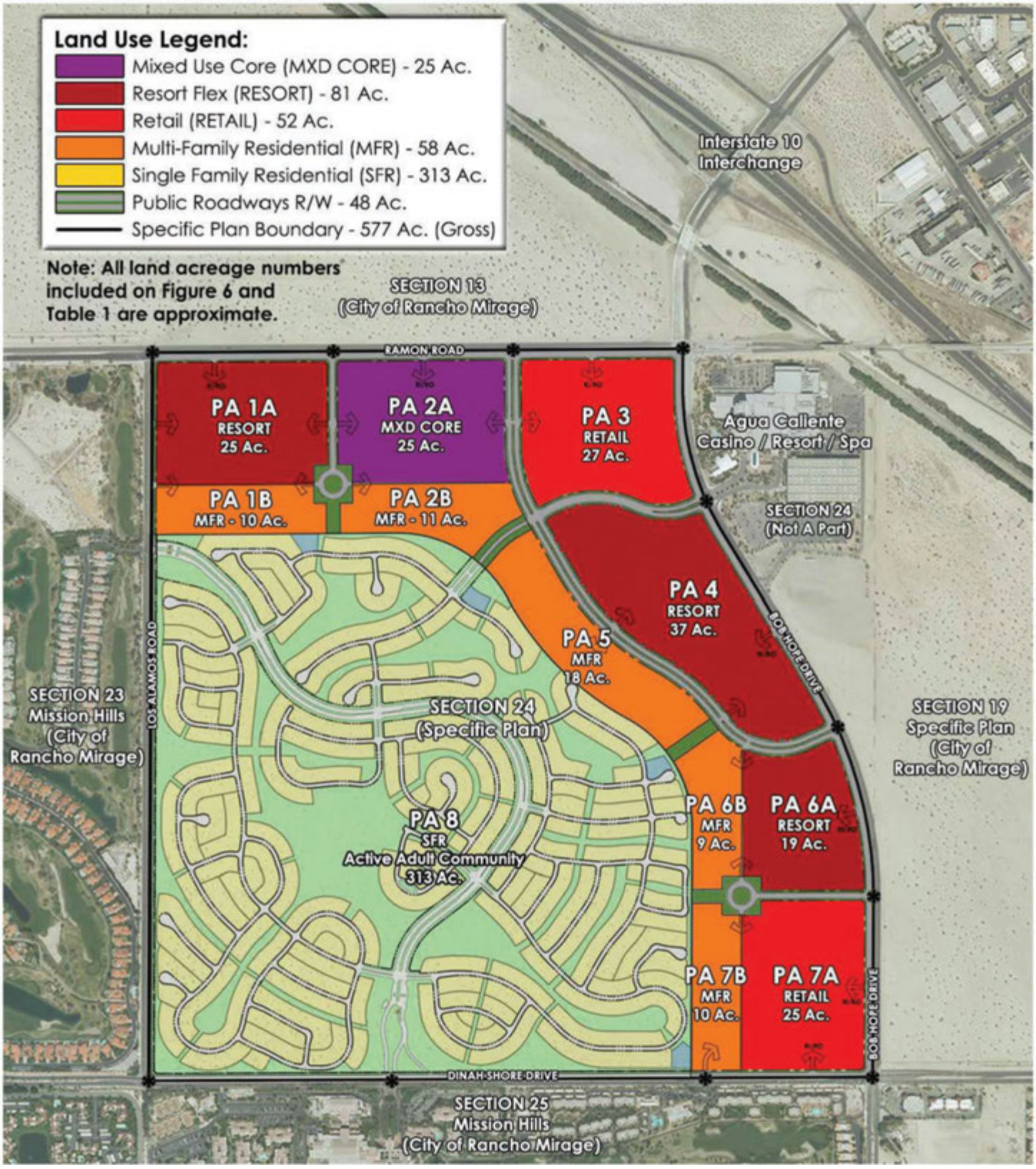
Resort Flex

The Resort Flex (RESORT) land use category would permit uses such as retail, restaurants, resort hotels, and regional entertainment to create a lively and comfortable atmosphere for business and leisure travelers. The Resort Flex category accounts for approximately 81 acres of the Project Site with a maximum FAR of 0.40.

Table 3.0-1
Land Use Plan Summary

Planning Area	Land Use Category	Typical Permitted Uses							Net Land Area (Acres)	Non-Residential Square Footage	Dwelling Units
		Community Retail	Restaurants	Office /Service	Resort Hotel	Multi-Family Residential	Single Family Residential	Mixed-Use			
1A	RESORT	X	X		X				25	435,600	-
1B	MFR					X	X		10	-	180
2A	MXD CORE	X	X	X	X	X	X	X	25	1,090,000	-
2B	MFR					X	X		11	-	180
3	RETAIL	X	X	X					27	396,000	-
4	RESORT	X	X		X				37	505,000	-
5	MFR					X	X		18	-	486
6A	RESORT	X	X		X				19	331,000	-
6B	MFR					X	X		9	-	180
7A	RETAIL	X	X	X					25	381,000	-
7B	MFR					X	X		10	-	180
8	SFR						X		313	-	1,200
Right-of-Way									48	-	-
Total									**577**	**3,138,600**	**2,406**

Abbreviations: RESORT = Resort Flex; MFR = Multi-Family Residential; MXD CORE = Mixed Use Core; RETAIL = Retail; SFR = Single Family Residential.



SOURCE: MSA Consulting Inc. - September 2014.

FIGURE **3.0-3**

SECTION 24 SPECIFIC PLAN

Conceptual Land Use Plan

Retail

The Retail (RETAIL) land use category would provide the Project's primary shopping destination and would offer a range of commercial, office/service, entertainment, and eating establishments on approximately 52 acres. These uses would be located at the northeast and southeast corners of the Project Site and would be exposed to the high volumes of traffic along Ramon Road, Bob Hope Drive and Dinah Shore Drive. A maximum FAR of 0.35 is specified for these areas.

Multi-Family Residential

The Multi-Family Residential (MFR) land use category would provide a more urbanized style of residential living on approximately 58 acres adjacent to the Mixed-Use Core, Retail, and Resort Flex land use areas. Permitted uses would include single- and multi-family residential developments. Buildings of two stories in height could contain dwelling units at densities up to a maximum of 18 units per acre. These residential uses would serve as a transition between the higher intensity commercial areas and the low-density single-family residential area, which is planned as an Active Adult Community.

Single Family Residential

The Single Family Residential (SFR) land use category would accommodate an approximately 313-acre Active Adult Community up to 1,200 single-family dwelling units at an overall density of 3.8 units per acre. Building heights would be primarily one story, with some potential for two-story units within the interior of the Active Adult Community. Approximately 85 acres, or 27 percent, of the Active Adult Community would be devoted to Private Open Space, consisting of a system of pedestrian, bicycle, and golf cart trail linkages, neighborhood parks, water features, and community club house/pool/spa and associated amenities.

2. Planning Areas

A total of eight Planning Areas delineate and describe the amount, type, and distribution of development throughout the Project Site. The Planning Areas have also been constructed to recognize the current ownership patterns, thus enabling the Project to be constructed in an incremental fashion while still achieving a unified development. Each Planning Area is subject to a distinct list of allowed uses and development standards. Planning Areas 1 to 7 ("Tribal Planning Areas") and Planning Area 8 ("the Active Adult Community") are proposed within the Project Site. The following is a brief description of the conceptual uses and overall purpose proposed for each planning area.

Planning Area 1

This approximately 35-acre Planning Area would be located at the northwest corner of the Project Site at the Ramon Road and Los Alamos Road intersection and consist of two subareas: Planning Area 1A and Planning Area 1B. Planning Area 1A would be approximately 25 acres in size and allow up to a maximum of 435,600 square feet of retail, restaurant and office/services and hotel uses, or any combination thereof, in a planned Resort Flex development along Ramon Road. Planning Area 1B would be located south of Planning Area 1A, approximately 10 acres in size, and would allow up to a maximum of 180 residential dwelling units accessible from Los Alamos Road and a planned local street.

Planning Area 1 would serve as a mixed land use transition between the lower density residential and private golf course development of Westin Mission Hills located west of Los Alamos Road, the proposed Active Adult Community located to the south in Planning Area 8, and the higher density Mixed Use Core in Planning Area 2 to the east.

Planning Area 2

This approximately 36-acre Planning Area would be located along the south side of Ramon Road, would be readily accessible from two signalized intersections and a right-in/right-out turning lane at its mid-point on Ramon Road, and would consist of two subareas: Planning Area 2A and Planning Area 2B. Planning Area 2A would be approximately 25 acres in size and would allow up to a maximum of 1,090,000 square feet of mixed retail, restaurant, office, business campus and hospitality-oriented indoor amusement/entertainment uses. Flexibility is also provided for possible hotel, multi-and single-family attached residential uses within this area. The maximum allowed FAR would be 1.0 in this Planning Area and would be the most intensely developed area within the Project Site. Planning Area 2B would be approximately 11 acres in size south of Planning Area 2A, and would allow up to a maximum of 180 residential dwelling units.

Planning Area 3

This approximately 27-acre Planning Area would be located at the northeast corner of the Project Site, would be a gateway planning area accessible from three signalized intersections on Ramon Road and Bob Hope Drive, and would provide right-in/right-out turning lanes. The Bob Hope Drive and Ramon Road intersection, located at the northeast corner of this Planning Area, would be integrated with the new Bob Hope Drive/Interstate 10 Interchange and would provide a unique level of regional accessibility and visibility to the Project Site. The Agua Caliente Casino/Resort/Spa is located directly west of Bob Hope Drive and represents a regionally significant resort and entertainment attraction. Planning Area 3 would allow up to a maximum of 396,000 square feet of commercial retail, restaurant and entertainment uses around a planned “Main Street” village center, with an overall FAR of 0.35.

Planning Area 4

This approximately 37-acre Planning Area would be located immediately south of Planning Area 3 along the west frontage of Bob Hope Drive, and represents a Resort Flex land use opportunity for commercial retail, restaurant, and hospitality-oriented indoor amusement/entertainment uses which would complement and expand upon the planned Main Street village center development to the north and the Resort Flex Planning Areas east of Bob Hope Drive in Section 19. Two signalized intersections on Bob Hope Drive would provide access to this Planning Area along with a mid-point right-in/right-out turning lane. It is anticipated that up to a maximum of 505,000 square feet of mixed-use commercial development would be developed within this planning area.

Planning Area 5

This approximately 18-acre Planning Area would allow up to a maximum of 486 residential dwelling units. This area would be located directly west of Planning Area 4 and would provide a land use-to-land use transition buffer from the more intense commercial uses in Planning Area 4 to the east and the lower density Active Adult Community in Planning Area 8 to the west. Access to this Planning Area would be provided by a landscaped boulevard identified as Street A.

Planning Area 6

This approximately 28-acre Planning Area would be located immediately south of Planning Areas 4 and 5 along the west frontage of Bob Hope Drive and would consist of two subareas: Planning Area 6A and Planning Area 6B. Planning Area 6A would consist of an approximately 19-acre Resort Flex land use for commercial retail, restaurant, and hospitality-oriented indoor amusement/entertainment uses. Two signalized intersections on Bob Hope Drive would provide access to this sub-planning area along with a mid-point right-in/right-out turning lane. This Planning Area would allow up to a maximum of 331,000 square feet of mixed-use commercial development at a maximum FAR of 0.40. Planning Area 6B would be approximately 9 acres located west of Planning Area 6A and would allow up to a maximum of 180 residential dwelling units.

Planning Area 7

This Planning Area would be located at the southeast corner of the Project Site, northwest of the Bob Hope Drive and Dinah Shore Drive intersection, and would contain two subareas: Planning Area 7A and Planning Area 7B. Planning Area 7A would be an approximately 25 acre Retail site with the opportunity to develop a neighborhood-scale retail, restaurant and office/services center to complement the existing Desert Ridge Plaza located on the southeast corner of this intersection. Further, this Planning Area would provide convenient shopping opportunities and services for the residents of the existing

Mission Hills community located to the south and west; the existing Key Largo Estates neighborhood located to the southeast; and the new Active Adult Community to the west. This Planning Area would allow up to a maximum of 381,000 square feet of mixed-use commercial development at an overall FAR of 0.35. Planning Area 7B would be approximately 10 acres in size west of Planning Area 7A and would allow up to a maximum of 180 residential dwelling units.

Planning Area 8

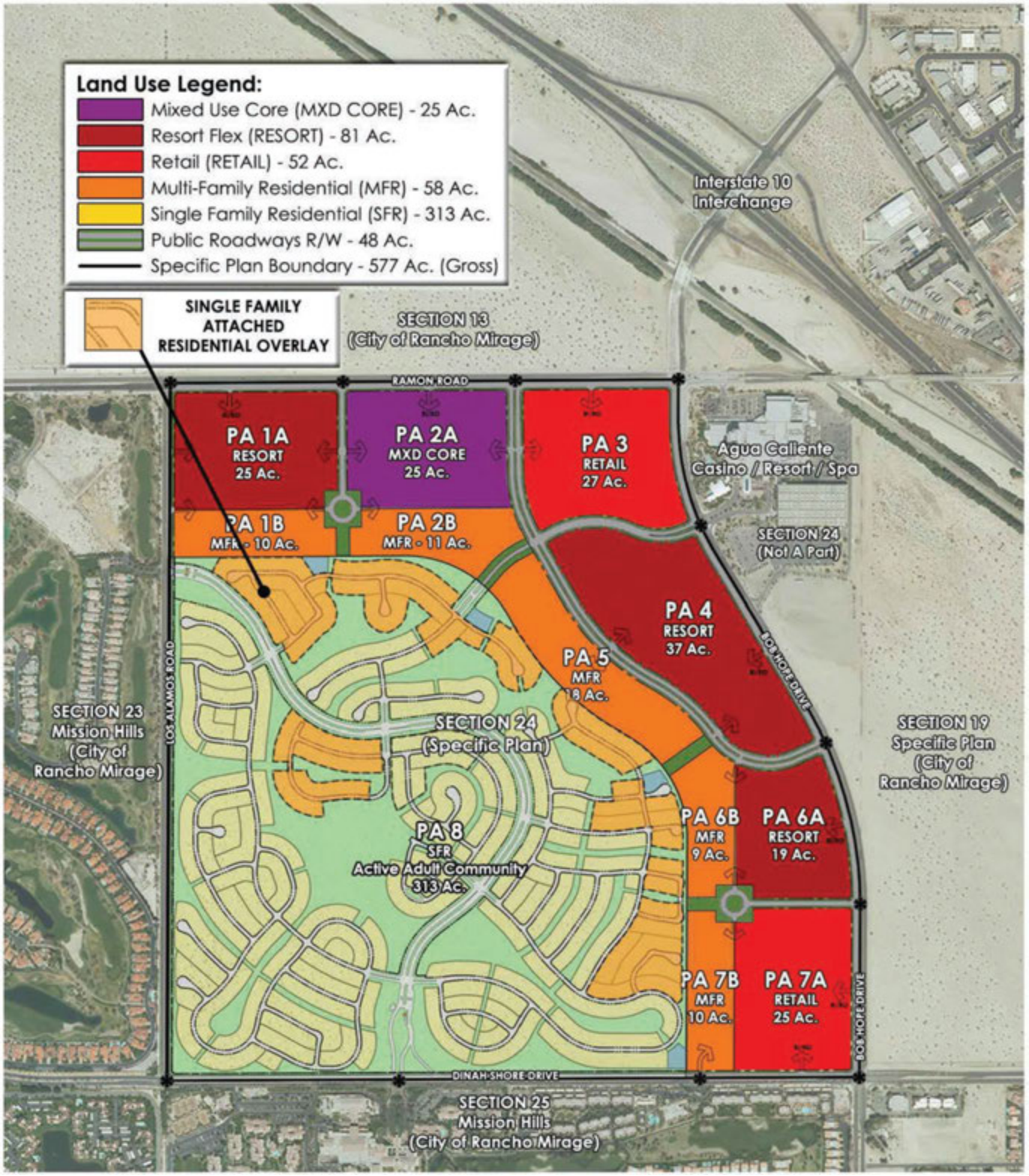
This Planning Area would be approximately 313 acres for the development of a master planned Active Adult Community of up to a maximum of 1,200 single-family dwelling units. The gated Active Adult Community would be master planned consisting of four neighborhoods accessed by a system of private streets and recreational open space amenities located in neighborhood parks and trail linkages. Resident amenities would include an integrated system of pedestrian, bicycle and golf cart trail linkages, neighborhood parks, water features, community club house/pool/spa, and complementary features.

Single-family attached residential units would also be allowed within the Single Family Attached Residential Overlay Area, as illustrated on **Figure 3.0-4, Single Family Attached Residential Overlay Area**. These areas would be located along the perimeter between the Active Adult Community and the Tribal Planning Areas, as well as adjacent to the north of the clubhouse area in the center of the planning area.

3. Open Space and Parks

The Project supports development that is more compact and urban than the low scale, resort-oriented patterns currently found in the surrounding communities. The clustering of buildings in the Project Site would provide smaller, more intimate plazas and streetscapes, while providing opportunities for larger parkland settings for residents and visitors. **Figure 3.0-5, Conceptual Open Space Plan** illustrates the different types of open space and parks within the Project Site. The Conceptual Open Space only identifies the location of a portion of the open space to be provided in order to allow each Planning Area to design and accommodate open space areas in a manner that works with individual projects. Each project and Planning Area would be required to connect to adjacent open spaces through the use of greenbelts or landscaped pedestrian walkways. The exact number, precise location, configuration, type, and amount of amenities and facilities, and size of the parks and open space areas would be established at the time of development of the tentative tract map(s) of the Project.

The amount of parkland required by the Specific Plan within the Project Site would total approximately 13 acres. The Active Adult Community would comprise a total of 6.5 acres of parkland and the Tribal Planning Areas would comprise a total of 6.5 acres of parkland primarily within the residential land use



SOURCE: MSA Consulting Inc. - September 2014.

FIGURE **3.0-4**

SECTION 24 SPECIFIC PLAN

Single Family Attached Residential Overlay Area

SOURCE: MSA Consulting Inc. - September 2014.

FIGURE **3.0-5**

SECTION 24 SPECIFIC PLAN

Conceptual Open Space Plan

areas. The provision of parkland on-site is preferred and developments may satisfy parkland requirements by consolidating parkland into one or more locations. Payment of in-lieu fees or dedication of land is also permitted.

Residential and Resort Open Space

In addition to parks, the Project Site would consist of a combination of common and private open and recreation spaces. Examples of recreational amenities would include pools, clubhouses, plazas, courtyards, lawn areas, and jogging paths. Many of the open spaces in residential locations may be private to ensure secure, unfettered access for residents. Resort projects such as hotels would incorporate many of the same features as residential projects, although they may be combined with or placed alongside ancillary commercial uses such as day spas. Residential and resort developments would also be encouraged to provide spaces that are accessible to the general public, such as paths or greenbelts that connect to open spaces in adjacent Planning Areas.

Commercial and Mixed-Use Open Space

Public open spaces within commercial uses would include, but not be limited to, walkways, multipurpose paths, enhanced streetscapes, and plazas to provide gathering spaces for people shopping, eating, or just enjoying the atmosphere. Smaller, more urban open spaces would include landscaping dominated by potted plants and ornamental trees, combined with intricate hardscape elements.

4. Conceptual Landscape Plan

The Conceptual Landscape Plan provides guidelines for the treatment of areas within the Project Site, including the surrounding streets, parkways, development edges, project entries, and open space areas. The landscaping theme would be influenced by the climate of the Coachella Valley, where native and drought-resistant plants are emphasized.

The Conceptual Landscape Plan distinguishes a hierarchy of roadways and identifying key intersections surrounding the Specific Plan area, as shown in **Figure 3.0-6, Conceptual Landscape Corridor Plan**. Accordingly, each landscape treatment would incorporate a distinct theme tree to further define the different areas and roadways within the Project Site. Rock gardens and water features may also be used to enhance the landscape elements; however, water features shall be limited to key landscape areas for the purpose of water conservation. In addition to providing landscape guidelines for roadways and intersections, the Landscape Plan provides direction for landscaping within public and private open spaces.

5. Circulation Plan

Vehicular Circulation

The ability to easily access and travel within the Project Site by multiple modes of transportation is an important element of the Project. The vehicular circulation system for the Project would include both regional and local roadways. This system of roadways would generally form a modified grid pattern to maximize access to each Planning Area and enhance walkability. The modified grid system would also allow for the overall Project to be developed in a phased approach without disrupting continuity or access for existing or developing projects. Within the Active Adult Community, the internal private street system would provide connectivity to the grid of adjacent public arterial and collector roadways.

The Project circulation system would contain a hierarchy of access points and roadways to dictate the function and character of each intersection and roadway, as shown in **Figure 3.0-7, Conceptual Circulation Plan**. Access points in the Project area would be described as Primary Access or Right In/Out Access points. As shown on **Figure 3.0-7**, public roadways would be classified as Major Arterial, Minor Arterial, Major Collector, and Local Roadway. All public roadways in the Specific Plan area would be maintained by the owning jurisdiction (e.g. City, County, or Tribe). All private roads would be owned and maintained by the Master Homeowners Association, Neighborhood Association, and/or similar entities.

Pedestrian and Alternative Vehicle Circulation Plan

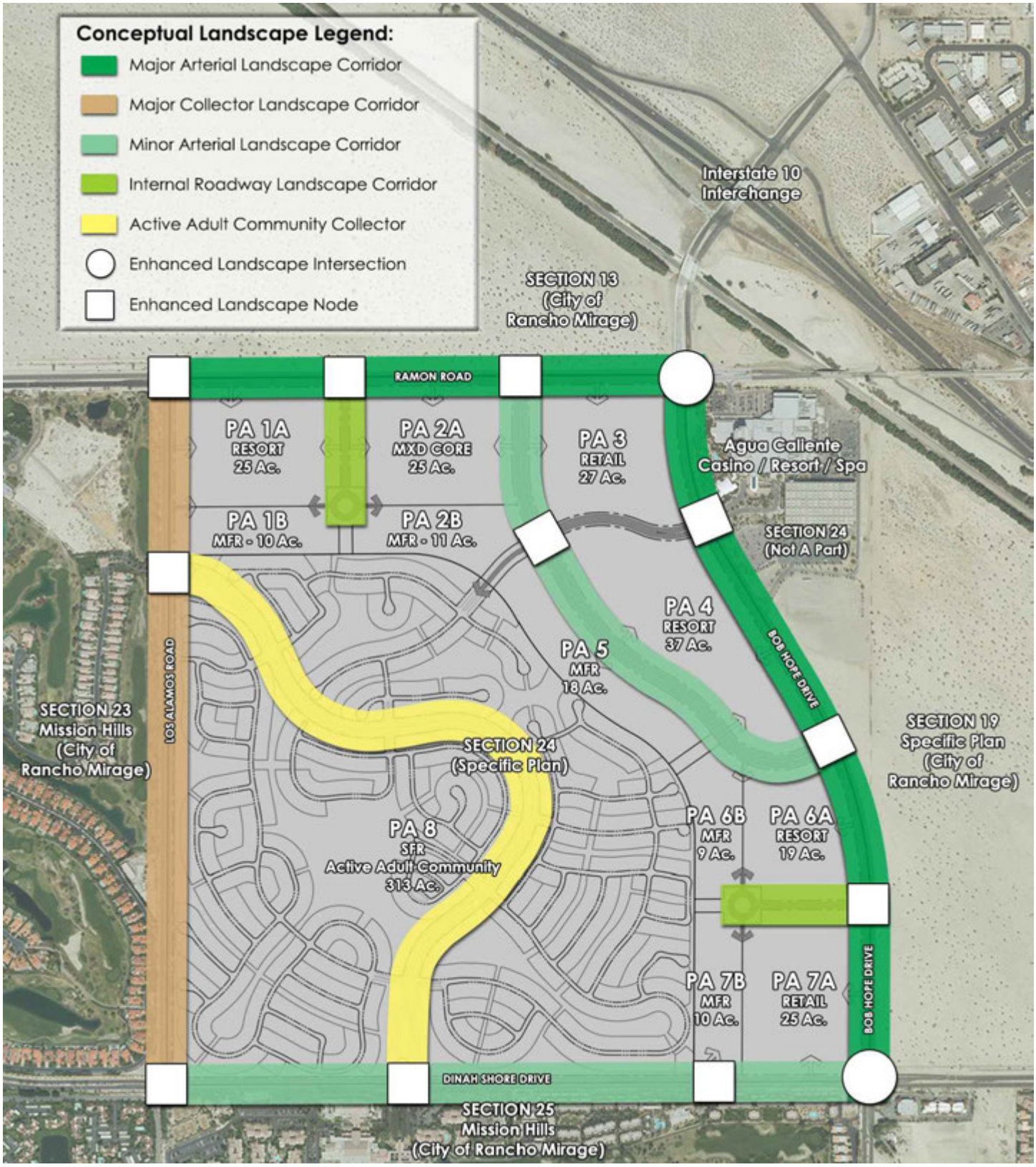
As shown in **Figure 3.0-8, Conceptual Pedestrian and Alternative Vehicle Circulation Plan**, the Project would develop a comprehensive system of pedestrian, Neighborhood Electric Vehicle (NEV), golf cart, and bicycle travel throughout the Project Site and into the surrounding community.

Pedestrian

Pedestrian circulation would be provided by 5- to 8-foot-wide sidewalks along internal and perimeter roadways, as shown on **Figure 3.0-8**. Pedestrian circulation within each Planning Area would not be determined until site plans are developed by each property owner as the Project builds out. All development, however, would be designed to facilitate pedestrian access to surrounding Planning Areas.

Alternative Vehicle Circulation

Within the Project Site, Class I bikeways and golf cart paths (8 feet wide) are provided along Bob Hope Drive, Ramon Road, Dinah Shore Drive and Los Alamos Road as off-street pathways that allow bicyclists, golf carts, and pedestrians to travel along the same route. These routes, also shown on **Figure 3.0-8**, will

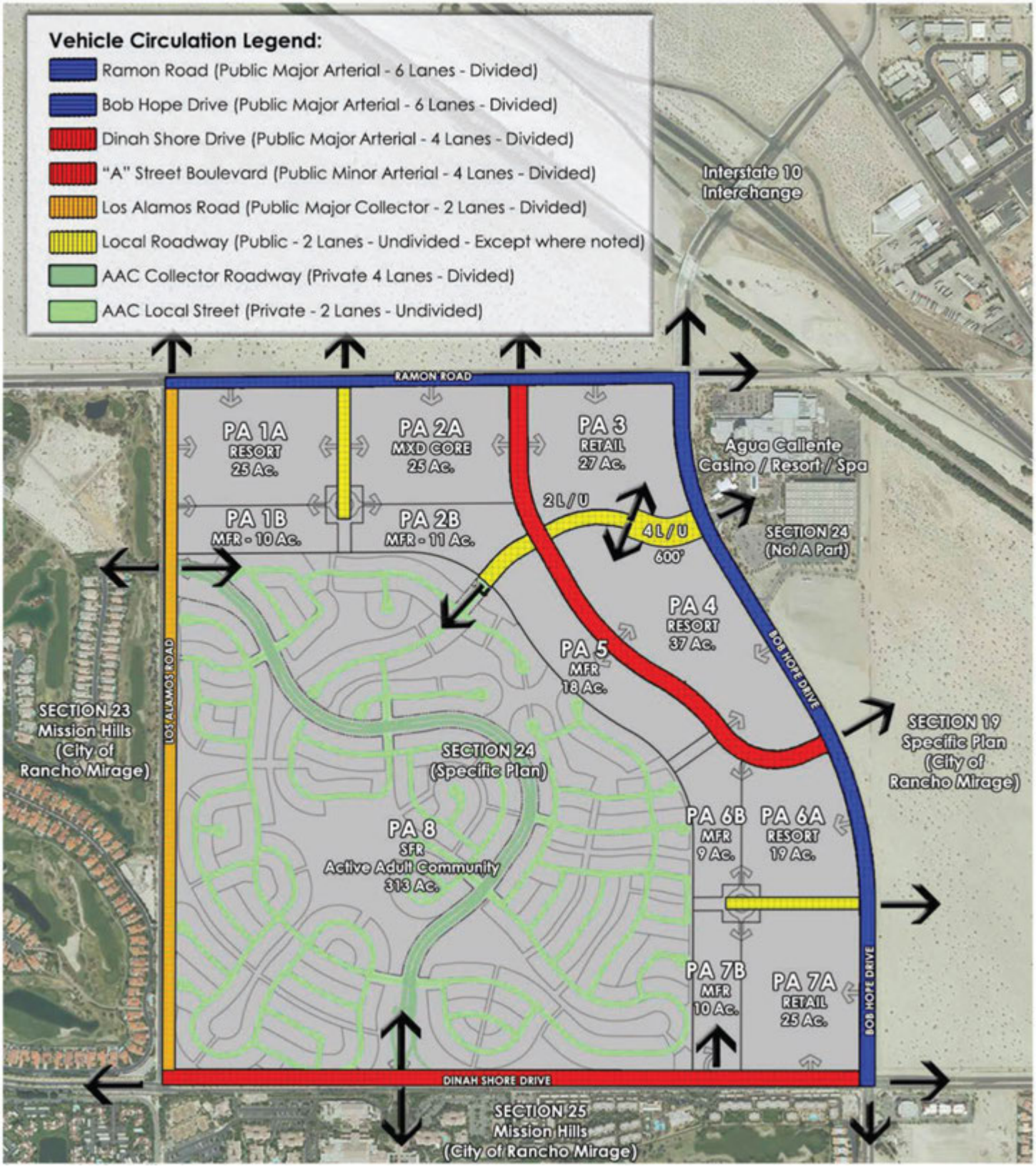


SOURCE: MSA Consulting Inc. - September 2014.

FIGURE **3.0-6**

SECTION 24 SPECIFIC PLAN

Conceptual Landscape Corridor Plan

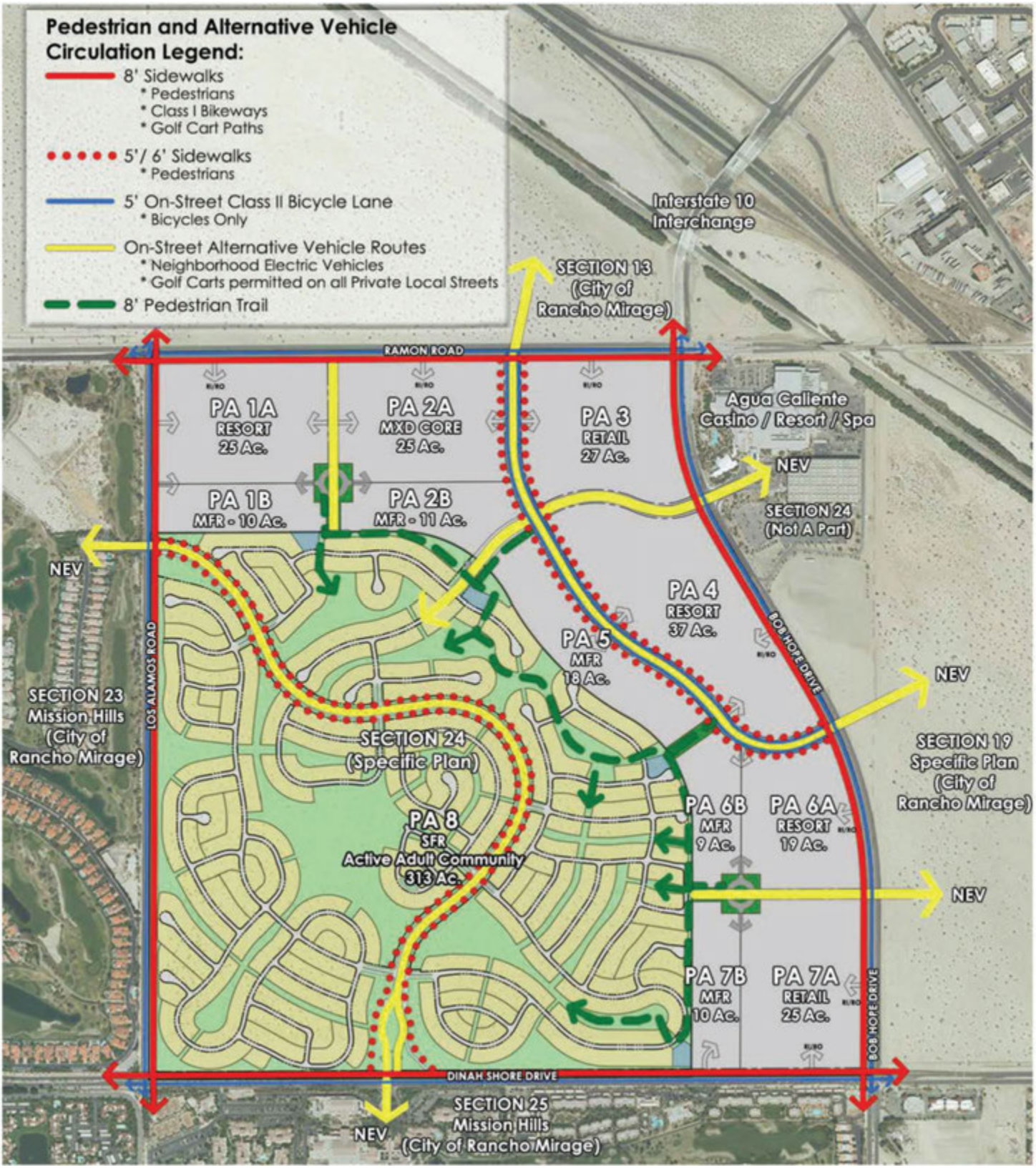


SOURCE: MSA Consulting Inc. - September 2014.

FIGURE **3.0-7**

SECTION 24 SPECIFIC PLAN

Conceptual Circulation Plan



SOURCE: MSA Consulting Inc. - September 2014.

FIGURE **3.0-8**

SECTION 24 SPECIFIC PLAN

Conceptual Pedestrian and Alternative Vehicle Circulation Plan

044-001-13

connect to the existing golf cart circulation system, which provides paths along the south side of Dinah Shore Drive west of Bob Hope Drive and along the west side of Los Alamos.

Class II bikeways provide a striped, on-street lane (5 feet wide) for one-way bicycle travel on Bob Hope Drive, Ramon Road, Dinah Shore Drive, and "A" Street Boulevard. A striped, on-street 6-foot wide lane for one-way bicycle travel would be provided along Los Alamos Road. The Class II facilities extend from the Class I pathways to provide dedicated access to the Project's residential and mixed-use interior. Golf carts are expected to gain access to the majority of the site's uses by traveling along Class I facilities and through parking lots and smaller access roads within Planning Areas. Additional internal access may be provided to golf carts on streets with designated speed limits no higher than 25 miles per hour.

This Specific Plan also envisions that the residents of Section 24 may purchase NEVs to make short trips to run errands, visit recreation facilities, or meet with friends. NEVs are public street-approved vehicles that have no emissions and can travel at a maximum speed of 25 mph. In contrast with golf carts, NEVs are able to travel on city streets with posted speed limits of 35 mph or less, and can cross intersections of roadways with higher posted speed limits (per California Vehicle Code Section 385.5). Commuter information boards should be placed at appropriate locations in each Planning Area identifying paths, routes, and schedules for alternative vehicles and public transit within the Project Site and throughout surrounding community. **Figure 3.0-8** indicates potential NEV routes within the Section 24 area.

Public Transportation

SunLine Transit Authority (SunLine) is the provider of public transit service within the Coachella Valley. The Project Site is served by Route 32 of the SunLine fleet, which travels between the Cities of Rancho Mirage, Thousand Palms, and Cathedral City via Bob Hope Drive, Dinah Shore Drive, Monterey Avenue, and Ramon Road, as shown on **Figure 3.0-9, Existing and Conceptual Public Transportation System Plan**. The buses are equipped with wheelchair lifts and bike racks, facilitating mass-transit travel for a wide variety of riders.

As development matures within the Project Site, sufficient demand may be generated to support additional bus lines or a change in routes to stop at two or three additional locations within the Mixed-Use Core or other Tribal Planning Areas along Bob Hope Drive and Ramon Road. Potential SunLine routes with conceptual stop locations are also shown on **Figure 3.0-9**. The potential routes and stops shown could represent deviations from the existing route, an additional route option along an existing route during peak service times, or a completely new route. The ultimate route alignment and stop location would be determined by the SunLine as development of this area proceeds and needs and resources can be assessed. All existing and future SunLine bus stops shall be located and equipped per SunLine standards.

The potential for a future multimodal Transit Center in Section 13 could provide a significant long-term opportunity for residents and commuters within the Coachella Valley. Close coordination would be required with the SunLine and adjacent property owners to identify appropriate short- and long-term uses of the Transit Center property. Such uses could include: SunLine Regional Bus Station; SunLine Neighborhood Circulator Station; temporary or permanent commuter parking solar energy generation, or a combination of all of these.

6. Infrastructure and Utility Improvements

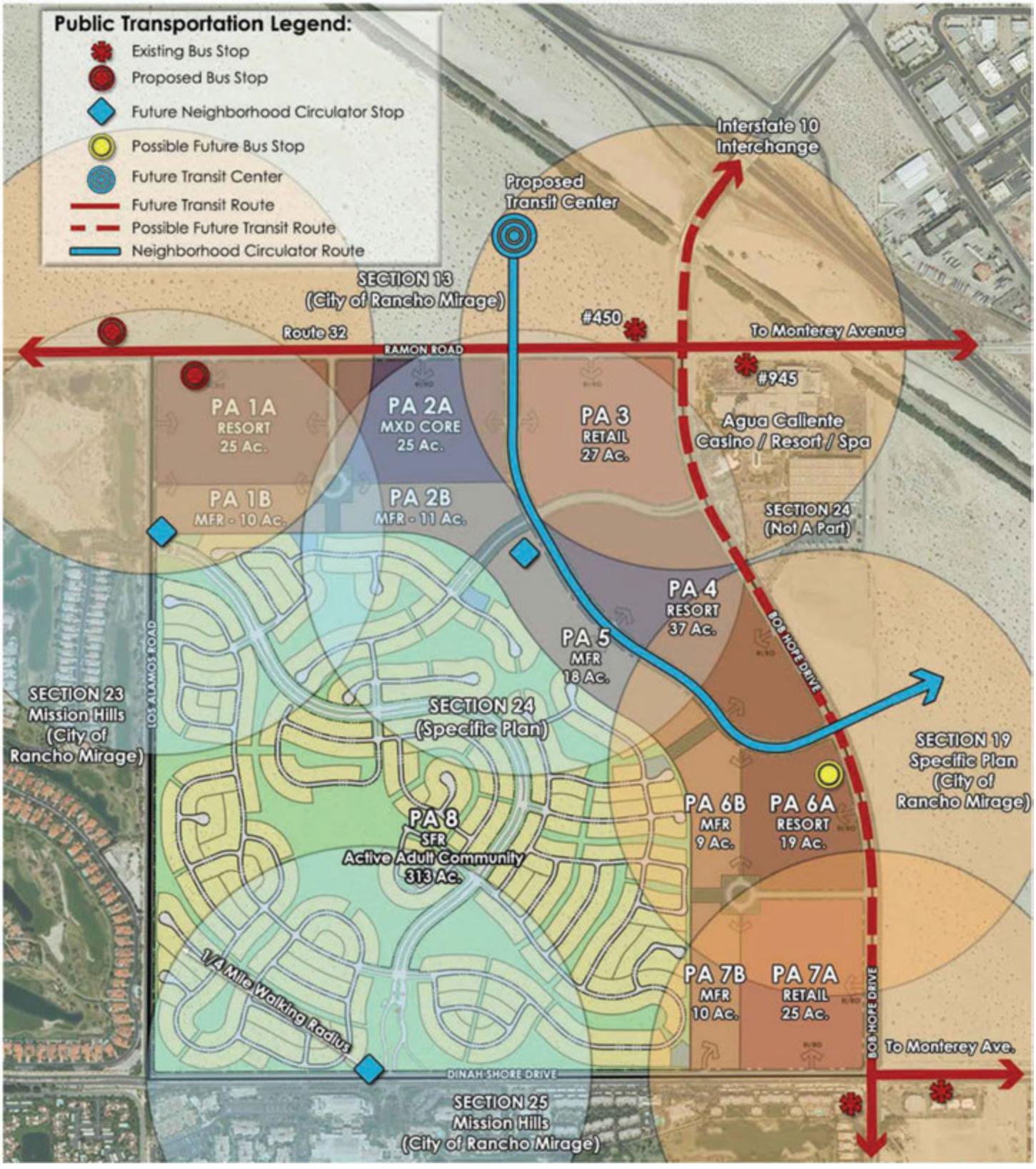
Infrastructure improvements would be installed to support the Project development including water, sanitary sewer, drainage and flood retention systems, and utility improvements. A brief summary of these improvements follows.

Potable Water

The Coachella Valley Water District (CVWD) would provide water service for the Project Site. As shown on **Figure 3.0-10, Conceptual Potable Water Plan**, the potable water including domestic use, landscape irrigation, and fire protection would be provided by a combination of the Mission Hills Pressure Zone, the Sky Mountain Pressure Zone, and up to seven pumping plants and well sites on-site. A new reservoir site located on the north side of the I-10 freeway would be constructed by CVWD.

A proposed 36-inch transmission main would transport the water to and from the new reservoir to supply the water lines within and surrounding the Project. The on-site potable water lines would be a combination of 18-inch, 12-inch and 8-inch lines. The 18-inch lines would be needed to supply the land uses that require the highest fire flow. It is anticipated that there would be eight points of connection to supply the eight Planning Areas from the water lines in the public roadways. A minimum of two points of connections would be needed for each Planning Area either from the perimeter water lines or internal water lines. The water loop concept would increase the flow to each building. A total of seven well sites are proposed within the Project Site; four within the Active Adult Community and three within the Tribal Planning Areas.

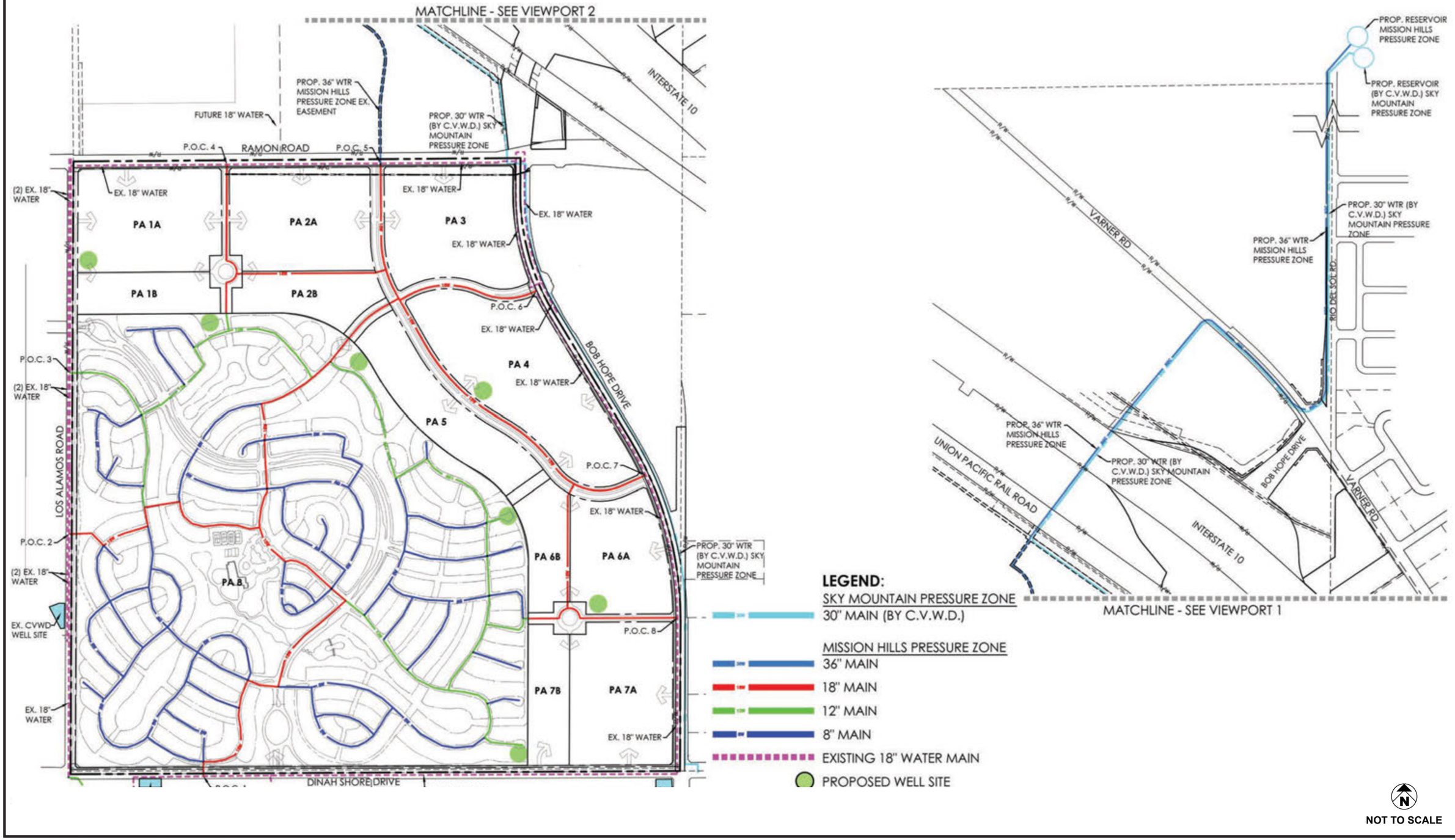
A water system analysis would be prepared during the final construction documents to ensure that the required fire flow is provided at each fire hydrant and each fire sprinkler system. Every building would be required to provide an approved fire sprinkler system and all system designs would follow the guidelines identified in the CVWD Design Manual.



SOURCE: MSA Consulting Inc. - September 2014.

FIGURE **3.0-9**

SECTION 24 SPECIFIC PLAN — Existing and Conceptual Public Transportation System Plan



SOURCE: MSA Consulting Inc. - September 2014.

FIGURE **3.0-10**

Sanitary Sewer

The CVWD would provide service for the Project Site. The proposed contour grading concept has been designed to allow for all sewer flows to exit the Project Site by gravity. Those flows terminate at the Wastewater Reclamation Plant (WARP) No. 7 in the City of Indio. The on-site sewer pipe would be 8-inche and 12-inch diameter polyvinyl chloride (PVC) pipe. The system would be divided into two areas, one draining to the west and the other to the north. **Figure 3.0-11, Conceptual Sewer Plan** identifies the lines, directions and points of connection.

The on-site sewer pipelines exit the Project Site to the north and would connect to an existing 15-inch sewer line on Ramon Road. The existing line crosses under the I-10 and the Union Pacific Railroad (UPRR) heading north and then east on Varner Road. A sewer system hydraulic model was prepared by CVWD for this Project Site and determined that a line upgrade would be necessary further east on Varner Road, as shown on **Figure 3.0-11**. There would be six points of connection to the surrounding existing sewer lines to the west and north. Any sewer design system to be implemented would follow guidelines identified in the CVWD Design Development Manual.

Drainage

As shown in **Figure 3.0-12, Conceptual Drainage Plan**, up to 11 retention basins would be developed in the Tribal Planning Areas and up to 15 retention basins would be needed in the Active Adult Community. Precipitation, nuisance water, or storm-drain flows that fall onto streets south of the center of the Active Adult Community would flow to the low points on the southern end, while flows north of the center of the Active Adult Community would flow to the low points on the northern end of the Planning Area. Flows within the Tribal Planning Areas would flow to the northern ends of and eastern ends of each planning area.

A preliminary Synthetic Unit Hydrograph was used to determine the retention volume needed to accept 100 percent of the stormwater runoff of the 100 year flood level event. The 1-hour event would produce 1.35 inches of rain and is considered the 100 year flood level event. The Tribal Planning Areas would produce 51.18 acre-feet of stormwater run-off that would need to be retained. The Active Adult Community would produce 40.98 acre-feet of stormwater run-off that would be needed to be retained. The overall Project Site would produce 92.16 acre-feet of stormwater runoff that would need to be retained.

The retention basins would be a maximum of 5-feet deep with maximum slopes of 5 to 1 unless erosion control methods are implemented. The top of the basin's elevation would have one foot of freeboard and would be one floor below the lowest building pad.

Dry Utilities

Electric

Southern California Edison (SCE) is the local purveyor of electricity. The Project Site has power on all four sides and represents a final piece of infill for the territory. SCE's territory ends at the centerline of Bob Hope extended to Rio Del Sol. SCE's territory does extend to the north, south and west. The site can be serviced from multiple points of connection; however, the most likely point for the commercial aspect is the intersection of Bob Hope Drive and Ramon Road, and the most likely for the Active Adult Community is from Dinah Shore Drive.

Gas

The local purveyor is the Southern California Gas Company. The Gas Company has 6-inch mains in Dinah Shore and Bob Hope Drives with a 4-inch main in Los Alamos Road. A loop system would most likely be designed for both the residential and the commercial with two tie-ins per system.

Telephone

The local provider for telephone is Verizon. Verizon has telephone facilities surrounding the entire Project Site. Tie-ins would be made at the existing pull boxes or manholes surrounding the site.

Cable Vision

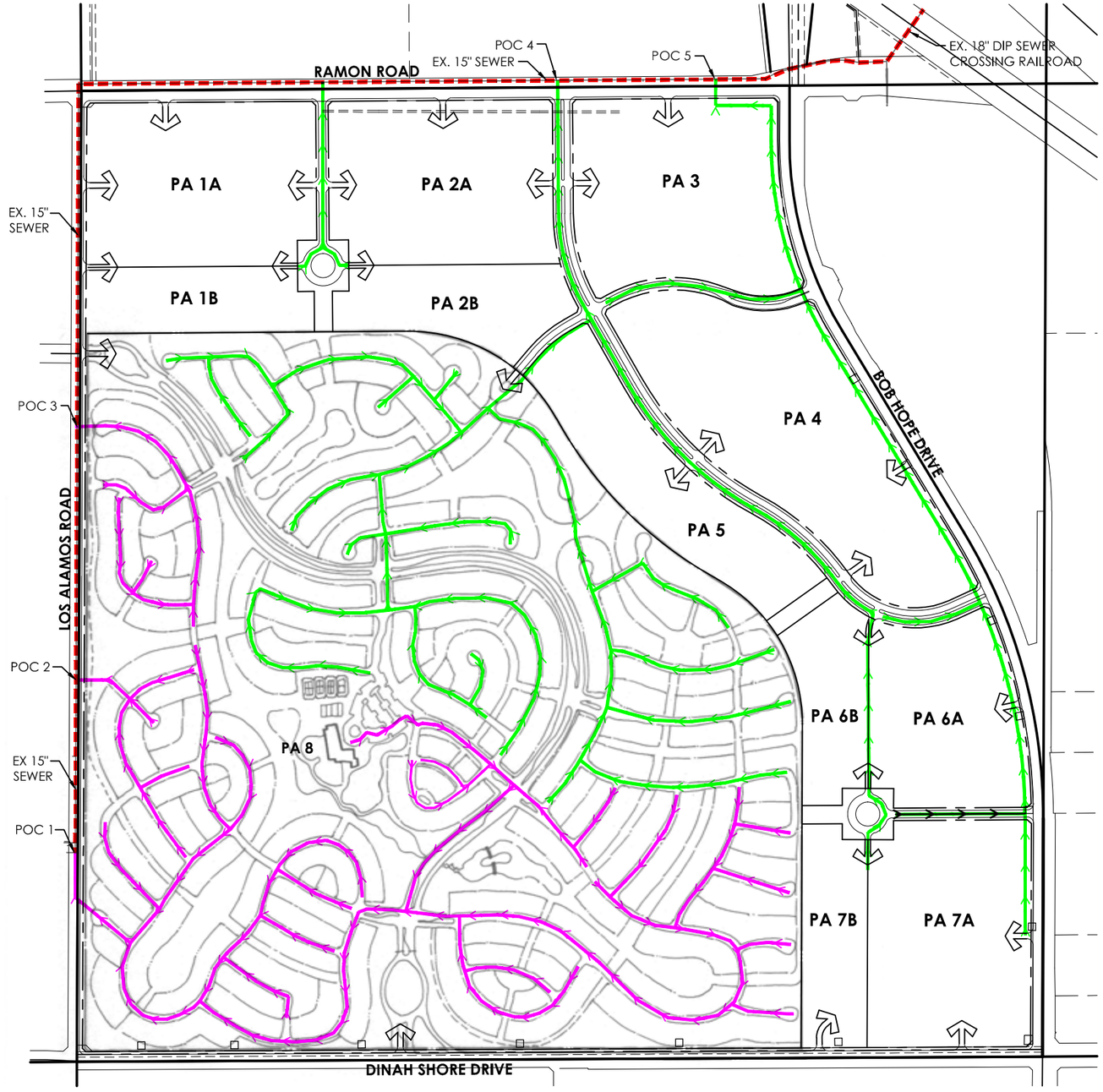
Time Warner Cable provides local service of cable television service. Time Warner has facilities along Los Alamos and Ramon Roads and Dinah Shore Drive. The point of connection would be at an available pull box or amplifier along those streets.

7. Design Standards

Building Standards

Active Adult Community

The Active Adult Community Planning Area would have a maximum of 3.8 dwelling units per acre with lot coverage up to 35 percent. The minimum residential dwelling unit size would be 1,100 square feet. The maximum building heights for residential units within this planning area would be 20 feet in height and 28 feet in height in the Single Family Attached Residential Overlay Area. Height is determined from the average finish grade around the building to the highest top of parapet or fascia for flat roof buildings or to the highest ridgeline for sloped roof structures, excluding chimneys and similar architectural projections. The maximum height that would be allowed for the clubhouse and other non-residential



LEGEND

- PROPOSED SEWER - TO LOS ALAMOS
- PROPOSED SEWER - TO RAMON
- EXISTING SEWER

N

0 400 800 1600

APPROXIMATE SCALE IN FEET

SOURCE: MSA Consulting Inc. - September 2014.

FIGURE **3.0-11**

SOURCE: MSA Consulting Inc. - September 2014.

FIGURE **3.0-12**

SECTION 24 SPECIFIC PLAN

Conceptual Drainage Plan

044-001-13

structures within this Planning Area is 58 feet. The maximum height allowed for tower elements would be 72 feet. **Figure 3.0-13, Illustrative Ultimate Grading Site Section**, illustrates the topographical elevation difference between the Active Adult Community and the Tribal Planning Areas.

Tribal Planning Areas

The Tribal Planning Areas would vary in maximum FAR and lot coverage. The maximum FAR for retail uses would be 0.35 with maximum lot coverage of 35 percent. The maximum FAR allowed for resort flex uses would be 0.40 with maximum lot coverage of 40 percent. The maximum FAR allowed for mixed-use core uses would be 1.0, with maximum lot coverage of 50 percent, and minimum unit size of 600 square feet. The planning areas that would allow multi-family residential units would allow a maximum density of 18 dwelling units per acre, maximum lot coverage of 50 percent, and maximum unit size of 850 square feet.

Building Design and Materials (Sustainable Features)

Due to the location of the Project Site within the hot, dry climate of the Coachella Valley, the Project would utilize drought-tolerant landscaping and increased energy requirements to cool buildings. Additionally, blowsand in the area would have the potential to scar buildings and vehicles. The following standards and guidelines would help to ensure that development created through the implementation of the Project would be designed to take advantage of opportunities and protect against the dangers of the desert environment.

Site Design and Infrastructure

1. Shading devices and techniques, such as roof overhangs, canopies, market umbrellas, arcades, and trees, would be incorporated into buildings, parking courts and outdoor spaces to minimize unnecessary solar heat gain. Particular emphasis would be placed on shading devices when east-west orientation is appropriate. Solar panels would be strongly considered as appropriate shading devices when properly mounted on overhead building overhangs and trellises.

2. Buildings would be sited and designed to maximize the use of sunlight and shade for energy savings and respect the right to solar access of nearby and adjacent buildings. Whenever appropriate, buildings would be oriented so that the long axis of the building is oriented east–west to maximize the opportunity for north- and south facing windows, which receive indirect, diffused light with low heat gain for the building, reducing cooling costs during summer months.

   Outdoor spaces such as plazas would be similarly oriented.

3. Misting systems and other similar micro-climate cooling techniques would be used along canopies and fascia soffits in common areas such as outdoor dining patios and pedestrian walkways in order to provide necessary relief from the desert heat during daytime periods of low ambient air humidity.

4. Consideration of the use of evaporative cooling systems, which incorporate "cool towers" as integral architectural/mechanical system components, to minimize environmental and cost impacts of conventional air conditioning systems for buildings.

5. The use of recycled-content aggregate (reused and crushed concrete and asphalt) would be encouraged in areas such as, but not limited to, drainage backfill and under driveways, sidewalks, and building slabs.

6. The use of grass bioswales, particularly with native or drought-tolerant grasses, would be implemented and encouraged to collect and filter water runoff.

7. Developments would optimize landscaped stormwater retention/infiltration basins and linear bioswales in surface or subsurface storage areas for nonpotable uses such as irrigation and sewage conveyance.

8. Developments would include a recycling program for residential and commercial uses to recycle paper, glass, plastic, and other by-products of business or residential activities.

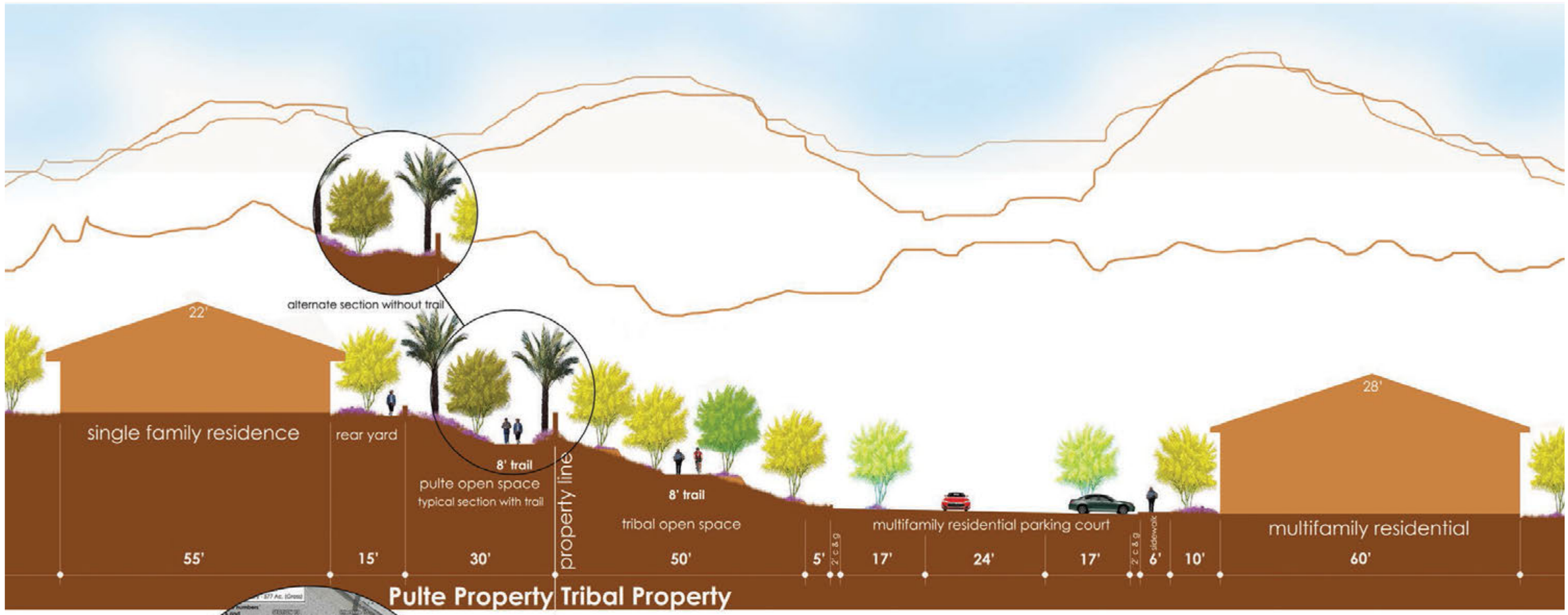
9. Projects within the Project Site would be encouraged to exceed Coachella Valley Water District water efficiency goals.

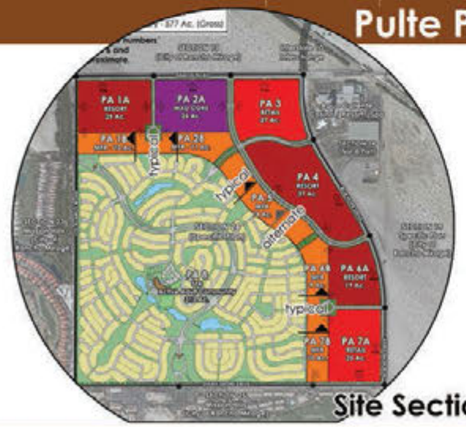
10. The pursuit of already established sustainable best management practices, such as Leadership in Energy and Environmental Design (LEED) certification, ComfortWise and EnergyStar Home is strongly encouraged throughout the Project Site. For maximum flexibility, however, developers and builders may implement sustainable building and development practices most appropriate to the specific context within the Coachella Valley.

11. Builders are also encouraged to participate in programs offered or sponsored by local utilities such as California EnergyStar New Homes Program, Residential Property Development Program, California Home Energy Efficiency Rating System (CHEERS) Program, and Savings by Design Program.

12. Buildings would be designed to facilitate and accommodate photovoltaic cells for solar power in accordance with Tribal Land Use Ordinance requirements. Solar-heated water is another efficient way to reduce energy needed for household activities.

13. Architectural features that increase daylighting, such as light shelves that bounce light further into interior spaces, would be installed where feasible to reduce the need for additional electrical light.





Site Section Location Key Map (nts)

Note: This is an illustrative site section which conceptually indicates the ultimate grade transition between the Active Adult Community in Planning Area 8 (Pulte Property) and Tribal properties in Planning Areas 1B, 2B, 5, 6B and 7B. Reference should be made to the preceding Figure 24 "Illustrative Ultimate Grading Plan" on page 50.

0 10 20 40
APPROXIMATE SCALE IN FEET

SOURCE: MSA Consulting Inc. - September 2014.

FIGURE **3.0-13**

14. Developments would minimize light pollution by avoiding outdoor lighting where unnecessary, emphasizing shielded fixtures and avoiding overhead lighting of areas such as walkways. Low scale, accent, and back lighting would be used to highlight key entry points, signage, enhanced intersections, and feature landscaping. The use of LED (light-emitting diode) lighting or OLED (organic light-emitting diode) lighting is encouraged, so long as blue or cool-white LEDs are shielded properly to prevent light pollution.

15. Builders would be encouraged to use flooring and insulation products that are low-emitting in terms of volatile organic compounds (VOCs) and formaldehyde. Low- and zero-VOC paints, finishes, adhesives, caulks, and other substances are also recommended to improve indoor air quality and reduce the harmful health effects of off-gassing.

16. The use of light-colored roofing materials to reflect heat and reduce cooling requirements of buildings, particularly Energy Star-labeled roofing materials, would be encouraged.

17. Energy Star-labeled appliances (e.g., water heaters—particularly tankless) would be installed to the greatest feasible extent. Solar, electric (efficiency rating of at least 0.92), or lower nitrogen oxide (as defined by the South Coast Air Quality Management District) gas-fired water heaters are strongly encouraged.

18. Buildings would not be constructed primarily of materials that perform poorly in environments subject to blowsand, such as glass and wood.

Signage

Signage identifies places, provides direction, and advertises businesses. Along with communicating information, signage would add to the character of the community and reinforce a sense of place. The major systems of signage include: community gateway entrance signs, primary entrance signs, secondary entrance signs, as shown in **Figure 3.0-14, Conceptual Signage Location Map**, and individual project signage.

In addition to these guidelines, a sign program would be required on a project-by-project basis. The sign program would identify the hierarchy of signs with a common theme, and specify the signage location and style. These sign programs would be consistent and complementary within the Project Site.

Lighting Design

Public Street Lighting

Street lighting along Dinah Shore Drive and Los Alamos Road would be provided within their respective public rights-of-way located directly adjacent to the Project, per City/Riverside County standards.

Private Street Lighting

Street lights with dual mast arms would be provided in the center median of the main internal Active Adult Community Boulevard. Street lights with single mast arms would be provided at various local and collector street intersections throughout the Project Site at the discretion of the developer. All street lights would be shielded or provided with cutoff lenses in order to be dark sky compliant.

Supplemental street lighting of the local streets would be provided by means of two photocell can lights mounted on the exterior of each house throughout the development. Each house would also be provided with illuminated address markers.

Landscape Lighting

Landscape accent lighting would be used for signage lighting, accent-up lighting, and washing of walls to illuminate vines or espaliers. Fixtures would be commercial grade 120 volts or D/C of comparable aesthetic and illumination characteristics. Color of fixtures would blend into the desert environment.

8. Project Phasing and Conceptual Grading

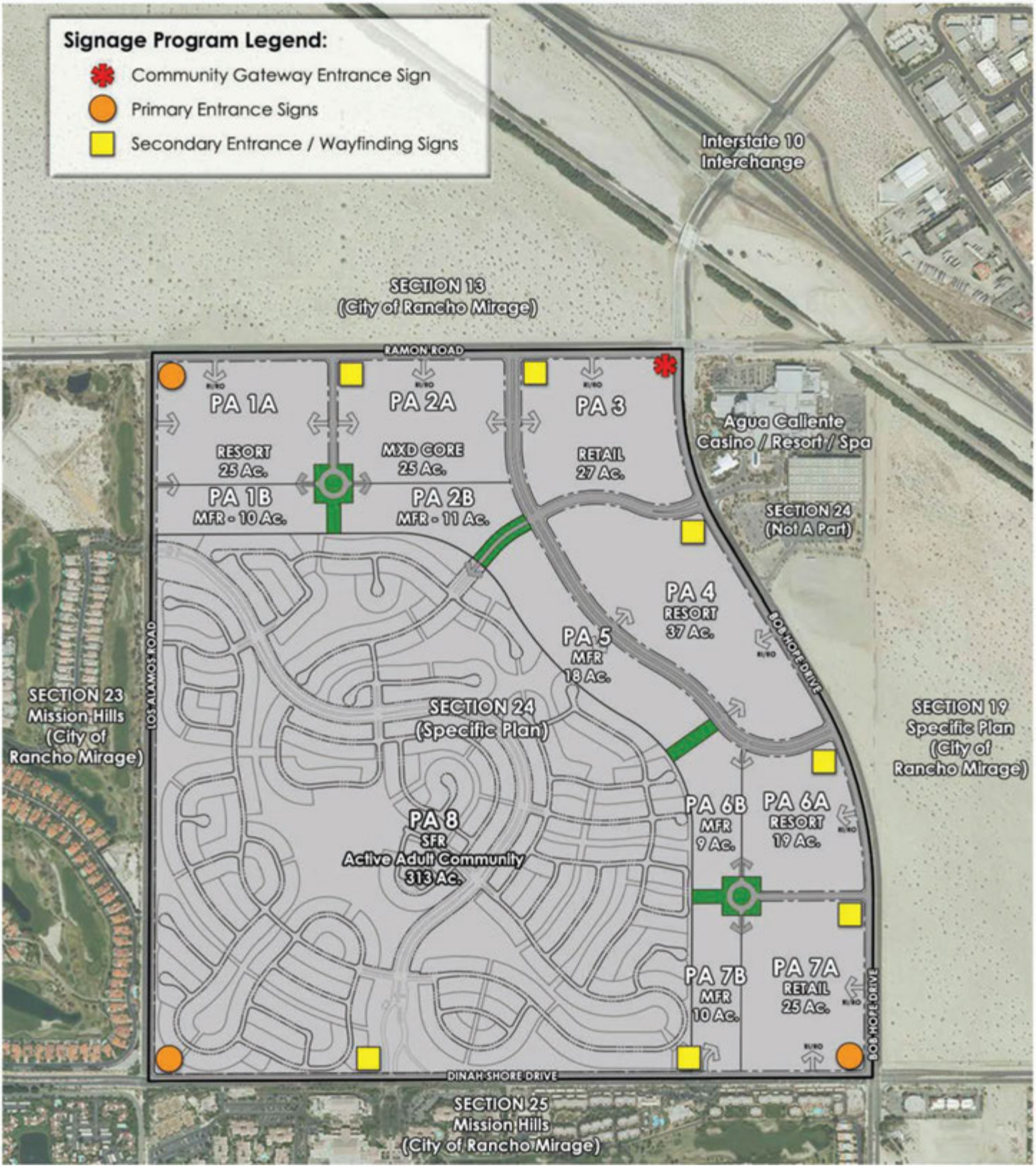
Phasing

It is anticipated that the Project would be developed in two phases, with buildout of the first phase projected for 2022 and buildout of the final phase projected for 2035. The Active Adult Community would be developed during the first phase of construction and would require six to eight years to complete. Development of the Active Adult Community would consist of up to 1,200 single-family units for senior adults. No timeframe has been established for the development of the Tribal Planning Areas.

Development of the Tribal Planning Areas would consist of up to 3,138,600 square feet of non-residential development and up to 1,206 multi-family residential units. Buildout of the entire Project Site is anticipated to occur by 2035.

Conceptual Grading

In order to reduce the impact of the existing topography, which has maximum slopes of over 8 percent, the proposed contours shift the highpoint to the center area of the Active Adult Community and gradually slope the land to the northeast at a maximum of 2.3 percent, as shown in **Figure 3.0-15, Conceptual Interim Cut/Fill Plan**. The slopes to the southwest would not exceed 1.3 percent. The Active Adult Community requires earthwork of 234,400 cubic yards of soil that is offset from the Tribal Planning Areas.

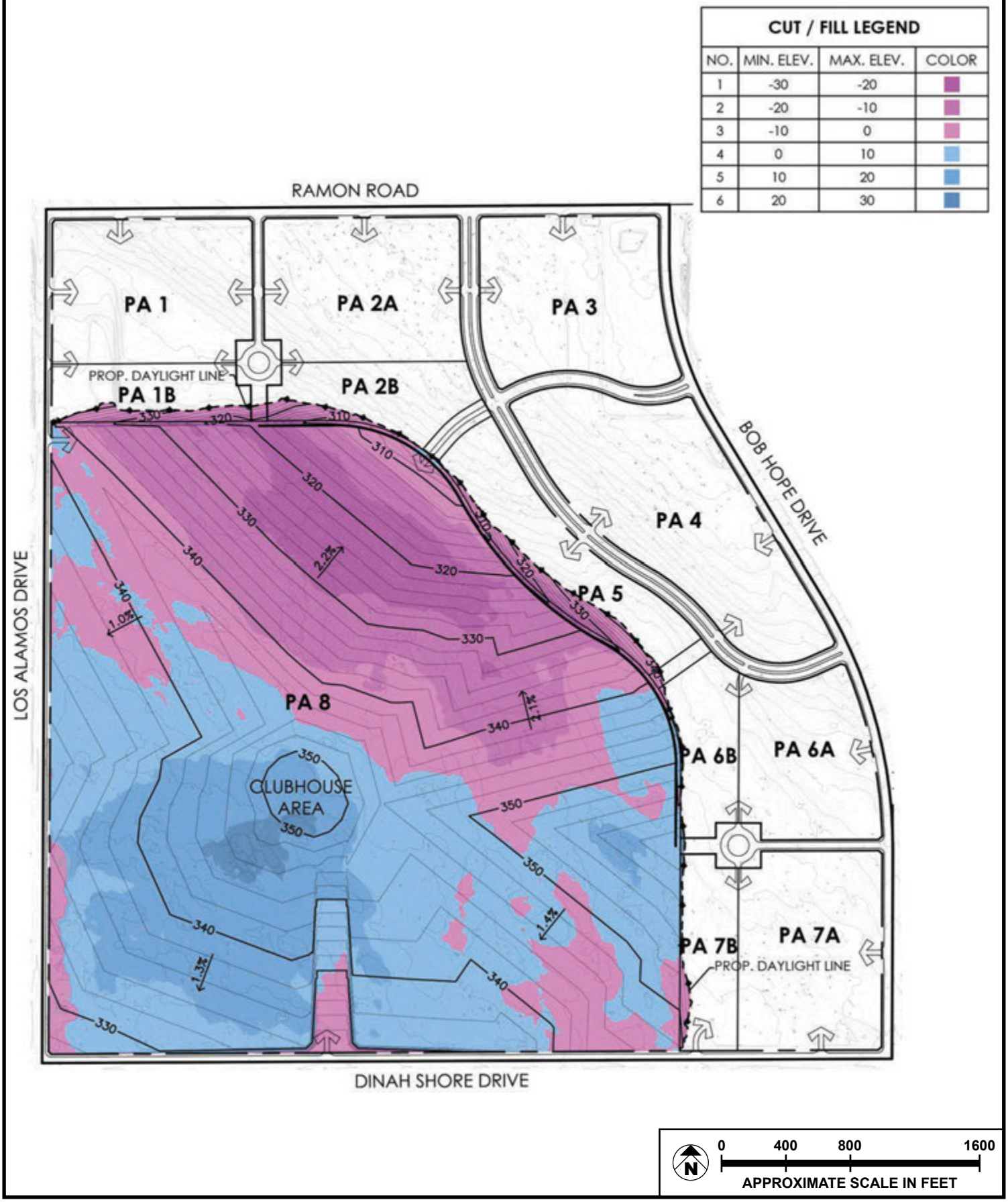


SOURCE: MSA Consulting Inc. - September 2014.

FIGURE **3.0-14**

SECTION 24 SPECIFIC PLAN

Conceptual Signage Location Map



SOURCE: MSA Consulting Inc. - September 2014.

FIGURE **3.0-15**

SECTION 24 SPECIFIC PLAN

Conceptual Interim Cut/Fill Plan

044-001-13

A vertical division of approximately 20 feet has been created to separate the Active Adult Community from the balance of the Tribal Planning Areas. A slope to the north, northeast, and east would be provided at a maximum slope of 3 to 1 at the property line between the Active Adult Community and the Tribal Planning Areas. Planning Areas 1 and 2 propose contours slopes northeast at 2.6 percent, as shown in **Figure 3.0-16, Conceptual Ultimate Cut/Fill Plan**. The access points are close to the existing elevations of the public streets on the west and north sides of these Planning Areas. Planning Area 3 would slope to the northeast at 1.1 percent. The access points are close to the elevations of the roads to the north, west and south. The northeast corner would be elevated approximately 10 feet above the intersection of Ramon Road and Bob Hope Drive to accentuate the future land uses.

Planning Area 4 would have a slope of 2.8 percent in the northeast direction. This Planning Area would be fronted by a steep section of Bob Hope Drive at 3.3 percent. The slope on Planning Area 4 would be impacted by the adjacent elevation of Planning Area 5 in order to limit the vertical differential between the two Planning Areas. Planning Area 5 would slope at 2.2 percent to the north. Planning Area 6 would slope 2.7 percent to the north and 2.3 percent to the south. Planning Area 7 would slope at 1.1 percent to the east.

The overall site balances with unclassified earthwork of 4.5 million yards of soil cut and fill using 20 percent shrinkage and 0.10 feet subsidence. **Figure 3.0-17, Conceptual Mass Grading Plan** illustrates the final topographical elevations and slopes of the Project Site.

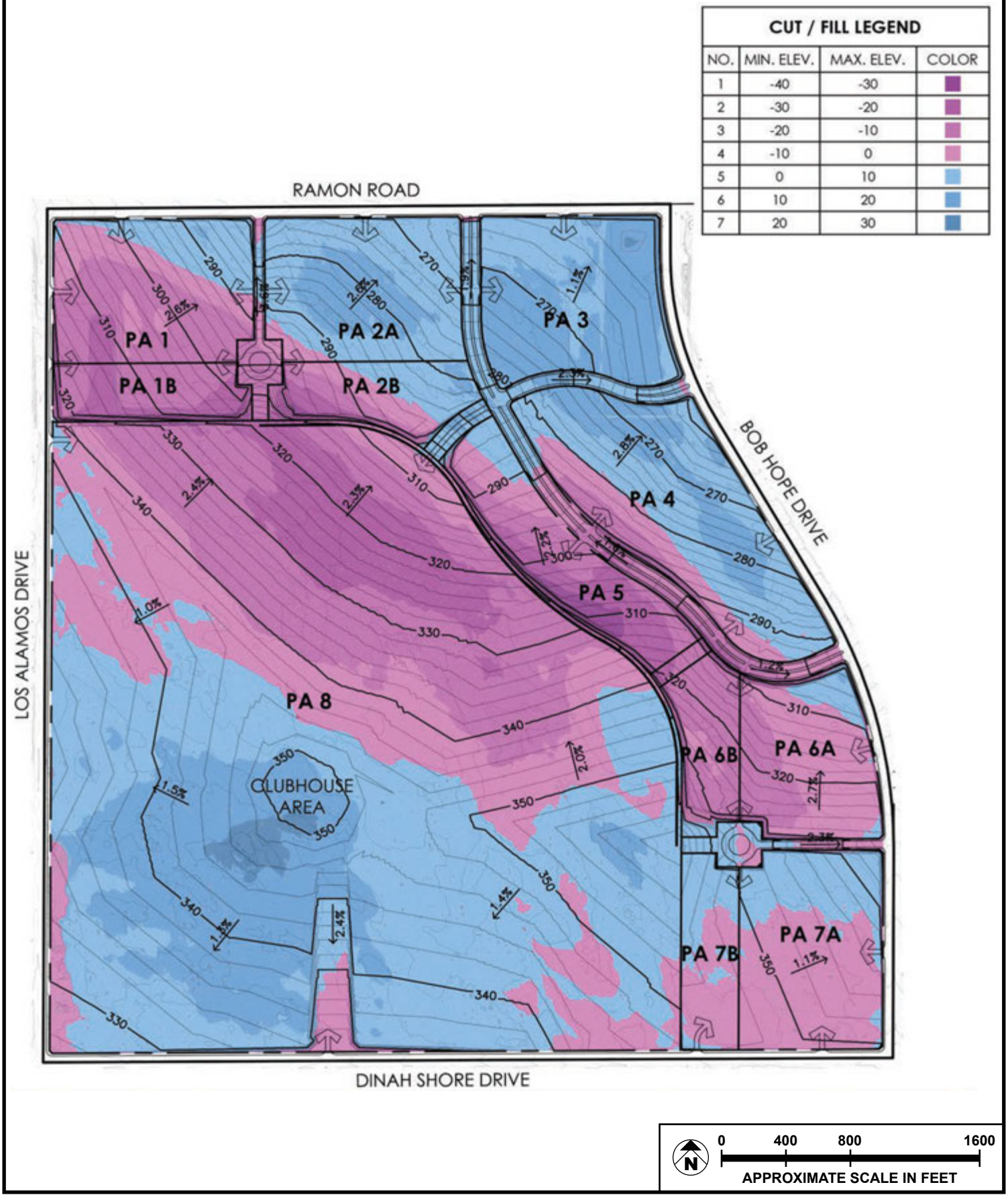
D. INTENDED USES OF THIS EIS

The Draft EIS examines the environmental impacts of the Project. It is the intent of this Draft EIS to enable the Tribe, other responsible agencies, and interested parties to evaluate the environment impacts of the Project, thereby enabling them to make informed decisions with requested entitlements. Because the Draft EIS has been prepared as a Project Level EIS for the Active Adult Community and as a Program EIS, subsequent activities within the program (i.e., site-specific development projects proposed within the Tribal Planning Areas) must be evaluated to determine whether additional TEPA documentation would need to be prepared in accordance with Tribal Ordinance No. 28.

The CEQA Guidelines require an EIR to include a statement briefly describing the intended uses of the EIR, including a list of agencies expected to use the EIR in their decision making and the list of the permits and other approvals required to implement the project. This Draft EIS will follow the CEQA guidelines and has identified a list of agencies expected to use this EIS. The Specific Plan requires approval by the Tribal Council, approval of annexation into the City by LAFCo, and various approvals by the City, as identified in **Table 3.0-2, Intended Uses of the EIS**.

Table 3.0-2
Intended Uses of the EIS

Lead Agency	Action
Agua Caliente Band of Cahuilla Indians	• Record of Decision of EIS • Approval of the Section 24 Specific Plan • Adoption of the Section 24 Specific Plan • Parcel Map to Reconfigure Allottee Parcels • Consent to Annexation • Approval of Tentative Tract Maps and permits for future project development in the Tribal Planning Areas (Planning Areas 1 through 7)
Responsible Agencies	**Action**
City of Rancho Mirage	• Certification of EIS • Adoption of the Section 24 Specific Plan • Approve Request for Annexation • Approval of Tentative Tract Maps and permits for future project development in the Active Adult Community (Planning Area 8)
Local Agency Formation of Riverside County	• Approve Annexation of the Project Site into the City of Rancho Mirage

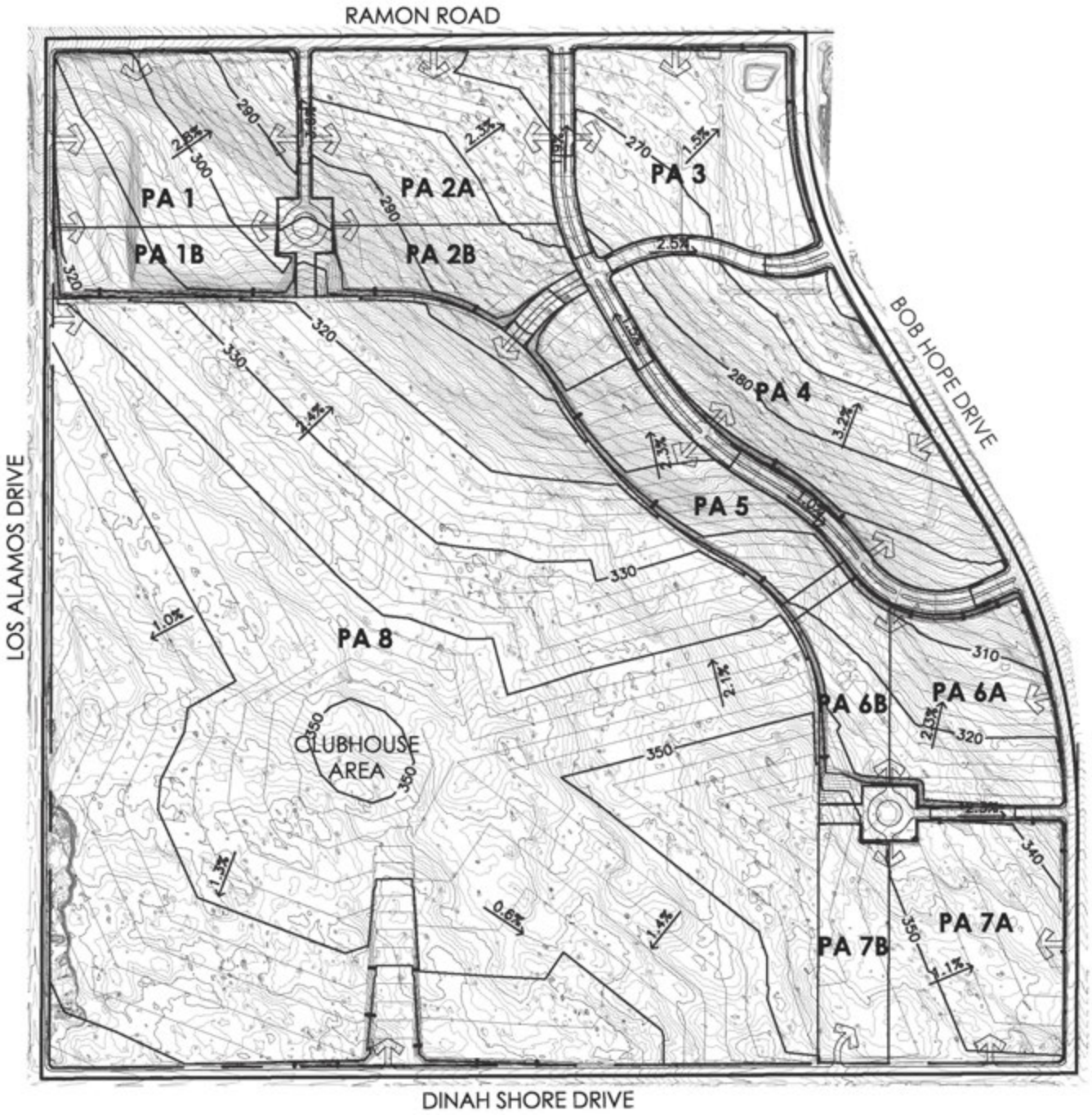


SOURCE: MSA Consulting Inc. - September 2014.

FIGURE **3.0-16**

SECTION 24 SPECIFIC PLAN

Conceptual Ultimate Cut/Fill Plan



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APPROXIMATE SCALE IN FEET

SOURCE: MSA Consulting Inc. - September 2014.

FIGURE **3.0-17**

SECTION 24 SPECIFIC PLAN

Conceptual Mass Grading Plan

4.0 ENVIRONMENTAL SETTING

This Section provides a general overview of the existing environmental setting of the Project Site as well as an overview of related projects that are considered as part of the future conditions in evaluating potential cumulative environmental impacts. TEPA was adopted to ensure the protection of natural resources and the environment within the Agua Caliente Indian Reservation ("Reservation") by establishing standards for the review and consideration of environmental impacts associated with development of the Reservation. When it is determined through preliminary review that a proposed project may result in significant impacts to the quality of the natural environment, preparation of an EIS in accordance with the process defined in TEPA is required. The Lead Agency, the Agua Caliente Band of Cahuilla Indians ("Tribe"), is preparing this EIS in compliance with the provisions of CEQA. Section 15125 of the *CEQA Guidelines* requires the environmental impact analysis of a proposed project to include a description of the physical environmental conditions in the vicinity of a proposed project at the time the Notice of Preparation is published and states this environmental setting will normally constitute the baseline physical conditions used to determine if an impact is significant. The purpose of describing and defining the environmental setting is to define the baseline physical conditions to determine the significance of the environmental impacts resulting from the Project.

A. REGIONAL ENVIRONMENTAL SETTING

1. Regional Location

The Project Site is located in the central part of the Coachella Valley, a low valley sandwiched between the Santa Rosa Mountains to the south and the Little San Bernardino Mountains to the north. The valley is part of the Colorado Desert Geomorphic Province, an area that includes both sides of the lower Colorado River and the Coachella and Imperial Valleys of California. The Project Site consists of unincorporated Reservation land surrounded by the City of Rancho Mirage and within its Sphere of Influence. As shown in **Figure 3.0-1, Regional Location Map**, the City of Rancho Mirage is bound by the communities of Thousand Palms to the north, Palm Desert to the east, Indian Wells to the southeast, and Palm Springs and Cathedral City to the west.

2. Regional Planning Considerations

Air Quality Management Plan

Section 24 is located within the Salton Sea Air Basin (SSAB), which spans the Coachella Valley portion of the County of Riverside and the entire County of Imperial. Air quality management of the Riverside County portion of the SSAB is overseen by the South Coast Air Quality Management District (SCAQMD).

The Riverside County portion of the SSAB is bound by the San Jacinto Mountains to the west and spans eastward up to the Palo Verde Valley.

SCAQMD and the Southern California Association of Governments (SCAG) are responsible for formulating and implementing the Air Quality Management Plan (AQMP) for the SSAB. The AQMP is a comprehensive plan that includes control strategies for stationary and area sources, as well as for on-road and off-road mobile sources.

The US Environmental Protection Agency (USEPA) is responsible for the implementation of the Clean Air Act on Tribal lands; State and local agencies, such as SCAQMD and SCAG, do not have jurisdiction. However, although not required to do so, this Project will comply with SCAQMD air quality regulations. This voluntary compliance does not include submission of the Tribe to SCAQMD authority or the payment of any fees by the Tribe to SCAQMD.

Coachella Valley PM10 State Implementation Plan

The SSAB is designated as a serious nonattainment area for particulate matter (PM) 10. The attainment date for serious nonattainment areas to achieve the PM10 National Ambient Air Quality Standards (NAAQS) was 2001. After years of demonstrating attainment of the PM10 standards prior to 1999, PM10 levels during the next three years (1999-2001) did not demonstrate attainment of the annual average PM10 NAAQS. Under the federal Clean Air Act, an area can request an extension of up to five years to attain the PM10 NAAQS if certain requirements are met, including creation of a State Implementation Plan (SIP) that demonstrates expeditious attainment of the standards. Thus, SCAQMD established additional strategies for the control of PM10 in the Coachella Valley PM10 State Implementation Plan (CVSIP), which was most recently updated in 2003. The 2003 CVSIP updates the emission inventories, emission budgets, and attainment modeling for the SSAB.

2012 Air Quality Management Plan

The most recent adopted comprehensive plan is the 2012 AQMP, which was adopted in February 2013, and incorporates significant new scientific data primarily in the form of updated emissions inventories, ambient measurements, new meteorological episodes, and new air quality modeling tools. The 2013 AQMP proposes attainment of the federal 24-hours PM2.5 standard by 2014 in the South Coast Air Basin through adoption of all feasible measures. The AQMP also includes an update on the current air quality status of the SSAB. Additionally, the AQMP provides local guidance for the SIP, which provides the framework for air quality basins to achieve attainment of the State and federal ambient air quality standards. Areas that meet ambient air quality standards are classified as attainment areas, while areas that do not meet these standards are classified as nonattainment areas.

Southern California Association of Governments

The Southern California Association of Governments is a council of governments representing Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties. SCAG is the federally recognized Metropolitan Planning Organization (MPO) for this region, which encompasses over 38,000 square miles. SCAG is a regional planning agency and a forum for addressing regional issues concerning transportation, the economy, community development, and the environment. SCAG is also the regional clearinghouse for projects requiring environmental documentation under federal and State law. In this role, SCAG reviews proposed development and infrastructure projects to analyze their impacts on regional planning programs. As the southern California region's MPO, SCAG cooperates with SCAQMD, the California Department of Transportation (Caltrans), and other agencies in preparing regional planning documents. SCAG has developed regional plans to achieve specific regional objectives.

Regional Transportation Plan

SCAG is the authorized regional agency for intergovernmental review of programs proposed for federal financial assistance and direct development activities. SCAG consists of local governments from Los Angeles, Ventura, Orange, San Bernardino, Riverside, and Imperial counties. SCAG is also responsible for the designated Regional Transportation Plan (RTP) including its Sustainable Communities Strategy (SCS) component pursuant to Senate Bill (SB) 375. The Sustainable Communities Strategy has been formulated to reduce greenhouse gas (GHG) emissions from passenger vehicles by 8 percent per capita by 2020 and by 13 percent per capita by 2035 compared to 2005 targets set by the California Air Resources Board (CARB).

The 2012–2035 RTP/SCS links the goal of sustaining mobility with the goals of fostering economic development, enhancing the environment, reducing energy consumption, promoting transportation-friendly development patterns, and encouraging fair and equitable access to residents affected by socioeconomic, geographic, and commercial limitations. The Project's consistency with the applicable RTP/SCS policies is analyzed further in **Section 5.9, Land Use and Planning.**

Coachella Valley Association of Governments

The Coachella Valley Association of Governments (CVAG) is a sub-regional organization within SCAG**.** CVAG operates as the lead agency and as part of larger jurisdictional or regional teams within the Coachella Valley, made up of nine cities, Riverside County and three Native American Indian tribes. CVAG represents member local governments and agencies throughout the Coachella Valley seeking cooperative sub-regional and regional planning, coordination and technical assistance on issues of mutual concern. CVAG comprises several departments, including an Energy and Environmental

Resources Department that monitors and implements both regional and local plans related to energy and air quality issues, waste management, water quality, habitat conservation planning and trails issues.

Tribal Habitat Conservation Plan

The Agua Caliente Indian Reservation includes approximately 31,500 acres of Reservation lands within the Coachella Valley. These lands contain natural resources and habitat that are very integral to the Tribe's heritage and culture. The Tribe has recognized the importance of protecting the Reservation's natural resources; consequently, the Tribal Habitat Conservation Plan (THCP) was adopted by the Tribe to provide strategies for managing these natural resources while also supporting the goals established by the US Fish and Wildlife Service (USFWS) to protect sensitive species and habitat.

The THCP is intended to support the issuance of an incidental take permit to the Tribe from USFWS under Section 10(a)(1)(B) of the Federal Endangered Species Act (FESA) for 24 covered species, including 21 sensitive wildlife and 3 sensitive plant species. Several of these species are listed as threatened or endangered under the ESA. Listed covered species include, but are not limited to, the Coachella Valley fringe-toed lizard, Coachella Valley milk vetch, peninsular bighorn sheep, least Bell's vireo, southwestern willow flycatcher, California red-legged frog, and mountain yellow-legged frog. Protection for covered species and the habitats that support them would be afforded through the Tribe's conservation program.

B. LOCAL ENVIRONMENTAL SETTING

1. Location and Land Use

The Project consists of the development of a specific plan for the approximately 577-acre Project Site. The Project Site is located on the Reservation in unincorporated Riverside County within the northeastern portion of the City of Rancho Mirage's Sphere of Influence, as shown in **Figure 3.0-2, Project Location Map**. Section 24 is surrounded by properties previously annexed within the City of Rancho Mirage and bound by Ramon Road on the north, Bob Hope Drive on the east, Dinah Shore Drive on the south, and Los Alamos Road on the west. The existing characteristics of the Project Site are illustrated in **Figure 4.0-1, Project Site Photographs.**

The Project Site is undeveloped and consists of approximately 577 acres of relatively undisturbed desert lands within the Coachella Valley. The Project Site is located in the Colorado Desert Geomorphic Province of California. This province consists of numerous north-south trending mountain ranges, such as the San Bernardino Mountains to the north, the Santa Rosa Mountains to the south, and the San Jacinto Mountains to the west.

Bob Hope Drive and Ramon Road intersection looking southwest across Project Site

Near Ramon Road along Los Alamos Road looking northeast across Project Site

FIGURE **4.0-1a**

Los Alamos Road and Dinah Shore Drive intersection looking east across Project Site

Los Alamos Road and Dinah Shore Drive intersection looking northeast across Project Site

FIGURE **4.0-1b**

Dinah Shore Drive near The Westin entrance looking northwest across Project Site

Dinah Shore Drive near The Westin entrance looking west across Project Site

FIGURE **4.0-1c**

Vegetation on the Project Site consists of the Sonoran creosote bush scrub community as the dominating landscape feature. Project Site elevations range from 356 above mean sea level (amsl) to 248 amsl with a gently southwest to northeast sloping ground. There is no evidence on the Project Site of any surface water, groundwater depths are estimated to be greater than 50 feet below the surface and the soil, and the soil is not saturated.

The Project Site includes several assessors' parcels: APNs 673-120-021, -022, -023, -024, and -025. As shown in **Figure 4.0-2, Section 24 Specific Plan Property Ownership**, the land within the Project Site includes land held in trust for the Tribe and land owned by individual members of the Tribe.

2. Surrounding Land Uses

Development in the City of Rancho Mirage to the south and west consists of private resorts and gated communities. The Agua Caliente Casino/Resort/Spa, located adjacent to the eastern boundary, occupies a 36-acre parcel consisting of a gambling floor, spa and fitness center, meeting space venues, and parking areas. The other major development within proximity to the Project Site is the Westin Mission Hills Golf Resort & Spa, which is located immediately south and west of the Project Site. Interstate 10 and the Union Pacific Railroad (UPRR) rail corridor is located approximately 725 feet to the northeast of the Project Site.

C. ENVIRONMENTAL RESOURCES AND INFRASTRUCTURE

Aesthetics

The portion of the Coachella Valley the Project Site is located in is visually defined by the San Bernardino Mountains to the north, the Santa Rosa Mountains to the south, and the San Jacinto Mountains to the west. The topography of the Project Site, as shown in **Figure 4.0-3, Existing Topography,** and the surrounding area is generally flat with elevations ranging from approximately 200 and 400 feet amsl. The Project Site is surrounded various residential and resort uses including the Agua Caliente Casino/ Resort/Spa along the northeast boundary. The view of the Project Site is predominantly defined by the natural and visual resource of the San Jacinto and Santa Rosa Mountains. Please refer to **Section 5.1, Aesthetics,** for further discussion on the Project's impacts to the visual impacts of the area.

Air Quality and Greenhouse Gas Emissions

The Project Site lies within the SSAB, which spans the Coachella Valley portion of the County of Riverside and the entire County of Imperial. Air quality management of the Riverside County portion of the SSAB is overseen by the SCAQMD. The Riverside County portion of the SSAB is bound by the San Jacinto Mountains to the west and spans eastward up to the Palo Verde Valley. The SSAB and the adjacent Mojave Desert Air Basin were previously included in a single large air basin known as the Southeast

Desert Air Basin. However, the CARB has subdivided this larger basin into the two separate air basins that are in place today.

The SSAB is classified as having a desert climate characterized by low precipitation, hot summers, mild winters, low humidity, and strong temperature inversions. The annual average temperature varies little throughout the SSAB, ranging from the low 40s to the high 100s, measured in degrees Fahrenheit (°F). The Western Regional Climate Center (WRCC) maintains historical climate information for the western U.S., including the City of Palm Springs. The closest meteorological monitoring station to the Project Site is in the City of Palm Springs and is monitored by WRCC Station ID No. 046635. According to this Station, the average maximum temperature in the local vicinity is 108.2°F in July. The average minimum temperature is reported at 42.3°F in December and January.

In relation to other areas of southern California, the City of Rancho Mirage has good air quality. In the past few decades, however, noticeable deterioration of air quality has occurred due to transport of pollutants from coastal air basins to the west, primarily ozone, and locally generated PM10 as a result of increased development and population growth, traffic, construction activity, and various site disturbances. The Project's potential air quality and greenhouse gas impacts are discussed in **Section 5.2, Air Quality.**

Biological Resources

The Project Site is historically undeveloped vacant land that consists of partially stabilized desert dune sand soil materials with the dominating vegetation being that of the Creosote Bush Scrub Mix. There are no drainages traversing the Project Site nor are there any potential jurisdictional waters or wetland areas that are present on the Site.

Previous biological surveys performed on the Project Site have identified an array of wildlife, some of which include the flat-tailed horned lizard, the burrowing owl, loggerhead shrike, and desert kangaroo rat. The only federally protected species found on the Project Site is the threatened Coachella Valley fringe-toed lizard. There are no specific wildlife corridors that were identified within or adjacent to the Project Site. The Project's potential impacts to biological resources are further discussed in **Section 5.3, Biological Resources.**

Cultural Resources

The Project Site is located in a portion of the Coachella Valley identified as having low to moderate prehistoric/ethnohistoric cultural resource sensitivity. The Coachella Valley consists of alternating lacustrine and fluvial sediments, termed the Lake Cahuilla beds, which have previously yielded fossil

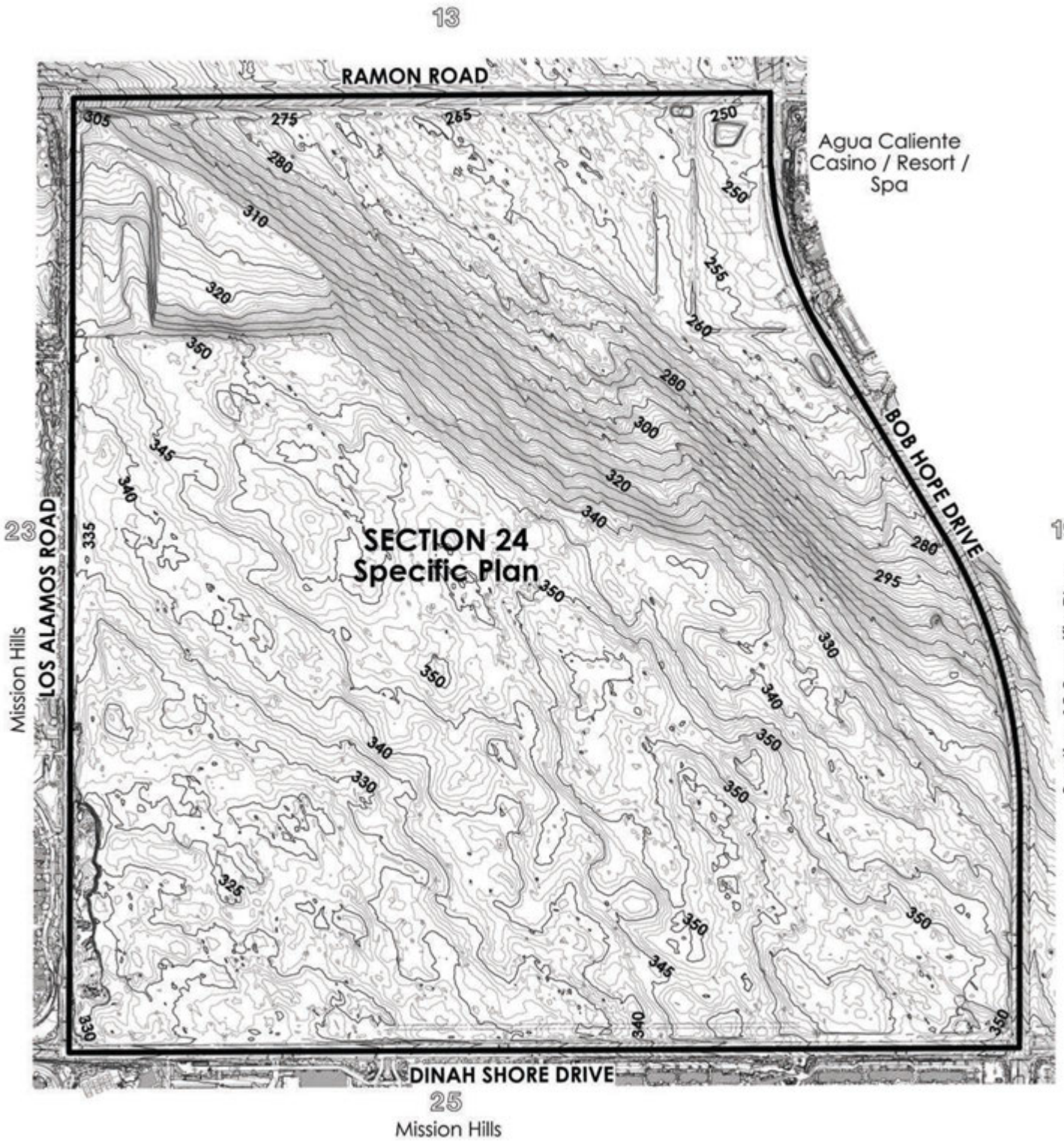
SOURCE: MSA Consulting - 2014

FIGURE **4.0-2**

SECTION 24 SPECIFIC PLAN

Section 24 Specific Plan Property Ownership

044-001-13



SOURCE: MSA Consulting Inc. - September 2014.

FIGURE **4.0-3**

SECTION 24 SPECIFIC PLAN

Existing Topography

044-001-13

remains representing diverse freshwater diatoms, land plants, sponges, ostracods, mollusks, fish, and small terrestrial vertebrates. The Project Site consists of property that historically has been undeveloped with minimal human activity and does not contain any historical resources of significance. The Project's impacts on cultural resources are analyzed in **Section 5.4, Cultural Resources.**

Geology and Soils

The Project Site is located within the Coachella Valley in the northern part of the Colorado Desert Geomorphic Province with elevations ranging from approximately 200 and 400 feet amsl. The Colorado Desert Geomorphic Province consists of numerous north-south trending mountain ranges, such as the San Bernardino Mountains to the north, the Santa Rosa Mountains to the south, and the San Jacinto Mountains to the west. Additionally, this Province is bound on the east by the Colorado River, on the south by the Baja California border, on the north by the Transverse Ranges Province, on the northeast by the Mojave Desert Province, and on the west by the Peninsular Ranges Province.

The Coachella Valley is heavily prone to wind-blown sand erosion hazards as a result of the fierce winds that funnel through the steep mountain ranges. Areas at the base of the mountains are more sheltered from these hazards since the winds are not as strong. The regional tectonic subsidence along the Coachella Valley floor along with the uplift of adjacent mountains is responsible for the rapid deposition of poorly consolidated soils susceptible to consolidation and/or collapse.

The Project Site is located in a moderately active seismic region, with the San Andreas Fault Zone being the major structural feature for the region. Ground shaking due to earthquakes should be anticipated during the life of the proposed improvements at the Project Site. The US Geological Survey (USGS) and California Geology Survey (CGS) have identified 28 active, or potentially active, faults located within approximately 60 miles of the Project Site. Each of these faults is believed to be capable of producing sizeable earthquake events with significant ground motions that would be experienced at the Project Site. Lastly, the Project Site is not supported by any onsite septic tank systems. Potential impacts to geology and soils as a result of the Project are further discussed in **Section 5.5, Geology and Soils.**

Hazards and Hazardous Materials

As an extension of the State Emergency Plan, the City of Rancho Mirage maintains a Multi-Hazard Functional Plan (MHFP) that addresses the planned response to extraordinary emergency situations associated with natural or human caused disasters, technological incidents, and nuclear defense operations. Additionally, the City of Rancho Mirage falls under the Riverside County Hazardous Waste Management Plan (HWMP), which serves to provide a framework for the management of the County's hazardous substances.

The Project Site is not identified to be on a list of hazardous materials sites as defined in Government Code Section 65962.5. The Project Site has historically been undeveloped and vacant with little evidence of any human disturbance. According to the Phase I and Limited Phase II Environmental Site Assessment that was prepared, the Project Site does not use or store any hazardous materials. The only evidence of potentially hazardous materials is a pad-mounted transformer in the eastern portion of the Project Site, approximately 7,800 cubic yards of soil stockpiles in the western portion of the Site, and a PVC riser in the south portion of the Project Site. The Project's potential impacts to hazards and hazardous materials are discussed in **Section 5.7, Hazards and Hazardous Materials.**

Hydrology and Water Quality

The Project Site is within the boundaries of the Coachella Valley planning area of the Colorado River Basin (Region 7), which is under the jurisdiction of the Colorado River Basin Regional Water Quality Control Board (CRWQCB). Region 7 covers approximately 13,000,000 acres (20,000 square miles) in the southeastern portion of California, and includes all of Imperial County and portions of San Bernardino, Riverside, and San Diego Counties. The Coachella Valley planning area consists of the Whitewater River Watershed and East Salton Sea Watershed, with the Project Site being within the Whitewater River Watershed. The Whitewater River passes approximately three miles southwest of the Project Site.

Based on surface topography, drainage across the Project Site is generally from the northwest to the northeast towards the I-10/UPRR transportation corridor via sheet flow following natural drainage courses. The runoff continues to drain southeasterly in its existing flow path along the southern ballast embankment of the UPRR railroad tracks into the City of Palm Desert. No storm drains exist within the Project Site and no natural water bodies or mapped drainage courses are present in the Project Site. According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Map Number's 06065C1585G and 06065C1595G, both effective August 28, 2008, the Project Site is not located within a designated 100-year flood hazard area. CVWD, however, designates the northeastern portion of the Project Site adjacent to Bob Hope Drive and Ramon Road as within a 100-year flood hazard area. The Project's potential impacts on hydrology and water quality are analyzed in **Section 5.8, Hydrology and Water Quality.**

Land Use and Planning

The Project Site is currently under the sovereign authority of the Agua Caliente Band of Cahuilla Indians. As established in the Tribal Land Use Ordinance, the land use designations of the Project Site are identified in **Figure 4.0-4, Tribal Land Use Ordinance Zoning Districts.** As shown, the Project Site is comprised of Specific Plan, Tribal Enterprise, and Land Use Contract (Riverside County) land use designations.

The Project Site is unincorporated territory and is addressed in the County of Riverside General Plan for this reason. The land use designations in the County General Plan are shown in **Figure 4.0-5, County of Riverside Land Use Designation Map,** and include commercial retail, medium density residential, and commercial tourist uses.

The Project Site is located within the Sphere of Influence of the City of Rancho Mirage as defined by the Riverside LAFCo. The City of Rancho Mirage uses a single-map system of its land uses. This means that the City's General Plan land use designations are the same as its zoning designations. Also, the density and intensity standards expressed in the General Plan are the same as those expressed in the Zoning Ordinance. As shown on **Figure 4.0-6, City of Rancho Mirage Land Use Designation Plan**, the majority of the 577-acre Project Site is currently designated for Medium Density Residential (R-M) use in the Land Use Element of the City's General Plan, with portions of the northern boundary designated as Community Commercial (C-C) and High Density Residential (R-H) uses.

The City's General Plan calls for the preparation of specific plans for major areas within the City's sphere, including the Project Site, which is identified as the "Sphere of Influence Area South of Ramon Road" in the General Plan. A full discussion of the Project's consistency with the City's General Plan is located in **Section 5.9, Land Use and Planning.**

Noise

Noise in an urban setting is primarily generated by vehicular traffic, but can also be generated by stationary sources of noise, such as mechanical equipment. Temperature, wind speed and direction, ground surfaces, vegetation, walls and buildings affect noise transmission and perceived noise levels. Noise levels are measured in terms of the A-weighted decibel (dB[A]). A-weighting is a frequency correction that correlates overall sound pressure levels to the frequency response of the human ear, with the normal range of human hearing extending from approximately 0 dB(A) to 140 dB(A). The noise rating scale used in California for land use compatibility assessment is the Community Noise Equivalent Level (CNEL). The CNEL scale represents a time-weighted, 24-hour average noise level based on the A-weighted decibel. Noise levels in the Project Site are influenced primarily by vehicular traffic on I-10,

Dinah Shore Drive, Los Alamos Road, and Bob Hope Drive, and from intermittent train traffic along the UPRR rail line. As shown in **Figure 4.0-7, Noise Monitoring Locations,** there were nine sites setup within proximity to the Project Site to measure existing CNEL noise levels with noise levels ranging from a low of 39.4 dB(A) to a high of 89.7 dB(A) at 50 feet from the roadway centerline. Existing noise sensitive land uses located near the Project Site include single-family residential uses to the south along Dinah Shore Drive and west of Los Alamos Road, and the Agua Caliente Casino/Resort/Spa to the northwest. Refer to **Section 5.10, Noise**, for further information concerning existing noise conditions in the Project Site and an analysis of this Project's impacts on the local noise environment.

Population and Housing

According to the California Department of Finance (DOF), as of January 1, 2014, the City of Rancho Mirage had a population of 17,745 with 14,322 housing units and an average household size of 1.99 people. The Project's impacts on population and housing are discussed in **Section 5.11, Population and Housing.**

Public Services

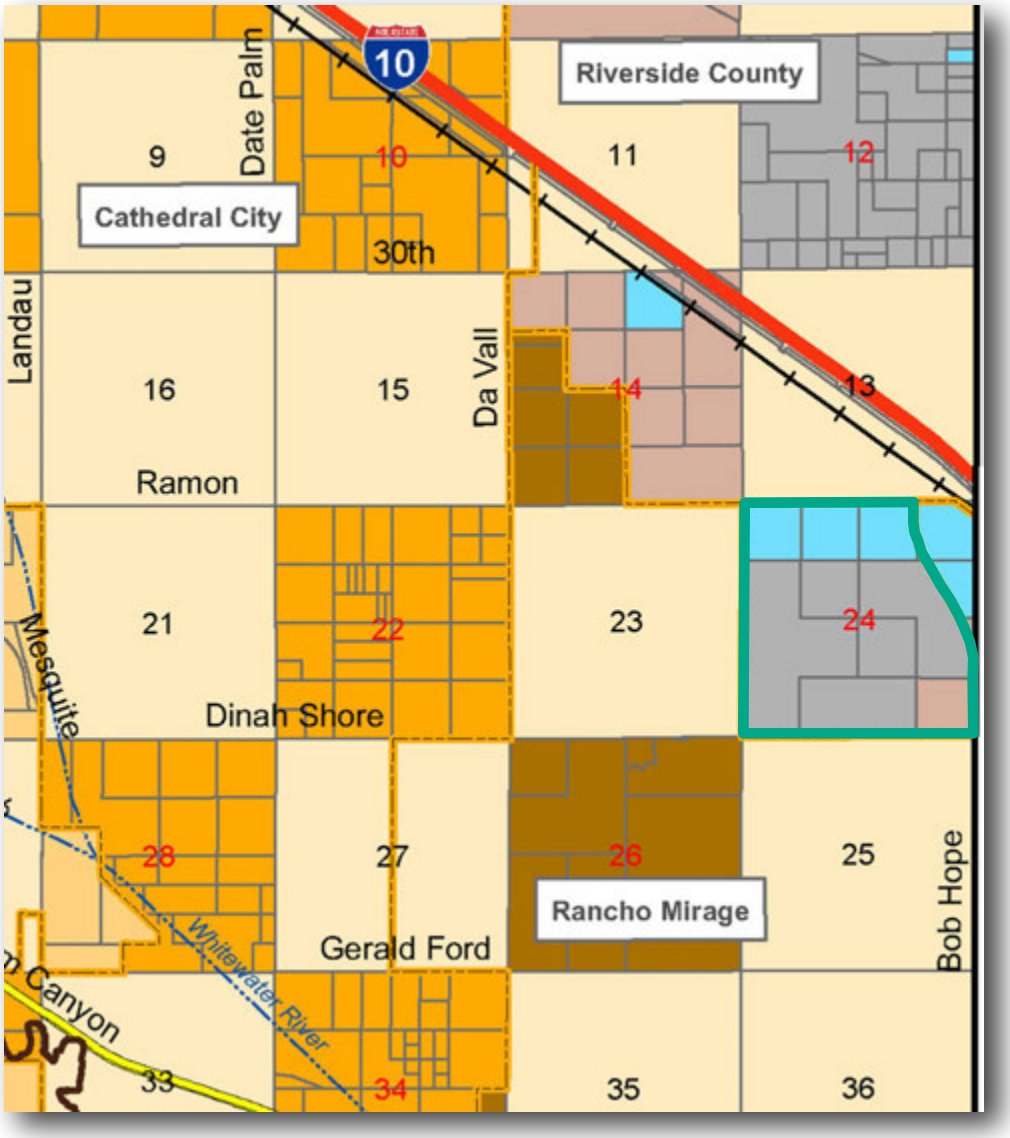
Fire Protection and Emergency Medical Services

The Riverside County Fire Department provides fire protection and emergency medical services to the Tribe and surrounding jurisdictions, including the City of Rancho Mirage. The Riverside County Fire Department is administered under contract by Cal Fire, and participates in a Regional Integrated and Cooperative Fire Protection System. This system provides local jurisdictions and surrounding areas with additional regional resources to respond to fire service calls when required. Fire protection services include response to vegetation and structure fires, hazmat, and public assists. There is currently one fire station within the City of Rancho Mirage, Station 69 located at 71751 Gerald Ford Drive (approximately 1.10 miles from Project Site), and one fire station in Thousand Palms, Station 35 located at 31920 Robert Road (approximately 0.85 miles from Project Site). Please refer to **Section 5.12.1, Fire Protection and Emergency Medical Services,** for further discussion on the Project's potential impacts to fire and emergency medical services.

Police Protection

The Project Site is currently located in an area that served by local law enforcement that enforces local, State, and federal laws pertaining to public safety, traffic, and public order. The City of Rancho Mirage Police Department contracts with the Riverside County Police Department for police protection services.

Since the City of Rancho Mirage does not currently have any public police stations within the City boundaries, the closest station to the Project Site is located at 73-705 Gerald Ford Drive in Palm Desert



Legend

Project Site

0 0.5 1 2

APPROXIMATE SCALE IN MILES

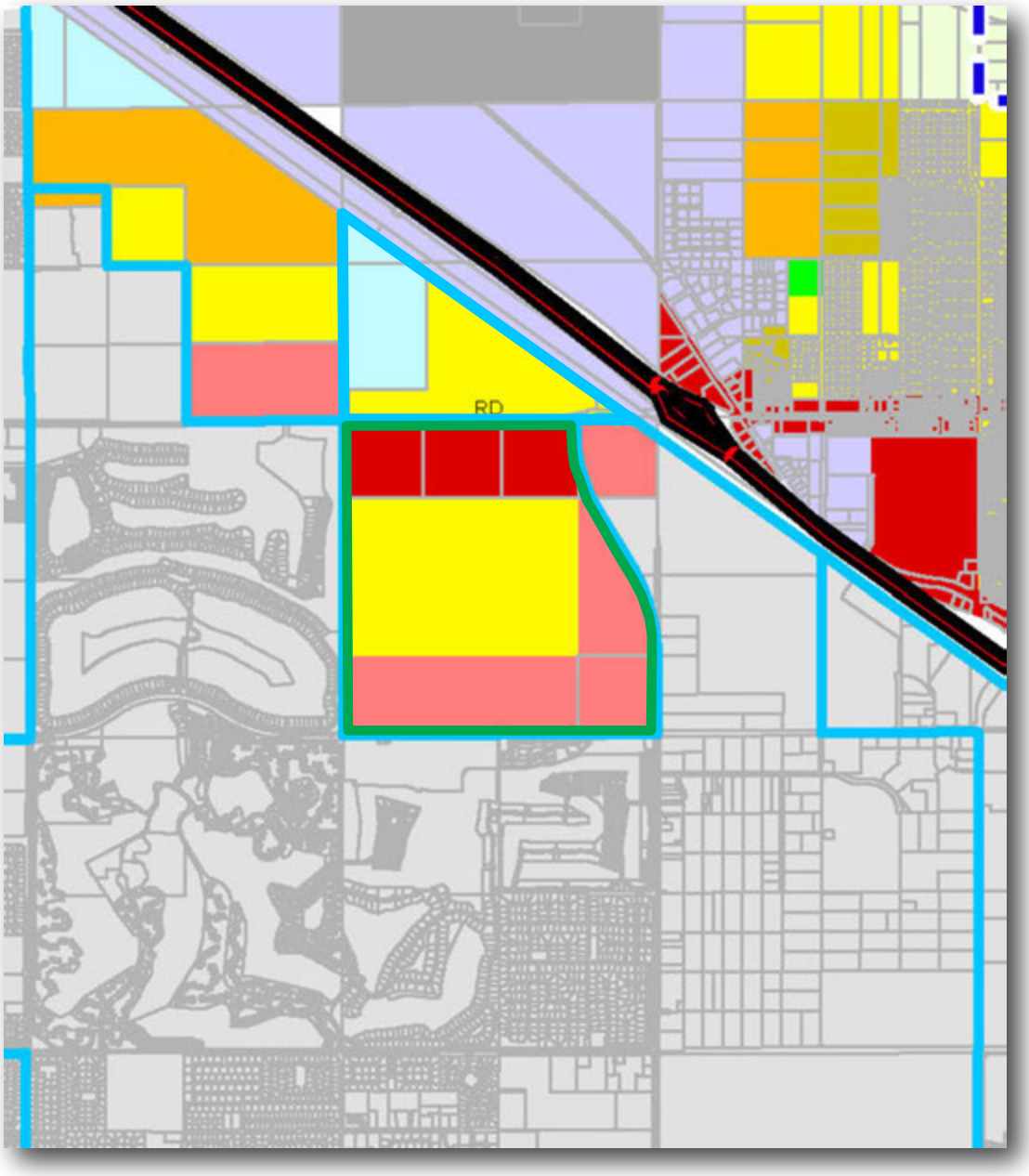
Zoning Districts

- Land Use Contract, Palm Springs
- Land Use Contract, Cathedral City
- Land Use Contract, Rancho Mirage
- Land Use Contract, Riverside County
- Specific Plan
- Tribal Enterprise
- Off Reservation
- Interstate 10
- Railroads
- Whitewater River
- Political Jurisdictions
- 14 Reservation Sections

SOURCE: Agua Caliente Band of Cahuilla Indians, Land Use Ordinance - October 2013

FIGURE **4.0-4**

Tribal Land Use Ordinance Zoning Districts



Legend

- Medium Density Residential (2 −5 D.U./acre)
- Medium High Density Residential (5 −8 D.U./acre)
- High Density Residential (8 −14 D.U./acre)
- Commercial Retail
- Commercial Tourist
- Light Industrial
- Public Facilities
- Open Space −Recreation

- Rancho Mirage City Boundary
- Project Site

0 3000 6000 12000

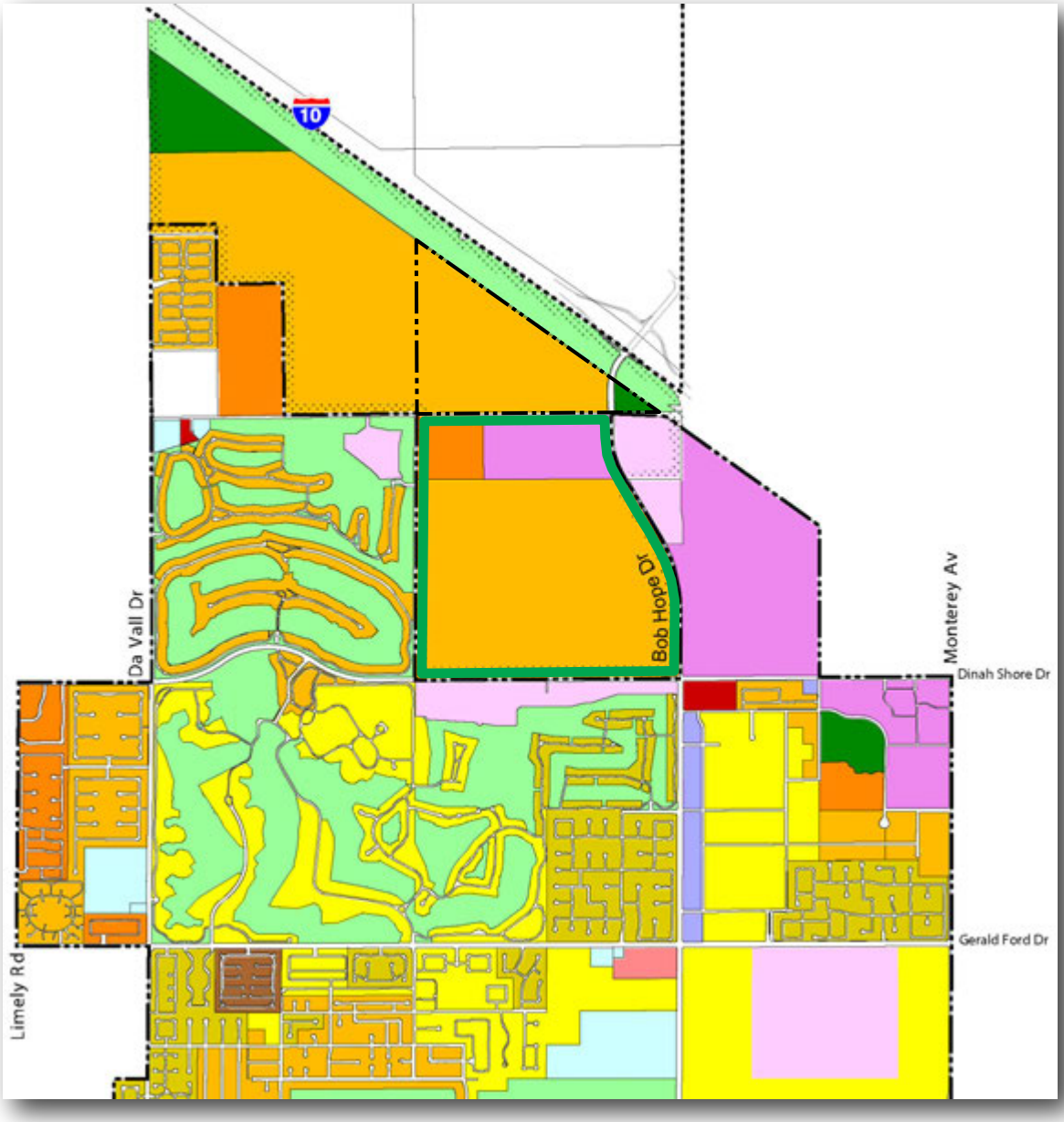
APPROXIMATE SCALE IN FEET

SOURCE: Riverside County, Western Coachella Valey Area Land Use Plan - 2003

FIGURE **4.0-5**

SECTION 24 SPECIFIC PLAN

County of Riverside Land Use Designation Map



Legend

RESIDENTIAL

- R-L-2 Very Low Density 2 du/ac Max.
- R-L-3 Low Density 3 du/ac Max.
- R-M Medium Density 4 du/ac Max.
- R-H High Density 9 du/ac Max.
- MHP Mobile Home Park 9 du/ac Max.

COMMERCIAL

- O Office
- C-N Neighborhood Commercial
- C-G General Commercial
- C-C Community Commercial
- Rs-H Resort Hotel

INSTITUTIONAL

- P Public/Quasi-Public
- P/CH City Hall
- P/FS Fire Station
- P/H Hospital
- P/S School
- P/L Library
- P/PO Post Office
- PU-SS Utility Substation

OPEN SPACE

- OS-PP Public Park
- OS-PV Private Open Space

Project Site

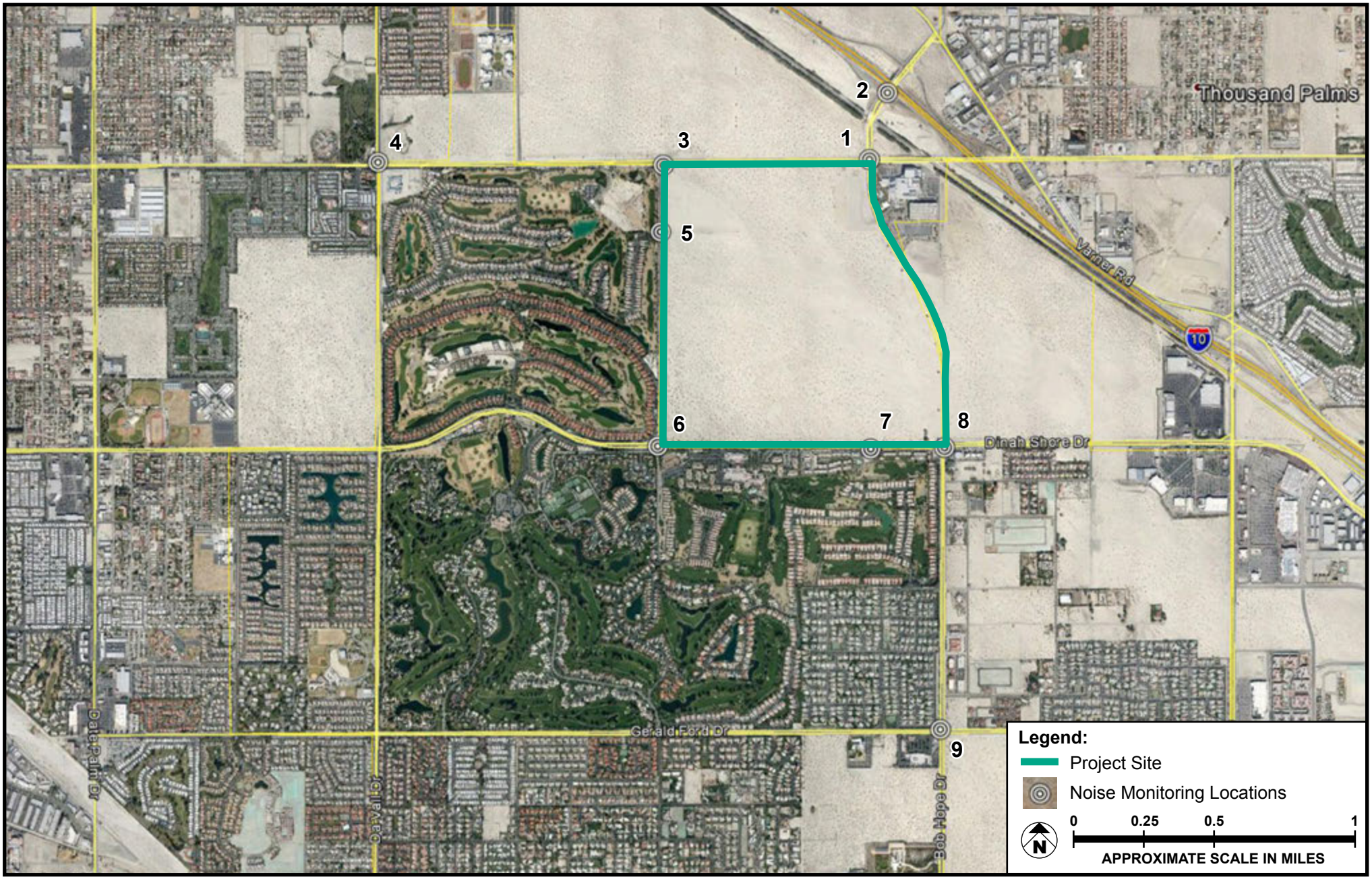
0 1750 3500 7000

APPROXIMATE SCALE IN FEET

SOURCE: City of Rancho Mirage General Plan, Land Use Element - 2005

FIGURE **4.0-6**

SECTION 24 SPECIFIC PLAN City of Rancho Mirage Land Use Designation Plan



SOURCE: Google Earth - 2014; Meridian Consultants - 2014

FIGURE **4.0-7**

Meridian Consultants

Noise Monitoring Locations

044-001-13

(approximately 4 miles southeast of Project Site). Please refer to **Section 5.12.2, Police Protection, Services** for further discussion on the Project's potential impacts to police protection services.

Schools

The City of Rancho Mirage is served by two public school districts: the Palm Springs Unified School District (PSUSD) and the Desert Sands Unified School District (DSUSD). The eastern portion of the City falls within the boundaries of the DSUSD and the western portion starting at Bob Hope Drive falls within the boundaries of the PSUSD. Since the Project Site falls on the western side of Bob Hope Drive, it is a part of the PSUSD attendance boundaries. The schools that would serve the Project Site are Rancho Mirage Elementary, Nellie N. Coffman Middle School, and Rancho Mirage High School. Please refer to **Section 5.12.3, School Services,** for further discussion on the Project's potential impacts to the local schools.

Libraries

The City of Rancho Mirage is served by the Rancho Mirage Public Library, located at 71100 Highway 111 (approximately 5.0 miles south of the Project Site). The Rancho Mirage Public Library operates independently from the Riverside County Library System (RCLS) due to the lack of funds available from the RCLS to support the City with a desirable level of service. Please refer to **Section 5.12.4, Library Services,** for further discussion on the Project's potential impacts to the City's library services.

Parks/Recreation

The City of Rancho Mirage provides a vast amount of recreational opportunities for its residents and visitors, including golf courses, tennis and basketball courts, playgrounds, and hiking trails. The City adopted their Park Master Plan to assess the community's local park needs to ensure sufficient recreational opportunities are available for its residents. The Park Master Plan also identifies the cross-utilization of recreational facilities between the Cove Communities (Palm Desert, Indian Wells, and Rancho Mirage). Please refer to **Section 5.13, Parks and Recreation**, for further discussion on the Project's potential impacts to parks and recreational facilities.

Traffic and Transportation

Regional facilities include Interstate 10, located approximately 0.25 miles north of the Project Site. Highway 111, located to the south of the Project Site, is a major arterial roadway linking Rancho Mirage with other cities throughout the Coachella Valley and Imperial Valley. Additionally, the UPRR located to the north of the Project Site accommodates two mainline tracks used for commercial and passenger rail traffic.

Access to the Project Site is provided in all directions with the existing local roadway network including Bob Hope Drive, Dinah Shore Drive, Los Alamos Road, and Ramon Road. The existing peak hour levels of service (LOS) without the Project for all the signalized and unsignalized intersections within proximity to the Project Site are all at or above satisfactory operations (LOS C or greater).

Alternative modes of transportation also exist within proximity to the Project Site. The SunLine Transit Agency provides bus line services to several communities and cities within the Coachella Valley. Line 32 directly serves the Project Site. Additionally, the Coachella Valley has a subscription-based transit service is available to residents with disabilities who need regular repetitive stops. Furthermore, the City of Rancho Mirage currently maintains a variety of golf cart/electric vehicle (EV), bicycle, and pedestrian paths that are accessible to the public. A full discussion of the Project's existing traffic conditions and potential impacts are located in **Section 5.14, Traffic and Transportation.**

Utilities and Service Systems

The Coachella Valley Water District (CVWD) provides water and wastewater services for the City of Rancho Mirage. Domestic, landscape irrigation, and fire protection water supply would also be provided by the CVWD in combination with the Mission Hills Pressure Zone, the Sky Mountain Pressure Zone, and up to seven pumping plants and well sites. Existing stormwater drainage facilities within the City of Rancho Mirage are maintained by the Public Works Department. Burrtec Waste and Recycling currently provides solid waste collection services. Solid waste is first taken to the Edom Hills transfer station in Cathedral City then sent to one to Burrtec's regional landfills within Riverside County. Southern California Edison (SCE) is the purveyor of electricity for the area, with existing transmission lines along the southern boundary on Dinah Shore Drive. Natural Gas is provided by the Southern California Gas Company with 6-inch mains on Dinah Shore Drive and Bob Hope Drive with a 4-inch main on Los Alamos Road. Lastly, Verizon currently provides telephone service and Time Warner Cable provides cable television services. Please refer to **Section 5.15, Utilities and Service Systems,** for further discussion on the Project's potential impacts to existing infrastructure.

D. RELATED PROJECTS

Section 15130 of the *CEQA Guidelines* requires that cumulative impacts are to be discussed where they are considered significant. It further states that the discussion of cumulative impacts reflects the severity of the impacts and their likelihood of occurrence, but that it does not need to be in as great level of detail as provided for the Project alone. Cumulative impacts are defined by Section 15355 to be "…two or more individual effects which, when considered together are considerable or which compound or increase other environmental impacts." Cumulative impacts represent the change caused by the incremental impact of a project when added to other proposed or committed projects in the vicinity.

The *CEQA Guidelines* (Section 15130 (b)(1)) further state that the information utilized in an analysis of cumulative impacts should come from one of two sources, either:

(A) A list of past, present and probable future projects producing related cumulative impacts, including, if necessary, those projects outside the control of the agency; or

(B) A summary of projections contained in an adopted general plan or related planning document designed to evaluate regional or area-wide conditions.

The cumulative impact analyses contained in the various topical sections of **Section 5.0, Environmental Impact Analysis**, considers related projects in the City of Rancho Mirage based on the City of Rancho Mirage "Development Activity Summary," dated February 5, 2014. In addition, the projections in the City's General Plan are used in the assessment of potential cumulative impacts where appropriate.

The analysis of traffic impacts was conducted using the Riverside County Traffic Analysis Model (RivTAM) completed in May 2009, and developed with the cooperative efforts of the Riverside County Transportation Department (RCTD), Western Riverside Council· of Governments (WRCOG), Coachella Valley Association of Governments (CVAG), Riverside County Transportation Commission (RCTC), SCAG, and Caltrans. RivTAM is intended for use for transportation planning purposes throughout Riverside County by all levels of governmental and to determine potential impacts of large development proposals, such as the proposed Project.

5.0 ENVIRONMENTAL IMPACT ANALYSIS

This Section provides a detailed discussion of the environmental setting for each topic addressed in this EIS, an analysis of the potential impacts of the Project, potential cumulative impacts, and the features of the Project and other measures identified to mitigate these impacts as required by the Agua Caliente Tribal Environmental Policy Act (TEPA). In addition, although not required, the Agua Caliente Band of Cahuilla Indians ("Tribe") has decided to prepare the EIS in compliance with the provisions of the *California Environmental Quality Act (CEQA) Guidelines*.[1]

The proposed Specific Plan would establish Planning Areas 1 to 7 ("Tribal Planning Areas") and Planning Area 8 ("Active Adult Community") within the Project Site to regulate the proposed land uses. For purposes of analysis, the Active Adult Community is discussed prior to the Tribal Planning Areas as the Active Adult Community will be the first portion of the Project to be developed. Please see **Section 9.0** for a glossary of terms, definitions, and acronyms used in the Draft EIS.

1 California Code of Regulations, Title 14, Section 15000 et seq.

5.1 AESTHETICS

This Section of the EIS describes the existing landform and aesthetic character of the Project Site and surrounding area. The potential aesthetic and visual impacts resulting from implementation of the Project are addressed in this Section. The information presented in this Section is based on field reconnaissance, review of the proposed Section 24 Specific Plan and other planning documents, and photographs of the Project Site and the surrounding land uses. Please see **Section 9.0** for a glossary of terms, definitions, and acronyms used in this Draft EIS.

A. ENVIRONMENTAL SETTING

1. Existing Conditions

Visual Setting

Regional

The Project Site is located in the Western Coachella Valley area which is a predominantly desert and mountainous region with a variety of contrasting and dramatic geographic features. The Coachella Valley contains a series of low-lying desert flatlands, sloping dunes and rolling foothills that are ringed by the rugged San Jacinto, Santa Rosa, and Little San Bernardino Mountains.

The rugged and dramatic topography of the San Jacinto and Santa Rosa Mountains are the predominant natural and visual resource in the Western Coachella Valley. These mountains provide a natural scenic backdrop to the City of Rancho Mirage ("City") as well as the rest of the Western Coachella Valley. The Little San Bernardino Mountains to the north and east are also prominent landforms in the general region with elevations reaching over 5,000 feet. Preserving views of these visual resources will continue to be important in creating and maintaining a sense of community and identity.

Project Site

The elevation of the Project Site ranges from approximately 252 feet above mean sea level (asml) at the northeast corner of the Project Site rising to 353 feet near the southeast corner. **Figure 4.0-1a, Project Site Photographs**, shows the Project Site from the northeastern corner. The vertical differential is created by a low point at the northeast corner with a 250-foot elevation, ridgeline high point of 350 feet, northwest corner of 300 feet, southwest corner of 325 feet, and southeast corner of 350 feet amsl that creates the largest vertical differential of 100 feet. The Project Site meets the elevation of the four streets that border the Project Site; Bob Hope Drive to the east, Dinah Shore Drive to the south, Los Alamos Road to the west, and Ramon Road to the north.

A large sand ridge runs through the middle of the Project Site from the northwest to the southwest. Partially stabilized sand deposits are present on portions of the Project Site that are affected by shrubs and wind patterns. The vegetation of the Project Site is dominated by weed species that are commonly found throughout all California deserts. There are no naturally occurring springs or permanent aquatic habitats within the Project Site boundaries.

Native vegetation has been removed from approximately 40 acres in the northwestern corner of the Project Site when sand was excavated in 2010 to provide fill for the Bob Hope Drive freeway interchange construction project. In 2007, native vegetation was also removed and soils compacted on the northeastern 40 acres of the Project Site to create a temporary parking lot/construction staging area for the expansion of the Agua Caliente Casino Resort Spa. Another 40 acres in the southwestern corner of Project Site has received large mounds of fill dirt in the past decade.

Surrounding Land Uses

North of the Project Site is 193 acres of undeveloped land recently annexed to the City. As shown in **Figure 5.1-1, Surrounding Land Uses to the North and Northeast**, the existing undeveloped land to the north of the Project Site is designated as Section 13. The Union Pacific Railroad (UPRR) and the Interstate 10 (I-10) are located north of this property, and the UPRR is lined by trees.

Directly northeast of the Project Site lies the 36-acre Agua Caliente Casino Resort Spa facility. **Figure 5.1-1** shows the 16-story, 173-foot-tall hotel tower that is part of the Agua Caliente Casino Resort Spa facility. Surface parking for the Resort is accessible through Ramon Road with an additional 4-story parking structure that can be accessed through Bob Hope Drive south of the hotel tower. There is an approximately 30 foot landscaped median on Bob Hope Drive in front of the hotel tower. On the northern tip of this median there is a City entry monument sign which indicates an entrance to the City.

East of Bob Hope Drive and south of the Agua Caliente Casino Resort Spa is approximately 269 acres of undisturbed desert lands. **Figure 5.1-2, Surrounding Land Uses to the East and Southeast**, shows the area consisting of scattered sand hummocks populated with sparse shrublike vegetation. An existing dirt road (the former Rio Del Sol Road) is located south of the Agua Caliente Casino Resort Spa. This road was abandoned between 1953 and 1965 when Bob Hope Drive was constructed, resulting in the creation of an approximately 2.4-acre excess right-of-way area that remains under the City's control.

Ramon Road and Bob Hope Drive intersection looking northwest to Section 13

Bob Hope Drive looking east to the Agua Caliente Casino Resort Spa

FIGURE **5.1-1**

Dinah Shore Drive and Bob Hope Drive intersection looking northeast across Section 19

Dinah Shore Drive and Bob Hope Drive intersection looking southeast to the Desert Plaza shopping center

FIGURE **5.1-2**

Southeast of the Project Site is a retail center, as shown in **Figure 5.1-2**, which includes a single-story convenience store, a barber shop and surface parking lots. The sidewalk surrounding the retail center is lined with ornamental trees; and the building is architecturally designed to match existing buildings in the City, with high arching entry designs and mission tiled roofs.

South of the Project Site is the Westin Mission Hills Resort development. The Westin Mission Hills Resort occupies the approximate 1-mile stretch south of Project Site and Dinah Shore Drive. **Figure 4.0-1c, Project Site Photographs**, shows the parkway along the south side of Dinah Shore Drive. The parkway includes sidewalk with landscaping dominated by plants and ornamental trees on both sides of the sidewalk. Behind the sidewalk and its landscaping is a wall that ranges from 5 to 8 feet that screens views into the Westin Mission Hills Resort from the street view. The rooftops of single story buildings are not visible from the street; however, the multi-story buildings are visible. The Santa Rosa Mountains and San Jacinto are visible from Dinah Shore Drive looking south and west.

West of the Project Site is the Mission Hills Country Club. The sidewalk and surrounding landscaping there match the Westin Mission Hills Resort, and similar to the Westin Mission Hills Resort, the Mission Hills Country Club is surrounded by a wall that blocks off the view from the street. Inside these walls are single-story houses whose rooftops can be viewed from Los Alamos Road.

Light and Glare

Billboards exist along the eastern side of the Project Site along Bob Hope Drive and along the southern boundary of the Project Site along Dinah Shore Drive. No other sources of light or glare exist within the Project Site. The only light and glare sources in the area are from street lights along Dinah Shore Drive and Bob Hope Drive and from the Agua Caliente Casino Resort Spa to the northeast, and minimal light from the residential and commercial uses south of the Project Site across Dinah Shore Drive. Another source of nighttime light in the area includes vehicular traffic along surrounding roadways.

2. Regulatory Setting

State

The California Environmental Quality Act (CEQA) establishes that it is the policy of the State to take all action necessary to provide the people of the State "with…enjoyment of aesthetic, natural, scenic and historic environmental qualities."[1]

1 California Public Resources Code, sec. 21001(b).

The California Scenic Highway Program was created to preserve and protect scenic highway corridors from change, which would diminish the aesthetic value of lands adjacent to highways. The State laws governing the Scenic Highway Program are found in the Streets and Highways Code, Section 260-284.[2]

Regional and Local

Agua Caliente Land Use Ordinance (Tribal Ordinance No. 45)

The purpose of the Agua Caliente Band of Cahuilla Indians Land Use Ordinance ("Tribal Land Use Ordinance") is to provide standards and regulations to control land uses on the Agua Caliente Indian Reservation ("Reservation"), maintain and protect the Reservation's unique natural and cultural resources, and to preserve the natural environment. The following from the Tribal Land Use Ordinance are the applicable provisions to the Project Site:

- Lighting of parking areas within 100 feet of property in residential zones shall be directed into or on the site and away from property lines.
- Balloons or other gas or air-filled balloons, pot lights, search lights, flag tapes are to be prohibited.
- Uses which create or cause noise, dust, light, vibration, odor, gas, fumes, toxic/hazardous materials, smoke, glare, or electrical interference or other hazards, or nuisance which can be detected by adjacent or nearby residents are not allowed as home occupations.

Agua Caliente Tribal Building and Safety Code (Tribal Ordinance No. 26)

As adopted from the California Building Code (CBC), the purpose of the Tribal Building and Safety Code is to provide standards and regulations to control minimum building safety standards of all buildings and structures on Indian Reservation Lands. These standards are intended to protect the health, safety, and welfare of the general public related to any potential building hazards. All building permit approvals from the Tribe are based upon this Code.

Tribal Property Maintenance Standards Ordinance (Tribal Ordinance No. 17)

The Property Maintenance Standards Ordinance prohibits any condition on Reservation land that is detrimental to the public health, safety, or general welfare. Such conditions shall be determined to be a public nuisance, subject to the corrective measures established by this Ordinance.

2 California Streets and Highways Code, sec. 260–284.

Rancho Mirage Municipal Code

The City Municipal Code identifies land use categories, development standards, and other general provisions that ensure consistency between the City's General Plan and proposed development projects. The following provisions from the City's Municipal Code that help minimize light and glare impacts associated with new development projects are relevant to the Project:

- Title 17 (Zoning), Chapter 17.18 (General Performance Standards), Section 17.18.050 (Exterior Glare, Heat, and Light)
- Title 17 (Zoning), Chapter 17.18 (General Performance Standards), Section 17.18.090 (View protection)
- Title 17 (Zoning), Division III (Development and Operation Standards), Chapter 17.26 (Parking and Loading Standards), Section 17.26.070 (Development Standards), G (Lighting)

B. ENVIRONMENTAL IMPACTS

1. Thresholds of Significance

In order to assist in determining whether a project would have a significant effect on the environment, the Tribe finds a project may be deemed to have a significant aesthetic impact if it would:

Threshold 5.1-1 **Have a substantial adverse effect on a scenic vista.**

Threshold 5.1-2 **Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.**

Threshold 5.1-3 **Substantially degrade the existing visual character or quality of the site and its surroundings.**

Threshold 5.1-4 **Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.**

2. Methodology

The analysis identifies and objectively examines factors that contribute to the perception of the aesthetic and visual character of the Project Site and the surrounding area. Potential aesthetic impacts are evaluated by considering proposed grading, landform alteration, building setbacks, scale, massing, typical construction materials, and landscaping features associated with the design of the Project. Edge conditions and view alterations are considered in the context of the above factors. The aesthetic

compatibility of the Project with the surrounding area and potential impacts to visual resources and viewers in the Project Site are examined.

3. Project Design Features

Grading

In order to reduce the impact of the existing topography, which has maximum slopes of over 8 percent, the proposed contours shift the highpoint to the center area of the Active Adult Community and gradually slope the land to the northeast at a maximum of 2.3 percent, as shown in **Figure 3.0-15, Conceptual Interim Cut/Fill Plan**. The slopes to the southwest would not exceed 1.3 percent.

A vertical division of approximately 20 feet has been created to separate the Active Adult Community from the balance of the Tribal Planning Areas. A slope to the north, northeast, and east would be provided at a maximum slope of 3 to 1 at the property line between the Active Adult Community and the Tribal Planning Areas. Planning Areas 1 and 2 propose contours slopes northeast at 2.6 percent, as shown in **Figure 3.0-16, Conceptual Ultimate Cut/Fill Plan**. The access points are close to the existing elevations of the public streets on the west and north sides of these Planning Areas. Planning Area 3 would slope to the northeast at 1.1 percent. The access points are close to the elevations of the roads to the north, west, and south. The northeast corner would be elevated approximately 10 feet above the intersection of Ramon Road and Bob Hope Drive to accentuate the future land uses.

Planning Area 4 would have a slope of 2.8 percent in the northeast direction. This Planning Area would be fronted by a steep section of Bob Hope Drive at 3.3 percent. The slope on Planning Area 4 would be impacted by the adjacent elevation of Planning Area 5 in order to limit the vertical differential between the two Planning Areas. Planning Area 5 would slope at 2.2 percent to the north. Planning Area 6 would slope 2.7 percent to the north and 2.3 percent to the south. Planning Area 7 would slope at 1.1 percent to the east.

Figure 3.0-17, Conceptual Mass Grading Plan illustrates the final topographical elevations and slopes of the Project Site. The elevation of the southern and western portions of the Active Adult Community will be consistent with the elevations to the south and west, ranging from 330 feet amsl to 350 feet amsl. The proposed clubhouse area within the central portion of the Active Adult Community will be approximately 350 feet amsl, consistent with the existing high point on the Project Site. The northern portion of the Tribal Planning Areas would have elevations ranging from 260 to 320 feet amsl from east to west and 260 feet to 350 feet amsl from north to south, consistent with existing conditions.

Building Design

Building Heights

Development standards for the Project Site would control building heights for proposed commercial, residential, service, and entertainment uses. The residential buildings in the Active Adult Community would allow for heights up to 20 feet in height and 28 feet in height in the Single Family Attached Residential Overlay Area; while the residential units in the Tribal Planning Areas would be a maximum of 36 feet. The heights of commercial buildings would be a maximum of 42 feet with the exception of tower elements that would be allowed to be 50 feet tall. The Section 24 Specific Plan, Chapter 5.2.1, General Development Standards, Table 7, Building Height Standards, goes into more detail the height requirements for each pertaining land use. The maximum height of any architectural projection is 10 feet above the proposed building height, unless otherwise approved by the Tribal Council. Stand-alone tower elements, such as clock towards, are permitted to reach up to 50 feet in height, so long as their footprint is not larger than 400 square feet.

Building Setbacks

Figure 3.0-13, Illustrative Ultimate Grading Site Section, shows the concept plan for the interior of the Project Site. All buildings would be set back at least one foot from the back of the curb for every one foot of building height unless otherwise approved by the Tribal Council. For setback purposes only, building height will be determined by measuring the elevation point of the back of curb perpendicular to the highest ridgeline of the structure, including architectural projections such as architectural features protruding from the building façade, cantilevered portions of the building, or outdoor uses such as porches and patios.

Mass, Scale, and Form

The proposed Section 24 Specific Plan would not require any particular architectural style; instead requires a consistency of styles throughout the Project Site. Visual diversity would be promoted through the use of different, but complementary, architectural styles. Each style would incorporate high-quality detail that includes the use of arches, arcades, loggias, towers, variations in building form, and color blocking to define buildings.

The building designs will employ clean, simple geometric forms and coordinated massing to produce an overall sense of unity, scale, and interest. All buildings will be designed to have a human scale and relate to pedestrians by incorporating appropriately scaled design elements and details that generate interest and diversity at the street, sidewalk level, and relate the building to the ground plan. The materials for

each building will be of high quality so that over time, the colors and textures would retain their original form. To avoid monotony, a variety of complementary color schemes will be used.

Lighting Design

Lighting design throughout the Project Site will highlight design and landscaping features, reinforce the community theme, and help ensure pedestrian and vehicular safety. The "Dark Sky-Friendly" lighting would be adopted and designed to protect the beauty of the desert sky and would respect the requirements and guidelines of the Mount Palomar restricted nighttime light zone, as identified in Riverside County's Ordinance No. 655. Lighting would also be used for security and safety of on-site areas such as parking, loading, shipping, and receiving. All lighting would be hooded and directed downward to minimize light and direct glare impacts on neighboring properties and reduce impacts on dark skies. They would also be equipped with fixture dimming and cut-off capability as certified by the International Dark Sky Association. Light fixtures would be consistent throughout the Project Site and complementary to the architectural styles of the area as well as comply with the Tribal Building and Safety Code.

The following Project Design Features (PDFs) are applicable to development within the Project Site and would minimize light and glare impacts on the surrounding roadways and land uses.

PDF 5.1-1 "Dark Sky-Friendly" lighting shall be designed to protect the beauty of the desert sky and shall respect the requirements and guidelines of the Mount Palomar restricted nighttime light zone, as identified in Riverside County's Ordinance No. 655. Uplighting is discouraged except for well-shielded landscape accent lighting. Maximum lamp wattage requirements shall be established for different lighting types to minimize obtrusive and unnecessary lighting and conserve energy resources to the greatest extent possible.

PDF 5.1-2 All light fixtures shall be hooded and directed downward to minimize light and direct glare impacts on neighboring properties and reduce impact on dark skies; directed to illuminate only the areas and elements intended, such as paths, entryways, and focal elements; shielded to avoid direct views of any unshielded light source from pedestrian or vehicular sight lines; shielded to direct light spillover away from adjacent residential areas with 100 percent cutoff capability; and equipped with fixture dimming and cutoff capability as certified by the International Dark Sky Association.

PDF 5.1-3 Development shall minimize light pollution by avoiding outdoor lighting where unnecessary, emphasizing shielded fixtures and avoiding overhead lighting of areas such as walkways. Low scale, accent, and back lighting shall be used to highlight key entry

points, signage, enhanced intersections, and feature landscaping. The use of light-emitting diode (LED) lighting or organic light-emitting diode (OLED) lighting is encouraged, so long as blue or cool-white LEDs are shielded properly to prevent light pollution.

PDF 5.1-4 Externally illuminated signs or backlighting of individual sign letters shall be the standard. Digital display signs using LED or similar technology to display images shall be permitted subject to the approval of a sign program.

PDF 5.1-5 The use of "pole signs," roof signs, temporary lettering on windows, and blinking/flashing signs shall be prohibited. The use of temporary signs is discouraged.

PDF 5.1-6 Light fixtures shall be consistent throughout the Project Site, and shall be complementary to the architectural styles of the area.

PDF 5.1-7 Exterior lighting shall be designed and located so as not to project off site or onto adjacent uses, including neighboring residential uses.

PDF 5.1-8 Outdoor lighting associated with the commercial uses shall not adversely impact the on-site or surrounding residential uses, but shall provide sufficient illumination for access and security purposes.

PDF 5.1-9 Automatic timers shall be programmed to maximize personal safety at night while conserving energy.

PDF 5.1-10 Sign illumination shall not interfere or distract from adjacent properties and street traffic, and light sources shall be directed to prevent glare from being seen by passing traffic.

Landscape Design

Landscape design shall establish an identity and theme for the Project and shall be an overall unifying element, transcending parcel boundaries and defining open space areas. Accordingly, each landscape treatment shall incorporate a distinct theme tree to further define the different areas and roadways within the Project Site. **Figure 3.0-6, Conceptual Landscape Corridor Plan**, identifies the conceptual landscape corridors for Project roadways. Rock gardens and water features shall also be allowed by the Specific Plan to enhance the landscape elements. The Specific Plan shall limit the use of these areas to key landscape areas for the purpose of water conservation.

Each project and Planning Area shall be required to connect to adjacent open spaces through the use of greenbelts or landscaped pedestrian walkways.

The recommended plant palette for the Section 24 Specific Plan emphasizes the use of native planting and is encouraged in "Article VII-Landscaping" of the *Tribal Land Use Ordinance*. The plant palette shall use drought-tolerant materials in consideration of the desert climate and the Tribe's water conservation efforts. A detailed list of these plants is included in the Section 24 Specific Plan, Chapter 4.5, Table 2, Landscape Corridor Plant Palette. The plant material shall consist of primarily desert evergreen flowering trees with palm tree accents, flowering shrubs, groundcovers, and vines. The use of this vegetation shall match existing surrounding landscape to give unity and identity to the community.

4. Project Impacts

Have a substantial adverse effect on a scenic vista

Active Adult Community

The Active Adult Community would accommodate 1,200 single family dwelling units on 313 acres of land at an overall density of up to 3.8 units per acre. Building heights will be primarily one story with some potential for two story units within the interior of the community. This area will have a maximum height of 20 feet in height, and 28 feet in height in the Single Family Attached Residential Overlay Area, allowed for residential land use.

As previously stated, visual resources surrounding the Project Site include the San Jacinto and Santa Rosa Mountains to the west and south and the Little San Bernardino Mountains to the north, as previously stated. Potential viewers are anyone located within the vicinity of the Project Site, specifically the existing resort and country club uses south of the Project Site across Dinah Shore Drive and west across Los Alamos Road. The Westin Mission Hills Resort and the Mission Hills Country Club are surrounded by a 5 to 8 foot high wall that limits the view from the street of the residences. Single-story residential rooftops can be viewed from Los Alamos Road. **Figure 4.0-1c** shows that parkway along the south side of Dinah Shore Drive. The rooftops of single story buildings are not visible from the street; however, the multi-story buildings are visible. The Santa Rosa Mountains and San Jacinto are visible from Dinah Shore Drive looking south and west.

Development of the Project Site would incorporate designs similar to current surrounding land uses. The Project Design Features, as stated earlier, would include standards in grading, building design, form, lighting design, and landscape design. These PDFs would ensure that the Project would be consistent with height, density, and elevation of the surrounding land uses to the south and west. The PDFs include street improvements and landscaping along the northern side of Dinah Shore Drive and along the

eastern side of Los Alamos Road. Rock gardens and water features would also be allowed by the Specific Plan to enhance the landscape elements. The plant palette would use drought-tolerant materials in consideration of the desert climate and the Tribe's water conservation efforts. The plant material will consist of primarily desert evergreen flowering trees with palm tree accents, flowering shrubs, groundcovers, and vines. The use of this vegetation would match existing surrounding landscape to give unity and identity to the community.

Figure 3.0-17 illustrates the difference in elevation of the Project Site. The grading height of the southern side of the Active Adult Community would be consistent with the Westin Mission Hills Resort to the south ranging from approximately 330 feet amsl to 350 feet amsl and with the Mission Hills Country Club to the west ranging from approximately 330 feet amsl to 340 amsl. Therefore, the Project would not significantly limit views along Dinah Shore Drive and Los Alamos Road of the San Jacinto and Santa Rosa Mountains to the south and west. Additionally, the proposed residential buildings in the Active Adult Community would be limited to 20 and 28 feet in height similar to the Westin Mission Country Club uses to the west and in contrast to the existing multi-story buildings in the Westin Mission Hills Resort to the south. The residential buildings within the Active Adult Community would be setback from Dinah Shore Drive and Los Alamos Road similar to the uses to the south and west.

The scenic vistas and public viewpoints along Dinah Shore Drive and Los Alamos Road would not be substantially obstructed or adversely impacted by the Project Site because the final elevation, building heights, and landscaping along Dinah Shore Drive and Los Alamos Road would be similar to that of the surrounding land uses. Accordingly, impacts would be less than significant.

Tribal Planning Areas

The Project would alter views of surrounding visual resources and would also alter the visual character of the Project Site and surrounding area. The Project Site would be developed pursuant to the Section 24 Specific Plan, which would allow for mixed-use master-plan that would include multi-family residential, commercial, retail, office, restaurant, and entertainment uses.

Development would be controlled by the design standards and guidelines in the Specific Plan, which require large minimum setbacks for development. Building to building setbacks will be a minimum of 20 feet and will be setback from the curb one foot for every foot of building height. For example, the maximum height of a commercial building will be 42 feet and, as such, will require a minimum building setback of 42 feet. Providing adequate building setbacks will ensure that scenic vistas from various vantage points, such as surrounding roadways, are preserved. The Specific Plan also outlines other provisions that would help preserve scenic vistas, such as the placement of buildings and structures, and the landscaping and architectural design parameters. These provisions would be consistent with the

architectural design, landscaping, and signage of existing and proposed land uses surrounding the Tribal Planning Areas.

Section 13 is located north of Ramon Road and is zoned for commercial development. The proposed resort and commercial land uses will be developed south of Ramon Road within the Project Site. Project development of commercial and resort uses would be consistent with the proposed land uses within Section 13. The Agua Caliente Casino Resort Spa and Section 19 are east of Project Site and are zoned for resort and retail uses along Bob Hope Drive. The Tribal Planning Areas will be developed with similar resort and retail uses as those identified within Section 19 along Bob Hope Drive. The Project would not damage scenic resources because of its consistency with surrounding land uses.

The existing elevation along the southern portion of Section 13 ranges from approximately 250 feet amsl to 310 feet amsl. The northern portion of the Tribal Planning Areas would have elevations ranging from 260 to 320 feet amsl from east to west. The northeast corner would be elevated approximately 10 feet above the intersection of Ramon Road and Bob Hope Drive to accentuate the future land uses. Elevations along the Project Site would gradually increase from east to west along Ramon Road similar to existing conditions. The existing elevations along Bob Hope Drive within Section 19 increase from 270 amsl to 340 amsl north to south. The eastern portion of the Tribal Planning Areas would have elevations ranging from 260 feet to 350 feet amsl north to south. Elevations along the Project Site would gradually increase from north to south along Bob Hope Drive similar to existing conditions. Therefore, the maximum height limitations, setbacks from Ramon Road and Bob Hope Drive, and the proposed final elevations within the Tribal Planning Areas would not substantially limit the views of the San Jacinto and Santa Rosa Mountains to the south and west when viewing from these respective roadways.

A vertical division of approximately 20 feet has been created to separate the Active Adult Community from the balance of the Tribal Planning Areas, as shown in **Figure 3.0-13.** A slope to the north, northeast, and east would be provided at a maximum slope of 3 to 1 at the property line between the Active Adult Community and the Tribal Planning Areas. The maximum heights allowed within the Tribal Planning Areas would not block the views of the Little San Bernardino Mountains to the north from the Active Adult Community. Furthermore, the minimum setbacks and maximum heights of the Tribal Planning Areas would not substantially limit the views from residential uses to the west along Los Alamos Road and south along Dinah Shore Drive to the north of the Little San Bernardino Mountains.

Motorists traveling along the I-10 have obscured or partially obscured views of the Santa Rosa Mountains due to the existing dense and mature vegetation (trees and shrubs) along the UPRR mainline south of the I-10. In addition, the elevation of the I-10 is approximately 250 feet amsl. The elevation of the Project Site would remain consistent with the existing elevations of the Project Site, which range

from 260 feet amsl to 350 feet amsl in the center of the Project Site. Due to the elevation of the I-10 and the dense vegetation, views of the Project Site would be obscured for motorists traveling along the I-10. Additionally, the height of Santa Rosa Mountains will remain a scenic backdrop to I-10 motorists.

Development of the Project would not have a substantial adverse impact on scenic vistas along surrounding roadways or from surrounding vantage points in the Project Site. Accordingly, impacts would be less than significant.

Substantially damage scenic resources

Active Adult Community

A significant impact may occur if a project were to introduce incompatible visual elements on the Project Site or visual elements that would be incompatible with the character of the area surrounding the Project Site. The Project Site is currently vacant with minimal vegetation and consists primarily of a large sand dune. The Project Site is bordered on the south by the Westin Mission Hills Resort and to the west by the Mission Hills Country Club. As previously discussed in **Section B.3**, the edges of the Project Site will be consistent with the visual character of the Westin Mission Hills Resort to the south and the Mission Hills Country Club to the west. The edges along Dinah Shore Drive and Los Alamos Road would be designed with drought-tolerant materials consisting of desert evergreen flowering trees with palm tree accents, flowering shrubs, groundcovers and vines. The use of this vegetation would generally match existing surrounding landscape to give unity and identity to the community.

A detailed landscape planting plan would be required for all project entries as shown in **Figure 3.0-6,** as well as Dinah Shore Drive and Los Alamos Road perimeter. The Project would, therefore, not substantially damage scenic resources within the Project Site nor would it conflict with existing surrounding land uses. Accordingly, impacts would be less than significant.

Tribal Planning Areas

The Project Site is currently vacant with minimal vegetation and consists primarily of a large sand dune. The Tribal Planning Areas will be located on the north and east portion of the Project Site and will act as a gateway into the City from the I-10 Freeway. No scenic resources, such as trees, rock outcrops, or historic buildings, are currently within the Project Site. Therefore, the Project would not damage scenic resources.

Furthermore, similar to the Active Adult Community, the Tribal Planning Areas will be designed consistent with the proposed commercial uses to the north and east and will provide landscaped

corridors along Project roadways to enhance the Project Site. Accordingly, impacts would be less than significant.

Substantially degrade the existing visual character or quality of the site

Active Adult Community

The Active Adult Community will be a gated community that is master planned within the context of four neighborhoods with residential and open space amenities. The Project would be subject to the provisions outlined in the Section 24 Specific Plan.

Chapter 5, Development Regulations of the Section 24 Specific Plan, outlines specific development standards that would ensure that buildings and structures proposed within the Project Site would be developed to be sensitive to and compatible with existing and future surrounding land uses. The Active Adult Community would have residential buildings that would have a maximum height of 20 and 28 feet similar to residential buildings to the west within the Westin Mission Hills Country Club. Chapter 6, Design Guidelines, of the Specific Plan includes standards and guidelines that would ensure high quality design and creativity in site planning and architectural design, while allowing for variation and flexibility. Chapter 4, Specific Plan Concepts, of the Specific Plan provides standards and guidelines for the treatment of areas within the Active Adult Community, including the surrounding streets, parkways, development edges, project entries, and open space areas, as shown in **Figure 3.0-5, Conceptual Open Space Plan,** and **Figure 3.0-6**. The landscape palette in Chapter 4 not only provides a selection of desert-friendly trees and landscaping for the Project, but also includes ornamental varieties of trees, shrubs, groundcovers, and vines that would provide seasonal interest, color, texture, and form that would be appropriate to various land uses and areas of the Active Adult Community. Therefore, the Active Adult Community will be designed with uses and landscaping consistent with the uses to the south and west. Accordingly, impacts would be less than significant.

Tribal Planning Areas

The visual features of the Tribal Planning Areas would include multi-family residential, retail, mixed-use buildings and structures, ancillary structures and facilities, surface parking areas, and other roadway improvements. It will support development that is more compact and urban than the low scale, resort-oriented patterns currently found in the surrounding communities. With the clustering of buildings, the Project will provide smaller, more intimate plazas and elaborate streetscapes, while also offering opportunities for larger parkland settings for future residents and visitors. Chapter 5, Development Regulations, of the Section 24 Specific Plan outlines specific development standards that would ensure that buildings and structures proposed within the Tribal Planning Areas would be developed to be sensitive to and compatible with existing and future surrounding land uses. The Tribal Planning Areas

would have multi-family residential buildings that would have a maximum height of 36 feet and mixed uses would have a maximum height of 42 feet.

Although the Project would substantially alter the visual appearance of the Project Site from vacant to developed land, adherence to the development standards and design guidelines outlined in the Section 24 Specific Plan, and development of the proposed mix of land uses within the Project Site, would ensure that the Project Site would be developed as a high-quality master planned community and would not negatively impact the aesthetic appearance of the Project Site or surrounding area. Accordingly, impacts would be less than significant.

Create substantial light or glare which would adversely affect views

Active Adult Community and Tribal Planning Areas

The only light and glare sources in the Project Site are from street lights and billboards along Dinah Shore Drive and Bob Hope Drive and from the Agua Caliente Casino Resort Spa to the northeast, and minimal light from the residential and commercial uses south of the Project Site, across Dinah Shore Drive. Another source of glare and nighttime light in the Project Site includes vehicular traffic along surrounding roadways.

Future development in accordance with the Section 24 Specific Plan would cause the introduction of new light and glare sources typical of residential, commercial, entertainment, office uses and recreational lighting in the Project Site. The existing billboards along Dinah Shore Drive within the Active Adult Community will be removed within a predetermined number of days. The billboards along Dinah Shore Drive and Bob Hope Drive within the Tribal Planning Areas would remain, and as development occurs, billboards would be removed. During the interim period prior to construction within the Tribal Planning Areas, the billboards would be a distance far enough from the Active Adult Community to not result in significant nighttime illumination. Nighttime illumination would also be used to highlight building design and landscape features and to create a feeling of security and safety for pedestrians and vehicles. Other sources of light would include security lighting, nighttime traffic, and sign illumination. Lighting from the Project Site would be visible from surrounding areas that are currently undeveloped or sparely developed.

Project Design Features PDF 5.1-1 through PDF 5.1-10 will require that individual projects adhere to "Dark Sky-Friendly" lighting to minimize nighttime light pollution which could affect the Mount Palomar Observatory, require light fixtures to be hooded and directed downward to minimize light and direct glare impacts on neighboring properties, prohibit blinking/flashing signs, and maximize personal safety at night. Sign illumination will be directed in a manner to prevent glare from passing traffic.

Therefore, although the Project would substantially provide additional light and glare sources, the impacts to the surrounding areas will not have a significant impact. Accordingly, impacts would be less than significant.

5. Cumulative Impacts

The evaluation of aesthetic and visual impacts is by nature a subjective exercise due to widely varying personal perceptions. However, implementation of the Project would alter views of surrounding visual resources and would also alter the visual character of the Project Site and surrounding areas. More specifically, the Project Site would be developed pursuant to the Section 24 Specific Plan, which would allow for a mixed-use master-plan that would include residential, commercial, retail, office, restaurant, and entertainment uses. As shown on **Figure 3.0-3, Conceptual Land Use Plan,** the Specific Plan designates 8 Planning Areas and their associated acreages and delineates the general amount, type, and distribution of development throughout the Project Site.

Upon development of the Project Site and surrounding vacant lands, cumulative development would result in substantial changes to the visual character of the Project Site and add to the creation of nighttime light and glare. However, this would not constitute a significant adverse impact as the Project Site and surrounding area would be developed in accordance with the anticipated development that would occur in these areas per the City's General Plan. Additionally, the design standards and guidelines outlined in the Section 24 Specific Plan would ensure that high quality architecture and landscaping would be provided along the Project frontages in a manner that would preserve and enhance the character of the Project Site and surrounding land uses. Furthermore, development projects proposed on the vacant surrounding lands would be required to adhere to the strict architectural, design, and lighting standards outlined in the Specific Plan.

North of the Project Site is Section 13 which has been recently annexed by the City. This area does not have a specific plan but the area is intended to be developed as commercial and will complement the northern part of the Project Site. Directly east of Project Site is Section 19 which while currently undeveloped, has an approved Specific Plan that serves as zoning for the Project Site. The area will allow for a mixed-use development that would include commercial, retail, office, restaurant, and entertainment uses, as well as up to 1,899 residential units and 580 hotel rooms on approximately 269 acres. The Project acknowledges the upcoming development of Section 19 and has already planned to incorporate similar building designs pursuant to the Tribe's Building and Safety Code and/or the City's Municipal Code.

As previously discussed, the aesthetic impacts of the Project associated with effects upon the existing visual character of the Project Site and its surrounding area have been evaluated above and were found

to be less than significant on a project-specific basis. Potential Project-related impacts from the generation of nighttime light and glare have been found to be less than significant, with compliance with the existing regulations, standard conditions, and provisions outlined in the Specific Plan. In consideration of the preceding factors, the Project's contribution to cumulative aesthetic impacts would be less than considerable. Therefore, cumulative aesthetic impacts would be less than significant.

C. MITIGATION MEASURES

No Mitigation Measures are necessary.

D. LEVEL OF SIGNIFICANCE AFTER MITIGATION

Compliance with the provisions outlined in the Specific Plan, Project Design Features PDF 5.1-1 through 5.1-10, and existing Tribal regulations would reduce potential impacts associated with aesthetics and light and glare to a level that is less than significant. Therefore, no significant unavoidable adverse impacts relating to aesthetics and lighting would be caused by the Project.

5.2 AIR QUALITY

This Section of the Draft EIS evaluates the potential for the proposed Project to impact air quality on a local and regional context. More specifically, this Section evaluates impacts associated with the Project that may potentially affect the regional and local air quality. Various federal, State, regional, and local programs and regulations related to anticipated air quality impacts are also discussed in this Section. Emission calculations and air quality modeling completed for the Project are contained in **Appendix B, Air Quality and Greenhouse Gas Emissions Model Output** of the Draft EIS.

Please see **Section 9.0** for a glossary of terms, definitions, and acronyms used in the Draft EIS.

A. ENVIRONMENTAL SETTING

1. Existing Conditions

Air Pollutants of Concern

Criteria Air Pollutants

The pollutants emitted into the ambient air by stationary and mobile sources are regulated by federal and State law. These are known as criteria air pollutants and are categorized into primary and secondary pollutants. Primary air pollutants are those that are emitted directly from sources. Carbon monoxide (CO), volatile organic compounds (VOCs), nitrogen oxides (NOx), sulfur dioxide (SO2), coarse inhalable particulate matter (PM10), fine inhalable particulate matter (PM2.5), and lead (Pb) are primary air pollutants. VOCs and NOx are criteria pollutant precursors and go on to form secondary criteria pollutants through chemical and photochemical reactions in the atmosphere. Ozone (O3) and nitrogen dioxide (NO2) are the principal secondary pollutants.

A brief description of the criteria pollutants follows.

- **Ozone (O3).** O3 is a gas that is formed when VOCs and NOx, both byproducts of internal combustion engine exhaust and other sources, undergo slow photochemical reactions in the presence of sunlight. O3 concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable to the formation of this pollutant.
- **Volatile organic compounds (VOCs).** VOCs are compounds comprised primarily of atoms of hydrogen and carbon. Internal combustion associated with motor vehicle usage is the major source of hydrocarbons. Adverse effects on human health are not caused directly by VOCs, but rather by reactions of VOCs to form secondary air pollutants, including O3. VOCs are also referred to as reactive organic compounds (ROCs) or reactive organic gases (ROGs). VOCs themselves are not "criteria" pollutants; however, they contribute to formation of O3.

- **Nitrogen dioxide (NO2).** NO2 is a reddish-brown, highly reactive gas that is formed in the ambient air through the oxidation of nitrogen monoxide (NO). NO2 is also a byproduct of fuel combustion. The principle form of NO2 produced by combustion is NO, but NO reacts quickly to form NO2, creating the mixture of NO and NO2 referred to as NOx. NO2 acts as an acute irritant and, in equal concentrations, is more injurious than NO. At atmospheric concentrations, however, NOx is only potentially irritating. NO2 absorbs blue light, the result of which is a brownish-red cast to the atmosphere and reduced visibility.
- **Carbon monoxide (CO).** CO is a colorless, odorless gas produced by the incomplete combustion of fuels. CO concentrations tend to be the highest during the winter morning, with little to no wind, when surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion engines, unlike ozone, and motor vehicles operating at slow speeds are the primary source of CO in the basin, the highest ambient CO concentrations are generally found near congested transportation corridors and intersections.
- **Sulfur dioxide (SO2).** SO2 is a colorless, extremely irritating gas or liquid. It enters the atmosphere as a pollutant mainly as a result of burning high-sulfur-content fuel oils and coal and from chemical processes occurring at chemical plants and refineries. When SO2 oxidizes in the atmosphere, it forms sulfates (SO4).
- **Respirable particulate matter (PM10).** PM10 consists of extremely small, suspended particles or droplets 10 microns or smaller in diameter. Some sources of PM10, like pollen and windstorms, are naturally occurring. However, in populated areas, most PM10 is caused by road dust, diesel soot, combustion products, abrasion of tires and brakes, and construction activities.
- **Fine particulate matter (PM2.5).** PM2.5 refers to particulate matter that is 2.5 microns or smaller in size. The sources of PM2.5 include fuel combustion from automobiles, power plants, wood burning, industrial processes, and diesel-powered vehicles such as buses and trucks. These fine particles are also formed in the atmosphere when gases such as sulfur dioxide, NOx, and VOCs are transformed in the air by chemical reactions.
- **Lead (Pb).** Pb occurs in the atmosphere as particulate matter. The combustion of leaded gasoline is the primary source of airborne lead in the basin. The use of leaded gasoline is no longer permitted for on-road motor vehicles, so most such combustion emissions are associated with off-road vehicles such as racecars that use leaded gasoline. Other sources of Pb include the manufacturing and recycling of batteries, paint, ink, ceramics, ammunition, and secondary lead smelters.

At the federal level, the United States Environmental Protection Agency (USEPA) is responsible for the implementation of portions of the Clean Air Act (CAA) dealing with certain mobile sources of air emissions and other requirements. Charged with handling global, international, national, and interstate air pollution issues and policies, the USEPA sets national vehicle and stationary source emission

standards, oversees approval of all State Implementation Plans[1], provides research and guidance for air pollution programs, and sets National Ambient Air Quality Standards (NAAQS). The NAAQS for six common air pollutants (ozone, particulate matter PM10 and PM2.5, nitrogen dioxide, CO, lead, and sulfur dioxide) were identified from the provisions of the CAA of 1970.

The California Clean Air Act, signed into law in 1988, requires all areas of the State to achieve and maintain the California Ambient Air Quality Standards (CAAQS) by the earliest practicable date. The California Air Resources Board (CARB), a part of the California Environmental Protection Agency, is responsible for the coordination and administration of both State and federal air pollution control programs within California. In this capacity, the CARB conducts research, sets State ambient air quality standards, compiles emission inventories, develops suggested control measures, and provides oversight of local programs. The CARB establishes emissions standards for motor vehicles sold in California, consumer products, and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions.

The NAAQS and CAAQS for each of the monitored pollutants and their effects on health are summarized in **Table 5.2-1, Ambient Air Quality Standards.**

Table 5.2-1
Ambient Air Quality Standards

Air Pollutant	Concentration/Averaging Time		Most Relevant Health Effects
	State Standard (CAAQS)	Federal Primary Standard (NAAQS)	
Ozone	0.09 ppm, 1-hour 0.070 ppm, 8-hour	0.075 ppm, 8-hour	(a) Pulmonary function decrements and localized lung edema in humans and animals; (b) Risk to public health implied by alterations in pulmonary morphology and host defense in animals; (c) Increased mortality risk; (d) Risk to public health implied by altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans; (e) Vegetation damage; and (f) Property damage
Nitrogen dioxide	0.18 ppm, 1-hour 0.030 ppm, annual	100 ppb, 1-hour 0.053 ppm, annual	(a) Potential to aggravate chronic respiratory disease and respiratory symptoms in sensitive groups; (b) Risk to public health implied by pulmonary and extra-pulmonary biochemical and cellular changes and pulmonary structural changes; and (c) Contribution

1 A State Implementation Plan is a document prepared by each state describing existing air quality conditions and measures that will be followed to attain and maintain National Ambient Air Quality Standards.

Air Pollutant	Concentration/Averaging Time State Standard (CAAQS)	Federal Primary Standard (NAAQS)	Most Relevant Health Effects
			to atmospheric discoloration
Carbon monoxide	20 ppm, 1-hour 9.0 ppm, 8-hour	35 ppm, 1-hour 9 ppm, 8-hour	(a) Aggravation of angina pectoris and other aspects of coronary heart disease; (b) Decreased exercise tolerance in persons with peripheral vascular disease and lung disease; (c) Impairment of central nervous system functions; and (d) Possible increased risk to fetuses
Sulfur dioxide	0.25 ppm, 1-hour 0.04 ppm, 24-hour	75 ppb, 1-hour 0.14 ppm, 24-hour	Bronchoconstriction accompanied by symptoms, which may include wheezing, shortness of breath and chest tightness, during exercise or physical activity in persons with asthma
Respirable particulate matter	50 µg/m^3, 24-hour 20 µg/m^3, annual	150 µg/m^3, 24-hour 50 µg/m^3, annual	(a) Exacerbation of symptoms in sensitive patients with respiratory or cardiovascular disease; (b) Declines in pulmonary function growth in children; and (c) Increased risk of premature birth
Fine particulate matter	12 µg/m^3, annual	35 µg/m^3, 24-hour 15 µg/m^3, annual	(a) Exacerbation of symptoms in sensitive patients with respiratory or cardiovascular disease; (b) Declines in pulmonary function growth in children; and (c) Increased risk of premature birth
Lead	1.5 µg/m^3, 30-day	0.15 µg/m^3, 3-month rolling	(a) Learning disabilities; and (b) Impairment of blood formation and nerve conduction
Visibility-reducing particles	In sufficient amount such that the extinction coefficient is greater than 0.23 inverse kilometers at relative humidity less than 70 percent, 8-hour average (10 AM–6 PM)	N/A	Visibility impairment on days when relative humidity is less than 70 percent
Sulfates	25 µg/m^3, 24-hour	N/A	(a) Decrease in lung function; (b) Aggravation of asthmatic symptoms; (c) Aggravation of cardiopulmonary disease; (d) Vegetation damage; (e) Degradation of visibility; and (f) Property damage
Hydrogen sulfide	0.03 ppm, 1-hour	None	Odor annoyance
Vinyl chloride	0.01 ppm, 24-hour	None	Known carcinogen

Source: SCAQMD, 2012 Air Quality Management Plan, (2012, Table 2-1, p. 2-3). California Air Resources Board, California Ambient Air Quality Standards (CAAQS), http://www.arb.ca.gov/research/aaqs/caaqs/caaqs.htm.
Note: µg/m^3 = microgram per cubic meter; NAAQS = National Ambient Air Quality Standards; ppm = parts per million by volume.

Toxic Air Contaminants

In addition to criteria pollutants, the South Coast Air Quality Management District (SCAQMD) periodically assesses levels of toxic air contaminants (TACs) in the Air Basin. *California Health and Safety Code,* Section 39655 provides:

> *"Toxic air contaminant" means an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health. A substance that is listed as a hazardous air pollutant pursuant to subsection (b) of Section 112 of the federal act (42 U.S.C. Sec. 7412(b)) is a toxic air contaminant.*

Between April 2004 and March 2006, SCAQMD conducted the Multiple Air Toxics Exposure Study III (MATES III), which is a follow-up to previous MATES I and II air toxics studies conducted in the Salton Sea Air Basin (Air Basin). SCAQMD issued the MATES III Final Report in September 2008.

The MATES III study, based on actual monitored data throughout the Air Basin, consisted of several elements. These included a monitoring program, an updated emissions inventory of TACs, and a modeling effort to characterize carcinogenic risk across the Air Basin from exposure to TACs. The MATES III study applied a 2-kilometer (1.24-mile) grid over the Air Basin and reported carcinogenic risk within each grid space (covering an area of 4 square kilometers or 1.54 square miles). The study concluded the average of the modeled air toxics concentrations measured at each of the monitoring stations in the Air Basin equates to a background cancer risk of approximately 1,200 in 1,000,000 primarily due to diesel exhaust. The MATES III study also found lower ambient concentrations of most of the measured air toxics compared to the levels measured in the previous MATES II study conducted during 1998 and 1999. Specifically, benzene and 1,3-butadiene, pollutants generated mainly from vehicles, were down 50 percent and 73 percent, respectively.[2] The reductions were attributed to air quality control regulations and improved emission control technologies.

Regional

The Project Site lies within the Air Basin, which spans the Coachella Valley portion of the County of Riverside and the entire County of Imperial. Air quality management of the Riverside County portion of the Air Basin is overseen by SCAQMD. The Riverside County portion of the Air Basin is bound by the San Jacinto Mountains to the west and spans eastward up to the Palo Verde Valley. The Air Basin and the adjacent Mojave Desert Air Basin were previously included in a single large air basin known as the

2 SCAQMD, Multiple Air Toxics Exposure Study in the South Coast Air Basin (MATES III) – Final Report (2008). 6-2.

Southeast Desert Air Basin. However, the California Air Resources Board (CARB) has subdivided this larger basin into the two separate air basins that are in place today.

The Air Basin is classified as having a desert climate characterized by low precipitation, hot summers, mild winters, low humidity, and strong temperature inversions. The annual average temperature varies little throughout the Air Basin, ranging from the low 40s to the high 100s, measured in degrees Fahrenheit (°F). The Western Regional Climate Center (WRCC) maintains historical climate information for the western U.S., including the City of Palm Springs, which is the closest meteorological monitoring station to the Project Site (Station ID No. 046635). According to this Station, the average maximum temperature in the local vicinity is 108.2°F in July. The average minimum temperature is reported at 42.3°F in December and January.

Air pollutant emissions within the region are primarily generated by stationary and mobile sources. Stationary sources can be divided into two major subcategories: point and area sources. Point sources occur at a specific location and are often identified by an exhaust vent or stack at a facility. Portable diesel generators and other similar equipment also are considered to be stationary sources of air emissions. Area sources are widely distributed and can include such sources as residential and commercial water heaters, painting operations, lawn mowers, agricultural fields, parking lots, and some consumer products.

Mobile sources refer to emissions from motor vehicles, including tailpipe and evaporative emissions, and are classified as either on-road or off-road. On-road sources may be legally operated on roadways and highways. Off-road sources include aircraft, ships, trains, and self-propelled construction equipment.

Air pollutants can also be generated by the natural environment, such as when high winds suspend fine dust particles. The main source of pollutants near the Project Site includes mobile emissions generated from both on-road and off-road vehicles.

The USEPA and CARB designate air basins where ambient air quality standards are exceeded as “nonattainment” areas. If standards are met, the area is designated as an “attainment” area. If there is inadequate or inconclusive data to make a definitive attainment designation, they are considered “unclassified.” Federal nonattainment areas are further designated as marginal, moderate, serious, severe, or extreme as a function of deviation from standards.

The current attainment designations for the Salton Sea Air Basin are shown in **Table 5.2-2, Salton Sea Air Basin Attainment Status.** The Salton Sea Air Basin is currently designated as being in nonattainment for the federal ozone, PM10, and PM2.5, nonattainment for the State PM10 and unclassified for State

PM2.5 standards. Areas where air pollution levels persistently exceed the State or national ambient air quality standards may be designated "nonattainment." A Severe 15 nonattainment designation indicates an area in nonattainment has 15 years to attain the standard.

Table 5.2-2
Salton Sea Air Basin Attainment Status

Pollutant	State Status	National Status
Ozone	Nonattainment	Severe 15 Nonattainment
Carbon Monoxide	Attainment	Attainment
Nitrogen Dioxide	Attainment	Attainment
Sulfur Dioxide	Attainment	Unclassified
PM10	Nonattainment	Serious Nonattainment
PM2.5	Attainment	Unclassified/Attainment

Source: State Status from CARB, Ambient Air Quality Standards, http://www.arb.ca.gov/desig/desig.htm, accessed May 13, 2014.

In relation to other areas of southern California, the Agua Caliente Indian Reservation has good air quality. In the past few decades, however, noticeable deterioration of air quality has occurred due to transport of pollutants from coastal air basins to the west, primarily ozone, and locally generated coarse inhalable particulate matter (PM10) as a result of increased development and population growth, traffic, construction activity, and various site disturbances.

Local Air Quality

For evaluation purposes, SCAQMD has divided its territory into 36 Source Receptor Areas (SRAs) with operating monitoring stations in most of the SRAs. These SRAs are designated to provide a general representation of the local meteorological, terrain, and air quality conditions within the particular geographical area.

The Project Area is located within SRA 30 in the Air Basin. SCAQMD operates two monitoring stations, one at the Palm Springs International Airport and one in the City of Indio. With greater attention being dedicated to particulate matter, monitoring for PM10 has been expanded both through temporary research and field data collecting systems, as well as the sitting of permanent wind speed and pollutant measuring devices.

Table 5.2-3, Air Quality Monitoring Summary, summarizes published monitoring data from 2010 through 2012, the most recent 3-year period available. The data shows that during the past few years, SRA 30 has exceeded the ozone and PM10 standards.

Table 5.2-3
Air Quality Monitoring Summary

Pollutant	Standards	Year 2010	2011	2012
Ozone (O3)				
Maximum 1-hour concentration monitored (ppm)		0.114	0.124	0.126
Maximum 8-hour concentration monitored (ppm)		0.099	0.098	0.100
Number of days exceeding State 1-hour standard	0.09 ppm	23	21	17
Number of days exceeding State 8-hour standard	0.070 ppm	83	69	76
Number of days exceeding federal 8-hour standard	0.075 ppm	52	49	51
Nitrogen Dioxide (NO2)				
Maximum 1-hour concentration monitored (ppb)		45.7	44.7	45.1
Annual average concentration monitored (ppb)		8.5	9.5	7.8
Number of days exceeding State 1-hour standard	0.18 ppm	0	0	0
Carbon Monoxide (CO)				
Maximum 1-hour concentration monitored (ppm)		2	–	–
Maximum 8-hour concentration monitored (ppm)		0.5	0.6	0.5
Number of days exceeding 1-hour standard	20 ppm	0	0	0
Number of days exceeding 8-hour standard	9.0 ppm	0	0	0
Sulfur Dioxide (SO2)				
Maximum 1-hour concentration monitored (ppm)		-	-	-
Maximum 24-hour concentration monitored (ppm)		-	-	-
Number of days exceeding State 1-hour standard	0.25 ppm	-	-	-
Number of days exceeding State 24-hour standard	0.04 ppm	-	-	-
Respirable Particulate Matter (PM10)				
Maximum 24-hour concentration monitored ($\mu g/m^3$)		37	42[a]	37
Annual average concentration monitored ($\mu g/m^3$)		18.7	18.5[a]	16.4
Number of samples exceeding State standard	50 $\mu g/m^3$	0	0[a]	0
Number of samples exceeding federal standard	150 $\mu g/m^3$	0	0[a]	0
Fine Particulate Matter (PM2.5)				
Maximum 24-hour concentration monitored ($\mu g/m^3$)		12.8	26.3	15.5
Annual average concentration monitored ($\mu g/m^3$)		6.0	6.1	6.5
Number of samples exceeding federal standard	35 $\mu g/m^3$	0	0	0

Source: South Coast Air Quality Management District, "Historical Data by Year," (2013) http://www.aqmd.gov/smog/historical/AQ12card.pdf.
a. High PM10 and PM2.5 data samples excluded in accordance with the EPA Exceptional Event Regulation due to the special events (i.e. high wind, firework activities, etc.) are as follows: PM10 (FRM) on August 28 at Indio (323 $\mu g/m^3$); and PM2.5 (FRM) on July 5 at Station 060 (94.6 $\mu g/m^3$). Also, the following high PM10 FEM data were excluded: July 3 (396 and 344 $\mu g/m^3$) and August 28 (265 and 375 $\mu g/m^3$), both dates recorded at Stations 4137 and 4157, respectively.
Note: $\mu g/m^3$ = micrograms per cubic meter of air; aam = annual arithmetic mean; NA = not available; ppm = parts per million by volume of air.

Individuals who are sensitive to air pollution include children, the elderly, and persons with preexisting respiratory or cardiovascular illness. For purposes of environmental analysis, SCAQMD considers a sensitive receptor to be a location where a sensitive individual could remain for 24 hours, such as residences, hospitals, or convalescent facilities. Commercial and industrial facilities are not included in the definition because employees do not typically remain onsite for 24 hours. However, when assessing the impact of pollutants with 1-hour or 8-hour standards (such as nitrogen dioxide and carbon monoxide), commercial and/or industrial facilities would be considered sensitive receptors for those purposes.

Numerous sensitive receptors surround the Project Site. The closest sensitive receptors to the site include residents in the Mission Hills communities located approximately 125 feet west of Los Alamos Road and approximately 150 feet southwest and south of Dinah Shore Drive. The Agua Caliente Resort/Casino/Spa, located at the southwest corner of Ramon Road and Bob Hope Drive, may also be considered a sensitive receptor for purposes of assessing potential health risks.

2. Regulatory Setting

Federal

At the federal level, the USEPA is responsible for the implementation of portions of the CAA that deal with certain mobile sources of air emissions and other requirements. Charged with handling global, international, national, and interstate air pollution issues and policies, the USEPA sets national vehicle and stationary source emission standards, oversees approval of all State Implementation Plans,[3] provides research and guidance for air pollution programs, and sets NAAQS.

The NAAQS were set to protect public health, including that of sensitive individuals, and for this reason, the standards continue to change as more medical research becomes available regarding the health effects of the criteria pollutants. The primary NAAQS define the air quality level considered necessary,

3 A State Implementation Plan is a document prepared by each state describing existing air quality conditions and measures that will be followed to attain and maintain NAAQS.

with an adequate margin of safety, to protect the public health.[4] Other portions of the CAA, such as the portions dealing with stationary source requirements, are implemented by State and local agencies.

The 1990 amendments to the CAA identify specific emission reduction goals for areas not meeting the NAAQS. These amendments require both a demonstration of reasonable further progress toward attainment and incorporation of additional sanctions for failure to attain or to meet interim milestones. The sections of the CAA that are most applicable to the Project include Title I, Nonattainment Provisions, and Title II, Mobile Source Provisions.

The NAAQS were also amended in July 1997 to include an 8-hour standard for O3 and to adopt a NAAQS for PM2.5. The NAAQS were amended in September 2006 to include an established methodology for calculating PM2.5, as well as revoking the annual PM10 threshold. The CAA includes the following deadlines for meeting the NAAQS within the Air Basin: (1) PM2.5 by the year 2014 and (2) 8-hour O3 by the year 2023. Although the deadline for federal 1-hour O3 standard has passed, the Air Basin has yet to attain those standards; but it is continuing to implement the AQMP to attain these standards as soon as possible.

State

The California CAA, signed into law in 1988, requires all areas of the State to achieve and maintain the CAAQS by the earliest practicable date. CARB, a part of the California Environmental Protection Agency, is responsible for the coordination and administration of both State and federal air pollution control programs within California. In this capacity, CARB conducts research, sets State ambient air quality standards, compiles emission inventories, develops suggested control measures, and provides oversight of local programs. CARB establishes emissions standards for motor vehicles, consumer products, and various types of commercial equipment sold in California. It also sets fuel specifications to further reduce vehicular emissions. **Table 5.2-1** includes the CAAQS currently in effect for each of the criteria pollutants as well as other pollutants recognized by the State. As shown in **Table 5.2-1**, the CAAQS includes more stringent standards than the NAAQS.

4 EPA, *A Comprehensive Analysis of Biodiesel Impacts on Exhaust Emissions, EPA420-P-02-001* (October 2002). EPA, Office of Air and Radiation, *Nitrogen Oxides: Impact on Public Health and the Environment* (1997), www.epa.gov/ttn/oarpg/t1/reports/noxrept.pdf. EPA, *Ozone and Your Health*, *EPA-452/F-99-003* (1999), www.epa.gov/air/ozonepollution/pdfs/health.pdf. EPA, *Particle Pollution and your Health, EPA-452/F-03-001* (September 2003), http://epa.gov/pm/pdfs/pm-color.pdf. EPA, *Health and Environmental Impacts of CO,* http://www.epa.gov/airquality/carbonmonoxide/ health.html. EPA, *Fact Sheet: Proposed Revisions to the National Ambient Air Quality Standards for Nitrogen Dioxide* (July 22, 2009), www.epa.gov/air/nitrogenoxides/pdfs/20090722fs.pdf.

A State Implementation Plan is a document prepared by each state describing existing air quality conditions and measures that will be followed to attain and maintain the NAAQS. The State Implementation Plan for California is administered by the CARB, which has overall responsibility for Statewide air quality maintenance and air pollution prevention. The CARB also administers CAAQS for the 10 air pollutants designated in the California Clean Air Act. The 10 State air pollutants are the six NAAQS listed above (CO2, CH4, N2O, HFC, PFC, SF6) as well as visibility-reducing particulates[5], hydrogen sulfide, sulfates, and vinyl chloride.

CARB Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling. CARB adopted a new section 2485 within Chapter 10, Article 1, Division 3, title 13 in the California Code of Regulations.[6] This measure limits the idling of diesel vehicles to reduce emissions of toxics and criteria pollutants. The driver of any vehicle subject to this section: (1) shall not idle the vehicle's primary diesel engine for greater than 5 minutes at any location; and (2) shall not idle a diesel-fueled auxiliary power system for more than 5 minutes to power a heater, air conditioner, or any ancillary equipment on the vehicle if it has a sleeper berth and the truck is located within 100 feet of a restricted area (homes and schools).

CARB Final Regulation Order, Requirements to Reduce Idling Emissions from New and In-Use Trucks. This regulation requires that new 2008 and subsequent model-year heavy-duty diesel engines are equipped with an engine shutdown system. This system automatically shuts down the engine after 5 minutes of continuous idling operation once the vehicle is stopped, the transmission is set to "neutral" or "park," and the parking brake is engaged. If the parking brake is not engaged, the engine shutdown system shuts down the engine after 15 minutes of continuous idling operation once the vehicle is stopped and the transmission is set to "neutral" or "park."

CARB Regulation for In-Use Off-Road Diesel Vehicles. On July 26, 2007, the CARB adopted a regulation to reduce diesel particulate matter and NOx emissions from in-use (existing) off-road heavy-duty diesel vehicles in California. Such vehicles are typically used in construction, mining, and industrial operations. As similar types of diesel equipment will be used in the construction and development of the Project Site, this regulation is relevant to this Project. The regulation imposed limits on idling, buying older off-

5 Visibility-reducing particles consist of suspended particulate matter, which is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary greatly in shape, size and chemical composition, and can be made up of many different materials such as metals, soot, soil, dust, and salt.

6 CARB, Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling, www.arb.ca.gov/regact/idling/idling.htm, accessed September 30, 2012.

road diesel vehicles, and selling vehicles beginning in 2008. It requires all vehicles to be reported to CARB and labeled in 2009; and then in 2010 begins gradual requirements to clean up their fleet by getting rid of older engines, using newer engines, and installing exhaust retrofits. The regulation requires equipment to be retrofitted or retired. The regulation takes effect in phases, requiring the largest fleets to comply by 2010, medium fleets by 2013, and smaller fleets by 2015.

Statewide Truck and Bus Rule. On December 12, 2008, the CARB approved a new regulation to significantly reduce emissions from existing on-road diesel vehicles operating in California. The regulation requires affected trucks and buses to meet performance requirements between 2011 and 2023. By January 1, 2023, all vehicles must have a 2010 model year engine or be modified to result in equivalent performance. The regulation applies to all on-road heavy-duty diesel-fueled vehicles with a gross vehicle weight rating greater than 14,000 pounds, agricultural yard trucks with off-road certified engines, and certain diesel fueled shuttle vehicles of any gross vehicle weight rating. Out-of-state trucks and buses that operate in California are also subject to the regulation.

Diesel Particulate Matter. Diesel-fueled vehicles are a source of diesel exhaust particulate matter (DPM), which CARB has designated as a TAC. In addition, motor vehicles are a source of other TACs that can contribute to health effects. CARB has determined that health effects are generally elevated near heavily traveled roadways. The CARB *Air Quality and Land Use Handbook* states, "Air pollution studies indicate that living close to high traffic and the associated emissions may lead to adverse health effects beyond those associated with regional air pollution in urban areas."[7] The *Air Quality and Land Use Handbook* cites several studies linking adverse respiratory health effects (e.g., asthma) to proximity to roadways with heavy traffic densities, where the distances between the roadway and the receptors were 300 to 1,000 feet. Other studies suggest that such impacts diminish with distance, and a substantial benefit occurs if the separation distance is greater than 300 to 500 feet.

The *Air Quality and Land Use Handbook*, which is intended to serve as a general reference guide for planning agencies to evaluate and reduce air pollution impacts associated with new projects that go through the land use decision-making process, contains general recommendations that may reduce potential health impacts by establishing a buffer zone or setback between sensitive land uses and sources of TACs. Specifically, with respect to land uses located near freeways and other heavily traveled roadways, CARB recommends that lead agencies avoid citing new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles per day, or rural roads with 50,000 vehicles per day.

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7 California EPA, California Air Resources Board, Air Quality and Land Use Handbook: A Community Health Perspective, (2005), 8.

Regional and Local

South Coast Air Quality Management District

The USEPA is responsible for the implementation of the Clean Air Act on Tribal lands; State and local agencies, such as SCAQMD and Southern California Association of Governments (SCAG), do not have jurisdiction. However, although not required to do so, this Project will comply with SCAQMD air quality regulations. This voluntary compliance does not include submission of the Tribe to SCAQMD authority or the payment of any fees by the Tribe to SCAQMD.

SCAQMD shares responsibility with CARB for ensuring that all State and federal ambient air quality standards are achieved and maintained over an area of approximately 10,743 square miles. This area includes the South Coast and Salton Sea Air Basins, all of Orange County, and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties. It does not include the Antelope Valley or the non-desert portion of western San Bernardino County.

SCAQMD is responsible for controlling emissions primarily from stationary sources. SCAQMD maintains air quality monitoring stations throughout the Air Basins. SCAQMD, in coordination with the SCAG, is also responsible for developing, updating, and implementing the AQMP for the Air Basins. An AQMP is a plan prepared and implemented by an air pollution district for a county or region designated as "nonattainment" of the national and/or California ambient air quality standards. The term "nonattainment area" is used to refer to an air basin in which one or more ambient air quality standards are exceeded.

The purpose of the 2003 AQMP is to lead the South Coast Air Basin and portions of the Salton Sea Air Basin under SCAQMD jurisdiction into compliance with the 1-hour ozone and PM10 national standards.[8] The goal of the 2007 AQMP is to lead the South Coast Air Basin into compliance with the national 8-hour ozone and PM2.5 standards.

The 2003 AQMP also replaced the 1997 attainment demonstration for the federal CO standard, provided a basis for a maintenance plan for CO for the future, and updated the maintenance plan for the federal nitrogen dioxide standard that the South Coast Air Basin has met since 1992.[9] A subsequent AQMP for the basin was adopted by SCAQMD on June 1, 2007.[10] The 2007 AQMP outlined a detailed strategy for meeting the national health-based standards for PM2.5 by 2015 and 8-hour ozone by 2024

8 SCAQMD, Air Quality Management Plan (2003), www.aqmd.gov/AQMD03AQMP.htm.
9 SCAQMD (2003), 1-1.
10 SCAQMD, Final 2007 Air Quality Management Plan (2007), www.aqmd.gov/aqmp/07aqmp/index.html.

while accounting for and accommodating future expected growth. The 2007 AQMP incorporated significant new emissions inventories, ambient measurements, scientific data, control strategies, and air quality modeling. Most of the reductions were to be from mobile sources, which are currently responsible for about 75 percent of all smog and particulate-forming emissions.

SCAQMD approved the 2012 AQMP on December 7, 2012. The 2012 AQMP incorporates the latest scientific and technological information and planning assumptions, including the 2012 Regional Transportation Plan/Sustainable Communities Strategy and updated emission inventory methodologies for various source categories. The 2012 AQMP outlines a comprehensive control strategy that meets the requirement for expeditious progress toward attainment with the 24-hour PM2.5 federal ambient air quality standard with all feasible control measures and demonstrates attainment of the standard by 2014. The 2012 AQMP is also an update to the 8-hour ozone control plan with new emission reduction commitments from a set of new control measures, which implement the 2007 AQMP's Section 182 (e)(5) commitments.

SCAQMD is responsible for limiting the amount of emissions that can be generated throughout the Air Basins by various stationary, area, and mobile sources. Specific rules and regulations have been adopted by the SCAQMD Governing Board, which limit the emissions that can be generated by various uses/activities and that identify specific pollution reduction measures, which must be implemented in association with various uses and activities. These rules not only regulate the emissions of the federal and State criteria pollutants but also TACs and acutely hazardous materials. The rules are also subject to ongoing refinement by SCAQMD.

Among the SCAQMD rules applicable to the Project are Rule 403 (Fugitive Dust), Rule 403.1 (Supplemental Fugitive Dust Control Requirements For Coachella Valley Sources), and Rule 1113 (Architectural Coatings). Rule 403 requires the use of stringent best available control measures to minimize PM10 emissions during grading and construction activities. Rule 403.1 requires active operations within a Blowsand Zone stabilize new man-made deposits of bulk material and requires a fugitive dust control plan for construction projects. Rule 1113 will require reductions in the VOC content of coatings, with a substantial reduction in the VOC content limit for flat coatings to 50 grams per liter (g/L) in July 2008.[11] Additional details regarding these rules and other potentially applicable rules are presented as follows.

11 SCAQMD, Rule 1113 Architectural Coating (amended September 6, 2013).

Rule 403 (Fugitive Dust). This rule requires fugitive dust sources to implement Best Available Control Measures for all sources and prohibits all forms of visible particulate matter from crossing any property line. This may include application of water or chemical stabilizers to disturbed soils, covering haul vehicles, restricting vehicle speeds on unpaved roads to 15 miles per hour (mph), sweeping loose dirt from paved site access roadways, cessation of construction activity when winds exceed 25 mph, and establishing a permanent ground cover on finished sites. SCAQMD Rule 403 is intended to reduce PM10 emissions from any transportation, handling, construction, or storage activity that has the potential to generate fugitive dust (see also Rule 1186).

Rule 403.1 (Supplemental Fugitive Dust Control Requirements For Coachella Valley Sources). This rule requires the reduction or prevention of the amount of PM10 emitted in the ambient air from man-made fugitive dust sources. The provisions of this rule are supplemental to Rule 403 and apply only to fugitive dust sources in the Coachella Valley. In addition, this rule requires a fugitive dust control plan for construction projects with a disturbed surface area of more than 5,000 square feet.

Rule 1113 (Architectural Coatings). This rule requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories.

Rule 1121 (Control of Nitrogen Oxides from Residential Type, Natural Gas-Fired Water Heaters). This rule prescribes NOx emission limits for natural gas-fired water heaters with heat input rates less than 75,000 British Thermal Unit (BTU) per hour. It applies to manufacturers, distributors, retailers, and installers of natural gas-fired water heaters. In lieu of meeting these NOx limits, this rule allows emission mitigation fees to be collected from water heater manufacturers to fund stationary and mobile source emission reduction projects targeted at offsetting NOx emissions from water heaters that do not meet Rule 1121 emission standards.

Rule 1146.2 (Emissions of Oxides of Nitrogen from Large Water Heaters and Small Boilers and Process Heaters). This rule requires manufacturers, distributors, retailers, refurbishers, installers, and operators of new and existing units to reduce NOx emissions from natural gas-fired water heaters, boilers, and process heaters as defined in this rule.

Rule 1186 (PM10 Emissions from Paved and Unpaved Roads, and Livestock Operations). This rule applies to owners and operators of paved and unpaved roads and livestock operations. The rule is intended to reduce PM10 emissions by requiring the cleanup of material deposited onto paved roads, use of certified street sweeping equipment, and treatment of high-use unpaved roads (see also Rule 403).

Stationary emissions sources subject to these rules are regulated through SCAQMD's permitting process. Through this permitting process, SCAQMD also monitors the amount of stationary emissions being generated and uses this information in developing AQMPs. The Project would be subject to SCAQMD rules and regulations to reduce specific emissions and to mitigate potential air quality impacts.

Coachella Valley PM10 State Implementation Plan

The Air Basin is designated as a serious nonattainment area for PM10. The attainment date for serious nonattainment areas to achieve the PM10 NAAQS was 2001. After years of demonstrating attainment of the PM10 standards prior to 1999, PM10 levels during the next three years (1999-2001) did not demonstrate attainment of the annual average PM10 NAAQS. Under the federal Clean Air Act, an area can request an extension of up to five years to attain the PM10 NAAQS if certain requirements are met, including creation of a State Implementation Plan (SIP) that demonstrates expeditious attainment of the standards. Thus, SCAQMD established additional strategies for the control of PM10 in the Coachella Valley PM10 State Implementation Plan (CVSIP), which was most recently updated in 2003. The 2003 CVSIP updates the emission inventories, emission budgets, and attainment modeling for the Air Basin.

2012 AQMP

The 2012 AQMP also addresses several State and federal planning requirements, incorporating new scientific information, primarily in the form of updated emissions inventories, ambient measurements, and new meteorological air quality models. This Plan builds upon the approaches taken in the 2007 AQMP for the South Coast Air Basin for the attainment of federal PM and ozone standards, and highlights, and highlights the significant amount of reductions needed and the urgent need to engage in interagency coordinated planning to identify additional strategies, especially in the area of mobile sources, to meet all federal criteria pollutant standards within the timeframes allowed under the federal Clean Air Act.

The AQMP provides local guidance for the SIP, which provides the framework for air quality basins to achieve attainment of the State and federal ambient air quality standards. Areas that meet ambient air quality standards are classified as attainment areas, while areas that do not meet these standards are classified as nonattainment areas. Severity classifications for ozone nonattainment range in magnitude: marginal, moderate, serious, sever, and extreme.

SCAQMD Air Quality Analysis Guidance Handbook

In 1993, SCAQMD prepared its *CEQA Air Quality Handbook* to assist local government agencies and consultants in preparing environmental documents for projects subject to CEQA.[12] However, SCAQMD is in the process of developing its *Guidance Handbook* to replace the *CEQA Handbook*. The *CEQA Handbook* and the *Guidance Handbook* describe the criteria that SCAQMD uses when reviewing and commenting on the adequacy of environmental documents. The *Guidance Handbook* provides the most up-to-date recommended thresholds of significance in order to determine if a project will have a significant adverse environmental impact. Other important subjects covered in the *CEQA Handbook* and the *Guidance Handbook* include methodologies for estimating project emissions and mitigation measures that can be implemented to avoid or reduce air quality impacts. Although the Governing Board of SCAQMD has adopted the *CEQA Handbook* and is in the process of developing the *Guidance Handbook*, SCAQMD does not, nor does it intend to, supersede a local jurisdiction's CEQA procedures.[13]

While the *Guidance Handbook* is being developed, supplemental information has been adopted by SCAQMD. These include revisions to the air quality significance thresholds and a procedure referred to as "localized significance thresholds," which has been added as a significance threshold under the Local Significance Threshold (LST) Methodology.[14] The applicable portions of the *CEQA Handbook*, the *Guidance Handbook*, and other revised methodologies were used in preparing the air quality analysis in this Section, as discussed and referenced later in this Section.

Southern California Association of Governments

SCAG is the authorized regional agency for intergovernmental review of programs proposed for federal financial assistance and direct development activities. SCAG consists of local governments from Los Angeles, Ventura, Orange, San Bernardino, Riverside, and Imperial counties. SCAG is also responsible for the designated Regional Transportation Plan, including its Sustainable Communities Strategy component pursuant to SB 375. The Sustainable Communities Strategy has been formulated to reduce greenhouse gas (GHG) emissions from passenger vehicles by 8 percent per capita by 2020 and 13 percent per capita by 2035 compared to 2005 targets set by the California Air Resources Board.

The 2012–2035 Regional Transportation Plan/Sustainable Communities Strategies (RTP/SCS) links the goal of sustaining mobility with the goals of fostering economic development, enhancing the environment, reducing energy consumption, promoting transportation-friendly development patterns,

12 SCAQMD, Air Quality Analysis Guidance Handbook (2010), http://www.aqmd.gov/CEQA/hdbk.html.
13 SCAQMD, Frequently Asked CEQA Questions (2010), http://www.aqmd.gov/ceqa/faq/html.
14 SCAQMD, Final Localized Significance Threshold Methodology (2008).

and encouraging fair and equitable access to residents affected by socioeconomic, geographic and commercial limitations.

B. ENVIRONMENTAL IMPACTS

1. Thresholds of Significance

In order to assist in determining whether a project would have a significant effect on the environment, the Tribe finds a project may be deemed to have a significant impact to air quality, if it would:

Threshold 5.2-1: **Conflict with or obstruct implementation of the applicable air quality plan?**

Threshold 5.2-2: **Violate any air quality standard or contribute substantially to an existing or projected air quality violation?**

Threshold 5.2-3: **Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?**

Threshold 5.2-4 : **Expose sensitive receptors to substantial pollutant concentrations?**

Threshold 5.2-5: **Create objectionable odors affecting substantial number of people?**

Under CEQA, SCAQMD is a commenting agency on air quality within its jurisdiction or impacting its jurisdiction. Under the Federal CAA, SCAQMD has adopted federal attainment plans for O3 and PM10. SCAQMD reviews projects to ensure that they would not: (1) cause or contribute to any new violation of any air quality standard; (2) increase the frequency or severity of any existing violation of any air quality standard; or (3) delay timely attainment of any air quality standard or any required interim emission reductions or other milestones of any federal attainment plan.

SCAQMD has identified thresholds to determine the significance of both local air quality impacts and impacts to regional air quality for construction activities and project operation, as shown in **Table 5.2-4, Mass Daily Emissions Thresholds.**

Table 5.2-4
Mass Daily Emissions Thresholds

Pollutant	Construction (pounds/day)	Operational (pounds/day)
Volatile Organic Compounds (VOCs)	75	75
Nitrogen dioxide (NOx)	100	100
Carbon monoxide (CO)	550	550
Sulfur dioxide (SOx)	150	150
Respirable particulate matter (PM10)	150	150
Fine particulate matter (PM2.5)	55	55

Source: SCAQMD, CEQA Air Quality Handbook (November 1993).
It should be noted that the operational thresholds are the same as the construction thresholds for projects located within the Coachella Valley.

SCAQMD has identified thresholds to determine the significance of both local air quality impacts and impacts to regional air quality. The localized significance thresholds used in this analysis address whether there are potential impacts to residents of the Reservation, the City of Rancho Mirage ("City") and nearby County residents in the residential communities and neighborhoods located around and near the Project Site. The initial review of potential local impacts involves a determination of whether emissions from the Project would exceed the LST identified by SCAQMD. **Table 5.2-5, Coachella Valley LST for 5-Acre Site**, shows the LST for a 5-acre site in the Coachella Valley for a sensitive receptor at 50 meters (150 feet). If the emissions exceed the LST then additional analysis is performed to determine if emissions from the Project would result in concentrations that exceed the standards in **Table 5.2-5**.

Table 5.2-5
Coachella Valley LST for 5-Acre Site

Pollutant	LST Threshold (pounds/day)
Construction	
Nitrogen dioxide (NO2)	340
Carbon monoxide (CO)	3,237
Respirable particulate matter (PM10)	44
Fine particulate matter (PM2.5)	11
Operational	
Nitrogen dioxide (NO2)	340
Carbon monoxide (CO)	3,237
Respirable particulate matter (PM10)	11
Respirable particulate matter (PM2.5)	3

Source: SCAQMD, Mass Rate LST Look-up Tables (2009).

The significance of localized project impacts depends on whether ambient CO levels in the vicinity of the proposed project are above or below State and federal CO standards. If the project causes an exceedance of either the State 1-hour or 8-hour CO concentrations, the project would be considered to have a significant local impact. If ambient levels already exceed a State or federal standard, then project emissions are considered significant if they increase 1-hour CO concentrations by 1.0 parts per million (ppm) or more, or 8-hour CO concentrations by 0.45 ppm or more pursuant to SCAQMD Rule 1303(b).

SCAQMD's *CEQA Air Quality Handbook* identifies several methods to determine the cumulative significance of land use projects (i.e., whether the contribution of a project is cumulatively considerable). However, SCAQMD no longer recommends the use of these methodologies. Instead, SCAQMD recommends that any construction-related emissions and operational emissions from individual development projects that exceed the project-specific mass daily emissions thresholds identified previously also can be considered cumulatively considerable.[15] SCAQMD neither recommends quantified analyses of the emissions generated by a set of cumulative development projects, nor provides thresholds of significance to be used to assess the impacts associated with these emissions.

15 White Paper on Regulatory Options for Addressing Cumulative Impacts from Air Pollution Emissions, SCAQMD Board Meeting, September 5, 2003, Agenda No. 29, Appendix D, D-3.

2. Methodology

Air Quality

Construction activities produce combustion emissions from various sources, such as on-site heavy-duty construction vehicles, vehicles hauling materials to and from the site, and motor vehicles transporting the construction crew. Grading activities produce fugitive dust emissions (PM10 and PM2.5) from soil-disturbing activities. Exhaust emissions from construction activities on site would vary daily as construction activity levels change. Short-term emissions of criteria air pollutants (e.g., CO, SOx, PM10 and PM2.5) generated by Project construction and ozone precursors (e.g., VOCs and NOx) were assessed in accordance with SCAQMD-recommended methods. These emissions were modeled using the CARB-approved California Emissions Estimator Model (CalEEMod) computer program as recommended by SCAQMD. CalEEMod is designed to model construction emissions for land use development projects and allows for the input of project-specific information. The program contains default settings specific to the air district, county, air basin, or State level using approved vehicle emissions factors (EMFAC 2011), established methodologies, and the latest survey data.

Compliance with Rule 403 and Rule 403.1 is mandatory for all construction projects in SCAQMD jurisdiction in the Coachella Valley. Based on the CalEEMod model, the emission calculations take into account compliance with Rule 403 and Rule 403.1 by incorporating the watering of exposed surfaces and unpaved roads three times daily, reducing speed on unpaved roads to less than 15 mph, and sweeping loose dirt from pave site access roadways. These measures are estimated to reduce fugitive dust emissions (both PM10 and PM2.5) by a maximum of 61 percent and 44 percent, respectively, per guidance from SCAQMD.[16] Rule 403 contains other best available control measures to minimize fugitive dust emissions, but the model is not able to account for reductions. Rule 403.1 requires a dust control plan for grading areas in excess of 5,000 square feet. The air quality model also incorporated use of Tier 3 engines for off-road vehicles during construction activities, as required by CARB regulations.

Operational emissions generated by both stationary and mobile sources would result from normal day-to-day activities of the Project Site source emissions would be generated by the consumption of natural gas and landscape maintenance. Mobile emissions would be generated by the motor vehicles traveling to and from the Project Site.

Project-generated, regional area and mobile-source emissions of criteria air pollutants and ozone precursors were also modeled using the CalEEMod computer program. CalEEMod allows land use

16 SCAQMD, California Emissions Estimator Model (CalEEMod), Version 2013.2.2 (2013).

selections that include project location specifics and trip generation rates. CalEEMod accounts for area-source emissions from the use of natural gas, landscape maintenance equipment, and consumer products and from mobile-source emissions associated with vehicle trip generation.

The analysis of daily operational emissions associated with the Project have been prepared using the data and methodologies identified in SCAQMD's *CEQA Air Quality Handbook* and current motor vehicle emission factors in CalEEMod. Trip rates for these land uses were obtained from the traffic impact study for the Project (**Appendix G**).

The following assumptions were made in the CalEEMod computer program:

Land Uses

Active Adult Community

- 25-acre asphalt surfaces (for roadways)
- 425-space parking lot
- 7-acre private park
- 78-acre user defined recreational (private open space)
- 23,000-square-foot recreational center
- 1,200 single-family housing units

Tribal Planning Areas

- 12,000-space parking lot
- 6-acre private park
- 72-acre retail shopping center
- 1,206 dwelling units condo/townhouse
- 25-acre asphalt surfaces (for roadways)
- 6-acre user-defined recreation (open space)

Combined

- Includes all land uses from both the Active Adult Community and Tribal Planning Areas

Construction

Active Adult Community

- Construction period of approximately 6 years beginning fall 2015 and ending by spring 2021.

- Construction would occur over six phases: (1) Site Preparation which would last approximately 20 days, (2) Grading for approximately 9 months, (3) Trenching for approximately 5 months, (4) Building Construction for approximately 4 years, (5) Architectural Coating for approximately 5 and a half years, and (6) Paving for approximately 6 months.
- Construction would occur 5 days per week with 8-hour work days

Each phase of construction would result in varying levels of intensity and the number of construction personnel. The construction workforce would consist of approximately 18 worker trips/day during site preparation, 20 worker trips/day during grading, 20 worker trips/day during trenching, 432 worker trips/day and 129 vendor trips/day during building construction, 90 worker trips during architectural coating, and 15 worker trips/day during paving. The construction scenario for the Active Adult Community assumed that the entire 577-acre site is graded, paved roadways, and trenched utilities for modeling purposes.

Tribal Planning Areas

- Construction period of approximately 12 years beginning early 2023 and ending by late 2035.
- Construction would occur over two phases: (1) Building construction which would last approximately 10 years, and (2) Architectural Coating which would last approximately 8 years.
- Construction would occur over 5 days per weeks and 8-hour workdays.

Each phase of construction would result in varying levels of intensity and the number of construction personnel. The construction workforce would consist of approximately 868 worker trips/day and 129 vendor trips/day during building construction, and 825 worker trips/day during architectural coating.

It is anticipated that the Project would be developed in two phases, with buildout of the first phase (Active Adult Community) projected for 2022 and buildout of the final phase (Tribal Planning Areas) projected for 2035. No timeframe has been established for the development of the Tribal Planning Areas. However, the analysis assumes the buildout of the Active Adult Community only, the Tribal Planning Areas only, and a combined worst case scenario of full concurrent Project development of both.

Combined

The combined scenario includes a separate model run for a more conservative analysis.

- Construction period of approximately 6 years beginning mid-2016 and ending by mid-2022.
- Construction would occur over six phases: (1) Site Preparation which would last approximately 20 days, (2) Grading for approximately 9 months, (3) Trenching for approximately 5 months, (4)

Building Construction for approximately 4 years, (5) Architectural Coating for approximately 5 and a half years, and (6) Paving for approximately 6 months.

- Construction would occur 5 days per week with 8 hour work days.

Each phase of construction would result in varying levels of intensity and the number of construction personnel. The construction workforce would consist of approximately 18 worker trips/day during site preparation, 20 worker trips/day during grading, 20 worker trips/day during trenching, 1,300 worker trips/day and 258 vendor trips/day during building construction, 915 worker trips during architectural coating, and 15 worker trips/day during paving. The construction scenario assumed that the entire 577-acre site is graded, paved roadways, and trenched utilities for modeling purposes.

Localized Significance Thresholds

The LST Methodology uses lookup tables based on site acreage to determine the significance of emissions for CEQA purposes. However, CalEEMod does not allow the user to mitigate construction emissions by directly modifying acreage disturbed. CalEEMod calculates construction emissions (off-road exhaust and fugitive dust) based on the number of equipment hours and the maximum daily soil disturbance activity possible for each piece of equipment. Based on the input parameters during grading, one scraper operating 8 hours a day would disturb 1 acre, four graders would disturb 2 acres, and four rubber tired dozers would disturb 2 acres in any given day for a total maximum of 5 acres disturbed in one day.[17]

In order to compare CalEEMod reported emissions against the LST lookup tables, the environmental document should contain in its project design features or its mitigation measures the following parameters:

- The off-road equipment list (including type of equipment, horsepower, and hours of operation) assumed for the day of construction activity with maximum emissions
- The maximum number of acres disturbed on the peak day using the equipment list and table from the CalEEMod appendix
- Any emission control devices added onto off-road equipment
- Specific dust suppression techniques used on the day of construction activity with maximum emissions.

17 SCAQMD, Fact Sheet for Applying CalEEMod to Localized Significance Thresholds, accessed January 2014.

LSTs are based on the ambient concentrations of that pollutant within the project SRA and the distance to the nearest sensitive receptor. If the Project's emissions exceed the LST thresholds for NOx, CO, PM10, and/or PM2.5, then additional dispersion modeling will be conducted. Since the amount of localized emissions was greater than the LST screening threshold for PM2.5, the Industrial Source Complex-Short Term (ISTC3) model was used to assess the impact of PM2.5 emissions to the nearest sensitive receptors. The ISTC3 model is a steady-state Gaussian plume model used by the SCAQMD to develop the LST Methodology. The dispersion modeling incorporates all relevant and appropriate procedures presented by the USEPA, SCAQMD and the California Environmental Protection Agency.

Source treatment for hearth and energy consumption were treated as side-by-side elevated volume sources uniformly spaced at 100 meters (328 feet) with release heights of 4.57 meters (15 feet) and initial vertical dimensions of 2.13 meters (7 feet) to account for the buoyancy associated with the combustion of natural gas and elevated flue sources from a representative single family home. Fugitive dust emissions associated with landscape activities were treated as a ground-based source with a one meter (3.3 feet) vertical dimension and source area incorporating Project Site size and configuration. Meteorological data from the SCAQMD Palm Springs monitoring station (SRA 30) was used to represent local weather conditions and prevailing winds. Off-site receptors were uniformly placed to provide dense coverage throughout the adjoining community. A flagpole receptor height of two meters (6.6 feet) was also assumed and assigned to each receptor location.

Other air quality impacts (i.e., CO, TACs, odors) were assessed in accordance with methodologies recommended by SCAQMD.

3. Project Design Features

The following Project Design Features (PDFs) are incorporated into the proposed Project and would reduce the potential air quality impacts of the Project. These features were taken into account in the analysis of potential impacts. Additionally, blowsand in the area would have the potential to scar buildings and vehicles.

PDF 5.2-1 Dust control measures shall be implemented by the construction contractor in all unpaved areas in full compliance with applicable SCAQMD standards including Rule 403 and Rule 403.1.

PDF 5.2-2 Buildings shall be sited and designed to maximize the use of sunlight and shade for energy savings and respect the right to solar access of nearby and adjacent buildings. Whenever appropriate, buildings shall be oriented so that the long axis of the building is oriented east–west to maximize the opportunity for north-

and south facing windows, which receive indirect, diffused light with low heat gain for the building, reducing cooling costs during summer months.

PDF 5.2-3 The pursuit of already established sustainable best management practices, such as Leadership in Energy and Environmental Design (LEED) certification, ComfortWise and EnergyStar Home shall be utilized throughout the Project Site. For maximum flexibility, however, developers and builders shall implement sustainable building and development practices identified within the Voluntary Green Building Program and the Voluntary Green Building Manual.

PDF 5.2-4 Builders shall participate in programs offered or sponsored by local utilities such as California EnergyStar New Homes Program, Residential Property Development Program, California Home Energy Efficiency Rating System (CHEERS) Program, and Savings by Design Program.

PDF 5.2-5 Builders shall use flooring and insulation products that are low-emitting in terms of volatile organic compounds (VOCs) and formaldehyde. Low- and zero-VOC paints, finishes, adhesives, caulks, and other substances are also recommended to improve indoor air quality and reduce the harmful health effects of off-gassing.

PDF 5.2-6 Water conservation features such as installation of low-flow toilets (20 percent reduction), low-flow shower heads (20 percent reduction), low-flow kitchen faucets, low-flow bathroom faucets (32 percent reduction), water-efficient irrigation systems (6.1 percent reduction), and an overall water conservation strategy (20 percent reduction for both indoor/outdoor uses) shall be used within the Project Site.

PDF 5.2-7 Buildings shall not be constructed with glass and wood as the primarily material because they perform poorly in environments subject to blowsand.

4. Project Impacts

Conflict with or Obstruct the Implementation of the Applicable Air Quality Plan

Active Adult Community and Tribal Planning Areas

The 2012 AQMP was prepared to accommodate growth, to reduce the high levels of pollutants within the areas under the jurisdiction of SCAQMD, to return clean air to the region, and to minimize the impact on the economy. Projects that are considered to be consistent with the AQMP do not interfere

with attainment because this growth is included in the projections utilized in the formulation of the AQMP. Therefore, project, uses, and activities that are consistent with the applicable assumptions used in the development of the AQMP would not jeopardize attainment of the air quality levels identified in the AQMP.

Section 15125 of the CEQA Guidelines requires an analysis of project consistency with applicable governmental plans and policies. In accordance with the SCAQMD *CEQA Air Quality Handbook*, the following criteria were used to evaluate the Project's consistency with SCAQMD and SCAG regional plans and policies, including the AQMP:

(1) Will the project result in any of the following:

- An increase in the frequency or severity of existing air quality violations;
- Cause or contribute to new air quality violations; or
- Delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP?

(2) Will the project exceed the assumptions utilized in preparing the AQMP?

- Is the project consistent with the population and employment growth projections upon which AQMP forecasted emission levels are based;
- Does the project include air quality mitigation measures; or
- To what extent is project development consistent with the AQMP land use policies?

The Air Basin is designated by the State and USEPA as nonattainment for O3 and PM10. SCAQMD developed regional emissions thresholds, as shown in **Table 5.2-6**, to determine whether a project would contribute to air pollutant violations. If a project exceeds the regional air pollutant thresholds, then it would significantly contribute to air quality violations in the Air Basin.

As discussed previously, regional and localized concentrations of PM10 would be below the SCAQMD thresholds and, therefore, would not have potential to cause or affect a violation of the PM10 ambient air quality standard. Since VOCs are not a criteria pollutant, there is no ambient standard or localized threshold for VOCs. Because of the role VOCs play in ozone formation, they are classified as a precursor pollutant, and only a regional emissions threshold has been established.

Temporary emissions associated with construction of the Project would exceed SCAQMD VOC thresholds for regional emissions for the Tribal Planning Area only and the Combined Project Buildout scenarios, but not for construction of only the Active Adult Community. The Project's construction-

related emissions would result in a regionally significant air quality impact, even with Project Design Features and Mitigation Measures.

Long-term emissions associated with the proposed Project would exceed SCAQMD thresholds for VOC, NOx, and CO under all three analyzed operation scenarios and would result in regionally significant air quality impacts, even with Project Design Features and Mitigation Measures. Long-term emissions associated with the Project would reduce VOC emissions approximately 22 percent, NOx emissions approximately 21 percent, and CO emissions approximately 17 percent from baseline operation conditions with Project Design Features and Mitigation Measures.

The Project's maximum potential NOx and CO daily emissions during construction and operation were analyzed to determine potential effects on localized concentrations and to determine if there is a potential for such emissions to cause or affect a violation of an applicable ambient air quality standard. As shown in **Table 5.2-12** through **Table 5.2-15**, NOx and CO emissions would not exceed the SCAQMD localized significance thresholds.

Demographic growth forecasts for various socioeconomic categories (e.g., population, housing, employment), developed by SCAG for their 2012 RTP were used to estimate future emissions within the 2012 AQMP (refer to the 2012 AQMP, Chapter 3). Projects that are consistent with the growth projections are considered consistent with the AQMP. The Project would result in population growth for the region. The 2012 AQMP incorporates land use projections from the 2012 RTP/SCS, from the County General Plan Land Use Map, and from the City for this portion of the Air Basin. It is assumed that the 2012 AQMP did incorporate the land use projections for the current zoning (Commercial Tourist, Medium Density Residential, and Commercial Retail). Under this zoning designation, up to 377 acres would be allowed to develop as non-residential uses and up to 240 acres would be allowed to develop residential land uses. According to the SCAG estimates, the 2008 population within the Coachella Valley Association of Governments (CVAG) subregion is 443,000 residents, with the City accounting for 17,000 residents, or 4 percent of the CVAG region. Based on SCAG data, the population projections used to estimate emissions in the 2012 AQMP for year 2035 anticipated a population of 884,000 within CVAG boundaries, of which the City would account for 22,900 residents.[18] The Project would house up to 2,160 residents over the age of 55 in the Active Adult Community and 2,171 residents in the Tribal Planning Areas for a total of 4,331 residents. The Active Adult Community would account for a negligible population increase within the CVAG boundaries and approximately 9 percent of the City's growth projection by 2035. The Tribal Planning Areas would account for a negligible increase in population

18 SCAG, 2012 Adopted Growth Forecast (April 2012).

growth within CVAG boundaries by 2035. The Project would account for less than 1 percent of the anticipated increase of residents within the CVAG subregion and approximately 19 percent in the City between 2008 and 2035. This total is within the growth projections for the CVAG as adopted by SCAG.

As discussed in **B.2, Methodology**, the proposed Project would incorporate numerous energy efficiency measures and water conservation measures to reduce direct and indirect emissions. The Project would incorporate energy and water efficiency design features to enhance efficiency in all aspects of a building's life-cycle. These designs would increase the structure's energy efficiency, water efficiency, and overall sustainability. The Project would also exceed Title 24 energy requirements by 15 percent, consistent with the Voluntary Green Building Program. The Project is also located in an urban area that would reduce vehicle trips and vehicles miles traveled due to the urban infill characteristics and proximity to public transit stops. These measures and features are consistent with existing recommendations to reduce air emissions. The Project would also develop a comprehensive system of pedestrian, neighborhood electric vehicle (NEV), golf cart, and bicycle travel throughout the Project Site and into the surrounding community to reduce vehicle miles traveled by personal vehicle use.

As discussed below, the Project would result in less than significant impacts with regard to localized concentrations of VOCs, NOx, CO, PM10, and PM2.5 during Project construction of the Active Adult Community. The planned uses would also be consistent with the land use and zoning designation of the Project Site. The proposed Project would accommodate a mix of commercial, retail, entertainment, resort, and residential uses within walking distance which would reduce the need for residents within the Project Site and surrounding area to travel long distances to other commercial and entertainment centers. This would be consistent with the SCAG, County of Riverside, and the City's General Plan projections and would not exceed assumptions in the AQMP and would be consistent with the Coachella Valley PM10 State Implementation Plan.

However, impacts with regard to localized concentrations of VOCs during construction of the Tribal Planning Area and regional concentrations of VOCs, NOx, and CO during operation of the Project would exceed SCAQMD regional significance thresholds. The determination of AQMP consistency is primarily concerned with the long-term influence of the Project on air quality in the Air Basin. While development of the Specific Plan would result in short-term regional and localized impacts, Project development would not have a significant long-term impact on the region's ability to meet State and federal air quality standards. In addition, the Project would comply with SCAQMD Rules 403, 403.1, and 1113 and would implement Project Design Features and all feasible Mitigation Measures for control of VOCs, NOx, and CO. As previously discussed, the Project's long-term influence would also be consistent with the goals and policies of the AQMP and is, therefore, considered consistent with the SCAQMD's AQMP.

Violate Any Air Quality Standard Or Contribute Substantially To An Existing Or Projected Air Quality Violation

Active Adult Community

Construction Emissions

The estimated maximum daily emissions for the Active Adult Community during Project construction are listed in **Table 5.2-6, Active Adult Community Construction Emissions.** These estimates are based on the expected location, size, and development of the Project. The analysis assumes that all of the construction equipment and activities would occur continuously over the day and that activities would overlap. In reality, this would not occur, as most equipment operates only a fraction of each workday and many of the activities would not overlap on a daily basis.

Table 5.2-6
Active Adult Community Construction Emissions

	Pollutant (pounds/day)					
Source	**VOC**	**NOx**	**CO**	**SOx**	**PM10**	**PM2.5**
Year 2015						
Maximum	1.09	20.41	39.37	0.06	6.80	3.76
SCAQMD threshold	75	100	550	150	150	55
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**
Year 2016						
Maximum	4.06	29.72	59.26	0.10	3.48	1.53
SCAQMD threshold	75	100	550	150	150	55
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**
Year 2017						
Maximum	73.07	1.57	7.05	0.01	0.24	0.08
SCAQMD threshold	75	100	550	150	150	55
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**
Year 2018						
Maximum	73.03	1.52	6.57	0.01	0.24	0.08
SCAQMD threshold	75	100	550	150	150	55
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**
Year 2019						
Maximum	73.00	1.49	6.21	0.01	0.24	0.08
SCAQMD threshold	75	100	550	150	150	55
Threshold	**No**	**No**	**No**	**No**	**No**	**No**

Source	Pollutant (pounds/day)					
	VOC	**NOx**	**CO**	**SOx**	**PM10**	**PM2.5**
Exceeded?						
Year 2020						
Maximum	73.98	11.35	22.68	0.04	0.32	0.13
SCAQMD threshold	75	100	550	150	150	55
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**
Year 2021						
Maximum	73.96	11.33	23.30	0.04	0.32	0.13
SCAQMD threshold	75	100	550	150	150	55
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**
Year 2022						
Maximum	72.94	1.42	5.54	0.01	0.24	0.08
SCAQMD threshold	75	100	550	150	150	55
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

*Source: Refer to the data sheets in **Appendix B, Air Quality and Greenhouse Gas Emissions Modeling.***
Abbreviations: CO = carbon monoxide; NOx = nitrogen oxide; PM10 = particulate matter less than 10 microns; PM2.5 = particulate matter less than 2.5 microns; VOC = volatile organic compound; SCAQMD = South Coast Air Quality Management District; SOX = sulfur oxide.

The primary source of NOx, CO, and SOx emissions is from construction equipment exhaust and on-road haul truck trips while the majority of particulate matter emissions would occur as a result of fugitive dust emissions generated during grading and excavation activities. Primary sources of PM10 and PM2.5 emissions would be clearing activities, excavation and grading operations, construction vehicle traffic on unpaved ground, and wind blowing over exposed earth surfaces. As shown in **Table 5.2-6,** construction activities associated with the development of the Active Adult Community would not exceed regional VOC, NOx, CO, SOx, PM10, and PM2.5 concentration thresholds. Accordingly, emissions generated during construction of the Active Adult Community would result in less than significant impacts.

Operational Emissions

The estimated operational emissions are based on the development of the Active Adult Community and are presented in **Table 5.2-7, Active Adult Community Operational Emissions**.

Table 5.2-7
Active Adult Community Operational Emissions

	Pollutant (pounds/day)					
Source	**VOC**	**NOx**	**CO**	**SOx**	**PM10**	**PM2.5**
Maximum	106.84	49.98	309.80	0.43	26.19	8.74
SCAQMD threshold	75	100	550	150	150	55
Threshold exceeded?	**Yes**	**No**	**No**	**No**	**No**	**No**

*Source: Refer to the data sheets in **Appendix B, Air Quality and Greenhouse Gas Emissions Modeling.***

As shown in **Table 5.2-7,** the operational emissions for the Active Adult Community would exceed SCAQMD's regional thresholds of significance for VOCs and would consequently result in a potentially significant air quality impact. Emissions of VOCs are a precursor for the formation of O3. Consequently, emissions of VOCs that exceed SCAQMD regional significance thresholds would contribute to the O3 nonattainment designation of the Air Basin under the CAAQS and NAAQS. Mitigation Measure **MM 5.2-1** would substantially reduce VOC emissions, but not to a less-than-significant level.

Tribal Planning Areas

Construction Emissions

The estimated maximum daily emissions for the Tribal Planning Areas during Project construction are listed in **Table 5.2-8, Tribal Planning Areas Construction Emissions.**

Table 5.2-8
Tribal Planning Areas Construction Emissions

	Pollutant (pounds/day)					
Year	**VOC**	**NOx**	**CO**	**SOx**	**PM10**	**PM2.5**
Year 2023						
Maximum	3.85	16.90	59.92	0.13	2.70	0.99
SCAQMD threshold	75	100	550	150	150	55
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**
Year 2024						
Maximum	3.75	16.79	58.98	0.13	2.70	0.99
SCAQMD threshold	75	100	550	150	150	55
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**
Year 2025						
Maximum	3.66	16.68	57.97	0.13	2.70	0.99
SCAQMD threshold	75	100	550	150	150	55

	Pollutant (pounds/day)					
Year	**VOC**	**NOx**	**CO**	**SOx**	**PM10**	**PM2.5**
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**
Year 2026						
Maximum	3.59	16.58	57.18	0.13	2.70	0.99
SCAQMD threshold	75	100	550	150	150	55
Exceeded Threshold?	**No**	**No**	**No**	**No**	**No**	**No**
Year 2027						
Maximum	126.21	20.54	88.24	0.21	4.85	1.69
SCAQMD threshold	75	100	550	150	150	55
Threshold Exceeded?	**Yes**	**No**	**No**	**No**	**No**	**No**
Year 2028						
Maximum	126.12	20.43	87.24	0.21	4.86	1.69
SCAQMD threshold	75	100	550	150	150	55
Threshold Exceeded?	**Yes**	**No**	**No**	**No**	**No**	**No**
Year 2029						
Maximum	126.03	20.32	86.25	0.21	4.86	1.69
SCAQMD threshold	75	100	550	150	150	55
Threshold Exceeded?	**Yes**	**No**	**No**	**No**	**No**	**No**
Year 2030						
Maximum	125.95	20.22	85.45	0.22	4.86	1.69
SCAQMD threshold	75	100	550	150	150	55
Threshold Exceeded?	**Yes**	**No**	**No**	**No**	**No**	**No**
Year 2031						
Maximum	125.91	20.12	85.71	0.22	4.86	1.69
SCAQMD threshold	75	100	550	150	150	55
Threshold Exceeded?	**Yes**	**No**	**No**	**No**	**No**	**No**
Year 2032						
Maximum	125.85	20.12	85.15	0.22	4.86	1.70
SCAQMD threshold	75	100	550	150	150	55
Threshold Exceeded?	**Yes**	**No**	**No**	**No**	**No**	**No**
Year 2033						
Maximum	122.47	3.82	29.95	0.09	2.16	0.70
SCAQMD threshold	75	100	550	150	150	55
Threshold Exceeded?	**Yes**	**No**	**No**	**No**	**No**	**No**

Year	Pollutant (pounds/day)					
	VOC	**NOx**	**CO**	**SOx**	**PM10**	**PM2.5**
Year 2034						
Maximum	122.44	3.79	29.66	0.09	2.16	0.70
SCAQMD threshold	75	100	550	150	150	55
Threshold Exceeded?	**Yes**	**No**	**No**	**No**	**No**	**No**
Year 2035						
Maximum	122.41	3.77	29.42	0.09	2.16	0.70
SCAQMD threshold	75	100	550	150	150	55
Threshold Exceeded?	**Yes**	**No**	**No**	**No**	**No**	**No**

*Source: Refer to the data sheets in **Appendix B, Air Quality and Greenhouse Gas Emissions Modeling.***
Abbreviations: CO = carbon monoxide; NOx = nitrogen oxide; PM10 = particulate matter less than 10 microns; PM2.5 = particulate matter less than 2.5 microns; VOC = volatile organic compounds; SCAQMD = South Coast Air Quality Management District; SOX = sulfur oxide.

As shown in **Table 5.2-8,** construction activities associated with the development of the Tribal Planning Area would not exceed regional NOx, CO, SOx, PM10, and PM2.5 concentration thresholds. However, construction activities associated with the development would exceed the VOC concentration threshold for construction years 2027 through 2035. The primary source of VOC emissions are from off-gas emissions associated with architectural coating operations. Architectural coatings for the proposed Project would comply with SCAQMD Regulation XI, Rule 1113 – *Architectural Coating*. Rule 1113 provides specifications on painting practices as well as regulating the VOC content within paint. Mitigation Measure **MM 5.2-1** would require the use of low emission VOC paint and pre-painted construction materials where feasible. However, total mitigated VOC emissions would still exceed SCAQMD recommended threshold. Therefore, impacts from VOC emissions would be significant.

Operational Emissions

The estimated emissions are based on the development of all the proposed land uses on the Project Site within the Tribal Planning Areas, and are presented in **Table 5.2-9, Tribal Planning Areas Operational Emissions**.

Table 5.2-9
Tribal Planning Areas Operational Emissions

Source	Pollutant (pounds/day)					
	VOC	**NOx**	**CO**	**SOx**	**PM10**	**PM2.5**
Maximum	411.7	219.8	1,679.3	1.9	113.4	33.8
SCAQMD threshold	75	100	550	150	150	55
Threshold exceeded?	**Yes**	**Yes**	**Yes**	**No**	**No**	**No**

*Source: Refer to the data sheets in **Appendix B, Air Quality and Greenhouse Gas Emissions Modeling.***

As shown in **Table 5.2-9,** the proposed Project's operational emissions within the Tribal Planning Areas would not exceed regional thresholds of significance for SOx, PM10, and PM2.5. However, operational emissions would exceed regional thresholds of significance for VOC, NOx, and CO. Emissions of VOCs and NOx are precursors for the formation of O3. Consequently, emissions of VOCs and NOx that exceed SCAQMD regional significance thresholds would contribute to the O3 nonattainment designation of the Air Basin. The primary source of VOC emissions are from off-gas emissions associated with architectural coating operations. Architectural coatings for the proposed Project would comply with SCAQMD Regulation XI, Rule 1113 – *Architectural Coating*. Rule 1113 provides specifications on painting practices as well as regulating the VOC content within paint. Mitigation Measure **MM 5.2-1** would require the use of low emission VOC paint and pre-painted construction materials where feasible. The Air Basin is in attainment for the State and national CO standards. The primary source of CO is from internal combustion engines and motor vehicles operating at slow speeds. Mitigation Measure **MM 5.6-10** would require the use of employment based trip and vehicle miles traveled (VMT) policies that encourage the use of alternative transportation. However, total mitigated VOC, NOx, and CO emissions would still exceed the SCAQMD recommended threshold. Therefore, impacts from VOC, NOx, and CO emissions would be significant.

Combined (Active Adult Community Plus Tribal Planning Areas)

Construction Emissions

Table 5.2-10, Combined Construction Emissions, estimates construction emissions based on the expected location, size, and development of the Project if construction of both the Active Adult Community and Tribal Planning Areas were to occur concurrently. The analysis assumes that all of the construction equipment activities would occur continuously over the day and that activities would overlap. In reality, this would not occur, as most equipment operated only a fraction of each workday and many of the activities would not overlap on a daily basis.

Table 5.2-10
Combined Construction Emissions

	Pollutant (pounds/day)					
Source	**VOC**	**NOx**	**CO**	**SOx**	**PM10**	**PM2.5**
Year 2015						
Maximum	1.09	20.43	39.37	0.06	6.91	3.78
SCAQMD threshold	75	100	550	150	150	55
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**
Year 2016						
Maximum	9.95	36.63	131.31	0.19	12.66	3.73
SCAQMD	75	100	550	150	150	55

Source	Pollutant (pounds/day)					
	VOC	**NOx**	**CO**	**SOx**	**PM10**	**PM2.5**
threshold						
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**
Year 2017						
Maximum	259.64	6.22	54.84	0.09	7.71	2.08
SCAQMD threshold	75	100	550	150	150	55
Threshold Exceeded?	**Yes**	**No**	**No**	**No**	**No**	**No**
Year 2018						
Maximum	259.23	5.78	50.00	0.09	7.71	2.08
SCAQMD threshold	75	100	550	150	150	55
Threshold Exceeded?	**Yes**	**No**	**No**	**No**	**No**	**No**
Year 2019						
Maximum	258.91	5.42	46.37	0.09	7.71	2.08
SCAQMD threshold	75	100	550	150	150	55
Threshold Exceeded?	**Yes**	**No**	**No**	**No**	**No**	**No**
Year 2020						
Maximum	260.21	15.03	61.06	0.12	7.87	2.15
SCAQMD threshold	75	100	550	150	150	55
Threshold Exceeded?	**Yes**	**No**	**No**	**No**	**No**	**No**
Year 2021						
Maximum	260.02	14.82	59.01	0.12	7.87	2.15
SCAQMD threshold	75	100	550	150	150	55
Threshold Exceeded?	**Yes**	**No**	**No**	**No**	**No**	**No**
Year 2022						
Maximum	258.31	4.77	39.52	0.09	7.71	2.08
SCAQMD threshold	75	100	550	150	150	55
Threshold Exceeded?	**Yes**	**No**	**No**	**No**	**No**	**No**

*Note: Refer to the data sheets in **Appendix B, Air Quality and Greenhouse Gas Emissions Modeling.***
Abbreviations: CO = carbon monoxide; NOx = nitrogen oxide; PM10 = particulate matter less than 10 microns; PM2.5 = particulate matter less than 2.5 microns; VOC = volatile organic compounds; SCAQMD = South Coast Air Quality Management District; SOX = sulfur oxide.

As shown in **Table 5.2-10**, construction activities associated with the development of the entire Project Site would not exceed regional NOx, CO, SOx, PM10, and PM2.5 concentration thresholds. However, construction activities would exceed localized VOC (2017 through 2022) concentration thresholds. Architectural coatings for the Project would comply with SCAQMD Rule 1113 – *Architectural Coating*.

Rule 1113 provides specifications on painting practices as well as regulating the VOC content within paint. Mitigation Measure **MM 5.2-1** would require the use of low emission VOC paint and pre-painted construction materials where feasible. However, total mitigated VOC emissions would still exceed SCAQMD recommended threshold. Therefore, impacts from VOC emissions would be significant.

Operational Emissions

The estimated emissions are based on the development of all the proposed land uses within the Project Site, both the Active Adult and Tribal Planning Areas, and the combined operational emissions are presented in **Table 5.2-11, Combined Operational Emissions**.

Table 5.2-11
Combined Operational Emissions

	Pollutant (pounds/day)					
Source	**VOC**	**NOx**	**CO**	**SOx**	**PM10**	**PM2.5**
Maximum	553.8	306.2	2,197.6	2.06	121.2	37.4
SCAQMD threshold	75	100	550	150	150	55
Threshold exceeded?	**Yes**	**Yes**	**Yes**	**No**	**No**	**No**

*Note: Refer to the data sheets in **Appendix B, Air Quality and Greenhouse Gas Emissions Modeling.***

As shown in **Table 5.2-11,** the Project's operational emissions at buildout would not exceed regional SOx, PM10, and PM2.5 concentration thresholds. However, operational emissions would exceed localized VOC, NOx, and CO concentration thresholds. Mitigation Measure **MM 5.2-1** would require the use of low emission VOC paint and pre-painted construction materials where feasible. Mitigation Measure **MM 5.6-10** would require the use of employment based trips and VMT policies that encourage the use of alternative transportation. However, total mitigated VOC, NOx, and CO emissions would still exceed the SCAQMD recommended threshold. Therefore, impacts from VOC, NOx, and CO emissions would be significant.

Result In A Cumulatively Considerable Net Increase Of Any Criteria Pollutant For Which The Project Region Is Non-Attainment Under An Applicable Federal Or State Ambient Air Quality Standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)

Active Adult Community and Tribal Planning Areas

According to SCAQMD, if an individual project results in air emissions of criteria pollutants that exceed SCAQMD's recommended daily thresholds for project-specific impacts, then the project would also

result in a cumulatively considerable net increase of these criteria pollutants. By applying SCAQMD's cumulative air quality impact methodology, implementation of the Project would result in an increase of VOC, an ozone precursor, such that significant cumulative impacts would occur. Therefore, the Project would result in a cumulatively considerable net increase of VOC, an ozone precursor, for which the Project region is in nonattainment under the federal and State ambient air quality standard. Accordingly, cumulative impacts would be potentially significant.

Expose Sensitive Receptors to Substantial Pollutant Concentrations

Localized Significance Threshold

Active Adult Community

The construction and operation analysis for localized significance thresholds for the Active Adult Community are shown in **Table 5.2-12, Active Adult Community LST Emissions**.

Table 5.2-12
Active Adult Community LST Emissions

	On-Site Emissions (pounds/day)			
Source	**NOx**	**CO**	**PM10**	**PM2.5**
Construction				
Total mitigated maximum emissions	20.29	37.94	3.31	1.43
LST threshold	340	3,237	44	11
Threshold Exceeded?	**No**	**No**	**No**	**No**
Operational				
Area/energy emissions	9.99	87.47	1.74	1.73
LST threshold	340	3,237	11	3
Threshold Exceeded?	**No**	**No**	**No**	**No**

*Source: Refer to Modeling in **Appendix B, Air Quality and Greenhouse Gas Emissions Modeling.***
Abbreviations: CO = carbon monoxide; NOx = nitrogen oxide; PM10 = particulate matter less than 10 microns; PM2.5 = particulate matter less than 2.5 microns.

As shown in **Table 5.2-12**, Active Adult Community related construction emissions would not exceed the localized significance thresholds for the sensitive receptors located to the south and west of the Project Site. Accordingly, this impact would be less than significant.

Tribal Planning Areas

The construction and operation analysis for localized significance thresholds for the Tribal Planning Areas are shown in **Table 5.2-13, Tribal Planning Areas LST Emissions**.

Table 5.12-13
Tribal Planning Areas LST Emissions

	On-Site Emissions (pounds/day)			
Source	**NOx**	**CO**	**PM10**	**PM2.5**
Construction				
Total mitigated maximum emissions	9.57	15.19	0.08	0.08
LST threshold	340	3,237	44	11
Threshold Exceeded?	**No**	**No**	**No**	**No**
Operational				
Area/energy emissions	8.21	92.37	1.60	1.59
LST threshold	340	3,237	11	3
Threshold Exceeded?	**No**	**No**	**No**	**No**

*Source: Refer to Modeling in **Appendix B, Air Quality and Greenhouse Gas Emissions Modeling.***
Abbreviations: CO = carbon monoxide; NOx = nitrogen oxide; PM10 = particulate matter less than 10 microns; PM2.5 = particulate matter less than 2.5 microns.

As shown in **Table 5.2-13,** Tribal Planning Areas related construction and operational emissions would not exceed LSTs in relation to the sensitive receptors located to the south and west. In accordance with SCAQMD methodology, only on-site stationary sources and mobile equipment are included in the operational analysis. Accordingly, this impact would be less than significant.

Combined (Active Adult Community Plus Tribal Planning Areas)

The construction and operation analysis for localized significance thresholds for the proposed Project are shown in **Table 5.2-14, Proposed Project LST Emissions**. As shown in **Table 5.2-14,** Project related construction and operational emissions would not exceed LSTs for NOx, CO, and PM10 in relation to sensitive receptors. Background concentrations representative of the Project exceed the CAAQS for PM2.5. Although background concentrations exceed the CAAQS annual averaging time for PM2.5, no measurable change criteria currently exists.

Table 5.2-14
Proposed Project LST Emissions

	On-Site Emissions (pounds/day)			
Source	**NOx**	**CO**	**PM10**	**PM2.5**
Construction				
Total mitigated maximum emissions	20.29	37.94	3.31	1.43
LST threshold	340	3,237	44	11
Threshold Exceeded?	**No**	**No**	**No**	**No**
Operational				
Area/energy emissions	18.20	184.02	3.34	3.32
LST threshold	340	3,237	11	3
Threshold Exceeded?	**No**	**No**	**No**	**Yes**

*Source: Refer to Modeling in **Appendix B, Air Quality and Greenhouse Gas Emissions Modeling**.*
Abbreviations: CO = carbon monoxide; NOx = nitrogen oxide; PM10 = particulate matter less than 10 microns; PM2.5 = particulate matter less than 2.5 microns.

The SCAQMD has established a significance threshold of 2.5 micrograms per cubic meter ($\mu g/m^3$) for the 24-hour averaging time to assess PM2.5 impacts. As a result, a potentially significant impact would occur when operational emissions produce a measurable change over existing background levels.

The majority of PM2.5 emissions during operation would be generated from area and energy emissions. Because operational emissions of PM2.5 would exceed the LSTs for a five-acre site, concentrations generated by Project-related operation activities were modeled at nearby sensitive receptors. The results are provided in **Table 5.2-15, PM2.5 LST Dispersion Modeling.**

Table 5.2-15
PM2.5 LST Dispersion Modeling

	PM2.5 Emission Rate Summary		
Source	**Fugitive ($g/s/m^2$)**	**Combustion (g/s/source)**	**24-hour Average Concentration ($\mu g/m^3$)**
Operational			
Total modeled maximum emissions	2.24E-09	6.05E-05	0.16
SCAQMD Threshold	-	-	2.5
Threshold Exceeded?	**-**	**-**	**No**

*Source: Refer to Modeling in **Appendix B, Air Quality and Greenhouse Gas Emissions Modeling.***
Abbreviations: PM2.5 = particulate matter less than 2.5 microns; $g/s/m^2$ = grams per second per meter squared; $\mu g/m^3$ = micro grams per cubic meter.

As shown in **Table 5.2-15**, the maximum 24-hour average PM2.5 concentration would be 0.16 µg/m^3 for the closest receptor. In accordance with the SCAQMD methodology, this impact would be below the significance threshold and impacts would be less than significant.

Localized Carbon Monoxide Hotspots

Active Adult Community and Tribal Planning Areas

Motor vehicles are a primary source of pollutants within the Project vicinity. Traffic-congested roadways and intersections have the potential to generate localized high levels of CO. Localized areas where ambient concentrations exceed State and/or federal standards are termed CO "hotspots." Such hot spots are defined as locations where the ambient CO concentrations exceed the State or federal ambient air quality standards. CO is produced in greatest quantities from vehicle combustion and is usually concentrated at or near ground level because it does not readily disperse into the atmosphere. As a result, potential air quality impacts to sensitive receptors are assessed through an analysis of localized CO concentrations. Areas of vehicle congestion have the potential to create CO hotspots that exceed the State ambient air quality 1-hour standard of 20 ppm or the 8-hour standard of 9 ppm. The federal levels are less stringent than the State standards. Thus, an exceedance condition would occur based on the State standards prior to exceedance of the federal standard.

Typically, localized CO impact analysis should be performed for intersections that change from level of service (LOS) C to D as a result of the project and for all intersections rated D or worse where the project increases the volume-to-capacity ratio by 2 percent or more. The background CO concentration within 1-hour in the Coachella Valley was 2 ppm in 2010 and was not exceeded in 2011 and 2012. The background CO concentration within the monitored 8-hour period has been 0.5 ppm and 0.6 ppm for the past three years which is below the standard of 9.0 ppm. Based on the traffic impact study which is located in **Appendix G,** all intersections analyzed by the Project projected to operate at LOS D or better would not increase the volume-to-capacity ratio by 2 percent. The increase in traffic volumes at the analyzed intersections would result in a de minimis increase in background CO concentrations which would not result in CO levels higher than the 20 ppm 1-hour standard or the 9.0 ppm 8-hour for CO. As a result, no significant Project-related impacts would occur relative to future CO concentrations.

Toxic Air Emissions

The proposed Project is not anticipated to use hazardous materials in appreciable quantities. The residential and commercial land uses associated with the proposed Project are not anticipated to use hazardous or acutely hazardous materials in appreciable quantities. Hazardous substances currently are regulated under the California Accidental Release Prevention (CalARP) Program. The CalARP Program satisfies the requirements of the Federal Risk Management Plan Program, and contains additional State

requirements. The CalARP Program applies to regulated substances in excess of specific quantity thresholds. The majority of the substances have thresholds in the range of 100 to 10,000 pounds. The residential and commercial land uses associated with the Project may contain small, if any, amounts of these hazardous substances in household and commercial cleaners and other products. However, typical use of these products would not result in quantities at any one location that exceed the thresholds. Moreover, significant amounts of hazardous substances would typically be expected at industrial, manufacturing, and complex water or wastewater treatment land uses. Accordingly, the Project would not result in a significant impact with respect to hazardous materials.

Within 0.25 Miles of an Existing Facility That Emits Air Toxics Identified in SCAQMD Rule 1401

Based on a survey of data obtained from SCAQMD's Facility Information Detail (FIND) system, there is one facility that contains permitted equipment as required by Rule 1401 (New Source Review of Toxic Air Contaminants) located within a 0.25 mile of the Project Site. At the time this report was written, the Agua Caliente Resort/Spa/Casino facility was in compliance with SCAQMD regulations and requirements.[19] The multi-family residential Planning Area 5 would be located approximately 1,400 feet (0.27 miles) southwest of the Agua Caliente Resort/Spa/Casino facility. Therefore, residents of the Project would be located greater than 0.25 miles of an existing facility that emits TACs identified in Rule 1401. Accordingly, this impact would be less than significant.

Emit Carcinogenic or Toxic Air Contaminants That Exceed the Maximum Individual Cancer Risk of 10 in 1 Million

The residential land uses associated with the Project are not anticipated to emit individual or cumulative TACs in appreciable quantities as described previously. Accordingly, no significant impacts with respect to this criterion are expected to occur.

The proposed multi-family land uses within the Tribal Planning Areas would be located 0.75 miles to the southwest of Interstate 10 (I-10), a major travel route for heavy-duty, diesel-fueled vehicles, as well as other motor vehicles. Because CARB has determined that health effects are generally elevated near heavily traveled roadways, the CARB *Air Quality and Land Use Handbook* recommends that lead agencies, where possible, avoid citing new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles per day, or rural roads with 50,000 vehicles per day.

19 SCAQMD, Facility Information Detail (FIND) (2014), http://www.aqmd.gov/webappl/fim/default.htm.

The *Air Quality and Land Use Handbook* suggests that sensitive receptors may be exposed to higher than normal health impacts if residential land uses are permitted within CARB's recommended 500-foot buffer zone. Furthermore, Bob Hope Drive would be the most traveled urban road in the vicinity of the Project Site. The number of vehicles traveling along Bob Hope Drive under cumulative conditions would be 50,000 vehicles, half of what is recommended by CARB for urban roads. According to the Specific Plan, the proposed multifamily units would be greater than 0.75 miles southwest of the I-10, more than four times the distance than recommended by CARB. The Active Adult Community is at least 0.65 miles from the I-10 and 0.25 miles from both Ramon Road and Bob Hope Drive. Accordingly, it is not anticipated that the Project would expose sensitive receptors to substantial increases in health risks and pollutant concentrations relative to the general population. Accordingly, any impact would be less than significant.

Create Objectionable Odors Affecting as Substantial Number of People

Active Adult Community and Tribal Planning Areas

Construction

During the Project's construction phase, activities associated with the operation of construction equipment, the application of asphalt, the application of architectural coatings and other interior and exterior finishes, and roofing may produce discernible odors typical of most construction sites. SCAQMD Rule 1113 limits the amount of VOCs in architectural coatings and solvents to further reduce the potential for odiferous emissions. Although these odors could be a source of nuisance to adjacent uses, they would be temporary and intermittent in nature. As construction-related emissions dissipate away from the construction area, the odors associated with these emissions would also decrease and would be quickly diluted. Accordingly, impacts would be less than significant.

Operation

Land uses associated with the Project operation are not expected to be a source of persistent odors. Refuse associated with operation of the Project would be disposed of in accordance with all applicable regulations. Trash receptacles on the Project Site would be enclosed to minimize the generation of odors. As discussed previously, the Project Site is immediately bordered by residential uses to the west and south, the Agua Caliente Casino Resort Spa to the east, and undeveloped land to the north. Additionally, the adjacent land uses are such that the Project residents would not be subjected to substantial sources of objectionable odors from any surrounding land use.

Any unforeseen odors generated by the Project will be controlled in accordance with SCAQMD Rule 402 (Nuisance). Rule 402 prohibits the discharge of air contaminants that cause "injury, detriment, nuisance,

or annoyance to any considerable number of persons or to the public, or which endanger the comfort, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property." Failure to comply with Rule 402 could subject the offending facility to possible fines and/or operational limitations in an approved odor control or odor abatement plan. Consequently, no significant impacts from odors are anticipated.

5. Cumulative Impacts

The *CEQA Air Quality Handbook* identifies possible methods to determine the cumulative significance of land use projects.[20] All of SCAQMD's methods are based on performance standards and emission reduction targets necessary to attain the federal and State air quality standards identified in the AQMP. This Draft EIS evaluates the following methods: (1) the SCAQMD method of whether the rate of growth in average daily trips exceeds the rate of growth in population and/or employment (2) whether the project is consistent with the AQMP and thus, would not jeopardize attainment of State and federal ambient air quality standards in the Basin.

The first SCAQMD approach is to assess whether the rate of growth in average daily trips (ADT) exceeds the rate of population growth. As specified in the *CEQA Air Quality Handbook,* the ratio of project ADT to anticipated ADT in the County is compared to the ratio of the Project population to the anticipated population in the City or County.[21] If the growth of ADT is less than the population growth, then the Project is not considered to have a significant cumulative air quality impact. The relevant values are shown in **Table 5.12-16, Comparison of Growth of ADT to Population and Employment Growth.** The population growth of 4,368 residents was based on the factors obtained from the Specific Plan. Population data for Coachella Valley were based on SCAG projections.[22] ADT were based on trip generation rates from the traffic impact study for the Project (**Appendix G**). As shown in **Table 5.12-16,** the ratio of Project-to-county ADT is greater than the population ratio under buildout scenarios. Therefore, the Project would have a significant cumulative impact with respect to this criterion.

20 SCAQMD, CEQA Air Quality Handbook (1993), 9-12.
21 SCAQMD, CEQA Air Quality Handbook (1993), A9-126.
22 SCAG, 2012 Adopted Growth Forecast.

Table 5.2-16
Comparison of Growth of ADT to Population and Employment Growth

	Vehicle Miles Traveled*	Project Population
Residences at Project	**1,425,200**	4,368
CVAG	18,333,486	884,000
Ratio of Project to CVAG	**0.078**	**0.005**
City of Rancho Mirage	932,000	17,745
Ratio of Project to Rancho Mirage	**1.53**	**0.25**

Note:
** Project vehicle miles traveled are calculated using adjusted trips (71,260) multiplied by an average trip of 20 miles. City of Rancho Mirage vehicle miles traveled are calculated by multiplying 46,600 weekday trips by an average trip of 20 miles.*

In addition to the cumulative significance methodologies contained in *CEQA Air Quality Handbook*, SCAQMD staff has suggested that the emissions-based thresholds be used to determine if a project's contribution to regional cumulative emissions is cumulatively considerable. Individual projects that exceed SCAQMD-recommended daily thresholds for project-specific impacts would be considered to cause a cumulatively considerable increase in emissions for those pollutants for which the Basin is in nonattainment. As presented previously in **Tables 5.2-6** through **5.2-11,** construction and operation of the Project would result in daily emissions that exceed the VOC thresholds of significance recommended by SCAQMD. The daily construction and operational VOC emissions generated by the Project cannot be feasibly mitigated to a less than significant level, and therefore, the contribution of these emissions to the air quality within the Salton Sea and South Coast Air Basins is considered to be cumulatively considerable, and thus a significant cumulative impact.

C. MITIGATION MEASURES

In addition to the Project Design Features identified above, the following Mitigation Measures would reduce air quality impacts:

Active Adult Community and Tribal Planning Areas

MM 5.2-1 The contractor shall incorporate the following into construction plans and specifications, which shall be implemented to reduce VOC emissions resulting from application of architectural coatings:

- Contractors shall use high-pressure, low-volume (HPLV) paint applicators with a minimum transfer efficiency of at least 50 percent.
- Coatings and solvents with a VOC content lower than required under Rule 1113 shall be used.

- Construction and building materials that do not require painting shall be used to the extent feasible.
- Prepainted construction materials shall be used to the extent feasible.

MM 5.2-2 Construction equipment engines shall utilize Tier 4 engines or better.

Implementation of Mitigation Measure **MM 5.6-10,** provided in **Section 5.6, Greenhouse Gases,** would require the use of employment based trip and VMT policies that encourage the use of alternative transportation.

D. LEVEL OF SIGNIFICANCE AFTER MITIGATION

The proposed Project would incorporate numerous Project Design Features and Mitigation Measures **MM 5.2.1**, **MM 5.2-2,** and **MM 5.6-10** to further reduce air emissions during construction and operation. However, no feasible Mitigation Measures are available to reduce construction VOCs and operational VOCs, NOx, and CO emissions below SCAQMD regional thresholds. While development of the Specific Plan would result in short-term regional and localized impacts, Project development would not have a significant long-term impact on the region's ability to meet State and federal air quality standards. Therefore, the Project's long-term influence would be considered consistent with the AQMP.

As shown in **Tables 5.2-8** through **5.2-11**, construction and operation emissions would not exceed the SCQAMD thresholds for NOx, CO, SOx, PM, and PM2.5 with Project Design Features and Mitigation Measure **MM 5.2-2**. Therefore, these impacts would be less than significant.

Construction and operation emissions would exceed the threshold for VOCs. Mitigation Measure **MM 5.2-1** is recommended to reduce the VOC impacts. However, given the level of what is known about the proposed Project, the precise quantification of VOC emission reductions cannot be determined accurately. For example, it cannot be determined precisely how much prepainted construction materials and construction materials that require no painting will used in the development of the Project. It is assumed that these measures could be applied between approximately 10 to 20 percent of the interior and exterior square footages with a corresponding 10 to 20 percent in reduction in VOCs. This would reduce VOCs by approximately 15 to 30 pounds per day but would not reduce the emissions below SCAQMD thresholds. For this reason, the lead agency has determined that this impact would be considered to be significant and unavoidable.

Implementation of Mitigation Measure **MM 5.6-10** would reduce operational emissions for NOx and CO, however, emissions would not be reduced below the SCAQMD threshold. Impacts would be considered significant and unavoidable.

As shown in **Tables 5.2-12** through **5.2-15,** construction and operational activities associated with the development would not exceed localized concentration thresholds. Consequently, impacts would be less than significant.

The daily construction and operational VOC emissions generated by the Project cannot be feasibly mitigated to a less than significant level and the contribution of these emissions to the air quality within the Salton Sea and South Coast Air Basins is also considered to be cumulatively considerable, and thus a significant impact.

5.3 BIOLOGICAL RESOURCES

This Section of the Draft EIS evaluates the potential for the proposed Project to affect biological resources on the Project Site and within the portion of the Coachella Valley the Project Site is located in. This Section incorporates information from the Agua Caliente Band of Cahuilla Indians (Tribe) Tribal Habitat Conservation Plan (THCP) and from the following study of the Project Site:

- *General Biological Resources Assessment Rancho Mirage Section 24 Specific Plan Site,* Prepared by James W. Cornett Ecological Consultants, March 2014.

A complete copy of this study is included in the Technical Appendices to the Draft EIS (**Appendix C**). Please see **Section 9.0** for a glossary of terms, definitions, and acronyms used in this Draft EIS.

A. ENVIRONMENTAL SETTING

While the Project Site is currently vacant and undeveloped, the biological resources on the site have been impacted by development and human activity on all boundaries of the Project Site. A residential development to the west shields the Project Site from prevailing westerly winds emanating from the San Gorgonio Pass. This has had the effect of reducing wind-carried sand resulting in the partial stabilization of sand deposits across some of the Project Site.

The Project Site contains a mix of stabilized and partially stabilized sand fields. Stabilized and partially stabilized desert dunes retain moisture just below the surface and support varying amounts of vegetation, from scattered low annuals and perennial grasses, to evergreen and deciduous shrubs. Stabilized and partially stabilized shielded sand fields consist of desert sand accumulations that lack dune formations stabilized by vegetation and where important transport processes are interrupted by barriers such as roads, buildings, and landscaping. Creosote bush scrub matrix dominates these sand field communities. Vegetation can range from widely scattered herbs and shrubs to a nearly closed canopy of shrubs. These and field communities are dependent on the active transport of sand. In the Coachella Valley, these habitats support a number of sensitive plant and wildlife species, including the Coachella Valley fringe-toed lizard, flat-tailed horned lizard, flat-seeded spurge, and Coachella Valley milk-vetch. As discussed in further detail below in Section 2, Regulatory Setting, the Tribe has adopted a Tribal Habitat Conservation Plan (THCP) to address impacts to sensitive plant and wildlife species present on Reservation lands.

1. Existing Conditions

Physical Features

The elevation of the Project Site ranges from approximately 252 feet above sea level at the northeast corner of the Project Site rising to 353 feet near the southeast corner. The only topographical relief consists of sand mounds commonly referred to as hummocks that rise from one to four feet above their base. The hummocks have been formed by shrubs that interrupt the flow of sand carrying wind coming from the northwest off the Whitewater River Floodplain. The shrubs reduce wind velocity and result in the type of sand deposits on the leeward or easterly side of the shrubs referred to as hummocks. The Project Site is located in an area defined as sand field habitat of the valley floor in the THCP.

There are no naturally occurring springs or permanent aquatic habitats within the Project Site boundaries. No blue-line stream or drainage (streams or dry washes) are shown on U.S. Geological Survey maps for the Project Site and no botanical indicators of any drainage features were identified during field surveys.

Soil characteristics are uniform over the entire site. Soil is composed of wind-blown alluvium created by persistent air movements from the northwest. At the current time residential and commercial developments to the west have resulted in some sand stabilization on portions of the Project Site, as described above.

Climate

The Project Site lies within the confines of a geographical region known as the Colorado Desert.[1] As is typical of this subdivision of the Sonoran Desert, annual rainfall averages less than six inches.[2] Most precipitation falls during the winter and late spring with occasional summer storms accounting for approximately one fifth of the annual total. Winter days are mild, averaging 71 degrees Fahrenheit. Winter nights occasionally drop near freezing. The month of July brings the hottest temperatures with daytime highs averaging 109 degrees F.

Surrounding Lands

Bob Hope Drive, a major thoroughfare, forms the eastern boundary of the Project Site. To the east of Bob Hope Drive is the Agua Caliente Resort Spa and relatively undisturbed habitat similar to that found on the Project Site.

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1 E. C. Jaeger, *The North American Deserts*, (Stanford, CA: Stanford University Press, 1957).
2 National Climatic Data Center, *Climatic Summaries*, (Asheville, NC: 2013).

Dinah Shore Drive, another major thoroughfare, forms the southern boundary of the Project Site. Immediately south of Dinah Shore Drive is a golf course and residential development.

Los Alamos Road, a collector roadway, forms the western boundary of the Project Site. Another golf course and residential development is located immediately west of Los Alamos Road and the Project Site.

Ramon Road, another major thoroughfare, forms the northern site boundary. Relatively undisturbed creosote scrub habitat, similar to that found on the Project Site, lies immediately north of Ramon Road.

Project Site

The Project Site has been directly and indirectly impacted by development on all boundaries of the Project Site. The Project Site is nearly an ecological island bounded on all four sides by the major streets and residential development described above. These existing conditions severely limit the movement of small terrestrial animals on and off the Project Site.

Native vegetation has been removed from approximately 40 acres in the northwestern corner of the Project Site when sand was excavated to provide fill material for the construction of the Bob Hope interchange improvements in 2010. Native vegetation has also been removed and soils compacted from approximately 40 acres in the northeastern corner of the Project Site to create a temporary parking lot. Another approximately 40 acres in the southwestern corner of site has received large mounds of fill dirt in the past decade.

Several billboard signs have been installed along the eastern and southern edges of the site. Unpaved access roads parallel the eastern and southern boundaries. A four-foot high sand fence has been installed along the southern project boundary.

The entire Project Site contains the non-native and invasive Sahara mustard, *Brassica tournefortii*. The establishment of this non-native, ephemeral species has likely contributed to the stabilization of blowsand on the Project Site.

The existing residential development to the west shields the site from prevailing westerly winds emanating from the San Gorgonio Pass. This has had the effect of reducing wind-carried sand, which also contributes to the partial stabilization of sand deposits across some of the Project Site.

To identify the biological resources present on the site, field surveys were initiated in February of 2013. Specific dates of biological surveys were February 10, 11, 12, 14, 15, 16, 18, 19, 20, 21, 23, 24, 25, 26 and

27; and March 1 and 2, 2013. Night surveys were also conducted on the evenings of February 19 and 24, 2014.

Survey dates were in late winter when most plant species and all resident vertebrate species can be detected when maximum daytime air temperatures exceed 80°F. (Most days exceeded 80° during field surveys.) However, unusually dry winters in 2012, 2013 and 2014 may have reduced the sensitive plants found. Drought dictates against the germination of ephemeral plant species and reproduction and survival in all animal species. In spite of severe long-term drought, it was concluded that this phenomenon did not impact the findings in this report because of evidence of sensitive species that was discovered and historical information regarding the biota of the Project Site.

Surveys were conducted by walking east/west transects at 10-yard intervals through the Project Site. The survey pattern used has been approved by the U.S. Fish and Wildlife Service for determining the presence or absence of the burrowing owl and desert tortoise, and represents an intensive survey effort that resulted in no officially listed or federally protected species being overlooked.

Offsite surveys on surrounding property were not conducted as these properties are private. Offsite surveys were not considered necessary because very busy four-lane thoroughfares exist on the north, south and east boundaries of the Project Site. In addition, an existing residential community, enclosed by a wall is located on the western boundary of the site. These barriers dramatically reduce dispersal movements of species on and off the site, particularly small terrestrial vertebrates.

Animal surveys were conducted simultaneously with plant surveys. In addition, twenty-five live-animal traps (which capture animals unharmed) for large and small mammals were set within the Project Site for twenty-four hour periods on February 19 and 24, 2014.

In an effort to determine if large animal corridors existed on the Project Site special attention was given to observing and identifying animal tracks. In addition, sand sifting and smoothing was done in several areas so that tracks would be more prominent and identifiable. Road kills on surrounding paved roadways were also monitored on all site visits.

Invertebrate sampling was conducted on the evenings of February 19 and 24, 2014. Three Bioquip Light Traps were used for attracting and live-capturing flying insects and some terrestrial arthropods. Black lights were the attracting mechanism with each trap powered by a 12-volt automobile battery. Traps were placed for maximum visibility.

Biological Communities/Habitat

Habitat describes the place or set of environmental conditions in which plants and animals naturally live and grow. Temperature and precipitation are primary factors in determining specific locations of different habitats and the assortment of plant and animals species they support. In the Coachella Valley and surrounding areas, desert habitats are generally distinguished by physical differences in slope, soil substrate, solar and wind exposure, and water supply. The interrelationships of the physical environment of the habitat with the biological resources contained within define an ecological system. The value and diversity of habitats are determined by various factors, including climate, varied terrain, adequate space, a dependable supply of food and water, soils for vegetation growth, and shelter and nesting sites.

Plant Communities

Sonoran creosote bush scrub community dominates vegetation of the entire area and is the pervasive plant community throughout the Colorado Desert of southeastern California. The creosote bush (*Larrea tridentata*) is the dominant perennial followed by Emory's Dalea (*Dalea emoryi*), wingscale (*Atriplex canescens*) and croton (*Croton californicus*).

Approximately 25 percent of the Project Site has been disturbed by road shoulder clearing, removal of topsoil for fill, grading for a temporary parking lot and the placement of fill, as described above. The vegetation of these areas is dominated by weed species that germinate and grow following the damage or removal of native vegetation. Within the Project Site such species include Sahara mustard (*Brassica tournefortii*), Emory's Dalea (*Dalea emoryi*) and croton (*Croton californicus*). These species are often found throughout the California deserts wherever the natural vegetation has been removed. The Sahara mustard is also established in undisturbed areas of the Project Site.

Wildlife Species

The fauna of the Project Site and surrounding vicinity is composed of species typically found in sandy, windswept habitat in the Coachella Valley portion of the Colorado Desert as defined by Jaeger (1957). Animal species typically associated with residential subdivisions were recorded on the site during field surveys along with other native species. Wildlife species identified on the site are described below.

Arthropods

Arthropods species encountered on the Project Site included the sand scorpion (*Paruroctonus mesaensis*), Eleodes beetle (*Eleodes armata*), harvester ant (*Pogonomyrmex californicus*) and creosote bush grasshopper (*Bootettix argentatus*).

Three insect species known to occur within the Coachella Valley have been placed on the California Department of Fish and Wildlife's Special Animals List. They are the Coachella giant sand treader cricket (*Macrobaenetes valgum*), Coachella Valley Jerusalem cricket *(Stenopelmatus cahuilaensis*) and Coachella Valley grasshopper *(Spaniacris deserticola)*. None of these three insect species were found during the surveys. The Coachella giant sand treader cricket and Jerusalem cricket are covered species under the THCP.

Amphibians and Reptiles

No amphibian species were found during the surveys and none are expected to be present based on the existing characteristics of the Project Site and surrounding areas.

Reptiles detected on the Project Site included the side-blotched lizard (*Uta stansburiana)*, western whiptail (*Cnemidophorus tigris)*, desert iguana (*Dipsosaurus dorsalis),* western shovel-nosed snake (*Chionactis occipitalis)* and sidewinder (*Crotalus cerastes).*

Six observations of the federally threatened Coachella Valley fringe-toed lizard, *Uma inornata*, were recorded on the Project Site on February 10, 11, 12, 18, 20, and 26, 2014. Suitable habitat for this lizard species, consisting of surfaces of loose, windblown sand, exists across the entire site with the exception of the temporary parking area in the northeast corner. With this single exception, the fringe-toed lizard should be expected throughout the Project Site.

A concerted effort was made to locate sign of the officially listed desert tortoise (*Goperhus agassizi*). However, no evidence of any kind was found and no direct observations were made. In addition, the California Natural Diversity Database (March, 2014) has no records of the tortoise on or within one mile of the Project Site. It is therefore concluded that this species does not occur within the Project Site and immediate vicinity and no additional surveys for this species are recommended.

An intensive effort was also made to locate individuals or sign of the flat-tailed horned lizard, *Phrynosoma mcallii*. A single individual flat-tailed horned lizard was found on the site during surveys being conducted on February 16, 2014. In 2011, the U.S. Fish and Wildlife considered listing the flat-tailed horned lizard but elected to not do so in May of that year. Most of the Project Site is considered suitable habitat for this species and it may be more widespread than the discovery of a single specimen would indicate.

Birds

Frequently detected birds within the Project Site were the common raven (*Corvus corax*), greater roadrunner (*Geococcyx californianus*), mourning dove (*Zenaida macroura*), house finch (*Carpodacus mexicanus*) and Say's phoebe (*Sayornis saya*).

No observations of LeConte's thrasher (*Toxostoma lecontei*) were recorded during the surveys. In the Coachella Valley this species is closely associated with golden cholla, an arborescent cactus that provides a nesting site for the thrasher. The cactus species is absent from the Project Site and, therefore, it was concluded the thrasher does not occupy the Project Site at this time. LeConte's thrasher is a covered species under the THCP but is not listed by the USFWS.

Two sensitive avian species were observed within the Project boundaries: the burrowing owl (*Athene cunicularia*) and loggerhead shrike (*Lanius ludovicianus*).

Burrowing Owl

The burrowing owl was recorded within Project Site boundaries on six separate days: February 11, 16, 24, 25, and 26 and March 1, 2014. All observations were of adult birds. One active burrow was found on the Project Site. The entire Project Site is considered potential habitat for the burrowing owl.

The burrowing owl is a covered species under the THCP and is also protected in the United States under the Migratory Bird Treaty Act of 1918.

Loggerhead Shrike

The loggerhead shrike was observed on two occasions within the Project Site boundaries: February 20 and March 2, 2014. No old or new nests were found but the species is likely resident in the Project Site because of the availability of suitable habitat and prey.

The loggerhead shrike has no special federal status and it is not addressed in the THCP. It is considered a Species of Special Concern by the State of California.

Mammals

Recorded mammals included the black-tailed jackrabbit (*Lepus californicus*), Palm Springs ground squirrel *(Spermophilus tereticaudus chlorus*), desert kangaroo rat (*Dipodomys deserti*) and coyote (*Canis latrans*). No individuals of the Palm Springs Pocket Mouse (*Perognathus longimembris bangsi*), a covered species, were found.

The Palm Springs Ground Squirrel is the only mammalian covered species discovered within the Project Site. It was only detected twice during surveys conducted on February 25 and 26, 2014, but should be expected throughout the Project Site as the habitat is suitable. It currently is not a listed species and has a much broader range than was previously thought (Federal Register, 2009). It is, therefore, unlikely that it will be listed in the foreseeable future.

Sensitive Plants

The Inventory of Rare and Endangered Vascular Plants of California, published by the California Native Plant Society (CNPS) (2001), the *CNDDB Special Plant List* (2013) or the *Endangered, Threatened, and Rare Plants of California* (2013) lists a total of four plant species that could potentiallybe present on the Project Site based on other locations with similar conditions where these species have been identified. They are the flandular ditaxis (*Ditaxis clariana*), ribbed cryptantha (*Cryptantha costata*), flat-seeded spurge (*Chamaesyce platysperma*), and Coachella Valley milk vetch (*Astragalus lentiginosus coachellae*). Each of these species is discussed below.

The glandular ditaxis is a perennial herb that blooms from December through March. This species is not listed as rare, threatened or endangered by either the State or federal governments nor is it proposed to be listed at this time, but is identified as rare in the CNPS Inventory. It is restricted to sandy environments in the Sonoran Desert and has been found in the Coachella Valley at elevations similar to those found on the Project Site. Since the glandular ditaxis is a perennial, it is likely that it would be detected during the plant surveys. It was not detected and therefore is presumed not to occur onsite.

The ribbed cryptantha is an ephemeral known to occur on sandy soils in the Coachella Valley. The ribbed cryptantha is also not listed as rare, threatened or endangered by either the State or federal governments nor is it proposed to be listed at this time, but is also identified as rare in the CNPS Inventory. The Project Site can be considered suitable habitat for this species. It was not detected during site surveys.

The flat-seeded spurge is an ephemeral herb known to occur on sandy soils in the Sonoran Desert. There has been at least one specimen found in the Coachella Valley. The flat-seeded spurge is also not listed as rare, threatened or endangered by either the State or federal governments nor is it proposed to be listed at this time, but identified as rare in the CNPS Inventory. The species was not detected on the Project Site.

The Coachella Valley milk vetch is a spring-blooming ephemeral herb that is known to occur on sandy soils in the Coachella Valley. The milk vetch is listed as endangered by the U.S. Fish & Wildlife Service. No living individuals of this subspecies were detected on or near the Project Site during site surveys.

However, many seed pods of this species were found in portions of the Project Site. The absence of any plants is likely due to the lack of rainfall this year. Prior surveys on the Project Site in 2011 identified 309 living individuals of this species within the project boundaries (Cornett, 2011). The Project Site appears to have a large seed bank of this species within the sandy soil and it is considered to be present today within the project boundaries.

Sensitive Wildlife

Three sensitive wildlife species identified as present within the Project Site are covered species in the Valley Floor Planning Area of the THCP. These covered species are the Coachella Valley fringe-toed lizard, flat-tailed horned lizard and Palm Springs ground squirrel. Under the THCP, adverse impacts to these three species can be mitigated by the project proponent paying the Tribe the required mitigation fee. Collected fees are used to purchase and preserve comparable habitat elsewhere in the Coachella Valley. Three additional covered species may also occur within the Project Site but were not detected during the surveys. They are the Coachella giant sand treader cricket, Coachella Valley Jerusalem cricket and Palm Springs pocket mouse.

As discussed above, the burrowing owl was observed within the Project Site boundaries and one active burrow was found. The burrowing owl is a covered species in the Valley Floor Planning Area of the THCP. As discussed above, it is protected in the United States under the Migratory Bird Treaty Act of 1918. Mitigation for impacts to Burrowing Owl is identified in the Staff Report on Burrowing Owl Mitigation prepared by the California Department of Fish and Wildlife on March 7, 2012 which has been approved and accepted by the U.S. Fish & Wildlife Service.

Wildlife Movement Corridors

Smoothing of surfaces to yield tracks was performed on each site visit to determine if important wildlife corridors existed on the site. Much of the Project Site was sampled using this technique. Tracks of ravens, roadrunners, coyotes and black-tailed jackrabbits were each recorded. However, no discernable and routinely used corridors could be found.

2. Regulatory Setting

Federal

Federal Endangered Species Act

The Federal Endangered Species Act (FESA) of 1973, as amended, was promulgated to protect and conserve any species of plant or animal that is endangered or threatened with extinction and the habitats in which these species are found. Section 4(a) of the FESA requires that critical habitat be

designated by the US Fish and Wildlife Service (USFWS) "to the maximum extent prudent and determinable, at the time a species is determined to be endangered or threatened." Critical habitat is formally designated by USFWS to provide guidance for planners/managers and biologists with an indication of where suitable habitat may occur and where high priority of preservation for a particular species should be given. "Take" of endangered species is prohibited under Section 9 of the FESA. Take, as defined under FESA, means to "harass, harm, pursue, hunt, wound, kill, trap, capture, collect, or attempt to engage in any such conduct." Section 7 of the FESA requires federal agencies to consult with the USFWS on proposed federal actions that may affect any endangered, threatened or proposed (for listing) species or critical habitat that may support the species. Section 10 of the FESA provides the regulatory mechanism that allows the incidental take of a listed species by private interests and nonfederal government agencies during lawful activities. Habitat conservation plans (HCPs) for the impacted species must be developed in support of incidental take permits for nonfederal projects to minimize impacts to the species and develop viable mitigation measures to offset the unavoidable impacts.

Federal Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) of 1918 is the domestic law that affirms or implements the United States' commitment to four international conventions with Canada, Japan, Mexico, and Russia for the protection of shared migratory bird resources. It governs the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests. It prohibits the take, possession, import, export, transport, sale, purchase, barter, or offering of these activities, except under a valid permit or as permitted in the implementing regulations. As with the FESA, the act also authorizes the Secretary of the Interior to issue permits for take. The procedures for securing such permits are found in Title 50 of the Code of Federal Regulations, together with a list of the migratory birds covered by the act. This law is generally protective of migratory birds but does not specify the type of protection required. USFWS administers permits to take migratory birds in accordance with the regulations promulgated by the MBTA. Nesting raptors, such as red-tailed hawks and burrowing owls, are protected under the MBTA. In common practice, USFWS places restrictions on disturbances allowed near active raptor nests.

Regional and Local

Habitat Conservation Plans

Under Section 10(a)(1)(B) of the FESA, an incidental take permit from the USFWS is required when nonfederal activities will result in "take" of threatened or endangered wildlife. Habitat Conservation Plan (HCP) must accompany any application to the USFWS for an incidental take permit. If the USFWS accepts the HCP, then the agency issues a permit that allows permittees to "take" an endangered

species if such taking is incidental to, and not the primary purpose of, the proposed activity. The permit is required prior to developing any part of an endangered species' habitat, because USFWS regulations equate habitat modification with taking an endangered species, which is prohibited under federal law. The goal of the HCP is to conserve natural communities before their native species have declined to the point that protection under the FESA is necessary.

The purpose of the HCP planning process is to reduce conflicts between conservation and economic growth and to minimize, to the extent feasible, impacts to endangered, threatened, or sensitive species resulting from a project. The purpose of the permit is to authorize the incidental take of a listed species, not to authorize the activities that result in take. Currently, HCPs are evolving from a process adopted primarily to address single projects to broad-based, landscape-level planning, utilized to achieve long-term biological and regulatory goals. The project applicant, in consultation with the USFWS, drives the development and preparation of an HCP. An HCP generally includes an assessment of impacts likely to result in taking of federally listed species; measures the applicant will undertake to monitor, minimize and mitigate impacts; alternative actions to the taking considered and not adopted; and additional measures required by the USFWS.

A HCP is intended to standardize and streamline the existing permitting process for incidental take of listed species under FESA. Upon granting of take approval from the USFWS, the participating entity(s), such as a city, county, or district, assumes permitting responsibilities for proposed projects that would potentially take "covered species." Covered species include species currently listed as threatened or endangered and certain species that may become listed during the term of the HCP. Mitigation/compensation measures established under a HCP would concurrently satisfy applicable provisions of FESA. It should be noted that a HCP does not address issues associated with Section 404 of the federal Clean Water Act. Projects that currently require a Section 404 permit would continue to do so notwithstanding the applicable HCP.

Two HCPs have been prepared in the Coachella Valley. The Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP) addresses approximately 1.2 million acres in the Coachella Valley and the surrounding mountains. Because approximately 69,000 acres of Reservation lands are not included in the CVMSHCP area the acreage covered by the plan is about 1.1 million acres. The Agua Caliente Tribal Habitat Conservation Plan (THCP) addresses approximately 31,500 acres of land within the Reservation.

The CVMSHCP, which became effective in October of 2008, is a regional conservation plan that identifies and coordinates the permanent protection of habitats, biological linkages and corridors, and ecological processes for the benefit of plants and wildlife. CVMSHCP participants include Riverside County, the cities of Cathedral City, Coachella, Desert Hot Springs, Indian Wells, Indio, La Quinta, Palm Desert, Palm

Springs, and Rancho Mirage, as well as the Coachella Valley Water District and Imperial Irrigation District. The Coachella Valley Association of Governments serves as the lead agency for plan review and consideration with the Coachella Valley Conservation Commission overseeing the plan implementation. The plan enables the participating public agencies ("permittees") to comply with both the State and Federal Endangered Species Acts and other regulations promulgated to protect listed plants and wildlife.

The THCP, completed in 2010, complements the CVMSHCP by addressing the 31,500 acres of land in the Reservation, which includes land within the geographical boundaries of three cities (Palm Springs, Cathedral City, and Rancho Mirage) and the County of Riverside. Based on the conservation program defined in the THCP, the Tribe is seeking to enter an Implementing Agreement with, and obtain a Section 10(a) Permit from USFWS to authorize the incidental take of covered species of wildlife in connection with certain activities undertaken by the Tribe, Tribe members, and in some cases, third parties. The THCP has not yet been approved by the USFWS and a Section 10(a) Permit has not been issued. Until take authority is granted to the Tribe through the issuance of a 10(a) Permit, incidental take permits would continue to be obtained directly from the USFWS as allowed by the FESA. The Tribe has independent authority to enforce its obligations under the THCP and the Tribe is implementing the plan to mitigate impacts to sensitive resources on Tribal lands. The THCP is described further below.

Tribal Habitat Conservation Plan

The Agua Caliente Indian Reservation ("Reservation") contains valuable natural resources and habitats deemed by the USFWS, as well as the Tribe, to require protection. The Tribe has managed these resources for hundreds of years and developed the THCP to formalize the Tribe's traditional approach to land use and resource management. The THCP is intended to address development and other activities taking place within the Tribe's jurisdiction and provide the means to protect and conserve federally listed species and others deemed by the Tribe and USFWS to be sensitive and potentially in need of listing in the future.

The THCP is intended to support the issuance of an incidental take permit to the Tribe from USFWS under Section 10(a)(1)(B) of the FESA for 24 covered species, including 21 sensitive wildlife and 3 sensitive plant species. Several of these species are listed as threatened or endangered under the ESA. Listed species covered include but are not limited to the Coachella Valley fringe-toed lizard, Coachella Valley milk vetch, Peninsular bighorn sheep, least Bell's vireo, southwestern willow flycatcher, California red-legged frog, and mountain yellow-legged frog. Protection for the covered species and the habitats that support them would be afforded through the Tribe's conservation program.

The THCP establishes conservation areas to be dedicated as habitat preserves which would be managed in perpetuity for the conservation of covered species. The habitat preserve would be assembled through

land dedications, restrictions, or conditions on covered projects through the adoption of development standards, assessment of fees, and other mitigation measures to ensure the covered projects are approved consistent with the THCP. The Tribe is currently collecting mitigation fees to be used to purchase conservation lands to implement the THCP.

The THCP divides the Reservation into two distinct areas: the Mountain and Canyons Conservation Area and a Valley Floor Planning Area (VFPA). The VFPA covers approximately 15,300 acres of Reservation lands, of which approximately 57 percent is already developed and no longer provides habitat for native plant and animal species. The THCP has established Target Acquisition Areas within the VFPA to preserve and manage active and ephemeral sand field habitat. The Project Site is not located in one of these areas. The Project Site is subject to development standards, assessment of fees, and other mitigation measures to ensure that development is consistent with the THCP. However, as discussed above, until take authority is granted to the Tribe, any required incidental take permits would continue to be obtained directly from USFWS.

B. ENVIRONMENTAL IMPACTS

1. Thresholds of Significance

In order to assist in determining whether a project would have a significant effect on the environment, the Tribe finds a project may be deemed to have a significant biological impact if it would:

Threshold 5.3-1 **Having a substantial effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the U.S. Fish and Wildlife Service.**

Threshold 5.3-2 **Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the U.S. Fish and Wildlife Service.**

Threshold 5.3-3 **Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.**

Threshold 5.3-4 **Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites.**

Threshold 5.3-5 **Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.**

Threshold 5.3-6 **Conflict with the provisions of an adopted Habitat Conservation Plan.**

2. Methodology

Prior to the initiation of the fieldwork as described above, reviews of the literature and institutional records were conducted to determine the biological resources that might exist within the general area and to determine the possible occurrence of special status species. Records, collections, websites and/or staff of the University of California at Riverside Herbarium, the Boyd Deep Canyon Desert Research Center and the Coachella Valley Association of Governments were consulted for specific information as to the occurrence of selected species. A California Department of Fish and Wildlife Natural Diversity Database (updated, March 2014) check was also reviewed.

3. Project Design Features

The Project does not include any features specifically related to biological resources.

4. Project Impacts

Cause a Loss of Plant and Wildlife Habitat and Sensitive Natural Species

Active Adult Community

The Project Site predominantly consists of a Sonoran creosote bush scrub habitat and is a pervasive plant community throughout the Colorado Desert of southeastern California. The fauna of the Project Site and surrounding vicinity is composed of species typical of sandy, windswept habitats in the Coachella Valley portion of the Colorado Desert. Animal species associated with residential subdivisions were also recorded on the site.

Five species covered under the THCP of the Tribe were detected on-site and are considered resident: the Coachella Valley milk vetch, Coachella Valley fringe-toed lizard, flat-tailed horned lizard, burrowing owl, and Palm Springs ground squirrel. Three additional covered species (Coachella giant sand-treader cricket, Coachella Valley Jerusalem cricket, and Palm Springs pocket mouse) may occur onsite but were not detected. Approximately 25 percent of the Project Site has been disturbed by road shoulder clearing, removal of topsoil for fill, grading for a temporary parking lot and fill piling. The vegetation of these areas is dominated by weed species that germinate and grow following the damage or removal of native vegetation.

Tribal Planning Areas

The Tribal Planning Areas predominantly consist of a Sonoran creosote bush scrub habitat, which is a pervasive plant community throughout the Colorado Desert of southeastern California. The fauna of the Project Site and surrounding vicinity is composed of species typical of sandy, windswept habitats in the Coachella Valley portion of the Colorado Desert. Animal species associated with residential subdivisions were also recorded from the site. Future projects within the Tribal Planning Areas will pay the development mitigation fees identified by the THCP. Accordingly, impacts would be less than significant.

Development of the Active Adult Community would result in the loss of native vegetation and habitats that support sensitive species. Impacts to species could occur directly from habitat modification and removal for building pad development and roadway construction. Soil disturbance may significantly increase erosion and impact drainages and water quality. Other potential impacts could include the introduction of non-native weedy and insect species and increased competition from non-native species that could affect other species ability to forage or establish territories.

Small areas of open space and pockets of landscaping established with the new development would potentially support individual native plant and wildlife species, but these areas would be small and isolated in nature and would not provide substantial habitat areas.

Implementation of the Section 24 Specific Plan policies and programs that encourage the use of naturally occurring desert plant materials in project landscaping would help minimize Project impacts to sensitive plant and wildlife species within the Project Site and vicinity and would also be consistent with the City of Rancho Mirage General Plan. Policy 3 of the City of Rancho Mirage General Plan Conservation and Open Space Element[3] states that "The City shall encourage the use of naturally occurring desert plant materials, and discourage the use of non-native plant materials that are harmful to native plant and animal species, in landscaping for development projects to the greatest extent possible."

In addition, the City of Rancho Mirage ("City") is a participant and permittee in the CVMSHCP and is coordinating with the Tribe regarding the THCP. The Active Adult Community portion of the Project would also pay the development mitigation fees identified by the THCP. As discussed above, the Tribe will use mitigation fees collected to acquire conservation lands to implement the THCP. While the USFWS has not yet approved the THCP or issued a 10(a) Permit, the Tribe has independent authority to implement the THCP to mitigate impacts to sensitive resources on Reservation lands. The impacts of the

3 *City of Rancho Mirage General Plan,* "Conservation and Open Space Element," 1997.

Project will be mitigated to a less than significant level through payment of the THCP conservation fee as the THCP overs the sensitive species the Project would impact.

Cause a Substantial Adverse Effect on any Riparian Habitat or other Sensitive Natural Community

Active Adult Community

No sensitive vegetation communities, including riparian habitat, were identified within the Active Adult Community Planning Area. The Project Site does not contain naturally occurring springs or permanent aquatic habitats. No blue-line stream corridors (streams or dry washes) are shown on U.S. Geological Survey maps for the Project Site nor are there botanical indicators of such corridors. Accordingly, no significant impacts to riparian habitat or other sensitive natural communities will result from the development of the Active Adult Community.

Tribal Planning Areas

As discussed previously for the Active Adult Community, the Tribal Planning Areas share the same habitat conditions. The Tribal Planning Areas also contain no natural occurring springs or permanent aquatic habitats. Accordingly, no significant impacts to riparian habitat or other sensitive natural communities will result from the development of the Tribal Planning Areas.

Cause a Substantial Adverse Effect on Federally Protected Wetlands

Active Adult Community

The Project Site contains no naturally occurring springs or permanent aquatic habitats. No blue-line stream corridors (streams or dry washes) are shown on U.S. Geological Survey maps for the Project Site nor are there botanical indicators of such corridors. Accordingly, no significant impacts to any federally protected wetlands will result from the development of the Active Adult Community.

Tribal Planning Areas

The Tribal Planning Areas share the same habitat conditions. The Tribal Planning Areas also contain no natural occurring springs or permanent aquatic habitats. Accordingly, no significant impacts to any federally protected wetlands would result from the development of the Tribal Planning Areas.

Interfere Substantially With the Movement of any Native Resident, Migratory Fish or Wildlife Species

Active Adult Community and Tribal Planning Areas

The Project Site does not serve as a wildlife movement corridor. The Project Site does not connect any otherwise isolated areas of habitat; it serves more as a wildlife habitat than a wildlife corridor or linkage. Accordingly, no significant impacts to the movement of wildlife species would result from the development of the Project.

Cause a Conflict With any Local Policies or Ordinances Protecting Biological Resources

Active Adult Community and Tribal Planning Areas

Development of the proposed Project as a whole will not conflict with any local policies protecting biological resources. The THCP, discussed in detail above, is being implemented by the Tribe to mitigate impacts to the sensitive species covered by the plan on land under the Tribe's authority. The proposed Project is consistent with the THCP and it is not located in any of the Target Acquisition Areas defined in the THCP. Accordingly, no significant impacts would occur.

Conflict with the Provisions of any Approved Local, Regional, or State Habitat Conservation Plan

Active Adult Community

The Tribe's purpose in adopting the THCP is to continue to protect natural resources in and around the Reservation by assuming the role of primary manager of such resources and land uses that impact them. Also, the Tribe wishes to achieve this by establishing consistency and streamline permitting requirements with respect to protected species. Development of the Project Site would be subject to the THCP, which is intended to address development and other activities taking place within the Tribe's jurisdictions and provide the means to protect and conserve federally listed species and others deemed by the Tribe and USFWS to be sensitive and potentially in need of listing in the future.

The Project Site is not located within the Target Acquisition Areas identified in the THCP and with payment of the conservation fee, development would be consistent with the THCP.

Tribal Planning Areas

As discussed above, the Project Site, inclusive of the Tribal Planning Areas, is located within the THCP area and development would not conflict with this habitat conservation plan as the Project Site is not

located within the Target Acquisition Areas identified in the plan. Moreover, the applicable THCP conservation fee will be paid by future projects in the Tribal Planning Areas. Accordingly, impacts would be less than significant.

5. Cumulative Impacts

Implementation of the proposed Project in conjunction with other related projects within the County of Riverside and the City, and other growth permitted by the City's General Plan and the General Plans of other jurisdictions in the Coachella Valley will result in cumulative impacts to biological resources.

The City and other jurisdictions in the Coachella Valley are participants in the Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP). The CVMSHCP and THCP are intended to address the cumulative impacts on sensitive biological species posed by development throughout the Coachella Valley through the provision of mitigation for regional cumulative biological effects resulting from development within the HCP areas. By establishing dedicated conservation areas with stringent development restrictions, the intent of the HCPs is to allow needed development to proceed elsewhere in the valley while preserving sufficient habitat for plant and wildlife species to survive. In this manner, compliance with the HCPs ensure that cumulative impacts to biological resources are mitigated to a level considered less than significant.

As with the proposed Project, related projects would be subject to the CVMSHCP or THCP as applicable, and the impacts from those projects to sensitive habitat, sensitive plants, and sensitive wildlife would be required to be mitigated through compliance with the requirements of the CVMSHCP or THCP, including the payment of the CVMSHCP Conservation Plan Fee or Tribal HCP Conservation Fee. Therefore, implementation of related projects and other anticipated growth in the Coachella Valley would not combine with the Project to result in cumulatively considerable impacts on biological resources.

C. MITIGATION MEASURES

The following Mitigation Measures would reduce biological resource impacts:

Active Adult Community and Tribal Planning Areas

MM 5.3-1 **Tribal Habitat Conservation Plan**. Prior to the issuance of any grading permits, the THCP Conservation Fee shall be paid.

MM 5.3-2 **Burrowing Owl.** To avoid impacts to burrowing owls during construction, the following actions, which are consistent with the Staff Report on Burrowing Owl Mitigation prepared by the California Department of Fish and Wildlife on March 7, 2012, and approved and accepted by the U.S. Fish and Wildlife Service, shall be taken:

1. A preconstruction survey should take place not more than 30 days prior to any construction activities planned between February 15 and June 15, the breeding season for burrowing owls, project grading to determine the location of any active burrows on and within 550 yards of an approved project site. If no active burrows are found in the survey area, site disturbance may commence providing a biological monitor is onsite.

2. A biological monitor, with the authority to halt or redirect grading, shall be present whenever grading or construction vehicles are present and operating on the project site. The function of the monitor is to protect burrowing owls that arrive on or near the project site after the clearance survey and during the construction period.

MM 5.3-3 **Loggerhead Shrike.** To avoid impacts to Loggerhead Shrikes during construction, breeding surveys shall be conducted simultaneously with burrowing owls surveys, 30 days prior to any construction activities planned between February 15 and June 15, which is the breeding season for both species. If a shrike nest is found, a buffer shall be established in which construction activities are prohibited until all young have fledged. The width of the buffer shall be determined by a qualified biologist.

D. LEVEL OF SIGNIFICANCE AFTER MITIGATION

Payment of the THCP Conservation Fee, as required by Mitigation Measure **MM 5.3-1,** will mitigate the potential impact of the Project on sensitive wildlife and plant species addressed by the THCP, which are identified as present or likely to be present within the Project Site, including burrowing owl, Coachella Valley fringe-toed lizard, Flat-tailed horned lizard, Palm Springs ground squirrel, and Coachella Valley milk-vetch, to a less than significant level.

While payment of the THCP Conservation Fee will mitigate the impact of the Project on the burrowing owl and its habitat to a less than significant level, Mitigation Measure **MM 5.3-2** will further mitigate the direct impact of Project construction activities on any individual burrowing owls that may be present on the site.

Mitigation Measure **MM 5.3-3** will mitigate the direct impact of Project construction activities on any individual Loggerhead Shrikes that may be present on the site to a less than significant level.

No significant unavoidable project or cumulative impacts to biological resources would result from the Project.

5.4 CULTURAL RESOURCES

Cultural resources include places, objects, and settlements that reflect group or individual religious, archaeological, architectural, or paleontological activities. Such resources provide information on scientific progress, environmental adaptations, group ideology, or other human advancements. This Section of the Draft EIS evaluates the potential for implementation of the proposed Project to impact cultural resources within the Project Site and in the immediate surrounding area. Information from the following study of the Project Site is incorporated into this Section:

- *Pulte Group Section 24 Cultural Resource Study, Rancho Mirage, Riverside County, California*, Kenneth M. Becker and Scott H. Kremkau, July 2014.

Please see **Section 9.0** for a glossary of terms, definitions, and acronyms used in this Draft EIS.

A. ENVIRONMENTAL SETTING

1. Existing Conditions

Regional and Local Setting

California is divided into geomorphic provinces, which are distinctive, generally easy-to-recognize natural regions in which the geologic record, types of landforms, pattern of landscape features, and climate in all parts are similar. The Project Site is in the Coachella Valley in the northern part of the Colorado Desert Geomorphic Province, which is a low-lying barren desert basin. More specifically, the Project Site located on the Reservation within unincorporated Riverside County, surrounded by the City of Rancho Mirage in the heart of the Coachella Valley.

Topographically, the Project Site generally slopes downward to the northeast. Surface elevations range from approximately 350 feet to 250 feet above mean sea level, with the highest points located near the southwest corner and the lowest points located near the northeast corner site.

The approximate 577-acre Project Site has never been developed and currently consists of relatively undisturbed desert lands. However, at least three disturbed areas were identified on the Project Site with two graded areas in the northwest and northeast portions of the Project Site and one area covered with artificial fill in the southwestern portion of the site. The graded area in the northeast portion of the Project Site was used as a parking and staging area for the construction of the Agua Caliente Casino Resort Spa in 2007. The graded area in the northwest portion of the Project Site was used as a source of fill for the construction of the Bob Hope Drive/Interstate 10 (I-10) Interchange in 2010. The two graded areas in the northwest and northeast portions of the site were monitored for cultural resources during

construction and no cultural resources were found in either area. The artificial fill located in the southwest corner of the Project Site was deposited in approximately 2003 during construction of the Mission Hills housing complex and golf course located west of Los Alamos Road.

The rest of the Project Site is dominated by a large, northwest-southeast-trending sand dune. The dune has a steep, northeast-facing slope on the north side of the Project Site while the south side of the Project Site parallels the top of the dune and is relatively flat.

Cultural Setting

Prehistoric Background

Three principal prehistoric periods[1] include the Paleoindian, Archaic, and Late Prehistoric periods. The Paleoindian period groups, probably with Clovis complex technology, occupied much of California beginning about 12,000 years before present (BP). However, there is very little evidence of a Paleoindian period occupation of the northern Coachella Valley. The reasons for this are unclear but may be related to a lack of habitat for the large game hunted by Clovis people. There is also little known evidence of San Dieguito presence in the northern Coachella Valley. The reasons for this are unclear, but the lack of an early occupation may indicate that Lake Cahuilla was not inundated during this time.

The Archaic period groups began approximately 8,000 years BP and records suggest only a minor occupation by relatively few people. When the climate began to cool approximately 4,000 years BP, it appears that the Colorado Desert was reoccupied and several archaeological sites in the northern Coachella Valley are dated to this time. Records suggest much of the occupation centered on the shores of Lake Cahuilla. Excavations at two sites near Desert Hot Springs located 12 kilometers (km), or approximately 7 miles, northwest of the Project Site encountered deposits dating to the transition from the Late Archaic to the late Prehistoric period, approximately 1,200 to 1,000 years BP. These sites contained evidence for habitation, including hearth features; activity surfaces and a variety of artifact types, such as flaked stone debitage; faunal remains; and possible human remains. These sites are located adjacent to the ethno historically known Seven Palms Village, and it is likely these sites represent an early occupation of the village.

The Late Prehistoric period groups began approximately 1,500 B.P. Yumkan (or Patayan) agricultural groups along the Colorado River area began to influence Colorado Desert groups, particularly in the Coachella Valley. Agricultural crops were also probably introduced into the area during this time. The

1 Jerry Schaefer, "The Challenge of Archaeological Research in the Colorado Desert: Recent Approaches and Discoveries," *Journal of California and Great Basin Anthropology* 16 no. 1 (1994): 60–80.

Late Prehistoric period groups that occupied the Coachella Valley were the direct ancestors of the ethnographic Cahuilla. This period represents a significant increase in human occupation of the Coachella Valley and several large archaeological sites from this period have been identified.

Ethnographic Background

The aboriginal group that occupied the northern Coachella Valley during the historical period was the Desert Cahuilla, who, along with the Mountain and Pass Cahuilla, constituted the ethnographic Cahuilla. The Cahuilla spoke a language of the Takic branch of Northern Uto-Aztecan, and the Desert Cahuilla spoke a distinct dialect of Cahuilla. There have been few archaeological studies of the historical-period Cahuilla, but testing at the former Mission Creek Indian Reservation, approximately 35 kilometers or 22 miles northwest of the Project Site, identified occupations stretching from the Lake Prehistoric period into the early twentieth century. Similarly, excavations at Tahquitz Canyon, 12 kilometers or 7 miles west of Project Site, found a large village complex dating between 1600 and 1870.

The Cahuilla exploited a large number of plant species with mesquite on the Coachella Valley floor as the primary food staple. The Desert Cahuilla also grew a few agricultural crops, namely corn, beans, and squash, which were probably obtained from native peoples along the Colorado River to the east. The Cahuilla also preferred a variety of animals including deer and mountain sheep to smaller animals such as rabbits and rodents. The Cahuilla population was originally as many as 3,000 people, but declined rapidly after the smallpox and measles epidemic of 1863.

In 1876, the Agua Caliente Indian Reservation ("Reservation") was founded by an Executive Order of President Ulysses S. Grant which was expanded in 1877 and 1907. The Reservation covers roughly 31,500 acres and consists of all even-numbered sections and all unsurveyed portions of Township 4 South, Ranges 4 and 5 East, and Township 5 South, Range 4 East, on the San Bernardino Meridian, with the exception of sections already given out by the United States (US) government. The odd-numbered sections had already been given to railroads as an incentive to develop cross-country rail lines, and as such, the Reservation appears as a checkerboard pattern on maps. In 1891, Congress passed the Mission Indian Relief Act, which authorized allotments of Reservation land to be given to individuals. The allotment elections were finally approved by the Secretary of the Interior as part of the Equalization Act in 1959, which finalized the individual Indian allotments and set aside certain lands for Agua Caliente Tribal use and cemeteries.

Historical Background

The extreme aridity of the Colorado Desert acted as a deterrent to many early explorers. The earliest recorded European visit to the Coachella Valley was by José Romero in the winter of 1823–1824, the

leader of an expedition attempting to reach the Colorado River by a new route.[2] Until the mid-nineteenth century, however, most expeditions into the Coachella Valley were confined to the established prehistoric trail systems. In 1853, William P. Blake described the Coachella Valley during the Pacific Railroad Survey expedition.[3] Blake recorded the general environment, noted the location of Indian villages, described native agriculture in the Coachella Valley, and recorded some oral traditions of the Indians concerning life around ancient Lake Cahuilla. In 1855 and 1856, the U.S. Land Office Survey surveyed the valley and divided it into townships and sections. Section 24 was added to the Reservation in 1877.

Bob Hope Drive (formerly Rio del Sol Road) was built in the mid-1920s. The development of the State highway system in the early twentieth century opened the Coachella Valley to further development and became a popular vacation spot for residents in the Los Angeles Basin. I-10 was completed on its current alignment in 1957. During the late twentieth century, development in the Coachella valley expanded rapidly, with country clubs and housing developments appearing along U.S. Highway 111 and I-10.

Modern aerial photographs of the Project Site show little evidence of human activity, aside from the development of Agua Caliente Casino Resort Spa east of the Project Site.

Archaeological Resources

Records searches and other archival research were conducted at the California Historical Resources Information System Eastern Information Center (EIC), Department of Anthropology, University of California, Riverside, on March 28 and March 29, 2013. The records search looked at all reports from archaeological work executed within a 1-mile radius of the Project Site. The records search also consulted the catalog of National Register of Historic Places (NRHP) sites and the California Historical Landmarks (CHL).

Six isolated artifacts within the Project Site were identified in the records search. None of these artifacts were relocated during the site survey.

A new archaeological site, SRI-1, was identified during the surveys of the Project Site. SRI-1 is a historical period site consisting of surface artifact scatters of fragments of glass bottles and metal cans. The site has two distinct artifact scatters consisting of fragments of at least nine glass alcohol/beverage

2 Lowell J. Bean and William Mason, *Diaries & Accounts of the Romero Expeditions in Arizona and California, 1823-1826* (Palm Springs, CA: Palm Springs Desert Museum, 1962).

3 Blake, William P, *Reports of Explorations in California for Railroad Routes to Connect with Routes near the 35th and 32nd Parallels of North Latitude*, 1857.

containers and four church-key-opened sanitary cans. Other cans, likely modern refuse, were probably tossed from passing cars on Ramon Road, also litter the site and are found scattered throughout the area.

Historical Resources

The Project Site has never been developed and currently consists of relatively undisturbed desert lands, except for the previously mentioned areas in the northwest, northeast, and southwest portions of the site. There are no standing structures within the confines of the Project Site.

The Project Site has been previously surveyed for cultural resources. Only five historical-period isolated artifacts are located within the Project Site, but several prehistoric and historical-period sites are known to be in the surrounding area. The five historical-period isolated artifacts were not located during the survey of the Project Site. Much of the historical-period use of the Project Site is associated with the railroad and with informal dumping practices.

A portion of the northern part of the site is covered in modern trash, dating primarily to the 1960s through the 1980s. This trash includes aluminum-topped, pull-top beer cans, aluminum beer cans, couch cushions and other pieces of furniture, and pieces of plastic. It is likely that most of this trash was thrown from vehicles driving along Ramon Road. The prevailing winds in the area blow south from the road, and as such, cans and other lightweight artifacts may have been blown throughout the Project Site during periods of high wind.

Paleontological Resources

Paleontological resources are valued for the information they yield about the history of the earth and its past ecological settings. The Project Site contains recent alluvium, which has a low potential to contain significant paleontological resources.[4]

2. Regulatory Setting

Federal

National Historic Preservation Act

The National Historic Preservation Act of 1966 (NHPA) authorized formation of the NRHP and coordinates public and private efforts to identify, evaluate, and protect the nation's historic and

4 *Riverside County General Plan*, "Multipurpose Open Space Element," (2003), fig. OS-8, "Paleontological Sensitivity Resources Map."

archaeological resources. The NRHP includes districts, sites, buildings, structures, and objects that are significant in American history, architecture, archaeology, engineering, and culture.

Section 106 (Protection of Historic Properties) of the NHPA requires federal agencies to take into account the effects of their undertakings on historic properties. A Section 106 Review refers to the federal review process designed to ensure that historic properties are considered during federal project planning and implementation. The Advisory Council on Historic Preservation, an independent federal agency, administers the review process, with assistance from State Historic Preservation Offices (SHPOs). If any impacts are identified, the agency undergoing the project must identify the appropriate SHPO to consult with during the process.

The Advisory Committee on Historic Preservation includes requirements for consultation with Indian tribes when federal agencies are undertaking an activity that could cause harm to a historic resource or a potential historic resource under Title 36 of the Code of Federal Regulations Part 800, "Protection of Historic Properties," which became effective January 11, 2001. Pursuant to Section 101(d)(2) of the NHPA, the National Park Service designated the Agua Caliente Band of Cahuilla Indians (Tribe) as a Tribal Historic Preservation Office (THPO) in 2005. THPO works with the Tribal Council, other Tribal departments, and federal and State agencies for activities occurring on, or affecting historic properties on, the Reservation, such as Section 106 reviews, monitoring construction and archaeological excavations, protecting burials, and building an archival database.

Archaeological Resources Protection Act

The Archaeological Resources Protection Act of 1979 regulates the protection of archaeological resources and sites that are on federal and Indian Lands.

Native American Graves Protection and Repatriation Act

The Native American Graves Protection and Repatriation Act[5] (NAGPRA; HR 5237), enacted July 10, 1990, is a federal law that provides a process for museums and federal agencies to return certain Native American cultural items, such as human remains, funerary objects, sacred object, or objects of inalienable cultural patrimony, to lineal descendants and culturally affiliated Indian tribes. The NAGPRA states that any such cultural items that are found on federal or tribal lands after the date of enactment would be considered owned or controlled by (in this order) lineal descendants, the tribe on whose land it was found, the tribe having the closest cultural affiliation with the item, or the tribe that aboriginally

5 Native American Graves Protection and Reparation Act. 25 United States Code, sec. 3001 et., seq. 1990.

occupied the area. The Cahuilla Inter-Tribal Repatriation Committee (CITRC) is a collaborative effort of Cahuilla tribes in southern California for the purpose of repatriation of objects meeting the criteria of the NAGPRA. CITRC provides information to museums and institutions about the CITRC operations and procedures and assists other tribes considering the formation of a repatriation project or collaborative committee.

National Register of Historic Places

Section 106 of the NRHP requires federal agencies to take into account the effects of an undertaking on historic properties, which are defined as cultural resources included in or eligible for listing in the NRHP. Determination of NRHP eligibility for cultural resources prior to making a finding of effect is made according to the following criteria:

> The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and
>
> a) that are associated with events that have made a significant contribution to the broad patterns of our history; or
>
> b) that are associated with the lives of persons significant in our past; or
>
> c) that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
>
> d) that have yielded, or may be likely to yield, information important in prehistory or history.

If cultural resources do not meet the above criteria, they are not historic properties and are not further considered in the Section 106 process. In addition to having significance, resources must have integrity for the period of significance. The period of significance is the date or span of time within which significant events transpired or significant individuals made their important contributions.

California

State Health and Safety Code

The discovery of human remains is regulated per *California Health and Safety Code*, Section 7050.5, which states that

> *"In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation…until the coroner…has determined…that the remains are not subject to…provisions of law*

> *concerning investigation of the circumstances, manner and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible… The coroner shall make his or her determination within two working days from the time the person responsible for the excavation, or his or her authorized representative, notifies the coroner of the discovery or recognition of the human remains. If the coroner determines that the remains are not subject to his or her authority and…has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission."*

California Register of Historical Resources

The California Register of Historical Resources (CRHR) is the authoritative guide to the State's significant archaeological and historical resources. It closely follows the eligibility criteria of the NRHP but deals with State and local-level resources. The CRHR serves to identify, evaluate, register, and protect California's historical resources. For purposes of CEQA, a historical resource is any building, site, structure, object, or historic district listed in or eligible for listing in the CRHR (Public Resources Code, Section 21084.1). A resource is considered eligible for listing in the CRHR if it meets any of the following criteria:

a) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.

b) Is associated with the lives of persons important in our past.

c) Embodies the distinctive characteristics of type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.

d) Has yielded, or may be likely to yield, information important in prehistory or history [Public Resources Code Section 5024.1(c)].

Historical resources meeting one or more of the criteria listed above are eligible for listing in the CRHR. In addition to significance, resources must have integrity for a period of significance-the date or span of time within which significant events transpired or significant individuals made important contributions. Important archaeological resources are required to be at least 50 years old to be considered. "Integrity is the authenticity of a historical resource's physical identity evidenced by the survival of characteristics that existed during the resource's period of significance." Simply put, resources must "retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance.

CEQA also requires the lead agency to consider whether there is a significant effect on unique archaeological resources that are not eligible for listing in the California Register. As defined in CEQA, a unique archaeological resource is

> *"an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:*
>
> 1. *Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.*
> 2. *Has a special and particular quality such as being the oldest of its type or the best available example of its type.*
> 3. *Is directly associated with a scientifically recognized important prehistoric or historic event or person."*

If an archaeological resource is found eligible for listing in the CRHR, then it is considered under CEQA to be a historic resource that needs to be protected. This may also apply to unique archaeological resources. If a historic resource may be impacted by activity, under CEQA, avoidance and preservation in place is the preferred alternative. If that is not possible, then a data recovery plan will need to be created and enacted to lessen impacts to the environment to a less than significant level. If the archaeological resource is not eligible for listing in the CRHR, and it is not a unique archaeological resource, then no further action is required to protect or mitigate possible impacts to it.

California Public Resources Code

Archaeological, paleontological, and historical sites are protected pursuant to a wide variety of State policies and regulations enumerated under the *California Public Resources Code*. In addition, cultural and paleontological resources are recognized as a non-renewable resource and, therefore, receive protection under the *California Public Resources Code* and CEQA.

- *California Public Resources Code* Sections 5020-5029.5 continued the former Historical Landmarks Advisory Committee as the State Historical Resources Commission (SHRC). The SHRC oversees the administration of the California Register of Historical Resources, and is responsible for the designation of State Historical Landmarks and Historical Points of Interest.
- *California Public Resources Code* Sections 5079-5079.65 defined the functions and duties of the Office of Historic Preservation (OHP). OHP is responsible for the administration of federally and State-mandated historic preservation programs in California and the California Heritage Fund.

- *California Public Resources Code* Sections 5097.9-5097.998 provide protection to Native American historical and cultural resources and sacred sites, and identify the powers and duties of NAHC. These sections also require notification of discoveries of Native American human remains, descendants and provide for treatment and disposition of human remains and associated grave goods.

Regional and Local

Tribe

Agua Caliente Tribal Historic Preservation Office

The mission of the THPO program is to ensure the continuance of the cultural heritage of the Agua Caliente Band of Cahuilla Indians for current and future generations. THPO promotes and protects the tribal heritage while pursuing economic development on its lands, and encourages developers and municipalities to partner in this effort. THPO offers the following programs and services dedicated to the documentation and management of cultural resources significant to the Tribe, such as archaeological sites, burials, buildings or other structures, resourcing gathering areas (plants, minerals), and sacred places (springs, hills, etc.):

- **Burial Sites Protection Program.** THPO works with families (lineages) and the Tribal Council to protect and preserve burials. The purpose of this program is to ensure that burials are treated with respect and dignity. Efforts are underway to build a database of known burial locations (both intact and relocated remains) so they can be more effectively protected.

- **Cultural Monitoring/Field Services.** This program assists in the protection of burials (cremations) that have already been identified and looks for buried cultural remains, including remains, not previously identified during cultural resources inventories of proposed project areas. THPO provides qualified cultural monitors for development and archaeological projects on the Reservation and in the Traditional Use Area (TUA).

- **Compliance and Consultation.** This program reviews cultural resources reports prepared by developers or their consultants prior to development on tribal lands or lands within the TUA and makes “determinations of effect” (decides whether or not those projects will have an impact on cultural resources). It also develops policies and consults with Coachella Valley cities and Riverside County on CEQA and other State-regulated documents. TPHO consults with federal agencies, including the National Park Service, Bureau of Land Management, and the U.S. Forest Service, to ensure that activities on their lands will not have an adverse effect on significant cultural resources.

- **Cultural Register.** The cultural register is the repository of all documentation related to cultural resources on Reservation and TUA lands. THPO is working to build a relational digitized database. It is also developing a reference library of materials related to Agua Caliente and the Cahuilla in general, and materials related to historic preservation and cultural resource management.

B. ENVIRONMENTAL IMPACTS

1. Thresholds of Significance

In order to assist in determining whether a project would have a significant effect on the environment, the Tribe finds a project may be deemed to have a significant cultural resources impact if it would:

Threshold 5.4-1 **Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5.**

Threshold 5.4-2 **Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5.**

Threshold 5.4-3 **Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.**

Threshold 5.4-4 **Disturb any human remains, including those interred outside of formal cemeteries.**

Threshold 5.4-5 **Have the potential to cause a physical change, which would affect unique ethnic cultural values.**

Threshold 5.4-6 **Restrict existing religious or sacred uses within the potential impact area.**

2. Methodology

The Section 24 Cultural Resource Study involved archaeological archival research and a field survey of the entire Project Site. Records searches and other archival research were conducted at the EIC, Department of Anthropology, University of California, Riverside, on March 28, 2013. The goal of the records search was to review any previous archaeological projects that may have been conducted within the Project Site and identify previously recorded archaeological resources located on the property. The records search looked at all reports from archaeological work executed within a 1-mile radius of the Project Site. The records search was conducted by examining USGS topographic maps held by the EIC that contain the locations of all previous cultural resource surveys and known archaeological sites. Transparencies preprinted with USGS topographic maps and outlines of the Project Site and a 1-mile buffer zone around the Project Site were placed over the EIC maps, and locations of previously recorded sites and the outlines of previous surveys were traced onto the transparencies. Survey reports and site records for previously recorded sites pertaining to the surveys and sites traced to the transparencies were subsequently photocopied. The records search also consulted the catalog of NRHP sites and the CHL.

Additional archival research was performed on March 29, 2013. Primary and secondary sources were reviewed for information pertinent to historical-period activities in the project area. Historical maps were consulted for information regarding specific historical-period land use in and around the Project Site. USGS Historical Topographic Map Collection, online Bureau of Land Management General Land Office (BLM GLO) Records, and historical maps on file at the EIC were also reviewed.

A pedestrian survey of the Project Site was conducted from January 24 to 30, 2014. Although most of the survey area had been previously surveyed, SRI archaeologists resurveyed the area to ensure continuity in the methods used throughout the entire survey area. Prior to the start of fieldwork, the survey area was divided in sectors, each of which represented the area to be surveyed within a given day. The survey was conducted with a team of three archaeologists spaced at 15-meter intervals. The crew walked in straight-line transects across the survey area. The progress of the survey was monitored using Trimble Geo XT/XH Global Positioning System (GPS) units and high-resolution aerial photographs. A map of previously recorded sites was used as a background on the GPS units. This allowed survey crew members to determine if sites or features encountered during the survey had been previously recorded during other archaeological surveys.

When an artifact was encountered during survey, a brief examination of the immediate area was conducted to locate any associated features or artifacts. The criteria used to define sites and isolated artifacts followed the guidelines set by the California Office of Historic Preservation (OHP). [6] A new site was defined as any three or more artifacts found in association with one another or a single feature recorded over 40 meters from an existing site. One or two artifacts found in association with one another were treated as isolated finds. Once the discovery was determined to be either a site or an isolated artifact, the location of the area was recorded with a Trimble GPS unit and assigned a temporary isolated-artifact or site number. Location information and a brief description were recorded on standard archaeological site forms. No artifacts were collected during the survey.

Historical Methodology

CEQA Guidelines Section 15064.5 provides direction on determining significance of impacts to archaeological and historical resources. Typically a resource shall be considered "historically significant" if the resource meets the criteria for listing, including the following:

6 California Office of Historic Preservation (OHP), *Instructions for Recording Historical Resources* (Sacramento: California Office of Historic Preservation, 1995).

- Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage
- Is associated with the lives of persons important in our past
- Embodies the distinctive characteristics of a type, period, region or method of construction, or represents the work of an important creative individual, or possesses high artistic values
- Has yielded, or may be likely to yield, information important in prehistory or history

The fact that a resource is not listed in, or determined to be eligible for listing in the California Register of Historical Resources, or is not included in a local register of historical resources, does not preclude a lead agency from determining that the resource may be a historical resource.

3. Project Design Features

The Project does not include any features specifically related to cultural resources.

4. Project Impacts

Cause a Substantial Change to a Historical Resource

Active Adult Community

Evaluating a site for inclusion in the NRHP and CRHR requires the use of a research design to provide a framework. Research designs are "explicit statements of the theoretical and methodological approaches to be followed in an archaeological study."[7] As a foundation for management decisions, "all types of archaeological studies conducted to satisfy regulatory needs should be directed by research designs." Several research designs have been created for evaluating small, historical-period refuse deposits, including those created by the California Department of Transportation (Caltrans).

Five previously recorded resources are all historical-period isolated artifacts located within the Project Site. Although an isolated artifact identified during the records search was not relocated during the site survey, it is generally considered not eligible for listing in either the NRHP or CRHR and thus should not be considered further in the planning process. Therefore, impacts to historical period artifacts would be less than significant.

7 California Office of Historical Preservation (OHP) (1995).

Tribal Planning Areas

The Tribe has also developed a research design for prehistoric and historical-period resources on Tribal land. The research design identifies five research themes: historical-period settlement, historical-period mining, railroad activities, Tribal recognition, and the desert tourism/health-spa industries.

The results of the records search indicate that 39 previous survey projects were conducted within the records-search area. Of these, 11 surveys included land within the Project Site. Of the 29 previously recorded cultural resources in the records-search area, five are located within the Project Site and 24 are located within the 1-mile-radius buffer surrounding the site. Historical-period isolated artifacts were located within the Project Site. Although the isolated artifacts identified during the records search were not relocated during the site survey, they are generally considered not eligible for listing in either the NRHP or CRHR.

A new archaeological site, SRI-1, was identified during the surveys within the Project Site. SRI-1 is a historical period site consisting of surface artifact scatters of fragments of glass bottles and metal cans. The site has two distinct artifact scatters consisting of fragments of at least nine glass alcohol/beverage containers and four church-key-opened sanitary cans. Other cans, likely modern refuse, were probably tossed from passing cars on Ramon Road, also litter the site and are found scattered throughout the area.

In general, sites such as SRI-1 that are small secondary dumps that are not associated with larger sites or activity areas, are not eligible for listing in the NRHP or CRHR because of the lack of information that they provide. SRI-1 is not eligible under Criteria a, b, or c of the NRHP or Criteria 1, 2, or 3 of the CRHR, as it cannot be associated with particular people or events, nor does it represent distinctive workmanship. The age and character of the site also made it difficult to address any of the research themes under Criterion d of the NRHP or Criteria 4 of the CRHR. Although the historical-period research (see section Historical-Period Background above) found that there were homesteads in the area around the Project Site, the artifacts from SRI-1 date to a later time period and, thus, are not associated with the period of significance for the homesteads. Likewise, there are no known mines or prospects in the area, and the artifacts postdate the construction of the railroad by nearly 80 years. The site contains only bottles and cans that once contained alcoholic beverages, which represent a very limited set of activities that cannot be tied directly to either the development of Tribal lands or of tourism industries. Moreover, the artifacts from SRI-1 are broken and scattered, and the site lacks integrity. Based on these findings, SRI-1 not eligible for listing in the NRHP and CRHR. Impacts to SRI-1 would be less than significant.

The 24 previously recorded sites within 1-mile of the Project Site include six prehistoric sites, 14 historical-period sites, two prehistoric isolated artifacts, and two historical-period isolated artifacts. More common in the records-search area are refuse deposits dating to the mid-twentieth century. These deposits generally contain a mixed assemblage of glass container fragments, ceramic tableware shards, food and beverage cans, and miscellaneous household items. These refuse deposits are most common along the roads and most likely reflect informal "wildcat" dumping in the general vicinity. No properties in the records-search area are listed in the NRHP or the catalog of CHL. Therefore, the Project would result in less than significant impacts on historical period artifacts within the Tribal Planning Areas.

Cause a Substantial Change to an Archaeological Resource

Active Adult Community

No known ethnographic villages associated with the Project Site were identified. However, because of the nearby prehistoric sites, the area is deemed sensitive for buried archaeological sites.

The Tribe has specifically identified the Project, including the Active Adult Community, as an area of concern for sensitive cultural resources. Therefore, the Project would have the potential to result in significant impacts to archaeological resources. Implementation of Mitigation Measures **MM 5.4-1** and **MM 5.4-2** would ensure that an archeological monitoring plan is drafted prior to earth moving activities within the Project Site and would ensure that construction activities cease within 300 feet in the event of a find. Archaeological impacts would be mitigated to less than significant.

Although the isolated artifact identified during the records search was not relocated during the site survey, it is generally considered not eligible for listing in either the NRHP or CRHR. Therefore, the Project would result in less than significant impacts on historical period artifacts within the Active Adult Community.

Tribal Planning Areas

No known ethnographic villages associated with the Project Site were identified. Based on previously identified archaeological artifacts on the Project Site, there is the potential that the Project Site has a high sensitivity for both prehistoric and historical-period cultural resources. Therefore, the Project would have the potential to result in significant impacts to archaeological resources.

Implementation of Mitigation Measures **MM 5.4-1** and **MM 5.4-2** would ensure that an archeological monitoring plan is drafted prior to earth moving activities within the Project Site and would ensure that

construction activities cease within 300 feet in the event of a find. Archaeological impacts would be mitigated to less than significant.

Cause a Substantial Change to an Paleontological Resource

Active Adult Community and Tribal Planning Areas

Paleontological resources are valued for the information they yield about the history of the earth and its past ecological settings. The Project Site contains recent alluvium which has a low potential to contain significant paleontological resources.[8] Therefore, impacts would be less than significant.

Cause a Disturbance of any Human Remains

Active Adult Community and Tribal Planning Areas

No human remains were found in the Project Site during the surveys. Based on the cultural sensitivity of the area there is the potential to find human remains during subsurface grading activities. As previously discussed, Project construction would require ground-disturbing activities, including grading and excavation, which could result in the discovery of previously unrecorded human remains, including Native American burials.

Should archaeological resources be encountered during subsurface excavation activities, implementation of Mitigation Measure **MM 5.4-1** requires the completion of an archaeological monitoring plan prior to earth moving activities, and **MM 5.4-2** would require a qualified archaeologist to implement procedures for temporarily halting or redirecting work to permit the sampling, identification, and evaluation of the resources, as appropriate. Furthermore, if human remains are uncovered during subsurface excavation activities, implementation of Mitigation Measure MM **5.4-3** would require notification of the county coroner within 24 hours of the discovery to handle and identify the human remains.

Cause a Physical Change Pertinent to Ethical Cultural Values

Active Adult Community and Tribal Planning Areas

The aboriginal group that occupied the northern Coachella Valley during the historical period was the Desert Cahuilla, who, along with the Mountain and Pass Cahuilla, constituted the ethnographic Cahuilla. There have been few archaeological studies of the historical-period Cahuilla, but testing at the former Mission Creek Indian Reservation, approximately 35 km northwest of the project area, identified

8 *Riverside County General Plan*, "Multipurpose Open Space Element" (2003), fig. OS-8.

occupations stretching from the Late Prehistoric period into the early twentieth century. Modern aerial photographs of the Project Site indicate little evidence of human activity. Aside from the development of Agua Caliente Casino Resort Spa, the Project Site remains undeveloped.

A parking area has been graded west of Bob Hope Drive adjacent to the casino parcel. Billboards appear at intervals along the southern portion of the Project Site. No unique ethnic cultural values were identified within the Project Site. As a result, Project development would not affect unique ethnic cultural values. Impacts would be less than significant.

Cause a Restriction of Existing Religious or Sacred Uses

Active Adult Community and Tribal Planning Areas

The Project Site does not contain religious or sacred uses as identified in the cultural resources study. Development of the Project would therefore not restrict existing religious or sacred uses. However, implementation of Mitigation Measures **MM 5.4-1** through **MM 5.4-3** would ensure that any unidentified archaeological resources or human remains be properly identified and handled during construction of the Specific Plan Area. As a result, construction impacts would be mitigated to less than significant.

5. Cumulative Impacts

Similar to the Project, ground-disturbing activities would have the potential to uncover previously unknown archeological resources, fossils of paleontological importance, and human remains. The Project, in combination with cumulative development, could contribute to the loss of undeveloped land, which could potentially contain archaeological or paleontological resources. Determinations regarding the significance of impacts of the related projects on archaeological or paleontological resources would be made on a case-by-case basis and, if necessary, the applicants of the related projects would be required to implement appropriate Mitigation Measures. Furthermore, the Project's potential impacts to archaeological and human remains would be less than significant with the implementation of the recommended Mitigation Measures. Therefore, the Project would not contribute to any potential cumulative impacts on archaeological resources or human remains.

The analysis of cumulative impacts to historic resources is based on whether impacts of the Project and related projects, when taken as a whole, substantially diminish the number of historic resources within the same or similar context or property type. As discussed previously, the Project would not significantly impact any historic resources. Thus, the Project would not contribute to cumulative impacts to historic resources and would result in a less than significant impact.

C. MITIGATION MEASURES

The following Mitigation Measures would reduce cultural resource impacts during construction of the Project:

MM 5.4-1 Prior to the start of any ground disturbing activities within the Project Site, the Agua Caliente Band of Cahuilla Indians (Tribe) Tribal Historic Preservation Officer (THPO) shall be notified of the pending activities. A qualified archaeologist shall coordinate with the THPO during the drafting for the archaeological monitoring plan and shall the timing of when monitoring is no longer necessary. During earth moving disturbances that involve excavation activities, if there is any evidence of Native American resources (significant or otherwise), the THPO will be notified and construction activities modified in accordance with the archaeological monitoring plan.

MM 5.4-2 If prehistoric or historical-period artifacts or features are found during the course of construction and no archaeological or Tribe approved Native American cultural resource monitor is present, work within 300 feet of the discovery shall cease, and a qualified archaeologist and a Tribe approved Native American cultural resource monitor shall be brought in to examine the find to determine if it contains any historical or unique archaeological resources that require further mitigation. Additional fieldwork may be required to evaluate the sites for their eligibility for listing in the California Register of Historic Resources. If the archaeologist determines, in consultation with the THPO, that the resources are unique, the project applicant shall cease any disturbance of the soil within 300 feet of the find to allow sufficient time for mitigation by avoidance measures and/or other mitigation options as specified in Public Resources Code (PRC), Section 211083.2.

MM 5.4-3 If human remains are identified during construction, all construction near the find must cease immediately and the area must be secured. The Riverside County Coroner's office must be contacted immediately, in accordance with the State Health and Safety Code (HSC) Section 7050.5(b). If the determination is made by the coroner that the remains are those of a Native American, *HSC,* Section 7050.5(c) requires that the coroner contact the NAHC by telephone within 24 hours. The NAHC will select the Most Likely Descendant and will coordinate the treatment and final disposition (repatriation) of human remains with that individual, according to the provisions of PRC, Section 5097.98, and any other legal requirements.

D. LEVEL OF SIGNIFICANCE OF MITIGATION

With implementation of existing regulations and standards identified above and Mitigation Measures **MM 5.4-1** through **MM 5.4-3**, impacts associated with cultural resources would be less than significant. Therefore, no significant unavoidable adverse impacts relating to cultural resources have been identified. Cumulative impacts would also result in less-than-significant impacts to cultural resources.

5.5 GEOLOGY AND SOILS

This Section of the Draft EIS addresses the potential for the proposed Project to be affected by adverse geologic or soil conditions on the Project Site. More specifically, this Section evaluates impacts associated with the Project that may potentially affect public health and safety or degrade the environment. Various federal, State, regional, and local programs and regulations related to anticipated geologic hazards are also discussed in this Section. Information from the following study of the Project Site is incorporated into this Section:

- *Geotechnical Study,* Leighton and Associates, Inc., May 2014.

A complete copy of the Geotechnical Study is included in the Technical Appendices to this Draft EIS (**Appendix D**). Please see **Section 9.0** for a glossary of terms, definitions, and acronyms used in this Draft EIS.

A. ENVIRONMENTAL SETTING

1. Existing Conditions

Regional

The Project Site is located within the Coachella Valley in Riverside County. Regionally, the Coachella Valley is a part of the Colorado Desert Geomorphic Province of California. This Province consists of numerous north-south trending mountain ranges, including the San Bernardino Mountains to the north of the Coachella Valley, the San Jacinto Mountains to the west, and the Santa Rosa Mountains to the south. The major structural feature of the Coachella Valley is the San Andreas transform system that consists of several major northwest-trending lateral strike slip faults that extend through the San Gorgonio Pass along the southern foothills of the San Bernardino Mountains. The Colorado Desert Geomorphic Province is bound on the east by the Colorado River, on the south by the Baja California border, on the north by the Transverse Ranges Province, on the northeast by the Mojave Desert Province, and on the west by the Peninsular Ranges Province.

The elevations of the Coachella Valley floor are relatively flat and defined by the nature of the tectonic depression that is traversed by multiple fault strands and is punctuated by localized compressional squeeze-ups that form dome-shaped hills of uplifted sand and gravel., The Whitewater River is located south of the Project Site, flowing along the base of the Santa Rosa Mountains. The Whitewater River Basin provides drainage for the surrounding highlands and the northern portion of the Coachella Valley. The streams that are within the region tend to be dry during most of the year except for the winter/spring months when there are large amounts of snow runoff from the surrounding mountains.

The Coachella Valley is prone to wind-blown sand erosion hazards as a result of the strong winds that funnel through the steep mountain ranges. Areas at the base of the mountains are more sheltered from erosion from wind than areas in the floor of the valley. Areas adjacent to the mountains are susceptible to rock falls and unstable slopes. The regional tectonic subsidence along the Coachella Valley floor along with the uplift of adjacent mountains is responsible for the rapid deposition of poorly consolidated soils in the valley.

The California Geologic Survey (CGS) classifies faults as either (1) active, (2) potentially active, or (3) not active. Active faults as those that have, or are suspected to have, ruptured within the Holocene epoch - that is within the last 11,000 years. The Project Site is located in a moderately active seismic region. Ground shaking due to earthquakes should be anticipated during the life of the proposed improvements. The US Geological Survey (USGS) and CGS have identified 28 active, or potentially active, faults located within approximately 60 miles of the Project Site. Each of these faults is believed to be capable of producing sizeable earthquake events with significant ground motions.

The San Andreas Fault Zone is the major structural feature for the region, consisting of several northwest-trending right lateral strike slip faults that extend through the San Gorgonio pass along the southern foothills of the San Bernardino Mountains and along the northeast margin of the Coachella Valley. This Fault Zone is considered to be the longest in California, extending for over 800 miles from northern California to the Cajon Pass near San Bernardino and with depths of at least 10 miles within the Earth's surface.[1]

Project Site

The Project Site is situated on a gently southwest to northeast sloping ground that is characterized by typical sand dune topography. Site elevations range from approximately 356 feet above mean sea level (amsl) at the highest elevation to 248 amsl at the lowest elevation. The existing soil and geologic units present within the Specific Plan Area are described below:

Soils

Undocumented Fill

There are three locations on the Project Site where undocumented fill has been identified. The first disturbed area is on the northeast portion of the Project Site, which was used in 2007 as a parking and

1 Sandra S. Schultz and Robert E. Wallace, "The San Andres Fault" (Denver, CO: US Geological Survey, 2013). http://pubs.usgs.gov/gip/earthq3/safaultgip.html.

staging area for construction of the Agua Caliente Casino/Resort/Spa. The graded area of the northwest portion of the Project Site was used in 2010 as a source of fill for the construction of the Bob Hope Drive/Interstate 10 Interchange. The third location of undocumented fill is on the southwest corner of the Project Site.

Dune Sand

The Project Site is underlain by wind-blown sand and alluvial soil deposits, which eroded from the nearby mountain ranges. The composition of these materials is considered to be of light brown gray to darker gray and loose to medium dense silty sand to poorly graded fine sand. While the exact depth of dune sand materials cannot be determined, it is estimated that these materials extend to between 5 and 20 feet below ground surface (bgs).

Quaternary Alluvium

In addition to the dune sand materials, the Project Site consists of quaternary-aged alluvial deposits with that consist of light brown to brownish gray, medium dense to very dense and poorly graded fine sand to sand with silt.

Seismic Hazards

Earthquake Faults

Due to the nature of Southern California straddling the North American and Pacific plates, the region is located in an area where numerous strike-slip faults are present. There are three active faults located within proximity of the Project Site that have the potential to create seismic hazards: the Garnet Hill, Banning, and San Andreas Faults. These three faults extend directly to the north and northwest of the Project Site approximately 1.5 miles, 2.5 miles, and 5 miles respectively. These faults roughly parallel the I-10 Freeway and the railroad corridor.

Surface Fault Rupture

Primary fault rupture results in fissuring and offset of the ground surface along a rupturing fault during an earthquake. Primary ground rupture typically makes up a relatively small percentage of the total damage in an earthquake, but being too close to a rupturing fault can cause severe damage to structures, and it is difficult to safely reduce the effects of this hazard through building and foundation design. The State definition of an active fault is designed to gauge the surface rupture potential of a fault, and is used to prevent development from being sited directly on an active fault. The Alquist-Priolo Earthquake Fault Zoning Act imposes development constraints within active fault zones.

Although primary seismic hazards for sites in the region include strong ground shaking and fault rupture, no known active faults have been mapped across the Project Site and the Site is not within a currently designated Alquist-Priolo Earthquake Fault Zone.

Strong Seismic Ground Shaking

Ground shaking poses the greatest potential hazard to the Project Site given its location to several active faults, which have the capability of producing earthquakes. Impacts that would result from ground shaking include extensive structural damage and risk of injury or death. This hazard is common all throughout Southern California and is associated with inducing other geologic hazards such as slope failure, liquefaction, and soil settlement. These seismic hazards are discussed further below.

Seismically Induced Slope Failure

Slope failures generally occur within mountainous or hilly terrain where steep slopes are present. The Project Site is located within the relatively flat Coachella Valley floor and does not contain mountainous or hilly terrain that would be subject to slope failure.

Liquefaction and Ground Failure

Liquefaction generally occurs within the upper 50 feet of the ground surface when loose, cohesionless, and water-saturated soils (fine- to medium-grained) are subjected to strong seismic ground motions of earthquakes. The seismic shaking increases the pressure of the water that fills the pores of the soil grains. Groundwater depths on the Project Site are greater than 50 feet and the soil is not saturated, thus earthquake-induced liquefaction is not likely to occur.

Seismically Induced Settlement

Under certain conditions, strong ground shaking can cause the densification of soils, resulting in local or regional settlement of the ground surface. During strong shaking, soil grains become more tightly packed due to the collapse of voids and pore spaces, resulting in a reduction of the thickness of the soil column. This type of ground failure typically occurs in loose, granular, cohesionless soils and can occur in either wet or dry conditions. Under the added weight of fill embankments or buildings, these soils tend to settle, causing distress to improvements. Damage to structures typically occurs as a result of local differential settlements, although regional settlement can damage pipelines by changing the flow gradient on water and sewer lines, for example. Wind-blown sand and unconsolidated young alluvial deposits are especially susceptible to seismically induced settlement. Therefore, since the Project Site is composed of these types of deposits, it is highly susceptibility to seismically induced settlement.

Other Geologic Hazards

Other geologic hazards that have potential to pose safety impacts in reference to the construction and operational activities of the Project are described below.

Expansive/Collapsible Soils

Expansive soils are characterized as fine-grained, such as silts and clays, soils with variable amounts of expansive clay minerals that can change in volume due to changes in water content. Collapsible soils typically occur in recently deposited soils that tend to be more dry and granular. The Project Site consists in majority of dune sand and quaternary alluvium materials that are loose to medium dense silty sand to poorly graded fine sand; therefore, the overall sand composition of the Project Site possesses very low expansion and collapsible potential.

Erosion

Since the Project Site contains cohesionless dune sand materials, the potential for surficial erosion exists. The low levels of rain in the Coachella Valley result in low vegetative growth to anchor soils. When the Coachella Valley experiences storms, they tend to occur in high frequency, thus highly accelerating soil erosion and potentially causing floods. Moreover, the strong winds that are experienced in the Coachella Valley also accelerate erosional processes. Thus, the Project Site is considered to be located in hazard zones of severe and very severe wind erosion.

Windblown Sand

As previously discussed, the Coachella Valley is characterized by its strong winds, which can result in windblown sand damage to buildings and landscape, reduction of visibility, and serve as a source of health problems. The Project Site is located in the center of the Coachella Valley, where windblown sand impacts are the greatest.

Groundwater and Surface Water

Groundwater and surface water are not found to be present on the Project Site recently or historically. According to the Geotechnical Study prepared for the Project Site, investigation of a well located on the west side of the Site indicated that groundwater depths may be between 160 and 175 bgs. Groundwater at this depth does not pose a constraint to development. Water conditions may vary depending on rainfall and irrigation conditions and surface runoff from elevated portions of the Project Site should be expected.

2. Regulatory Setting

Federal

National Pollutant Discharge Elimination System

The National Pollutant Discharge Elimination System (NPDES) is a program created to implement the Clean Water Act. In November 1990, the USEPA published final regulations that establish requirements for specific categories of industries, including construction projects that encompass greater than or equal to 5 acres of land. The Phase II Rule became final in December 1999, expanding regulated construction sites to those greater than or equal to 1 acre. The regulations require that stormwater and non-stormwater runoff associated with construction activity, which discharges either directly to surface waters or indirectly through municipal separate storm sewer systems (MS4), must be regulated by an NPDES permit.

The EPA has delegated management of California's NPDES program to the State Water Resources Control Board (SWRCB) and the nine regional board offices, which grant permits to regulate point source discharges of industrial and municipal wastewater into the waters of the United States. The NPDES program was established in 1972 to regulate the quality of effluent discharged from easily detected point sources of pollution such as wastewater treatment plants and industrial discharges. The 1987 amendments to the CWA[2] recognized the need to address non-point-source stormwater runoff pollution and expanded the NPDES program to operators of municipal separate storm sewer systems (MS4s), construction projects, and industrial facilities.

The Project Site is located within the 13-million-acre Colorado River Basin, which is governed by the Colorado River Basin Regional Water Quality Control Board (CRWQCB), also known as Region 7. The SWRCB administers the NPDES permit program regulating stormwater from construction activities for projects greater than 1 acre in size. This is known as the General Permit for Storm Water Discharges Associated with Construction Activities, Order No. 2009-0009-DWQ, as amended by Order No. 2012-0006-DWQ, NPDES No. CAS000002. The main compliance requirement of NPDES permits is the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). The purpose of a SWPPP is to identify potential on-site pollutants and identify and implement appropriate stormwater pollution prevention measures to reduce or eliminate discharge of pollutants to surface water from stormwater and non-stormwater discharges. Stormwater best management practices (BMPs) to be

2 Clean Water Act, 33 Code of Federal Regulations, sec. 402(p) (2008).

implemented during construction and grading, as well as post-construction BMPs, will be outlined in the SWPPP prepared for the proposed Project.

In 2011, the Tribe received an exemption from NPDES Permit requirements from the USEPA because those portions of the Reservation under Tribal jurisdiction (i.e. areas outside of the Land Use Agreements) do not qualify for maintaining permit coverage.

State

Alquist-Priolo Earthquake Fault Zoning Act

The purpose of the Alquist-Priolo Earthquake Fault Zoning Act is to identify hazards associated with surface fault ruptures and to prevent the construction of buildings on active faults.[3] The State Geologist is required to establish and map zones around the surface traces of active faults, which are then distributed to county and city agencies to be incorporated into their land use planning and construction policies. Proposed development needs to be proven through geologic investigation to not be located across active faults before a city or county can permit the implementation of projects. If an active fault is found, development for human occupancy is prohibited within a 50-foot setback from the identified fault.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act is a State legislation that requires delineated maps to be created by the California State Geologist to reflect where potential ground shaking, liquefaction, or earthquake-induced landslides may occur.[4] Cities and counties are required to obtain approval for development on nonsurface fault rupture hazard zones and mitigate seismic hazards. The purpose of the Seismic Hazards Mapping Act is to protect the public from the effects of nonsurface fault rupture earthquake hazards, inducing strong ground shaking, liquefaction, seismically induced landslides, or other ground failure caused by earthquakes.

2013 California Building Standards Code, California Code of Regulations

The 2013 California Building Code (CBC) is administered by the California Building Standards Commission (CBSC). The CBC governs all development within the State of California, as amended and adopted by each local jurisdiction. These regulations include provisions for site work, demolition, and construction, which include excavation and grading, as well as provisions for foundations, retaining walls, and

3 California Public Resources Code, sec. 2621.5.

4 California Public Resources Code, sec. 2690–2699.6

expansive and compressible soils. The CBC provides guidelines for building design to protect occupants from seismic hazards.

Regional and Local

South Coast Air Quality Management District

The South Coast Air Quality Management District (SCAQMD) serves as the air pollution control agency for the counties of Orange, Los Angeles, Riverside, and San Bernardino. The SCAQMD is responsible for controlling emissions from primarily stationary sources. Rules 403 and 403.1 are designed to require that fugitive dust be controlled with best available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emissions source.

SCAQMD Rule 403. This rule governs emissions of fugitive dust during construction and operation activities. Compliance with this rule is achieved through BMPs. This may include application of water or chemical stabilizers to disturbed soils, covering haul vehicles, restricting vehicle speeds on unpaved roads to 15 miles per hour, sweeping loose dirt from paved site access roadways, cessation of construction activity when winds exceed 25 mph, and establishing a permanent ground cover on finished sites.

SCAQMD Rule 403.1. Rule 403.1 is a companion regulation to Rule 403 that is only applicable to fugitive dust sources in the Coachella Valley. Rule 403.1 establishes special requirements for Coachella Valley fugitive dust sources under high-wind conditions and requires AQMD approval of dust control plans for sources not subject to local government ordinances (e.g., school districts). As with Rule 403, compliance with this rule is achieved through BMPs. This supplemental rule requires the submittal and approval of a Fugitive Dust Control Plan before the start of any construction or earth-moving activities.

Rancho Mirage Municipal Code

Title 15, Building and Construction. Upon annexation to the City of Rancho Mirage ("City"), building and construction activities for the Active Adult Community would be subject to this Title of the *Rancho Mirage Municipal Code,* which governs the conditions and maintenance of all property, buildings, and structures within the City. This Title is based on the 2013 *California Building Code* (CBC), which sets minimum design and standards for construction of buildings and structures that must also meet minimum seismic strengthening standards.

Title 15, Chapter 64, Grading. This Chapter of the *Rancho Mirage Municipal* Code establishes standards for design and construction of buildings and development of property by grading. These regulations are

intended to minimize impacts as a result of grading in order to protect and preserve the public health, safety, general welfare, aesthetic value, and natural resources of the City.

Tribe

Agua Caliente Band of Cahuilla Indians Tribal Building and Safety Code

As adopted from the CBC, the purpose of the Tribal Building and Safety Code is to provide standards and regulations to control minimum building safety standards of all buildings and structures on the Agua Caliente Indian Reservation ("Reservation"). These standards are intended to protect the health, safety, and welfare of the general public related to any potential building hazards. All building permit approvals from the Tribe are based upon this Code.

Tribal Ordinance Controlling Pollutant Discharges into the Waters of the Reservation

The purpose of this Tribal Ordinance is to regulate and control all pollutant discharges into the waters of the Reservation. Per this Ordinance, no pollutant discharges are allowed into the waters of the Reservation unless there is prior consultation with the Federal, Tribal, or State agency with jurisdiction under the Clean Water Act and/or the Safe Drinking Water Act, and if required, appropriate permit(s) are obtained.

B. ENVIRONMENTAL IMPACTS

1. Thresholds of Significance

In order to assist in determining whether a project would have a significant effect on the environment, the Tribe finds a project may be deemed to have a significant impact to geology and soils, if it would:

Threshold 5.5-1: **Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:**

- Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.
- Strong seismic ground shaking?
- Seismic-related ground failure, including liquefaction?
- Landslides?

Threshold 5.5-2: **Result in substantial soil erosion or the loss of topsoil?**

Threshold 5.5-3: **Be located on a geologic unit or soil that is unstable, or that would become unstable as result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?**

Threshold 5.5-4: **Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?**

Threshold 5.5-5: **Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?**

2. Methodology

The analysis of potential impacts to geologic and soil hazards that would be associated by the Project included the following elements:

- Literature review, including review of pertinent previously performed geotechnical reports for adjacent sites
- Field explorations performed on February 26 and 27, 2013; and March 4 through 8, 2013
- Geologic mapping and subsurface exploration
- Laboratory testing and analyses performed on selected soil samples obtained from the subsurface explorations
- Engineering analyses

3. Project Design Features

The following Project Design Features (PDF) are incorporated into the proposed Project and would reduce the potential geology and soils impacts of the Project. These features were taken into account in the analysis of potential impacts.

PDF 5.5-1 The Project will be designed in accordance with either the Agua Caliente Band of Cahuilla Indians Tribal Building and Safety Code, the City of Rancho Mirage Municipal Code if property is annexed into the City and becomes subject to the City's land use jurisdiction, or the County of Riverside, as applicable, to minimize the potential for damage due to geologic hazards.

PDF 5.5-2 The Project includes landscaped and paved open space areas as well as new buildings and non-erosive drainage structures that will be designed to prevent accelerating instability that would constitute a hazard to other properties.

PDF 5.5-3 When grading is completed, the vegetation planting of the Project Site will occur as soon as possible in order to maintain property erosion control measures and minimize blowsand.

PDF 5.5-4 The Project will incorporate design features such as drought-tolerant landscaping, parks, stormwater retention/infiltration basins, and bioswales to minimize soil erosion from runoff.

PDF 5.5-5 In accordance with NPDES, the Project will develop and implement a Storm Water Pollution Prevention Plan (SWPPP), including Best Management Practices (BMPs), in order to minimize soil erosion impacts.

4. Project Impacts

Expose People or Structures to Potential Substantial Adverse Effects Involving Rupture of a Known Alquist-Priolo Earthquake Fault

Active Adult Community

The State of California, under the guidelines of the Alquist-Priolo Earthquake Fault Zoning Act, classifies faults as active, potentially active, and not active. The Project Site is located in a region that consists of numerous active faults, such as the Banning, Garnet Hill, and San Andreas Faults. The Banning Fault is the only fault to be located within an Alquist-Priolo Earthquake Fault Zone. The Garnet Hill Fault is located as a recommended Fault Hazard Management Area, which requires subsurface investigations of the fault as the area develops. Since the Project Site does not directly transect the Banning Fault, it would not expose people or structures to any substantial effects involving the rupture of a known Alquist-Priolo Earthquake Fault. Therefore, there would be no significant impacts.

Tribal Planning Areas

As discussed previously for the Active Adult Community, the Tribal Planning Areas are also not located within an Alquist-Priolo Earthquake Fault Zone, thus there would be no significant impacts related to exposing people or structures to any substantial effects from the rupture of a known Alquist-Priolo Earthquake Fault.

Expose People or Structures to Potential Substantial Adverse Effects Involving Strong Seismic Ground Shaking

Active Adult Community

The intensity of ground shaking at a given location depends on several factors, but primarily on the earthquake magnitude, the distance from the hypocenter to the site of interest, and response characteristics of earth units underlying the site of interest. Similar to most of Southern California, the Project Site is in a seismically active area and is subject to some level of ground shaking as a result of movement along the major active (and potentially active) fault zones that characterize this region. The Project Site would most likely experience background shaking or potentially moderate to occasionally high ground shaking from faults in the region. Strong ground shaking can cause settlement by allowing sediment particles to become more tightly packed, thereby reducing pore space. Unconsolidated, loosely packed granular alluvial deposits are especially susceptible to this phenomenon. Poorly compacted artificial fills may also experience seismically induced settlement. Settlement caused by ground shaking is often non-uniformly distributed, which can result in differential settlement.

While no active faults are known to transect, or project onto, the Project Site, the nearest faults in proximity to the Project Site that could generate seismic activity that would affect the site are the Garnet Hill, Banning, and San Andreas (San Andreas Coachella Segment) Faults. The Garnet Hill Fault is the closest fault at approximately 1.5 miles north of the Project Site. The Banning Fault is approximately 2.7 miles northeast and the San Andreas Fault is approximately 4.7 miles northeast from the Project Site. The Project's close proximity to these three faults entails the likely prospect that seismic activity is bound to be experienced at the Site. Intensity of ground shaking at a given location depends primarily upon earthquake magnitude, site distance from the source, and site response (soil type) characteristics. Based on the 2013 CBC, the seismic coefficients for the Project Site would be 1.34 gravity acceleration for a period of 0.2 seconds and 0.97 gravity acceleration for a period of 1 second.

Upon annexation to the City, the buildings and structures that would be developed in the Active Adult Community would need to adhere to the minimum standards and seismic safety requirements as contained in the City of Rancho Mirage's Building Codes and the CBC, which protect people and structures from ground shaking. Seismicity studies are required as a condition for issuance of a grading permit and/or building permit for all subdivisions (tracts), all critical structures, major structures, and other sites containing earthquake-sensitive earth materials and/or sites that are located on or near potentially active or active faults, as determined by the City engineer. Implementation of seismic safety requirements and site-specific seismicity reports are enforced during the City's development review and permitting process. In the event that the Active Adult Community is not annexed into the City, then the

design of the Active Adult Community would be designed in accordance with the Tribal Building and Safety Code or the County of Riverside standards to minimize potential for damage from strong seismic ground shaking. Therefore, incorporation of PDF 5.5-1 would ensure that the Project would be designed in accordance with City standards, Tribe standards, or County standards to avoid hazards related to seismic ground shaking; impacts would be less than significant.

Tribal Planning Areas

As discussed previously for the Active Adult Community, the Tribal Planning Areas would be subject to similar potential seismic ground shaking impacts. As discussed in PDF 5.5-1, development within the Tribal Planning Areas would also adhere to the minimum building standards and seismic safety requirements as identified in the Agua Caliente Band of Cahuilla Indians Tribal Building and Safety Code, which are adopted from the 2013 CBC. Seismic shaking impacts within the Tribal Planning Areas would be less than significant.

Expose People or Structures to Potential Substantial Adverse Effects Involving Liquefaction

Active Adult Community

The Project Site is not included on any California Geological Society prepared maps for designated liquefaction zone, nor is it identified in the City of Rancho Mirage's General Plan Safety Element to be within an area of high susceptibility to liquefaction. This is due to the nature of the soil composition of the Project Site. Liquefaction occurs usually when loose, cohesionless, and water-saturated soils (generally fine-grained sand and silt) are subjected to strong seismic ground motion of a single sudden motion or through repeated cyclic durations; this tends to occur within the upper 50 feet of the ground surface. Groundwater depths of the Project Site and surrounding off-site areas are expected to be between depths of 160 and 175 bgs. Based on the depth of groundwater in the soils, liquefaction is not likely to occur. Therefore, impacts are considered to be less than significant.

Tribal Planning Areas

The Tribal Planning Areas would be subject to similar liquefaction impacts. The soil composition and depth of groundwater within Tribal Planning Areas is comparable to what is identified for the Active Adult Community, thus impacts are less than significant.

Expose People or Structures to Potential Substantial Adverse Effects Involving Landslides

Active Adult Community

There are no natural or man-made hillsides within the Project Site. While the Project Site is relatively flat with gentle southwest to northeast sloping, slope instability is not considered to be an issue. Existing topography of the site contains maximum slopes over 8 percent. The post-graded slopes within the Active Adult Community would have a maximum slope of 2.3 percent. The overall site would balance with unclassified excavation of 4.5 million cubic yards of soil with 20 percent shrinkage and 0.10 feet of subsidence. The slope transition between the Active Adult Community and the Tribal Planning Areas would be provided at a maximum slope of 3 to 1. In addition, the Project would not result in any post-grading conditions that would have a potential for seismic slope instability and landsliding; therefore, impacts are less than significant.

Tribal Planning Areas

The development of the Tribal Planning Areas would result in similar landslide impacts. Post-graded slopes within the Tribal Planning Areas would range from contour slopes 1.1 percent within Planning Area 7 to 3.2 percent slopes in Planning Area 4. The topography of these Planning Areas would provide relatively flat transitions between the adjacent roadways and the rest of the Project Site. Thus, impacts as a result of landslides would be less than significant.

Result in Substantial Soil Erosion or the Loss of Topsoil

Active Adult Community

Construction

The Project Site is currently undeveloped and vacant with a majority of the soils uncovered. The Project Site would be graded during construction; therefore, the soils would be exposed and could be subject to erosion. In compliance with SCAQMD Rule 403 and Rule 403.1, exposed soils would need to be covered with vegetation as soon as possible and/or watered in order to reduce fugitive dust, and construction vehicles on Project Site would need to maintain low speeds as another measure to reduce airborne fugitive dust particles.

Dune sands and quaternary-aged alluvial deposits were encountered to the maximum depth explored in conjunction with the Project Site's geotechnical investigation. The dune sand materials are composed predominately by loose to medium dense silty sand to poorly graded fine sand. The alluvium materials are composed of medium dense to very dense, poor-graded fine sand to sand with silt. The combination of both these soil materials causes a very low expansion potential.

As required by the General Permit for Storm Water Discharges Associated with Construction Activities and identified in PDF 5.5-5, the applicant would develop and implement a SWPPP, which includes BMPs that would be employed to prevent erosion of on-site soils, as well as discharge of other construction related pollutants. A monitoring program is required as part of the SWPPP to ensure that BMPs are implemented appropriately and are effective at controlling discharges of pollutants that are related to stormwater, including erosion of on-site soils. Rancho Mirage Municipal Code Title 15, Chapter 64, Sections 10-750 describes regulation standards for sediment and erosion control during grading activities. If the Active Adult Community is not annexed into the City, then PDF 5.5-5 and adherence to the Tribal Building and Safety Code or the County of Riverside, as applicable, will still be applicable to reduce the potential for soil erosion during construction. Therefore, with the implementation of the Project Design Features and adherence to Rancho Mirage Municipal Code for sediment and erosion control, soil erosion impacts would be less than significant.

Operation

The increased intensity of use on the Project Site would potentially impact the surrounding undeveloped adjacent landscape and influence acceleration of erosion from stormwater runoff. In addition, wind erosion from the surrounding undeveloped properties could have potential impacts on the buildings, structures, and individuals within the Project Site. This is due to the nature of the regional landscape, wind patterns, and soil composition. These factors influence the area to be more susceptible to wind erosion impacts.

The Project would incorporate Project Design Features PDF 5.5-2 through PDF 5.5-4 that would include landscaping, parks, stormwater retention/infiltration basins, and bioswales at various locations that would minimize accelerated soil erosion from water runoff and strong winds. With these features or because of these features, soil erosion impacts will be less than significant.

Tribal Planning Areas

Construction and operational activities within the Tribal Planning Areas would result in similar soil erosion impacts. However, the Tribal Planning Areas would consist of a mix of retail, entertainment, office, hotel, and residential uses that would include an array of paved and open space areas. As with the Active Adult Community, the Tribal Planning Areas would undergo similar construction activities and would also incorporate Project Design Features PDF 5.5-2 through PDF 5.5-4 that would minimize accelerated soil erosion from water runoff and fierce winds. Thus, impacts will be less than significant.

Be Located on a Geologic Unit or Soil and Potentially Result in On- or Off-Site Landslide, Lateral Spreading, Subsidence, Liquefaction, or Collapse

Active Adult Community

The relatively flat topography of the Project Site and surrounding off-site areas precludes both stability problems and the potential for lurching, which is earth movement at right angles to a cliff or steep slope during ground shaking. The existing on-site dune sand and alluvium composed soils are generally classified as having a small-to-moderate potential for volumetric change. As previously discussed, the potential for hazards such as landslides and liquefaction is considered low. Liquefaction may also cause lateral spreading. For lateral spreading to occur, the liquefiable zone must be continuous, unconstrained laterally, and free to move along gently sloping ground toward an unconfined area. However, if lateral containment is present for those zones, then no significant risk of lateral spreading would be present. Since the liquefaction potential at the Project Site is low, earthquake-induced lateral spreading is not considered to be a significant seismic hazard, nor would it result in off-site impacts.

Ground surface subsidence generally results from the extraction of fluids or gas from the subsurface that can result in a gradual lowering of the ground level. According to the geotechnical study, groundwater was not found to be present on the Project Site and groundwater depths on adjacent sites may be between 160 to 175 feet bgs. With the lack of presence of shallow groundwater, the potential for ground collapse and other adverse effects due to subsidence to occur on the Project Site and off-site areas is considered low.

Seismically induced settlement is considered to be less than significant when considered along with the proposed grading recommendations. With the removal of heavy vegetation, boulders, roots, and debris from the Project Site and with the excavation/recompaction of uncertified fill, ground settlement would be reduced to levels that can be accommodated by conventional foundation designs. Therefore, the risk of ground settlement would be less than significant.

Mitigation Measures **MM 5.5-1** and **MM 5.5-2** would be implemented in order to minimize damage due to geologic hazards. All development would comply with the CBC, and incorporate the recommendations presented in the draft and final soils engineering reports prepared for the Project Site. Therefore, impacts related to exposure to hazards including landslides, lateral spreading, subsidence, liquefaction and collapse would be less than significant.

Tribal Planning Areas

The Tribal Planning Areas would result in similar impacts associated with on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. Implementation of Mitigation Measures **MM 5.5-3** and

MM 5.5-4 would ensure that the Tribal Planning Areas have less than significant impacts related to geologic hazards.

Be Located on Expansive Soil Creating Substantial Risks to Life or Property

Active Adult Community

The soils underlying the Project Site and surrounding area are considered to have a low expansion potential due to their lack of clay composition.[5] The geotechnical report prepared for the Project Site provides recommendations for the utilization of certified fills. The existing on-site soils found on the Project Site are suitable for reuse during proposed grading activities. These undocumented fills must be free of debris and organic matter and will need to be recompacted in areas of planned development. Therefore, impacts related to expansive soils would be less than significant.

Tribal Planning Areas

The Tribal Planning Areas would result in similar expansive soil impacts since soil composition is expected to be the same as what is found on the Active Adult Community portion of the Project Site. Impacts would be less than significant with regard to expansive soils.

Have Soils Incapable of Adequately Supporting the Use of Septic Tanks

Active Adult Community

Septic tanks would not be used in the Project. The Project would connect to and use the existing sewage conveyance system provided by the Coachella Valley Water District. It is not anticipated that major upgrades to the existing infrastructure would be required. Therefore, no significant impacts would occur.

Tribal Planning Areas

The proposed uses within the Tribe Planning Areas would not utilize septic tanks. The uses within the Tribe Planning Area would connect to the existing sewer line within Ramon Road and would pay the appropriate development fees for service with the Coachella Valley Water District.

5 Leighton and Associates, Inc., *Phase I and Limited Phase II Environmental Site Assessment*, February 2014. p. 9.

Expose People to Potential Impacts as a Result of Unique Geologic or Physical Features

Active Adult Community

The Project Site is a gently sloping portion of undeveloped land that has fairly uniform geographic features all throughout. These features are not considered to be of unique nature or have the potential to pose potential impacts to any structure that would be developed on the Project Site. Thus, impacts would be less than significant.

Tribal Planning Areas

There are no unique geologic or physical features located on the Tribal Planning Areas that are anticipated to cause potential impacts. Impacts would be less than significant.

5. Cumulative Impacts

Geology and soil hazards are related to conditions and circumstances that are considered site-specific. Therefore, the geographic context for the analysis of potential cumulative geology and soils impacts consists of individual development sites. Although cumulative development in the City and region may include numerous projects with geologic and soil impacts, these impacts would affect each individual project, rather than resulting in an additive cumulative effect. Mitigation measures would be taken on a project-by-project basis and be specific to each site. None of the related projects are located on an adjacent property or nearby, and all projects have to be designed in accordance with the appropriate jurisdiction's building and grading standards to reduce seismic-related risks to less than significant levels. Thus, cumulative development would result in a less than significant cumulative impact related to geology and soil hazards.

C. MITIGATION MEASURES

In addition to the Project Design Features identified in **Section B.3** above, the following Mitigation Measures would reduce geology and soil impacts:

Active Adult Community

MM 5.5-1 As part of final design development, a detailed geotechnical and soils investigation shall be conducted by a registered engineering geologist for review and approval by the City of Rancho Mirage Building and Safety Division, if annexed into the City, the Tribe Engineer, or the County Engineer as applicable, prior to the issuance of grading and building permits.

MM 5.5-2 All grading and earthwork recommendations from the Project geotechnical and soils reports, including any updates, must be incorporated into the final Project design, including the final grading, drainage and erosion control plans, or other plans deemed necessary by the City of Rancho Mirage Building and Safety Division, if annexed into the City, the Tribal Engineer, or the County Engineer as applicable, and must ensure they meet the City's Building Code requirements set forth in the City Municipal Code, the Tribe Land Use Ordinance, or the County Municipal Code as applicable. All grading activities must be supervised by a certified engineering geologist: Final grading, drainage, and erosion control plans must be reviewed and approved by the City of Rancho Mirage Building and Safety Division before the City issues a grading permit, by the Tribal Engineer, or the County Engineer, as applicable.

Tribal Planning Areas

MM 5.5-3 As part of final design development, a detailed geotechnical and soils investigation shall be conducted by a registered engineering geologist for review and approval by the Agua Caliente Band of Cahuilla Indians Tribal Engineer prior to the issuance of grading and building permits.

MM 5.5-4 All grading and earthwork recommendations from the Project geotechnical and soils reports, including any updates, must be incorporated into the final Project design, including the final grading, drainage and erosion control plans, or other plans deemed necessary by the Agua Caliente Band of Cahuilla Indians Tribal Engineer, and must ensure they meet the Tribe's Building Code requirements set forth in the Tribal Building and Safety Code. All grading activities must be supervised by a certified engineering geologist: Final grading, drainage, and erosion control plans must be reviewed and approved by the Agua Caliente Band of Cahuilla Indians Tribal Engineer before the Tribe issues a grading permit.

D. LEVEL OF SIGNIFICANCE AFTER MITIGATION

With implementation of existing regulations and standards identified above along with the Project's Design Features and Mitigation Measures would reduce potential impacts associated with geology and soils to a level that is less than significant. Therefore, all potential impacts related to geology and soils would be less than significant.

5.6 GREENHOUSE GASES

This Section of the Draft EIS evaluates the potential for the proposed Project to generate greenhouse gas (GHG) emissions that may have a significant effect on the environment or to conflict with plans and policies adopted for the purpose of reducing greenhouse gas emissions. Various federal, State, regional, and local programs and regulations related to greenhouse gas emissions are discussed in this Section.

A quantified estimate of the GHG emissions that could result from the development of the land uses that would be allowed by the proposed Specific Plan is provided. Modeling datasheets for global climate change emissions are included as part of the air quality and greenhouse gas emissions modeling in **Appendix B.** Please see **Section 9.0** for a glossary of terms, definitions, and acronyms used in this Draft EIS.

A. ENVIRONMENTAL SETTING

1. Existing Conditions

Greenhouse Gas Emissions

Climate change is a change in the average climatic conditions on earth that may be measured by changes in wind patterns, storms, precipitation, and temperature. These changes are assessed using historical records of temperature changes that have occurred in the past, such as during previous ice ages. Many of the concerns regarding climate change use this data to extrapolate a level of statistical significance specifically focusing on temperature records from the last 150 years (the Industrial Age) that differ from previous climate changes in rate and magnitude.

The United Nations Intergovernmental Panel on Climate Change (IPCC) considered six alternative future GHG scenarios that would stabilize global temperatures and climate change impacts. The IPCC predicted that global mean temperature change from 1990 to 2100 for the six scenarios considered could range from 1.1 degrees Celsius (°C) to 6.4°C. Global average temperatures and sea levels are expected to rise under all scenarios.[1]

In California, climate change may result in consequences such as the following:

- A reduction in the quality and supply of water to the State from the Sierra snowpack

1 Intergovernmental Panel on Climate Change, Summary for Policymakers, *Climate Change 2007: The Physical Science Basis, Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* (Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Avery, M. Tignor and H.L. Miller [eds.]). (Cambridge University Press: Cambridge, UK, 2007).

- Increased risk of large wildfires
- Reductions in the quality and quantity of certain agricultural products
- Exacerbation of air quality problems
- A rise in sea levels resulting in the displacement of coastal business and residences
- Damage to marine ecosystems and the natural environment
- An increase in infections, disease, asthma, and other health-related problems
- A decrease in the health and productivity of California's forests

Gases that trap heat in the atmosphere are GHGs. The effect is analogous to the way a greenhouse retains heat. Common GHGs include water vapor, carbon dioxide (CO2), methane, nitrous oxides, chlorofluorocarbons, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, ozone, and aerosols. Natural processes and human activities emit GHGs. The presence of GHGs in the atmosphere affects the earth's temperature. Without the natural heat-trapping effect of GHG, the earth's surface would be about 34°C cooler.[2] However, it is believed that emissions from human activities, such as electricity production and vehicle use, have elevated the concentration of these gases in the atmosphere beyond the level of naturally occurring concentrations.

The global warming potential (GWP) is the potential of a gas or aerosol to trap heat in the atmosphere. The GWP compares the amount of heat trapped by a certain mass of the gas in question to the amount of heat trapped by a similar mass of carbon dioxide. A GWP is calculated over a specific time interval, commonly 20, 100, or 500 years. GWP is expressed as a factor of carbon dioxide (whose GWP is standardized to 1). For example, the 100-year GWP of methane is 21, which means that if the same mass of methane and carbon dioxide were introduced into the atmosphere, that methane will trap 21 times more heat than the carbon dioxide over the next 100 years.[3] The GHGs of most concern are identified below in **Table 5.6-1, Greenhouse Gas Descriptors.** Of these two primary sources of GHG, CO2 would be generated by sources associated with the Project, while methane would not be generated in any substantial amount.

2 California Environmental Protection Agency, Climate Action Team, *Climate Action Team Report to Governor Schwarzenegger and the California Legislature*, www.climatechange.ca.gov/climate_action_team /reports/index.html, (March 2006), accessed June 10, 2013.

3 Working Group, *Fourth Assessment Report of the Intergovernmental Panel on Climate Change,* 2007.

Table 5.6-1
Greenhouse Gas Descriptors

Greenhouse Gas	Description and Physical Properties	Sources
Carbon dioxide (CO2)	Carbon dioxide is an odorless, colorless, natural GHG. GWP = 1.	Carbon dioxide is emitted from natural and anthropogenic sources. Natural sources include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources are from burning coal, oil, natural gas, and wood. The concentration in 2005 was 379 ppm, which is an increase of about 1.4 ppm per year since 1960.
Haloalkanes	Haloalkanes (also known as halogenoalkanes or alkyl halides) are colorless, relatively odorless, and hydrophobic.	Haloalkanes are mostly human-produced such as flame retardants, fire extinguishants, refrigerants, propellants, solvents, and pharmaceuticals. Non-artificial-source haloalkanes do occur, mostly through enzyme-mediated synthesis by bacteria, fungi, and especially sea microalgae (seaweeds).
Methane (CH4)	Methane is a flammable gas and is the main component of natural gas. GWP = 21.	A natural source of methane is from the anaerobic decay of organic matter. Methane is extracted from geological deposits (natural gas fields). Other sources are from landfills, fermentation of manure, and cattle.
Nitrous oxide (N2O)	Nitrous oxide is also known as laughing gas and is a colorless GHG. GWP = 310.	Microbial processes in soil and water, fuel combustion, and industrial processes.
Perfluorocarbons (PFCs)	Perfluorocarbons liquids are colorless with high density, up to over twice that of water. It is also an odorless, non-flammable, unreactive gas.	Man-made compounds containing just fluorine and carbon. Usage is mainly in the electronics sector in semiconductor manufacture, with significant usage as refrigerants.
Sulfur hexafluoride (SF6)	Sulfur hexafluoride is an inorganic, colorless, odorless, non-flammable, extremely potent GHG which is an excellent electrical insulator. GWP = 23,900	Sulfur hexafluoride emissions are virtually all of anthropogenic origin including electricity sector, magnesium industry, electronics industry, and adiabatic property.

Source: Intergovernmental Panel on Climate Change, Summary for Policymakers, Climate Change 2007: The Physical Science Basis, Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Avery, M. Tignor and H.L. Miller [eds.]). (Cambridge University Press: Cambridge, United Kingdom and New York, NY, USA) 2007.
Notes: ppm = parts per million; ppt = parts per trillion (measure of concentration in the atmosphere); GWP = global warming potential

Individual GHG compounds have varying GWP and atmospheric lifetimes. The calculation of the carbon dioxide equivalent (CO2e) is a consistent methodology for comparing GHG emissions, since it normalizes various GHG emissions to a consistent metric. Methane's warming potential of 21 indicates that

methane has a 21 times greater warming effect than carbon dioxide on a molecule per molecule basis. A carbon dioxide equivalent is the mass emissions of an individual GHG multiplied by its GWP.

State Emissions Inventory and Trends

California is the second largest contributor of GHGs in the US and the 16th largest in the world.[4] In 2012, California produced 458.68 million metric tons of carbon dioxide equivalents (MMTCO2e),[5] including imported electricity and excluding combustion of international fuels and carbon sinks or storage. The major source of GHGs in California is transportation, contributing to 41 percent of the State's total GHG emissions.[6] Electricity generation (both in and out of State) is the second largest source, contributing to 22 percent of the State's GHG emissions.[7] The Statewide inventory of GHGs by sector is shown in **Table 5.6-2, California GHG Inventory 2004-2012.**

Table 5.6-2
California GHG Inventory 2004-2012

Main Sector	Emissions MMTCO2e								
	2004	2005	2006	2007	2008	2009	2010	2011	2012
Transportation[1]	186.88	189.08	189.18	189.27	178.02	171.47	170.46	168.13	167.38
Electric Power	115.20	107.86	104.54	113.94	120.15	101.32	90.30	88.04	95.09
Commercial/ Residential	42.90	41.24	41.89	42.11	42.44	42.65	43.82	44.32	42.28
Industrial[2]	94.48	92.29	90.28	87.10	87.54	84.95	88.51	88.34	89.16
Recycling and Waste	7.57	7.75	7.80	7.93	8.09	8.23	8.34	8.42	8.49
High GWP[3,4]	9.56	10.36	11.08	11.78	12.87	13.99	15.89	17.35	18.41
Agriculture	36.26	36.54	37.75	37.03	37.99	35.84	35.73	36.34	37.86
Total Emissions	**492.86**	**485.13**	**482.52**	**489.16**	**487.10**	**458.44**	**453.06**	**450.94**	**458.68**

Source: CARB 2014.
[1] Includes equipment used in construction, mining, oil drilling, industrial and airport ground operations
[2] Reflects emissions from combustion of natural gas, diesel, and lease fuel plus fugitive emissions
[3] These categories are listed in the Industrial sector of ARB's GHG Emission Inventory sectors
[4] This category is listed in the Electric Power sector of ARB's GHG Emission Inventory sectors

4 California Energy Commission, *Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2004, Staff Final Report,* CEC-600-2006-013-SF, (December 2006).

5 CARB, California Greenhouse Gas Inventory for 2000–2012—by Category as Defined in the Scoping Plan.http://www.arb.ca.gov/cc/inventory/data/tables/ghg_inventory_scopingplan_00-12_2014-03-24.pdf, (March 24, 2014) accessed May 20, 2014.

6 California Energy Commission, (December 2006).

7 California Energy Commission, (December 2006).

Regional Emissions

The breakdown of GHG emissions within the Coachella Valley follows the Statewide pattern with the most significant sources of GHGs being transportation and fuel combustion, and electricity generation. On-road transportation and fuel combustion account for 94 percent of GHGs in the Coachella Valley. The Coachella Valley region produced 4.31 MMTCO2e GHGs in 2005 from direct emissions.[8]

Project Site

The Project Site consists of vacant desert land. Consequently, no GHG emissions are currently generated from the Project Site.

2. Regulatory Setting

Federal

On April 17, 2009, the United States Environmental Protection Agency (USEPA) released a proposed finding that determined climate change poses a risk to public health. The USEPA held a 60-day public comment period, which ended June 23, 2009, and received over 380,000 public comments. On December 7, 2009, the USEPA Administrator (Administrator) signed two distinct findings regarding GHGs under section 202(a) of the CAA:

- **Endangerment Finding**: The Administrator finds that the current and projected concentrations of the six key well-mixed GHGs - carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF6) - in the atmosphere threaten the public health and welfare of current and future generations.

- **Cause or Contribute Finding**: The Administrator finds that the combined emissions of these well-mixed greenhouse gases from new motor vehicles and new motor vehicle engines contribute to the greenhouse gas pollution which threatens public health and welfare.

These findings do not themselves impose any requirements on industry or other entities. However, this action is a prerequisite to finalizing the proposed USEPA GHG standards for light-duty vehicles. These were jointly proposed by the USEPA and the Department of Transportation's National Highway Traffic Safety Administration (NHTSA) on September 15, 2009. The two findings were published in Federal Register Docket ID No. EPA-HQ-OAR-2009-0171. The final rule was effective January 14, 2010.

8 South Coast Air Quality Management District, *Greenhouse Gas (GHG) Inventories for the Coachella Valley*, prepared for the Coachella Valley Association of Governments, June 2011, 5.

The USEPA has issued the Final Mandatory Reporting of Greenhouse Gases Rule that requires reporting of GHG emissions from large sources and suppliers in the United States. Under the rule (effective December 29, 2009), suppliers of fossil fuels or industrial GHGs, manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons or more per year of GHG emissions are required to submit annual reports to the USEPA. The gases covered by the proposed rule are CO2, CH4, N2O, HFC, PFC, SF6, and other fluorinated gases including nitrogen trifluoride (NF3) and hydrofluorinated ethers (HFE).

On September 15, 2009, the USEPA and the NHTSA proposed a new national program to reduce greenhouse gas emissions and improve fuel economy for all new cars and trucks sold in the United States. The USEPA proposed the first-ever national GHG emissions standards under the Clean Air Act (CAA), and NHTSA proposed Corporate Average Fuel Economy (CAFE) standards under the Energy Policy and Conservation Act. This proposed national program would allow automobile manufacturers to build a single light-duty national fleet that satisfies all requirements under both federal programs and the standards of California and other states.

State

Assembly Bill 32

In 2006, the California State Legislature enacted Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006. AB 32 focuses on reducing GHG emissions in California. GHGs, as defined under AB 32, include CO2, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride.

AB 32 requires that GHGs emitted in California be reduced to 1990 levels by the year 2020. The California Air Resources Board (CARB) is the State agency charged with monitoring and regulating sources of emissions of GHGs that cause global warming as part of an effort to reduce emissions of GHGs.

The CARB Governing Board approved the 1990 GHG emissions level of 427 MMTCO2e on December 6, 2007. Therefore, in 2020, emissions in California are required to be at or below 427 MMTCO2e.

Under the current "business as usual" scenario, Statewide emissions are increasing at a rate of approximately 1 percent per year as noted below.[9]

- 1990: 427 MMTCO2e

9 California Air Resources Board, *Climate Change Scoping Plan*, (2008), p. 12.

- 2004: 480 MMTCO2e
- 2008: 495 MMTCO2e
- 2020: 596 MMTCO2e

Under AB 32, the CARB published its *Final Expanded List of Early Action Measures to Reduce Greenhouse Gas Emissions in California*.[10] The CARB has 44 early action measures that apply to the transportation, commercial, forestry, agriculture, cement, oil and gas, fire suppression, fuels, education, energy efficiency, electricity, and waste sectors. Of those early action measures, nine are considered discrete early action measures,[11] as they were adopted by the CARB and enforceable by January 1, 2010. The CARB estimates that the 44 early action measures will result in reductions of at least 42 MMTCO2e by 2020, representing approximately 25 percent of the projected reduction needed to reach the 2020 target.

CEQA is only mentioned once in the Early Action Measures report. The California Air Pollution Control Officer's Association suggested that CARB work with local air districts on approaches to review GHG impacts under the CEQA process, including significance thresholds for GHGs for projects and to develop a process for capturing reductions that result from CEQA mitigations. CARB's response to this recommendation in the report is as follows:

> *"the Governor's Office of Planning and Research is charged with providing statewide guidance on CEQA implementation. With respect to quantifying any reductions that result from project-level mitigation of GHG emissions, we would like to see air districts take a lead role in tracking such reductions in their regions."*[12]

10 California Air Resources Board, *Expanded List of Early Action Measures to Reduce Greenhouse Gas Emissions in California Recommended for Board Consideration*, www.arb.ca.gov/cc/ejac/ghg_eamcommitteelist.pdf, (October 2007), accessed June 10, 2013.

11 Discrete early actions are regulations to reduce greenhouse gas emissions adopted by the CARB Governing Board and enforceable by January 1, 2010.

12 California Air Resources Board, (October 2007).

CARB approved the Climate Change Scoping Plan (2008 Scoping Plan) in December 2008. The 2008 Scoping Plan:

> *"proposes a comprehensive set of actions designed to reduce overall GHG emissions in California, improve our environment, reduce our dependence on oil, diversify our energy sources, save energy, create new jobs, and enhance public health."*[13]

As noted in the approved 2008 Scoping Plan, the projected total business-as-usual emissions for year 2020 (estimated as 596 MMTCO2e) must be reduced by approximately 28 percent to achieve the CARB's approved 2020 emission target of 427 MMTCO2e. CARB updated the 2008 Scoping Plan in May 2014 (Updated 2014 Scoping Plan).[14] The Updated 2014 Scoping Plan adjusted the 1990 GHG emissions level to 431 MMTCO2e and the updated 2020 GHG emissions forecast is 509 MMTCO2e which took credit for certain GHG emission reduction measures already in place (e.g., the Renewables Portfolio Standard). As revised in 2014, the projected total business-as-usual emissions for year 2020 must be reduced by approximately 15 percent to achieve the CARB's approved 2020 emission target of 431 MMTCO2e. The Updated 2014 Scoping Plan also recommends a 40 percent reduction in GHG emissions from 1990 levels by 2030 and a 60 percent reduction in GHG emissions from 1990 levels by 2040.

The 2008 Scoping Plan identifies recommended measures for multiple GHG emission sectors and the associated emission reductions needed to achieve the year 2020 emissions target—each sector has a different emission reduction target. Most of the measures target the transportation and electricity sectors. As stated in the 2008 Scoping Plan, the key elements of the strategy for achieving the 2020 GHG target include:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards
- Achieving a Statewide renewable energy mix of 33 percent
- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system
- Establishing targets for transportation-related GHG emissions for regions throughout California and pursuing policies and incentives to achieve those targets

13 California Air Resources Board, *Climate Change Scoping Plan*, a framework for change as approved December 2008. http://www.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf. (December 2008), accessed June 10, 2013.

14 CARB, First Update to the Climate Change Scoping Plan, building on the framework pursuant to AB 32, May 2014.

- Adopting and implementing measures pursuant to existing State laws and policies, including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard
- Creating targeted fees, including a public goods charge on water use, fees on high global warming potential gases, and a fee to fund the administrative costs of the State's long-term commitment to AB 32 implementation

In addition, the 2008 Scoping Plan differentiates between "capped" and "uncapped" strategies. "Capped" strategies are subject to the proposed cap-and-trade program.[15] The 2008 Scoping Plan states that the inclusion of these emissions within the cap-and-trade program will help ensure that the year 2020 emission targets are met despite some degree of uncertainty in the emission reduction estimates for any individual measure. "Uncapped" strategies include additional reductions that will not be subject to the cap-and-trade emissions requirements. They are provided as a margin of safety to help achieve required GHG emission reductions.

Assembly Bill 1493

California Assembly Bill 1493 (Pavley), enacted on July 22, 2002, requires the California Air Resources Board to adopt regulations that reduce GHGs emitted by passenger vehicles and light-duty trucks. CARB estimates that the regulation would reduce climate change emissions from the light-duty passenger vehicle fleet by an estimated 18 percent in 2020 and by 27 percent in 2030.[16] On June 30, 2009, the USEPA granted a waiver of CAA preemption to California for the State's GHG emission standards for motor vehicles beginning with the 2009 model year. The waiver was published in the Federal Register on July 8, 2009.

Executive Order S-3-05 and the Climate Action Team

Former California Governor Arnold Schwarzenegger announced on June 1, 2005, through Executive Order S-3-05,[17] the following reduction targets for GHG emissions:

- By 2010, reduce GHG emissions to 2000 levels.
- By 2020, reduce GHG emissions to 1990 levels.

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15 The cap-and-trade program is a central element of AB 32 and covers major sources of GHG emissions in the State such as refineries, power plants, industrial facilities, and transportation fuels. The regulation includes an enforceable GHG cap that will decline over time. CARB will distribute allowances, which are tradable permits, equal to the emission allowed under the cap.

16 California Air Resources Board, Fact Sheet, Climate Change Emission Control Regulations, (December 10, 2004).

17 State of California, Executive Order S-3-05, http://www.dot.ca.gov/hq/energy/ExecOrderS-3-05.htm, (June 1, 2005) accessed June 10, 2013.

- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

The 2050 reduction goal represents what scientists believe is necessary to reach levels that will stabilize the climate. The 2020 goal was established to be an aggressive, but achievable, midterm target. To meet these targets, the Governor directed the Secretary of the California Environmental Protection Agency to lead a Climate Action Team made up of representatives from the Business, Transportation, and Housing Agency; the Department of Food and Agriculture; the Resources Agency; the CARB; the Energy Commission; and the Public Utilities Commission. The Climate Action Team's Report to the Governor in 2006 contains recommendations and strategies to help ensure that the targets in Executive Order S-3-05 are met.[18]

Executive Order S-01-07

The former California Governor Arnold Schwarzenegger signed Executive Order S-01-07 on January 18, 2007. The order mandated that a Statewide goal be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020. It also established a Low Carbon Fuel Standard for transportation fuels for California.

California Air Resources Board

On October 24, 2008, CARB released the first preliminary draft of recommended approaches for setting interim significance thresholds for GHG under CEQA. The draft approach seeks to establish GHG thresholds and/or performance standards based on sector-types, as defined in the 2008 Scoping Plan. Sectors identified in the 2008 Scoping Plan are Transportation, Electricity, Industrial, Commercial and Residential, Agricultural, High Global Warming Potential, and Recycling and Waste. CARB has not yet finalized the proposed thresholds/performance standards.

Senate Bill 97

SB 97 was passed in August 2007, and added Section 21083.05 to the *Public Resources Code*. Section 21083.05 states:

> *"(a) On or before July 1, 2009, the Office of Planning and Research (OPR) shall prepare, develop, and transmit to the Resources Agency guidelines for the mitigation of GHG emissions or the effects of GHG emissions as required by this division, including, but not limited to, effects associated with transportation or energy*

18 California Environmental Protection Agency, Climate Action Team, Climate Action Team Report to Governor Schwarzenegger and the California Legislature, www.climatechange.ca.gov/climate_action_team /reports/index.html, (March 2006), accessed June 10, 2013.

consumption. (b) On or before January 1, 2010, the Resources Agency shall certify and adopt guidelines prepared and developed by the OPR pursuant to subdivision (a)".

Senate Bill 375

SB 375 was signed into law by the Governor on September 30, 2008. According to SB 375, the transportation sector is the largest contributor of GHG emissions, which contributes up to 40 percent of the total GHG emissions in California. Automobiles and light trucks alone contribute almost 30 percent. SB 375 indicates that GHGs from automobiles and light trucks can be reduced by new vehicle technology but significant reductions from a change in land use patterns and improved transportation are necessary. SB 375 states, "Without improved land use and transportation policy, California will not be able to achieve the goals of AB 32." SB 375 does the following: (1) it requires metropolitan planning organizations to include sustainable community strategies in their regional transportation plans for reducing GHG emissions, (2) it aligns planning for transportation and housing, and (3) it creates specified incentives for the implementation of the strategies.

Senate Bill 1368

In 2006, the State Legislature adopted Senate Bill (SB) 1368, which was subsequently signed into law by the Governor. SB 1368 directs the California Public Utilities Commission (CPUC) to adopt performance standards for GHG emissions for the future power purchase of California utilities. In an effort to limit carbon emissions associated with electrical energy consumed in California, this bill prohibits purchase arrangements for energy for periods of longer than 5 years from resources that exceed the emissions of a relatively clean, combined cycle natural gas power plant. A coal-fired plant cannot meet this standard because such plants emit roughly twice as much carbon as combined cycle natural gas power plants. Accordingly, the new law will effectively prevent California's utilities from investing in, financially supporting, or purchasing power from new coal plants located in or out of the State. Thus, SB 1368 will lead to lower GHG emissions associated with California's energy demand, by effectively prohibiting California utilities from purchasing power from out-of-state producers that cannot satisfy the required performance standard for GHG emissions.

Assembly Bill 32 (AB 32), the Global Warming Solutions Act, was passed by the California State Legislature on August 31, 2006, to place the State on a course toward reducing its contribution of GHG. AB 32 follows the emissions reduction targets established in Executive Order S-3-05, signed on June 1, 2005, which requires the State's global warming emissions to be reduced to 1990 levels by the year 2020 and by 80 percent of 1990 levels by year 2050. Projected GHG emissions in California are estimated at 596 million metric tons of CO2e in 2020. In December 2007, CARB approved a 2020

emissions limit of 427 million metric tons (471 million tons) of CO2e for the State. The 2020 target requires emissions reductions of 169 million metric tons, approximately 30 percent of the projected emissions compared to business as usual in year 2020.

In order to effectively implement the cap, AB 32 directed CARB to establish a mandatory reporting system to track and monitor global warming emissions levels, prepare a plan demonstrating how the 2020 deadline can be met, and develop appropriate regulations and programs to implement the plan by 2012. The Climate Action Registry Reporting Online Tool was established through the Climate Action Registry to track GHG emissions. On December 11, 2008, California Air Resources Board (CARB) adopted the 2008 Scoping Plan. Key elements of CARB's GHG reduction plan are:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards.
- Achieving a Statewide renewable energy mix of 33 percent.
- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system.
- Establishing targets for transportation-related GHG emissions for regions throughout California, and pursuing policies and incentives to achieve those targets.
- Adopting and implementing measures pursuant to State laws and policies, including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard.
- Creating target fees, including a public good charge on water use, fees on high global warming potential gases, and a fee to fund the administrative costs of the State's long-term commitment to AB 32 implementation.

Non-Legislative

CAPCOA. On January 8, 2008, the California Air Pollution Control Officers Association (CAPCOA) released a paper to provide a common platform of information and tools for public agencies. The disclaimer states that it is not a guidance document, but rather a resource to enable local decision makers to make the best decisions they can in the face of incomplete information during a period of change. The paper indicates that it is an interim resource and does not endorse any particular approach. It discusses three groups of potential thresholds, including a no significance threshold, a threshold of zero emissions, and

a non-zero threshold.[19] The non-zero quantitative thresholds as identified in the paper range from 900 to 50,000 metric tons of CO2 per year. The CAPCOA paper also identified non-zero qualitative thresholds.[20]

Attorney General. The Office of the California Attorney General maintains a list of CEQA Mitigations for Global Warming Impacts on its website. The Attorney General's Office has listed some examples of types of mitigations that local agencies may consider to offset or reduce global warming impacts from a project. The Attorney General's Office states that the lists are examples and not intended to be exhaustive, but instead are provided as measures and policies that could be undertaken. Moreover, the measures cited may not be appropriate for every project, so the Attorney General suggests that the lead agency should use its own informed judgment in deciding which measures it would analyze, and which measures it would require, for a given project. The mitigation measures are divided into two groups: generally applicable measures and general plan measures. The Attorney General presents "generally applicable" measures in the following areas:

- Energy efficiency
- Renewable energy
- Water conservation and efficiency
- Solid waste measures
- Land use measures
- Transportation and motor vehicles
- Carbon offsets

Regional and Local

South Coast Air Quality Management District

To provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents, South Coast Air Quality Management District (SCAQMD) staff convened a GHG CEQA

19 California Air Pollution Control Officers Association, *CEQA & Climate Change, Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act*, www.capcoa.org/, (January 2008), accessed June 10, 2013.

20 A non-zero threshold could minimize the resources spent reviewing environmental analyses that do not result in real GHG reductions or to prevent the environmental review system from being overwhelmed.

Significance Threshold Working Group. The GHG significance threshold approach proposed by SCAQMD staff was presented to this Working Group in September 2010. The proposed approach includes a tiered series of thresholds to be applied based on the amount of GHG emissions generated by a proposed project and the type of project, as described below:

Tier 1: Does the project qualify for any applicable statutory or categorical exemption under CEQA? If yes, no further action is required and climate change impacts would be less than significant.

Tier 2: Is the project consistent with a GHG reduction plan? (The plan must be consistent with *CEQA Guidelines* Sections 15064(h)(3), 15125(d), or 15152(s).) If yes, there is a presumption of less than significant impacts with respect to climate change.

Tier 3: Is the project's incremental increase in GHG emissions below or mitigated to less than the significance screening level (10,000 MTCO2E per year for industrial projects; 3,000 MTCO2E for residential projects/commercial projects; 3,500 MTCO2E for mixed use projects)? If yes, there is a presumption of less than significant impacts with respect to climate change.

Tier 4: Does the project meet one of the following performance standards? If yes, there is a presumption of less than significant impacts with respect to climate change.

Option #1: Achieve some percentage reduction in GHG emissions from a base case scenario, including land use sector reductions from AB 32 (e.g., 16 percent reduction as recommended by the CARB 2014 Updated Scoping Plan).

Option #2: For individual projects, achieve a project-level efficiency target of 4.8 MTCO2E per service population by 2020 or a target of 3.0 MTCO2E per service population by 2035. For plans, achieve a plan-level efficiency target of 6.6 MTCO2E per service population by 2020 or a target of 4.1 MTCO2E per service population by 2035.

Option #3: Early compliance with AB 32 through early implementation of CARB's 2008 Scoping Plan Measures. The intent of this option is to accelerate GHG emission reduction from the various sectors subject to CARB's 2008 Scoping Plan to eliminate GHG emission.

Tier 5: Projects should obtain GHG emission offsets to reduce significant impacts. Offsets in combination with any mitigation measures should achieve the target thresholds for any of the above Tiers. Otherwise, project impacts would remain significant.

As described above, for projects that are not exempt from review under CEQA, the Tier 2 threshold of significance is applied if the project is subject to a an adopted GHG reduction plan. If no GHG reduction plan applies to a proposed project, the Tier 3 threshold of significance includes quantified screening

thresholds. The screening threshold for residential/commercial projects is 3,000 MTCO2E per year and 3,500 MTCO2E per year for mixed-use projects. If the amount of GHG emissions generated by a proposed project would be below these screening thresholds, the impact would not be considered significant. If the amount of GHG emissions generated by a proposed project would be above these screening thresholds, then additional analysis would need to be completed under Tier 4 to determine the level of significance. The Tier 4 threshold considers whether a proposed project would meet an applicable performance standard.

SCAQMD has not announced when a final version of these draft thresholds will be presented to the SCAQMD Governing Board for consideration for adoption.

SCAQMD has also adopted Rules 2700, 2701, and 2702 that establishes a GHG reduction program within SCAQMD's jurisdiction; however, GHG emission reduction protocols pursuant to these rules have only been established for boilers and process heaters, forestry, and manure management reduction projects.

Coachella Valley Association of Governments

The Coachella Valley Association of Governments (CVAG) recently received a grant from the Southern California Edison Company to prepare a Regional Greenhouse Gas Inventory for the Coachella Valley in conjunction with SCAQMD.[21] This inventory provides the most recent estimate of greenhouse gas generation for the Agua Caliente Band of Cahuilla Indians ("Tribe"), the Cabazon Band of Mission Indians, and each City within the CVAG Planning Area. CVAG intends to continue supporting planning for GHG reduction by pursuing additional grants to develop a model Climate Action Plan reduction plan to assist the Tribe and cities in the Coachella Valley served by Southern California Edison in developing individual plans.

Valley-wide Voluntary Green Building Program

The Voluntary Green Building Program was designed to help builders, developers, and homeowners to go above and beyond California's Energy Code in terms of energy efficiency. As part of this Program, the Tribe and some cities have committed to making it easier for those voluntarily participating in the Program to process their plans through the planning and building departments. The Voluntary Program and the California Building Code are based upon standards and measurements, the Voluntary Program includes an extensive checklist of specific actions, and how they are counted toward a more energy efficient building.

21 SCAQMD/CVAG, Draft Regional Greenhouse Gas Inventory for the Coachella Valley, June 2011.

County of Riverside

The County of Riverside adopted a Climate Action Plan (CAP) for the unincorporated areas in the County in 2012. The CAP establishes a programmatic approach to reducing GHG emissions associated with the continued growth of the County and set a framework for a comprehensive plan that addresses the GHG impacts of future development and County operations. Through the CAP, the County has established goals and policies that incorporate environmental responsibility into its daily management of residential, commercial, and industrial growth; education; energy and water use; air quality; transportation; waste reduction; economic development; and open space and natural habitats.

The CAP includes GHG inventories of community-wide and municipal sources based on the most recent data available for the year 2008. Sources of emissions include transportation, electricity and natural gas use, landscaping, water and wastewater pumping and treatment, and treatment and decomposition of solid waste.

Following the State's adopted AB 32 GHG reduction target, Riverside County has set a goal to reduce emissions back to 1990 levels by the year 2020. This target was calculated as a 15 percent decrease from 2008 levels, as recommended in the 2014 Updated Scoping Plan. The estimated community-wide emissions for the year 2020, based on population and housing growth projections associated with the assumptions used in the proposed General Plan Update, are 10,268,937 MTCO2e. In order to reach the reduction target, Riverside County must offset this growth in emissions and reduce community-wide emissions to 6,036,971 MTCO2e by the year 2020.

City of Rancho Mirage

The City of Rancho Mirage ("City") completed the 2013 Sustainability Plan: Leadership in Energy Efficiency (Sustainability Plan) in May 2013. The Sustainability Plan is a framework for the development and implementation of policies and programs that will reduce the City's emissions, working towards the Statewide target of 1990 levels by 2020, set by AB 32. For the City to achieve the Statewide target of 1990 levels by 2020, it will have to reduce emissions by 54,272 MTCO2e, a 19.8 percent reduction. The set of measures presented in the Sustainability Plan will reduce the City's GHG emissions by 60,411 MTCO2e, which is 6,139 MTCO2e over the target amount of 54,272 MTCO2e.

The Sustainability Plan addresses the major sources of emissions in seven spheres: (1) Residential; (2) Business; (3) Building; (4) Transportation; (5) Municipal; (6) Hospitality/Recreation; and (7) Education. For each sphere, the Sustainability Plan suggests a number of programs or policies, linked with the City's Greenhouse Gas Inventory, that can be implemented by the City. The Sustainability Plan presents a

course of action over eight years: Phase I will be completed in 2013-2014; Phase II will be completed in 2015-2017; and Phase III will be completed in 2018-2020.

B. ENVIRONMENTAL IMPACTS

1. Thresholds of Significance

In order to assist in determining whether a project would have a significant effect on the environment, the Tribe finds a project may be deemed to have a significant impact to greenhouse gases, if it would:

Threshold 5.6-1: **Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.**

Threshold 5.6-2: **Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.**

Pursuant to *CEQA Guidelines* Section 15064.4, the methods suitable for analysis of GHG emissions are:

1. Use a model or methodology to quantify greenhouse gas emissions resulting from a project. The Lead Agency has discretion to select the model it considers most appropriate provided it supports its decision with substantial evidence. The Lead Agency should explain the limitations of the particular model or methodology selected for use.

2. Rely on a qualitative analysis or performance-based standards.[22]

The tiered significance thresholds proposed by SCAQMD were selected for use to determine the significance of the GHG emissions that would be generated by the proposed Project because they parallel the State's commitment to reduce GHG emissions by approximately 15 percent from current levels by 2020. Because the Project as proposed would not be exempt from environmental review under CEQA, the Tier 1 threshold is not applicable. Since no GHG Reduction Plan has been adopted that is applicable to the Project or the area the Project Site is located in, the Tier 2 threshold is also not applicable. Accordingly, relying upon the 2010 methodology proposed by SCAQMD staff, the Tier 3 and Tier 4 thresholds are applied here to determine significance. If the amount of GHG emissions would exceed the Tier 3 screening thresholds, the Tier 4 threshold is applied. Under the Tier 4 threshold, the

22 Riverside County has adopted a Climate Action Plan (CAP) that addresses GHG emissions reduction in concert with AB 32. According to the CAP, projects that achieve a total of 100 points or greater from the screening tables would not require quantification of project specific GHG emissions. Consistent with CEQA Guidelines, such projects would be determined to have a less than significant individual and cumulative impact for GHG emissions. The Project is a mixed-use project and would result in 122.5 points. Therefore, GHG emissions would be less than significant under the County of Riverside's CAP methodology.

ability of a project to meet an applicable performance standard is used to determine significance. For this analysis, the first Tier 4 option was used, and the percentage reduction in GHG emissions from a business as usual scenario in relation to Project reductions was completed.

The performance standard identified in the 2014 Updated Scoping Plan recommends a 15 percent reduction from business as usual by 2020.[23] This document is the most current reference which quantifies Statewide GHG emissions and the percentage reduction required by AB 32 mandates to meet GHG reduction goals. The identified GHG reduction goals include 30 percent reduction from 1990 levels by 2020 (of which the State has currently reduced 15 percent), 40 percent by 2030, 60 percent by 2040, and 80 percent by 2050 from 1990 business as usual levels. As indicated in the 2014 Updated Scoping Plan, CARB encourages local governments and air districts to meet the 15 percent reduction below today's levels by 2020 to ensure that their municipal and community-wide emissions match the State's reduction target.

Once the local government achieves the 30 percent reduction by 2020, the next goal would be a further reduction of 10 percent to meet the 2030 goal of 40 percent reduction from 1990 levels. Consistent with the estimate of reaching 1990 GHG emission levels by 2030, business as usual GHG emissions need to be reduced by approximately 1 percent each year between 2020 and 2030 to achieve the 40 percent reduction from 1990 levels by 2030. Business as usual GHG emissions would also need to be reduced by approximately 2 percent each year between 2030 and 2040 to achieve the 60 percent reduction from 1990 levels by 2040.

As previously indicated, the State has reduced today's GHG emissions 15 percent from 1990 levels. Therefore, since the Active Adult Community portion of the Project would be completed by 2022, this portion of the Project would need to reduce GHG emissions 17 percent from today's emissions levels to meet the 2020 and 2030 reduction goals. The Tribal Planning Areas are assumed to be built out by 2035. In order to meet the 2040 goal of 60 percent, the Tribal Planning Areas would need to reduce GHG emissions 35 percent from today's emissions levels by 2035 to meet a goal of 50 percent reduction from 1990 GHG emissions levels.

23 It should be noted that this reduction target was 16 percent when SCAQMD staff developed the tiered thresholds.

The Project would result in a potentially significant impact if it would

- Result in a reduction from business as usual GHG emissions lower than 17 percent by 2022[24], or
- Result in a reduction from business as usual GHG emissions lower than 35 percent by 2035.

2. Methodology

A quantified estimate of GHG emissions was prepared using the CARB-approved California Emissions Estimator Model 2013.2.2 (CalEEMod) computer program as recommended by the SCAQMD. CalEEMod is designed to model construction emissions for land use development projects and allows for the input of project specific information. Project-generated emissions were modeled based on general information provided in the proposed Project description and SCAQMD-recommended and default CalEEMod model settings to estimate reasonable worst-case conditions.

CalEEMod allows land use selections that include Project location specifics and trip generation rates. CalEEMod accounts for area-source emissions from the use of natural gas, landscape maintenance equipment, and consumer products and from mobile-source emissions associated with vehicle trip generation.

GHG emissions were modeled using the CalEEMod computer program and emission factors from California Climate Action Registry (CCAR), as recommended by SCAQMD, which estimates construction and operations emissions of carbon dioxide, among other air pollutants. Project-generated emissions were modeled based on proposed land uses and general information provided in the **Section 3.0, Project Description**.

24 The Active Adult Community portion of the Project would be built out by 2022. GHG emissions would need to be reduced 15 percent by 2020 from today's levels to meet the 30 percent Statewide goal. Assuming a straight-line assumption, the Active Adult Community would need to reduce 1 percent each year until buildout to meet the 40 percent reduction in GHG emissions from 1990 levels by 2030.

The following assumptions were made in the CalEEMod computer program:

Land Uses

Active Adult Community

- 25-acre other asphalt surfaces (for roadways)
- 425-space parking lot
- 7-acre private park
- 78-acre user defined recreational (private open space)
- 23,000-square-foot recreational center
- 1,200 dwelling units single family housing

Tribal Planning Areas

- 12,000-space parking lot
- 6-acre private park
- 72-acre retail shopping center
- 1,206 dwelling units condo/townhouse
- 25-acre other asphalt surfaces (for roadways)
- 6-acre user defined recreation (open space)

Combined

- Includes all land uses from both the Active Adult Community and Tribal Planning Areas

Construction

Active Adult Community

- Construction period of approximately 6 years beginning fall 2015 and ending by spring 2021.
- Construction would occur over six phases: (1) Site Preparation which would last approximately 20 days, (2) Grading for approximately 9 months, (3) Trenching for approximately 5 months, (4) Building Construction for approximately 4 years, (5) Architectural Coating for approximately 5 and a half years, and (6) Paving for approximately 6 months.
- Construction would occur 5 days per week with 8 hour work days.

Each phase of construction would result in varying levels of intensity and the number of construction personnel. The construction workforce would consist of approximately 18 worker trips/day during site preparation, 20 worker trips/day during grading, 20 worker trips/day during trenching, 432 worker trips/day and 129 vendor trips/day during building construction, 90 worker trips during architectural coating, and 15 worker trips/day during paving. The construction scenario for the Active Adult

Community assumed that the entire 577-acre site is graded, paved roadways, and trenched utilities for modeling purposes.

Tribal Planning Areas

- Construction period of approximately 12 years beginning early 2023 and ending by late 2035.
- Construction would occur over two phases: (1) Building construction which would last approximately 10 years, and (2) Architectural Coating which would last approximately 8 years.
- Construction would occur over 5 days per weeks and 8 hour work days.

Each phase of construction would result in varying levels of intensity and the number of construction personnel. The construction workforce would consist of approximately 868 worker trips/day and 129 vendor trips/day during building construction, and 825 worker trips/day during architectural coating.

Combined

The combined scenario includes a separate model run for a more conservative analysis.

- Construction period of approximately 6 years beginning mid-2016 and ending by mid-2022.
- Construction would occur over six phases: (1) Site Preparation which would last approximately 20 days, (2) Grading for approximately 9 months, (3) Trenching for approximately 5 months, (4) Building Construction for approximately 4 years, (5) Architectural Coating for approximately 5 and a half years, and (6) Paving for approximately 6 months.
- Construction would occur 5 days per week with 8 hour work days.

Each phase of construction would result in varying levels of intensity and the number of construction personnel. The construction workforce would consist of approximately 18 worker trips/day during site preparation, 20 worker trips/day during grading, 20 worker trips/day during trenching, 1,300 worker trips/day and 258 vendor trips/day during building construction, 915 worker trips during architectural coating, and 15 worker trips/day during paving. The construction scenario assumed that the entire 577-acre site is graded, paved roadways, and trenched utilities for modeling purposes.

3. Project Design Features

The following Project Design Features (PDF) are included in the proposed Specific Plan and would reduce the potential greenhouse gas emission impacts of the Project. These features were taken into account in the analysis of potential impacts.

PDF 5.6-1 Buildings will be sited and designed to maximize the use of sunlight and shade for energy savings and respect the right to solar access of nearby and adjacent buildings. Whenever appropriate, buildings will be oriented so that the long axis of the building is oriented east–west to maximize the opportunity for north- and south facing windows, which receive indirect, diffused light with low heat gain for the building, reducing cooling costs during summer months.

PDF 5.6-2 The pursuit of already established sustainable best management practices, such as Leadership in Energy and Environmental Design (LEED) certification, ComfortWise and EnergyStar Home will be utilized throughout the Project Site. For maximum flexibility, however, developers and builders will implement sustainable building and development practices identified within the Voluntary Green Building Program and the Voluntary Green Building Manual.

PDF 5.6-3 Builders will participate in programs offered or sponsored by local utilities such as California EnergyStar New Homes Program, Residential Property Development Program, California Home Energy Efficiency Rating System (CHEERS) Program, and Savings by Design Program.

4. Project Impacts

Would the Project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Active Adult Community

Construction

Construction activities for the Adult Active Community would include the use of heavy-duty construction equipment. The vast majority of construction equipment (e.g., backhoes, rubber-tired loaders, scrapers, and haul trucks) rely on fossil fuels, primarily diesel, as an energy source. The combustion of fossil fuels in construction equipment results in GHG emissions of CO2 and smaller amounts of CH4 and N2O. Emissions of GHG would also result from the combustion of fossil fuels from haul trucks and vendor trucks delivering materials, and construction worker vehicles commuting to and from the Active Adult Community. Typically, light-duty and medium-duty automobiles and trucks would be used for worker trips and heavy-duty trucks would be used for vendor trips. The vast majority of motor vehicles used for worker trips rely on gasoline as an energy source while motor vehicles used for vendor trips would primarily rely on diesel as an energy source. The Project would result in short-term emissions of GHGs during construction—that is, the emissions would occur only during active construction and would cease

after the Project is built. The GHG emissions were estimated using the CalEEMod model and are located in **Appendix B** of this Draft EIS.

As presented in **Table 5.6-3, Active Adult Community Construction GHG Emissions,** construction activities associated with the Active Adult Community would generate 4,770.86 MTCO2e GHG emissions. The SCAQMD recommends annualizing construction-related GHG emissions over a project's lifetime, defined as a 30-year period, in order to include these emissions as part of the annual total operational emissions. Therefore, construction-related GHG emissions have been annualized over this period and included in the annual operational emissions later in this Section.

Table 5.6-3
Active Adult Community Construction GHG Emissions

Year	CO2e Emissions (Metric Tons per Year)
2015	111.68
2016	654.88
2017	84.43
2018	109.92
2019	107.04
2020	134.37
2021	196.81
2022	56.65
Total Construction GHG Emissions*	**1,455.78**
Annualized over Project Lifetime	**48.53**

*Source: CalEEMod Emissions calculations are provided in **Appendix B, Air Quality and Greenhouse Gas Emissions Modeling.***
Note: Totals in table may not appear to add exactly due to rounding in the computer model calculations.
Abbreviations: MTCO2e = metric tons of carbon dioxide emissions.
**N2O emissions account for 0.06 MTCO2e/year.*

Operation

The Active Adult Community is anticipated to be fully completed by late 2022. Once fully occupied, the Active Adult Community would result in GHG emissions, primarily CO2, CH4, and N2O, as a result of fuel combustion from building heating systems, landscaping equipment, and motor vehicles. The other primary GHGs (HFCs, perfluorocarbons, and sulfur hexafluoride) are typically associated with specific industrial sources and would not be emitted because the Project is not an industrial land use. Building and motor vehicle air conditioning systems may use HFCs (and HFCs and chlorofluorocarbon [CFCs] to the extent that they have not been completely phased out at later dates); however, these emissions are

not quantified since they would only occur through accidental leaks. It is not possible to estimate the frequency of accidental leaks without some level of speculation.

A summary of the annual operational emissions of the Project is provided in **Table 5.6-4, Active Adult Community Operational GHG Emissions.** The estimates represent emissions with incorporation of the Project Design Features and Mitigation Measures during operation of the Project.

Table 5.6-4
Active Adult Community Operational GHG Emissions

GHG Emissions Source	Emissions (MTCO2e/year)
Construction (amortized)	48.53
Operational (mobile) sources*	3,223.21
Area sources	329.60
Energy	4,054.66
Waste	109.18
Water	1,114.21
Annual Total	**8,879.39**

*Source: CalEEMod Emissions calculations are provided in **Appendix B, Air Quality and Greenhouse Gas Emissions Modeling.***
Notes: Totals in table may not appear to add exactly due to rounding in the computer model calculations.
Abbreviations: MTCO2e = metric tons of carbon dioxide emissions.
**N2O emissions account for 0.13 MTCO2e/year.*

As shown in **Table 5.6-4,** the operational GHG emissions for the Active Adult Community with Project Design Features and Mitigation Measures would be 8,879.39 MTCO2e per year. Because this amount of GHG emissions is greater than the 3,000 MTCO2e per year screening threshold for commercial/residential land use projects, the Tier 4 performance standard threshold was applied and the ability of the Project to achieve a 17 percent reduction in GHG emissions by 2022, compared to a business as usual scenario, was analyzed to determine significance.

Business as usual refers to emissions levels absent the implementation of GHG emissions reduction measures, such as increased reliance on energy efficiency technologies. Today's GHG emissions have been reduced by 15 percent from 1990 levels. The 2014 Updated Scoping Plan for AB 32 mandates requires an additional 15 percent reduction in emissions from business as usual to meet the 30 percent reduction from 1990 levels by 2020. The Active Adult Community portion of the Project will need to reduce an additional 2 percent in GHG emissions because it will be built out by 2022. Therefore, the Active Adult Community portion will be analyzed against a 17 percent reduction in emissions from business as usual.

The business as usual scenario would result in GHG emissions (without Title 24 efficiencies, Project Design Features, or Mitigation Measures) of 11,763.65 MTCO2e per year.[25] As indicated in **Table 5.6-4**, the Active Adult Community portion of the Project would result in 8,879.39 MTCO2e per year with Project Design Features and Mitigation Measures. The Project Design Features and Mitigation Measures would reduce GHG emissions by 2,884.26 MTCO2e per year, approximately 24.52 percent, from the business as usual scenario. Because the Project results in greater than 17 percent reduction in GHG emissions as recommended by the 2014 Updated Scoping Plan; the GHG emissions that would be generated by the Active Adult Community are consistent with the 15 percent reduction from today's levels to meet the 30 percent reduction goal by 2020 and are consistent with meeting the 40 percent reduction from 1990 levels by 2030. Furthermore, it should be noted that the Active Adult Community would also be consistent with the City's Sustainability Plan, which set a target reduction of 19.8 percent from 1990 levels by 2020. Impacts would be less than significant.

Tribal Planning Areas

Construction

The construction of the Tribal Planning Area was modeled based on the construction schedule from 2023 through 2035. As presented in **Table 5.6-5, Tribal Planning Areas Construction GHG Emissions,** construction emissions associated with the Tribal Planning Areas would generate a total of 16,342.23 MTCO2e per year. As stated previously, construction-related GHG emissions have been annualized over this period and included in the annual operational emissions later in this Section.

25 11,714.99 MTCO2e per year BAU + 48.53 MTCO2e per year BAU Construction + 0.13 MTCO2e per year N2O = 11,763.65 MTCO2e per year BAU.

Table 5.6-5
Tribal Planning Areas Construction GHG Emissions

Year	CO2e Emissions (Metric Tons per Year)[a]
2023	1,123.65
2024	1,133.02
2025	1,122.07
2026	1,116.53
2027	1,226.65
2028	1,735.12
2029	1,735.16
2030	1,757.43
2031	1,772.68
2032	1,732.40
2033	629.29
2034	628.07
2035	629.49
Total Construction GHG Emissions*	**16,341.56**
Annualized over Project Lifetime	**544.72**

*Source: CalEEMod Emissions calculations are provided in **Appendix B, Air Quality and Greenhouse Gas Emissions Modeling**.*
[a] *Construction CO2 values were derived using CalEEMod Version 2013.2.2.*
* *N2O emissions account for 0.67 MTCO2e/year.*

Operation

The Tribal Planning Area is anticipated to be fully built out and in operation by late 2035. A summary of the annual operational emissions of the Tribal Planning Area is provided in **Table 5.6-6, Tribal Planning Areas Operational GHG Emissions.** The estimates represent emissions with incorporation of the Project Design Features and Mitigation Measures during operation of the Project.

Table 5.6-6
Tribal Planning Areas Operational GHG Emissions

GHG Emissions Source	Emissions (MTCO2e/year)
Construction (amortized)	544.72
Operational (mobile) sources*	18,308.73
Area sources	331.46
Energy	17,488.67
Waste	437.95
Water	2,214.56
Annual Total	**39,326.09**

*Source: CalEEMod Emissions calculations are provided in **Appendix B, Air Quality and Greenhouse Gas Emissions Modeling.***
Notes: Totals in table may not appear to add exactly due to rounding in the computer model calculations.
Abbreviations: MTCO2e = metric tons of carbon dioxide emissions.
**N2O emissions account for 0.75 MTCO2e/year.*

As shown in **Table 5.6-6,** the operational GHG emissions for the commercial and residential uses in the Tribal Planning Areas with Project Design Features and Mitigation Measures would be 39,326.09 MTCO2e per year. Because this amount of GHG emissions is greater than the 3,000 MTCO2e per year screening threshold for commercial/residential land use projects, the Tier 4 performance standard threshold was applied and the ability of the Project to achieve a 35 percent reduction in GHG emissions by 2035 compared to a business as usual scenario was analyzed to determine significance.

Today's GHG emissions have been reduced by 15 percent from 1990 levels. To meet the 60 percent reduction in 1990 levels by 2040, GHG emissions would need to be reduced by an additional 45 percent. To achieve the 60 percent reduction from 1990 levels by 2040, GHG emissions would need to be reduced 35 percent by 2035 to achieve a 50 percent reduction from 1990 levels. Therefore, GHG emissions for the Tribal Planning Areas are compared against the business as usual scenario GHG emissions to determine if the Tribal Planning Areas would meet the 35 percent GHG reduction by 2035 performance standard.

The business as usual scenario would result in GHG emissions (without Title 24 efficiencies, Project Design Features, or Mitigation Measures) of 69,149.07 MTCO2e emissions per year.[26] As indicated in **Table 5.6-6**, the Project Design Features and Mitigation Measures would reduce GHG emissions by

26 68,603.58 MTCO2e per year BAU + 544.74 MTCO2e per year Construction BAU + 0.75 MTCO2e per year N2O emissions = 69,149.07 MTCO2e per year BAU emissions.

29,822.96 MTCO2e per year, approximately 43.13 percent, from the business as usual scenario. Because the Project results in a greater than 35 percent reduction in GHG emissions from business as usual as recommended by the 2014 Updated Scoping Plan; the GHG emissions that would be generated by the Tribal Planning Areas would be consistent with the 60 percent reduction from 1990 levels by 2040 goal. Impacts would be less than significant.

Combined (Active Adult Community Plus Tribal Planning Areas)

Construction

Table 5.6-7, Combined Construction GHG Emissions, estimates project-related GHG emissions from construction activities during development of both the Active Adult Community and Tribal Planning Areas. Emissions generated during construction of the Specific Plan Area would total 12,342.35 MTCO2e per year. As mentioned previously, construction-related GHG emissions have been annualized over this period and included in the annual operational emissions later in this Section.

Table 5.6-7
Combined Construction GHG Emissions

Year	CO2e Emissions (Metric Tons per Year)[a]
2015	111.68
2016	746.38
2017	629.65
2018	811.48
2019	782.24
2020	784.64
2021	835.06
2022	406.01
Total Construction GHG Emissions	**5,107.14**
Annualized over Project Lifetime	**170.24**

*Source: CalEEMod Emissions calculations are provided in **Appendix B, Air Quality and Greenhouse Gas Emissions Modeling.***
N2O emissions account for 0.21 MTCO2e per year.

Operation

Table 5.6-8, Combined Operational GHG Emissions, represents emissions with incorporation of the Project Design Features.

Table 5.6-8
Combined Operational GHG Emissions

GHG Emissions Source	Emissions (MTCO2e/year)
Construction (amortized)	170.24
Operational (mobile) sources*	19,860.16
Area sources	661.06
Energy	21,432.25
Waste	547.13
Water	3,229.10
Annual Total	**45,899.94**

*Source: CalEEMod Emissions calculations are provided in **Appendix B, Air Quality and Greenhouse Gas Emissions Modeling.***
Note: Totals in table may not appear to add exactly due to rounding in the computer model calculations.
Abbreviations: MTCO2e = metric tons of carbon dioxide emissions.
** N2O emissions account for 0.81 MTCO2e per year.*

The combined business as usual scenario GHG emissions (without Title 24 efficiencies, Project Design Features, or mitigation measures) would be 82,065.58 MTCO2e per year.[27] As indicated in **Table 5.6-8**, the Project Design Features and Mitigation Measures would reduce GHG emissions for the entire Project by 36,165.64 MTCO2e per year to 45,899.94 MTCO2e per year, a reduction of approximately 44.07 percent. As previously discussed, the combined scenario assumes buildout of the Project Site by 2022. Therefore, consistent with the Active Adult Community Only analysis, the combined scenario would be required to reduce GHG emissions 17 percent from 1990 levels by 2022 to meet the 2020 and 2030 reduction goals. The combined scenario reduction in emissions of approximately 35 percent from the business as usual scenario would exceed the 17 percent reduction in GHG emissions from business as usual consistent with the 2020 and 2030 GHG emission reduction goals recommended in the 2014 Updated Scoping Plan. Furthermore, the Project's 35 percent reduction in GHG emissions from business as usual would be consistent with achieving the 2040 reduction goal. Because the Project would exceed this performance standard, the GHG emissions that would be generated by the Project as a whole are less than significant.

27 81,894.53 MTCO2e per year BAU + 170.24 MTCO2e per year Construction BAU + 0.81 MTCO2e per year N2O emissions = 82,065.58 MTCO2e per year BAU emissions.

Would the Project conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

Active Adult Community and Tribal Planning Areas

The goal of AB 32 is to reduce Statewide GHG emissions to 1990 levels by 2020. In December 2008, CARB adopted the *Climate Change Scoping Plan*, which details strategies to meet that goal. The 2008 Scoping Plan instructs local governments to establish sustainable community strategies to reduce GHG emissions associated with transportation, energy, and water, as required under SB 375. Planning efforts that lead to reduced vehicle trips while preserving personal mobility should be undertaken in addition to programs and designs that enhance and complement land use and transit strategies. The 2008 Scoping Plan also recommends energy-efficiency measures in buildings such as maximizing the use of energy efficient appliances and solar water heating as well as complying with green building standards that result in decreased energy consumption compared to Title 24 building codes. In addition, the 2008 Scoping Plan encourages the use of solar photovoltaic panels and other renewable sources of energy to provide clean energy and reduce fossil-fuel based energy. The CARB 2014 Updated Scoping Plan was updated in May 2014, which adjusted the Statewide GHG emissions reduction goals to achieve 1990 levels.

In addition to the measures listed in the 2008 Scoping Plan, other State offices have provided recommended measures that would assist lead agencies in determining consistency with the State's GHG reduction goals. The California Attorney General's Office (AGO) has stated that lead agencies can play an important role in "moving the State away from 'business as usual' and toward a low-carbon future."[28] The AGO has released a guidance document that provides information to lead agencies that may be helpful in carrying out their duties under CEQA with respect to GHGs and climate change impacts. Provided in the document are measures that can be included as project design features, required changes to the project, or mitigation measures at the project level and at the general-plan level. The measures are not intended to be exhaustive and may not be appropriate for every project or general plan. The AGO affirms that "the decision of whether to approve a project—as proposed or with required changes or mitigation—is for the local agency, exercising its informed judgment in compliance with the law and balancing a variety of public objectives".

The City's 2013 Climate Action Plan provides a framework for the development and implementation of policies and programs that will reduce the City's emissions, working towards the Statewide target of

28 California Office of the Attorney General, The California Environmental Quality Act: Addressing Global Warming Impacts at the Local Agency Level, 2008.

1990 levels by 2020. Measures identified include requirements for household energy and water conservation and efficiency, renewable energy systems, green building materials, trip reduction and optimization, alternative fuels, and desert-appropriate landscaping.

The Project would incorporate measures that reduce GHG emissions compared to a conventional project of similar size and scope. The Project would incorporate energy and water efficiency design features to enhance efficiency in all aspects of a building's life-cycle. These designs would increase the structures energy efficiency, water efficiency, and overall sustainability. The Project would also exceed Title 24 energy requirements by 15 percent consistent with the Voluntary Green Building Program. The Project is also located in an urban area that would reduce vehicle trips and vehicles miles traveled due to the urban infill characteristics and proximity to public transit stops. These measures and features are consistent with existing recommendations to reduce GHG emissions. The Project would also include a comprehensive system of pedestrian, neighborhood electric vehicle (NEV), golf cart, and bicycle travel throughout the Project Site and into the surrounding community to reduce vehicle miles traveled by personal vehicle use. Landscaping for the Project would involve the use of desert-appropriate and drought-tolerant plants. Because the Project results in a greater than 15 percent reduction in GHG emissions from 1990 levels by 2020, greater than 17 percent reduction by 2022 for the Active Adult Community, and greater than 35 percent reduction in GHG emissions by 2035 for the Tribal Planning Areas, the Project would be consistent with the 2020, 2030, and 2040 reduction in GHG emissions from 1990 levels set forth in the 2008 Scoping Plan and 2014 Updated Scoping Plan, and the 2020 reduction in GHG emissions from 1990 levels set forth in the City's 2013 Climate Action Plan. Therefore, the Project would not conflict with the 2008 Scoping Plan, the2014 Updated Scoping Plan, or the City's 2013 Climate Action Plan.

5. Cumulative Impacts

Although the Project is expected to emit GHGs, the emission of GHGs by a single project into the atmosphere is not itself necessarily an adverse environmental effect. Rather, it is the increased accumulation of GHG from more than one project and many sources in the atmosphere that may result in global climate change. However, currently there are no significance thresholds, specific reduction targets, and no approved policy or guidance to assist in determining significance at the project or cumulative level. Additionally, there is currently no general accepted methodology to determine whether GHG emissions associated with a specific project represent new emissions or existing, displaced emissions. Implementing the Project Design Features and GHG-reducing measures would result in a net decrease in GHG emissions that represent a substantial break from "business as usual." The Project's design features and GHG reduction measures make the Project consistent with the goals of AB 32.

Given the Project's consistency with State GHG emission reduction goals and objectives, the Project's contribution to the cumulative impact of greenhouse gas emissions would not be cumulative considerable and would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs (i.e., the 2014 Updated Scoping Plan and the City's 2013 Climate Action Plan). Similarly, related projects would also be anticipated to comply with these same emissions reduction goals and objectives. Therefore, cumulative impacts with respect to greenhouse gas emissions would be less than significant.

C. MITIGATION MEASURES

In addition to the Project Design Features identified above, the following Mitigation Measures, two of which are also identified in **Section 5.2, Air Quality**, would reduce greenhouse gas impacts:

MM 5.2-1 The contractor shall incorporate the following into construction plans and specifications, which shall be implemented to reduce ROG emissions resulting from application of architectural coatings:

- Contractors shall use high-pressure, low-volume (HPLV) paint applicators with a minimum transfer efficiency of at least 50 percent.
- Coatings and solvents with a ROG content lower than required under Rule 1113 shall be used.
- Construction and building materials that do not require painting shall be used to the extent feasible.
- Prepainted construction materials shall be used to the extent feasible.

MM 5.2-2 Construction equipment engines shall utilize Tier 4 engines or better.

MM 5.6-1 Prior to issuance of each building permit, the applicant shall provide a list to the Planning Department of the green building practices and design elements used in building that reduce GHG emissions. The green building practices and design elements shall be consistent with the current standards in the Voluntary Green Building Program and any other green building standards subsequently adopted either by the Agua Caliente Band of Cahuilla Indians (Tribe) or by the City of Rancho Mirage (City).

MM 5.6-2 Prior to the issuance of each building permit, the applicant shall provide evidence of its use of energy-efficient designs meeting and/or consistent with the standards in the current Voluntary Green Building Program and any other green building standards

adopted by either the Tribe or City. In accordance with the Voluntary Green Building Program, all residential buildings shall, at a minimum, exceed Title 24 (2008) by 15 percent and all non-residential buildings shall, at a minimum, exceed Title 24 (2008) by 15 percent. This measure does not exempt buildings from meeting future energy efficiency obligations that may result from future revisions to the Title 24 standards. Furthermore, the Project shall commit to exceeding future Title 24 standards as close to the 15 percent target for residential and commercial buildings as possible, to the extent that it is feasible to do so based on technological and financial feasibility factors at the time of permit application.

MM 5.6-3 Prior to the issuance of each building permit, the applicant shall provide evidence to the appropriate Planning Department of its use of energy efficient lighting, heating and cooling systems, appliances, equipment, and control systems, including the installation of ENERGY STAR-certified products, consistent with the standards in the Voluntary Green Building Program and any other energy efficiency standards adopted by either the Tribe or City.

MM 5.6-4 Prior to the issuance of each building permit, the applicant shall provide evidence to the appropriate Planning Department of the use of “cool” roofs or “green” roofs, and cool pavements for all roofs and pavements to the extent that such products are commercially available for the implementing Project.

MM 5.6-5 Prior to the issuance of each building permit, the applicant shall provide evidence to the appropriate Planning Department of the use of automatic covers, efficient pumps and motors, and solar heating for all pools and spas to the extent that such products are commercially available for the implementing Project.

MM 5.6-7 Prior to the issuance of each building permit, the applicant shall provide evidence to the appropriate Planning Department of the use of water efficient irrigation systems and devices, such as soil-based irrigation controls and use water-efficient irrigation methods consistent with measures recommended in the Voluntary Green Building Program, and any other green building standards adopted by the Tribe or City, and the Coachella Valley Water District water efficiency goals. In accordance with the appropriate program, the applicant shall provide evidence that building is consistent with the following Specific Plan-wide water conservation measures and/or does not prevent or conflict with the Specific Plan’s ability to meet the following water conservation measures:

- 90 percent of all builder-installed plumbing devices in each residential buildings shall be low-flow and water-efficient.
- 90 percent of all builder-installed plumbing devices in each non-residential buildings shall be low-flow and water-efficient.
- Turf shall not exceed 20 percent of the total landscaped area of each lot, with the exception of parks and recreation centers.
- 80 percent of public and common landscape areas shall use smart irrigation systems per project.
- 80 percent of public and common landscape areas shall use drought-tolerant, native, and/or water-efficient plant materials per project.

MM 5.6-8 Prior to grading for the Project, the applicant or their contractor shall submit to the appropriate Public Works Department for review and approval of a site construction management plan for the reuse and recycle construction and demolition waste (including soil, vegetation, concrete, lumber, metal, and cardboard).

MM 5.6-9 Prior to the issuance of each building permit, the applicant shall provide evidence to the appropriate Planning Department of reuse and recycling measures in residential, industrial, and commercial projects consistent with measures recommended in the Voluntary Green Building Program or any other green building standards adopted by the Tribe or City. In accordance with the adopted green building program, the applicant shall provide evidence that the building is consistent with the following Specific Plan-wide recycling and waste reduction measures and/or does not prevent or conflict with the Specific Plan's ability to meet the following recycling and waste reduction measures:

- Provide recycling containers within all multi-family residential communities
- Provide recycling containers within all commercial, office, and light industrial buildings.

MM 5.6-10 Prior to the issuance of each building permit, the applicant shall provide evidence to the appropriate Planning Department the use of employment based trip and vehicle miles traveled (VMT) policies that encourage the use of alternative transportation. Comprehensive employment based trip and VMT reduction policy measures shall be in compliance with City or Tribe mass transit programs and include but are not limited to the measures listed below:

- Seek approval from the appropriate Planning Department(s) to waive minimum parking requirements and reduce parking from the minimum standards by as much as 20 percent for projects within a quarter mile of a transit station.

- Use shared and/or centralized parking facilities consistent with a "park once" approach.

- Require that employers provide information on public transportation options to employees.

- Require that large employers (250 or more employees at a single work-site location) and encourage small employers (less than 250 employees at a single work-site location) to provide bicycle parking facilities, employee break rooms with refrigerators and microwaves, and automated teller machines (ATMs).

- Require that large employers (250 or more employees at a single work-site location) provide a transportation demand management program, such as vanpools/carpools, ride-sharing/ride-matching, and/or "guaranteed ride home" services that allow employees who use public transit to get a free ride home if they need to stay at work late.

- Require that 1 electric vehicle charging station be provided for every application for 100,000 or more square feet of non-residential development.

D. LEVEL OF SIGNIFICANCE OF MITIGATION

Buildout of the Section 24 Specific Plan would be consistent with the goals of CARB's 2008 Scoping Plan and the 2014 Updated Scoping Plan, the City's Sustainability Plan, the Voluntary Green Building Program and best management practices which aim to reduce VMT through integrating land use and transportation and requiring buildings to be more energy efficient than required by existing regulations. GHG emission impacts would be less than significant.

5.7 HAZARDS AND HAZARDOUS MATERIALS

This Section of the Draft EIS addresses the potential for the proposed Project to be affected by hazardous conditions on the Project Site. More specifically, this Section evaluates impacts associated with the Project that may potentially affect public health and safety or degrade the environment. Various federal, State, regional, and local programs and regulations related to the use, storage, and transportation of hazardous materials are also discussed in this Section. Information from the following study of the Project Site is incorporated into this Section:

- *Phase I and Limited Phase II Environmental Site Assessment,* Leighton and Associates, Inc., March 2013.
- *Phase I and Limited Phase II ESA Addendum Letter*, Leighton and Associates, Inc., June 2014.

A complete copy of this study is included in the Technical Appendices to this Draft EIS (**Appendix E**). Please see **Section 9.0** for a glossary of terms, definitions, and acronyms used in this Draft EIS.

A. ENVIRONMENTAL SETTING

1. Definitions

Hazardous Material

Certain facilities generate substances considered hazardous. Characteristics of hazardous materials include toxicity, ignitability, corrosivity, or reactivity. A hazardous material is defined as:

> *"a substance or combination of substances which, because of its quantity, concentration, or physical, chemical or infectious characteristics, may either: (1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating irreversible illness; or (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported or disposed of or otherwise managed. (Title 22, California Code of Regulations [CCR], Section 66084)."*

Hazardous Waste

A "hazardous waste" is defined as "any hazardous material that is abandoned, discarded or recycled."[1] In addition, hazardous wastes occasionally may be generated by actions that change the composition of

1 *California Health and Safety Code*, "Hazardous Waste Control," Section 25124.

previously nonhazardous materials. The same criteria that render a material hazardous make a waste hazardous: toxicity, ignitability, corrosivity, or reactivity.

Recognized Environmental Conditions

The term "recognized environmental conditions" means the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into the structures on the property or into the ground, groundwater, or surface water of the property.

Historical Recognized Environmental Condition

The term historical recognized environmental condition is defined as "environmental condition which in the past would have been considered a recognized environmental condition, but which may or may not be considered a recognized environmental condition currently." ASTM further defines a historical recognized environmental condition by stating "[i]f a past release of any hazardous substances or petroleum products has occurred in connection with the property and has been remediated, with such remediation accepted by the responsible regulatory agency…this condition shall be considered a historical recognized environmental condition…."

2. Existing Conditions

Regional and Project Site

The Project Site is located on a 577-acre portion of Section 24 in unincorporated Riverside County, bounded by Ramon Road on the north; Bob Hope Drive on the east; Dinah Shore Drive on the south; and Los Alamos Road on the west. The Project Site is comprised of five parcels, which are currently known as County of Riverside Assessor Parcel Numbers (APN) 673-120-021, -022, -023, -024, and -025 in Riverside County, California. The Project Site has never been developed and currently consists of relatively undisturbed desert lands. However, at least three disturbed areas were identified on the Project Site with two graded areas in the northwest and northeast portions of the Project Site and one area covered with artificial fill in the southwestern portion of the site. The graded area in the northeast portion of the Project Site was used as a parking and staging area for additional construction for the Agua Caliente Casino Resort Spa in 2007. The graded area in the northwest portion of the Project Site was used as a source of fill for the construction of the Bob Hope Drive/Interstate 10 (I-10) Interchange in 2010.

Land uses surrounding the Project Site include a golf course and residential homes to the south and to the west, the Agua Caliente Casino/ Resort/ Spa and vacant land to the east, and vacant land to the north.

Topographically, the Project Site generally slopes downward to the northeast. Surface elevations range from approximately 350 feet to 250 feet above mean sea level, with the highest points located near the southwest corner and the lowest points located near the northeast corner of the Project Site. The soil composition of the Project Site, as well as of adjacent sites, is of mostly loose to moderately dense dune sand over quarterly aged alluvial deposits as a result of wind-blown (aeolian) and alluvial sand deposits that eroded from nearby mountains. The dune sands extend to a depth of 5 to 20 feet below ground surface (bgs) and the quaternary-aged alluvial deposits extend to a maximum depth of 51 bgs. Based on evidence from data collected from a property well adjacent to the Project Site, the groundwater depth is approximately 173 feet bgs. There is currently no evidence of oil wells or oil field-related facilities on the Project Site or adjacent properties.

The earliest aerial photograph was taken in 1939, which shows that the Project Area was vacant and undeveloped with only the Southern Pacific railroad (now the Union Pacific Railroad) northeast of the Project Site. Aerial photographs from 1969, 1978, 1984, and 1989 do not show significant changes other than the development of the I-10 northeast of the Project Site, the development of golf course and residential developments to the south and west of the Project Site, and pavement of Dinah Shore Drive. A 2002 aerial photograph indicates that the Project Site and adjacent properties were still vacant and undeveloped, properties to the west and south were developed with residential uses, the Agua Caliente Casino Resort Spa to the east, and Los Alamos Road was a paved road adjacent to the west. The aerial photographs taken in 2005, 2009, and 2010 show that the Project Site is currently similar to existing conditions.

Environmental Conditions

A Phase I and Limited Phase II Environmental Site Assessment was prepared for the Project. The purpose of the Phase I and Limited Phase II Environmental Site Assessment was to evaluate Project Site history, existing observable conditions, current Project Site use, and current and historic uses of surrounding properties to identify the potential presence of Recognized Environmental Conditions, Historical Recognized Environmental Conditions, and known or suspect environmental conditions in connection with the Project Site. The findings of the Phase I and Limited Phase II Environmental Site Assessment in addition to other potential environmental and safety hazards associated with the Project Site are summarized below.

Storage Tanks and Other Structures

The Project Site does not contain any structures and is not identified to be on a list of hazardous materials sites as defined in Government Code Section 65962.5. The site reconnaissance did not identify any evidence of underground storage tanks or aboveground storage tanks, such as vent lines, fill, or

overfill ports, to be located on the Project Site. The only evidence of potentially hazardous materials is a pad-mounted transformer in the eastern portion of the Project Site, approximately 7,800 cubic yards of soil stockpiles in the western portion of the Site, and a PVC riser in the south portion of the Project Site. Leakage and staining were not observed around the transformer and it is unknown if it contains polychlorinated biphenyls (PCBs); it is believed to be owned, operated, and maintained by Southern California Edison. The observed soil stock piles may have been generated from nearby grading and construction activities, which were found not to have any detections of petroleum hydrocarbons (TPH), organochlorine pesticides (OCPs), volatile organic compounds (VOCs), and semi-volatile organic compounds (SVOCs). Lastly, the only other observation made was of a PVC riser on the southern portion of the Project Site and the purpose of this riser could not be determined.

Hazardous Materials Releases

A review of regulatory agency databases, historical maps, and a site reconnaissance indicated that there is no evidence of an occurrence of a hazardous materials release at the Project Site. The Project Site has not been used for any previous purposes or uses nor is it located on a Superfund site. It would not have been subjected to pesticide or fertilizer impacts as a result of agricultural uses or any other hazardous material releases from industrial or commercial uses. The only evidence of waste dumping on the Project Site is of construction debris and wind-blown trash. None of these identified features indicate that there has been a suspected hazardous materials release on the Project Site.

Transport of Hazardous Materials

The Union Pacific Railroad mainline tracks and I-10 are 0.17 miles from the northeastern corner of the Project Site. Both the railroad line and I-10 are used to transport hazardous materials, posing the potential for hazardous materials releases from non-stationary sources to occur in close proximity to the Project Site. The greatest hazard posed to future occupants of the Project Site is a chemical release, fire, or explosion resulting from a truck accident or train derailment at a location adjacent to the Project Site.

Proximity to High-Pressure Gas Lines or Fuel Transmission Lines

The Southern California Gas Company operates a six-inch diameter natural gas pipeline beneath Bob Hope Drive and Dinah Shore Drive and a 4-inch diameter pipeline beneath Los Alamos Road. Kinder Morgan operates a 20-inch diameter high-pressure refined petroleum products pipeline within the UPRR right-of-way that is within proximity to the northeastern border of the north side of the Project Site. No historical leaks were identified with the petroleum pipeline.

Oil, Gas, and Geothermal Resources

The review of the California Department of Conservation, Division of Oil, Gas, and Geothermal Resources, Online Mapping System indicated that there is no evidence of oil wells or oil field-related facilities on the Project Site or adjacent properties.

Soil Contamination

Soils on the Project Site were sampled to identify any potential soil contamination. Concentrations of TPHs, OCPs, PCBs, VOCs, and SVOCs were not report above laboratory reporting limits. Additionally, Title 22 Metals were detected below their respective US Environmental Protection Agency (EPA), Region 9 Regional Screening Levels for residential property and California Human Health Screening Level for residential property. However, arsenic was detected in soils on the Project Site, but the concentrations were below background levels established by the Department of Toxic Substances Control (DTSC).

Off-Site Conditions

A total of seven facilities within proximity to the Project Site were identified to be Hazardous Waste Information System/facility and manifest data (HAZNET) listed properties. An Environmental Data Report (EDR) was used to identify these facilities, which are reflected in **Table 5.7-1, EDR-Listed Facilities Adjacent to the Project Site**. The EDR meets the governmental records search requirements of ASTM E1524-05. The properties are classified with the HAZNET, Statewide Environmental Evaluation and Planning System (SWEETPS UST), Indian reservation (INDIAN), leaking and underground storage (LUST), or waste disposal and mixing category listing identifiers, with the Project Site being classified as INDIAN as it is a part of the Agua Caliente Indian Reservation ("Reservation"). Enforcement violations or citations were not noted with any of these four facilities. The Project Site is not located within 1,000 feet of a military installation, is not located within special use airspace, and is not located beneath a low-level flight path or over a military training route (MTR). [2]

2 CA.gov, "California Military Land Use Compatibility Analyst," http://cmluca.projects.atlas.ca.gov (May 19, 2014).

Table 5.7-1
EDR-Listed Facilities Adjacent to the Project Site

Facility	Address	Relation to Project Site	Listing Category
Westin Mission Hills Resort	70705 Ramon Road	Adjacent to West Boundary	Waste Disposal and Mixing Categories
Agua Caliente Casino Resort Spa	32250 Bob Hope Drive	Adjacent to Northeast Boundary	Waste Disposal and Mixing Categories
Westin Mission Hills Resort	71501 Dinah Shore Drive	Adjacent to West Boundary	Waste Disposal and Mixing Categories
Westin Mission Hills Resort	71333 Dinah Shore Drive	Adjacent to West Boundary	Waste Disposal and Mixing Categories
MACCO Constructors, Inc.	34200 Rio Del Sol	0.50 miles Northeast	SWEEPS UST
Mission Hills Country Club	34600 Mission Hills Drive	0.42 miles Southwest	INDIAN LUST
Flying J Travel Plaza	72235 Varner Road	0.46 miles Northeast	LUST

Source: Leighton and Associates, Inc., 2013.

3. Regulatory Setting

Key federal, State, local, and tribal laws, regulations, and policies that pertain to hazards and hazardous materials for the Project are summarized below. They provide the regulatory framework for addressing all aspects of hazards and hazardous materials that would be affected by construction and implementation of the Project.

Federal

Resource Conservation and Recovery Act

At the Federal level, the principal agency regulating the generation, transport, and disposal of hazardous substances is the United States Environmental Protection Agency (USEPA), under the authority of the Resource Conservation and Recovery Act (RCRA). RCRA established an all-encompassing federal regulatory program for hazardous substances that is administered by USEPA. Under RCRA, USEPA regulates the generation, transportation, treatment, storage, and disposal of hazardous substances.

Hazardous Materials Transport Regulations

The U.S. Department of Transportation (USDOT) regulates transportation of hazardous materials between states. The USDOT Federal Railroad Administration (FRA) enforces the hazardous materials

regulations, which are promulgated by the Pipeline and Hazardous Materials Safety Administration for rail transportation. These regulations include requirements that railroads and other transporters of hazardous materials, as well as shippers, have and adhere to security plans and also train employees involved in offering, accepting, or transporting hazardous materials on both safety and security matters. Additionally, the Federal Hazardous Materials Transportation Law is enforced by the USDOT's Federal Highway Administration (FHWA) with the purpose of protecting risks to life, property, and the environment as a result of the transportation of hazardous materials.

Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund, was enacted by Congress in 1980 to developed to protect the water, air, and soil resources from the risks created from past chemical disposal practices. CERCLA established prohibitions and requirements concerning closed and abandoned hazardous waste sites; provided for liability of persons responsible for releases of hazardous waste at these sites; and established a trust fund to provide for cleanup when no responsible party could be identified.

Emergency Planning and Community Right-To-Know Act

The Emergency Planning and Community Right-To-Know Act (EPCRA) is an authorized program under the Superfund Amendments and Reauthorization Act (SARA). The purpose of EPCRA is to help protect communities from chemical hazards by implementing local emergency planning and notification programs. Under EPCRA, local governments are required to prepare chemical emergency response plans as a strategy to prepare for hazardous emergencies.

Superfund Amendments and Reauthorization Act

Superfund Amendment and the Reauthorization Act amended CERCLA and made important revisions to the Superfund program. Emergency Planning and Community Right-to-Know (also known as SARA Title III) requires the creation of a plan for chemical emergencies at the State and local levels and improves public access to information regarding chemical hazards. In addition, with respect to emergency planning, the Federal Emergency Management Agency (FEMA) is responsible for ensuring the establishment and development of policies and programs for emergency management at the federal, State, and local levels. This includes the development of a national capability to mitigate against, prepare for, respond to, and recover from a full range of emergencies.

National Pollutant Discharge Elimination System

The National Pollutant Discharge Elimination System (NPDES) is a program created to implement the Clean Water Act. The State Water Resources Control Board (SWRCB) and the nine regional boards

administer NPDES in order to regulate and monitor discharged waters and to ensure they meet water quality standards.

State

California Environmental Protection Agency

The California Environmental Protection Agency (Cal/EPA) has broad jurisdiction over hazardous materials management in the State. Within Cal/EPA, the Department of Toxic Substances Control (DTSC) has primary regulatory responsibility for hazardous waste management and cleanup to protect California and Californians from exposures to hazardous wastes by regulating hazardous waste and looking for ways to reduce the hazardous waste produced in California. Enforcement of regulations has been delegated to local jurisdictions that enter into agreements with DTSC for the generation, transport, and disposal of hazardous materials.

The DTSC regulates hazardous waste in California primarily under the authority of the federal RCRA of 1976, and the *California Health and Safety Code*. The Hazardous Waste Control Law (HWCL) is the primary hazardous waste statute in the State of California. The HWCL implements RCRA as a "cradle-to-grave" waste management system in the State of California. The HWCL specifies that generators have the primary duty to determine whether their wastes are hazardous and to ensure their proper management. The HWCL also establishes criteria for the reuse and recycling of hazardous wastes used or reused as raw materials. The HWCL exceeds federal requirements by mandating source reduction planning, and a much broader requirement for permitting facilities that treat hazardous waste. It also regulates a number of types of wastes and waste management activities that are not covered by federal law with RCRA.

Along with the DTSC, the Regional Water Quality Control Board (RWQCB) is responsible for implementing regulations pertaining to management of soil and groundwater investigation and cleanup. RWQCB regulations are contained in Title 27 of the *California Code of Regulations* (*CCR*). Additional State regulations applicable to hazardous materials are contained in Title 22 of the CCR. Title 26 of the *CCR* is a compilation of those hazardous materials, waste, and toxic-related regulations contained in *CCR* Titles 3, 8, 13, 17, 19, 22, 23, 24, and 27 that are applicable to hazardous materials.

Tanner Act

Although there are numerous State policies dealing with hazardous waste materials, the most comprehensive is the Tanner Act (AB 2948) that was adopted in 1986. The Tanner Act governs the preparation of hazardous waste management plans and the siting of hazardous waste facilities in the State of California. The act also mandates that each county adopt a Hazardous Waste Management Plan.

To be in compliance with the Tanner Act, local or regional hazardous waste management plans need to include provisions that define (1) the planning process for waste management, (2) the permit process for new and expanded facilities, and (3) the appeal process to the State available for certain local decision.

Hazardous Materials Management Plans

In January 1996, Cal/EPA adopted regulations implementing a Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program). The six program elements of the Unified Program are hazardous waste generators and hazardous waste on-site treatment, underground storage tanks, above-ground storage tanks, hazardous material release response plans and inventories, risk management and prevention program, and *Uniform Fire Code* hazardous materials management plans and inventories. The program is implemented at the local level by a local agency—the Certified Unified Program Agency (CUPA). The CUPA is responsible for consolidating the administration of the six program elements within its jurisdiction.

State and federal laws require detailed planning to ensure that hazardous materials are properly handled, used, stored, and disposed of, and, in the event that such materials are accidentally released, to prevent or to mitigate injury to health or the environment.

Hazardous Materials Disclosure Program

The Hazardous Materials Disclosure Program is found within the provisions of the California Health and Safety Code, Division 20, Chapter 6.95, Article 1. CUPAs are required to implement this Program by reporting and disclosing the storage, use, or handling of hazardous materials on a site as a strategic measure to minimize loss to life and property. In addition, Hazardous Materials Business Plans are required to be submitted by all businesses that handle more than a threshold quantity of hazardous materials.

California Accidental Release Prevention Program

The California Accidental Release Prevention Program (CalARP) is found within the provisions of the California Health and Safety Code, Division 2, Chapter 4.5. CalARP is implemented at the local level by CUPAs as a strategy to minimize the accidental releases of stationary substances that can cause harm to the general public and environment. Businesses are required to develop Risk Management Plans (RMPs) if more than a threshold quantity of regulated substances is handled.

California Hazardous Materials Release Response Plans and Inventory Law

The California Hazardous Materials Release Response Plans and Inventory Law of 1985 (Business Plan Act) requires hazardous materials business plans to be prepared and inventories of hazardous materials to be disclosed. A business plan includes an inventory of the hazardous materials handled, facility floor plans showing where hazardous materials are stored, an emergency response plan, and provisions for employee safety and emergency response training.[3]

Government Code Section 65962.5 (Cortese List)

The provisions of *Government Code* Section 65962.5 are commonly referred to as the Cortese List. The Cortese List is a planning document used by the State and local agencies to provide information about hazardous materials release sites. Government Code Section 65962.5 requires Cal/EPA to develop an updated Cortese List annually, at minimum. DTSC is responsible for a portion of the information contained in the Cortese List. Other State and local government agencies are required to provide additional hazardous material release information for the Cortese List.

California Emergency Response Plan

California has developed an emergency response plan to coordinate emergency services provided by federal, State, and local governments and private agencies. Response to hazardous material incidents is one part of this plan. The plan is managed by the California Emergency Management Agency, which coordinates the responses of other agencies, including Cal/EPA, California Highway Patrol (CHP), RWQCB, and the Los Angeles County Emergency Services Program.

Cal/OSHA

The Division of Occupational Safety and Health (DOSH), better known as Cal/OSHA, protects workers from health and safety hazards on the job in almost every workplace in California through its research and standards, enforcement, and consultation programs. Cal/OSHA oversees certain demolition and construction efforts, and issues construction activity permits for:

- Construction of trenches or excavations which are five feet or deeper and into which a person is required to descend
- Construction of any building, structure, scaffolding or falsework more than three stories high or the equivalent height (36 feet)

3 *California Health and Safety Code*, Division 20, Chapter 6.95, Article 1.

- Demolition of any building or structure, or dismantling of scaffolding or falsework more than three stories high or the equivalent height (36 feet)

- Erection or dismantling of vertical shoring systems more than three stories high, or the equivalent height (36 feet)

Regional and Local

Riverside County Hazardous Waste Management Plan

As incorporated in the County of Riverside Safety Element, the Riverside County Hazardous Waste Management Plan (HWMP) addresses the County's planned response to hazardous emergencies. Authorized in accordance with the Southern California Hazardous Waste Management Authority (SCHWMA), the HWMP serves as a framework for the management of the County's hazardous substances. The purpose of the HWMP is to ensure active public participation in hazardous waste and materials management decision, coordinate hazardous waste facility responsibilities, and to promote practices that give waste management a high priority to reduce hazardous waste in the County.

Agua Caliente Band of Cahuilla Indians

Tribal Ordinance Prohibiting the Use of Trust Lands of the Reservation for the Disposal, Storage, or Treatment of Wastes Regulated by the Resource Conservation and Recovery Act and/or the Comprehensive Environmental Response, Compensation, and Liability Acts (Tribal Ordinance No. 14)

This Ordinance prohibits the use of Indian Trust land on the Reservation for the disposal, treatment, or storage of hazardous or non-hazardous wastes, as sanitary landfills, or otherwise to protect groundwater and the health, safety, and welfare of the members of the Tribe and the public.

Tribal Property Maintenance Standards Ordinance (Tribal Ordinance No. 17)

The Property Maintenance Standards Ordinance prohibits any condition on Reservation land that is detrimental to the public health, safety, or general welfare. Such conditions shall be determined to be a public nuisance, subject to the corrective measures established by this Ordinance.

Tribal Ordinance Controlling Pollutant Discharges into the Waters of the Agua Caliente Reservation (Tribal Ordinance No. 24)

The purpose of this Ordinance is to regulate and control all pollutant discharges into the waters of the Reservation.[4] Per this Ordinance, no pollutant discharges are allowed into the waters of the Reservation unless there is prior consultation with the Federal, Tribal, or State agency with jurisdiction under the Clean Water Act and/or the Safe Drinking Water Act, and if required, appropriate permit(s) are obtained.

Agua Caliente Band of Cahuilla Indians Land Use Ordinance (Tribal Ordinance No. 45)

The purpose of this Ordinance is to provide standards and regulations to control land uses on Indian Reservation Lands, maintain and protect the Reservation's unique natural and cultural resources, and to preserve the natural environment. In addition, the Tribal Land Use Ordinance also contains provisions for solid, hazardous, and toxic waste collection and disposal from construction, renovation, and reclamation sites.

Pre-Disaster Multi-Hazard Mitigation Plan

The Tribe's Pre-Disaster Multi-Hazard Mitigation Plan (MHMP) establishes a mitigation program that is intended to reduce the loss of life and property, human suffering, economic disruption, and disaster assistance costs resulting from natural and man-made disasters affecting the Reservation.

City of Rancho Mirage

Municipal Code

The *City of Rancho Mirage Municipal Code* Titles 2, 14, and 17 establish City personnel responsibilities, standards, and regulations that address the management of hazardous materials and wastes as well as emergency plans in the event of a hazardous disaster for the Active Adult Community. In addition, the *Municipal Code* identifies the appropriate City personnel who are responsible for carrying out and seeing that these emergency plans are implemented properly.

Multi-Hazard Functional Plan

The City's Multi-Hazard Functional Plan (MHFP) addresses the planned response to extraordinary emergency situations associated with natural or human caused disasters, technological incidents, and nuclear defense operations. The MHFP is an extension of the State Emergency Plan that is provided

4 Agua Caliente Band of Cahuilla Indians, "Tribal Ordinance Controlling Pollutant Discharges into the Waters of the Agua Caliente Indian Reservation," ord. no. 24, amend. no. 1. http://www.aguacaliente.org/downloads/Ordinance24.pdf.

through the Governor's Office of Emergency Services (OES). The City of Rancho Mirage ("City") identifies the I-10 and Highway 111 to be the primary evacuation routes for the area.

B. ENVIRONMENTAL IMPACTS

1. Thresholds of Significance

In order to assist in determining whether a project would have a significant effect on the environment, the Tribe finds a project may be deemed to have a significant impact from hazards and hazardous materials, if it would:

Threshold 5.7-1: **Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials**

Threshold 5.7-2: **Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment**

Threshold 5.7-3: **Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school**

Threshold 5.7-4: **Be located on a site which is included on a list of hazardous materials sites compiled pursuant to *Government Code* Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment**

Threshold 5.7-5: **For a project located within an airport land use plan or, where such plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area**

Threshold 5.7-6: **For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area**

Threshold 5.7-7: **Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan**

Threshold 5.7-8: **Increased fire hazard in areas with flammable brush**

2. Methodology

In accordance with the American Society for Testing and Materials (ASTM) E1524-05, a Phase I and Limited Phase II Environmental Site Assessment was conducted for the Project Site and surrounding areas. The ASTM standard entails the identification of recognized environmental conditions in connection with a project site. This reconnaissance-level assessment of the Project, in regards to hazards and hazardous waste materials, consisted of observing and documenting existing conditions of the Project Site and surrounding areas within 0.25 miles of the Site. Available data to determine whether there is the potential for cumulative impacts associated with hazards and hazardous materials was assessed, based upon consideration of the Project, the Project Site, and related projects. The potential for cumulative impacts associated with hazards and hazardous materials was assessed, based upon consideration of the Project and related projects, as well as projects identified in the City of Rancho Mirage General Plan. These related projects are identified in **Section 4.0, Environmental Setting**.

3. Project Design Features

The following Project Design Feature (PDF) is incorporated into the proposed Project and would reduce the potential hazards and hazardous materials impacts of the Project. This feature was taken into account in the analysis of potential impacts.

PDF 5.7-1 Provide fire hydrants and adequate fire flows in the event of a fire at or surrounding the Project Site. These hydrants will be designed and constructed in accordance with Tribal Fire Marshal and/or Riverside County Fire Department requirements.

4. Project Impacts

Create a Significant Hazard to the Public or the Environment Through the Routine Transport, Use, or Disposal of Hazardous Materials

Adult Active Community

Construction

Construction activities of the Project would involve the transportation of hazardous substances that would be used on the Site, such as paints, solvents, and cleaners. Grading and construction activities would also require the transport, storage, handling, use, and disposal of hazardous materials such as fuels and greases for the fueling and servicing of construction equipment. Any spills or leakages encountered during construction would be required to be remediated in accordance with the State and local regulations for hazardous waste cleanup. Long-term construction impacts may result in soil and groundwater contamination, of which a SWPPP would be implemented in compliance with NPDES as identified by PDF 5.5-6 in **Section 5.5, Geology and Soils**. Lastly, the Project would be operated and

constructed under the emergency response plan requirements set forth by the County of Riverside and Titles 2, 14, and 17 of the City of Rancho Mirage Municipal Code, if annexed into the City. Implementation of Mitigation Measure **MM 5.14-1** would require a construction traffic management plan to reduce potential impacts in the event of emergency evacuations. Construction related hazardous impacts would be reduced to less than significant.

Operation

The Project proposes residential uses within the Adult Active Community portion of the Project Site. The associated uses of the Project do not involve the routine use, transport, or disposal of significant amounts of hazardous materials; however, on-site support service, such as janitorial services, may involve the use of small amounts of hazardous materials. These materials would be stored on site in small quantities. Additionally, the operational phase of the Project would entail the potential use of hazardous materials within the residential units of the Active Adult Community. These hazardous materials may include the use of pesticides, paints, household cleaners, and landscaping products within the households. A variety of State and federal laws govern the generation, treatment, and disposal of hazardous wastes. The Rancho Mirage Fire and County of Riverside Fire Departments have the authority to inspect on-site uses and to enforce State and federal laws governing the storage, use, transport, and disposal of hazardous materials and wastes. The County of Riverside requires that an annual inventory of hazardous materials in use on site, as well as a business emergency plan, be submitted for an annual review, as required by Emergency Planning and Right-to-Know Act and the California Accidental Release Prevention Program. These requirements would be mandated according to State and federal law. As such, potential impacts would be considered less than significant.

Impacts from the I-10/UPRR Transportation Corridor

As previously mentioned, the I-10/UPRR transportation corridor is within close proximity to the northern boundary of the Project Site. The transport of hazardous materials does occur along both the I-10 and the Union Pacific Railroad; however, the probability of a release due to an accident is highly unlikely. The greatest risk posed to people on the Project Site would be as a result of a fire, explosion, or chemical spill.

The California Highway Patrol (CHP) would be the responding agency for any release or chemical spill as a result of an accident along the I-10. Truck haulers of hazardous materials would comply with applicable federal and State regulations in regards to the transportation of hazardous materials, which are regulated by FHWA. In the event of a hazardous spill, CHP would be required to notify the Riverside County Fire Department's Office of Emergency Services (OES). Therefore, impacts would be less than significant.

In the event of a potential release from a railroad accident, the Union Pacific Railroad has numerous safety and security measures in place to avoid serious hazards to surrounding areas. The FRA maintains statistical annual reports for train accidents that are intended to provide information for those interested in rail safety issues within the county. As illustrated in **Table 5.7-2, FRA Railroad Accident Statistics for 2010**, these reports include data for those train accidents involving the transport and release of hazardous materials. Based on these statistics, the probability of an accident, involving the transport of hazardous materials, within proximity to the Project Site, is considered to be highly unlikely; therefore, impacts would be less than significant.

Table 5.7-2
FRA Railroad Accident Statistics for 2010

Category	Number of Accidents	Number of Releases	Number of Evacuations
National	621	23	10
Union Pacific Railroad	145	4	0
Amtrak	N/A	N/A	N/A
California	26	1	1
Riverside County	N/A	N/A	N/A

Source: FRA 2010
N/A = Not Available

Tribal Planning Areas

Construction

As discussed previously for the Active Adult Community, construction activities within the Tribal Planning Areas would be subject to similar hazardous and hazardous materials impacts. The disposal of hazardous materials would be required to comply with aforementioned Tribal Ordinances/Plans, which contain provisions for hazardous and toxic waste collection and disposal from construction sites. Compliance with Tribal Ordinances/Plans provisions would result in less than significant construction related impacts.

Operation

The Tribal Planning Areas would result in similar operational impacts. The Tribal Planning Areas would include multifamily residential uses, commercial, resort, and retail uses. Residential uses may entail the use of pesticides, paints, household cleaners, and landscaping products with the households. Remaining uses would also use similar products as well as possible industrial-level products that would be

considered to be hazardous materials. The disposal of hazardous materials on the Tribal Planning Areas would be required to comply with Tribal regulations to ensure safe and proper standards. Impacts would be less than significant.

Additionally, the Tribal Planning Areas are located on the northern and eastern boundary areas of the Project Site, thus they are closer to the I-10/Union Pacific Railroad transportation corridor and would be in closer proximity to any potential impacts related to a fire, explosion, or hazardous spill from a railroad accident. Since the probability of such an accident is low, impacts would be considered less than significant.

Create a Significant Hazard to the Public or the Environment Through Reasonably Foreseeable Upset and Accident Conditions

Active Adult Community

Construction

The Active Adult Community portion of the Project Site would include construction activities for site preparation, earthwork (e.g. vegetation removal, grading, and site excavation), and building construction. Construction and vegetation debris should be disposed of in accordance with regulatory guidelines. According to the Phase I and Limited Phase II Environmental Site Assessment, the Project Site does not contain any unidentified soil contamination and disturbance, so grading and excavation activities would not result in a significant hazard to the public or environment. Construction activities within the Project Site would not occur within a hazardous site nor would construction activities expose workers to hazardous substances present in the Project Site. Impacts would be less than significant.

Operation

No hazardous materials that would create a significant hazard to the public are used, transported, produced, handled, or stored on site. In addition, the Project Site was not identified as a hazardous site or containing hazardous materials in the Phase I and Limited Phase II Environmental Site Assessment, located in **Appendix E**. Also discussed therein, one site within approximately 0.5 mile of the Project Site is listed as a closed case. This site is also located down gradient from the Project Site and is not expected to have an impact on the Project Site. Impacts would be less than significant.

Tribal Planning Areas

Construction

Construction activities of the Tribal Planning Areas would involve similar activities as the Active Adult Community. There are no identified areas in the Tribal Planning Areas that contain any soil

contamination or disturbance that would result in a public hazard. Impacts would be less than significant.

In regards to the unidentified PVC riser on the southeastern portion of the Project Site, caution should be taken when excavating around the area of the riser during construction activities. The PVC riser could possibly lead to an underground storage area or be indicative of hazardous materials or wastes, which would then lead to additional investigation of the area for potential hazards; therefore, impacts from the unidentified PVC riser could be potentially significant. Mitigation Measure **MM 5.7-1** will be implemented to minimize any impacts from potential hazardous materials or wastes that may be related to the PVC riser. Impacts during construction would be mitigated to less than significant.

Operation

Operation of the Tribal Planning Areas would not entail the use, transportation, production, handling, or storage of hazardous materials that would create a significant hazard to the public; nor are the Tribal Planning Areas identified on a hazardous site. Therefore, impacts would be less than significant.

Emit Hazardous Emissions or Handle Hazardous Materials Within One-Quarter Mile of an Existing or Proposed School

Active Adult Community

Construction

Construction activities of the Active Adult Community would emit vehicle exhaust, which contain nitrous oxides, particulate matter, fine suspended matter, and diesel particulates that could be hazardous to sensitive receptors (newborns to children and elderly persons). The closest school to the Project Site is the Rancho Mirage High School, located at 31001 Rattler Road, which is approximately 0.55 miles from the northwestern boundary of the Project Site. Additionally, the Project does not propose industrial uses. Industrial use sites tend to emit hazardous emissions during construction. Since the closest school is located at a greater distance than the 0.25-mile radius and construction activities would not release hazardous emissions within this radius, impacts would be considered to be less than significant.

Operation

As Stated above, the nearest school is located greater than 0.25-miles from the Active Adult Community. The Active Adult Community would develop residential uses that would include the storage and handling of hazardous materials such as pesticides, paints, household cleaners, and landscaping products. State and local regulation for the storage and handling of these materials would be followed, thus impacts would be less than significant.

Tribal Planning Areas

Construction activities within the Tribal Planning Areas would result in similar impacts as those identified for the Active Adult Community. The Tribal Planning Areas do not propose any industrial uses and the closest school is greater than 0.25 miles away from the Site, so hazardous emissions would not be released within this radius. The Project includes multifamily residential uses, commercial, resort, and retail uses that would include the handling of small amounts of hazardous materials, which would be subject to Tribal regulations. Impacts would be less than significant.

Be Located on Hazardous Materials Site that Would Create a Significant Hazard to the Public or the Environment

Active Adult Community

Construction

The site reconnaissance that was conducted for the Project Site indicated that the Project would not be located on a hazardous materials site. The Project Site was not identified to be located on a Superfund hazardous materials site nor would it be located on a site that has contains unusual characteristics that could cause public hazards when the Project undergoes construction. Out of the seven facilities that were identified through the HAZNET database, none of them were determined to have any potential hazards. Therefore, since the Project would not be located on a hazardous site or within the vicinity of a hazardous site, impacts during construction activities would be less than significant.

Operation

The Active Adult Community includes the 1,200 single-family dwelling units across an area of 313 acres. The location of the Active Adult Community would not occur upon a hazardous materials site nor would it entail any uses that would cause a significant hazard to those occupants on the Site. Impacts would be less than significant.

Tribal Planning Areas

The Tribal Planning Areas would result in similar construction and operation impacts that would not expose workers to any significant hazards. Implementation of the Tribal Planning Areas would include 1,206 medium-density multifamily residential units as well as commercial, retail, office, and hotel uses. The Tribal Planning Areas have not be identified within proximity to a hazardous waste and development of these areas would not entail any uses that would cause a significant hazard to residents and employees on the Project Site. Furthermore, any use of pesticides, paints, household cleaners, and landscaping products would need to be disposed of in accordance with Tribal regulations. Impacts would be less than significant.

For a Project Located Within an Airport Land Use Plan, Would the Project Result in a Safety Hazard for People Residing or Working in the Project Area

Adult Active Community and Tribal Planning Areas

The nearest airport to the Project Site is the Palm Springs Airport located approximately 8 miles to the northwest. The Project Site is not within an airport land use plan, within 2 miles of a public airport or public use airport, or within the vicinity of a private airstrip. Therefore, the distance from the airport to the Project Site would not cause a safety hazard for people residing or working on the Project Site. Thus, no significant impacts would occur.

For a Project Within the Vicinity of a Private Airstrip, Would the Project Result in a Safety Hazard for People Residing or Working in the Project Area

Adult Active Community and Tribal Planning Areas

The Project is not within the vicinity of a private airstrip. The closest private airstrip is the Bermuda Dunes Airport, located approximately 8 miles to the southeast of the Project Site. Therefore, the Project would not subject residents or employees to any safety hazards within the vicinity of a private airstrip. Impacts would not occur.

Impair Implementation with an Adopted Emergency Response Plan or Emergency Evacuation Plan

Active Adult Community

Construction

Construction of the Project Site would require a period of partial closures of Ramon Road, Dinah Shore Drive, and Varner Road and Rio Del Sol Road north of I-10. The partial closure of these roads would hinder traffic and would potentially result in a significant impact. Mitigation Measure **MM 5.14-1** requires preparation of a detailed Construction Traffic Management Plan, which will be submitted to the City of Rancho Mirage Building and Safety Department and/or the County of Riverside Planning Department for review and approvals consistent with these agencies existing standards and emergency response plans. The plan would provide notification to the Riverside County Fire Department's Emergency Command Center (ECC), which is a local area coordinator for the Governor's Office of Emergency Services (OES), to minimize and not physically interfere with an emergency evacuation plan. The ECC is responsible for serving as a command and control center for the handling of emergency situations within the County of Riverside. Additionally, the City's MHFP indicates that the main emergency evacuation routes are the I-10 and Highway 111, which are along and connect to the primary and minor arterial streets serving as secondary routes. The City and the Eisenhower Medical Center

have partnered to establish an Emergency Operations Center (EOC) at the Annenberg Center. The Project's construction activities would not interfere with the access to these routes or interfere with the operations of the MHFP or EOC during an emergency situation. With implementation of Mitigation Measure **MM 5.14-1**, emergency access and potential traffic access impacts will be reduced to a less than significant level.

Operation

The City implements emergency responses for a variety of disasters through its MHFP. The OES is responsible for organizing and maintaining effective emergency management, mitigation, preparedness, and response and recovery within the county. The OES allocates resources and ensures that the general population would be protected at any time during an emergency. The working and living population within the Active Adult Community would be made aware of such disaster plans through public education and outreach activities. In addition, the Project would comply with the Riverside County Fire Department's recommended standards for emergency accessibility and circulation. Thus, the Project's operational impacts to the impairment of the City's MHFP would be considered less than significant.

Tribal Planning Areas

Development in Tribal Planning Areas would result in similar construction and operation impacts that could potentially interfere with emergency response and evacuation plans. Obstruction of the City's emergency evacuation routes along I-10 and Highway 111 would not occur during construction activities. As with the Active Adult Community, construction of the Project Site would require the temporary partial closure of Ramon Road, Dinah Shore Drive and Rio Del Sol Road, and Varner Road north of I-10, which could also hinder traffic and result in a potentially significant impact. Implementation of a detailed Construction Traffic Management Plan, as identified in Mitigation Measure **MM 5.14-1,** would minimize construction impacts from interfering with the City's MHFP. Impacts would be less than significant.

Increased Fire Hazard in Areas with Flammable Brush

Adult Active Community and Tribal Planning Areas

The Project Area is located within a California Department of Forestry and Fire Protection (Cal Fire) Local Responsibility Area (LRA) and is designated as an Unzoned, Fire Hazard Severity Zone.[5] Based upon the County of Riverside and City of Rancho Mirage General Plans, the Project Site is located in an area with minimal fire hazard risk. The Project Site contains minimal vegetation that could pose a flammable

5 CAL FIRE, "Draft Fire Hazard Severity Zones," http://frap.fire.ca.gov/webdata/maps/statewide/fhszl06_1_map.pdf.

hazard. This is a result of the nature of the soil composition within the region, which consists of a majority of dune and alluvial sands with low expansion potential. This type of soil cannot support the growth of dense vegetation, thus reducing the risk of dry, flammable brush on or surrounding the Project Site. Incorporation of Project Design Feature PDF 5.7-1 will require an adequate number of fire hydrants, adequate fire flow, fire sprinkler and conformance with the Riverside County Fire Department's existing brush fire standards. Therefore, impacts related to increased fire hazards, due to flammable brush, would be less than significant.

5. Cumulative Impacts

Although other foreseeable developments within the area could increase the potential to disturb any existing contaminated soil, the handling of hazardous materials would be required to comply with the same regulatory framework as the Project. The Project's impact is unlikely to have the potential to combine with impacts of other projects because of the localized nature of the impact, and because appropriate safety, cleanup, and disposal methods would be implemented to reduce the impact to a level that would not combine with impacts from other projects. Therefore, impacts of the Project would not have the potential to make a cumulatively considerable contribution in combination with impacts from past, present, or reasonably foreseeable projects and would be considered less than significant.

Related projects may be located on or near a site included on a list of hazardous material sites compiled pursuant to *Government Code* Section 65962.5. Development of any of the related projects would be required to comply with applicable laws and regulations pertaining to hazardous wastes, and the risk with identified hazardous material sites would be eliminated or reduced through proper handling, disposal practice, and/or clean up procedures. Development would be denied by the County of Riverside if adequate cleanup or treatment is not feasible. Accordingly, cumulative impacts to the public or environment associated with development on or near listed contaminated sites would be less than significant.

Each related project would be required to comply with all applicable code and ordinance requirements of the County Fire Department for access, water mains, fire flows, fire sprinkler systems, and fire hydrants. Cumulative impacts would be less than significant.

C. MITIGATION MEASURES

In addition to the Project Design Features identified in Section B.3 above, the following Mitigation Measures would reduce impacts on the City's emergency response and evacuation plans during the Project's construction activities.

Tribal Planning Areas

MM 5.7-1 The unidentified PVC riser on the southeastern portion of the Project Site shall be further assessed. If an underground storage tank or other buried features are identified, they shall be removed in accordance with State and federal regulations. The Riverside County Fire Department must be notified if any underground storage tanks and/or other materials are found, and consulted during removal of such materials.

Active Adult Community

Implementation of Mitigation Measure **MM 5.14-1,** provided in **Section 5.14, Transportation and Traffic,** would require a construction traffic management plan to reduce potential impacts in the event of emergency evacuations. To be approved, the plan must comply with existing City and County standards and criteria.

D. LEVEL OF SIGNIFICANCE AFTER MITIGATION

With implementation of existing regulations and standards identified above along with the Project's Design Features and Mitigation Measures would reduce potential impacts associated with hazards and hazardous materials to a level that would be less than significant.

Implementation of Mitigation Measures **MM 5.7-1** and **MM 5.14-1** would mitigate any potentially significant impacts with respect to the unidentified PVC riser and interference of an emergency response plan to less than significant.

5.8 HYDROLOGY AND WATER QUALITY

This Section of the Draft EIS evaluates the potential for the Project to impact hydrology and water quality conditions on a local and regional context. More specifically, this Section evaluates impacts associated with the Project that may potentially affect the regional and local water quality, surface water hydrology, and groundwater hydrology. Various federal, State, regional, Tribal, and local programs and regulations related to anticipated hydrology and water quality impacts are also discussed in this Section. Please see **Section 9.0** for a glossary of terms, definitions, and acronyms used in this Draft EIS.

A. ENVIRONMENTAL SETTING

1. Existing Conditions

Hydrologic Conditions

Watershed

The Project Site is located within the boundaries of the Coachella Valley Planning Area of the Colorado River Basin (Region 7). Region 7 covers approximately 13,000,000 acres (20,000 square miles) in the southeastern portion of California, and includes all of Imperial County and portions of San Bernardino, Riverside, and San Diego Counties. It is bounded on the east by the Colorado River; to the south by Mexico; to the west by the Laguna, San Jacinto, and San Bernardino Mountains; and to the north by the New York, Providence, Granite, Old Dad, Bristol, Rodman, and Ord Mountain Ranges.[1]

The Coachella Valley Planning Area consists of the Whitewater River Watershed and East Salton Sea Watershed, with the Project Site located within the Whitewater River Watershed. The Whitewater River Watershed covers 1,920 square miles in the west central portion of Region 7 and includes the majority of Riverside County and a small portion of southern San Bernardino County[2]. The watershed consists mainly of sparsely populated mountains, desert, and agricultural lands. The watershed is bounded on the south by the San Jacinto and Santa Rosa Mountains, on the west by the Santa Ana Watershed, on the east by the Salton Sea, the Hexie and Cottonwood Mountains, and Southern Mojave Watershed, and on the north east by the little San Bernardino Mountains and Southern Mojave Watershed. The highest elevation (upper reaches) of the watershed occur in the San Jacinto Mountains at 10,000 feet above

1 State Water Resources Control Board, California Regional Water Quality Control Board, Water Quality Control Plan: Colorado River Basin—Region 7, (June 2006) 1-6.

2 Colorado River Basin Regional Water Quality Control Board (CRB RWQCB), (2006) 1-11.

mean sea level, while the Salton Sea at 230 feet below mean sea level forms the lowest elevation of the watershed.[3]

Regional Drainage

The Whitewater River, a channelized river, is the major surface drainage watercourse in the Coachella Valley. The Whitewater River also has a constructed downstream extension known as the Coachella Valley Stormwater Channel, which serves as a drainage way for irrigation return flows, treated community wastewater, and storm runoff.[4] The stormwater facilities operated and maintained by Coachella Valley Water District (CVWD) include the Whitewater River Stormwater Channel, Coachella Valley Stormwater Channel, West and East side dike systems, fifteen Cove Community channels from Rancho Mirage to La Quinta, Cove Community basins, Lower Valley stormwater channels in the agricultural areas, and detention channels that drain water impounded behind the dikes.[5] The Whitewater River is typically a desert dry wash, flowing only in periods of intense rain.

The CVWD is the local jurisdiction, which operates and maintains multiple stormwater protection facilities in the region with a combined length of 135 miles.[6] CVWD delivers irrigation and domestic (drinking) water, collects and recycles wastewater, provides regional stormwater protection, replenishes the groundwater basin and promotes water conservation. Additionally, CVWD is involved with regional stormwater and flood protection, including planning, maintenance and construction of drainage improvements for regional flood control facilities, as well as watershed and watercourse protection related to these facilities.

The CVWD has conducted master studies to determine potential flooding hazards within their service boundaries. The master plan studies for the North Cathedral City and Thousand Palms areas indicate existing flood hazards from the sources in the Morongo Was Watershed, which consists of Morongo Wash, Long Canyon, East and West Wide Canyon and Willow Hole.[7] Floodwaters from these watersheds coalesce along the valley bottom and flow southeast along the Interstate 10 (I-10) corridor.

The regional stormwater facilities that have been built in the area, and further southeast, consist of the flood channels or “greenbelts” built in the Classic Club Golf Course, Sun City Palm Desert, and Sun City

3 CRWQCB, (2006) 1-7.
4 CRWQCB, 2006.
5 Coachella Valley Water District (CVWD), “About CVWD and Stormwater Protection and Flood Control,” www.cvwd.org/about/stormwater.php. Accessed May 27, 2014.
6 CVWD, “About CVWD and Stormwater Protection and Flood Control,” www.cvwd.org/about/stormwater.php. Accessed May 27, 2014.
7 CVWD, North Cathedral City and Thousand Palms Stormwater Management Plan, Morongo Wash Watershed Hydrology and Hydraulics, April 25, 2014.

Shadow Hills. CVWD is currently undertaking several projects to connect the existing regional facilities. One project will design flood conveyance channels in North Indio that would connect the Sun City Palm Desert facilities to the Sun City Shadow Hills ones and then to the Coachella Valley Stormwater Channel. Another project would complete of the design of the Thousand Palms Flood Control Project that was originally developed by the US Army Corps of Engineers (USACE). The Thousand Palms Flood Control Project would collect stormwater from the Thousand Palms Watershed by intercepting flood flows with a series of levees on the fans uphill from community of Thousand Palms and conveying them through the Classic Club Golf Course and a new channel to Sun City Palm Desert.

CVWD is planning facilities to manage floodwaters from the Morongo Wash Watershed and the riverine flows under the assumption that the other regional projects are in place or complete. These facilities would likely either convey the riverine flows to the Whitewater River Stormwater Channel near Palms Springs or to the Coachella Valley Stormwater Channel through the regional facilities that are in the process of being designed, as described in the preceding paragraph.[8]

Local Drainage

The Whitewater River is located approximately 2.9 miles southwest of the Project Site. Water flows northwest to southeast through the City of Rancho Mirage ("City") and eventually empties into the Salton Sea. The Whitewater River has an intricate drainage network of several intermittent, north-flowing streams that drain the Santa Rosa Mountains and empty into the Whitewater River. The two largest tributaries of the Whitewater River are Bradley and Magnesia Spring Canyon streams. Several unnamed smaller streams and drainages also feed these two streams. In the urbanized parts of the area, streams have been modified and are now mostly confined to open channels, culverts, and storm drains; however, for most of their length, they remain natural and unmodified.

According to the Master Drainage Plan for the City, there are three local watershed zones (1, 2, and 3) within a 5.4 square mile area of the City. The Project Site is located within Zone 2 (1,645 acres) of the City's Master Drainage Plan. This Zone has the greatest amount of undeveloped land and is divided by the Palm Springs Ridge Line. In general, the area north of the ridgeline drains toward I-10 and the area south of the Palm Springs Ridge Line drains towards the Whitewater River. System deficiencies include the need to implement several regional drainage improvements to collect runoff in this zone (e.g., the proposed Mid-Valley Channel and a new culvert through the new Monterey Drive Interchange embankment at the Union Pacific Railroad (UPRR/I-10 crossing).

8 CVWD, North Cathedral City and Thousand Palms Stormwater Management Plan, Morongo Wash Watershed Hydrology and Hydraulics, (April 25, 2014) 1.

Project Site

Topographically, the Project Site generally slopes downward to the northeast and southwest. Surface elevations range from approximately 350 feet to 250 feet above mean sea level, with the highest points located in the south- and west-central portions of the Project Site. Based on surface topography, drainage across the Project Site is generally from the center of the Project Site to the north towards Ramon Road and to the south towards Dinah Shore Drive via sheet flow flowing natural drainage courses. The runoff drains into the local storm drain system along Bob Hope Drive and Dinah Shore Drive.

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Map Number's 06065C1585G and 06065C1595G, effective since August 28, 2008, the Project Site is not in a designated 100-year flood hazard area.[9] The nearest 100-year flood zone is located approximately 0.5 miles north of the I-10, and is designated as AO (100-year risk of flooding one to two feet deep).

A small portion of the northeast portion of the Project Site is within the floodplain limits of the Morongo Wash Watershed, as shown in **Figure 5.8-1, Existing 100-Year Flood Hazard Areas**.

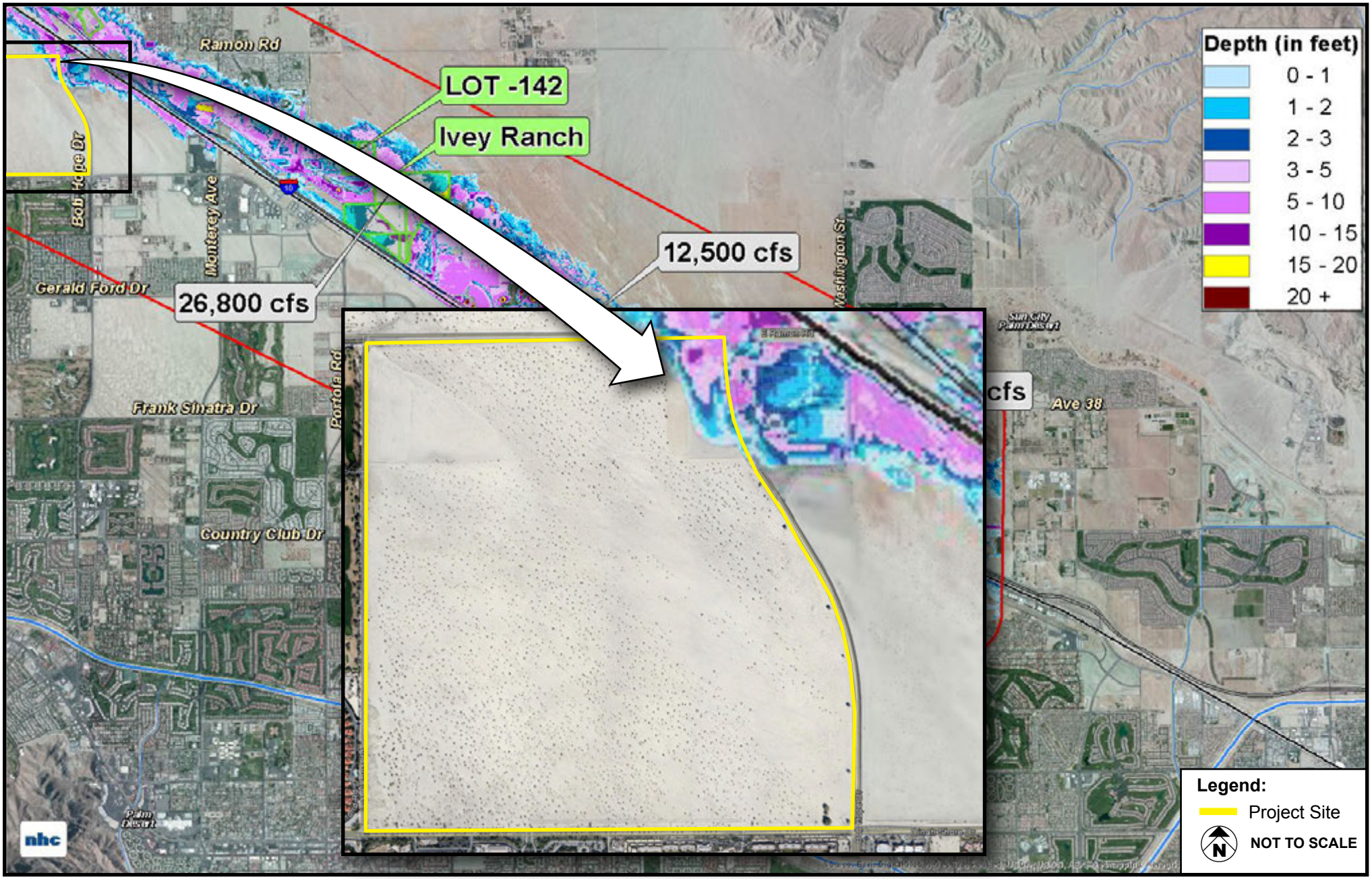
Water Resources

The principal water sources of the Coachella Valley are local groundwater, recycled water, and imported water either through the State Water Project (SWP) or from the Colorado River via the Coachella Canal, a branch of the All-American Canal.[10] Although Colorado River water and SWP water are percolated into the groundwater supply, and are ultimately used through groundwater pumping, they are considered separate sources of water for CVWD. Local surface water is also present in the Coachella Valley in the form of streams; however, CVWD does not derive any of its direct supply from surface water. Additionally, average precipitation in this arid region is only 3 to 6 inches per year and does not directly provide significant additional water supplies because most of the precipitation evaporates or is consumed by the native vegetation. However, the aquifers are recharged by precipitation and runoff from the local mountains.

CVWD currently has approximately 106,000 domestic water connections and has a groundwater production capacity of 240 million gallons per day. Areas served with domestic water by CVWD include a portion of lands near Desert Hot Springs, the Indio Hills area, and a portion of Cathedral City. CVWD serves all of Rancho Mirage, Thousand Palms, Palm Desert, Indian Wells, La Quinta, and a portion

9 Federal Emergency Management Agency, Flood Insurance Rate Map, Riverside County California, Panel 1585 of 3805, Map Number 06065C1585G and 06065C1595G, August 28, 2008.

10 CVWD, 2014. http://www.cvwd.org/about/wherewater.php.



SOURCE: CVWD, North Coachella Valley Stormwater Master Plan - 2013; Google Earth - 2014

FIGURE **5.8-1**

Meridian Consultants

Existing 100-Year Flood Hazard Areas

044-001-13

of Indio and Coachella. CVWD also serves other rural communities, including Thermal, Mecca, Oasis, Desert Shores, Salton Sea Beach, Salton City, North Shore, Bombay Beach, and Hot Mineral Springs, and other portions of unincorporated Riverside County.

Groundwater

Groundwater Supplies

Development throughout the Coachella Valley has been dependent on groundwater as a source of supply. The demand for groundwater has annually exceeded the limited natural recharge of the groundwater basin. Therefore, imported water is used to recharge the aquifer and reduce groundwater overdraft. Department of Water Resources (DWR) Bulletin 108 is the most current bulletin published by DWR that characterizes the condition of the aquifer as a whole.[11] In Bulletin 108, DWR notes that the amount of usable supply in the over-drafted aquifer is decreasing. The annual overdraft for the Coachella Valley is estimated to be approximately 62,500 acre-feet per year, with a cumulative overdraft of 5.1 million acre-feet from 1964 through 2006.[12] The average rise in water levels observed in monitored wells in the West Whitewater River Subbasin Area of Benefit from 2012 to 2013 was 1.1 feet.[13]

Please refer to the discussion under Public Water Supply, in **Section 5.15.1, Utilities and Service Systems: Water Service,** of this EIS for additional information on groundwater supply and overdraft mitigation efforts.

Groundwater Quality

Groundwater is the main source of domestic water supply for residents and businesses within CVWD's service area. Water quality and the character of groundwater are determined by a number of factors including: mineral content of sediments, recharge and drainage patterns, stormwater infiltration, historic land use practices, and casing screening intervals and depths of wells sampled.

As required by the California Safe Drinking Water Act, public water suppliers are required to provide annual Water Quality Reports to its customers (also known as Consumer Confidence Reports). This mandate is governed by the US Environmental Protection Agency (USEPA) and the California Department of Health Services to inform customers of their drinking water quality. In accordance with

11 California Department of Water Resources, Coachella Valley Investigation; Bulletin 108, (July 1964).

12 Engineer's Reports on Water Supply and Replenishment Assessment 2014/2015, prepared by the Coachella Valley Water District, (April 2014).

13 Coachella Valley Water District, Engineer's Report on Water Supply and Replenishment Assessment, West Whitewater River Subbasin Area of Benefit 2040-2015. Coachella, California. (April 2014). 14.

the Safe Drinking Water Act, the public water supplier monitors regulated and unregulated compounds in its water supply. CVWD analyzes more than 22,000 water samples annually to ensure that domestic water meets State and federal standards. Every year, CVWD is required to analyze a select number of these samples for more than 100 regulated and unregulated substances.[14]

Surface Water Quality

As previously stated, the Project Site is within Region 7. Regional drainage of this area is via the Whitewater River, which flows northwest to southeast and passes approximately three miles south of the Project Site. The Project would indirectly discharge into these receiving waters. The beneficial uses of the downstream receiving waters (Whitewater River, Coachella Valley Storm Water Channel, and Salton Sea) of the Project include but are not limited to agriculture supply, water-contact recreation, and warm fresh water habitat.

The Colorado River Basin Regional Water Quality Control Board (Colorado River Basin RWQCB) is charged by the Porter-Cologne Water Quality Control Act with the protection of water quality for waters within the region. Colorado River Basin RWQCB is also responsible for implementing provisions and pollution control requirements that the federal Clean Water Act specifies for surface waters of the United States. The Colorado River Basin RWQCB Water Quality Control Plan identifies all waters in the region and establishes water quality standards (WQSs) for those waters. WQSs consist of limits or levels of water quality constituents or characteristics that are established for the reasonable protection of the beneficial uses of a water body.[15]

The Coachella Valley Storm Water Channel is listed as an impaired water body for pathogens (bacteria and viruses). The sources of the pollutants/stressors for the Coachella Valley Storm Water Channel are unknown. The Salon Sea is also listed as an impaired water body for nutrients, salinity, and selenium. The sources of pollutants/stressors for the Salton Sea include major industrial point source, agricultural return flows, out-of-state source, and point source.[16]

In 2010, the Colorado River Basin RWQCB prepared and amended the Basin Plan for bacteria indicators of the Coachella Valley Stormwater Channel. The plan was subsequently sent to the State Water Resources Control Board (SWRCB) for review and approval in 2011.[17]

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14 CVWD, Annual Review and Water Quality Report, 2014.
15 Colorado River Basin RWQCB, 2009.
16 RQWCB, 2007.
17 State Water Resources Control Board, Resolution No. 2011-0060, December 2011.

2. Regulatory Setting

Federal

Clean Water Act

The federal Clean Water Act (CWA)[18] is intended to restore and maintain the cleanliness of the nation's bodies of water in order to achieve a level of water quality that provides for recreation in and on the water and for the propagation of fish and wildlife. Section 208 of the CWA and the requirements of the *Code of Federal Regulations* require local water management plans. Preparation of these water management plans is delegated to individual states by the USEPA, which is charged with implementing the CWA.

Pursuant to Section 404 of the CWA, the United States Army Corps of Engineers (USACE) regulates discharges of dredged and/or fill material into waters of the United States.[19] "Waters of the United States" are defined in USACE regulations such that navigable waters of the United States are those that are navigable in the traditional sense.[20] "Waters of the United States" is a broader term than "navigable waters of the United States" and includes adjacent wetlands and tributaries to navigable waters of the United States and other waters, the degradation or destruction of which could affect interstate or foreign commerce.

The CWA requires all states to conduct water quality assessments of their water resources to identify water bodies that do not meet water quality standards. The water bodies that do not meet water quality standards are placed on a list of impaired waters pursuant to the requirements of Section 303(d) of the CWA.

National Pollutant Discharge Elimination System

The National Pollutant Discharge Elimination System (NPDES) is a program created to implement the Clean Water Act. In November 1990, the USEPA published final regulations that establish requirements for specific categories of industries, including construction projects that encompass greater than or equal to 5 acres of land. The Phase II Rule became final in December 1999, expanding regulated construction sites to those greater than or equal to 1 acre. The regulations require that stormwater and non-stormwater runoff associated with construction activity that discharges either directly to surface waters or indirectly through municipal separate storm sewer systems (MS4), must be regulated by an NPDES permit.

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18 U.S. Code, Title 33, sec. 1251–1387.
19 U.S. Code, Title 33, sec. 1344.
20 U.S. Code, Title 33, Part 328.3, "Definitions."

The USEPA has delegated management of California's NPDES program to the SWRCB and the nine regional board offices that grant permits to regulate point source discharges of industrial and municipal wastewater into the waters of the United States. The NPDES program was established in 1972 to regulate the quality of effluent discharged from easily detected point sources of pollution such as wastewater treatment plants and industrial discharges. The 1987 amendments to the CWA[21] recognized the need to address non-point-source stormwater runoff pollution and expanded the NPDES program to operators of MS4s, construction projects, and industrial facilities.

The State of California is required by Section 303(d) of the CWA[22] to provide the USEPA with a list of water bodies considered by the State to be impaired (i.e., not meeting water quality standards and not supporting their beneficial uses). The list also identifies the pollutant or stressor causing impairment, and establishes a schedule for developing a control plan to address the impairment, typically a total maximum daily load (TMDL). The TMDL specifies the amount of the target pollutant that the water body can sustain on a daily or annual basis and is established by amending the water quality control plan. TMDLs are prepared by the RWQCBs and result in amendments to the Water Quality Control Plan (WQCP), which must be approved by the USEPA. The 303(d) list is used by the USEPA to prepare the biennial federal CWA Section 305(b) Report on Water Quality.

The Project Site is located within the 13-million-acre Colorado River Basin, which is governed by the Colorado River Basin RWQCB, also known as Region 7. The SWRCB administers the NPDES permit program regulating stormwater from construction activities for projects greater than 1 acre in size. This is known as the General Permit for Storm Water Discharges Associated with Construction Activities, Order No. 2009-0009-DWQ, as amended by Order No. 2012-0006-DWQ, NPDES No. CAS000002. The main compliance requirement of NPDES permits is the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP). The purpose of a SWPPP is to identify potential on-site pollutants and identify and implement appropriate stormwater pollution prevention measures to reduce or eliminate discharge of pollutants to surface water from stormwater and non-stormwater discharges. Stormwater Best Management Practices (BMPs) to be implemented during construction and grading, as well as post-construction BMPs will be outlined in the SWPPP prepared for the proposed Project consistent with the Agua Caliente Band of Cahuilla Indians ("Tribe") Ordinance controlling pollutant discharges into the waters of the Agua Caliente Indian Reservation ("Reservation").

21 US Code of Regulations, Title 33, Section 402(p), Clean Water Act, National Pollution Discharge Elimination System, Municipal and Industrial Stormwater Discharges, (2008).

22 US Code, Title 33, Section 303(d), Clean Water Act, Water Quality Standard and Implementation Plans, (1972).

In 2011, the Tribe received an exemption from NPDES Permit requirements from the USEPA because those portions of the Reservation under Tribal jurisdiction (i.e. areas outside of the Land Use Agreements) do not qualify for maintaining permit coverage.

USEPA Toxics Rule

The USEPA has developed water quality criteria for priority toxic pollutants and other provisions for water quality standards to be applied to inland surface waters, enclosed bays, and estuaries in the State of California.[23] The rule includes ambient aquatic life criteria for 23 priority toxic pollutants, ambient human health criteria for 57 priority toxics, and a compliance schedule.

State

California Porter-Cologne Act

The California Porter-Cologne Act of 1970[24] is largely responsible for creating the State's extensive regulatory program for water pollution control. As discussed previously, preparation of water quality control plans has been delegated to the individual states by the USEPA. Pursuant to the Porter-Cologne Act, the responsibility for protection of water quality in California rests with the SWRCB. In turn, the SWRCB has delegated the regulation of the hydrologic basin to nine RWQCBs to regulate the nine hydrologic basins in the State. The Porter-Cologne Act gives the SWRCB and RWQCB broad powers to protect water quality by regulating waste discharges to water and land and by requiring cleanup of hazardous conditions.

California Water Quality Control Board

The SWRCB administers the NPDES General Permit for Discharges of Stormwater Runoff Associated with Construction Activity (General Construction Permit Order 2009-0009-DWQ).[25] Construction activity subject to this permit includes clearing, grading, and disturbances to the ground such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The General Construction Permit requires the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP should contain a site map which shows the construction site perimeter, existing and proposed buildings, lots, roadways, stormwater collection and discharge points, general topography both before and after construction, and

23 US Environmental Protection Agency, Water Quality Standards, Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California, May 18, 2008. http://www.epa.gov/fedrgstr/EPA-WATER/2000/May/ Day-18/w11106.htm

24 California Water Code, Cobey-Alquist Flood Plain Management Act, sec. 13000-14958.

25 California Environmental Protection Agency, State Water Resources Control Board, General Construction Permit Order 2009-0009-DWQ.

drainage patterns across the project. The SWPPP must list Best Management Practices (BMPs) the discharger will use to protect stormwater runoff and the placement of those BMPs. Additionally, the SWPPP must contain a visual monitoring program; a chemical monitoring program for "non-visible" pollutants to be implemented if there is a failure of BMPs; and a sediment monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment.

Colorado River Regional Water Quality Control Board

The Project Site is located within the 13-million-acre Colorado River Basin, which is governed by the Colorado River Basin Regional Water Quality Control Board (RWQCB), also known as Region 7. The Colorado River Basin RWQCB has adopted a Water Quality Control Plan[26] (Basin Plan) in accordance with criteria contained in the CWA, California Porter-Cologne Water Quality Control Act, and other pertinent State and federal rules and regulations. The intent of the Basin Plan is to provide definitive guidelines and give direction to the scope of Colorado River Basin RWQCB activities that will optimize the beneficial uses of the State waters within the Colorado River Basin by preserving and protecting the quality of these waters. The intended beneficial use of water determines the water quality objectives. For example, drinking water must be of higher quality than the water used to irrigate pastures. Both of these are beneficial water uses, but the quality requirements for irrigation water are different from those for drinking water.

The SWRCB administers the NPDES permit program regulating stormwater from construction activities for projects greater than 1 acre in size. This is known as the General Permit for Storm Water Discharges Associated with Construction Activities, Order No. 99-08-DWQ, NPDES No. CAS000002. The main compliance requirement of NPDES permits is the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP). The purpose of a SWPPP is to identify potential on-site pollutants and identify and implement appropriate stormwater pollution prevention measures to reduce or eliminate discharge of pollutants to surface water from stormwater and non-stormwater discharges. Stormwater Best Management Practices (BMPs) to be implemented during construction and grading, as well as post-construction BMPs, will be outlined in the SWPPP prepared for the proposed Project.

The Colorado River Basin RWQCB implements the Basin Plan by issuing and enforcing waste discharge requirements for appropriate persons and groups; these can include individuals, communities, or businesses whose waste discharges may affect water quality. These requirements can be either State Waste Discharge Requirements for discharge to land, or federally delegated NPDES permits for

26 Colorado River Basin Regional Water Quality Control Board, Water Quality Control Plan, June 2006.

discharges to surface water. Dischargers are required to meet water quality objectives and, thus, protect beneficial uses.

Senate Bill 1557

Senate Bill (SB) 1557[27] was signed into law on September 29, 2006, and became effective January 1, 2007. The bill prohibits the use of potable water for non-potable purposes when non-potable water is available within the jurisdictional boundaries of the CVWD. The intent of the legislation is to preserve potable water within the Coachella Valley because potable water is supplied primarily by groundwater from the Coachella Valley groundwater basin, which is currently in a state of overdraft.

Cobey-Alquist Flood Control Act

The Cobey-Alquist Flood Control Act[28] states that a large portion of land resources of the State of California is subject to recurrent flooding. The public interest necessitates sound development of land use, as land is a limited, valuable, and irreplaceable resource, and the floodplains of the State are a land resource to be developed in a manner that, in conjunction with economically justified structural measures for flood control, will prevent loss of life and economic loss caused by excessive flooding. The primary responsibility for planning, adoption, and enforcement of land use regulations to accomplish floodplain management rests with local levels of government. It is State of California policy to encourage local levels of government to plan land use regulations to accomplish floodplain management and to provide State assistance and guidance.

California Drainage Law

California Drainage Law is essentially case law. As such, it is complex, but the courts have established the following general principles, which apply in general to development projects:

- The downstream property owner is obligated to accept and make provision for those waters that are the natural flow from the land above.
- The upstream property owner shall not concentrate water where it was not concentrated before without making proper provision for its disposal without damage to the downstream property owner.
- The upstream property owner may reasonably increase drainage runoff by paving or construction of other impervious surfaces, including buildings without liability. The upstream property owner may not further increase drainage runoff by diversion of water that previously drained to another area. Reasonableness is often based on prevailing standards of practice in the community or region.

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27 Government Code Section 65041.1, Senate Bill No. 1557

28 California Water Code, Cobey-Alquist Flood Plain Management Act, (1965 as amended), Sec. 8400-8401.

- No property owner shall block, or permit to be blocked, any drainage channel, ditch, or pipe. No property owner shall divert drainage water without properly providing for its disposal.

Urban Water Management Planning Act

The Urban Water Management Planning Act[29] (UWMPA) requires urban water suppliers that provide water for municipal purposes to more than 3,000 customers, or more than 3,000 acre-feet per year of water, to prepare an Urban Water Management Plan (UWMP). The intent of the UWMP is to assist water supply agencies in water resource planning given their existing and anticipated future demands. The UWMP must include a water supply and demand assessment comparing total water supply available to the water supplier with the total projected water use over a 20-year period. It is also mandatory that the management plans be updated every five years.

Government Code 65302

Government Code Section 65302(a) requires cities and counties located within the State to review the Land Use, Conservation, And Safety elements of the general plan "for the consideration of flood hazards, flooding, and floodplains" to address flood risks.[30] Any amendment to the Land Use, Conservation, Or Safety elements requires a review of other general plan elements for internal consistency, including the Housing Element.

The code also requires cities and counties in the State to annually review the land use element within "those areas covered by the plan that are subject to flooding identified by floodplain mapping prepared by the Federal Emergency Management Agency (FEMA) or the Department of Water Resources." FEMA's floodplain mapping includes:

- Flood Insurance Rate Maps (FIRM)
- Digital Flood Insurance Rate Maps (DFIRM)

DWR's floodplain mapping includes:

- Awareness Floodplain Maps
- Best Available Mapping (BAM)
- Levee Flood Protection Zones (LFPZ) Maps
- Central Valley Floodplain Evaluation and Delineation (CVFED) Maps

29 Department of Water Resources, Urban Water Management Planning Act, Water Code Sec. 10610–10656.
30 California Government Code, Sec. 65300-65303.4, Authority and Scope of General Plans.

Additionally, the location and designation of land uses in a general plan Conservation Element now "need to consider the identification of land and natural resources" that are used "for purposes of groundwater recharge and stormwater management."

Regional and Local

Riverside County Municipal Code

Stormwater Drainage System Protection Regulations includes a series of regulations intended to protect and enhance the water quality of county water courses, water bodies, groundwater, and wetlands in a manner pursuant to and consistent with applicable requirements contained in the CWA, California Porter-Cologne Act, and any associated State or federal regulations, administrative orders or permits.[31]

Tentative Tract Maps require that the proposed method of control of stormwater, including data on the amount of runoff and the approximate grade and dimension of the proposed facilities, be included on a proposed tentative tract map.[32]

Tract Drainage includes several regulations pertaining to flood control facilities within new development projects. These regulations require that proposed drainage facilities be designed to convey flows associated with a 100-year storm event.[33]

Riverside County NPDES Permit

Riverside County has been issued NPDES Permit No. CAS 618033 for stormwater runoff by the Colorado River Basin RWQCB. Riverside County and the Riverside County Flood Control and Water Conservation District are principal permittees and the CVWD along with 10 nearby cities are listed as co-permittees. On June 7, 2013, the renewal of Board Order No. R8-2013-0024 and NPDES No. CAS 618033 was certified by the Executive Officer of the Colorado River Basin RWQCB to supersede Order No. R8-2010-0033.[34]

Whitewater River Region Stormwater Management Plan

The County of Riverside; the CVWD; the Cities of Banning, Cathedral City, Coachella, Desert Hot Springs, Indian Wells, Indio, La Quinta, Palm Desert, Palm Springs, and Rancho Mirage; and the Riverside County Flood Control and Water Conservation District (permittees) developed the White Water River Region

31 Riverside County, Municipal Code, Sec. 13.12, "Stormwater Drainage System Protection Regulations."
32 Ibid., Sec. 16.12.060 (B)(1), "Tentative Tract Maps."
33 Ibid., Sec. 16.36.100, "Tract Drainage."
34 California Regional Water Quality Control Board—Colorado River Basin Region, Order No. R8-2010-0033 and NPDES No. CAS 618033, 2013.

Stormwater Management Plan (SWMP) to address stormwater pollution from new development and redevelopment by the private sector with the region. The SWMP describes those activities and programs implemented by the permittees to manage urban runoff to comply with the requirements of the NPDES MS4 permit (Order No. R7-2013-0011) for the Whitewater River Region. One of the major elements of the SWMP is a Storm Water/Urban Runoff Management and Discharge Control Ordinance. Some of the permittees with land use authority, including the City, have adopted such an ordinance as well as ordinances addressing grading and erosion control (collectively, the "Stormwater Ordinance"). The purpose of each Stormwater Ordinance is to prohibit pollutant discharges in the MS4 and to regulate Illicit Connections and Illegal Discharges and non-stormwater discharges to the MS4. The SWMP also contains a list of the minimum required BMPs that must be used for a designated project. Private developers and public agencies must then include these SWMP requirements in their project plans, which are reviewed and approved as part of the development approval process prior to issuing building and grading permits.

Coachella Valley Water District

Water Management Plan

CVWD updated its Coachella Valley Water Management Plan (2010 CVWMP Update) in January 2012 to continue to address the overdraft conditions in the Coachella Valley groundwater basin, and to ensure that CVWD and other water agencies in the Coachella Valley can reliably meet current and future water demands. The CVWD recognizes the need to update the Plan periodically to respond to changing external and internal conditions.

The 2010 Water Management Plan Update is a 35-year blueprint for wise water management and the basis for all of the water district's efforts to preserve the valley's groundwater source, and calls for a multifaceted approach including:

- increased water conservation by all types of water users;
- increasing the imported water supply from the Coachella Canal and State Water Project;
- increasing the use of the imported supply and recycled water, instead of groundwater, for irrigation; and
- expanding groundwater replenishment efforts, especially in the east valley.

The 2010 CVWMP Update identifies several water conservation measures with the overall goal to reduce urban water consumption by 20 percent by 2020, and the overall goal to maintain this level of reduction through 2045. These measures include water efficient landscaping and irrigation controls, water efficient plumbing, tiered or seasonal water pricing, public information and education programs,

alternative water supplies, water restrictive municipal development policies, appointing a CVWD conservation coordinator and refining the maximum water allowance budget for landscaped and recreational areas. The 2010 CVWMP Update reduces reliance on groundwater sources by fully utilizing Colorado River water, SWP water and recycled water supplies and implementing more conservation over the long term.

Urban Water Management Plan

CVWD completed an update of the Urban Water Management Plan (2010 UWMP) in July 2011, as required under California Water Code, Division 6, Part 2.6. Much of the data used in the 2010 UWMP was based on information in the 2005 CVWMP. However, domestic water demand projections and SWP purchases and reliability were updated in the 2010 UWMP to reflect changes since 2005. It is important to note that projected water demand and supply data, and water conservation programs in the 2010 UWMP, apply only to the CVWD service area, as opposed to the entire Whitewater River Subbasin (WWRSB).

Coachella Valley Water District Ordinance No. 1302.1

CVWD mandates efficiency in newly installed landscape irrigation systems via Ordinance 1302, Valley-wide Water Efficient Landscaping Model Ordinance.[35] The purpose of this ordinance is to establish effective water-efficient landscape requirements for newly installed and rehabilitated landscapes. It is also the intent of this ordinance to implement the requirements of the State of California Water Conservation in Landscaping Act.[36] The requirements can be found in the *General Landscape Guidelines and Irrigation System Design Criteria* book.

Tribal Ordinance Controlling Pollutant Discharges into the Waters of the Reservation

The purpose of this Tribal Ordinance is to regulate and control all pollutant discharges into the waters of the Reservation.[37] Per this Ordinance, no pollutant discharges are allowed into the waters of the Reservation unless there is prior consultation with the Federal, Tribal, or State agency with jurisdiction under the Clean Water Act and/or the Safe Drinking Water Act, and if required, appropriate permit(s) are obtained.

35 Coachella Valley Water District, Ordinance 1302.1, Valley-wide Water Efficient Landscaping Model Ordinance, October 1, 2007.

36 State of California Water Conservation in Landscaping Act, Statutes of 1990, Chapter 1145 (AB 235).

37 Agua Caliente Band of Cahuilla Indians, "Tribal Ordinance Controlling Pollutant Discharges into the Waters of the Agua Caliente Indian Reservation," http://www.aguacaliente.org/downloads/Ordinance 24.pdf

Tribal Land Use Ordinance

The purpose of the Agua Caliente Band of Cahuilla Indians Land Use Ordinance ("Tribal Land Use Ordinance") is to provide standards and regulations to control land uses on Indian Reservation Lands, maintain and protect the Reservation's unique natural and cultural resources, and to preserve the natural environment. Article VII, Landscaping Standards, of the Tribe's Land Use Ordinance promotes the use of native, desert, and other drought tolerant plants to reduce water demand on the Reservation. The landscape management practices identified in this article of the Tribal Land Use Ordinance ensure maximum water efficiency, comprehensive landscaping plans, irrigation plans, plant materials, decorative water features, and limitations on turf material.

Tribal Ordinance for Floodplain Management

The purpose of the Floodplain Management Ordinance is to promote the public health, safety, general welfare, and to minimize the public and private losses due to flood conditions in specific areas. The Floodplain Management Ordinance was modeled after the ordinance prepared by the California Department of Water Resources, Division of Flood Management. In order to accomplish the primarily purpose of the Ordinance, the following methods and provisions are included to reduce flood losses:

- Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, and streets and bridges located in areas of special flood hazard;
- Restrict or prohibit uses which are dangerous to health, safety, and property due to water or erosion hazards, or which result in damaging increases in erosion or flood heights or velocities.
- Require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction.
- Control the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel flood waters.
- Control filling, grading, dredging, and other development which may increase flood damage.
- Prevent or regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards in other areas.

City of Rancho Mirage Safety Element

The City of Rancho Mirage Safety Element addresses natural and manmade environmental hazards that might occur in the City and surrounding areas. It provides information, as well as goals, policies, and

programs to protect the general health, safety, and welfare of the community from seismic, geological, flooding and hydrology, and hazardous and toxic materials hazards. The assessment of and planning for these hazards or constraints is the primary purpose of the Safety Element.

City of Rancho Mirage Municipal Code

The City of Rancho Mirage Municipal Code identifies land use categories, development standards, and other general provisions that ensure consistency between the City's General Plan and proposed development projects. The following provisions from the City's Municipal Code related to drainage facilities are relevant to the Project: Title 3, Chapter 3.29 (License Tax on New Construction), Title 7, Chapter 7.03 (Stormwater Management and Discharge Control), and Title 13, Chapter 13.05 (Required on-site Retention).

B. ENVIRONMENTAL IMPACTS

1. Thresholds of Significance

In order to assist in determining whether a project would have a significant effect on the environment, the Tribe finds a project may be deemed to have a significant hydrology and water quality impact if it would:

Threshold 5.8-1: **Violate any water quality or waste discharge requirements.**

Threshold 5.8-2: **Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted.**

Threshold 5.8-3: **Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in a substantial erosion or siltation on- or off-site.**

Threshold 5.8-4: **Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site.**

Threshold 5.8-5: **Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff.**

Threshold 5.8-6: **Otherwise substantially degrade water quality.**

Threshold 5.8-7: **Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map.**

Threshold 5.8-8: **Place within a 100-year flood hazard area structures which would impede or redirect flood flows.**

Threshold 5.8-9: **Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.**

Threshold 5.8-10: **Be subject to inundation by seiche, tsunami, or mudflow**

2. Methodology

Regional off-site analyses of pre- and post-project drainage conditions was included in the evaluation of potential flood hazards associated with flows originating in the Santa Rosa Mountains that flow along the Morango Wash and along the I-10 to the southeast. Additionally, pre- and post-Project drainage analyses were prepared to address local on-site and off-site drainage flood conditions. The following impact analysis related to flooding is based on information from Tribal, Riverside County, and CVWD flood control requirements. Water quality impacts are evaluated based on proposed stormwater filtration techniques and requirements under the Tribal Ordinance Controlling Pollutant Discharges into the Waters of the Reservation. Impacts to groundwater recharge were evaluated using information contained in the 2010 CVWMP Update and retention basins proposed as part of the Project.

3. Project Design Features

The following Project Design Features (PDFs) incorporated into the Project would reduce the potential hydrology and water quality impacts of the Project. These features were taken into account in the analysis of potential impacts.

Water Conservation

PDF 5.15.1-1 Application of Low Impact Design (LID) standards to all interior and exterior plumbing features, including low flow toilets, low gallons per minute plumbing fixtures, and tankless water heaters.

PDF 5.15.1-2 Utilization of xeriscape planting principles and use of native, drought-tolerant plant materials that require little or no irrigation. Plants with similar water requirements should be grouped together, a technique known as hydro zoning. Decorative water features are to be designed to minimize water consumption and evaporation.

PDF 5.15.1-3 Automated, high-efficiency irrigation systems (such as bubbler irrigation and low-angle, low-flow spray heads) shall be installed to reduce water demand and use. Moisture sensors and other similar irrigation technology shall be utilized to ensure that landscaping is watered only as needed.

PDF 5.15.1-4 Minimize use of turf except within active outdoor recreation uses.

PDF 5.15.1-5 Grey and recycled water infrastructure should be integrated in the landscape design so that grey water, recycled water and/or collected rainwater can be used wherever feasible for landscape irrigation.

PDF 5.15.1-6 Reduced width streets (32 feet) that reduce impervious surfaces that generate run-off.

PDF 5.15.1-7 Retain and treat all stormwater on-site from up to a 100-year storm event.

Stormwater Management

PDF 5.15.2-4 Development within the Project Site shall use linear bioswales, landscaped with native or drought-tolerant grasses, and smaller scale bio-retention cells in surface or subsurface storage areas where feasible.

PDF 5.15.2-5 Development within the Project Site shall use tree box filters as “mini-retention areas,” where feasible.

PDF 5.15.2-6 Development within the Project Site shall use permeable interlocking concrete pavers in parking courts, where feasible.

PDF 5.15.2-7 Development within the Project Site shall use pervious concrete and asphalt for other paved areas, where proper maintenance can be achieved.

4. Project Impacts

Violate any water quality or waste discharge requirements

Water quality standards are attained when designated beneficial uses are achieved and water quality objectives are being met. Beneficial uses include drinking, swimming, industrial, and agricultural water supply, and the support of fresh and saline aquatic habitats. The regulatory program of the Colorado River Basin RWQCB is designed to minimize and control discharges to surface and groundwater within the region, largely through permitting, such that water quality standards are effectively attained.

Pollutants of concern (POC) that are anticipated from the Project implementation include sediment/turbidity, nutrients, organic compounds, oxygen-demanding substances, and bacteria and viruses. Best Management Practices (BMPs) have been designed to address the POCs and will reduce the impacts on water quality to less than significant levels.

Potential negative impacts from Project Site development include an increase of impervious surfaces which will increase the amount of surface runoff generated from the Project Site. Paved areas and streets will collect dust, soil, and other impurities that will then be assimilated into surface runoff during rainfall events. Pollutants such as trash and debris, oil and grease, metals, sediment, pathogens, organic compounds, nutrients, pesticides and oxygen-demanding substances can be expected to be present in surface water runoff once Project development occurs. Without appropriate Project Design Features or Mitigation Measures incorporated into the Project, significant adverse impacts to water quality objectives may be expected to occur.

The Colorado River Basin RWQCB sets water quality standards for all ground and surface waters within its jurisdiction. Water quality standards are defined under the Clean Water Act to include both the beneficial uses of specific water bodies and the levels of water quality that must be met and maintained to protect those uses (water quality objectives). Per the Tribe Ordinance Controlling Pollutant Discharges into the Waters of the Reservation, no pollutant discharges are allowed into the waters of the Reservation unless there is prior consultation with the Federal, Tribal, or State agency with jurisdiction under the Clean Water Act and/or the Safe Drinking Water Act, and if required, appropriate permit(s) are obtained.

Construction—Active Adult Community and Tribal Planning Areas

The development of the Project would involve construction activities on the Project Site over the duration of Project development (approximately 20 years). Proposed grading and construction activities would involve earth movement and the use of heavy equipment. Surface elevations range from approximately 350 feet to 250 feet above mean sea level, with the highest points located in the south-

and west-central portions of the Project Site. Peak stormwater runoff could result in short-term sheet erosion within areas of exposed or stockpiled soils. Additionally, the compaction of soils by heavy equipment may reduce the infiltration capacity of soils and increase runoff and erosion potential. Given the above, pollutants such as soil, sediments, and other substances associated with construction activities (e.g., oil, gasoline, grease, and surface litter) could enter the Coachella Valley Stormwater Channel during Project construction.

In 2011, the Tribe received an exemption from NPDES Permit requirements from the USEPA because those portions of the Reservation under Tribal jurisdiction (i.e. areas outside of the Land Use Agreements) do not qualify for maintaining permit coverage. Since the Tribe received an exemption from NPDES Permit requirements, implementation of Mitigation Measure **MM 5.8-1** requires each individual project proponent to prepare a project-specific water quality management plan.

In order to reduce the discharge of POCs into receiving waters during construction of the proposed development, the Project proponent will be required to prepare a site-specific SWPPP in accordance with the NPDES Program Individual or General permits authorized under the Clean Water Act for Construction Activities, as identified in PDF 5.5-1 in Section 5.5, Geology and Soils. The General Permit requires a development and implementation of a site-specific SWPPP to identify an effective combination of erosion control and sediment control BMPs to minimize or eliminate the discharge of pollutants into receiving waters. In addition, BMPs for managing sources of non-stormwater discharges and waste are required to be identified in the SWPPP. Examples of construction BMPs include silt fencing, gravel bag berms, fiber rolls, and street sweeping. In addition, the SWPPP is required to identify post-construction BMPs, which are permanent features maintained in perpetuity by the owner, developer, or the building occupant. Furthermore, the City also requires stormwater management and discharge control as identified in Title 7, Chapter 7.03 (Stormwater Management and Discharge Control) and Title 13, Chapter 13.05 (Required on-site Retention).

Through compliance with the SWRCB and USEPA permits, and SWPPP requirements along with adherence to the Project grading concept plan, as shown on **Figure 3.0-17, Conceptual Mass Grading Plan,** potential impacts to water quality within the Coachella Valley Stormwater Channel during Project construction would be less than significant.

Operation—Active Adult Community and Tribal Planning Areas

The development of the Project would increase the amount of impervious surfaces on the Project Site, which would potentially increase runoff within the Project Site. As shown in **Figure 3.0-12, Conceptual Drainage Plan,** up to 15 retention basins would be needed in the Active Adult Community and up to 11 retention basins would be developed in the Tribal Planning Areas. The design capacity of the retention

basins would retain the 100-year controlling storm event. Based on preliminary calculations, the proposed on-site retention basins would be designed for the 6-hour storm prior to percolation and the 1-hour storm with percolation. Precipitation, nuisance water, or storm-drain flows that fall onto streets south of the center of the Active Adult Community would flow to the low points on the southern end, while flows north of the center of Active Adult Community would flow to the low points in the northern end of the Planning Area. Flows within the Tribal Planning Areas would flow to the northern and eastern ends of each Planning Area. Stormwater runoff from the half-streets abutting the Project Site would be conveyed and retained on-site within the retention basins.

The on-site storm drain improvements would convey runoff to the proposed on-site retention basins. In addition to the retention basins and measures, the Project would implement other Project Design Features that would help remove anticipated pollutants of concern from on-site runoff. Project Design Features PDF 5.15.1-6 and PDF 5.15.1-8 require reduced street widths to minimize surface water runoff and on-site stormwater facilities which retain and treat 100-year storm events. In order to ensure that the on-site flood control facilities are clear of debris, Mitigation Measure **MM 5.8-3** and **MM 5.8-4** require that each individual project proponent provide a detailed operation and maintenance plan, and that each homeowner's associations conduct periodic inspections of the flood control facilities.

Overall, the PDFs and BMPs would address the anticipated and expected pollutants of concern from operation of the Project. Degradation of water quality from the Project would be managed in accordance with all applicable federal, State, Tribal, and local water quality rules and regulations in order to effectively minimize the Project's impact on water quality. Accordingly, impacts would be less than significant.

Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)

Active Adult Community and Tribal Planning Areas

The historical depletion of groundwater in the Coachella Valley has led to a condition known as overdraft, in which the demand for groundwater exceeds the amount of recharge into the groundwater basin over a period of time. Overdraft conditions can result in significant adverse social, environmental and economic impacts, including an increased potential for land subsidence which can result in ground fissuring and damage to buildings and their foundations, sidewalks, and subsurface pipelines.

The 2010 UWMP projects that water demand by all uses in the CVWD service area, except agriculture, will increase to 596,000 acre-feet per year by 2015, and 689,400 acre-feet per year by 2035.[38] The total water demand from all users by the 2010 CVWMP Update, including agriculture, was estimated to be 668,000 acre-feet per year in 1999, is projected to increase to 719,100 acre-feet per year by 2020, and may reach 885,400 acre-feet per year by 2045.[39]

The historic declining water table in the Palm Springs and Thousand Palms Subareas and the west portion of the Thermal Subarea led to a determination by CVWD and DWA that a management program is required to stabilize water levels and prevent other adverse effects such as water quality degradation and land subsidence within the west portion of the Whitewater River Subbasin. CVWD's West Whitewater River Subbasin Groundwater Replenishment Program is reducing declining water levels in this subbasin.

Groundwater and surface water are not found to be present on the Project Site recently or historically. According to the Geotechnical Study prepared for the Project Site, investigation of a well located on the west of the Project Site indicated that groundwater depth may be between 160 and 175 below ground surface (bgs). Groundwater at this depth does not pose a constraint to development. Water conditions may vary depending on rainfall and irrigation conditions and surface runoff from elevated portion of the Project Site should be expected.

From 1973 through 2013, CVWD and DWA have replenished the Whitewater River and Mission Creek Subbasins with approximately 2,630,572 acre-feet (2,493,239 acre-feet to Whitewater River Subbasin and 137,333 acre-feet to Mission Creek Subbasin) of exchange deliveries (Colorado River water exchanged for State Water Project water).[40] A recharge program is currently operating in the West Whitewater River Subbasin Area of Benefit. The West Valley Whitewater Recharge Facility has a recharge capacity in excess of 300,000 acre-feet per year. Currently, the SWP Exchange supply is expected to provide about 78,000 acre-feet per year for the Whitewater facility on average. Under future conditions, it is possible that average recharge at Whitewater could be limited to the available future supply of about 61,400 acre-feet per year of SWP Exchange, unless it is augmented with other supplies. To reach the 100,000 acre-feet per year recharge goal for the Whitewater facility, CVWD and DWA would need to acquire additional SWP Table A Amounts or other imported water sources. DWA has requested its maximum 2014 Table A State Water Project water allocation (formerly known as

38 Coachella Valley Water District, 2010 Urban Water Management Plan (July, 2011).

39 Coachella Valley Water District, Coachella Valley Water Management Plan 2010 Update (January, 2012).

40 Desert Water Agency, Engineer's Report: Groundwater Replenishment and Assessment Program for the Whitewater River Subbasin 2014/2015, (April, 2014).

"entitlement") of 55,750 acre-feet pursuant to its State Water Project Contract for the purpose of groundwater replenishment. CVWD plans to do the same with its maximum 2014 Table A water allocation, which was increased in quantity to 138,350 acre-feet in 2010.[41] Total basic Table A amount for CVWD and DWA is currently 71,000 acre-feet per year.[42]

The Project provides over 234 acres of open space and recreational amenities. These areas represent approximately 40 percent of the Project Site and will provide for groundwater recharge. Retention Basins proposed within the Active Adult Community and the Tribal Planning Areas would serve as multi-functional facilities and may include groundwater recharge.

The Project would begin construction in 2016. Total water demand of the Project is estimated to be 1,780 acre-feet per year, which represents approximately 0.06 percent of the UWMP total demand in 2015 and 0.7 percent of the total anticipated 2010 CVWMP Update's urban demand in the Coachella Valley through 2035, as discussed in **Section 5.15.1**. As the remaining development of the higher-density mix of retail, entertainment, office, hotel and residential land uses will begin construction at a later date following the completion of the Active Adult Community component and occur over a longer period of time, the 20-year demand forecasts are considered conservative. Therefore, the Project water demand is within the 2010 CVWMP Update groundwater supply projections.

The 2010 CVWMP Update assumes continued growth in demand and sets forth how that growth will be served. The Project includes Project Design Features which are consistent with the goals of the 2010 CVWMP Update by incorporating the water conservation measures identified in PDF 5.15.1-1 through 5.15.1-5.

Based on the above, the Project would not substantially deplete groundwater supplies and would have a minimal impact on groundwater supplies. The Project would not interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level as it would contribute to local recharge through use of the retention basins and the amount of dedicated open space within the Project Site. Accordingly, impacts would be less than significant.

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41 Desert Water Agency, Engineer's Report: Groundwater Replenishment and Assessment Program for the Mission Creek Subbasin 2014/2015, (April, 2014).

42 Coachella Valley Water District, Engineer's Report on Water Supply and Replenishment Assessment, West Whitewater River Subbasin Area of Benefit 2014-2015. Coachella, California. (April 2014).

Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in a substantial erosion or siltation on- or off-site

Construction—Active Adult Community and Tribal Planning Areas

One of the hydrological concerns during construction of the Project Site would be potential erosion and sedimentation impacts during site clearing and grading. Erosion and sedimentation caused by construction activities are dependent on climatic and site conditions, as well as the degree of soil disturbance during construction. Site clearing and grading operations, in particular, would have the greatest potential for discharging sediment downstream during storm events.

Grading of the Project Site will be conducted during construction to create residential and commercial pads, roads, basins, etc. Implementation of the Project will result in alteration of the Project Site's surface and contours as well as introducing additional asphalt, concrete, and other impervious surfaces that do not currently exist on the Project Site. This will result in an alteration of the existing drainage patterns on site.

In its undeveloped condition, no drainage features are present on the Project Site. An on-site drainage system is required to accommodate stormwater flows generated on site and those generated off site that flow onto the Project Site, such as those from tributary areas of the Morongo Watershed. Development of the Project will result in an increase of impervious surfaces within the Project Site, which could generate increased stormwater flows from the Project Site. For this reason, drainage facilities will be constructed as part of the Project.

As illustrated in **Figure 3.0-12** (see **Section 3.0, Project Description)**, the conceptual plan utilizes streets, underground storm drains, open channels, and retention basins to collect the on-site and off-site stormwater from the streets adjacent to the Project Site, and convey it through the Project Site and into the retention basins. Project Design Feature PDF 5.15.1-8 will require retention facilities to accommodate the governing 100-year storm event (1 hour event with percolation) and runoff through the Project Site. The retention basins would be a maximum of 5-feet deep with maximum slopes of 5 to 1 unless erosion control methods are implemented. The top of the basin's elevation would have one foot of freeboard and would be one floor below the lowest building pad. The backbone drainage plan facilities are designed to protect habitable dwelling units from flooding.

As described above, the SWRCB administers the NPDES General Construction Permit, which applies to all projects disturbing areas of 1 acre or more during construction. For those areas of the Project under Tribal Jurisdiction that are exempt from the USEPA Construction General Permit the Project Design

Features will ensure that appropriate BMPs are implemented during construction. As the Project is constructed over approximately 20 years, each construction contractor would be required to file a notice of intent under these permits.

Through compliance with the Project Design Features which are consistent with SWRCB, USEPA permits, and SWPPP requirements along with adherence to the Project grading concept plan, potential erosion and siltation impacts would be less than significant.

Operation—Active Adult Community and Tribal Planning Areas

The operation phase of the Project would contain a number of features to reduce the amount of runoff that would occur within the Project Site, and to limit the amount and rate of surface water flow downstream of the Project Site. The Project would include open space and landscaped areas, pervious concrete and asphalt paving, and the Project-related water quality design features (e.g. retention basins).

The Project would implement other site design features that would help reduce erosion and siltation impacts. PDFs 5.15.2-4 through PDF 5.12.2-7, PDF 5.5-3, and PDF 5.5-4 include the use of bioswales, particularly with native or drought-tolerant grasses, to collect and filter water runoff; the use of stormwater retention/infiltration basins; the use of wind-resistant non vegetative groundcover to allow for sand filtration; and the requirements to stabilize the sand and soil to minimize blowsand prior to and during site construction. Therefore, impacts are considered to be less than significant.

Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site

Active Adult Community and Tribal Planning Areas

As discussed previously, drainage across the Project Site is generally from the northeast and southwest following natural drainage courses. The runoff continues to drain into the local storm drain system along Bob Hope Drive and Dinah Shore Drive. No storm drain exists within the undeveloped portion of the Project Site and no natural water bodies or mapped drainage courses are present.

A preliminary Synthetic Unit Hydrograph was used to determine the retention volume needed to accept 100 percent of the stormwater runoff of the 100-year flood level event. The 1-hour event would produce 1.35 inches of rain and is considered the governing 100-year flood level event. The Active Adult Community would produce 40.98 acre-feet of stormwater run-off and the Tribal Planning Areas would

produce 51.18 acre-feet of stormwater run-off that would need to be retained. The overall Project Site would generate 92.16 acre-feet of stormwater runoff during the 100-year flood level event that would need to be retained.

As discussed in Section 3.0, Project Description, the Active Adult Community will be designed with 15 retention basins and the Tribal Planning Areas will be designed with 11 retention basins within the Planning Areas. The retention basins would be a maximum of 5-feet deep with maximum slopes of 5 to 1 unless erosion control methods are implemented. The top of the basin's elevation would have one foot of freeboard and would be one floor below the lowest building pad. The retention basin system will be designed to accommodate the 100-year stormwater runoff event during the 100-year flood event. Since the preliminary analyses indicate that the stormwater drainage plan would not result in on-site or off-site flooding, impacts would be less than significant.

Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff

Initial analyses indicate that the proposed on-site stormwater conveyance system would not result in on-site flooding because the system incorporates existing drainage characteristics and would comply with Tribal, City, CVWD, and/or Riverside and County requirements for management of 100-year storm flows. As the preliminary analyses indicate that the stormwater drainage plan would not result in on-site flooding and more detailed studies will be required as the proposed Project is built out, impacts would be less than significant. As described under impact discussion above, the Project would not provide substantial sources of polluted runoff. Consequently, impacts related to water quality would be less than significant.

Otherwise substantially degrade water quality

Please refer to the impact analysis under "violate water discharge requirements" above, for a discussion of water quality impacts.

In order to reduce the discharge of expected pollutants, such as sediment into receiving waters during construction of the proposed development, the project proponent will be required to prepare a site-specific SWPPP consistent with Tribal requirements and the SWRCB General Permit for Construction Activities as identified in PDF 5.5-3. The PDF requires development and implementation of a site-specific SWPPP to identify an effective combination of erosion control and sediment control BMPs to minimize or eliminate the discharge of pollutants into receiving waters. In addition, BMPs for managing sources of non-stormwater discharges and waste are required to be identified in the SWPPP.

In order to reduce the discharge of expected pollutants related to post-construction development of this type (such as oil, grease, and trash) into receiving waters following development, individual project proponents located within the Project Site will be required to be in compliance with the Tribe's Ordinance for discharges into receiving waters of the Reservation. Project design would comply with all NPDES permit requirements. Consequently, impacts to water quality are considered less than significant.

Place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map

Active Adult Community and Tribal Planning Areas

According to the FEMA FIRM maps No. 06065C1585G and No. 06065C1595G, effective since August 28, 2008, the Project Site is not in a designated 100-year flood hazard area.[43] The nearest 100-year flood zone is located approximately 0.5 miles north of the I-10, and is designated as AO (100-year risk of flooding one to two feet deep). However, a small portion of the northeast portion of the Project Site is within the floodplain limits of the Morongo Wash, as shown in **Figure 5.8-1**. Further discussion related to the placement of structures within this floodplain is discussed below. As shown in **Figure 3.0-3 Conceptual Land Use Plan**, proposed residential dwelling units would be located in the central, western, and southern portions of the Project Site. The locations of these units would be located outside of the 100-year floodplain identified by the CVWD. Therefore, the Project would not place housing within a 100-year flood hazard area and, as such, impacts would be considered less than significant.

Place within a 100-year flood hazard area structures, which would impede or redirect flood flows

Active Adult Community

According the FEMA FIRM maps and **Figure 5.8-1**, which was developed by CVWD, the Active Adult Community is located outside of an identified existing 100-year flood hazard area. Therefore, structures within the Active Adult Community would not impede or redirect 100-year flood flows. Accordingly, impacts would be less than significant.

Tribal Planning Areas

Planning Area 3 is located within the northeast portion of the Project Site and will be developed with community retail uses. According to the FEMA FIRM maps, which include the Project Site, the Tribal

43 Federal Emergency Management Agency, Flood Insurance Rate Map, Riverside County California, Panel 1585 of 3805, Map Number 06065C1585G and 06065C1595G, August 28, 2008.

Planning Areas would be located outside of a 100-year flood hazard area. However, CVWD has developed more localized flood models which indicate that the northeast portion of the Project Site is located within a 100-year flood hazard area, as shown in **Figure 5.8-1**. The existing flood flows are projected to travel southeasterly along the I-10 with a floodplain width ranging from 100 to 1,500 feet. The projected depth of flow is approximately 0 to 10 feet at the northeasterly portion of the Project Site.

However, the Project includes a drainage master plan designed to convey flows without substantial modification to existing off- and on-site drainage conditions. Off-site flows from the half streets adjacent to the Project Site would be collected at natural concentration points along the northeastern boundary of the Project Site and within the southern portion of the site and conveyed via engineered channels that follow existing drainage patterns and CVWD facilities, as required by Mitigation Measure **MM 5.8-2.** The proposed drainage system is also designed to adequately detain and convey 100-year storm flows in accordance with Tribal, City, CVWD, and/or Riverside County requirements. As stormwater would be conveyed within the proposed drainage system to the Coachella Valley Storm Water Canal and would prevent on- and off-site flooding, proposed structures would not impede or redirect flood flows. Accordingly, impacts would be less than significant.

Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam

Active Adult Community and Tribal Planning Areas

According to the FEMA FIRM maps No. 06065C1585G and No. 06065C1595G, effective since August 28, 2008, the Project Site is not in a designated 100-year flood hazard area.

According to the Riverside County General Plan, the Project Site is not located within a levee or dam inundation zone.[44] Therefore, the Project would not expose people or structures to a significant risk of loss, injury, or death involving flooding as a result of the failure of a levee or dam. Accordingly, impacts would be less than significant.

Be subject to inundation by seiche, tsunami, or mudflow

Active Adult Community and Tribal Planning Areas

The San Andreas Fault system is located approximately 5 miles north of the Project Site. Due to the proximity to the San Andreas Fault, the area is seismically active. The nearest large body of water that

44 Riverside County Integrated Project, Figure S-10, "Dam Failure Inundation Zones" (2003).

would generate a seiche is Lake Cahuilla approximately 15 miles southeast of the Project Site. While it is possible that a large earthquake could result in a seiche at Lake Cahuilla, the likelihood of such an event is very low. Therefore, the risk that the Project Site would be inundated by a seiche, is deemed less than significant.

The Project Site is not in a coastal area, and as such, the Project Site would not be inundated by a tsunami. The Project Site is located within the central portion of the Coachella Valley floor. The topographically surrounding the Project Site is generally level with elevation changes less than one percent. Therefore, the likelihood that a mudflow would inundate the Project Site is very low. Accordingly, no significant impacts to the Project from inundation by seiche, tsunami, or mudflow would occur.

5. Cumulative Impacts

The cumulative impact analysis in this Draft EIS considers related development projects in the area. In summary, the related projects include, but are not limited to, the construction of the Pelagic Residential project, the Rancho Mirage Rehab Hospital, development of Section 13 to the north, and Section 19 to the east.

The Colorado River Basin RWQCB has issued a MS4 permit for stormwater discharges. The County, CVWD and other co-permittees have prepared a stormwater management program addressing requirements for meeting this MS4 permit. The County reviews all plans and developments for compliance with existing ordinances (e.g., grading ordinance) and stormwater management program requirements. The Tribal Ordinance Controlling Pollutant Discharges into the Waters of the Reservation regulates and controls all pollutant discharges into waters of the Reservation. Per this Ordinance, no pollutant discharges are allowed into the waters of the Reservation unless there is prior consultation with the Federal, Tribal, or State agency with jurisdiction under the Clean Water Act and/or the Safe Drinking Water Act, and if required, appropriate permit(s) are obtained.

With regard to water quality, the related projects would be required to comply with the NPDES General Construction Permit, including the implementation of a site-specific SWPPP, to prevent polluted runoff from entering local stormwater drainage systems during construction activities. Additionally, each related project would be subject to NPDES requirements after buildout and applicable municipal code requirements such as Stormwater Drainage System Protection Regulations, of the Riverside County Municipal Code.[45] Related projects located on Reservation land, for areas outside of Land Use

45 Riverside County, Municipal Code, Section 13.12, Stormwater Drainage System Protection Regulations.

Agreements, would not be subject to NPDES permit requirements as the Tribe received an exemption from the USEPA in 2011. However, these related projects would be subject to the Tribes Ordinance Controlling Pollutant Discharges into Waters of the Reservation which does not permit pollutant discharges from construction activities to enter into receiving waters. As each related project would be required to comply with NPDES requirements and local regulations designed to prevent polluted runoff from entering local storm drain systems and receiving water bodies during construction and after buildout, the cumulative impact to water quality would be less than significant. Further, as compliance with NPDES, local municipal code requirements, and Tribe requirements would prevent substantial erosion and siltation, the cumulative impact related to erosion and siltation would also be less than significant.

With regard to flooding and storm drain capacity, the related projects would be required to adequately convey stormwater runoff such that flooding does not occur. Projects within Riverside County are subject to the Riverside County Municipal Code, which includes several regulations pertaining to flood control facilities within new development projects.[46] These regulations require that proposed drainage facilities be designed to convey flows associated with a 100-year storm event. Similarly, the Project is designed to convey flows associated with a 100-year event. Compliance by the related projects with applicable municipal code requirements, Tribe Building and Safety Code, CVWD regulations, and California Drainage Law would result in less than significant cumulative impacts.

Section 5.15.1 includes a detailed analysis of the water demand associated with the related projects and the effect on groundwater supply and recharge. As discussed, the project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level.

Groundwater supply and aquifer overdraft are currently being assessed and management plans implemented by CVWD to minimize impacts with increased development on groundwater supplies. Over the next 20 years, groundwater extraction is expected to decrease slightly as groundwater basin management activities are executed and sustainable levels of pumping are achieved. Increased future demands are expected to be met with imported water from the Colorado River and State Water Project, and groundwater management activities are expected to maintain groundwater levels and safe yields. These groundwater management activities will ensure that groundwater supplies are not depleted or degraded. Therefore, the cumulative impacts would be less than significant.

46 Riverside County, Municipal Code, Section 16.36.100, Tract Drainage.

Development projects, including commercial, industrial, and residential, individually and cumulatively will create more impervious surfaces thus reducing the total groundwater recharge area. However, projects located within the local watershed also have the possibility of adding to the Indio groundwater subbasin through the addition of imported and/or recycled water. The water used for irrigation could offset the difference in the reduction of groundwater recharge area to rainfall-related recharge that occurs today.

As discussed above, while it is possible that a large earthquake could result in a seiche at Lake Cahuilla, the likelihood of such an event is very low. Cumulative impacts related to tsunamis, seiches, and mudflows would be less than significant.

With regard to the failure of a levee or a dam, none of the related projects is proposed within an inundation zone. According to the Riverside County General Plan, none of the related project sites within Riverside County is located within a levee or dam inundation zone.[47] Accordingly, the cumulative impact would be less than significant.

C. MITIGATION MEASURES

In addition to the PDFs identified in Section B.3 above, the following Mitigation Measures would reduce hydrology and water quality impacts:

Construction

MM 5.8-1 Prior to issuance of a final grading permit for each individual project proponent, a project-specific water quality management plan (WQMP) shall be submitted to the appropriate jurisdiction for review and approval.

MM 5.8-2 Prior to the issuance of grading permits for development within Tribal Planning Area 3; a detailed hydrology study shall be prepared and submitted to the Tribal Engineer and/or CVWD for review and approval. This study shall evaluate the potential flows from the Morongo Watershed and will identify facilities to be constructed to collect, route and discharge flows in a manner compatible with pre-project/existing conditions across the Project Site. At the completion of construction of the flood control facilities, submit "as-built" topography, construction drawings and engineering analysis for CVWD review to verify that the design capacity is adequate to meet a performance standard requiring the maintenance of pre-project condition flows exiting the Project Site.

47 Riverside County Integrated Project, Figure S-10, "Dam Failure Inundation Zones," (2003).

Operation

MM 5.8-3 Prior to final grading, individual project proponents shall submit a detailed operation and maintenance plan to the appropriate jurisdiction and CVWD for review and approval of the as-built project conditions that satisfies the required performance standard set forth in **MM 5.8-2.**

MM 5.8-4 Periodic inspection of the conditions of the open channels, retention basins, and storm drains will need to be performed year round, and after significant precipitation events will be required to be performed by each homeowner association (HOA). Annual inspection reports shall be prepared by each HOA, and submitted to and filed with the Tribe, City and/or CVWD by June 30th each year calendar year.

D. LEVEL OF SIGNIFICANCE AFTER MITIGATION

Project Design Features PDF 5.5-3 through PDF 5.5-5 in **Section 5.5, Geology and Soils;** PDF 5.15.1 through PDF 5.15.1-7 in **Section 5.15.1, Utilities and Service Systems: Water Service;** PDF 5.15.2-4 through PDF 5.15.2-7 in **Section 5.15.2 Utilities and Service Systems: Sewer;** and Mitigation Measures **MM 5.8-1** through **MM 5.8-4** would ensure that Project-level impacts on surface water, hydrology, and water quality would be less than significant. Also, compliance with existing regulations and standard conditions of approval identified above would reduce potential impacts associated with hydrology and water quality to a less than significant level. Therefore, no significant unavoidable adverse impacts relating to hydrology and water quality would result on a Project-specific or cumulative basis.

5.9 LAND USE

This Section of the Draft EIS evaluates the potential land use impacts in the Sphere of Influence of the City of Rancho Mirage ("City") from the proposed Project. Land use impacts can be either direct or indirect. Direct impacts are those that result in land use incompatibilities, or the division of neighborhoods or communities, or interference with other land use plans, including habitat or wildlife conservation plans. Indirect impacts are secondary effects resulting from land use policy implementation, such as an increase in demand for public utilities or services, or increased traffic on roadways. Indirect impacts are addressed in other topical sections of the Draft EIS. This Section also evaluates the consistency of the proposed Project with land use plans addressing the area the Project Site is located in. Please see **Section 9.0** for a glossary of terms, definitions, and acronyms used in the Draft EIS.

A. ENVIRONMENTAL SETTING

The proposed Project consists of the proposed adoption of a specific plan to regulate the development and use of approximately 577 acres of land located within the Agua Caliente Indian Reservation ("Reservation"). The Project Site is bounded by the following roadways: Ramon Road on the north; Bob Hope Drive on the east; Dinah Shore Drive on the south; and Los Alamos Road on the west.

1. Existing Conditions

Existing On-Site Land Uses

The Project Site consists of undeveloped land. Topographically, the Project Site slopes downward to the northeast. Surface elevations range from approximately 350 feet to 250 feet above mean sea level, with the highest points located to the south and west.

Existing Surrounding Land Uses

Figure 5.9-1, Surrounding Land Uses, provides an aerial photograph of the Project Site and surrounding uses. The Mission Hills resort community is located immediately south and west of the Project Site. Mission Hills includes the Mission Hills Golf Resort and Spa, a 360-acre resort, which includes a variety of vacation rental units and hotel rooms along with golf courses, a tennis facility, and other amenities to the south of the Project Site and private homes to the west of the Project Site and Los Alamos Road. The Mission Hills Country Club is located southwest of the Project Site.

North of the Project Site and Ramon Road is undeveloped land in Section 13 that extends north to the Union Pacific Railroad (UPRR), which is located approximately 750 to 3,450 feet to the north. Rancho

Mirage High School is located approximately one half of a mile northwest of the Project Site on Rattler Road.

The Agua Caliente Casino Resort Spa is located on approximately 35 acres immediately east of the Project Site on the southeast corner of Ramon Road and Bob Hope Drive. This facility includes a 340-room hotel, 70,000 square feet of gaming floor, a 2,000 - seat showroom, 13,000 square feet of flexible meeting space, six distinct dining venues, a resort pool, spa and fitness center, and parking areas including both surface parking and a parking structure).

An existing retail commercial center, the Desert Plaza shopping center, is located to the southeast of the Project Site on the corner of Dinah Shore and Bob Hope Drives.

Existing Land Use Plans, Policies and Regulations

Local and regional laws, regulations, plans, or guidelines that address the Project Site and the surrounding area are described below. While land located within the Reservation is subject to Tribal land use regulations, the plans and policies adopted by other local jurisdictions are discussed to provide context for assessing the consistency of the proposed Specific Plan with existing and planned land uses around the Project Site.

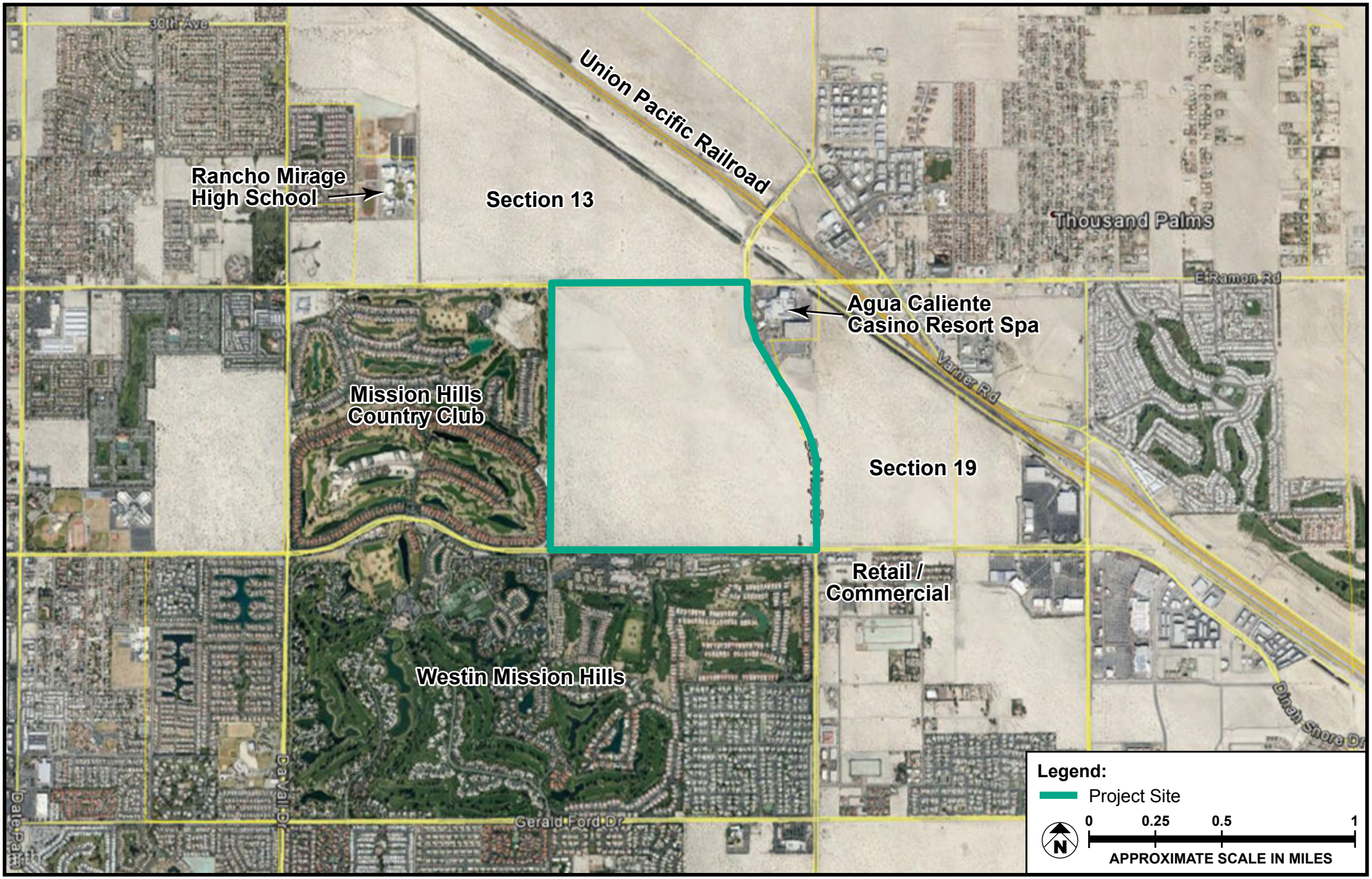
Agua Caliente Band of Cahuilla Indians

Land Use Ordinance

The Agua Caliente Band of Cahuilla Indians Tribal Council adopted a Land Use Ordinance for the Reservation on July 14, 2009. This Land Use Ordinance applies to all development, public and private, within the areas of the Reservation not covered under a Land Use Agreement between the Agua Caliente Band of Cahuilla Indians ("Tribe") and a local jurisdiction. All structures and land uses constructed or commenced after adoption of the Land Use Ordinance and all enlargements of, additions to, changes in, and relocations of existing structures and uses are subject to the Land Use Ordinance.

The Land Use Ordinance includes a zoning map identifying zoning districts. Currently, the northern portion of the Project Site, consisting of approximately 120 acres on Ramon Road, is designated as Tribal Enterprise, a zoning designation applied to Tribal Trust land. Uses allowed on land zoned Tribal Enterprise is subject to determination by the Tribal Council.

The remainder of the Project Site is designated as "Specific Plan," a zoning designation that allows for greater flexibility to focus regulations and standards on a specific geographic area, and "Land Use Contract, Riverside County," a zoning designation applied to Allotted Trust lands, which were lands



SOURCE: Google Earth - 2014

FIGURE **5.9-1**

Meridian Consultants

Surrounding Land Uses

044-001-13

allotted in Trust to individual members of the Tribe (Allottees). Uses allowed on land zoned Land Use Contract, Riverside County include uses allowed by the County Zoning Code.

The Land Use Ordinance includes standards for specific plans that are generally consistent with California Government Code requirements. Section 9.12.1 of the Land Use Ordinance, the primary purpose of a Specific Plan is to allow for greater flexibility and provide an opportunity to focus regulations and standards on the goals of a specific geographic area. The Ordinance states that Specific Plans provide a mechanism to tailor unique and desired development standards and implementation measures in a specific area while preserving and enhancing areas of cultural, environmental, and/or economic significance on the Reservation.

Section 10.12.3 of the Land Use Ordinance requires that a specific plan include a text and a diagram or diagrams which address the following aspects of development:

- The distribution, location, and extent of the all proposed land uses within the area covered by the plan;
- The proposed distribution, location, and extent, and intensity of public and private transportation, sewage, water, drainage, solid waste disposal, energy and other utilities and public services proposed to be located within the area covered by the plan and needed to support the land uses described in the plan;
- Standards and criteria by which development will proceed, and standards for the conservation, development, and utilization of natural resources, where applicable;
- A program of implementation measures including regulations, programs, public works projects, and financing measures necessary to implement the plan; and
- Any other information deemed necessary by the Tribal Council for adequate review and consideration of the proposal.

Tribal Habitat Conservation Plan

The Reservation includes approximately 31,500 acres of land within the Coachella Valley. These lands contain natural resources and habitat that are very integral to the Tribe's heritage and culture. Any development on the Reservation would be subject to the Tribal Habitat Conservation Plan (THCP), which was approved in August 2010. The THCP appropriately contributes to the conservation of listed and sensitive covered species and the ecosystems upon which they depend. Future development within

Tribal lands is required to comply with the provisions of the THCP, including the payment of development mitigation fees.

Based on the conservation program defined in the THCP, the Tribe is seeking to enter an Implementing Agreement with, and obtain a Section 10(a) Permit from USFWS to authorize the incidental take of covered species of wildlife in connection with certain activities undertaken by the Tribe, Tribal members, and in some cases, third parties. The THCP has not yet been approved by the USFWS and a Section 10(a) Permit has not been issued. Until take authority is granted to the Tribe through the issuance of a 10(a) Permit, incidental take permits would continue to be obtained directly from the US Fish and Wildlife Service (USFWS) as allowed by the FESA. The Tribe has independent authority to enforce its obligations under the THCP and the Tribe is implementing the plan to mitigate impacts to sensitive resources on Tribal lands.

City of Rancho Mirage

The Project Site is located within the Sphere of Influence (SOI) of the City, as approved by the Riverside Local Agency Formation Commission (LAFCo). The Rancho Mirage SOI includes lands adjacent to the City's borders identified by the Riverside County LAFCo as likely to be serviced or annexed to the City and represents the probable ultimate limits of the City. For this reason, the City addresses the land within the City's SOI in the City's General Plan.

The City's General Plan discusses the coordination of land use planning activities with the Tribe. The General Plan notes there are approximately 2,077 acres of Trust land within the City's SOI. The City and the Tribe entered into a land use contract in 1998 to specifically address the regulation of land uses for Allotted Trust lands, which were lands allotted in Trust to individual members of the Tribe (Allottees). Under this agreement, the Tribe retains ultimate authority over Allotted Trust lands. With regard to the City's SOI, this contract states that while the Tribe does not formally recognize the SOI, the Tribe will participate in joint planning efforts with the City to assure the coordinated development of Tribal land within the City's SOI. The City's General Plan identifies areas within the City's SOI targeted for the preparation of specific plans. The Project Site is identified in the City's General Plan as an area targeted for the preparation of a specific plan.

The City's General Plan designates the Project Site for residential and commercial uses. The northwest 40 acres of the Project Site is designated High Density Residential. This designation allows development at a density of 9 dwelling units per acre. The adjacent 80 acres on Ramon Road is designated for Community Commercial uses. This designation allows community and regional retail commercial shopping centers at a floor area ratio (FAR) of up to 0.35. The City's General Plan designates the remainder of the Project Site as Medium Density Residential. This designation allows development at a

density of 4 dwelling units per acre. Development of the Project Site consistent with these designations would include approximately 2,200 dwelling units and 1.2 million square feet of retail commercial development. The 193-acre portion of Section 13 located immediately north of the Project Site and Ramon Road, east of Rattler Road and south of the UPRR was annexed by the City in April 2013. The City land use and zoning designation for this portion of Section 13 is Regional Interstate Commercial. This designation allows a broad and flexible range of commercial and mixed uses within a planned, freeway-oriented business environment. The City's General Plan requires the preparation and approval of a specific plan for this area prior to development.

The Section 19 Specific Plan, adopted by the City in 2010, addresses approximately 270 acres located east of Bob Hope Drive and north of Dinah Shore Drive, directly east of the Project Site. The Section 19 Specific Plan area borders the existing Agua Caliente Casino Resort Spa facility. The Section 19 Specific Plan established 26 Planning Areas and eight land use categories and allows the development of approximately 3 million square feet of commercial uses and 1,899 residential units. The eight land use designations applied to the 26 Planning Areas include resort flex, retail, mixed use core, regional mixed-use, residential, public facility, open space, and drainage.

Retail uses are planned on Dinah Shore Drive and the southern portion of Bob Hope Drive with resort uses planned north of the retail area on Bob Hope Drive. The mixed use core area is located in the central portion of this specific plan area with residential uses planned on the eastern portion. Regional mixed uses are allowed on the northeast edge of the Section 19 Specific Plan area along the UPRR and I-10.

Riverside County

The Riverside County General Plan is implemented through area plans. The Riverside County Western Coachella Valley Area Plan (Area Plan), updated in 2012, depicts the general planned pattern of the land uses in unincorporated Riverside County. One of the primary goals of the Area Plan is to contain and concentrate growth in several strategic unincorporated areas while preserving the rural and open space characteristics of the outlying areas. The Area Plan recognizes that the Project Site and other nearby unincorporated land located within the City's SOI have significant development potential and, for this reason, joint planning efforts involving the City and the Tribe are encouraged. The following are policies that have been designated by the Area Plan as critical to sustaining the character of the Western Coachella Valley:

WCVAP 1.1 Form a joint planning effort with the City of Rancho Mirage and the Agua Caliente Band of Cahuilla Indians to address land use planning and environmental review of development projects within the Policy Area.

WCVAP 1.2 Coordinate with local agencies to ensure adequate service provision for all development within the Policy Area.

WCVAP 1.3 Encourage property owners within this policy area to develop their properties under a single Specific Plan application covering the entire area.

WCVAP 1.4 Coordinate development strategies with the Thousand Palms Community Council and the Riverside County Economic Development Agency.

WCVAP 1.5 Coordinate development strategies with the cities of Palm Desert and Cathedral City to ensure that development within the Policy Area does not adversely impact these cities.

WCVAP 1.6 Require that development be sensitive to and retain the unique topographical features within and adjacent to the planning area.

WCVAP 1.7 Ensure a mix of land uses that creates a vital, economically and environmentally healthy area that is supportive of transit and other forms of alternative modes of transportation, promotes walkability and civic life, and provides a variety of housing, civic, employment, and open space opportunities throughout the planning area. General land uses may include a mix of:

- Regional and local-serving commercial uses;
- Tourist facilities;
- Residential densities from Medium to High Density Residential;
- Active and passive open space areas;
- Mixed use;
- Cultural, educational, and civic uses;
- Transit facilities;
- Employment-intensive office and business park uses; and
- Light Industrial uses north of Interstate 10

WCVAP 1.8 Incorporate open space and recreational amenities into the planning area in order to enhance recreational opportunities and community aesthetics.

WCVAP 1.9 Apply the City of Rancho Mirage's adopted standards for median strips along specific roadways as those roadways extend into the City's Sphere of Influence.

This Area Plan also designates the Project Site for residential and commercial uses. The Area Plan designates the 120 acres of the Project Site on Ramon Road as Commercial Retail and the land on Bob Hope Drive and Dinah Shore Drive as Visitor Serving Commercial. These commercial designations allow development at a FAR of up to 0.35. The Area Plan designates the central portion of the Project Site for Medium Density Residential uses, a designation that allows a density of 2-5 dwelling units per acre. Development of the Project Site consistent with these designations would include approximately 1,200 dwelling units and 5 million square feet of retail and visitor serving commercial development.

Riverside Local Agency Formation Commission

The Riverside Local Agency Formation Commission (LAFCo) carries out legislative duties defined by State law through the consideration, approval or denial of boundary changes proposed by individuals or local agencies. The LAFCo Commission promotes the use of land resources while providing an orderly growth pattern for the existing and future needs of a community within Riverside County.

The broad mission of the LAFCo is to implement legislative direction and policies embodied in the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 in a manner most appropriate to provide orderly growth patterns that reconcile the needs of Riverside County. It establishes the appropriate and logical municipal government structure for the distribution of efficient and appropriate public services. Among the goals for LAFCo is to maximize interagency communication and cooperation between governments. The following are goals set forth in the Riverside LAFCo Policies and Procedures document, drafted in 2004:

- The proposal must be consistent with State law, adopted spheres of influence, applicable general and specific plans, and LAFCo policies.

- Cities are expected to coordinate with adjoining jurisdictions in advance of submittal of any annexation application that includes existing or future regionally significant transportation facilities as identified in adopted regional transportation plans. The purpose of early communication and coordination is to maintain the integrity of the regional transportation system and continuance of any regional funding mechanisms.

- Cities must coordinate all sphere of influence and annexation proposals that include Indian Reservation Lands with the appropriate Tribal Government in advance of application submittal.

- All applications for municipal sphere of influence amendments or annexations that include Indian Reservation Lands shall be referred to the appropriate Tribal Government for review and comment

prior to hearing by the Commission. The Commission shall consider the existence of a Tribal land use agreement with the subject city an important factor when reviewing such proposals.

- The Commission shall not approve any municipal annexation of Indian Reservation Lands without the consent of the Tribal Council.
- The proposal would eliminate islands, corridors and other distortion of existing boundaries.

The SOI as approved by the Riverside County LAFCo defines the probable physical boundaries and service area of a local government agency. A SOI must be adopted before an annexation to the affected city or district can be considered. In 2000, LAFCo was charged with the responsibility to conduct municipal service reviews. A Municipal Service Review (MSR) is a study designed to determine the adequacy of governmental services being provided to the region or sub-region.

Southern California Association of Governments

The Southern California Association of Governments (SCAG) is a council of governments representing Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties. SCAG is the federally recognized Metropolitan Planning Organization (MPO) for this region, which encompasses over 38,000 square miles. SCAG is a regional planning agency and a forum for addressing regional issues concerning transportation, the economy, community development, and the environment. SCAG is also the regional clearinghouse for projects requiring environmental documentation under federal and State law. In this role, SCAG reviews proposed development and infrastructure projects to analyze their impacts on regional planning programs. As the southern California region's MPO, SCAG cooperates with the Southern California Air Quality Management District (SCAQMD), the California Department of Transportation (Caltrans), and other agencies in preparing regional planning documents. SCAG has developed regional plans to achieve specific regional objectives.

SCAG is also responsible for the designated Regional Transportation Plan (RTP) including its Sustainable Communities Strategies (SCS) component pursuant to SB 375. The Sustainable Communities Strategy has been formulated to reduce GHG emissions from passenger vehicles by 8 percent per capita by 2020 and by 13 percent per capita by 2035 compared to 2005 targets set by the California Air Resources Board.

The 2012–2035 RTP/SCS links the goal of sustaining mobility with the goals of fostering economic development, enhancing the environment, reducing energy consumption, promoting transportation-friendly development patterns, and encouraging fair and equitable access to residents affected by socioeconomic, geographic, and commercial limitations. The goals included in the 2012 RTP/SCS may be pertinent to the proposed Project. These goals are meant to provide guidance for considering the Project within the context of regional goals and policies.

Coachella Valley Association of Governments

The Coachella Valley Association of Governments (CVAG) is a sub-regional organization within SCAG. CVAG is made up of nine cities, Riverside County and three Native American Indian tribes, including the Agua Caliente Band of Cahuilla Indians. CVAG represents member local governments and agencies throughout the Coachella Valley seeking cooperative sub-regional and regional planning, coordination and technical assistance on issues of mutual concern. CVAG is made up of several departments, including an Energy and Environmental Resources Department that monitors and implements both regional and local plans related to energy and air quality issues, waste management, water quality, habitat conservation planning and trails issues.

Coachella Valley Conservation Commission

Two HCPs have been prepared in the Coachella Valley. The Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP) addresses approximately 1.2 million acres in the Coachella Valley and the surrounding mountains. Because approximately 69,000 acres of Indian reservation lands are not included in the CVMSHCP area, the acreage covered by the plan is about 1.1 million acres. The THCP addresses approximately 31,500 acres of land within the Reservation, as previously discussed.

The CVMSHCP, which became effective in October of 2008, is a regional conservation plan that identifies and coordinates the permanent protection of habitats, biological linkages and corridors, and ecological processes for the benefit of plants and wildlife. CVMSHCP participants include Riverside County, the cities of Cathedral City, Coachella, Desert Hot Springs, Indian Wells, Indio, La Quinta, Palm Desert, Palm Springs, and Rancho Mirage, as well as the Coachella Valley Water District and Imperial Irrigation District. The Coachella Valley Association of Governments serves as the lead agency for plan review and consideration with the Coachella Valley Conservation Commission overseeing the plan implementation. The plan enables the participating public agencies (“permittees”) to comply with both the State and Federal Endangered Species Acts and other regulations promulgated to protect listed plants and wildlife.

B. ENVIRONMENTAL IMPACTS

1. Thresholds of Significance

In order to assist in determining whether a project would have a significant effect on the environment, the Tribe determines a project may be deemed to have a significant impact to land use and planning, if it would:

Threshold 5.9-1: Physically divide an established community

Threshold 5.9-2: Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect

Threshold 5.9-3: Conflict with any applicable habitat conservation plan or natural community conservation plan

2. Methodology

The determination of the Project's consistency with applicable land use plans and policies is based upon a review of the previously identified planning documents that regulate land use or guide land use decisions at and around Project Site. The Project is considered to be consistent with the provisions of the identified regional and local plans if it meets the general intent of the plans and would not preclude the attainment of the primary intent of the land use plan or policy.

3. Project Design Features

The Project consists of a specific plan for approximately 577 acres of the Reservation, located within the City's SOI designated as Section 24, Township 4 South, Range 5 East of the San Bernardino Meridian. The Section 24 Specific Plan would be approved and adopted by the Tribal Council and serve as the zoning for the Project Site. The City would subsequently adopt the Specific Plan and approve any request(s) for annexation into the City. The Specific Plan would establish the necessary plans, development standards, regulations, infrastructure requirements, design guidelines, and implementation programs on which subsequent project-related development activities would be founded. It is intended that local public works projects, design review plans, detailed site plans, grading and building permits, or any other action requiring ministerial or discretionary approval applicable to the Project Site would be consistent with the Specific Plan.

The Project would provide a potential mix of up to 3,138,600 square feet of commercial, retail, office, restaurant, hotel and entertainment uses, and up to 2,406 residential units. The Project is designed to accommodate these uses through the creation of seven land use categories and eight Planning Areas that cover approximately 529 acres, as shown in **Figure 3.0-3, Conceptual Land Use Plan**. These Planning Areas, in addition to approximately 48 acres for public street rights-of-way, would total approximately 577 acres for the Project Site. The land use categories and Planning Areas would allow for a greater variety and flexibility of land uses and development standards.

The Project Site's edge condition incorporates additional landscape easements in addition to the Major Arterial right-of-way requirement, as shown in the street sections in Figures 9, 10, and 11 in the Section 24 Specific Plan. The property owner will be responsible for maintaining this easement area as well as the parkway area within the public right-of-way. This buffer will allow adequate space for an 8-foot Class I bicycle path/ sidewalk to permit the shared use of golf carts in addition to pedestrians and cyclists. The golf cart path would connect into the existing golf cart circulation system, which provides Class I paths along the south side of Dinah Shore Drive west of Bob Hope Drive and along the west side of Los Alamos Road. A 5 foot wide on-street Class II bicycle lane will also be provided along Bob Hope Drive and Ramon Road for the exclusive use of cyclists.

Within the Project Site, the half street right-of way for Bob Hope Drive is proposed at a consistent dimension of 65 feet; for Ramon Road this half street right-of way width is proposed at its current 67 feet.

The section along Dinah Shore Drive will include four travel lanes bisected by a 16 foot median. An allowance is included for the addition of a third west bound land as needed in the future in order to achieve Major Arterial status. The north side of Dinah Shore Drive incorporates an additional landscape easement. Along the north side of Dinah Shore Drive and each side of "A" street Boulevard, a 5 foot wide on-street Class II bicycle lane will be provided for the exclusive use of cyclists.

The half street section along Los Alamos Road will be a Major Collector. This section will contain two 12-foot travel lanes, and a 6-foot on-street Class II bicycle lane bisected by a 16-foot raised median. The edge of Los Alamos along the Project Site incorporates a 12-foot landscaped parkway with an 8-foot meandering sidewalk and an additional landscaped building setback, in addition to the Major Collector right-of-way requirement. The property owner will be responsible for maintaining this setback area as well as the parkway area within the public right-of-way.

Active Adult Community

The Active Adult Community Planning Area would have a maximum of 3.8 dwelling units per acre with lot coverage up to 35 percent. The minimum residential dwelling unit size would be 1,100 square feet. The maximum building heights for residential units within this Planning Area would be 28 feet in height. Height is determined from the average finish grade around the building to the highest top of parapet or fascia for flat roof buildings or to the highest ridgeline for sloped roof structures, excluding chimneys and similar architectural projections. The maximum height that would be allowed for the clubhouse and other non-residential structures within this Planning Area is 58 feet. The maximum height allowed for tower elements would be 72 feet.

Tribal Planning Areas

The Tribal Planning Areas would vary in maximum FAR and lot coverage. The maximum FAR for retail uses would be 0.35 with maximum lot coverage of 35 percent. The maximum FAR allowed for resort flex uses would be 0.40 with maximum lot coverage of 40 percent. The maximum FAR allowed for mixed use core uses would be 1.0, with maximum lot coverage of 50 percent, and minimum unit size of 600 square feet. The Planning Areas that would allow multi-family residential units would allow a maximum density of 18 dwelling units per acre, maximum lot coverage of 50 percent, and maximum unit size of 850 square feet.

4. Project Impacts

Physically Divide an Established Community

The Project Site consists of an unincorporated island of land surrounded by the City. The areas to the south and west of the Project Site are developed with the Mission Hills resort community. The 193 acres of undeveloped land located north of the Project Site and Ramon Road is designated for regional commercial uses in the City's General Plan. The Section 19 Specific Plan area, located to the east of the Project Site and Bob Hope Drive, designates the land along Bob Hope Drive for the retail and resort commercial uses.

The proposed Section 24 Specific Plan would allow development of a mix of residential and commercial uses that would be consistent in terms of intensity with the existing and planned surrounding land uses. The Section 24 Specific Plan would establish 8 Planning Areas and 7 land use categories to regulate land uses and allow development of up to 3,138,600 square feet of commercial, retail, office, restaurant, hotel and entertainment uses, and up to 2,406 residential units.

The 8 Planning Areas the Specific Plan would create would include: Mixed-Use Core, Resort Flex, Retail, Multi-Family Residential, and Single Family Residential.

Active Adult Community

The Active Adult Community would consist of up to 1,200 single family residential units in Planning Area 8 restricted to occupancy by adults aged 55 and above. This portion of the Project Site is currently zoned Specific Plan by the Tribe. As discussed above, the City and the Tribe entered into a land use contract in 1998 to specifically address the regulation of land uses for Allotted Trust lands This contract states that while the Tribe does not formally recognize the SOI, the Tribe will participate in joint planning efforts with the City to assure the coordinated development of Tribal land within the City's SOI.

As planned, the gated Active Adult Community would consist of four neighborhoods accessed by a system of private streets and recreational open space amenities located in neighborhood parks and trail linkages. Resident amenities would include an integrated system of pedestrian, bicycle and golf cart trail linkages, neighborhood parks, water features, community club house/pool/spa, and complementary features. These neighborhoods would be located across Dinah Shore Drive and Los Alamos Road from existing visitor serving and residential resort uses in the Mission Hills Resort Community.

As previously indicated, the Active Adult Community would have a maximum of 3.8 dwelling units per acre with lot coverage up to 35 percent. The minimum residential dwelling unit size would be 1,100 square feet. The maximum building heights for residential units would be 20 feet in height and 28 feet in height in the Single Family Attached Residential Overlay Area. Height is determined from the average finish grade around the building to the highest top of parapet or fascia for flat roof buildings or to the highest ridgeline for sloped roof structures, excluding chimneys and similar architectural projections. The maximum height allowed for the clubhouse and other non-residential structures within this Planning Area would be 58 feet. The maximum height allowed for tower elements would be 72 feet.

The proposed residential Active Adult Community would be consistent in use and character with the surrounding use and generally with the pattern of development the City and Riverside County General Plans identify for the Project Site. Development of the Active Adult Community in Planning Area 8 would not result in a conflict with, or divide, any established community. Accordingly, impacts would be less than significant.

Tribal Planning Areas

The Tribal Planning Areas are made up of 7 distinct Planning Areas that are subject to their own list of allowed uses and development standards. The Tribal Planning Areas would accommodate a mix of retail, entertainment, office, hotel and residential land uses. The Section 24 Specific Plan has been developed to be generally consistent with the adopted Rancho Mirage Section 19 Specific Plan in terms of land development criteria as well as planning, building architecture and landscape design quality. The

creation of a mixed-use community within Section 24 would allow residents to live within walking and non-motorized vehicle distance from stores, restaurants, recreational areas, and associated cultural/entertainment venues.

As previously discussed, the Tribal Planning Areas would vary in maximum FAR and lot coverage. The maximum FAR for retail uses would be 0.35 with maximum lot coverage of 35 percent. The maximum FAR allowed for resort flex uses would be 0.40 with maximum lot coverage of 40 percent. The maximum FAR allowed for mixed use core uses would be 1.0, with maximum lot coverage of 50 percent, and minimum unit size of 600 square feet. The Planning Areas that would allow multi-family residential units would allow a maximum density of 18 dwelling units per acre, maximum lot coverage of 50 percent, and minimum unit size of 850 square feet.

The retail commercial uses in Planning Areas 3 and 7A and the resort commercial uses in Planning Areas 4 and 6A would be compatible in use and character with the existing Agua Caliente Casino Resort Spa and the retail and resort commercial development permitted by the Section 19 Specific Plan on Bob Hope Drive. The Mixed-Use core uses in Planning Area 2A, the resort commercial uses in Planning Area 1A, and the retail commercial uses in Planning Area 3 would also be consistent with the regional commercial uses the City General Plan allows in Section 13 to the north of the Project Site and Ramon Road. The multi-family residential development in Planning Areas 1B, 2B, 5, 6B and 7B would provide a transition in land uses between the higher intensity uses in the Planning Areas on Bob Hope Drive and Ramon Road and the Active Adult Community in Planning Area 8. Development of the proposed commercial and multi-family residential uses in the Tribal Planning Areas would not result in a conflict with, or divide, any established community. Accordingly, impacts would be less than significant.

Conflict with Applicable Land Use Plan, Policy, or Regulation

The Project Site is currently under the sovereign authority of the Tribe. As established in the Tribal Land Use Ordinance, the land use designations of the Project Site are comprised of Land Use Contract, Riverside County, Specific Plan, and Tribal Enterprise. For the purpose of providing a uniform basis for zoning, the uses allowed on land zoned Land Use Contract, Riverside County include the uses allowed by the County Zoning Code. Tribal Enterprise land is subject to Tribal Council determination as classified by the Tribe. Specific Plan allows for greater flexibility to focus regulations and standards on a specific geographic area.

The Section 24 Specific Plan would be approved and adopted by the Tribal Council as the zoning for the Project Site. The Tribal Land Use ordinance permits Specific Plans to allow for greater flexibility and provide an opportunity to focus regulations and standards in a specific geographic area. Adoption of the

Section 24 Specific Plan would be consistent with the stated intent and purpose of specific plans in the Tribal Land Use Ordinance.

Even though the Project Site is subject to Tribal land use regulations, the consistency of the Project with the City or Riverside County land use plans and policies applicable to the area is provided in **Table 5.9-1** through **Table 5.9-3**. As the Project Site is located within the SOI for Rancho Mirage, the consistency of annexing the Project Site to the City with Riverside County LAFCo policies is also assessed. In addition, because the Tribe participates in regional planning efforts coordinated by CVAG and SCAG, consistency with regional planning policies is also assessed.

City of Rancho Mirage General Plan Analysis

The City employs a single-map system of land uses. This means that the City's General Plan land use designations are the same as its zoning designations. Also, the density and intensity standards expressed in the General Plan are the same as those expressed in the Zoning Ordinance. As previously discussed, the majority of the 577-acre Project Site is currently designated for Medium Density Residential (R-M) use in the Land Use Element of the City's General Plan with portions of the northern boundary designated as High Density Residential (R-H) and Community Commercial (C-C) uses.

The City's General Plan describes the Medium Density Residential land use as single-family and Planned Residential Developments (PRD). The intent of this designation is to encourage development of a wide variety of dwelling unit types in a planned environment. The High Density Residential designation allows for smaller single-family attached products and multi-family dwelling. This designation is most suitable for planned communities and affordable and senior housing where smaller units and higher densities may be appropriate.

The City's General Plan describes the Community Commercial land use as regional or community-scale shopping centers and malls. The centers may be anchored by several department stores or other large-scale anchors as well as a variety of retail outlets, restaurants and entertainment uses. It is intended to serve the entire community as well as the surrounding market area. The maximum FAR for Community Commercial areas is 0.35.

The Project Site is identified as an area within the City's SOI targeted for regulation through a Specific Plan. The City's General Plan states that specific plans are intended for larger, more complex projects that integrate a variety of residential and non-residential land uses and that specific plans can also permit uses, development standards, and density/intensity levels beyond those allowed in the City's Zoning Code. In return, specific plans should demonstrate exceptional design quality and amenities, as well as the phased cost effective extension of infrastructure. As proposed, the Section 24 Specific Plan is

consistent with the policies in the City's General Plan related to the intent and use of specific plans. The Section 24 Specific Plan integrates a variety of residential and non-residential uses and includes infrastructure master plans to support the intensity of uses proposed and master-planned community design standards and features. The Tribe developed the Section 24 Specific Plan though cooperative planning consultation with the City. The Section 24 Specific Plan is consistent with the intent of the City's General Plan for the planning of this portion of the City's SOI.

As discussed in Section B.3, Project Design Features, the half-street roadways of the Major Arterial and Collector Roadways abutting the Project Site will be designed consistent with the General Plan designations for Bob Hope Drive, Ramon Road, Dinah Shore Drive, and Los Alamos Road.

Within the Project Site, the half street right-of way for Bob Hope Drive is proposed at a consistent dimension of 65 feet; for Ramon Road this half street right-of way width is proposed at its current 67 feet. The section along Dinah Shore Drive will include four travel lanes bisected by a 16 foot median. An allowance is included for the addition of a third west bound land as needed in the future in order to achieve Major Arterial status. The half street section along Los Alamos Road will be a Major Collector. This section will contain two 12-foot travel lanes, and a 6-foot on-street Class II bicycle lane bisected by a 16-foot raised median. The edge of Los Alamos along the Project Site incorporates an additional landscaped parkway and building setback in addition to the Major Collector right-of-way requirement. Therefore, the Project would result in consistent roadway widths and number of lanes as identified in the City's General Plan Circulation Element.

A detailed analysis of the proposed Project's consistency with the policies of the various elements of the City's General plan is provided in **Table 5.9-1, City of Rancho Mirage General Plan Analysis**. The analysis contained in **Table 5.9-1** concludes that the Project would be consistent with the City's General Plan. Therefore, implementation of the proposed Project would not result in significant land use impacts due to inconsistency with the City's General Plan. Accordingly, impacts would be less than significant.

SCAG RTP/SCS Analysis

As previously noted, the 2012 SCAG RTP/SCS is an advisory document to local agencies in the southern California region for their information and voluntary use while preparing local plans and handling local issues of regional significant. **Table 5.9-2, SCAG 2012 RTP/SCS Analysis**, provides an assessment of the Project's relationship to advisory and voluntary policies contained in various chapters of the RTP/SCS. The analysis contained in **Table 5.9-2** concludes that the Project would be consistent with the advisory and voluntary RTP/SCS policies. Therefore, implementation of the Project would not result in significant land use impacts due to inconsistency with the advisory and voluntary RTP/SCS policies. Accordingly, impacts would be less than significant.

LAFCo Analysis

Annexation of the Project Site to the City would be subject to LAFCo approval, which requires consistency with State law as well as relevant LAFCo policies and procedures. Implementation of the Project would not conflict with State law or LAFCo's Annexation Policies and Procedures.

The Project Site is within the City's LAFCo approved SOI and the Project would not exceed the anticipated growth within the SOI by the City. The Municipal Service Review Update completed by LAFCo that concludes that the City's ability to serve the anticipated growth within the SOI would not have any adverse effects on the City, as there would be resources in place to effectively expand facilities and services required.

The Project Site is completely surrounded by the City on all four sides and any future annexation would eliminate an unincorporated island, which would be consistent with State law and LAFCo policies. **Table 5.9-3, Riverside County LAFCo Analysis**, provides an analysis of the relevant LAFCo policies.

Annexation of the Project Site would not have an adverse impact on other service recipients or agencies providing services to the area and accordingly, the Project is consistent with State law and LAFCo's plans and policies. Impacts would be less than significant.

Table 5.9-1
City of Rancho Mirage General Plan Analysis

Relevant General Plan Policies	Specific Plan Consistency
Land Use Element	
Policy 1: Specific Plans shall be required to ensure new development achieves high quality building, design, and development standards and provides amenities above those expected in conventional development (p. 11-19).	Development of the Section 24 Specific Plan would create a high quality mixed-use development that would provide for commercial, office, entertainment, resort, residential, open space, and other support uses. Sections 5, Development Regulations, and 6, Design Guidelines, of the Specific Plan set forth the standards and guidelines for high quality site planning, architecture and design, landscaping, streetscape elements, signage, and lighting that would ensure the creation of a unique and special destination place for the City of Rancho Mirage. Additionally, the Specific Plan would also provide for a wide range of residential amenities, including an integrated system of pedestrian, bicycle and golf cart trail linkages, neighborhood parks, water features, community club house/pool/spa, and complementary features. Signage would be provided at the entrances to the Project Site to add to the character of the community and reinforce a sense of place including sculptural, water, or a landscape element.
Policy 2: Specific plans shall be utilized to assure the phased, logical and cost-effective extension of infrastructure and buildout of new development (p. 11-19).	The Section 24 Specific Plan includes the phasing and infrastructure plans necessary to provide for the cohesive and complementary mix of land uses structured around a comprehensive set of circulation and infrastructure system and sensitivity to environmental sustainability issues of the Project Site. More specifically, Chapter 4 of the Specific Plan outlines the overall purpose of the Specific Plan. As stated in Section 4.2.2 in the Specific Plan; the Planning Areas have been defined to recognize the current ownership patterns and thus enabling the Project to be constructed in an incremental fashion while still achieving a unified development.
Policy 4: The City shall ensure adequate visibility and accessibility for commercial development while preserving the scenic viewsheds from adjoining properties and public rights-of-way (p. 11-19).	The proposed land use plan would allocate retail, commercial, and mixed-use land use along Bob Hope Drive and Ramon Road which provide adequate visibility and accessibility for these uses fronting the Project Site for maximum exposure. Views of the distant mountains would continue to be available to motorists along Dinah Shore Drive and Bob Hope Drive and to residents south of Dinah Shore Drive because of the building height standards and the difference in elevation between the southern portion of the Project Site along Dinah Shore Drive and northern portion of the Project

Relevant General Plan Policies	Specific Plan Consistency
	Site. Additionally, as outlined in Chapter 5 of the Specific Plan, buildings are generally permitted to increase in height as development proceeds into the lower elevations of the Project Site and into the mixed-use core Planning Area, south of Ramon Road. Further, visual breaks would be provided along Dinah Shore Drive and Bob Hope Drive, via building separations and the major entry landscapes primary roadways within the Project Site.
Policy 5: The City shall ensure privacy and safety for residential neighborhoods by providing adequate buffering and screening, particularly those adjoining or integrated with commercial developments (p. 11-19).	As noted in Chapter 6, Design Guidelines, of the Section 24 Specific Plan, privacy and safety for residents will be ensured by providing buffering and screening, especially in neighborhoods adjacent to commercial developments. The Specific Plan states that residential and non-residential uses will not have common entrance hallways or common balconies. This would ensure the security of residents through the provision of separate and secure entrances and exits.
Policy 6: The Community Development and Economic Development Departments shall actively pursue opportunities to attract high quality retail commercial establishments and resort hotels in the City (p. 11-20).	The Section 24 Specific Plan would create a unique, high-quality development that would provide for commercial, office, entertainment, resort, residential, open space, and other support uses in a master-planned project. High quality retail and resort hotels are permitted which would add to the concentration of these uses in the Reservation and the City of Rancho Mirage. Additionally, Sections 5, Development Regulations, and 6, Design Standards and Guidelines, of the Specific Plan would set forth the standards and guidelines that would ensure high quality site planning, architecture and design, landscaping, streetscape elements, signage, and lighting, which in turn would ensure the creation of a unique destination.
Policy 7: The City shall maintain a cooperative planning process with appropriate jurisdictions, including the County of Riverside and the Agua Caliente Band of Cahuilla Indians, assuring an effective advisory role regarding any and all development and land use planning issues proposed within or in close proximity to the City and its Sphere of Influence (p. 11-20).	The Section 24 Specific Plan was developed through cooperative planning efforts between the Tribe and the City of Rancho Mirage.
Affordable Housing	
Policy 1: Specific Plans shall be required to ensure new development achieves high quality building, design, and development standards and provides amenities above those expected in conventional development (p. 11-21).	The Section 24 Specific Plan locates the Adult Active Community at the southwestern portion of Section 24. The remaining Planning Areas would border the residential community on the north and eastern edge of the Project Site to provide a consistent and compatible transition to surrounding land uses. The design standards and guidelines outlined in the Specific Plan would also ensure that high quality architecture and landscaping would be

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	provided along the Projects frontages in a manner that would preserve and enhance the character of the Project Site and surrounding land uses.
Policy 2: Density transfers (the transfer of allowable dwelling units from one area of land to another) may occur in planned residential developments in conjunction with the provision of common area amenities and open space. Golf courses, greenbelts, pool areas and other open space uses incorporated into these developments shall be designated as Open Space areas to assure their preservation as such (p. 11-21).	Although no density transfers are currently planned, such transfers would be consistent with the stated policy because the Project includes substantial open space and common area amenities. The Section 24 Specific Plan includes the provision of adding adequate common area amenities and open space to serve the needs of the residential uses. Open space and recreational amenities would include parks and private and public residential, resort, and commercial open and recreation spaces, which could include but not be limited to pools, clubhouses, plazas, and courtyards. In addition, open space standards and requirements outlined in the Specific Plan would provide for the necessary common-area amenities and open spaces needed for the Section 24 community.
Policy 3: The City shall consider the issues of slope disturbance, development area and lot coverage, view preservation, revegetation, compatibility, public safety, and access when assessing potential residential developments (p. 11-21).	The Section 24 Specific Plan includes a master grading plan, design; development and landscape standards that will control development area and lot coverage, and would also ensure land use compatibility and preserve existing views. Additionally, public safety and access are addressed in the design and layout of the motorized and non-motorized circulation plans included in the Specific Plan.
Commercial Land Uses	
Policy 1: The City shall designate sufficient lands to provide revenue to the City and a full range of commercial services to the community and surrounding areas for present and future years (p. 11-23).	The Specific Plan would provide for the creation of up to approximately 3.1 million square feet of high-quality resort, commercial, office, and entertainment uses that will expand the range of commercial services available to the community. These land uses would be permitted in variations within the Retail, Mixed-Use Core, and Resort Flex land use designations. The proposed land use plan allows commercial land uses along Bob Hope Drive and Ramon Road.
Institutional Uses	
Policy 1: Institutional uses and facilities shall be developed in a manner that assures adequate levels of service, while remaining compatible with existing and future land uses (p. 11-24).	The Specific Plan permits clubhouse facilities in the Active Adult Community, which would not only serve the residents living in the Specific Plan area, which would be compatible with existing uses to the west and south.
Open Space Uses	
Policy 3: The City shall maintain a Development Code that encourages the provision and preservation of open space areas through flexible	The open space standards in the Section 24 Specific Plan require specific provision for open space and common-area amenities for the different land

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development standards (p. 11-23).	uses of the Specific Plan. The open space standards allow the different land uses to combine open space requirements to create larger and more functional open space areas. These standards require the open space necessary to provide for recreational and people-gathering areas within the Project Site. Open space and recreational amenities would include parks and private and public residential, resort, and commercial open and recreation spaces, which could include but not be limited to pools, clubhouses, plazas, courtyards, greenbelts, and jogging paths.
Circulation Element	
Policy 1: The City's street system shall be designed and constructed to maximize mobility, minimize congestion, and assure that all intersections and street segments shall operate at LOS "D" or better during the peak hours of traffic, as generated by the buildout of the Land Use Plan (p. III-19).	The Section 24 Specific Plan Circulation Plan would be consistent with the roadway standards outlined in the City's General Plan. They would be designed to maximize the regional and local vehicular circulation system for the area. Chapter 4 of the Specific Plan defines the street dimensions and setback requirements that would create environments appropriate for residential, mixed-use, live/work, and commercial areas within the Project Site. Additionally, the design standards and guidelines outlined in the Specific Plan address streetscape elements that would enhance the character of each street. The traffic study included in as **Appendix G** to the Draft EIS determined that all intersections and street segments would operate at LOS D or better during the peak hours of traffic with the addition of traffic from the proposed Project. **Section 5.14, Traffic and Transportation**, contains further information about Project's traffic and circulation improvements.
Policy 2: A detailed traffic analysis shall be required for development proposals or other activities that might potentially require roadway improvements above and beyond those evaluated in the Circulation Element and General Plan EIR (p. III-20).	As noted above, a traffic study is included in as **Appendix G** to the Draft EIS. The study found that the Project's traffic can be accommodated by the planned roadway system and that no new roadway improvements above and beyond those identified in the Circulation Element would be needed with development of the Project. **Section 5.14** contains further information about Project's traffic and circulation improvements.
Policy 4: The number of access points and intersections along arterials shall be limited in order to preserve mid block and intersection capacities and to	The Section 24 Specific Plan Circulation Plan would streamline and coordinate access points entering the Project Site to maximize efficient circulation surrounding and within the Project Site, to maximize intersection

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maintain public safety (p. 111-20). **Policy 9:** Circulation and access for undeveloped parcels shall be coordinated with surrounding properties (p.III-21).	capacities, and to maintain public safety. The Specific Plan also encourages the use of traffic calming measures within the Project Site to ensure the safety of pedestrians, such as enhanced paving at intersections. **Section 5.14** contains further information about Project's traffic and circulation improvements.
Policy 5: Access points shall be coordinated between future development in Section 13 and any future development of the properties on the west side of Bob Hope Drive (p. III-20).	The Specific Plan defines fifteen access points, each of which will be attractively landscaped and signed for vehicles and pedestrians. Seven of the fifteen access points are signalized intersections and all would be developed to coordinate with the access points established in the Section 19 and Section 13 Specific Plans.
Policy 7: The City shall develop a system of continuous and convenient bicycle routes and multi-use trails to places of employment, shopping centers, schools, and other high activity areas; as well as a golf cart transportation program (p. III-20).	The Section 24 Specific Plan would create a mixed-use community that enables residents to live within walking and non-motorized vehicle distances from store, restaurants, recreational areas, and associated cultural/entertainment venues. The Project would provide for a Class II bikeway which would be a striped, on-street lane (5 feet wide) for one-way bicycle travel on Bob Hope Drive, Ramon Road, Dinah Shore Drive, Los Alamos Road as well as "A" Street Boulevard. The Class II facilities extend from the Class I pathways to provide dedicated access to the Project's residential and mixed-use interior. The bike path would be shared with golf carts that would connect into the existing golf cart circulation system, which provides Class I paths along the south side of Dinah Shore Drive west of Bob Hope Drive along the west side of Los Alamos Road. SunLine provides service to the Project Site along Dinah Shore via Route 32. As development matures within the Project Site, sufficient demand may be generated to support additional bus lines or a change in existing routes to stop at two locations within the Mixed-Use Core Planning Areas. More specifically, as shown on **Figure 3.0-9, Existing & Conceptual Public Transportation System**, potential SunLine routes with conceptual stop locations could be provided along Ramon Road and Bob Hope Drive. With the current SunLine transit route and the potential future multimodal transit station within Section 13 adjacent to the UPRR, the Project Site could also

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	benefit from the ability to use mass transit. As shown on **Figure 3.0-8, Conceptual Pedestrian and Alternative Vehicle Circulation Plan,** and **Figure 3.0-9**, access to the multimodal station would be provided through a variety of paths and trails. The Specific Plan would also create a concentration of residential and commercial uses adjacent to these transit lines to take advantage of this potential future transit service. **Section 5.14, Traffic and Transportation,** contains further information about the alternative modes of transportation.
Policy 10: Streets within private planned residential areas shall be installed and maintained as private streets, and shall be developed in accordance with development standards set forth in the Zoning Ordinance and other applicable standards and guidelines (p. III-21).	If roadways internal to the Project Site remain under private ownership, those roadways would be privately maintained by one or more of the owner associations. Prior to the approval of any new development within the Project Site, project applicants would be required to provide a clear description of the role of the association in providing and maintaining private roadways, amenities, landscaping, and other improvements. Additionally, the roadways within the Section 24 Specific Plan Circulation Plan would be consistent with the roadway standards outlined in the City's General Plan. Further, the Specific Plan outlines the design standards and guidelines (e.g., landscaping, dimensions, setbacks, lighting) that would ensure that roadways would be designed to maximize efficient circulation within the Project Site to maximize intersection capacities, and to maintain public safety. The design standards and guidelines outlined in the Specific Plan also address streetscape elements that would enhance the character of each street.
Housing Element	
Policy 1: The General Plan shall provide for a mixture of residential densities dispersed throughout the City (p. IV-4). **Policy 2:** The City's residential development standards shall allow for a diversity of housing types while adhering to the General Plan's community design policies (p. IV-4).	The Project would provide a range or residential densities and unit types within the residential Planning Areas. A maximum of 2,406 residential units are proposed, which would include multi-family and single family residences, including age restricted homes for active adults that would expand the range of residential densities available in the community. The proposed housing types would accommodate a broad range of income levels and lifestyles and respond to local and regional housing needs. Additionally, the design standards outlined in the Section 24 Specific Plan (e.g., permitted residential uses, densities, setbacks, and building heights)

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	would ensure that a diversity of housing types be developed, consistent with the City's vision of creating an exemplary community environment for the Project Site. **Section 5.11, Population and Housing**, contains further information about Project's population and housing needs and impacts.
Conservation and Open Space Element	
Parks and Recreational Resources	
Policy 2: To the extent feasible, the City shall provide at least 3 acres of local and community parkland per 1,000 in population, which include park facilities for all age segments of the population (p. V-15).	As outlined in the Section 24 Specific Plan, the parkland provisions would be met through a combination of land dedication, improvements, private recreation, and applicable in-lieu fees. Additionally, the design standards and guidelines outlined in the Specific Plan would provide the location and orientation guidelines necessary for the design of local parks within the Project Site. **Section 5.14, Recreation**, contains further information about the Project's needs for parks and open space.
Policy 3: To the extent feasible, the design of City parks and trails shall accommodate the special needs of the disabled and senior population in Rancho Mirage (p. V-16). **Policy 4:** The design of local parks shall consider neighborhood suggestions for facility needs (p. V-16).	The parks and open space design standards in the Section 24 Specific Plan outline the necessary provisions to provide for usable and accessible recreation areas. The proposed open space requirements and streetscape design elements would create a pedestrian-friendly environment for residents and visitors. Additionally, the Specific Plan would emphasize function and use by requiring a minimum level surface dimension of 20 feet in any direction required for usable common open space. As outlined in the Specific Plan, recreational amenities would include parks and private and public residential, resort, and commercial open and recreation spaces, which could include but not be limited to pools, clubhouses, plazas, courtyards, greenbelts, and jogging paths.
Policy 5: Class III bikeways shall only be permitted in the City where Class I or II bikeways are not feasible and where an essential regional bicycle route connection is missing (p. V-16).	Alternative modes of transportation systems, which include pedestrian, bicycle, neighborhood electric vehicles (NEVs), and golf cart routes, would provide alternative travel modes that would accommodate different population segments of the Section 24 community and the City of Rancho Mirage. For example, various bikeway classifications (Class I, II and III) would be developed in order to link development within the Project Site to the

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	potential future multi-modal transit stations.
Biological Resources	
Policy 1: The City shall support and participate in local and regional efforts to evaluate and protect natural habitats, including suitable habitats for rare and endangered species occurring in the City and the vicinity (p. V-28).	The Tribe has recognized the importance of protecting the Coachella Valley's natural resources; consequently, the THCP was adopted by the Tribe to provide strategies for managing these natural resources while also supporting the goals established by the USFWS to protect sensitive species and habitat. Based on the conservation program defined in the THCP, the Tribe is seeking to enter an Implementing Agreement with, and obtain a Section 10(a) Permit from USFWS to authorize the incidental take of covered species of wildlife in connection with certain activities undertaken by the Tribe, Tribal members, and in some cases, third parties. The THCP has not yet been approved by the USFWS and a Section 10(a) Permit has not been issued. Until take authority is granted to the Tribe through the issuance of a 10(a) Permit, incidental take permits would continue to be obtained directly from the USFWS as allowed by the FESA. The Tribe has independent authority to enforce its obligations under the THCP and the Tribe is implementing the plan to mitigate impacts to sensitive resources on Tribal lands. The THCP is intended to support the issuance of an incidental take permit to the Tribe from USFWS under Section 10(a)(1)(B) of the Federal Endangered Species Act (FESA) for 24 covered species, including 21 sensitive wildlife and 3 sensitive plant species. Several of these species are listed as threatened or endangered under the ESA. Listed covered species include, but are not limited to, the Coachella Valley fringe-toed lizard, Coachella Valley milk vetch, peninsular bighorn sheep, least Bell's vireo, southwestern willow flycatcher, California red-legged frog, and mountain yellow-legged frog. Protection for covered species and the habitats that support them would be afforded through the Tribe's conservation program.
Policy 3: The City shall encourage the use of naturally occurring desert plant materials and discourage the use of non-native plant materials that are harmful to native plant and animal species in landscaping for development projects to the greatest extent possible (p. V-28).	As outlined in the plant palette of the Section 24 Specific Plan, the landscape plan utilizes native plant materials in order to encourage the use of these desert-friendly plants.

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Energy and Mineral Resources	
Policy 1: The City shall promote energy efficiency and conservation in all areas of community development, including transportation, development planning, and public and private sector construction and operation, as well as in the full range of residential and non-residential projects (p. V-32).	The environmental design guidelines outlined in Chapter 6 of the Specific Plan include provisions for energy efficiency and conservation through site design, building design, and landscaping measures. As outlined in the Section 24 Specific Plan, shading devises and techniques (e.g., roof overhangs, arcades, trees) are required for all buildings and outdoor spaces to minimize unnecessary solar-heat gain. Other measures include the use of recycled-content aggregate; the use of swales with native or drought tolerant grasses to collect and filter water runoff; the use of stormwater retention in surface or subsurface storage areas; and the development of recycling programs for residential and commercial uses. Measures for building design and materials are also included in the Specific Plan. For example, developers are highly encouraged to pursue already established best management practices, such as Leadership in Energy and Environmental Design, ComfortWise, and EnergyStar Homes. Other provisions include the accommodation of photovoltaic cells for solar power; the inclusion of architectural features that increase daylighting into interior spaces; the use of light-colored roofing materials; and the use of EnergyStar® appliances and products with low-emitting volatile organic compounds. As outlined in the Specific Plan, landscaping measures include the use of plant materials and species that area native, drought tolerant and/or have low water demand; high-efficiency irrigation systems; and grey water and/or collected rainwater for irrigation.
Policy 2: The General Plan and other community plans shall assure an efficient circulation system and land use pattern in the City (p. V-32). **Policy 3:** Major developments that provide significant employment centers shall be required to provide convenient and safe access to the public transit system (p. V-32).	The land use and circulation plans in the Section 24 Specific Plan focus on transportation and development planning to encourage alternative modes of transportation and promote efficient circulation and land use systems in connection with energy conservation. For example, the proposed circulation plan would streamline and coordinate access points entering the Project Site to maximize efficient circulation surrounding and within the Project Site, to maximize intersection capacities, and to maintain public safety. Additionally, in the proposed non-motorized and alternative circulation plan for the Project, alternative modes of transportation systems are incorporated including pedestrian, bicycle, NEV, and golf cart paths. These systems would connect internally and to the surrounding routes to provide an alternative mode of transportation for residents and visitors, and they would also provide convenient and safe access to the existing SunLine bus route along Dinah Shore Drive and Ramon Road, and to the potential future multimodal

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	transit station that may be developed in the Section 13 planning area immediately north of the Project Site. If developed, the multimodal transit station would allow residents and employees to commute to and from the Project Site without significant reliance on vehicular transportation. Access to the multimodal station through a variety of non-vehicular paths and trails would encourage convenient and safe access to the public transit system.
Water Quality and Resources	
Policy 1: To the greatest extent practical, the City shall encourage the use of drought tolerant landscaping as a means of reducing water demand (p. V-37).	As outlined in the Section 24 Specific Plan, required landscaping measures include the use of plant materials and species that area native, drought tolerant and/or have low water demand; high-efficiency irrigation systems; and grey water and/or collected rainwater for landscaping and irrigation.
Policy 4: The City shall require the use of alternative water supplies, such as recycled or canal water, for urban irrigation, where available (p. V-38). **Policy 5:** New developments shall establish and confirm the ability to meet current and future water resource demands (p. V-38).	The Section 24 Specific Plan will model design features that are both responsive to water conservation and stormwater management best practices that are sensitive to the desert environment sustainability needs of the Coachella Valley. One of the examples of water conservation is to encourage the future use of "grey water," recycled water infrastructure, and collected rainwater in exterior landscape irrigation systems. A Water Supply Assessment/Water Supply Verification (WSA/WSV) for the Project was prepared and submitted to the Coachella Valley Water District for review and approval (see **Appendix H**). The WSA/WSV concluded that there is substantial evidence to support a determination that there will be sufficient water supplies to meet the demands of the Project. A detailed analysis of the Project's water supply and needs is provided in **Section 5.15, Utilities and Service Systems**.
Archaeological and Historic Resources	
Policy 2: Development or land use proposals that have the potential to disturb or destroy sensitive cultural resources shall be evaluated by a qualified professional and appropriate mitigation measures shall be incorporated into project approvals, if necessary (p. V-42).	**Section 5.4, Cultural Resources**, evaluated the potential for impacts on cultural resources as a result of the Project development and it was concluded that the Project would not significantly impact any cultural resources. Adequate Mitigation Measures for the protection of cultural resources are outlined in **Section 5.4**. Mitigation Measures **MM 5.4-1** through **MM 5.4-4** require the retention of a qualified archaeologist to work with the Tribal Historic Preservation Officer, to monitor all grading and

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	ground-altering activities within the Project Site, to adequately catalog unknown resources, and to coordinate treatment and final disposition of any human remains. Refer to **Section 5.4** for more information about cultural resources.
Air Quality Element	
Policy 2: The City shall promote the development of pedestrian-oriented retail centers, as well as community wide multi use trails and bike paths, dedicated bike lanes, and other desirable alternatives to motor vehicle traffic (p. VI-4). **Policy 3:** The City shall promote the appropriate and cost effective development and coordination of mass transit/shuttle service linking residential, shopping, resort, and commercial centers of the City, and participate with CVAG, the Southern California Association of Governments, and public and private service providers to improve and optimize regional transportation services (p. VI-4).	See response to Policy 7 in the City's Circulation Element with regards to alternative means of travel. See also response to Policy 1 under the Energy and Mineral Resources discussion of the Conservation and Open Space Element with regards to site, building, and landscaping alternative energy design measures. In addition to the pedestrian, bicycle, and golf cart paths proposed throughout the Project Site, future residents may purchase NEVs to make short trips to run errands, visit recreation facilities, or meet with friends. NEVs are public street-approved vehicles that have no emissions, and can travel at a maximum speed of 25 mph. In contrast with golf carts, NEVs are able to travel on city streets with posted speed limits of 35 mph or less, and can cross intersections of roadways with higher posted speed limits (per California Vehicle Code Section 385.5).
Policy 4: The City shall encourage the use of clean alternative energy sources for transportation heating, and cooling whenever practical (p. VI-4).	The Section 24 Specific Plan requires that certain measures be taken to protect the long-term success of the Project Site, in particular the use of design features to help reduce energy use to cool buildings. There will be the encouragement of already established sustainable best management practices, such as Leadership in Energy and Environmental Design (LEED) certification. Among other requirements, the use of light-colored roofing materials to reflect heat and reduce cooling requirements of buildings is strongly encouraged.
Noise Element	
Policy 1: The potential of land use patterns, associated traffic and its distribution, and individual development shall be assessed for their potential to generate adverse and incompatible noise impacts. Significant impacts identified shall be appropriately mitigated (p. VII- 9).	The Specific Plan includes development standards that would ensure compatibility between land uses and address potentially significant impacts regarding noise. For example, the Specific Plan outlines measures that prohibit uses, activities, or processes that would produce continual vibrations or noxious odors that are perceptible by the average person

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Policy 2: Noise sensitive land uses, including residences, resorts, community open space, schools, libraries, churches, hospitals, and convalescent homes shall be protected from high noise levels emitted by both existing and future noise sources (p. VII- 9). **Policy 4:** Land uses that are compatible with higher noise levels shall be encouraged to locate adjacent to the City's major arterial roads and highways or the Southern Pacific Railroad/I-10 corridor to maximize noise-related land use compatibility (p. VII-10).	without instruments along property lines within the Project Site or within the interior area of residential units. The proposed land use plan would ensure that compatible land uses would be located adjacent to one another and that noise sensitive land uses such as residential would be protected from noise impacts by locating them away from high noise sources such as the I-10/UPRR corridor and traffic along the adjacent major arterials (Dinah Shore Drive and Bob Hope Drive). For example, retail and resort land uses have been located along Dinah Shore Drive, Ramon Road, and Bob Hope Drive for maximum exposure, but also because these uses would be more compatible with the vehicular noise levels along these roadways. Placing the retail and resort land uses along the major roadway frontages would also provide a noise buffer for the residential uses that would be developed in the Mixed Use Core and Residential Planning Areas. Refer to **Section 5.10, Noise**, for a detailed noise analysis and the Project's Design Features/Elements and Mitigation Measures that would ensure minimal noise impacts.
Policy 3: Project designs shall be required to include measures that assure that interior noise levels for residential development do not exceed 45 dBA (p. VII-10).	Refer to **Section 5.10**, for the detailed analysis and conclusions of the noise analysis and the Project's Design Features/Elements and Mitigation Measures that would ensure minimal noise impacts. As outlined in **Section 5.10**, Project implementation would ensure that all applicable exterior and interior noise standards would be adhered to during the construction and operation phases of the Project.
Safety Element	
Geotechnical Hazards—Wind Erosion and Wind-Blown Sand	
Policy 10: The City shall encourage the incorporation of wind barriers, architectural design or features, and drought resistant ground coverage in new development site designs to mitigate the impacts from erosion and wind-blown sand (p. VIII-22).	The environmental design guidelines outlined in Chapter 6 of the Section 24 Specific Plan contain provisions for wind barriers and wind-blown sand to protect development features of the Project and to reduce hazards associated with wind and wind-blown sand. Additionally, as outlined in the Specific Plan, the landscape design guidelines require the use of drought resistant ground coverage.

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Flooding and Hydrology Hazards	
Policy 2: The City shall provide drainage controls and improvements that enhance local conditions and are consistent with and complement the Master Drainage Plans (p. VIII-29). **Policy 5:** Design major drainage facilities, including debris basins and flood control washes and channels, to balance their enhancement as wildlife habitat and community open space amenities with the functional requirements of these facilities (p. VIII-29).	The proposed drainage plan incorporates the hydrologic systems necessary to contain and percolate drainage on site. The Section 24 Specific Plan contains landscape treatment guidelines for the retention basins and well sites proposed within the Project Site, giving these drainage features the appearance of landscaped open space areas. As also outlined in the Specific Plan, the dual use of parkland for both open spaces and retention basins is highly encouraged to maximize developable land and satisfy on-site retention requirements. Furthermore, Chapter 6 of the Specific Plan contains environmental design guidelines related to the provision of efficient drainage. Some of the measures outlined in Chapter 6 include the use of swales with native or drought-tolerant grasses to collect and filter water runoff; the use of stormwater retention in surface or subsurface storage areas for non-potable water uses; and the use of plant materials and species that area native, drought tolerant and/or have low water demand.
Public Services and Facilities Element	
Water, Sewer, and Utilities	
Policy 4: All subdivisions shall be connected to sewer lines (p. IX-14).	The proposed Project sewer lines would connect to existing sewer lines with sufficient capacity to serve the land uses allowed by the proposed Section 24 Specific Plan and would be designed and constructed in accordance with Coachella Valley Water District standards.
Policy 9: Utility lines on major streets shall have primary consideration for under-grounding (p. IX-15). **Policy 10**: Major utility facilities shall be sited to assure minimal impacts to the environment and the community, and minimize potential environmental hazards (p. IX-15).	The design standards and guidelines outlined in the Section 24 Specific Plan require exterior on-site facilities, including sewer, gas, water, electric, telephone, and communications equipment be installed underground where feasible. Transformers and other utility equipment that are required to be located above ground would be required to be screened and incorporated into landscaped areas wherever possible.
Fire and Police Protection	
Policy 1: All new and improved developments shall be reviewed for their impact on safety and the provision of police and fire protection services (p. IX-20). **Policy 2**: Enforce fire standards and regulations in the course of reviewing	Adequate police and fire services would be provided to the Project Site. Additionally, during the building permitting process, the Riverside County Fire and Sheriff's Departments would review development plans to ensure that adequate facilities and infrastructure are provided to serve the needs of the fire and police departments.

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building plans and conducting building inspections (p. IX-20).	Refer to Section **5.12, Public Services**, for more information about police and fire protection and emergency services.
Policy 5: Emergency police, fire and paramedic vehicle access shall be provided with all new development to the satisfaction of the City (p. IX-20).	The Project would provide adequate and convenient emergency-services access throughout the various areas of the Project Site, including the residential neighborhoods, open space areas, and commercial, office, and entertainment uses. All access ways and drives would be designed and constructed in accordance with City and Riverside County Fire and Sheriff's Department standards.
Schools and Libraries	
Policy 2: The City shall cooperate in the process to secure school impact fees from developers in accordance with state law, and strive to reduce overcrowding and improve the educational quality of the City's public school system (p. IX-23). **Policy 3**: The City shall ensure that adequate library services, space and volumes are available to satisfy the literary and educational needs of its residents (p. IX-23).	To address the increase in student enrollment as a result of the project development, individual project applicants would be required to pay applicable, or a similar contribution to, school impact fees to reduce any impacts to the school system. These fees will be collected by school districts at the time of issuance of building permits for commercial, industrial, and residential projects. The library system of Rancho Mirage indicated that there would be adequate services for residents of the Section 24 community. Refer to Section **5.12, Public Services**, for more information about schools and library services.
Public Buildings and Facilities	
Policy 3: The siting of equipment storage and maintenance yards and facilities will be conducted in a manner which is sensitive to and has a minimum impact on surrounding existing and future land uses (p. IX-36).	As outlined in the design standards of the Section 24 Specific Plan, service areas, utility areas, and trash enclosures are encouraged to be incorporated within the adjacent building envelope. If this is infeasible, these areas would be required to be oriented away from public view, within design enclosures that provide ornamental screening and landscaping.
Community Design Element	
Community Identity	
Policy 1: The City's symbolic identity shall be enhanced through distinct signage, gateways, architecture, and landscaping (p. X-4). **Policy 2:** Unique views of mountains and other natural open spaces from the	The Section 24 land use plan would allocate high-quality, visually distinctive commercial and resort land uses along Bob Hope Drive and Ramon Road fronting the Project Site for maximum exposure. Planning Area 3, which would serve as the major entry point into the Project Site, could feature a

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City's streets shall be preserved and enhanced (p. X-4). **Policy 3:** The City shall ensure the development of high quality, visually distinctive commercial uses (p. X-4). **Policy 4:** The planning and design of residential neighborhoods shall provide distinctive and characteristic design elements along public rights-of-way and within the project, creating a recognizable sense of place (p. X-4).	mix of uses including community retail, restaurants, professional office, and live/work. The Specific Plan outlines design standards and guidelines for streetscape elements such as signage, lighting, street furnishings, walls, fences, gates, paving materials, water features, and public art. The standards involve a high level of planning and design for the Project, and require that the design elements be consistent and complementary throughout the Project Site. Additionally, the landscape standards of the Specific Plan establish landscape treatments in addition to the streetscape elements to provide unique design elements for public rights of way and open spaces. Sufficient recreational and public gathering spaces are required, as outlined in the open space standards of the Specific Plan. Amenities would include parks and private and public residential, resort, and commercial open and recreation spaces, which could include but not be limited to pools, clubhouses, plazas, courtyards, greenbelts, and jogging paths. Sections 5, Development Regulations, and 6, Design Standards and Guidelines, of the Section 24 Specific Plan would set forth the standards and guidelines for high quality site planning, architecture and design, landscaping, streetscape elements, signage, and lighting that would ensure the creation of a unique and special mixed-use community. The mix of land uses provided under the Specific Plan, in conjunction with the open space requirements, would provide for the development of a high quality, pedestrian friendly community. Additionally, the development standards outlined in the Specific Plan contain the necessary requirements for building intensity, setbacks, and height needed for the development of high-quality commercial and multifamily residential uses. Views would also be preserved through the building setback and height standards.
Policy 5: Multi-family residential projects shall provide well-designed and neighborhood enhancing living space, usable and safe private and common open space areas, adequate parking and appropriate automobile storage, screened trash enclosures, a comprehensive landscape program, and perimeter walls and fencing. (p. X-4)	Sections 5, Development Regulations, and 6, Design Standards and Guidelines, of the Section 24 Specific Plan would set forth the standards and guidelines for high quality site planning, architecture and design, landscaping, streetscape elements, signage, and lighting that would ensure the creation of a unique and special mixed-use community. The mix of land uses provided under the Specific Plan, in conjunction with the open space requirements, would provide for the development of a high quality, pedestrian friendly community. Additionally, the development standards outlined in the Specific Plan contain the necessary requirements for building

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	intensity, setbacks, and height needed for the development of high-quality commercial and multifamily residential uses. Views would also be preserved through the building setback and height standards.
Scenic Roadways	
Policy 1: The City shall develop and maintain high-quality roadways that frame views, buffer surrounding residential development, and enhance commercial uses (p. X-8) **Policy 2**: The City shall ensure the development of well-designed, richly landscaped intersections that are attractive to drivers and pedestrians alike (p. X-9). **Policy 3**: View corridors shall be preserved through streetscape improvements and specialized design standards (p. X-9).	Landscape treatments for the different roadways within the Section 24 Specific Plan contain provisions for framing views and allowing exposure to adjacent commercial uses. The Specific Plan also designates important intersections with special landscape treatments that are consistent with the City's General Plan "oasis" concept. Additionally, the streetscape components addressed in the design standards and guidelines of the Specific Plan set forth requirements for signage, lighting, special paving, walls and fences, and street furnishings within public rights of way. The treatment and use of these elements also emphasize special intersections within the community. Views would also be preserved through the building setback and height standards outlined in the Specific Plan.
Perimeter Walls/Fencing	
Policy 1: Walls and fence designs shall be considered important components of the design review process and overall streetscape improvement plans (p. X-11).	Wall and fence design standards are included in the Specific Plan. These elements are required to be consistent in quality and design with the existing walls in the surrounding area.
Signage and Lighting	
Policy 1: The City shall encourage high-quality, low-scale signage that effectively communicates in an attractive manner (p. X-12). **Policy 2:** Lighting features that preserve the beauty of the desert night while still performing directional, safety, and informational functions shall be designed and incorporated into development projects (p. X-14).	The design standards and guidelines outlined in the Section 24 Specific Plan set forth general requirements for signage and lighting in the Project Site. As outlined in the Specific Plan, in addition to the signage standards and guidelines, a sign program is required on a project-by-project basis, which identifies a hierarchy of signs with a common theme, as well as the signage location and style. The sign programs are required to be consistent and complementary within the Project Site. The lighting design through the Project Site would be designed to highlight design and landscaping features, reinforce the community theme, and help ensure pedestrian and vehicular safety. As outlined in the Specific Plan, lighting is required to be designed to preserve the beauty of the desert night. The Specific Plan also outlines prohibitions on lighting types, such as blinking, flashing, and oscillating lights.

Relevant General Plan Policies	Specific Plan Consistency
Architecture	
Policy 1: The City shall encourage cohesive yet flexible architectural design to all structures within the City (p. X-14).	As outlined in the Section 24 Specific Plan, architectural styles selected for the Project are required to be compatible with the surrounding architecture of the existing community. Visual diversity would be promoted through the use of different architectural styles within the Project Site, but these styles are required to be complementary within the Project Site and with the existing architectural styles. The Specific Plan design guidelines for building mass, scale, and form encourage the modulation and articulation of building form to avoid repetitive or blank elevations. Additionally, the architectural guidelines of the Specific Plan focus on design details, shadow elements, rooflines variations, and accent features such as towers to ensure architectural interest.
Policy 2: The City shall encourage new development to incorporate "green building" practices to maximize resource conservation and be compatible with the surrounding desert environment (p. X-15).	See response to Policy 1 under the Energy and Mineral Resources section of the Conservation and Open Space Element.
Commercial Development	
Policy 1: Projects shall incorporate architectural interest and variety within the context of a unified setting, including commonalities of color, landscaping, signage and lighting. Strong architectural detailing including façade articulation and varied building materials, colors, and massing shall be encouraged (p. X-16). **Policy 2:** Projects shall provide comfortable, attractive, and distinctive pedestrian amenities including sitting areas, shade structures, fountains, and arcades (p. X-16). **Policy 3:** The City shall encourage the incorporation of arcades and covered paseos in the design of retail commercial structures (p. X-16). **Policy 4:** Projects shall incorporate a sense of playfulness into the design of public places with novelty fountains and public art (p. X-17). **Policy 5:** Projects shall design highly visible entrances through accent landscaping, monument signs, back lighting, specialized paving, and other design amenities (p. X-17).	Sections 5, Development Regulations, and 6, Design Standards and Guidelines, of the Specific Plan define standards and guidelines for high quality site planning, architecture and design, landscaping, streetscape elements, signage, and lighting that would ensure the creation of a unique and special destination place for the City of Rancho Mirage. The design standards and guidelines outlined in the Specific Plan contain provisions for building orientation and massing, architectural styles and building design, pedestrian spaces, parking and service areas, and streetscape elements. The architectural guidelines encourage the use of arcades and covered paseos to incorporate shade elements within the façade of the building. The hardscape guidelines direct the use of seating areas, shade features, special paving, and other streetscape features important to shaping the character of plazas and public spaces within the Project Site. The Specific Plan also provides for the design of major intersections and entries to create a sense of entrance and arrival through the use of landscape design, themed signage, lighting, and enhanced hardscape elements.

Relevant General Plan Policies	Specific Plan Consistency
Policy 6: Projects shall incorporate rich and varied paving materials on entry driveways, pedestrian connections from parking areas, pedestrian paths along storefronts, and within plazas and courtyards (p. X-17)	
Policy 7: Monument, retail and directional signs shall use accent lighting (p. X-17). **Policy 8:** Projects shall incorporate monument signs near corners or entrances to retail centers (p. X-17).	The design standards and guidelines outlined in the Specific Plan set forth general requirements for signage in the Project Site. As outlined in the Specific Plan, in addition to the signage standards and guidelines, a sign program is required on a project-by-project basis, which identifies a hierarchy of signs with a common theme, as well as the signage location and style. The sign programs are required to be consistent and complementary within the Project Site.
Policy 10: Service bay doors, necessary for tire stores, service stations, lube shops, and car washes should be oriented away from public streets and screened from neighboring properties (p. X-17).	As outlined in the design standards and guidelines of the Section 24 Specific Plan, service and utility areas are encouraged to be incorporated in the adjacent building envelope. If this is infeasible, these areas are required to be oriented away from public view, within design enclosures that provide ornamental screening and landscaping.
Parking Design	
Policy 1: Parking shall be screened from roadways by encouraging landscaped medians, berms, trellises, grade changes, or placement behind buildings (p. X-18). **Policy 2**: The City shall encourage layered landscaping with overstory canopy trees for shade and understory shrubs and groundcover in parking areas. **Policy 3:** Projects shall configure parking areas to allow for the free flow of vehicular traffic and convenient vehicular access to customers (p. X-18). **Policy 4:** The City shall encourage the landscaping of parking areas to reduce the deflection of heat into nearby buildings and to reduce the paved surface area. Shade trees are especially encouraged (p. X-19).	As outlined in the design standards and guidelines of the Specific Plan, parking areas would be required to be clustered where feasible, to avoid large, expansive parking lots and maximize security, surveillance, and efficient access for pedestrians and vehicles. Parking areas are encouraged to locate behind buildings so that the building façade can face directly onto the street, creating a more engaging pedestrian corridor. The design standards and guidelines also encourage the use of landscaping and trellises to screen parking areas. Additionally, landscape standards of the Specific Plan outlines landscape treatment specific to parking areas, which incorporates canopy trees for shade in addition to shrubs and groundcover. Further, as outlined in the environmental design guidelines of the Specific Plan, drought-tolerant or native canopy or deciduous trees will be located around paved areas to reduce solar heat absorption by the paving.
Policy 5: Lighting shall be directed downward to protect from nighttime glare and illuminate pedestrian pathways with bollard lighting (p. X-19).	The Specific Plan identifies streetscape elements such as lighting and signage, which would work in conjunction with the landscape themes to emphasize access and safety. The lighting standards outlined in the Specific

Relevant General Plan Policies	Specific Plan Consistency
Policy 6: Projects shall provide directional and identification signs in contiguous parking areas one acre or greater in size to facilitate pedestrian movement to and from parked vehicles (p. X-19).	Plan contain provisions for pedestrian-scale lighting to promote safety and also require the installation of full cut-off luminaries in parking areas. Additionally, as outlined in the Section 24 Specific Plan, entry and exit points are encouraged to be well marked with streetscape and landscape features in order to provide efficient access.
People-Gathering Places	
Policy 1: Commercial developments shall be designed to incorporate attractive, people-friendly spaces (p. X-20).	The open space standards and the applicable design guidelines and standards outlined in the Specific Plan establish standards for the development of functional gathering spaces within the commercial areas of the Project. The design and layout of the commercial buildings would encourage safe and convenient pedestrian activity through the creation of plazas, corridors, courtyards, outdoor eating areas, and urban open spaces. The building orientation and siting guidelines outlined in the Specific Plan also encourage public spaces and retail uses along major internal roadways, which would foster pedestrian activity along a well-designed circulation plan. Additionally, the hardscape guidelines outlined in the Specific Plan include provisions for the design and location of seating areas, shade structures, and other elements of the streetscape for public spaces.
Economic and Fiscal Element	
Policy 1: The City's land use designations shall provide opportunities for a broad range of residential, commercial, office, institutional, and light industrial development in appropriate locations (p. XI-6).	The Section 24 land use plan provides for a mix of land uses including commercial, office, institutional, entertainment, resort, and residential uses planned to be consistent and compatible with existing and planned uses on surrounding land. These commercial uses will line Bob Hope Drive and Ramon Road and residential uses are buffered by mixed-use designations and adjacent to other residential uses.

Table 5.9-2
SCAG 2012 RTP/SCS Analysis

Goal		Analysis
RTP/SCS G1:	Align the plan investments and policies with improving regional economic development and competitiveness.	**Consistent**: The Project will create a vibrant, mixed-use regional destination development that stimulates economic development opportunities for the Tribe and the greater community.
RTP/SCS G2:	Maximize mobility and accessibility for all people and goods in the region.	**Consistent**: Development of the Project would ensure that mobility and accessibility for people and goods would be maximized. Emphasis is placed on "Complete Streets" transportation planning approach for public streets which will encourage a balanced and safe mix of vehicular, pedestrian, bicycle, golf cart, NEV, local "circulator" transit and regional bus transit throughout the Project Site. The traffic study included in as **Appendix G** to the Draft EIS determined that all intersections and street segments would operate at LOS D or better during the peak hours of traffic with the addition of traffic from the proposed Project. Refer to **Section 5.14**, which addresses local and regional transportation, traffic, circulation, and mobility in more detail.
RTP/SCS G3:	Ensure travel safety and reliability for all people and goods in the region.	**Consistent**: All modes of transit would be required to follow safety standards set by corresponding regulatory documents. Streets, pedestrian walkways and bicycle routes will follow safety precautions and standards established by local and regional agencies.
RTP/SCS G4:	Preserve and ensure a sustainable regional transportation system.	**Consistent**: The traffic study included in **Appendix G** for the Draft EIS determined that all intersections and street segments would operate at LOS D or better during the peak hours of traffic with the addition of traffic from the Project. Individual project developments within the Project Site will pay the fair share contribution of the TUMF fee, or an applicable in-lieu fee amount contributing to development of planned regional transportation system.

Goal		Analysis
		Refer to **Section 5.14**, which addresses local and regional transportation, traffic, circulation, and mobility in more detail.
RTP/SCS G5:	Maximize the productivity of our transportation system.	**Consistent:** The local and regional transportation system would be improved and maintained to encourage efficiency and productivity. The Project strives to maximize productivity of the region's public transportation for residents, visitors, and workers coming into the Project Site.
RTP/SCS G6:	Protect the environment and health for our residents by improving air quality and encouraging active transportation (non-motorized transportation, such as bicycling and walking).	**Consistent**: The reduction of energy use, improvements in air quality, and promotion of more environmentally sustainable development would be encouraged by planning for the use of alternative transportation modes, green design techniques for buildings, and other energy-reducing techniques. For example, the Projects would be encouraged to comply with the provisions of the Voluntary Green Building Project and other best management practices to reduce energy demands. As proposed, the Section 24 Specific Plan allows a mixture of residential, commercial, office, industrial, entertainment, educational, recreational uses, and/or other uses that allow residents to help reduce vehicle trips, thereby reducing air quality emissions, greenhouse gas emissions, and traffic impacts.
RTP/SCS G7:	Actively encourage and create incentives for energy efficiency, where possible.	**Consistent**: The Project would allow for the circulation of automobiles and service vehicles in a safe and efficient manner. The street pattern is organized to provide efficient circulation and access to each of the Planning Areas included in the system. Innovation in desert-sensitive architectural design will be used including energy-efficient Energy Star certified lighting fixtures and equipment. Project designs would increase the structures energy efficiency, water efficiency, and overall sustainability. The Project is also located in an urban area that would reduce vehicle trips and vehicles miles traveled due to the urban infill characteristics

Goal		Analysis
		and proximity to public transit stops. These measures and features are consistent with existing recommendations to reduce GHG emissions.
RTP/SCS G8:	Encourage land use and growth patterns that facilitate transit and non-motorized transportation.	**Consistent**: The Specific Plan as proposed requires a "Complete Streets" approach in the planning and design of a Vehicular Circulation Plan for the streets. The SunLine Transit Authority is the provider of public transit service within the Coachella Valley. As development matures within the Project Site, sufficient demand may be generated to support additional bus lines or a change in routes to stop at two or three additional locations within the Mixed-Use Core or other Planning Areas along Bob Hope Drive and Ramon Road.
RTP/SCS G9:	Maximize the security of the regional transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies.	**Consistent**: The Project would not result in significant impacts to the regional transportation system.

Table 5.9-3
Riverside County LAFCo Analysis

Relevant LAFCo Policies	Specific Plan Consistency
Goal No. 3: Maximize Interagency and Public Communications	
Objective No. 1: Increase communication between local agencies and citizens.	
3.1.5 Cities must coordinate all sphere of influence and annexation proposals that include Indian Reservation Lands with the appropriate Tribal Government in advance of application submittal.	The Tribe and the City of Rancho Mirage are cooperating on the planning for this Specific Plan area.
3.1.6 All applications for municipal sphere of influence amendments or annexations that include Indian Reservation Lands shall be referred to the appropriate Tribal Government for review and comment prior to hearing by the Commission. The Commission shall consider the existence of a Tribal land use agreement with the subject city an important factor when reviewing such proposals.	The potential for future annexation of the Project Site to the City of Rancho Mirage is being considered by the Tribal Council as part of the review of this proposed Project.
3.1.7 The Commission shall not approve any municipal annexation of Indian Reservation Lands without the consent of the Tribal Council.	Any future application for annexation of the Project Site to the City will be reviewed by the Tribal Council.

Conflict with Applicable Habitat Conservation Plan

Active Adult Community

The Tribe's purpose in adopting the THCP is to continue to protect natural resources in and around the Reservation by assuming the role of primary manager of such resources and land uses that impact them. Also, the Tribe wishes to achieve this by establishing consistency and streamline permitting requirements with respect to protected species. Development of the Project Site would be subject to the THCP, which is intended to address development and other activities taking place within the Tribe's jurisdictions and provide the means to protect and conserve federally listed species and others deemed by the Tribe and USFWS to be sensitive and potentially in need of listing in the future.

The Project Site is not located within the Target Acquisition Areas identified in the THCP and with payment of the conservation fee, development would be consistent with the THCP. The Tribe will use mitigation fees collected to acquire conservation lands to implement the THCP. While the USFWS has not yet approved the THCP or issued a 10(a) Permit, the Tribe has independent authority to implement the THCP to mitigate impacts to sensitive resources on Reservation lands. The impacts of the Project will be mitigated to a less than significant level through payment of the THCP conservation fee as the THCP covers the sensitive species the Project would impact.

Tribal Planning Areas

As discussed above, the Project Site, inclusive of the Tribal Planning Areas, is located within the THCP area and development would not conflict with this habitat conservation plan as the Project Site is not located within the Target Acquisition Areas identified in the plan. Moreover, the applicable THCP conservation fee will be paid by future projects in the Tribal Planning Areas. Accordingly, impacts would be less than significant.

5. Cumulative Impacts

Development of the proposed Section 24 Specific Plan project, in conjunction with other cumulative development in the area permitted by the City and Riverside County General Plans could result in citywide and regional land use and planning impacts. However, upon adoption of the Section 24 Specific Plan, the Project would be consistent with land uses plans relevant to the area, including the Rancho Mirage General Plan and Municipal Code, SCAG RTP/SCS, and the THCP.

The planned uses within the Project Site will be consistent and compatible with existing and surrounding land uses including the Mission Hills community to the south and west, the Agua Caliente Casino Resort Spa to the northeast, and the Commercial Center to the southeast. To the east of the Project Site is Section 19, an approved Specific Plan which will develop retail and resort uses along Bob Hope Drive,

similar to that of the proposed Project. Section 13 is north of the Project Site and will be designated as Regional Commercial by the City, which is consistent with the north portion of the Project Site. Therefore, development of the Project would create a cohesive community of residential and other support uses, thereby contributing to the development of a sustainable urban neighborhood. The Specific Plan's Planning Areas have also been developed to enable the Project to be constructed incrementally while still achieving a unified, comprehensive development plan. Additionally, each Planning Area would be subject to a distinct list of permitted uses and design and development standards.

As with the Project, related projects and other future growth would be subject to compliance with the local and regional plans reviewed in this Section. Therefore, implementation of related projects in accordance with plans would not combine with the Section 24 Specific Plan to result in potentially significant cumulative land use impacts. Cumulative impacts would be less than significant.

C. MITIGATION MEASURES

No Mitigation Measures are necessary.

D. LEVEL OF SIGNIFICANCE OF MITIGATION

No significant unavoidable adverse impacts relating to land use and planning would result on a project-specific or cumulative basis.

5.10 NOISE

This Section of the Draft EIS evaluates the potential for the proposed Project to result in noise impacts within the Project Site and surrounding communities. This evaluation uses procedures and methodologies as specified by the California Department of Transportation (Caltrans), the Federal Transit Administration (FTA), and the Federal Highway Administration (FHWA). Noise monitoring and roadway noise modeling datasheets are included in **Appendix F**.

Please see **Section 9.0** for a glossary of terms, definitions, and acronyms used in this Draft EIS.

A. ENVIRONMENTAL SETTING

1. Fundamentals of Noise

Sound is mechanical energy transmitted by pressure waves in a compressible medium, such as air. Noise can be defined as unwanted sound. Sound is characterized by various parameters that include the rate of oscillation of sound waves (frequency), the speed of propagation, and the pressure level or energy content (amplitude). In particular, the sound pressure level is the most common descriptor used to characterize the loudness of an ambient sound level. The decibel (dB) scale is used to quantify sound intensity. Because sound pressure can vary enormously within the range of human hearing, a logarithmic loudness scale is used to keep sound intensity numbers at a convenient and manageable level. The human ear is not equally sensitive to all frequencies in the entire spectrum, so noise measurements are weighted more heavily for frequencies to which humans are sensitive in a process called A-weighting, written dB(A). The A-weighted sound level is measured on a logarithmic scale such that a doubling of sound energy results in a 3.0 dB(A) increase in noise level. In general, changes in a noise level less than 3.0 dB(A) are not typically noticed by the human ear.[1] Changes from 3 to 5 dB(A) may be noticed by some individuals who are extremely sensitive to changes in noise. An increase greater than 5 dB(A) is readily noticeable, while the human ear perceives a 10 dB(A) increase in sound level to be a doubling of sound volume. Common noise levels associated with certain activities are shown on **Figure 5.10-1, Common Noise Levels**.

2. Noise Terminology

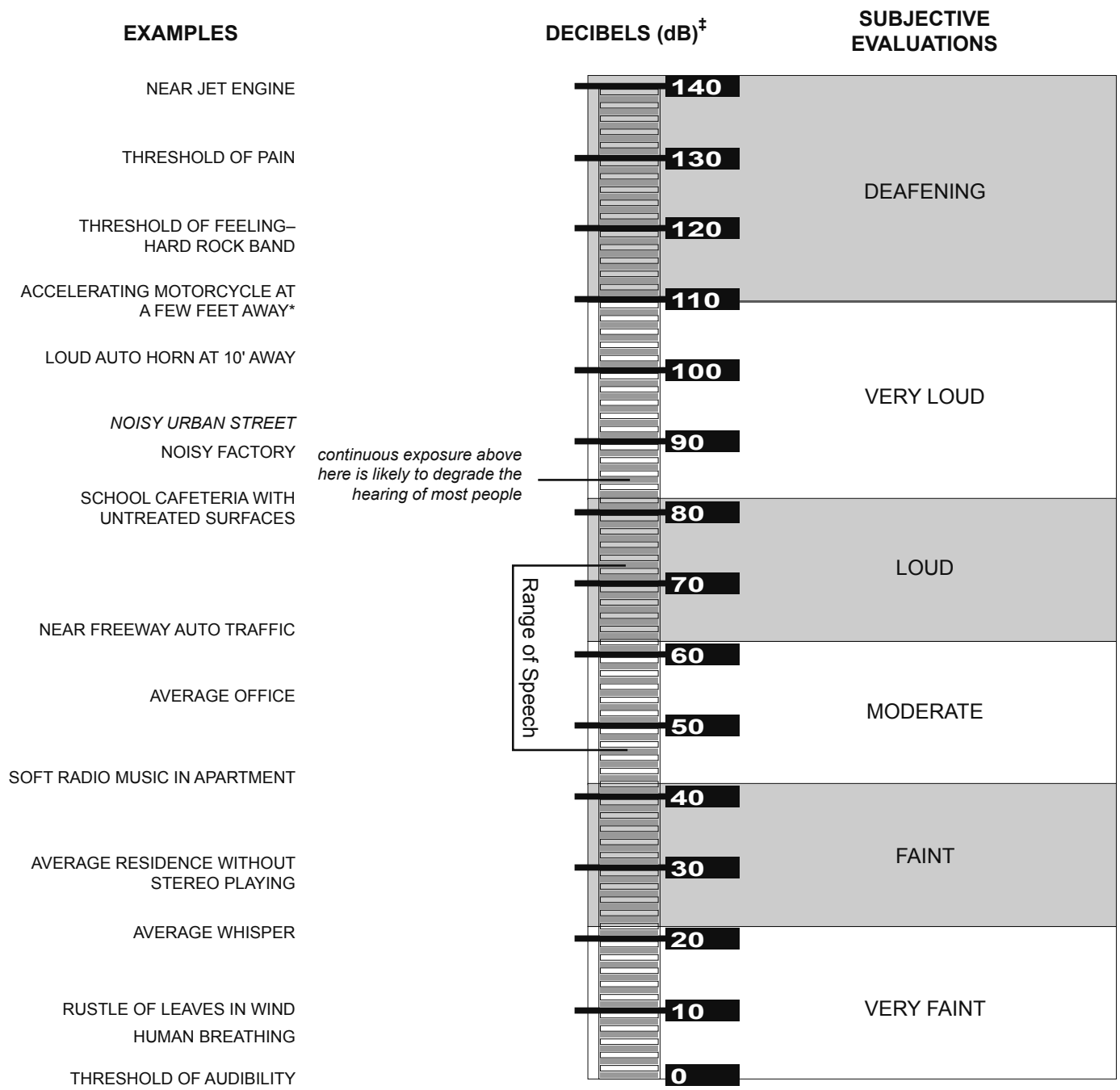
Different types of scales are used to characterize the time-varying nature of sound. Applicable scales include the maximum noise level (Lmax), equivalent noise level (Leq), and the Community Noise Equivalent Level (CNEL). Lmax is the maximum noise level measured during a specified period. Leq is the

1 US Department of Transportation, Federal Highway Administration, *Fundamentals and Abatement of Highway Traffic Noise* (Springfield, VA: US Department of Transportation, Federal Highway Administration, September 1980), p. 81.

average A-weighted sound level measured over a given time interval. Leq can be measured over any period, but is typically measured for 1-minute, 15-minute, 1-hour, or 24-hour periods. CNEL is an average A-weighted sound level measured over a 24-hour period. However, this noise scale is adjusted to account for some individuals' increased sensitivity to noise levels during the evening and nighttime hours. A CNEL noise measurement is obtained by adding 5 dB(A) to sound levels occurring during the evening, from 7:00 PM to 10:00 PM, and 10 dB(A) to sound levels occurring during the nighttime, from 10:00 PM to 7:00 AM. The 5 dB(A) and 10 dB(A) "penalties" are applied to account for increased noise sensitivity during the evening and nighttime hours. Day-night average level (Ldn) is the A-weighted equivalent sound level for a 24-hour period with an additional 10 dB imposed on the equivalent sound levels for nighttime hours of 10:00 PM to 7:00 AM. **Table 5.10-1, Noise Descriptors,** identifies various noise descriptors developed to measure sound levels over different periods of time.

3. Noise Barrier Attenuation

The introduction of a barrier between a noise source and a sensitive receptor redistributes the sound energy into several paths, including a diffracted path over the top of the barrier, a transmitted path through the barrier, and a reflected path directed away from the sensitive receptor. Diffraction is the bending of sound waves over the top of a barrier. The area behind the barrier in which diffraction occurs is known as a "shadow zone," and sensitive receptors located in this area will experience some sound attenuation. The amount of attenuation is related to the magnitude of the diffraction angle. The diffraction angle will increase if the barrier height increases or if the distance from sensitive receptors is decreased to the barrier. In addition to diffraction with the use of barriers, sound can travel through the barrier itself. The level of sound transmission through the barrier depends on factors relating to the composition of the barrier (such as its weight and stiffness), the angle of incidence of the sound, and the frequency spectrum of the sound. The rating of a material's ability to transmit noise is called transmission loss. Transmission loss is related to the ratio of the incident noise energy to the transmitted noise energy, and it is normally expressed in decibels, which represents the amount noise levels will be reduced when the sound waves pass through the material of the barrier.



** NOTE: 50' from motorcycle equals noise at about 2000' from a four-engine jet aircraft.*

‡*NOTE: dB are "average" values as measured on the A–scale of a sound–level meter.*

FIGURE **5.10-1**

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Common Noise Levels

Table 5.10-1
Noise Descriptors

Term	Definition
Sound	A disturbance created by a vibrating object, which, when transmitted by pressure waves through a medium such as air, is capable of being detected by a receiving mechanism, such as the human ear or a microphone.
Noise	Sound that is loud, unpleasant, unexpected, or otherwise undesirable.
Decibel (dB)	The unit for measuring the volume of sound equal to 10 times the logarithm (base 10) of the ratio of the pressure of a measure sound to a reference pressure.
A-Weighted Decibel (dB[A])	A sound measurement scale that adjusts the pressure of individual frequencies according to human sensitivities. The scale accounts for the fact that the region of highest sensitivity for the human ear is between 2,000 and 4,000 cycles per second (hertz).
Equivalent Continuous Sound Level (Leq)	The sound level containing the same total energy as a time varying signal over a given time period. The L_{eq} is the value that expresses the time averaged total energy of a fluctuating sound level. L_{eq} can be measured over any time period, but is typically measured for 1-minute, 15-minute, 1-hour, or 24-hour periods.
Day-Night Level (Ldn)	The energy average of the A-weighted sound levels occurring during a 24-hour period with 10 dB(A) added sound levels occurring from 10 PM to 7 AM.
Community Noise Equivalent Level (CNEL)	A rating of community noise exposure to all sources of sound that differentiates between daytime, evening, and nighttime noise exposure. These adjustments add 5 dB(A) for the evening, 7:00 PM to 10:00 PM, and add 10 dB(A) for the night, 10:00 PM to 7:00 AM. The 5 and 10 decibel penalties are applied to account for increased noise sensitivity during the evening and nighttime hours. The logarithmic effect of adding these penalties to the 1-hour L_{eq} measurements typically results in a CNEL measurement that is within approximately 3 dB(A) of the peak-hour L_{eq}.[1]
sound pressure level	The sound pressure is the force of sound on a surface area perpendicular to the direction of the sound. The sound pressure level is expressed in dB.
Ambient Noise	The level of noise that is all encompassing within a given environment, being usually a composite of sounds from many and varied sources near to and far from the observer. No specific source is identified in the ambient environment.

Note :California Department of Transportation, Technical Noise Supplement; A Technical Supplement to the Traffic Noise Analysis Protocol, (Sacramento, CA: November 2009), N51-N54.

Noise energy can also be reflected by a barrier wall. The reflected sound energy thus would not affect the sensitive receptor but may affect sensitive receptors to the left and right of the developed barrier.[2] Man-made or natural barriers can also attenuate sound levels, as illustrated in **Figure 5.10-2, Noise Barrier Diffraction**. A solid wall or berm may reduce noise levels by 5 to 10 dB(A).[3]

Contemporary wood frame construction techniques in California typically provide about 25 dB(A) reduction in exterior to interior noise levels. This is due to structural means used to comply with California regulations, such as the Title 24 energy conservation standards. The minimum attenuation of exterior to interior noise provided by typical structures in California is provided in **Table 5.10-2, Noise Attenuation of Typical Structures.**

Table 5.10-2
Noise Attenuation of Typical Structures

Building Type	Open Windows (dB[A])	Closed Windows (dB[A])[a]
Residences	17.0	25.0
Churches	20.0	30.0
Hospitals/convalescent homes	17.0	25.0
Offices	17.0	25.0
Theaters	20.0	30.0
Hotels/motels	17.0	25.0

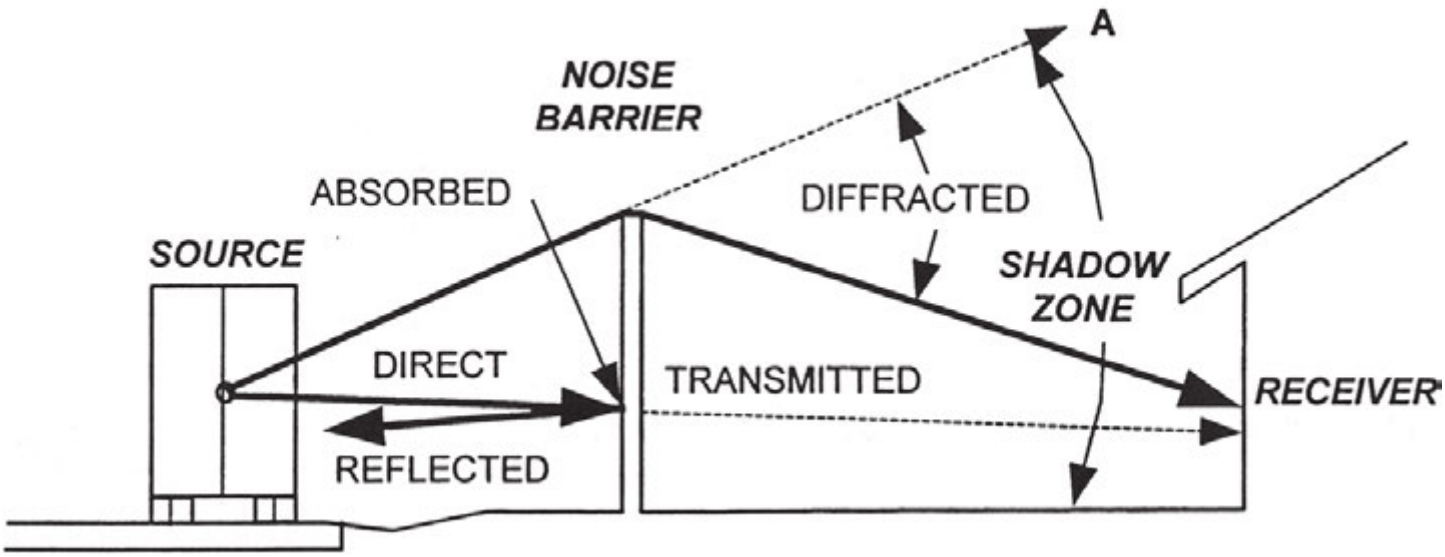
Source: Bolt Beranek and Newman, Inc., Highway Noise: A Design Guide for Highway Engineers, NCHRP Report No. 117, (1971). Prepared for Highway Research Board, National Academy of Sciences, Washington, D.C.
[a] *As shown, structures with closed windows can attenuate exterior noise by a minimum of 25.0 to 30.0 dB(A).*

4. Vibration

Vibration consists of waves transmitted through a solid medium. Groundborne vibration propagates from the source through the ground to adjacent buildings by surface waves. A vibration may be a single pulse, a series of pulses, or a continuous oscillatory motion. The frequency of a vibrating object describes how rapidly it is oscillating, measured in hertz (Hz). Most environmental vibrations consist of a composite, or "spectrum," of many frequencies, and are generally classified as broadband or random vibrations. **Figure 5.10-3, Typical Levels of Groundborne Vibration**, identifies typical groundborne vibration levels.

2 U.S. Department of Housing and Urban Development, Office of Community Planning and Development, *The Noise Guidebook* (n.d.), 21–23.

3 Federal Highway Administration, *Highway Noise Fundamentals* (1980), 18.



SOURCE: Caltrans, Technical Noise Supplement, (October 1998), Figure N2144.1

FIGURE **5.10-2**

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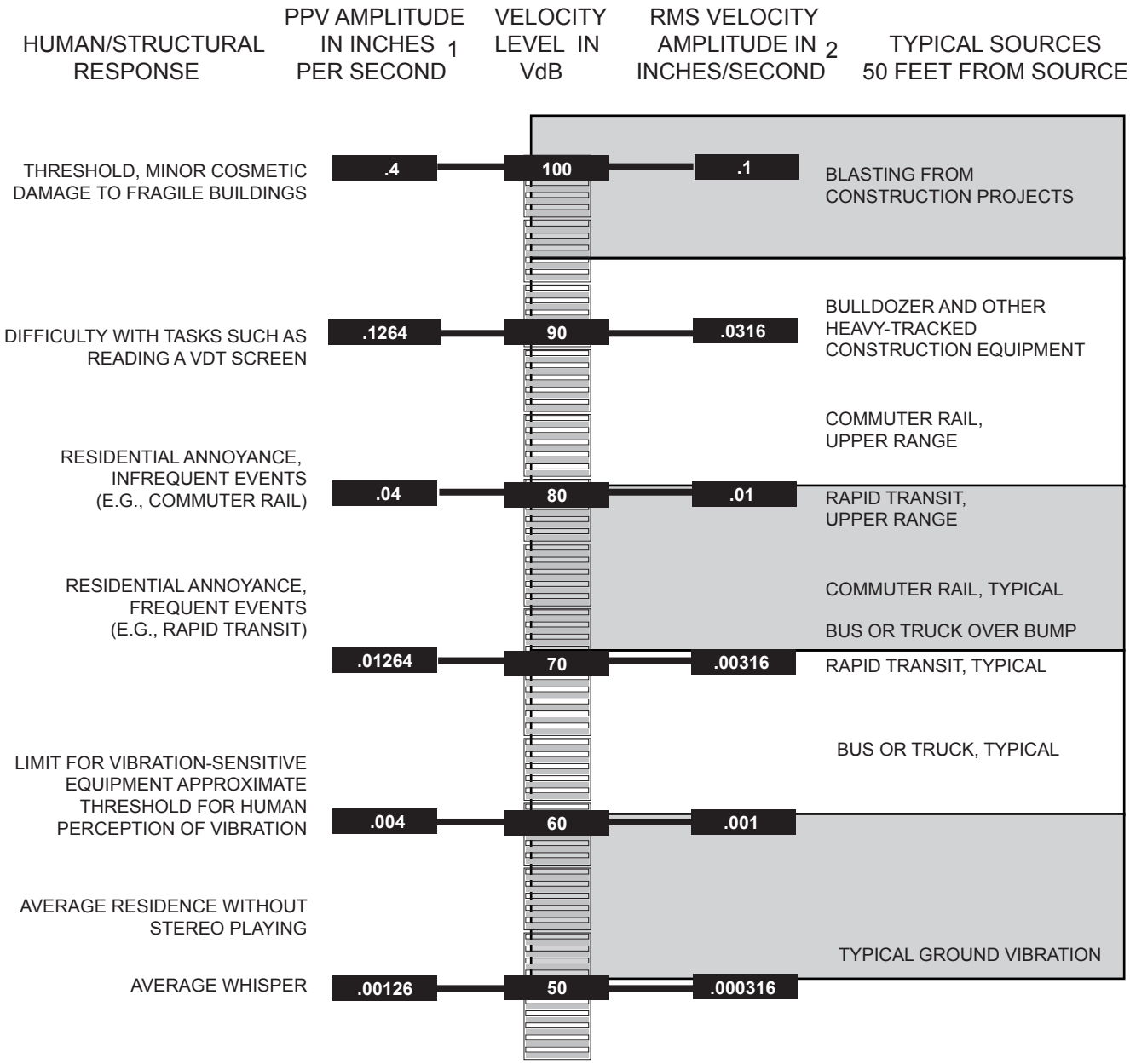
Noise Barrier Diffraction



[1] PPV is typically a factor 1.7 to 6 times greater than RMS vibration velocity. A factor of 4 was used to calculate noise levels.

[2] Vibration levels in terms of velocity levels are defined as: $V=20 \times \log_{10} (a/r)$
V=velocity levels in decibels
a=RMS velocity amplitude
r=reference amplitude (accepted reference quantities for vibration velocity are 1×10^{-6} inches/second in the United States)

FIGURE **5.10-3**

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Typical Levels of Ground-Borne Vibration

The normal frequency range of most groundborne vibration that can be felt starts from a low frequency of less than 1 Hz to a high of about 200 Hz. Vibration is often measured in terms of the peak particle velocity (PPV) in inches per second (in/sec), because it is related to the stresses that are experienced by buildings. Vibration is also measured in vibration decibels (VdB). The human threshold of perception is approximately 65 VdB. A vibration velocity of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels for many people. Vibration levels are acceptable at approximately 85 VdB if there are an infrequent number of events per day.[4]

Vibration energy attenuates as it travels through the ground, causing the vibration amplitude to decrease with distance away from the source.[5] High frequency vibrations reduce much more rapidly than low frequencies, so that in the far-field from a source, the low frequencies tend to dominate. Soil properties also affect the propagation of vibration. When groundborne vibration interacts with a building, there is usually a ground-to-foundation coupling loss, but the vibration can also be amplified by the structural resonances of the walls and floors.[6] Vibration in buildings is typically perceived as rattling of windows or of items on shelves, or the motion of building surfaces.

Groundborne vibration is generally limited to areas within a few hundred feet of certain types of construction activities, especially pile driving. Road vehicles rarely create enough groundborne vibration to be perceptible to humans unless the road surface is poorly maintained and there are potholes or bumps.[7] If traffic, typically heavy trucks, induces perceptible vibration in buildings, such as window rattling or shaking of small loose items, then it is most likely an effect of low-frequency airborne noise or ground characteristics. Human annoyance by vibration is related to the vibration energy and the number and duration of events, as well as the setting in which the person experiences the vibration. As discussed previously, vibration can be amplified by the structural resonances of the walls and floors of buildings. The more the events or the greater the duration, the more annoying it will be to humans.

5. Existing Conditions

The approximately 577-acre Project Site is surrounded by the City of Rancho Mirage ("City") to the west, south, and east. The City of Rancho Mirage is considered to be in the heart of the Coachella Valley in Riverside County, nestled at the base of the Santa Rosa Mountains and conveniently located to utilize the southern California freeway system via Interstate 10 (I-10). The majority of future development in this area of the Coachella Valley is expected to occur near the I-10 corridor.

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4 Federal Transit Administration, *Transit Noise and Vibration Impact Assessment* (2006), 7-8.
5 California Department of Transportation, *Earthborne Vibrations* (1990), VII-27.
6 Federal Transit Administration, *Transit Noise and Vibration Impact Assessment* (2006), 7-1, 7-2.
7 Federal Transit Administration (2006), 7-9.

Project Area Noise Levels

The Project Site is currently vacant. While there are no existing stationary- or mobile-sources of noise within the Project Site, the site is surrounded by transportation and stationary sources of noise that contribute to the existing ambient noise environment. The Project Site is bound by Ramon Road on the north; Bob Hope Drive on the east; Dinah Shore Drive on the south; and Los Alamos Road on the west. Stationary noise sources that contribute to the ambient noise environment include the Agua Caliente Casino/Resort/Spa located directly east of the northern portion of the Project Site. In addition to mobile and stationary sources of noise, the Coachella Valley also experiences high wind gusts that can significantly elevate the ambient noise environment on windy days.

The existing ambient noise environment in the Project Site was determined by conducting noise measurements. Noise monitoring was conducted over 15-minute intervals with a Larson Davis 831 Sound Level Meter. The ambient noise environment results are provided in **Table 5.10-3, Noise Measurements in Project Vicinity.** As shown, average ambient noise levels ranged from 65.8 dB(A) along Los Alamos Road to 76.1 dB(A) at the corner of Ramon Road and Da Vall Drive. Refer to **Figure 4.0-7, Noise Monitoring Locations,** of this Draft EIS for the location each monitoring site.

Table 5.10-3
Noise Measurements in Project Vicinity

Location	Lmin	Lmax	Leq
Monitoring Site No. 1	61.4	83.5	73.9
Monitoring Site No. 2	62.7	89.7	73.6
Monitoring Site No. 3	44.8	84.3	73.3
Monitoring Site No. 4	47.0	88.4	76.1
Monitoring Site No. 5	39.4	82.3	65.8
Monitoring Site No. 6	42.1	83.5	71.1
Monitoring Site No. 7	56.0	83.1	71.1
Monitoring Site No. 8	56.9	85.6	72.7
Monitoring Site No. 9	55.6	85.7	73.6

*Source: Refer to **Appendix F** for monitoring data sheets.*
Note: Noise measurements were conducted between 8:15 AM to 12:00 PM on March 19, 2014.

Existing Off-Site Roadway Noise Levels

In order to characterize the ambient roadway noise environment in the vicinity of the Project Site, noise prediction modeling was conducted based on vehicular traffic volumes along nearby roadway segments. Existing roadway noise levels were modeled using the Federal Highway Administration Highway Prediction Noise Model (FHWA-RD-77-108). This model calculates the average noise level in dB(A) CNEL

at a given roadway segment based on traffic volumes, vehicle mix, average speeds, roadway geometry, and site conditions. The noise models assumes a "soft" site condition (i.e., providing for the minimum amount of sound attenuation allowed by the traffic noise model, a 7.5 dB(A) noise reduction per doubling of distance) and assumes no barriers between the roadway and receivers. Traffic noise levels were calculated for sensitive receptors at distances of 75 feet from the nearest edge of the road. The noise prediction model used daily traffic volumes to determine average daily trips (ADTs) along the analyzed roadway segments. The estimated existing roadway noise levels are provided in **Table 5.10-4, Modeled Existing Roadway Noise Levels.** As indicated in **Table 5.10-4,** the existing vehicle-generated noise levels along roadway segments near the Project Site range from 58.8 dB(A) CNEL to a high of 80.3 dB(A) CNEL at a distance of 75 feet from each roadway's centerline.

Table 5.10-4
Modeled Existing Roadway Noise Levels

Roadway Segment	Roadway Noise Level at 75 feet from Center (dB[A] CNEL)
Da Vall Drive	
North of Ramon Road	70.4
South of Ramon Road	70.6
North of Dinah Shore Drive	70.8
South of Dinah Shore Drive	70.9
Rattler Road	
North of Ramon Road	64.5
Los Alamos Road	
South of Ramon Road	62.8
North of Dinah Shore Drive	63.2
Bob Hope Drive	
North of I-10 WB Ramps	71.2
North of I-10 EB Ramps	72.6
North of Ramon Road	72.9
South of Ramon Road	73.0
North of Dinah Shore Drive	72.7
South of Dinah Shore Drive	73.3
North of Gerald Ford Drive	73.0
South of Gerald Ford Drive	73.2
Key Largo	
North of Dinah Shore Drive	N/A
South of Dinah Shore Drive	61.5
Monterey Avenue	
North of Dinah Shore Drive	76.8

Roadway Segment	Roadway Noise Level at 75 feet from Center (dB[A] CNEL)
South of Dinah Shore Drive	75.2
Ramon Road	
West of Da Vall Drive	73.3
East of Da Vall Drive	73.9
West of Los Alamos Road	74.0
East of Los Alamos Road	74.1
East of Bob Hope Drive	72.5
East of EB I-10 Ramp	70.7
Dinah Shore Drive	
West of Da Vall Drive	73.7
East of Da Vall Drive	72.7
West of Los Alamos Road	72.8
East of Los Alamos Road	72.8
East of Westin Mission Hills	72.9
West of Bob Hope Drive	72.9
East of Bob Hope Drive	72.9
East of Key Largo	73.0
West of Monterey Avenue	74.4
East of Monterey Avenue	72.4
Gerald Ford Drive	
West of Bob Hope Drive	72.5
East of Bob Hope Drive	71.9
Interstate 10	
West of Bob Hope Drive	80.2
East of Ramon Road	80.3
Bob Hope Dr. I-10 Ramps	
Westbound On-Ramp	68.0
Westbound Off-Ramp	69.5
Eastbound On-Ramp	63.3
Eastbound Off-Ramp	69.0
Ramon Road I-10 Ramps	
Eastbound On-Ramp	69.2
Via Bella	
West of Los Alamos Road	58.8
East of Los Alamos Road	N/A
Casino	
West of Bob Hope Drive	N/A
East of Bob Hope Drive	62.2

Roadway Segment	Roadway Noise Level at 75 feet from Center (dB[A] CNEL)
Westin Mission Hills	
North of Dinah Shore Drive	N/A
South of Dinah Shore Drive	59.2
Westin Resort and Villas	
North of Dinah Shore Drive	N/A
South of Dinah Shore Drive	59.2
Street A	
East of Los Alamos Road	N/A
Street B	
East of Los Alamos Road	N/A
Street C	
South of Ramon Road	N/A
Street D	
South of Ramon Road	N/A
West of Bob Hope Drive	N/A
Street E	
West of Bob Hope Drive	N/A

*Noise model results are provided in **Appendix F.***
Note: Roadway noise levels are modeled 75 feet from the center of the roadway.
N/A = Not available; roadway does not exist, therefore, traffic volumes are not generated on this link.

Existing Vibration Conditions

The primary source of existing groundborne vibration in the vicinity of the Project Site is vehicle traffic on Ramon Road, Bob Hope Drive, Dinah Shore Drive, Los Alamos Road, and the I-10 Freeway. According to the FTA,[8] typical road traffic-induced vibration levels are unlikely to be perceptible by people. In part, FTA indicates that "it is unusual for vibration from traffic including buses and trucks to be perceptible, even in a location close to major roadways." Therefore, based on FTA published vibration data, the existing ground vibration environment in the Project vicinity would be below the perceptible levels. Trucks and buses typically generate vibration velocity levels of approximately 63 VdB (at 50 feet distance), and these levels could reach 72 VdB when trucks and buses pass over bumps in the road.

Location of Sensitive Noise Receptors

Noise- and vibration-sensitive uses include residences, schools, and open space/recreation areas where quiet environments are necessary for enjoyment, public health, and safety. Noise-sensitive land uses surrounding the Project Site include single-family residential uses approximately 150 feet south of the

8 Federal Transit Administration, Transit Noise and Vibration Impact Assessment (2004).

Project Site, single-family residences approximately 125 feet west of the site, and hotel rooms at the Agua Caliente Casino/Resort/Spa approximately 250 feet east of the northern portion of the site. The single family residences are surrounded by an approximately 5 foot high barrier wall. This solid barrier wall may reduce noise level by 5 dB(A), thus further reducing any potential groundbourne vibration or noise levels.

6. Regulatory Setting

Federal

Department of Housing and Urban Development

The U.S. Department of Housing and Urban Development (HUD) has set a goal of 65 dB(A) CNEL as a desirable maximum exterior standard for residential uses developed under HUD funding. While HUD does not specify acceptable interior noise levels, standard construction of residential uses constructed under Title 24 standards typically provides in excess of 20 dB(A) of attenuation with the windows closed. Based on this premise, the interior CNEL should not exceed 45 dB(A) CNEL.[9]

Federal Transit Administration

The FTA has published guidelines for assessing the impacts of groundborne vibration associated with construction activities, which have been applied by other jurisdictions to other types of projects. The FTA's measure of the threshold of architectural damage for conventional sensitive structures (e.g., residential units) is 0.2 inch per second PPV.[10] The vibration threshold of perception is 0.01 inch per second PPV. With respect to human annoyance, the FTA provides criteria for various land use categories and based on the frequency of vibration events. According to the FTA, a vibration criterion of 72 VdB should be used for residential land uses. With respect to potential building damage (primarily from construction activities), the FTA provides guidelines for the evaluation of potential groundborne vibration damage applicable to various building categories. According to FTA guidelines, a vibration criterion of 0.20 inches per second, or 106 VdB, should be considered as the significant impact level for non-engineered timber and masonry buildings. Structures engineered with concrete and masonry (no plaster) have vibration damage criteria of 0.3 inches per second, or 110 VdB. All structures or buildings constructed of reinforced-concrete, steel, or timber, have vibration damage criteria of 0.50 inches per second, or 114 VdB.

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9 Code of Federal Regulations, Title 24, sec. 51, *Housing and Urban Development, Environmental Criteria and Standards* (revised April 1, 2004).

10 U.S. Department of Transportation, Federal Transit Administration, Office of Planning and Environment, *Transit and Vibration Impact Assessment*, FTA-VA-90-1003-06 (May 2006).

State

State of California Building Code

California's noise insulation standards are codified in the California Code of Regulations, Title 24, Building Standards Administrative Code, Part 2, California Building Code. These noise standards are applied to new construction in California for the purpose of interior noise compatibility from exterior noise sources. The regulations specify that acoustical studies must be prepared when noise-sensitive structures, such as residential buildings, schools, or hospitals, are located near major transportation noise sources, and where such noise sources create an exterior noise level of 60 dB(A) CNEL or higher. Acoustical studies that accompany building plans must demonstrate that the structure has been designed to limit interior noise in habitable rooms to acceptable noise levels. For new residential buildings, schools, and hospitals, the acceptable interior noise limit for new construction is 45 dB(A) CNEL.

California Noise Insulation Standards

The California Noise Insulation Standards[11] require that interior noise levels from exterior sources be 45 dB(A) or less in any habitable room of a multi-residential use facility (e.g., hotels, motels, dormitories, long-term care facilities, and apartment houses, except detached single-family dwellings) with doors and windows closed. Measurements are based on CNEL or Ldn (the day–night average), whichever is consistent with the noise element of the local general plan. Where exterior noise levels exceed 60 dB(A) CNEL, an acoustical analysis for new development may be required to show that the proposed construction will reduce interior noise levels to 45 dB(A) CNEL. If the interior 45 dB(A) CNEL limit can be achieved only with the windows closed, the residence must include mechanical ventilation that meets applicable *Uniform Building Code* (UBC) requirements.

California Department of Health Services

The State of California Department of Health Services, Environmental Health Division, has published recommended guidelines for noise and land use compatibility, referred to as the *State Land Use Compatibility Guidelines for Noise* ("*State Noise Guidelines*"). The *State Noise Guidelines*, illustrated in **Figure 5.10-4, State Land Use Compatibility Guidelines for Noise**, indicate that residential land uses and other noise-sensitive receptors generally should locate in areas where outdoor ambient noise levels do not exceed 65 to 70 dB(A) CNEL. According to the *State Noise Guidelines*, an exterior noise level of 60 dB(A) CNEL is considered to be "normally acceptable" for single-family, duplex, and mobile homes involving normal, conventional construction, without any special noise insulation requirements. Exterior

11 California Code of Regulation, Title 24, sec. 3501 et seq.

noise levels up to 65 dB(A) CNEL are typically considered "normally acceptable" for multi-family units and transient lodging without any special noise insulation requirements. Between these values and 70 dB(A) CNEL, exterior noise levels are typically considered "conditionally acceptable," and residential construction should only occur after a detailed analysis of the noise reduction requirements and needed noise attenuation features have been included in the Project design. Exterior noise attenuation features include, but are not limited to, setbacks to place structures outside the conditionally acceptable noise contour, orienting structures so no windows open to the noise source, and/or installing noise barriers such as berms and/or solid walls.

Regional and Local

Agua Caliente Land Use Ordinance

The purpose of the Agua Caliente Band of Cahuilla Indians Land Use Ordinance ("Tribal Land Use Ordinance") is to provide standards and regulations to control land uses on Indian Reservation Lands, maintain and protect the Reservation's unique natural and cultural resources, and to preserve the natural environment.

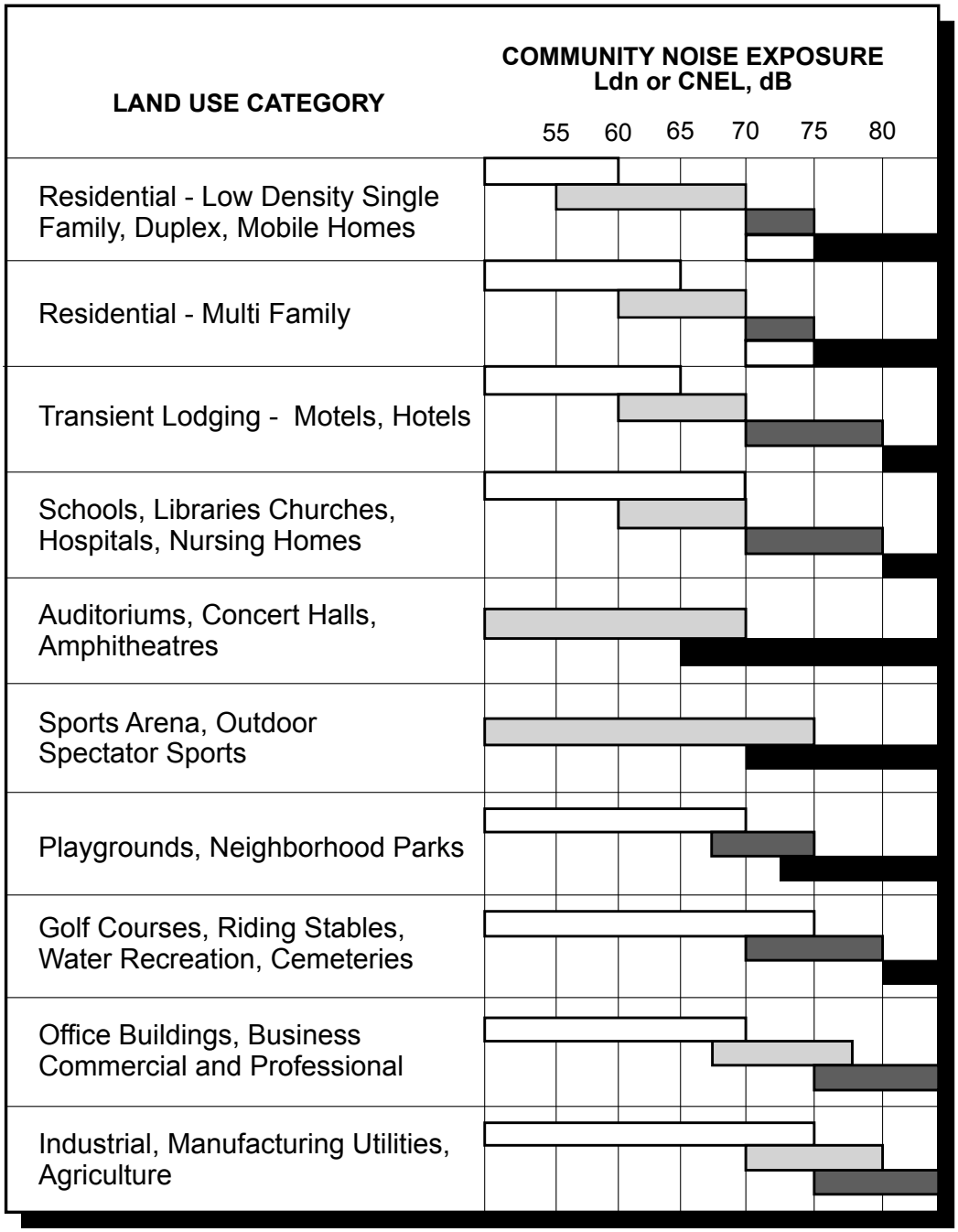
Agua Caliente Tribal Building Code

As adopted from the 2013 California Building Code including the California Noise Insulation Standards, the purpose of the Tribal Building and Safety Code is to provide standards and regulations to control minimum building safety and insulation standards of all buildings and structures on the Agua Caliente Indian Reservation ("Reservation"). These standards are intended to protect the health, safety, and welfare of the general public related to any potential building hazards and excessive noise. All building permit approvals from the Agua Caliente Band of Cahuilla Indians ("Tribe") are based upon this Code.

Riverside County

The County of Riverside has adopted a Noise Ordinance (Ordinance No. 847) that establishes Countywide standards (in unincorporated communities) to regulate noise. The sound level standards for Specific Plan Residential state that operating or causing the operation of any tools or equipment used in construction, drilling, repair, alteration, grading or demolition work shall be performed between the hours of 7:00 AM and 7:00 PM on the weekdays, 8:00 AM and 5:00 PM on Saturdays. Also, no person shall create any sound, or allow the creation of any sound, on any property that causes the exterior sound level on any other occupied property to exceed a maximum sound level of 55 dB between 7:00 AM and 10:00 PM and not exceed a maximum sound level of 45 dB between 10:00 PM and 7:00 AM.

The analysis shall determine the level of noise impacts based on the maximum acceptable interior and exterior noise standards for residential dwellings adopted in the Noise Element of the Riverside County



NORMALLY ACCEPTABLE
Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

CONDITIONALLY ACCEPTABLE
New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

NORMALLY UNACCEPTABLE
New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise reduction features included in the design.

CLEARLY UNACCEPTABLE
New construction or development should generally not be undertaken.

SOURCE: California Governor's Office of Planning and Research, State of California General Plan Guidelines, Appendix C: Guidelines for the Preparation and Content of Noise Elements of the General Plan, October 2003.

FIGURE **5.10-4**

Meridian Consultants

State Land Use Compatibility Guidelines for Noise

General Plan, which are 45 and 65 dB(A) CNEL, respectively. Sound barriers are only required by the Riverside County General Plan such that there exists at least 600 square feet (sq. ft.) area of exterior spaces that is exposed to noise levels of 65 dB(A) CNEL or less when new development is proposed on residential parcels of 1 acre or greater.

Noise level increases are also addressed in the Noise Element of Riverside County. According to the Noise Element and the Riverside County General Plan Environmental Impact Report (EIR), if the future noise levels from an action result in an increase of 5 dB(A) CNEL or greater, the action would have a potential noise impact, and mitigation measures must be considered.

City of Rancho Mirage Noise Ordinance

The City's Municipal Health and Safety Code set forth standards, guidelines, and procedures concerning the regulation of noise in Rancho Mirage. Section 8.45 of the Municipal Code cites the value and importance given by residents, visitors, and business to the exceptional quality of life and peace and quiet of the community. Pursuant to the City Noise Ordinance, the City restricts noise generated at a property from exceeding certain noise levels for extending periods of time to protect people from objectionable non-transportation noise sources.

According to Section 8.45.050, Special Provisions and Exceptions, of the City's Municipal Code, construction, alternation, repair, grading or improvement of any building, structure, road, or improvement to real property for which a permit has been issued is exempt from the City's noise ordinance so long as construction activities occur within normal business hours (7:00 AM to 7:00 PM, except on Sundays).

The Rancho Mirage Noise Ordinance provides definition of key terms and defines exterior noise level standards on a time-of-day basis along with adjustments for intensity and duration. The appropriate exterior noise standards are identified in **Table 5.10-5, City of Rancho Mirage Exterior Noise Limits**.[12]

12 *City of Rancho Mirage General Plan,* Chapter 7 (2006).

Table 5.10-5
City of Rancho Mirage Exterior Noise Limits

Time of Day	Maximum Permissible Noise Levels (dB[A])					
	L_{50}	L_{25}	L_{16}	L_8	L_2	L_{MAX}
Residential – Low Density						
7:00 AM to 6:00 PM	55	58	60	65	70	75
6:00 PM to 10:00 PM	50	53	55	60	65	70
10:00 PM to 7:00 AM	45	48	50	55	60	65
Residential – Medium and High Density, Hospital, Open Space						
7:00 AM to 6:00 PM	60	63	65	70	75	80
6:00 PM to 10:00 PM	55	58	60	65	70	75
10:00 PM to 7:00 AM	50	53	55	60	65	70
Commercial Office, Resort Commercial, Mixed Use, Institutional						
7:00 AM to 6:00 PM	65	68	70	75	80	85
6:00 PM to 10:00 PM	60	63	65	70	75	80
10:00 PM to 7:00 AM	55	58	60	65	70	75
Commercial Neighborhood, General Commercial, Commercial Recreation, Light Industrial						
7:00 AM to 6:00 PM	70	73	75	80	85	90
6:00 PM to 10:00 PM	65	68	70	75	80	85
7:00 AM to 6:00 PM	60	63	65	70	75	80

Source: City of Rancho Mirage, Municipal Code, Chapter 8.45, Noise, Section 8.45.030. Exterior Noise Level Limits.
Note: If the measured ambient noise levels exceed the dB(A) L50 limits, the L50, L25, L16, and the L8 shall be increased by five dB(A) increments as needed to encompass or reflect the existing ambient noise level while the maximum noise level under the L2 and the Lmax shall be increased, if necessary, only to equal the ambient noise level.

B. ENVIRONMENTAL IMPACTS

1. Threshold of Significance

In order to assist in determining whether a project would have a significant effect on the environment, the Tribe finds a project may be deemed to have a significant noise impact, if it would:

Threshold 5.10-1: **Exposure of persons to or generation of noise levels in excess of standards established in the local General Plan or noise ordinance, or applicable standards of other agencies?**

Based on State and local noise criteria, the following would be considered significant:

- **Noise generated by buildout of Section 24 Specific Plan would result in stationary equipment (non-transportation) noise that results in a nuisance at noise sensitive receptors based on stationary noise limits of the Rancho Mirage Municipal Code.**

- **New noise sensitive uses would be located in a noise environment that exceeds the State's noise compatibility guidelines. Similar to State guidelines, it is the policy of the County of Riverside and the City of Rancho Mirage to require new residential development to achieve an interior noise environment of 45 dB(A) CNEL or exterior noise levels at single family residential noise sensitive areas to 65 dB(A) CNEL.**

Threshold 5.10-2: **Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?**

Based on vibration criteria established by the Federal Transit Administration, the following would be considered significant:

- **Construction equipment would produce perceptible levels of vibration (78 VdB) during the daytime at off-site vibration sensitive structures.**

Threshold 5.10-3: **A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?**

Based on local noise criteria established in the County of Riverside General Plan and the City of Rancho Mirage General Plan, the following would be considered significant:

- **An increase of three dB(A) or greater in traffic noise levels that occur from project-related activities would be significant if the resulting noise levels exceeded the Noise Compatibility Matrix for "acceptable" exterior noise levels.**

- **An increase of five dB(A) or less in traffic noise levels that occur from project-related activities would not be considered significant if the resulting noise levels remain below the "acceptable" thresholds established by the State, County, and City. Increases in traffic noise greater than 5 dB(A) would be considered to be significant.**

Threshold 5.10-4: **A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?**

Based on local noise criteria established by the County of Riverside and the City of Rancho Mirage, the following would be considered significant:

- **Construction activities occurring outside the normal business hours of 7:00 AM and 7:00 PM, except Sundays and holidays.**

Threshold 5.10-5: **For a project located within an airport land use plan or where such a plan has not been adopted, within two miles of a public airport or public-use airport, exposure of people residing or working in the project area to excessive noise levels?**

Threshold 5.10-6: **For a project within the vicinity of a private airstrip, would the project expose people residing or working the project area to excessive noise levels?**

2. Methodology

Construction

Construction of the proposed Project would require site clearing, grading, asphalt paving, building construction, and building finishing activities. These activities typically involve the use of heavy equipment, such as tractors, dozers, and cranes. While construction would be temporary, the use of these types of equipment would generate both steady state and episodic noise that would be heard both on and off the Project Site.

Construction Noise

The construction noise model is based on information obtained from the FTA Roadway Noise Construction Model (RNCM). The FHWA has compiled data on noise-generating characteristics of specific types of construction equipment.[13]

The dominant source of noise from most construction equipment is engine sound, often without sufficient muffling. Construction equipment can be considered to operate in two modes: stationary and mobile. Stationary equipment operates in one location for one or more days at a time, with either a fixed power operation (e.g., pumps, generators, compressors) or a variable power operation (e.g., pile drivers, pavement breakers). Mobile equipment moves around the construction site (e.g., bulldozers,

13 Federal Highway Administration, Roadway Noise Construction Model (RCNM), Software Version 1.1 (December 8, 2008).

loaders) or to and from the Project Site (e.g., trucks). **Figure 5.10-5, Noise Levels of Typical Construction Equipment,** shows the typical noise levels in dB(A) of different types of construction equipment at a distance of 50 feet from the source.

Noise levels generated by heavy equipment can range from approximately 70 dB(A) to noise levels in excess of 100 dB(A) when measured at a distance of 50 feet from the noise source. The noise levels diminish with distance at a rate of approximately 6.0 to 7.5 dB(A) per doubling of distance for acoustically hard and soft sites, respectively. An example of an acoustically hard site would be a parking lot, while an acoustically soft site would be a park. Assuming an acoustically hard site, a noise level of 75 dB(A) measured at 50 feet from the noise source would be reduced to 69 dB(A) at 100 feet and to 63 dB(A) at 200 feet.

Construction noise levels at sensitive receptors would vary based on the location of construction activity and the number of equipment in operation. The Project would be constructed in phases with various types of equipment used at any given time. These activities typically involve the use of heavy equipment such as graders, dozers, backhoes, water trucks, excavators, cement and mortar mixes, rollers, pavers and paving equipment, forklifts, generators, and welders. The equipment would generate both steady state and episodic noise that would be heard both on and off the Project Site. The usage factor is the percentage of time that particular equipment is anticipated to be in full power operation during a typical construction hour during the day.

In order to identify the maximum construction noise impacts, under a reasonable worst-case scenario, it is assumed that many pieces of heavy-duty equipment would operate simultaneously in close proximity to noise sensitive receptors. In a realistic scenario, all construction equipment would not operate at the same time nor would their proximity be close to each other.

Construction Vibration

Construction-related groundborne vibration impacts were evaluated using the FTA's *Transit Noise and Vibration Impact Assessment* guidance document.[14] The potential vibration source in the Project Site includes construction equipment in operation during Project construction. Groundborne vibration impacts were evaluated by identifying potential vibration sources and estimating the vibration levels at the affected receptor. Vibration impacts were evaluated with respect to the established significance thresholds discussed later in this section

14 Federal Transit Administration, Office of Planning and Environment, Transit Noise and Vibration Impact Assessment (2006).

Operation

Roadway Noise

Traffic noise levels were modeled using the FHWA Noise Prediction Model (FHWA-RD-77-108). This model calculates the average noise level in dB(A) CNEL along a given roadway segment based on traffic volumes, vehicle mix, posted speed limits, roadway geometry, and site conditions. The model calculates noise associated with a specific line source and the results characterize noise generated by motor vehicle traffic along the specific roadway segment. The model incorporates an alpha factor that characterizes the surface conditions of the area. An acoustically hard site uses an alpha factor of zero, while an acoustically soft site uses an alpha factor of 0.5. The greater the alpha factor, the greater the noise attenuates with increasing distance. Average vehicle noise rates utilized in the FHWA model have been modified to reflect average vehicle noise rates identified for California by Caltrans. According to data collected by Caltrans, California automobile noise is 0.8 to 1.0 dB(A) louder than national levels, while medium and heavy truck noise is 0.3 to 3.0 dB(A) quieter than national levels.[15] Roadway traffic data was obtained from the traffic impact study for the Project (see **Appendix G**). Noise levels were evaluated with respect to the following modeled traffic scenarios:

Analysis Years and Scenarios

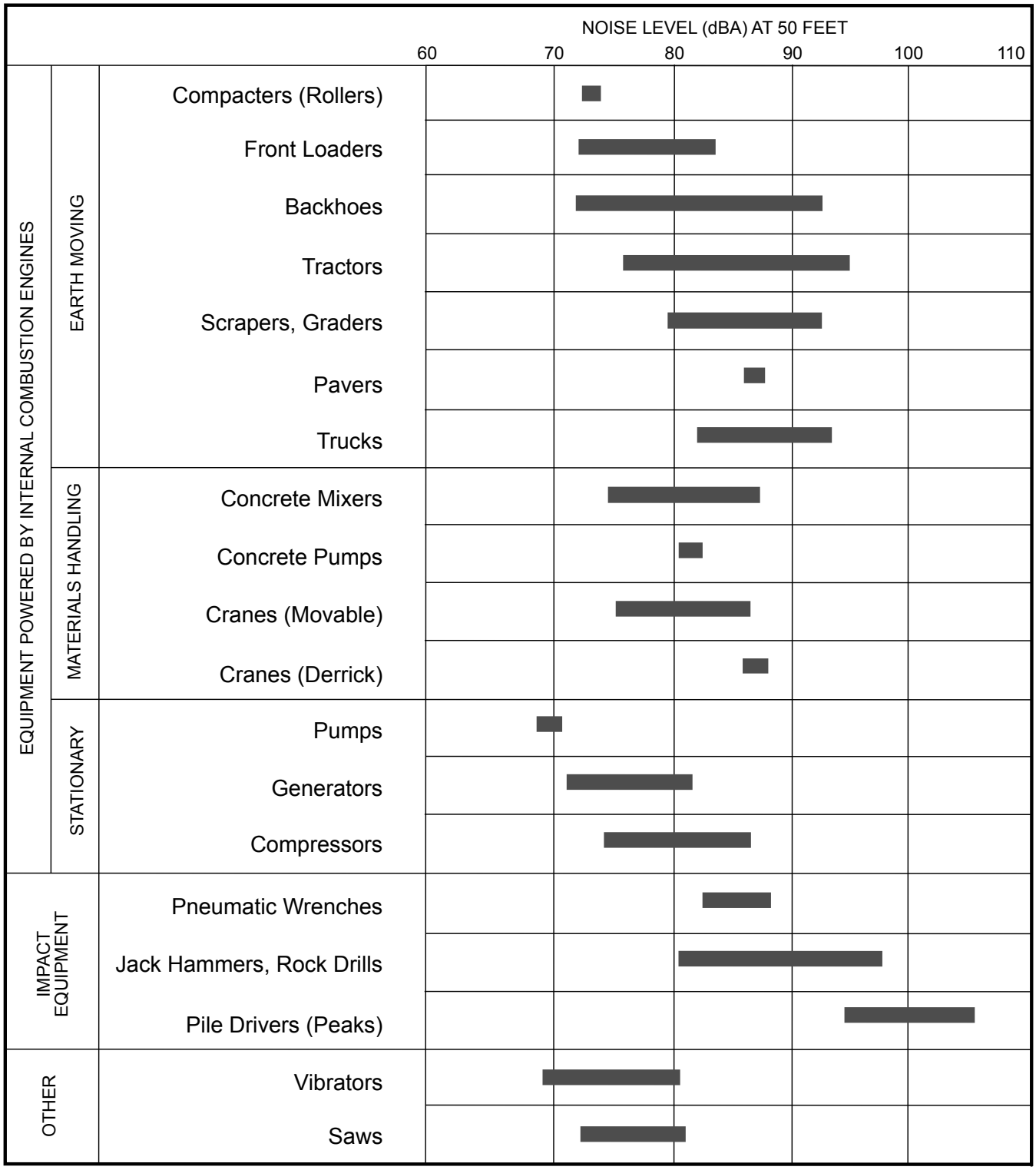
Development of the Active Adult Community will occur first with development projected to be completed by the year 2022. While no specific timeframes have been identified for development of the Tribal Planning Areas, development by the year 2035 is anticipated. To assess the potential project and cumulative impacts with the development of the Active Adult Community by 2022, and development of the Tribal Planning Areas by 2035, the following scenarios were studied:

- Existing Conditions Plus Active Adult Community
- Existing Conditions Plus Specific Plan Buildout
- Future (Year 2022) Plus Active Adult Community
- Future Conditions (Year 2035) Plus Specific Plan Buildout

Stationary Noise

Stationary point-source noise impacts were evaluated by identifying the noise levels generated by outdoor stationary noise sources such as rooftop mechanical equipment, outdoor recreational areas,

15 Rudolf W. Hendriks, California Vehicle Noise Emission Levels, NTIS, FHWA/CA/TL-87/03 (1987).



Note: Based on limited available data samples.

SOURCE: United States Environmental Protection Agency, 1971, "Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances," NTID 300-1.

FIGURE **5.10-5**

Meridian Consultants

Noise Levels of Typical Construction Equipment

parking areas, etc.; estimating the noise level from each noise source at surrounding residential property locations; and comparing such noise levels to ambient noise levels to determine significance. Operational noise levels were calculated for the hourly Leq from each noise source to surrounding sensitive receptors based on past field monitoring of similar uses conducted by Meridian Consultants or published noise references. Noise levels were then compared against the applicable exterior noise threshold.

Operation Vibration

The majority of the Project's operational-related vibration sources, such as mechanical and electrical equipment, would incorporate vibration attenuation mounts, as required by the particular equipment specifications. Therefore, operation of the Project would not increase the existing vibration levels in the immediate vicinity of the Project and, as such, vibration impacts associated with the Project would be minimal. Therefore, the ground borne vibration analysis is limited to Project-related construction activities.

3. Project Design Features

The following Project Design Features (PDF) are incorporated into the proposed Project and would reduce the potential noise impacts of the Project. These features were taken into account in the analysis of potential impacts.

PDF 5.10-1 Construction activities shall occur between the hours of 7:00 AM and 7:00 PM on any day except for Sundays and State and federal holidays.

PDF 5.10-2 Use of neck-down, bulb-outs (which can also act as planters), and other traffic calming measures shall be used on local streets to ensure traffic and vibration levels are minimized.

PDF 5.10-3 Project circulation design shall discourage cut-through vehicular movement to ensure that traffic noise and vibration levels are minimized throughout residential areas.

PDF 5.10-4 All exterior mechanical equipment, except solar collector panels, whether on roof, side of a structure, or on the ground, shall be appropriately screened from public view. Equipment requiring screening includes, but is not limited to, heating, air conditioning, and refrigeration equipment, plumbing lines, ductwork and transformers.

4. Project Impacts

Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies

A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project

A substantial temporary or periodic increase in ambient noise levels in the project vicinity levels above existing without the project

Active Adult Community & Tribal Planning Areas

Construction

Noise impacts would be a function of noise generated by construction equipment, the equipment location, and their relative distance to noise sensitive receptors, and the timing and duration of the noise-generating activities. To reiterate, Leq is the average A-weighted sound (i.e., adjusted to sensitivity range of a typical human ear) level measured over a given time interval. Leq can be measured over any time period, but is typically measured for 1-minute or 1-hour periods.

Construction activities would occur within close proximity to sensitive receptors. The nearest sensitive receptors subject to elevated construction noise levels are located approximately 150 feet to the south and 125 feet to the west of the Project Site. The hotel rooms at the Agua Caliente Casino/Resort/Spa located approximately 250 feet east of the northern portion of the site are also considered a sensitive use for this analysis.

Noise levels generated during each of the Project phases are presented in **Table 5.10-6, Typical Maximum Noise Levels for Construction Phases.** Equipment estimates used for the analysis include site preparation, building construction, and asphalt paving noise levels representative of worst-case conditions since they assume several pieces of equipment operating simultaneously.

Table 5.10-6
Typical Maximum Noise Levels for Construction Phases

Construction Phase	Approximate Leq dB(A) without Noise Attenuation			
	25 Feet	50 Feet	100 Feet	200 Feet
Site Preparation	94	88	82	78
Building Construction	94	88	82	78
Asphalt Paving	85	79	73	67

Source: U.S. Department of Transportation, Construction Noise Handbook, Chapter 9.0, August 2006.

Noise-sensitive receptors would be exposed to elevated construction noise levels when construction activities occur in proximity to these receptors. Construction activities would generate noise levels ranging from 72 to 81 dB(A) Leq at a distance of 125 feet, ranging from 71 to 80 dB(A) Leq at 150 feet, and ranging from 66 to 77 dB(A) Leq at a distance of 250 feet. Project-related construction activities would occur within the least noise-sensitive portion of the day between 7:00 AM and 7:00 PM as indicated in PDF 5.10-1. The construction hours are consistent with the County of Riverside Noise Ordinance and the City of Rancho Mirage Municipal Code.

Construction-related activities would occur over a period of up to six years for the Active Adult Community. As previously stated, the construction activities would occur between the hours of 7:00 AM and 7:00 PM, except on Sundays for the Active Adult Community. However, no construction timeline has been proposed for the Tribal Planning Areas, and as such, construction activities could occur up to 20 years near the sensitive uses to the west and south of the Project Site. Due to the length of construction activities over an approximate 20 year period, with elevated noise levels from construction activities, Project-related construction noise at the nearby noise-sensitive receivers would constitute a potentially significant temporary noise impact.

Operation

Roadway Noise

Roadway noise levels were modeled using the Federal Highway Administration Prediction Model (FHWA-RD-88-108) to determine if operation of the Project would increase levels greater than 3 dB(A) along local roadways. This model considers roadway noise levels from local street segments that would have an increase or decrease in vehicle traffic as a result of the Project. The average daily trips (ADTs) for these local roadway segments were obtained from the traffic impact analysis for the Project prepared by Endo Engineering (see **Appendix G**). The roadway modeling results are included in **Appendix F** of this Draft EIS.

As previously discussed in **subsection B.2. Methodology**, the roadway noise analysis included four separate scenarios. **Table 5.10-7, Existing plus Active Adult Community**, illustrates the change in CNEL from existing traffic volumes and from traffic generated volumes by the Active Adult Community. The difference in traffic noise between Existing Conditions and Existing plus Active Adult Community conditions represents the increase in noise attributable to Project-related traffic. As shown in **Table 5.10-7,** Project-related traffic would not cause noise levels along the analyzed roadways to increase by more than 3.0 dB(A). The maximum noise level increase along existing roadways would be 3.0 dB(A) on Los Alamos Road, south of Ramon Road. Consequently, noise impacts under the Existing plus Active Adult Community scenario would be less than significant.

Table 5.10-7
Existing plus Active Adult Community

	Roadway Noise Level, 75 feet from Center (dB[A] CNEL)			
Roadway Segment	**Existing**	**Existing plus ACC**	**Noise Level Increase**	**Significant Impact?**
Da Vall Drive				
North of Ramon Road	70.4	70.4	0.0	No
South of Ramon Road	70.6	70.6	0.0	No
North of Dinah Shore Drive	70.8	70.8	0.0	No
South of Dinah Shore Drive	70.9	71.0	0.1	No
Rattler Road				
North of Ramon Road	64.5	64.5	0.0	No
Los Alamos Road				
South of Ramon Road	62.8	65.8	3.0	No
North of Dinah Shore Drive	63.2	63.9	0.7	No
Bob Hope Drive				
North of I-10 WB Ramps	71.2	71.2	0.0	No
North of I-10 EB Ramps	72.6	72.7	0.1	No
North of Ramon Road	72.9	73.1	0.2	No
South of Ramon Road	73.0	73.1	0.1	No
North of Dinah Shore Drive	72.7	72.8	0.1	No
South of Dinah Shore Drive	73.3	73.4	0.1	No
North of Gerald Ford Drive	73.0	73.2	0.2	No

Roadway Segment	Roadway Noise Level, 75 feet from Center (dB[A] CNEL)			Significant Impact?
	Existing	Existing plus ACC	Noise Level Increase	
South of Gerald Ford Drive	73.2	73.4	0.2	No
Key Largo				
North of Dinah Shore Drive	N/A	N/A	N/A	N/A
South of Dinah Shore Drive	61.5	61.5	0.0	No
Monterey Avenue				
North of Dinah Shore Drive	76.8	76.9	0.1	No
South of Dinah Shore Drive	75.2	75.2	0.0	No
Ramon Road				
West of Da Vall Drive	73.3	73.5	0.2	No
East of Da Vall Drive	73.9	74.1	0.2	No
West of Los Alamos Road	74.0	74.2	0.2	No
East of Los Alamos Road	74.1	74.3	0.2	No
East of Bob Hope Drive	72.5	72.6	0.1	No
East of EB I-10 Ramps	70.7	70.7	0.0	No
Dinah Shore Drive				
West of Da Vall Drive	73.7	73.8	0.1	No
East of Da Vall Drive	72.7	72.9	0.2	No
West of Los Alamos Road	72.8	73.0	0.2	No
East of Los Alamos Road	72.8	72.9	0.1	No
East of Westin Mission Hills	72.9	73.3	0.4	No
West of Bob Hope Drive	72.9	73.3	0.4	No
East of Bob Hope Drive	72.9	73.1	0.2	No
East of Key Largo	73.0	73.2	0.2	No
West of Monterey Avenue	74.4	74.6	0.2	No
East of Monterey Avenue	72.4	72.4	0.0	No
Gerald Ford Drive				
West of Bob Hope Drive	72.5	72.5	0.0	No

Roadway Segment	Roadway Noise Level, 75 feet from Center (dB[A] CNEL)			Significant Impact?
	Existing	Existing plus ACC	Noise Level Increase	
East of Bob Hope Drive	71.9	71.9	0.0	No
Interstate 10				
West of Bob Hope Drive	80.2	80.2	0.0	No
East of Ramon Road	80.3	80.3	0.0	No
Bob Hope Dr. I-10 Ramps				
Westbound On-Ramp	68.0	68.1	0.1	No
Westbound Off-Ramp	69.5	69.7	0.2	No
Eastbound On-Ramp	63.3	63.4	0.1	No
Westbound Off-Ramp	69.0	69.1	0.1	No
Ramon Road I-10 Ramps				
Eastbound On-Ramp	69.2	69.3	0.1	No
Via Bella				
West of Los Alamos Road	58.8	58.8	0.0	No
East of Los Alamos Road	N/A	63.0	N/A	No
Casino				
West of Bob Hope Drive	N/A	N/A	N/A	No
East of Bob Hope Drive	63.3	63.3	0.0	No
Westin Mission Hills				
North of Dinah Shore Drive	N/A	64.3	N/A	No
South of Dinah Shore Drive	62.2	62.2	0.0	No
Westin Resort and Villas				
North of Dinah Shore Drive	N/A	N/A	N/A	No
South of Dinah Shore Drive	59.2	59.2	0.0	No
Street A				
East of Los Alamos Road	N/A	N/A	N/A	No
Street B				
East of Los Alamos Road	N/A	N/A	N/A	No

Roadway Segment	Roadway Noise Level, 75 feet from Center (dB[A] CNEL)			Significant Impact?
	Existing	Existing plus ACC	Noise Level Increase	
Street C				
South of Ramon Road	N/A	N/A	N/A	No
Street D				
South of Ramon Road	N/A	N/A	N/A	No
West of Bob Hope Drive	N/A	N/A	N/A	No
Street E				
West of Bob Hope Drive	N/A	N/A	N/A	No

*Source: FHWA Highway Traffic Noise Prediction Model. See **Appendix F** for noise modeling data sheets.*
Based on traffic volumes and obtained from the Traffic Analysis prepared by Endo Engineering, 2009 and speed limits for roadway segments found in the City of Rancho Mirage Municipal Code Section 10.60, Speed Regulation.
N/A = Not available; roadway does not exist, therefore, traffic volumes are not generated on this link.

Table 5.10-8, Existing plus Specific Plan Buildout, illustrates the change in CNEL from Existing Conditions and from Specific Plan Buildout. As shown in **Table 5.10-8,** the maximum noise level increase attributed to Specific Plan Buildout (which includes the Active Adult Community and the Tribal Planning Areas) along existing roadways would be up to 6.0 dB(A) on Los Alamos Road, south of Ramon Road and north of Dinah Shore Drive. Project-related traffic under Specific Plan Buildout would cause noise levels along the roadways to increase by more than 5.0 dB(A). This increase would constitute a potentially significant impact based on the identified threshold of increases in traffic noise greater than 5 dB(A).

On-Site Sensitive Receptors

Future on-site residential uses would be located along the roadway segments of Los Alamos Road and Dinah Shore Drive. Noise levels under the Specific Plan Buildout scenario along Los Alamos Road could be up to 68.8 dB(A) at 75 feet from the roadway centerline and along Dinah Shore up to 73.7 dB(A) at 75 feet from the roadway centerline. Assuming the use of no setback and noise attenuation features such as a noise wall, these residential uses could experience exterior noise levels above the State and local exterior noise compatibility guidelines of 65 dB(A) CNEL, resulting in potentially significant impacts.

All proposed on-site residences would be considered soft surfaces, vegetated areas such as a park or open space. Assuming that residences within the site would be located a similar distance from the centerline of Los Alamos to the east, roadway noise levels would attenuate 1.8 dB(A) over the additional 30 feet, which would result in 67.0 dB(A) at sensitive receptors to the east. The masonry wall would further attenuate roadway noise levels by 5 dB(A), thus reducing the Project-related traffic volumes to 62.0 dB(A) to the east. Consequently, while the increase is considered significant, the exterior noise levels would not exceed the exterior State and local threshold of 65 dB(A) within the Project Site.

Assuming standard construction practices, interior noise levels would attenuate 20 dB(A) with windows closed. Interior noise levels along Los Alamos Road would be 42.0 dB(A), below the 45 dB(A) interior threshold. Accordingly, roadway noise impacts would be less than significant on sensitive uses to the east.

Assuming that residences within the Project Site would be located 150 feet from the centerline of Dinah Shore Drive to the north, roadway noise levels would attenuate 4.5 dB(A) over the additional 75 feet, which would result in 69.2 dB(A) at sensitive receptors to the north. The masonry wall would further attenuate roadway noise levels by 5 dB(A), thus reducing the Project-related traffic volumes to 64.2 dB(A) to the north. Consequently, while the increase could be considered significant, absent noise attenuation measures, the exterior noise levels would not exceed the State and local threshold of 65 dB(A) within the Project Site. Assuming standard construction practices, interior noise levels would attenuate 20 dB(A) with windows closed. Interior noise levels along Dinah Shore Drive with windows closed would be 44.2 dB(A), below the 45 dB(A) interior threshold. Accordingly, roadway noise impacts would be less than significant on sensitive uses to the north.

Table 5.10-8
Existing plus Specific Plan Buildout

	Roadway Noise Level, 75 feet from Center (dB[A] CNEL)			
Roadway Segment	**Existing**	**Existing plus Full Project Development**	**Noise Level Increase**	**Significant Impact?**
Da Vall Drive				
North of Ramon Road	70.4	71.2	0.8	No
South of Ramon Road	70.6	71.4	0.8	No
North of Dinah Shore Drive	70.8	71.6	0.8	No
South of Dinah Shore Drive	70.9	72.0	1.1	No
Rattler Road				
North of Ramon Road	64.5	64.7	0.2	No
Los Alamos Road				
South of Ramon Road	62.8	68.8	**6.0**	**Yes**
North of Dinah Shore Drive	63.2	67.3	**4.1**	**Yes**
Bob Hope Drive				
North of I-10 WB Ramps	71.2	71.6	0.4	No
North of I-10 EB Ramps	72.6	74.7	2.1	No
North of Ramon Road	72.9	75.6	2.7	No

Roadway Segment	Roadway Noise Level, 75 feet from Center (dB[A] CNEL)			Significant Impact?
	Existing	Existing plus Full Project Development	Noise Level Increase	
South of Ramon Road	73.0	75.7	2.7	No
North of Dinah Shore Drive	72.7	75.3	2.6	No
South of Dinah Shore Drive	73.3	74.8	1.5	No
North of Gerald Ford Drive	73.0	74.6	1.6	No
South of Gerald Ford Drive	73.2	74.3	1.1	No
Key Largo				
North of Dinah Shore Drive	N/A	N/A	N/A	N/A
South of Dinah Shore Drive	61.5	61.5	0.0	No
Monterey Avenue				
North of Dinah Shore Drive	76.8	77.0	0.2	No
South of Dinah Shore Drive	75.2	75.7	0.5	No
Ramon Road				
West of Da Vall Drive	73.3	74.8	1.5	No
East of Da Vall Drive	73.9	75.8	1.9	No
West of Los Alamos Road	74.0	75.9	1.9	No
East of Los Alamos Road	74.1	75.9	1.8	No
East of Bob Hope Drive	72.5	74.0	1.5	No
East of EB I-10 Ramps	70.7	71.3	0.6	No
Dinah Shore Drive				
West of Da Vall Drive	73.7	74.5	0.8	No
East of Da Vall Drive	72.7	74.0	1.3	No
West of Los Alamos Road	72.8	74.1	1.3	No
East of Los Alamos Road	72.8	73.7	0.9	No
East of Westin Mission Hills	72.9	73.9	1.0	No
West of Bob Hope Drive	72.9	73.7	0.8	No
East of Bob Hope Drive	72.9	74.6	1.7	No
East of Key Largo	73.0	74.6	1.6	No

Roadway Segment	Roadway Noise Level, 75 feet from Center (dB[A] CNEL)			Significant Impact?
	Existing	Existing plus Full Project Development	Noise Level Increase	
West of Monterey Avenue	74.4	75.6	1.2	No
East of Monterey Avenue	72.4	73.0	0.6	No
Gerald Ford Drive				
West of Bob Hope Drive	72.5	72.7	0.2	No
East of Bob Hope Drive	71.9	72.4	0.5	No
Interstate 10				
West of Bob Hope Drive	80.2	80.6	0.4	No
East of Ramon Road	80.3	80.7	0.4	No
Bob Hope Dr. I-10 Ramps				
Westbound On-Ramp	68.0	70.3	2.3	No
Westbound Off-Ramp	69.5	71.7	2.2	No
Eastbound On-Ramp	63.3	64.4	1.1	No
Westbound Off-Ramp	69.0	71.0	2.0	No
Ramon Road I-10 Ramps				
Eastbound On-Ramp	69.2	71.3	2.1	No
Via Bella				
West of Los Alamos Road	58.8	58.8	0.0	No
East of Los Alamos Road	N/A	59.4	N/A	No
Casino				
West of Bob Hope Drive	N/A	71.5	N/A	
East of Bob Hope Drive	63.3	64.3	1.0	No
Westin Mission Hills				
North of Dinah Shore Drive	N/A	61.4	N/A	No
South of Dinah Shore Drive	62.2	62.2	0.0	No
Westin Resort and Villas				
North of Dinah Shore Drive	N/A	66.0	N/A	No

Roadway Segment	Roadway Noise Level, 75 feet from Center (dB[A] CNEL)			Significant Impact?
	Existing	Existing plus Full Project Development	Noise Level Increase	
South of Dinah Shore Drive	59.2	59.2	0.0	No
Street A				
East of Los Alamos Road	N/A	56.4	N/A	No
Street B				
East of Los Alamos Road	N/A	64.3	N/A	No
Street C				
South of Ramon Road	N/A	67.9	N/A	No
Street D				
South of Ramon Road	N/A	69.5	N/A	No
West of Bob Hope Drive	N/A	68.6	N/A	No
Street E				
West of Bob Hope Drive	N/A	66.3	N/A	No

*Source: FHWA Highway Traffic Noise Prediction Model. See **Appendix F** for noise modeling data sheets.*
Based on traffic volumes and obtained from the Traffic Analysis prepared by Endo Engineering, 2009 and speed limits for roadway segments found in the City of Rancho Mirage Municipal Code Section 10.60, Speed Regulation.
N/A = Not available; roadway does not exist, therefore, traffic volumes are not generated on this link.

Off-Site Sensitive Receptors

Noise levels would increase 6.0 dB(A) along Los Alamos Road segment up to 68.8 dB(A) 75 feet from the roadway centerline. It should be noted that the existing single family residential uses, in the Mission Hills area within the City of Rancho Mirage, west of the Project Site, are setback a minimum of approximately 105 feet from the centerline and include masonry block walls along this segment of roadway, which would further reduce roadway noise levels.

Line sources, which include vehicular traffic attenuate 3 dB(A) every doubling of distance over hard surfaces and 4.5 dB(A) over soft surfaces. The noise levels here would attenuate 1.2 dB(A) over the additional 30 feet, which would result in 67.6 dB(A) at sensitive receptors to the west. The masonry wall would further attenuate roadway noise levels by 5 dB(A), thus reducing the Project-related traffic volumes to 62.6 dB(A) to the west. Consequently, while the increase is considered significant, the exterior noise levels would not exceed the City of Rancho Mirage threshold of 65 dB(A) within the Mission Hills area to the west of the Project Site. Accordingly, roadway noise impacts would be less than significant on sensitive uses to the west.

Table 5.10-9, Future (Year 2022) Plus Active Adult Community, illustrates the change in CNEL from Year 2022 ambient conditions without and with the Active Adult Community. The Year 2022 ambient conditions represent traffic growth or cumulative development within the Project area. Based on ambient growth, the greatest increase in noise would occur along Los Alamos Road, south of Ramon Road and north of Dinah Shore Drive adjacent to the Project Site. Roadway noise increases would be up to 4.6 dB(A) to 67.4 dB(A), which exceeds the exterior threshold of 65 dB(A), resulting in potentially significant impacts.

On-Site Sensitive Receptors

Future on-site residential uses would be located along the roadway segments of Los Alamos Road and Dinah Shore Drive. Noise levels under the Year 2022 ambient Plus Active Adult Community scenario along Los Alamos Road could be up to 67.4 dB(A) at 75 feet from the roadway centerline and along Dinah Shore up to 73.7 dB(A) at 75 feet from the roadway centerline. Assuming the use of no setback and noise attenuation features such as a noise wall, on-site and off-site residential uses could experience exterior noise levels above the State and local exterior noise compatibility guidelines of 65 dB(A) CNEL resulting in potentially significant impacts.

Table 5.10-9
Future (Year 2022) plus Active Adult Community

	Roadway Noise Level, 75 feet from Center (dB[A] CNEL)					
Roadway Segment	**Existing**	**Year 2022 Ambient**	**Year 2022 with ACC**	**Increase in CNEL from Existing**	**Increase in CNEL Due to ACC**	**Significant Impact**
Da Vall Drive						
North of Ramon Road	70.4	71.6	71.6	1.2	0.0	No
South of Ramon Road	70.6	71.4	71.4	0.8	0.0	No
North of Dinah Shore Drive	70.8	71.1	71.2	0.4	0.1	No
South of Dinah Shore Drive	70.9	71.7	71.8	0.9	0.1	No
Rattler Road						
North of Ramon Road	64.5	68.9	68.9	**4.4**	0.0	No
Los Alamos Road						
South of Ramon Road	62.8	65.5	67.4	**4.6**	1.9	No
North of Dinah Shore Drive	63.2	65.5	65.9	2.7	0.4	No

Roadway Segment	Roadway Noise Level, 75 feet from Center (dB[A] CNEL)					Significant Impact
	Existing	Year 2022 Ambient	Year 2022 with ACC	Increase in CNEL from Existing	Increase in CNEL Due to ACC	
Bob Hope Drive						
North of I-10 WB Ramps	71.2	72.6	72.6	1.4	0.0	No
North of I-10 EB Ramps	72.6	74.1	74.2	1.6	0.1	No
North of Ramon Road	72.9	74.3	74.4	1.5	0.1	No
South of Ramon Road	73.0	73.8	73.8	0.8	0.0	No
North of Dinah Shore Drive	72.7	74.1	74.2	1.4	0.1	No
South of Dinah Shore Drive	73.3	74.0	74.1	0.8	0.1	No
North of Gerald Ford Drive	73.0	73.6	73.8	0.8	0.2	No
South of Gerald Ford Drive	73.2	73.6	73.8	0.6	0.2	No
Key Largo						
North of Dinah Shore Drive	N/A	N/A	N/A	N/A	N/A	N/A
South of Dinah Shore Drive	61.5	61.6	61.6	0.1	0.0	No
Monterey Avenue						
North of Dinah Shore Drive	76.8	77.0	77.0	0.2	0.0	No
South of Dinah Shore Drive	75.2	75.5	75.5	0.3	0.0	No
Ramon Road						
West of Da Vall Drive	73.3	74.5	74.7	1.4	0.2	No
East of Da Vall Drive	73.9	75.5	75.6	1.7	0.1	No
West of Los Alamos Road	74.0	75.5	75.7	1.7	0.2	No
East of Los Alamos Road	74.1	75.5	75.6	1.5	0.1	No
East of Bob Hope Drive	72.5	73.4	73.5	0.9	0.1	No
East of EB I-10 Ramps	70.7	71.3	71.3	0.6	0.0	No
Dinah Shore Drive						
West of Da Vall Drive	73.7	73.9	73.9	0.2	0.0	No

Roadway Segment	Roadway Noise Level, 75 feet from Center (dB[A] CNEL)					Significant Impact
	Existing	Year 2022 Ambient	Year 2022 with ACC	Increase in CNEL from Existing	Increase in CNEL Due to ACC	
East of Da Vall Drive	72.7	73.3	73.4	0.7	0.1	No
West of Los Alamos Road	72.8	73.5	73.7	0.9	0.2	No
East of Los Alamos Road	72.8	73.4	73.6	0.8	0.2	No
East of Westin Mission Hills	72.9	73.5	73.9	1.0	0.4	No
West of Bob Hope Drive	72.9	73.1	73.5	0.6	0.4	No
East of Bob Hope Drive	72.9	73.8	74.0	1.1	0.2	No
East of Key Largo	73.0	74.1	74.3	1.3	0.2	No
West of Monterey Avenue	74.4	74.9	75.1	0.7	0.2	No
East of Monterey Avenue	72.4	72.5	72.6	0.2	0.1	No
Gerald Ford Drive						
West of Bob Hope Drive	72.5	73.4	73.4	0.9	0.0	No
East of Bob Hope Drive	71.9	73.0	73.0	1.1	0.0	No
Interstate 10						
West of Bob Hope Drive	80.2	81.5	81.6	1.4	0.1	No
East of Ramon Road	80.3	81.7	81.7	1.4	0.0	No
Bob Hope Dr. I-10 Ramps						
Westbound On-Ramp	68.0	68.9	69.0	1.0	0.1	No
Westbound Off-Ramp	69.5	70.7	70.8	1.3	0.1	No
Eastbound On-Ramp	63.3	64.2	64.2	1.9	0.0	No
Westbound Off-Ramp	69.0	69.6	69.7	0.7	0.1	No
Ramon Road I-10 Ramps						
Eastbound On-Ramp	69.2	70.0	70.2	1.0	0.2	No
Via Bella						
West of Los Alamos Road	58.8	59.0	59.0	0.2	0.0	No

Roadway Segment	Roadway Noise Level, 75 feet from Center (dB[A] CNEL)					Significant Impact
	Existing	Year 2022 Ambient	Year 2022 with ACC	Increase in CNEL from Existing	Increase in CNEL Due to ACC	
East of Los Alamos Road	N/A	N/A	63.0	N/A	N/A	No
Casino						
West of Bob Hope Drive	N/A	N/A	N/A	N/A	N/A	No
East of Bob Hope Drive	63.3	63.5	63.5	0.2	0.0	No
Westin Mission Hills						
North of Dinah Shore Drive	N/A	N/A	64.3	N/A	N/A	No
South of Dinah Shore Drive	62.2	62.3	62.3	0.1	0.0	No
Westin Resort and Villas						
North of Dinah Shore Drive	N/A	N/A	N/A	N/A	N/A	No
South of Dinah Shore Drive	59.2	59.4	59.4	0.2	0.0	No
Street A						
East of Los Alamos Road	N/A	N/A	N/A	N/A	N/A	No
Street B						
East of Los Alamos Road	N/A	N/A	N/A	N/A	N/A	No
Street C						
South of Ramon Road	N/A	N/A	N/A	N/A	N/A	No
Street D						
South of Ramon Road	N/A	N/A	N/A	N/A	N/A	No
West of Bob Hope Drive	N/A	N/A	N/A	N/A	N/A	No
Street E						
West of Bob Hope Drive	N/A	N/A	N/A	N/A	N/A	No

*Source: FHWA Highway Traffic Noise Prediction Model. See **Appendix F** for noise modeling data sheets.*
Based on traffic volumes and obtained from the Traffic Analysis prepared by Endo Engineering, 2009 and speed limits for roadway segments found in the City of Rancho Mirage Municipal Code Section 10.60, Speed Regulation.
N/A = Not available; roadway does not exist, therefore, traffic volume is 0.

All proposed on-site residences would be considered soft surfaces, vegetated areas such as a park or open space. Assuming that residences within the site would be located a similar distance from the centerline of Los Alamos to the east, roadway noise levels would attenuate 1.8 dB(A) over the additional 30 feet, which would result in 65.6 dB(A) at sensitive receptors to the east. The masonry wall would further attenuate roadway noise levels by 5 dB(A), thus reducing the Project-related traffic volumes to 60.6 dB(A) to the east. Consequently, while the increase is considered potentially significant (greater than 3 dB(A) above acceptable exterior noise levels), the exterior noise levels would not exceed the exterior State and local threshold of 65 dB(A) within the Project Site, due to noise attenuation measures included in the Project's design. Assuming standard construction practices, interior noise levels would attenuate 20 dB(A) with windows closed. Interior noise levels along Los Alamos Road would be 40.6 dB(A), below the 45 dB(A) interior threshold. Accordingly, roadway noise impacts would be less than significant on sensitive uses to the east.

Assuming that residences within the site would be located 150 feet from the centerline of Dinah Shore Drive to the north, roadway noise levels would attenuate 4.5 dB(A) over the additional 75 feet, which would result in 69.2 dB(A) at sensitive receptors to the north. The masonry wall would further attenuate roadway noise levels by 5 dB(A), thus reducing the Project-related traffic volumes to 64.2 dB(A) to the north. Consequently, the exterior noise levels would not exceed the State and local threshold of 65 dB(A) within the Project Site north of Dinah Shore Drive. Assuming standard construction practices, interior noise levels would attenuate 20 dB(A) with windows closed. Interior noise levels along Dinah Shore Drive with windows closed would be 44.2 dB(A), below the 45 dB(A) interior threshold. Accordingly, roadway noise impacts would be less than significant on sensitive uses to the north.

Off-Site Sensitive Receptors

Noise levels would increase 4.6 dB(A) along Los Alamos Road segment up to 67.4 dB(A) 75 feet from the roadway centerline. As previously discussed, residential uses west of Los Alamos Road are setback 105 feet from the roadway centerline with a masonry wall along the west side of Los Alamos Road. The noise levels would attenuate 1.2 dB(A), which would result in 66.2 dB(A) at sensitive receptors to the west. The masonry wall would further attenuate roadway noise levels by 5 dB(A), thus reducing the Project-related traffic volumes to 61.2 dB(A) to the west. Consequently, the exterior noise levels would not exceed the City of Rancho Mirage threshold of 65 dB(A) within the Mission Hills area to the west of the Project Site. Assuming standard construction practices, interior noise levels would attenuate 20 dB(A) with windows closed. Interior noise levels along Los Alamos Road with windows closed would be 41.2 dB(A), below the 45 dB(A) interior threshold. Accordingly, roadway noise impacts would be less than significant on sensitive uses to the west.

Table 5.10-10, Future (Year 2035) Plus Specific Plan Buildout, illustrates the change in CNEL from Year 2035 ambient conditions and from Specific Plan Buildout. The Year 2035 ambient conditions represent traffic growth or cumulative development within the Project Site. Based on ambient growth the greatest increase in noise would occur along Los Alamos Road, south of Ramon Road and north of Dinah Shore Drive. Ambient increases would be up to 7.1 dB(A) which would result in 69.9 dB(A) along Los Alamos Road. The Project-related traffic volumes would increase noise levels by 3.7 dB(A) and would exceed the exterior residential threshold of 65 dB(A). This increase would be greater than the 3 dB(A) or greater increase, and is consequently a potentially significant impact.

On-Site Sensitive Receptors

Future on-site residential uses would be located along the roadway segments of Los Alamos Road and Dinah Shore Drive. Noise levels under the Year 2035 Specific Plan Buildout scenario along Los Alamos Road could be up to 69.9 dB(A) at 75 feet from the roadway centerline and along Dinah Shore up to 74.5 dB(A) at 75 feet from the roadway centerline. Assuming the use of no setback and noise attenuation features such as a noise wall, on-site and off-site residential uses could experience exterior noise levels above the State and local exterior noise compatibility guidelines of 65 dB(A) CNEL, resulting in potentially significant impacts.

All proposed on-site residences would be considered soft surfaces. Assuming that residences within the site would be located a similar distance from the centerline of Los Alamos to the east, roadway noise levels would attenuate 1.8 dB(A) over the additional 30 feet, which would result in 68.1 dB(A) at sensitive receptors to the east. The masonry wall would further attenuate roadway noise levels by 5 dB(A), thus reducing the Project-related traffic volumes to 63.1 dB(A) to the east. Consequently, while the increase is considered potentially significant, the exterior noise levels would not exceed the exterior State and local threshold of 65 dB(A) within the Project Site, with noise attenuation measures included in the Project's design.

Table 5.10-10
Future (Year 2035) plus Specific Plan Buildout

	Roadway Noise Level, 75 feet from Center (dB[A] CNEL)					
Roadway Segment	**Existing**	**Year 2035 Ambient**	**Existing Plus Year 2035 with Project**	**Increase in CNEL from Existing**	**Increase in CNEL Due to Project**	**Significant Impact?**
Da Vall Drive						
North of Ramon Road	70.4	72.8	73.3	2.9	0.5	No
South of Ramon Road	70.6	71.8	72.4	1.8	0.6	No

Roadway Segment	Roadway Noise Level, 75 feet from Center (dB[A] CNEL)					Significant Impact?
	Existing	Year 2035 Ambient	Existing Plus Year 2035 with Project	Increase in CNEL from Existing	Increase in CNEL Due to Project	
North of Dinah Shore Drive	70.8	71.2	71.9	1.1	0.7	No
South of Dinah Shore Drive	70.9	71.9	72.8	1.9	0.9	No
Rattler Road						
North of Ramon Road	64.5	69.4	69.4	**4.9**	0.0	No
Los Alamos Road						
South of Ramon Road	62.8	66.2	69.9	**7.1**	**3.7**	**Yes**
North of Dinah Shore Drive	63.2	66.5	68.9	**5.7**	2.4	No
Bob Hope Drive						
North of I-10 WB Ramps	71.2	74.4	74.6	3.4	0.2	No
North of I-10 EB Ramps	72.6	74.8	76.2	3.6	1.4	No
North of Ramon Road	72.9	74.1	76.3	3.4	2.2	No
South of Ramon Road	73.0	73.4	75.9	2.9	2.5	No
North of Dinah Shore Drive	72.7	74.1	76.1	3.4	2.0	No
South of Dinah Shore Drive	73.3	73.7	75.1	1.8	1.4	No
North of Gerald Ford Drive	73.0	73.4	74.9	1.9	1.5	No
South of Gerald Ford Drive	73.2	73.6	74.6	1.4	1.0	No
Key Largo						
North of Dinah Shore Drive	N/A	67.2	67.2	N/A	0.0	No
South of Dinah Shore Drive	61.5	61.9	61.9	0.4	0.0	No
Monterey Avenue						
North of Dinah Shore Drive	76.8	77.3	77.4	0.6	0.1	No
South of Dinah Shore Drive	75.2	75.6	76.1	0.9	0.5	No

Roadway Segment	Roadway Noise Level, 75 feet from Center (dB[A] CNEL)					Significant Impact?
	Existing	Year 2035 Ambient	Existing Plus Year 2035 with Project	Increase in CNEL from Existing	Increase in CNEL Due to Project	
Ramon Road						
West of Da Vall Drive	73.3	75.1	76.1	2.8	1.0	No
East of Da Vall Drive	73.9	76.4	77.6	3.7	1.2	No
West of Los Alamos Road	74.0	76.4	77.6	3.6	1.2	No
East of Los Alamos Road	74.1	75.9	77.2	3.1	1.3	No
East of Bob Hope Drive	72.5	73.5	74.7	2.2	1.2	No
East of EB I-10 Ramps	70.7	71.6	72.1	1.4	0.5	No
Dinah Shore Drive						
West of Da Vall Drive	73.7	74.1	74.9	1.2	0.8	No
East of Da Vall Drive	72.7	73.1	74.3	1.6	1.2	No
West of Los Alamos Road	72.8	73.6	74.7	1.9	1.1	No
East of Los Alamos Road	72.8	73.8	74.5	1.7	0.7	No
East of Westin Mission Hills	72.9	73.7	74.5	1.6	0.8	No
West of Bob Hope Drive	72.9	73.3	74.0	1.1	0.7	No
East of Bob Hope Drive	72.9	73.9	75.2	2.3	1.3	No
East of Key Largo	73.0	74.6	75.7	2.7	1.1	No
West of Monterey Avenue	74.4	74.8	76.0	1.6	1.2	No
East of Monterey Avenue	72.4	72.8	73.3	0.9	0.5	No
Gerald Ford Drive						
West of Bob Hope Drive	72.5	74.5	74.7	2.2	0.2	No
East of Bob Hope Drive	71.9	74.4	74.7	2.8	0.3	No
Interstate 10						
West of Bob Hope Drive	80.2	83.2	83.4	3.2	0.2	No

Roadway Segment	Roadway Noise Level, 75 feet from Center (dB[A] CNEL)					
	Existing	Year 2035 Ambient	Existing Plus Year 2035 with Project	Increase in CNEL from Existing	Increase in CNEL Due to Project	Significant Impact?
East of Ramon Road	80.3	83.4	83.6	3.3	0.2	No
Bob Hope Dr. I-10 Ramps						
Westbound On-Ramp	68.0	68.4	70.6	2.6	2.2	No
Westbound Off-Ramp	69.5	70.6	72.3	2.8	1.7	No
Eastbound On-Ramp	63.3	64.5	65.3	2.0	1.8	No
Westbound Off-Ramp	69.0	69.4	71.2	2.2	1.8	No
Ramon Road I-10 Ramps						
Eastbound On-Ramp	69.2	69.6	71.6	2.4	2.0	No
Via Bella						
West of Los Alamos Road	58.8	59.2	59.2	0.4	0.0	No
East of Los Alamos Road	N/A	N/A	59.4	N/A	N/A	No
Casino						
West of Bob Hope Drive	N/A	N/A	71.4	N/A	N/A	No
East of Bob Hope Drive	63.3	63.7	64.6	1.3	0.9	No
Westin Mission Hills						
North of Dinah Shore Drive	N/A	N/A	61.4	N/A	N/A	No
South of Dinah Shore Drive	62.2	62.6	62.6	0.4	0.0	No
Westin Resort and Villas						
North of Dinah Shore Drive	N/A	N/A	66.0	N/A	N/A	No
South of Dinah Shore Drive	59.2	59.6	59.6	0.4	0.0	No
Street A						
East of Los Alamos Road	N/A	N/A	56.4	N/A	N/A	No

Roadway Segment	Roadway Noise Level, 75 feet from Center (dB[A] CNEL)					Significant Impact?
	Existing	Year 2035 Ambient	Existing Plus Year 2035 with Project	Increase in CNEL from Existing	Increase in CNEL Due to Project	
Street B						
East of Los Alamos Road	N/A	N/A	64.3	N/A	N/A	No
Street C						
South of Ramon Road	N/A	N/A	67.9	N/A	N/A	No
Street D						
South of Ramon Road	N/A	NA	69.5	N/A	N/A	No
West of Bob Hope Drive	N/A	N/A	68.6	N/A	N/A	No
Street E						
West of Bob Hope Drive	N/A	N/A	66.3	N/A	N/A	No

Source: FHWA Highway Traffic Noise Prediction Model. ***See Appendix F*** *for noise modeling data sheets.*
Based on traffic volumes and obtained from the Traffic Analysis prepared by Endo Engineering, 2009 and speed limits for roadway segments found in the City of Rancho Mirage Municipal Code Section 10.60, Speed Regulation.
N/A = Not available; roadway does not exist, therefore, traffic volume is 0.

Assuming standard construction practices, interior noise levels would attenuate 20 dB(A) with windows closed. Interior noise levels along Los Alamos Road would be 43.1 dB(A), below the 45 dB(A) interior threshold. Accordingly, roadway noise impacts would be less than significant on sensitive uses to the east.

Assuming that residences within the site would be located 150 feet from the centerline of Dinah Shore Drive to the north, roadway noise levels would attenuate 4.5 dB(A) over the additional 75 feet, which would result in 70.0 dB(A) at sensitive receptors to the north. The masonry wall would further attenuate roadway noise levels by 5 dB(A), thus reducing the Project-related traffic volumes to 65.0 dB(A) to the north. Consequently, the exterior noise levels would not exceed the State and local threshold of 65 dB(A) within the Project Site. Assuming standard construction practices, interior noise levels would attenuate 20 dB(A) with windows closed. Interior noise levels along Dinah Shore Drive with windows closed would be 45.0 dB(A), at the 45 dB(A) interior threshold. Accordingly, roadway noise impacts would be less than significant on sensitive uses to the north.

As indicated in **Table 5.10-10**, the exterior noise levels along the Project's internal roadways from vehicle traffic would exceed the exterior State and local threshold of 65 dB(A) within the Planning Areas proposed for residential uses. Consequently, impacts are considered to be potentially significant.

Off-Site Sensitive Receptors

Noise levels would increase 7.1 dB(A) along Los Alamos Road segment up to 69.9 dB(A) 75 feet from the roadway centerline. As previously discussed, residential uses west of Los Alamos Road are setback 105 feet from the roadway centerline with a masonry wall along the west side of Los Alamos Road. The noise levels would attenuate 1.2 dB(A), which would result in 68.7 dB(A) at sensitive receptors to the west. The masonry wall would further attenuate roadway noise levels by 5 dB(A), thus reducing the Project-related traffic volumes to 63.7 dB(A) to the west. Consequently, the exterior noise levels would not exceed the City of Rancho Mirage threshold of 65 dB(A) within the Mission Hills area to the west of the Project Site. Assuming standard construction practices, interior noise levels would attenuate 20 dB(A) with windows closed. Interior noise levels along Los Alamos Road with windows closed would be 43.7 dB(A), below the 45 dB(A) interior threshold. Accordingly, roadway noise impacts would be less than significant on sensitive uses to the west.

Stationary Noise

Parking Lots

Development of the Project would introduce parking lots associated with retail-commercial, resort flex, mixed core uses on the Project Site. Generally, noise associated with parking lots is not of sufficient volume to exceed community noise standards based on the time-weighted CNEL scale. Parking lots can be a source of annoyance due to automobile engine start-ups and acceleration, and the activation of car alarms. Parking lots can generate L_{eq} noise levels of between 49 dB(A) L_{eq} (tire squeals) to 74 dB(A) L_{eq} (car alarms) at 50 feet. Existing off-site residential land uses along Los Alamos Road and Dinah Shore Drive (Mission Hills) and proposed on-site multi-family uses along internal roadways would be the closest sensitive receptors and would thus represent the worst-case impact associated with parking lot noise from the Project. Due to the existing level of traffic noise along area roadways, noise would not likely be audible due to the masking of noise by traffic. However, single noise events could be an annoyance to on-site and surrounding residents during certain time periods such as evening and morning hours and may exceed local standards at receptor locations. Consequently, impacts are considered to be potentially significant.

Loading Docks

External truck loading and unloading docks associated with the Project would introduce potential stationary noise sources. These sources would primarily be associated with the retail and commercial, resort flex, and mixed use core uses. The specific location of potential loading docks has not been determined. The operations at loading docks typically result in noise levels of 64 to 66 dB(A) at 75 feet.

The noise from loading docks would not cause an increase in long-term average noise of more than 5 dB(A) on the time-weighted CNEL scale, and would not be significant from that perspective. However, single noise events could be an annoyance during certain time periods such as evening and morning hours to existing on-site and off-site residential land uses along Los Alamos Road, Dinah Shore Drive, and internal roadways. Noise levels may exceed local standards. Consequently, impacts are considered to be potentially significant.

HVAC Systems

The Project would introduce various stationary noise sources, including HVAC systems, which would be located either on the roof, the side of a structure or on the ground. Off-site and on-site sensitive receptors could be potentially affected by the introduction of such equipment. Typically, this type of equipment produces noise levels of approximately 56.0 dB(A) at 50 feet from the source. This equipment would be screened and integrated in architectural design of the building, and would further attenuate sound emanating from the HVAC systems. As the sound distance doubles to 100 feet from the equipment, sound levels would be 50 dB(A), which would be below the local exterior noise limits (50 dB(A) between 10:00 PM and 7:00 AM for the City of Rancho Mirage). The use of such equipment would not generate noise levels that would substantially elevate the ambient noise environment and would not generate substantial noise and impacts to nearby noise-sensitive receptors. Impacts would be less than significant.

Human Activity Related Noise

Future residents located on the Project Site, as well as nearby sensitive receptors, may experience increases in noise due to an increase in human activity within the area either from people living on the premises, utilizing the on-site amenities including common areas, and the outdoor commercial and mixed use areas. Potential residential and commercial types of noise include people talking, doors slamming, stereos, and other noise associated with human activity. These noise sources are not unique and generally contribute to ambient noise levels experiences in all land use areas. Maximum permissible noise levels for mixed use areas are typically 55 to 65 dB(A) between 7:00 AM and 6:00 PM. Overall, the noise generated by the Project's land uses would be consistent with the ambient noise levels in the Project Site, which range from 66 to 76 dB(A). Accordingly, impacts would be less than significant.

Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels

Active Adult Community & Tribal Planning Areas

Construction activities can generate varying degrees of ground vibration depending on the construction procedures and the construction equipment used. The operation of construction equipment generates vibrations that spread through the ground and diminish in amplitude with distance from the source. The results from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibration at moderate levels, to slight damage at the highest levels. The primary and most intensive vibration source associated with the development of the Project would be the use of earth-moving equipment during construction, as identified in **Table 5.10-11, Vibration Source Levels from Construction Equipment**.

Table 5.10-11
Vibration Source Levels from Construction Equipment

Equipment	VdB at 125 feet
Air Compressor	72.1
Backhoe	74.6
Generator	58.1
Excavator	65.1
Loaded trucks	76.6
Loader	76.1
Paver	75.1
Roller	65.1
Scraper	68.1

Source: Office of Planning and Environment, Federal Transit Administration, Transit Noise and Vibration Impact Assessment, FTA-VA-90-1003-06 (May 2006), 12-9.

As indicated in **Table 5.10-11**, backhoes are capable of producing 76.6 VdB at 125 feet, which is the approximate distance to the nearest sensitive receptors located to the west of the Project Site. As previously noted, a vibration velocity of 75 VdB is the approximate threshold between barely perceptible and distinctly perceptible levels for many people. The residential neighborhoods nearest to the Project Site with regard to construction activities would not be affected as a result of the attenuation of groundborne vibration given their distance from the Project Site. Furthermore, the majority of construction activities would occur at farther distances. Construction activities would be restricted to daytime hours when people are the least sensitive to vibration intrusions, as identified in PDF 5.10-1. Consequently, heavy construction equipment would not generate substantial levels of

vibration that would cause annoyance at the off-site vibration-sensitive residences. Accordingly, vibration impacts to people would be less than significant.

A significant vibration impact from construction equipment to non-engineered timber and masonry buildings would be 78 VdB. Project construction activities would generate levels at the nearest structure would be 76.6 VdB, below the threshold criterion for non-engineered timber and masonry buildings. Therefore, the Project would result in less than significant vibration impacts on nearby structures.

For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels?

Active Adult Community & Tribal Planning Areas

The nearest airport to the Project Site is the Palm Springs Airport located approximately 8 miles to the northwest. The Project Site is not within an airport land use plan, within 2 miles of a public airport or public use airport, or within the vicinity of a private airstrip. Therefore, the distance from the airport to the Project Site would not expose people residing or working on the Project Site to excessive noise levels. Thus, no significant impacts would occur.

For a Project within the vicinity of a private airstrip, would the Project expose people residing or working in the Project Area to excessive noise levels?

Active Adult Community & Tribal Planning Areas

The Project is not within the vicinity of a private airstrip. The closest private airstrip is the Bermuda Dunes Airport, located approximately 8 miles to the southeast of the Project Site. Therefore, the Project would not expose residents or employees to excessive noise levels within the vicinity of a private airstrip. Accordingly, significant impacts would not occur.

5. Cumulative Impacts

For purposes of this analysis, development of the related projects will be considered to contribute to cumulative noise impacts. Noise by definition is a localized phenomenon, and drastically reduces as distance from the source increases. As a result, only project and growth in the general area of the Project Site would contribute to cumulative noise impacts.

Construction

Noise impacts are localized in nature and decrease with distance. Cumulative construction noise impacts have the potential to occur when multiple construction projects in the local area generate noise within

the same time frame and contribute to the local ambient noise environment. Based on noise levels generated by construction activities associated with the Project Site, the duration of construction activities (approximately 20 years), and the proximity of the sensitive receptors, construction noise from the Project would contribute to the cumulative noise environment. It is expected that, as with the proposed Project, the related projects would implement Best Management Practices (BMPs), which would minimize any noise-related nuisances during construction. Related projects are not located close enough to the Project Site (greater than 125 feet) to result in vibration impacts from concurrent construction. Therefore, the combined vibration impact of the related projects and the Project's contribution would not cause a significant cumulative impact.

Operational

Cumulative development from related projects would not result in a significant cumulative impact in terms of a substantial permanent increase in ambient noise levels. A substantial permanent increase is most likely to originate from an increase in noise levels due to roadway traffic. For the purposes of this analysis, an increase of 5 dB(A) at any roadway location is considered a significant impact, and if the resulting noise level would exceed the land use compatibility criteria, then an increase of 3 dB(A) is considered significant.

Development details related to the two cumulative projects (Rancho Mirage Rehab Hospital and Pelagic Residential) were obtained from the City of Rancho Mirage "Development Activity Summary." The two cumulative projects would generate a combined total of approximately 2,320 weekday trips when completed. The cumulative traffic was added to the year 2022 non-site traffic volumes developed from the Riverside County Transportation Analysis Model (RivTAM) to determine the year 2022 through year 2035 traffic volumes. As shown in **Table 5.10-10**, ambient noise level increases greater than 3 dB(A) where the noise levels exceed the land use compatibility criteria occur along the following roadway segments:

- Ramon Road: east of Los Alamos, west of Los Alamos, and east of Dal Vall Drive
- Los Alamos Road: south of Ramon Road and north of Dinah Shore Drive
- Bob Hope Drive: north of Dinah Shore Drive, north of Ramon Road, and north of I-10 interchanges
- Rattler Road: north of Ramon Road

Overall, the Project's contribution to the noise level increases under Year 2035 conditions would be less than 3 dB(A), except for the segment south of Ramon Road along Los Alamos Road, and, therefore, not considered to be cumulatively considerable. As previously discussed in the Future (Year 2035) plus

Specific Plan Buildout scenario, noise levels along Los Alamos would be greater than 3 dB(A), absent noise attenuation measures. Noise attenuating features including soft site conditions, distance, and the masonry wall along the site boundary would reduce exterior and interior noise levels below the State and local thresholds and, therefore, the Project's contribution would not considered to be cumulatively considerable. Noise increases from the I-10 would attenuate from 83.4 dB(A) to 63.9 dB(A) 1,200 feet to the Project Site and would not exceed the exterior threshold of 65 dB(A) at sensitive receptors.

With regard to stationary sources, cumulatively significant noise impacts may result from cumulative development. Stationary sources of noise that could be introduced in the area by cumulative projects could include mechanical equipment, loading docks, and parking lots. Since these projects would be required to adhere to the County of Riverside and City of Rancho Mirage's noise standards, all the stationary sources would be required to provide shielding or other noise abatement measures so as not to cause a substantial increase in ambient noise levels. Moreover, due to distance, it is unlikely that noise from multiple cumulative projects would interact to create a significant combined noise impact. As such, it is not anticipated that a significant cumulative increase in permanent ambient noise levels would occur and, therefore, the impact would be less than significant. Therefore, the Project's contribution to cumulative noise impacts would not cause a cumulatively significant noise impact.

C. MITIGATION MEASURES

In addition to the Project Design Features (PDF) identified in Section B.3, the following Mitigation Measures have been identified to mitigate noise impacts:

Active Adult Community and Tribal Planning Areas

MM 5.10-1 The project applicant shall require that the following construction best management practices (BMPs) be implemented by contractors to reduce construction noise levels:

- Two weeks prior to construction activities, the applicant must notify all surrounding land uses within 200 feet of a project site, of the construction schedule, including the various types of activities that will be occurring throughout the duration of the construction period.

- Before any site activity, the contractor shall be required to submit a material haul route plan to the Agua Caliente Band of Cahuilla Indians ("Tribe") Traffic Engineer and to the City of Rancho Mirage for review and approval. The contractor must ensure that the approved haul routes are used for all materials hauling, to minimize exposure of sensitive receivers to potential adverse noise levels from hauling operations.

- Ensure that construction equipment is properly muffled according to industry standards and in good working condition.
- Place noise-generating construction equipment and locate construction staging areas away from sensitive uses, where feasible.
- Stationary construction equipment, such as pumps, generators, or compressors, must be placed as far from noise sensitive uses as feasible during all phases of project construction.
- Implement noise attenuation measures to the extent feasible, which may include, but are not limited to, temporary noise barriers or noise blankets around stationary construction noise sources.
- Use electric air compressors and similar power tools rather than diesel equipment, where feasible.
- Construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, must be turned off when not in use for more than 30 minutes.
- Construction hours, allowable workdays, and the phone number of the job superintendent must be clearly posted at all construction entrances to allow for surrounding owners and residents to contact the job superintendent. If the Tribe, the City, or the job superintendent receives a complaint, the superintendent must investigate, take appropriate corrective action, and report the action taken to the reporting party. Contract specifications must be included in the proposed Project construction documents, which must be reviewed by the Tribe prior to issuance of grading permits.

MM 5.10-2 Prior to implementing project approval for each implementing project, for on-site residential lots located within the 65 dB(A) CNEL or greater noise contour for internal roadways (including Street "C" between Planning Area 1 and 2, Street "D" between Planning Areas 2, 3, 4, 5, and 6, and Street "E" between Planning Areas 6 and 7), an acoustic analysis shall be required to address requirements for determining and mitigating traffic noise impacts to residential structures. The acoustical analysis must be received, reviewed, and approved by the appropriate agency (such as the Agua Caliente Band of Cahuilla Indians or City of Rancho Mirage). Methods that may be implemented to meet the standards include, but are not limited to, providing noise walls of sufficient size to break the line of sight between roadways and residential areas, providing open-

space buffers, providing natural barriers such as hills, berms, boulders, and dense vegetation, or a combination of these methods.

Tribal Planning Areas

MM 5.10-3 Sound attenuation measures shall be incorporated into the design of individual projects to minimize noise from parking lots. These measures could include, but are not limited to, a noise barrier of sufficient size to break the line of sight, an open-space buffer, a setback, or a combination of methods shall be developed along locations between parking lot noise and exterior usable areas within on-site and adjacent residential uses where these uses interface. Acoustical analysis shall be performed to demonstrate that the parking lot does not result in noise levels on sensitive uses within the City of Rancho Mirage that exceed the City Municipal Code L50 standard of 60 dB(A) between 7:00 AM and 6:00 PM, 55 dB(A) between 6:00 PM and 10:00 PM, and 50 dB(A) between 10:00 PM and 7:00 AM. These components shall be incorporated into the plans submitted by the applicant to the Tribe, prior to the issuance of building permits.

MM 5.10-4 Sound attenuation measures must be incorporated into the design of individual projects to minimize noise from loading docks. These measures may include, but are not limited to, designing loading docks to have either a depressed (i.e., below grade) loading area, an internal bay, or a wall to break the line of sight between on-site and adjacent residential land uses and loading operations. Acoustical analysis shall be performed to demonstrate that the loading dock does not result in noise levels on sensitive uses within the City that exceed the City's L50 standard of 60 dB(A) between 7:00 AM and 6:00 PM, 55 dB(A) between 6:00 PM and 10:00 PM, and 50 dB(A) between 10:00 PM and 7:00 AM. These components must be incorporated into the plans submitted by the applicant to the Tribe for review and approval, prior to issuance of building permits.

D. LEVEL OF SIGNIFICANCE AFTER MITIGATION

Project Design Feature PDF 5.10-1 and Mitigation Measure **MM 5.10-1** would reduce noise generated by construction activities associated with the Project to the extent feasible. While Project-related construction activities would occur during the least noise-sensitive portion of the day and Mitigation Measures would help to reduce noise generated by construction activities, construction-related noise may be substantial due to the length of construction activities (approximately 20 years) and the level of noise from the combination of construction activities that would be generated. The magnitude of impact would depend on the location of the proposed development and construction schedule. Consequently, construction impacts for Specific Plan Buildout would be significant and unavoidable.

Construction vibration impacts on nearby sensitive receptors and structures would be less than significant.

Project Design Features PDF 5.10-2 and PDF 5.10-3 would reduce operational roadway noise, and impacts for all four scenarios would be less than significant. Mitigation Measure **MM 5.10-2** would reduce exterior and interior noise levels from vehicle traffic along internal roadways to a less than significant.

Project Design Feature PDF 5.10-4 and Mitigation Measures **MM 5.10-3** and **MM 5.10-4** would reduce stationary noise sources from parking lots and loading docks to a less than significant level.

The Project's contribution to increases in permanent roadway noise levels will not cause a significant impact.

5.11 POPULATION AND HOUSING

This Section of the Draft EIS addresses the potential for the proposed Project to induce substantial population or housing growth that would result in impacts to the environment or directly impact existing housing. To determine if the Project would result in substantial population or housing growth, the consistency of the proposed Project with current growth projections is assessed. The relationship of the Project to the regional planning policies of the Southern California Association of Governments (SCAG), the Coachella Valley Association of Governments (CVAG), and the current City of Rancho Mirage General Plan Housing Element are also discussed. Please see **Section 9.0** for a glossary of terms, definitions, and acronyms used in this Draft EIS.

A. ENVIRONMENTAL SETTING

1. Existing Conditions

Riverside County

Riverside County has experienced a significant growth in population over the past few decades. According to the U.S. Census Bureau, the Riverside County population grew from 1,543,387 in 2000 to 2,189,641 in 2010, an increase of approximately 42 percent. As of 2012, the number of housing units existing within the County was 799,360 units, of which approximately 84.6 percent, or 676,618 units, were occupied. The population employed within the County was 869,427 persons. As of 2010, the median age in Riverside County was 33.7.

According to California Department of Finance (DOF) as of January 1, 2014, the County population rose to approximately 2,279,967 residents. The number of housing units existing within the County is 817,008 units, of which approximately 85.7 percent, or 700,413 units, were occupied.

Agua Caliente Band of Cahuilla Indians

Tribal enrollment is approximately 365 persons,[1] with approximately 21,358 residents[2] on the Reservation.

According to the SCAG forecasts, the Agua Caliente Indian Reservation ("Reservation") had 13,868 households in 2010; it is projected to have 16,303 households by 2020 and 20,688 households by 2035.[3]

1 United States Census Bureau, 2000.
2 United States Census Bureau, 2000.
3 Southern California Association of Governments, RHNA Subcommittee, Table 5, May 2011.

City of Rancho Mirage

According to the U.S. Census, the City of Rancho Mirage ("City") had a population of 17,218 in 2010, accounting for approximately 4 percent of the Coachella Valley's total population and less than 1 percent of the County of Riverside's total population. As of 2012, the number of housing units existing within the City was 14,684 units, of which approximately 58.0 percent, or 8,524 units, were occupied. The vacancy rate within the City was 6,160 units, or approximately 42.0 percent, which is a result of many of these units serving as second or vacation homes for part-time residents. In 2010, the City of Rancho Mirage had a median age of 60.5 years compared with those of Riverside County (33.1), the State (35.2), and the nation (37.2). In addition, the proportion of seniors age 65 and older was higher in 2010 (44 percent) than in 2000 (43 percent).

According to the DOF, as of January 2014 the population of the City of Rancho Mirage is 17,745. The number of existing housing units within the City is 14,322 units, of which approximately 62.0 percent, or 8,878 units, are occupied.

2. Regulatory Setting

State

California Housing Element Law

California planning and zoning law requires each city and county to adopt a general plan for future growth.[4] This plan must include a housing element that identifies the housing need for all economic segments and provides opportunities for housing development to meet that need. At the State level, the Housing and Community Development Department estimates the relative share of California's projection population growth that would occur in each county within the State, based on DOF population projections and historical growth trends. Where there is a regional council of governments, the California Housing and Community Development Department provides the regional housing need to the council. The regional council then assigns a share of the regional housing need to each of its cities and counties. The process of assigning shares provides cities and counties the opportunity to comment on the proposed allocations. The Housing and Community Development Department oversees the process to ensure that the council of governments distributes its share of the State's projected housing need.

4 California Government Code, sec. 65300.

Each city and county must update its general plan housing element on a regular basis (generally, every five years). Among other things, the housing element must incorporate policies and identify potential sites that would accommodate the city's share of the regional housing need. Before adopting an update to its housing element, the city or county must submit the draft to the State Housing and Community Development Department for review. The department will advise the local jurisdiction whether its housing element complies with the provisions of California Housing Element Law.

The councils of governments are required to assign regional housing shares to the cities and counties within their region on a similar five-year schedule. At the beginning of each cycle, the Housing and Community Development Department provides population projections to the councils of governments, who then allocate shares to their cities and counties. The shares of regional need are allocated before the end of the cycle so that the cities and counties can amend their housing elements by the deadline.

Regional and Local

Southern California Association of Governments

The Southern California Association of Governments (SCAG) is a council of governments representing Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties. SCAG is the federally recognized Metropolitan Planning Organization (MPO) for this region, which encompasses more than 38,000 square miles. SCAG is a regional planning agency and a forum for addressing regional issues concerning transportation, the economy, community development, and the environment. SCAG is also the regional clearinghouse for projects requiring environmental documentation under federal and State law. In this role, SCAG reviews proposed development and infrastructure projects to analyze their impacts on regional planning programs. As the southern California region's MPO, SCAG cooperates with the Southern California Air Quality Management District (SCAQMD), the California Department of Transportation (Caltrans), and other agencies in preparing regional planning documents. SCAG has developed regional plans to achieve specific regional objectives.

SCAG is also responsible for the designated Regional Transportation Plan (RTP) including its Sustainable Communities Strategy (SCS) component pursuant to SB 375. The Sustainable Communities Strategy has been formulated to reduce GHG emissions from passenger vehicles by 8 percent per capita by 2020 and by 13 percent per capita by 2035 compared to 2005 targets set by the California Air Resources Board. The SCAG population, households, and employment projects for Riverside County are shown in **Table 5.11-1, SCAG Projections for Riverside County**.

Table 5.11-1
SCAG Projections for Riverside County

	2008	2020	2035
Population	2,128,000	2,592,000	3,324,000
Households	679,000	834,000	1,092,000
Employment	664,000	939,000	1,243,000

The 2012–2035 RTP/SCS links the goal of sustaining mobility with the goals of fostering economic development, enhancing the environment, reducing energy consumption, promoting transportation-friendly development patterns, and encouraging fair and equitable access to residents affected by socioeconomic, geographic, and commercial limitations. The Project's consistency with the applicable RTP/SCS policies is analyzed further in **Section 5.9, Land Use and Planning.**

Coachella Valley Association of Governments

The Coachella Valley Association of Governments (CVAG) is a subregional organization within SCAG. CVAG operates as the lead agency and as part of larger jurisdictional or regional teams within the Coachella Valley, made up of nine cities, Riverside County and three Native American Indian tribes, including the Agua Caliente Band of Cahuilla Indians ("Tribe"). CVAG represents member local governments and agencies throughout the Coachella Valley seeking cooperative subregional and regional planning, coordination, and technical assistance on issues of mutual concern. CVAG is made up of several departments, including an Energy and Environmental Resources Department that monitors and implements both regional and local plans related to energy and air quality, waste management, water quality, habitat conservation planning, and trails issues. The SCAG population, households, and employment projections for the CVAG subregion are shown in **Table 5.11-2, SCAG Projections for the CVAG Subregion**.

Table 5.11-2
SCAG Projections for the CVAG Subregion

	2008	2020	2035
Population	443,000	604,000	884,000
Households	160,000	213,000	304,000
Employment	175,000	245,000	315,000

B. ENVIRONMENTAL IMPACTS

1. Thresholds of Significance

In order to assist in determining whether a project would have a significant effect on the environment, the Tribe finds a project may be deemed to have a significant population and housing impact if it would:

Threshold 5.11-1: **Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).**

Threshold 5.11-2: **Displace substantial number of existing housing, necessitating the construction of replacement housing elsewhere.**

Threshold 5.11-3: **Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.**

2. Methodology

The analysis in this section is based on data provided by regional planning entities such as SCAG for planning horizons through 2035 and Project-specific data on household size and employment as presented in this Section. The most recent California Department of Finance population and housing estimates for the County were used in conjunction with the SCAG population projections to determine potential population and housing impacts.

The total population projected from buildout of the Project Site would be 4,331 residents within 2,406 residential dwelling units. Using an average household size of 1.8 persons, the Active Adult Community would add up to 2,160 new residents to the City of Rancho Mirage who would be age restricted to 55 and above. The projected population added by the multifamily residential units proposed within the Tribal Planning Areas would be 2,171 residents.

SCAG projections reflect an aging population throughout Riverside County and the Coachella Valley with the number of persons per household decreasing in these areas from the year 2005 through the year 2030. The future population and housing projections in the SCAG 2004 Growth Forecast used in the development of Riverside County Traffic Analysis Model (RivTAM) represent approximately 96 percent

of the 2005 Rancho Mirage General Plan buildout projections for the area within the City limits.[5] The City General Plan assumed no change in the future population per household from the current value of 1.9 persons per household.[6]

If the City's existing factor of 1.9 persons per household were applied to the SCAG future housing projection of 15,939, the future population within the City would be 31,081 (96 percent of the City's population projection of 32,400). Therefore, it could be concluded that the RivTAM population and housing projections are essentially consistent with the City's General Plan buildout condition. A four percent difference is negligible with respect to traffic projections for twenty years in the future. A fifteen percent difference is considered acceptable in the validation of subregional transportation models like RivTAM or the City of Rancho Mirage General Plan Model.

As shown in **Table 5.11-3, Specific Plan Employment Opportunities**, it is projected the commercial uses that would be permitted by the proposed Specific Plan would provide up to 6,822 employment opportunities.

Table 5.11-3
Specific Plan Employment Opportunities

Non-Residential Area	Building Square Footage	Employees per Square Foot[1]	Employment
Non-Mixed-Use Planning areas	2,048,600	500 per SF	4,097
Mixed-Use Planning Areas	1,090,000	400 per SF	2,725
Total	3,138,600	-	6,822

Notes:
[1] *2005 Rancho Mirage General Plan EIR*

5 The Riverside County Traffic Analysis Model (RivTAM), completed in May 2009, was developed with the cooperative efforts of the Riverside County Transportation Department, Western Riverside Council of Governments, Coachella Valley Association of Governments, Riverside County Transportation Commission, Southern California Association of Governments, and California Department of Transportation.

6 The City uses 1.9 persons per household to determine the appropriate amount of required usable parkland. [City of Rancho Mirage Municipal Code 16.18.060(D)(1)]

3. Project Impacts

Induce Substantial Population Growth in the Project Area

Active Adult Community

Population Growth

The City of Rancho Mirage 2014 population is 17,745 residents. The City's projected population with full development of the uses allowed by the General Plan is approximately 32,400, with an additional 11,875 possible residents in the City's sphere of influence, which includes the Project Site. The City's General Plan designates the portion of the Project Site containing the Active Adult Community as Medium Density Residential. The City has a potential to generate a maximum of approximately 16,600 dwelling units within the current City boundaries. The City's General Plan Housing Element indicates that the City's Sphere of Influence south of Interstate 10 (I-10) has the potential to add an additional 3,900 homes and 11,800 future residents on 1,075 acres of residential land.

As previously discussed, the Active Adult Community would add up 1,200 single-family units with up to 2,160 new residents within the Project Site. The projected population increase that would be generated would represent approximately 18 percent of the population growth projected in the City's Sphere of Influence. The population increase within the Active Adult Community would also account for approximately 7 percent of the City population increase between 2014 and 2030.

Public service providers have indicated that they can accommodate the projected growth from the Active Adult Community. Therefore, while development of the Active Adult Community would result in a population increase, this increase is consistent with projected growth in this portion of the City, and public services and utilities and service systems can adequately accommodate this growth. Impacts would be less than significant for these reasons.

Housing

The number of housing units in the City of Rancho Mirage in 2014 is 14,322 units. The Active Adult Community would add up 1,200 single-family units within the Project Site. The projected housing increase that would be generated represents approximately 31 percent of the housing growth projected in the City's Sphere of Influence. The housing increase within the Active Adult Community would account for approximately 19 percent of the City housing growth projected for the City between 2014 and 2030. Impacts would be less than significant because this growth in housing would be consistent with growth projections for this portion of the City's Sphere of Influence.

Tribal Planning Areas

Population

As previously discussed, the multifamily housing proposed within the Tribal Planning Areas would add up to 1,206 multifamily units with up to 2,171 new residents within the Project Site. The projected population increase that would be generated represents approximately 18 percent of the population growth projected in the City's Sphere of Influence between 2014 and 2030. The population increase within the Tribal Planning Areas would account for approximately 7 percent of the City population increase between 2014 and 2030 as identified in the City's 2005 General Plan. Impacts would be less than significant as this growth in population would be consistent with growth projections for this portion of the City's Sphere of Influence.

Housing

The number of housing units in City of Rancho Mirage in 2014 is 14,322 units. As previously discussed, the Project would add up 1,206 multifamily units within the Project Site. The projected housing increase that would result from the Project would represent approximately 31 percent of the housing growth projected in the City's Sphere of Influence. The housing increase within the Tribal Planning Areas would account for approximately 19 percent of the City housing growth projected for the City between 2014 and 2030. Impacts would be less than significant because this growth in housing would be consistent with growth projections for this portion of the City's Sphere of Influence.

Employment

The City's Sphere of Influence located south ofI-10, including the Project Site, is identified by the City's General Plan as having the potential for up to 3,200 employees on 111 acres of land designated for Community Commercial and Resort Hotel uses.

The Eisenhower Medical Center, Westin Mission Hills Resort, Marriott's Rancho Las Palmas, and the Ritz Carlton comprise the majority of employment in the City. Based on 2010 Census data, the number of jobs per Rancho Mirage household was 0.76, second lowest in the Coachella Valley. This low ratio is attributable to smaller household size and greater percentage of retirees.

The proposed Section 24 Specific Plan would result in direct employment growth from the proposed mix of employment-generating land uses, which would include up to 3,138,600 square feet of commercial, retail, office, restaurant, and entertainment uses within 158 acres. As indicated in **Table 5.11-3**, these uses could generate an up to 6,822 employment opportunities. The existing City jobs/housing ratio is 0.9, with the projected jobs/housing ratio to be 1.51 by 2030. When 6,822 jobs are added to 12,742 existing jobs, the jobs/housing ratio in the City with the Project would be 1.2. The Project would

contribute to the improvement of the existing jobs/housing ratio, when compared to the current 0.9 ratio that is identified in the City's General Plan.

Combined

As previously discussed, the housing proposed within the Project Site would add up to 2,406 residential units with up to 4,331 new residents within the Project Site. The projected population increase that would be generated represents approximately 37 percent of the population growth projected in the City's Sphere of Influence south of I-10 between 2014 and 2030. The population increase within the Project Site would account for approximately 13 percent of the City population increase between 2014 and 2030 as identified in the City's 2005 General Plan. Impacts would be less than significant as this growth in population would be consistent with growth projections for this portion of the City's Sphere of Influence.

The number of housing units in City of Rancho Mirage in 2014 is 14,322 units. The Project would add up 2,406 residential units within the Project Site. The projected housing increase that would result from the Project would represent approximately 62 percent of the housing growth projected in the City's Sphere of Influence south of I-10. The housing increase within the Project Site would account for approximately 14 percent of the City housing growth projected for the City between 2014 and 2030. Impacts would be less than significant because this growth in housing would be consistent with growth projections for this portion of the City's Sphere of Influence.

Consistency with Regional and Local Policies and Forecasts

SCAG RTP/SCS

Growth projections contained in the RTP/SCS are based on a compilation of county and local projections. RTP forecasts are then used in the formulation of regional plans dealing with regional air quality, housing, transportation/circulation, and other infrastructure issues. SCAG does not provide a specific methodology for establishing the consistency of a proposed project with its regional growth forecasts. However, the RCP contains policies that support the use of these forecasts in the preparation and review of local and regional plans and projects.

The Project would account for approximately 1 percent of the anticipated increase in residents within the Coachella Valley between 2008 and 2035, which is consistent with the estimated growth projection

for the CVAG subregion of SCAG.[7] Therefore, the Project would not result in substantial population growth in the area.

In 2008, CVAG reported 160,000 housing units within the CVAG subregion. According to SCAG projections, that number is forecast to increase to 304,000 housing units between 2008 and 2035, an increase of 144,000 housing units. The Project would account for approximately 2 percent of the anticipated 144,000 housing units within the CVAG subregion between 2008 and 2035. As previously stated, SCAG projections for Reservation lands indicate that housing would grow by 4,386 units between 2020 and 2035. The Project would account for approximately 55 percent of growth on Reservation lands. The residential component of the Project would not result in substantial or unplanned housing growth.

In 2008, CVAG reported 175,000 employment opportunities within the CVAG subregion. According to SCAG projections, that number is forecast to increase to 315,000 employment opportunities between 2008 and 2035, an increase of 140,000 employment opportunities. The Project would account for approximately 5 percent of the anticipated 140,000 employment opportunities within the CVAG subregion between 2008 and 2035. The employment component of the Project would not result in substantial or unplanned employment growth.

Per State housing law, jurisdictions are required to accommodate for projected household growth through a sites and zoning analysis in their respective housing elements. Population and household growth on Tribal lands are included in SCAG's regional growth forecasts, but local jurisdictions and the State do not have land use authority on Tribal lands; thus, SCAG proposed to exclude tribal population and household growth and associated housing needs from the Regional Housing Needs Assessment (RHNA) process. The fourth RHNA cycle regional allocation included growth on Indian Tribal lands. The fifth RHNA cycle (2011 through 2021) regional allocation excluded growth on Tribal lands, per determination by the California Housing and Community Development Department.[8] Therefore, the Project would not be subject to RHNA process for replacement housing within the SCAG region.

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7 884,000 (2035 projection) – 443,000 (2008 population) = 441,000 residents.
4368 Project residents / 441,000 = 0.01 or 1 percent.

8 SCAG, No. 2 Meeting of the Regional Housing Needs & Housing Element Reform Subcommittee, January 23, 2014.

Cause a Substantial Displacement of Existing Housing

Active Adult Community and Tribal Planning Areas

Since the Project Site is currently vacant, the Project would not displace a substantial number of housing units on the site. Because the proposed Project would not displace any existing housing, impacts would be less than significant.

Cause a Substantial Displacement of People

Active Adult Community and Tribal Planning Areas

As discussed previously, the Project Site does not contain any existing residential development and therefore does not have an existing residential population. Because the Proposed Project would not displace substantial numbers of people, impacts would be less than significant.

4. Cumulative Impacts

Implementation of the Project, in combination with other development projects in the unincorporated County areas, adjacent jurisdictions, and the City of Rancho Mirage in accordance with the adopted General Plan, would contribute to future population, housing, and employment growth within the area. Though Project buildout would contribute to the growth of the County, the area, and within the City of Rancho Mirage, significant population, housing, and employment growth in the City is already anticipated in the City's General Plan. Additionally, the Project's cumulative housing and population impact provides benefits for the jobs/housing ratio, regional housing goals that promote housing production, and General Plan Housing Element goals regarding the mixture of residential densities. As a result, the Project would not cause a significant adverse impact with respect to cumulative population and housing growth.

C. MITIGATION MEASURES

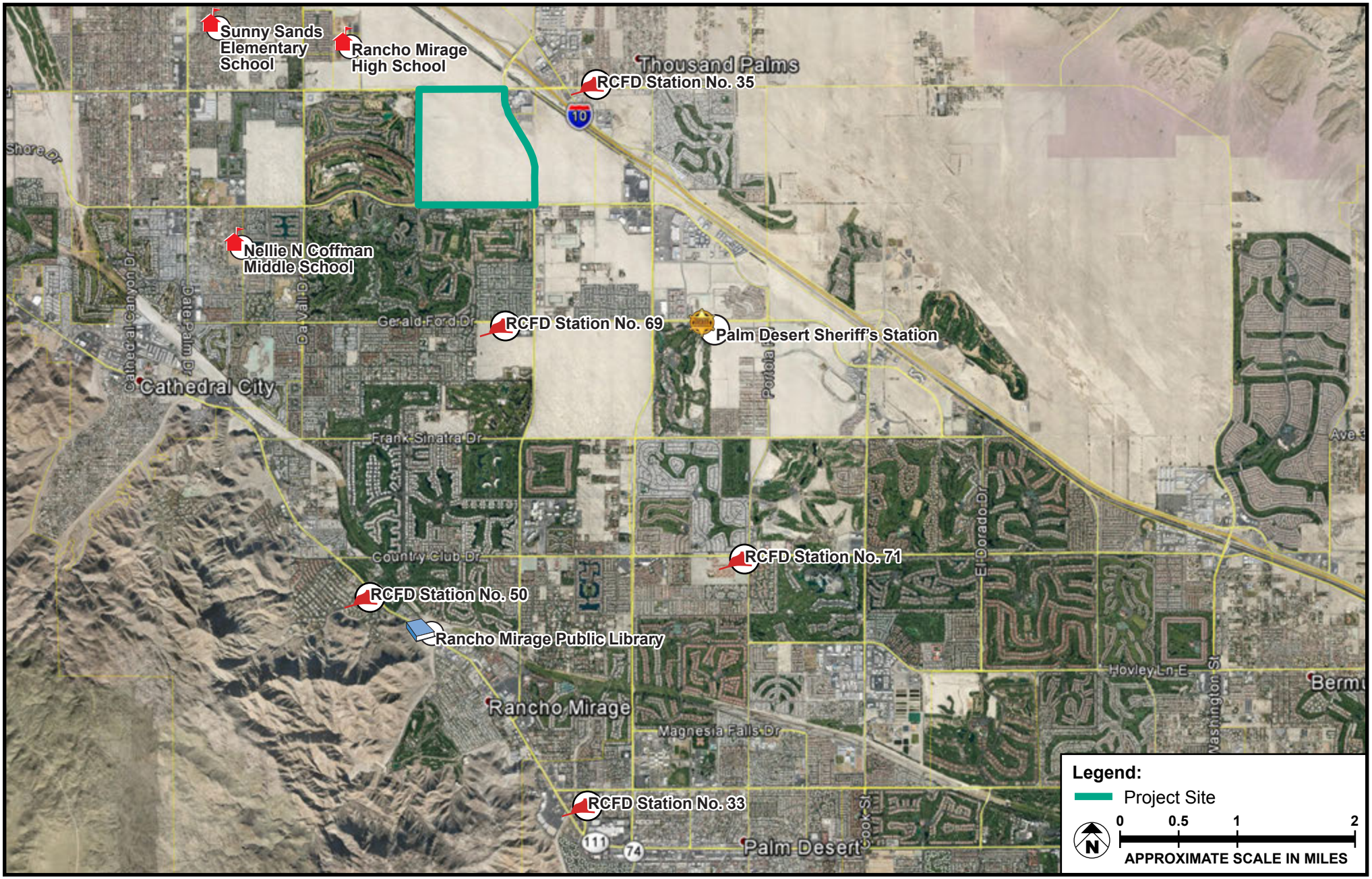
No Mitigation Measures are required.

D. LEVEL OF SIGNIFICANCE OF MITIGATION

No significant impacts have been identified and no Mitigation Measures are necessary.

5.12 PUBLIC SERVICES

This Section addresses the potential impacts of the Project on fire protection, emergency medical services, police protection, schools, libraries, and public facility maintenance. The Project's potential impacts related to available park resources will be discussed in **Section 5.13, Recreation**. The information provided in this Section is based on correspondence and consultation with the County of Riverside Sheriff's Department, County of Riverside Fire Department, Palm Springs Unified School District, and Rancho Mirage Public Library. The location of each respective public service is identified in **Figure 5.12-1, Public Services Within Proximity to Project Site**. Each subsection includes an introduction, followed by discussions of existing conditions, regulatory framework, methodology, Project Design Features, environmental impacts, cumulative impacts, and Mitigation Measures.



SOURCE: Google Earth - 2014

FIGURE **5.12-1**

Meridian Consultants

Public Services Within Proximity to Project Site

044-001-13

5.12.1 FIRE PROTECTION & EMERGENCY SERVICES

This Section of the Draft EIS evaluates the potential for the Project to impact fire protection and emergency services provided by the Riverside County Fire Department (RCFD). See **Section 9.0** for definitions of terms, definitions, and acronyms used in this EIS.

A. ENVIRONMENTAL SETTING

1. Existing Conditions

The Project Site is located within the boundaries of the RCFD, which provide fire protection and emergency services to the Coachella Valley. RCFD provides fire protection and emergency services under contract to the California Department of Forestry and Fire Protection (Cal Fire),[1] and partners with several jurisdictions for its services, including the City of Rancho Mirage ("City"), City of Palm Desert, and Thousand Palms Community Services District. Additionally, RCFD participates in a Regional Integrated and Cooperative Fire Protection System with the City of Palm Springs and Cathedral City. The Regional Integrated and Cooperative Fire Protection System provides the Tribe and surrounding areas with additional regional resources to respond to fire service and emergency calls when required.

As shown in **Figure 5.12.-1, Public Services Within Proximity to Project Site,** there are currently five RCFD stations that are within proximity to the Project Site that are able to provide fire protection and emergency services. These stations are RCFD Stations No. 50 and No. 69 (located in City of Rancho Mirage), No. 33 and No. 71 (located in City of Palm Desert) and No. 35 (located in Thousand Palms). **Table 5.12.1-1, Fire Stations Within Proximity to Project Site**, identifies the location and the distance of these fire stations in relation to the Project Site. As shown on **Table 5.12.1-1**, two of these existing fire stations are located within 1 mile of the Project Site.

According to the Riverside County 2003 General Plan, and reiterated in the 2014 update, an acceptable response time is generally defined as within five minutes for urban areas, 10 minutes for suburban and rural community areas and 20 minutes for rural outlying areas.[2]

As indicated in the City's General Plan Public Services and Facilities Element, a typical response time from RCFD to an incident will place eight personnel, including a battalion chief, to the scene within 5 minutes. In particular, RCFD Station No. 69 currently has three firefighters, who are all emergency

1 Riverside County Fire Department, (June 2014), http://www.rvcfire.org/.

2 Riverside County Environmental Impact Report No. 521, Public Review Draft, Section 4.17: Public Facilities, March 2014.

medical training (EMT) certified, with an average response time under 5 minutes. This Station is equipped with one municipal paramedic fire engine.

Table 5.12.1-1
Fire Stations Within Proximity to Project Site

Station	Location	Distance from Project Site (approximately)
Rancho Mirage		
RCFD Station No. 69	71-751 Gerald Ford Drive	1.0 miles
RCFD Station No. 50	70-801 Highway 111	5.7 miles
Palm Desert		
RCFD Station No. 33	44400 Town Center Way	5.6 miles
RCFD Station No. 71	73995 County Club Drive	5.0 miles
Thousand Palms		
RCFD Station No. 35	31920 Robert Road	0.85 miles

Source: Riverside County Fire Department, 2014.

2. Regulatory Setting

State

California Building Code

The California Building Code (CBC) includes relevant fire safety standards and the California Fire Code, which is from Title 24, Part 9 of the California Code of Regulations. In compliance with the California Building Standards Commission based on the 2012 International Fire Code, the CBC sets building requirements that will ensure all structures are designed to ensure proper emergency access. Additionally, it indicates other design features, such as fire sprinklers, fire flow standards, emergency access roads standards, and storage of flammable materials, which comply with fire department minimum requirements.

California Fire Code

The California Fire Code (CFC) applies to all occupancies throughout the State of California as annotated. The CFC is the minimum State standard for fire code implementation in California, and is based on the content of the Uniform Fire Code.[3] The CFC establishes minimum fire-flow requirements.

Regional and Local

Riverside County Ordinance No. 659

Ordinance No. 659 identifies the requirement to implement the payment of development impact fees upon new construction within the unincorporated areas of Riverside County. While the development impact fees do not necessarily mitigate impacts from all new development, these fees are used to effectively meet the public service needs demanded by new development and to minimize impacts to the County's public facilities and resources.

Agua Caliente Band of Cahuilla Indians Tribal Building and Safety Code

As adopted from the CBC and the CFC, the purpose of the Tribal Building and Safety Code is to provide standards and regulations to control minimum building safety standards of all buildings and structures on the Agua Caliente Indian Reservation ("Reservation"). These standards are intended to protect the health, safety, and welfare of the general public from any potential building hazards. All building permit approvals from the Tribe are based on this Code.

Rancho Mirage General Plan

The Public Services and Facilities Element of the City's General Plan includes policies related to the fire protection and emergency services that are needed to support the City.[4] It identifies the source of funding, the formulation of the City's fire protection services, stations that currently service the City, and the plans to expand existing fire services based on the City's continued growth and development.

Rancho Mirage Municipal Code

Building and construction within the City are subject to Title 15 of the *Rancho Mirage Municipal Code,* which governs grading, fill, and excavation activities. The City's Building and Safety Division prescribes building codes pertaining to fire prevention hazards. The *Rancho Mirage Fire Code* (Title 15.12) is based on the 2013 *California Building Code* and sets minimum design and construction standards to enforce all

3 National Fire Protection Association, Uniform Fire Code, 2012.

4 *City of Rancho Mirage General Plan,* "Public Services and Facilities Element," 1997.

ordinances and laws relating to the prevention or spread of fires, fire control, and fire hazards within the City.

At the local level, the City's Municipal Code contains the Fire Code, which prescribes regulations to enforce all ordinances and laws relating to the prevention or spread of fires, fire control, and fire hazards within the City.[5]

Lastly, Title 3, Chapter 28 and Chapter 29 of the *Rancho Mirage Municipal Code* sets forth the City's policy for the requirement of payment of license tax and development impact fees upon new construction as a measure to fund local fire protection services. Specifically, Section 120 of Title 3, Chapter 28 identifies that development impact fees shall be paid to a separate fund to be used only for funding fire facilities and equipment within the City.

B. ENVIRONMENTAL IMPACTS

1. Thresholds of Significance

In order to assist in determining whether a project would have a significant effect on the environment, the Tribe finds a project may be deemed to have a significant impact on public services, including fire and emergency services, if it would:

Threshold 5.12.1-1 **Result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities, need for new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection services.**

2. Methodology

Analysis of fire protection services is concerned with response time and water fire-flow service to the area that is in question. Response times to an area have large influences on the ability for a fire department to serve a development, county, city, or other populated area in a timely and efficient manner. The further a fire station is away from a populated area, it would be expected that response times would be longer and delayed.

5 City of Rancho Mirage, Municipal Code, Chapter 15.12, "Fire Code."

An analysis of response times for fire departments serving a development should be completed in order to determine if the fire department has sufficient resources to arrive to a fire or other medical emergency in a timely fashion. Additionally, the ability to provide adequate service to an area was determined by the ability to provide fire-flow service to the area. Fire-flow is the amount of water required for firefighting purposes, usually delivered by a system of underground piping and fire hydrants.

3. Project Design Features

The following Project Design Features (PDFs) are incorporated into the proposed Project and would reduce the potential fire protection and emergency service impacts of the Project. These features were taken into account in the analysis of potential impacts.

PDF 5.12.1-1 Each individual project shall be required to provide approved final fire-flow plans to the Tribe and/or the Riverside County Fire Department (RCFD), as appropriate, which include fire-flow requirements within commercial projects to be based on square footage and residential projects based on intensity of use. Additionally, the fire flow requirements factor the type of construction associated with development of the structures. These requirements shall also comply with the Tribal Building and Safety Code and/or City Fire Code (if the property is annexed to the City and becomes subject to the City's land use jurisdiction), as applicable.

PDF 5.12.1-2 Prior to final building inspection for each individual project, applicants shall provide final fire-flow plans to the RCFD ensuring that all water mains and fire hydrants providing required fire-flows would be constructed in accordance with the appropriate development schedule sections of the Tribal Building and Safety Code and/or City Fire Code, as applicable. Each fire-flow plan that is submitted would be reviewed and approved by the Tribe, the City (if the property is annexed to the City and becomes subject to the City's land use jurisdiction), and/or RCFD prior to final building inspection.

4. Project Impacts

Result in substantial adverse physical impacts that would affect acceptable service ratios, response times, or other performance objectives

Active Adult Community

The Active Adult Community is expected to increase the number of responses needed for the area, such as calls for structure fires, car fires, electrical fires, as well as various emergency service calls. This increase would result in the increased demand for additional apparatus, equipment, and personnel to

service the Active Adult Community. Additionally, the development of the Active Adult Community would increase demand on the RCFD's costs to maintain adequate service levels and response times.

The two closest stations to the Project Site that would provide primary response are RCFD Stations No. 35 and No. 69. Station No.35 is located approximately 0.85 miles to the northeast and Station No. 69 is approximately 1.0 miles to the southwest of the Project Site. Station No. 35 would be the primary station to serve the Active Adult Community as it is the closest and would provide the quickest response times. In the event that Station No. 35 is responding to a fire and/or emergency call, Fire station No. 69 would respond to calls from the Project Site. Thus, both fire stations would be well within the Category 1 response-time objective of 10 minutes for the Project.

The RCFD has indicated that the City's existing infrastructure, including access, traffic circulation, water, and hydrant systems are adequate for current RCFD needs as well as the needs of the Project.[6] However, as the area grows and continues to develop, there will be an increase in demand for services provided by the RCFD. All development projects within the County and the City are required to comply with the most current adopted fire, building codes, and nationally recognized fire and life safety standards. The Active Adult Community would be required to comply with the Tribal Building and Safety Code, or the City Fire Code if annexed into the City, both of which include the 2013 CBC and the California Fire Code (Title 24, Part 9 of the California Code of Regulations).

RCFD has indicated that a large section of non-property-taxed area within the response areas for these two stations negatively impacts the ability to pay for necessary services in the future. Therefore, in order to ensure that the Active Adult Community would not degrade existing facilities and response times provided by the RCFD to serve the needs of the Project, applicable fees would be required as identified in Mitigation Measure **MM 5.12.1-1**.

As discussed in **Section 5.7 Hazards and Hazardous Materials**, the Project Site is located within an area with minimal fire hazard risk according to Cal Fire. Thus, the need for wild fire protection services to the Project Site is not likely required from RCFD.

Project Design Feature 5.12.1-1 and 5.12.1-2 require that the Active Adult Community provide for the design, number, and the installation of fire hydrants, as well as the provision of adequate fire flow, in compliance with the Tribal Building and Safety Code or the City Fire Code if annexed into the City.

6 Ron Arbo, Battalion Chief, Riverside County Fire Department, phone correspondence, May 21, 2014.

Therefore, Project implementation is not anticipated to have a significant impact on fire protection and emergency medical services. Accordingly, impacts would be less than significant.

Tribal Planning Areas

As previously discussed, the Station No. 35 in Thousand Palms would be the primary serving station since it is the closest station approximately 0.85 miles from the Project Site. The next station that would serve the Tribal Planning Areas is Fire Station No. 69. RCFD has indicated that the City's existing infrastructure, including access, traffic circulation, water, and hydrant systems are adequate for current RCFD needs as well as the needs of the Project.[7]

However, as the area grows and continues to develop, there will be an increase in demand for services provided by the RCFD. All development projects within the County and the City are required to comply with the most current adopted fire, building codes, and nationally recognized fire and life safety standards. The Tribal Planning Areas would be required to comply with the Tribal Building and Safety Code, and the City Fire Code for property annexed into the City that becomes subject to the City's land use jurisdiction, which includes the 2013 CBC and the California Fire Code.

RCFD has indicated that a large section of non-property-taxed area within the response areas for these two stations negatively impacts the ability to pay for necessary services in the future. Therefore, in order to ensure that the Tribal Planning Areas would not degrade existing facilities and response times provided by RCFD to serve the needs of the Project, payment of an amount equal to the applicable development impact fees would be required as identified in Mitigation Measure **MM 5.12.1-1**. If the Project Site is annexed into the City, then an applicable development impact fee will be paid to the City. If the Project Site is not annexed into the City, then an applicable development impact fee will be paid to the County of Riverside.

Furthermore, it should be noted that the Section 24 Specific Plan permits the development of fire stations within Planning Areas 1 to 7 for the Tribal Areas under permitted uses in the mixed-use and multi-family residential land uses, and under a conditional use permit within the resort flex and retail land uses. Project Design Feature 5.12.1-1 and 5.12.1-2 require that the Tribal Planning Areas provide for the design, number, and the installation of fire hydrants, as well as the provision of adequate fire flow, in compliance with the Tribal Building and Safety Code, and with the City Fire Code for property annexed into the City that becomes subject to the City's land use jurisdiction. Therefore, Project

7 Ron Arbo, Battalion Chief, Riverside County Fire Department, phone correspondence, May 21, 2014.

implementation is not anticipated to have a significant impact on fire protection and emergency medical services. Accordingly, impacts would be less than significant.

5. Cumulative Impacts

Related projects within the Reservation, the City's Sphere of Influence, or within unincorporated Riverside County could contribute to a potentially significant adverse cumulative impact on RCFD's fire protection and emergency services and their ability to provide acceptable response times. These impacts would include increased numbers of emergency and public service calls due to the increased presence of structures, traffic volume, and people within the area. Development projects within the City would be reviewed by the City and RCFD, and payment of development impact fees and the license tax would be required in accordance with Title 3, Chapter 28 and Chapter 29 of the City's Municipal Code to minimize impacts to local fire services. Development within unincorporated Riverside County would be required to pay development impact fees as required by Riverside County Ordinance No. 659 to effectively meet the public service needs demanded by new development. Development within the Tribal Planning Areas will be subject to an equivalent fee, or alternative funding, that would be paid to the City or County to mitigate potential cumulative impacts on fire protection and emergency services. Therefore, implementation related projects would not adversely impact future demand on fire protection and emergency services provided by RCFD. Accordingly, cumulative impacts would be less than significant.

C. MITIGATION MEASURES

In addition to the Project Design Features identified in Section B.3, the following Mitigation Measure would reduce impacts on fire protection and emergency services:

MM 5.12.1-1 Prior to the issuance of building permits, individual project proponents shall pay development impact fees for fire protection facilities, or their equivalent, to the City if annexed into City jurisdiction, or County as applicable.

D. LEVEL OF SIGNIFICANCE AFTER MITIGATION

Project Design Features PDF 5.12.1-1 and PDF 5.12.1-2, Mitigation Measure **MM 5.12.1-1**, and compliance with existing regulations would reduce potential impacts associated with fire protection and emergency services to be less than significant. Cumulative impacts would also result in less than significant impacts on fire protection and emergency services.

5.12.2 LAW ENFORCEMENT

This Section of the Draft EIS evaluates the potential for the Project to impact law enforcement services provided by the Riverside County Sheriff's Department (Sheriff's Department). See **Section 9.0** for definitions of terms, definitions, and acronyms used in this Draft EIS.

A. ENVIRONMENTAL SETTING

1. Existing Conditions

The Sheriff's Department provides law enforcement services to the City of Rancho Mirage ("City") and surrounding areas. The Project Site is located within the service boundaries of the Sheriff's Department. The Sheriff's Department provides emergency and non-emergency police response, routine police patrols, investigative services, traffic enforcement, and traffic investigation.[1] The station that serves as the headquarters for responding law enforcement officers to the City and surrounding jurisdictions is the Palm Desert Station, located at 73705 Gerald Ford Drive in Palm Desert, as shown in **Figure 5.12-1, Public Services Within Proximity to Project Site**. The Palm Desert Station is approximately 3.75 miles to the southeast. This Station serves an area of approximately 26 square miles in the cities of Palm Desert and Rancho Mirage and receives over 47,600 calls for service each year.[2] The Sheriff's Department ranks calls for services with a four-level priority system based upon the urgency and need for prompt emergency service.

The Sheriff's Department divides the City into three beats: 20 Beat, 22 Beat, and 24 Beat. These beats are then further divided into different reporting districts.[3] As it is surrounded by the City on all sides, the Project Site is located within 24 Beat, with adjacent property to the Project Site designated as reporting district 24C7.[4]

As shown in **Table 5.12.2-1, Average Response Times for Reporting District 24C7**, the average response times for Priority 1 through Priority 4 emergencies between the months of December 2013 through May 2014 range from 2 minutes and 90 seconds to 28 minutes and 10 seconds. The response to calls is generally dependent upon various factors such as call type and the availability and location of the nearest patrol unit.

1 Lt. John Shields, Riverside County Sheriff, Rancho Mirage Police, letter correspondence, June 26, 2014.
2 Palm Desert Police, "Police Organization," http://www.cityofpalmdesert.org/.
3 Lt. John Shields, Riverside County Sheriff, Rancho Mirage Police, letter correspondence, June 26, 2014.
4 Lt. John Shields, Riverside County Sheriff, Rancho Mirage Police, letter correspondence, June 26, 2014.

Table 5.12.2-1
Average Response Times for Reporting District 24C7

Priority	Total Calls	Delay Time	Response Time	Total Response Time
1	2	0:30	2:27	2:54
2	88	3:22	7:34	10:55
3	65	12:13	13:52	26:04
4	34	15:04	13:02	28:06

Source: Lt. John Shields, Riverside County Sheriff, Rancho Mirage Police, letter correspondence, June 26, 2014.

The City contracts for 1 sworn sergeant, 16 sworn patrol officers, 2 sworn traffic officers, 3 sworn special enforcement officers, and 3 non-sworn community services officers.[5] As discussed in Section **5.11, Population and Housing**, the City has a population of 17,745 as of January 2014; therefore, based on the total number of sworn officers, the City currently has a ratio of 1.41 officers per 1,000 people.

2. Regulatory Setting

Local

Rancho Mirage General Plan

The Public Services and Facilities Element of the City's General Plan includes policies related to the police protection services that are needed to support the City.[6] It identifies the formulation of the City's police protection services, the station that services the City, general statistics of the police force, programs that are currently in place and the plans to expand existing police services based on the City's continued growth and development. This Element also expands on factors that affect the effectiveness of police protection in the City. The City of Rancho Mirage General Plan indicates that the commonly accepted police officer to resident ratio is 1 officer to 1,000 people.[7]

Rancho Mirage Municipal Code

New construction within the City of Rancho Mirage is subject to Title 3, Chapter 28 of the *Rancho Mirage Municipal Code*, which sets policy for the requirement of an imposed tax on new construction to support the increased demand for public services and infrastructure improvements, such as police

5 Lt. John Shields, Riverside County Sheriff, Rancho Mirage Police, letter correspondence, June 26, 2014.
6 *City of Rancho Mirage General Plan,* "Public Services and Facilities Element," 1997.
7 *City of Rancho Mirage General Plan,* "Public Services and Facilities Element," 1997.

protection services.[8] Title 3, Chapter 29 of the *Rancho Mirage Municipal Code* establishes development impact fees that are to be paid upon new construction.

B. ENVIRONMENTAL IMPACTS

1. Thresholds of Significance

In order to assist in determining whether a project would have a significant effect on the environment, the Tribe finds a project may be deemed to have significant impacts on public services, including law enforcement services, if it would:

Threshold 5.12.2-1 **Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered law enforcement facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for law enforcement services.**

2. Methodology

Analysis of law enforcement services incorporates a review of response times and officer-to-population service ratios. Response times to an area influence the ability for law enforcement to serve a population, city, or other populated area in a timely and efficient manner. Law enforcement officers are typically mobile, which allows them to respond more quickly than if they were stationed at one particular place.

Law enforcement agencies also use standardized officer-to-population ratios to determine if they are capable of providing adequate service to an area. If a new development is built and the population in the area is increased, the local law enforcement agency's ability to properly provide service to the area may be affected.

8 The City of Rancho Mirage Municipal Code, Title 3 (Revenue and Finance), Chapter 28 (License tax on New Construction).

3. Project Design Features

The following Project Design Features (PDFs) features are incorporated into the proposed Project and would reduce impacts on the Sheriff Department's response times and performance standards. These features were taken into account in the analysis of potential impacts.

PDF 5.12.2-1 The Active Adult Community (Planning Area 8) shall be a gated community that would only be accessible to residents and their guests; thus, increasing community security and minimizing potential crimes.

PDF 5.12-2-2 Parking areas within the Tribal Planning Areas (Planning Areas 1 to 7) shall be designed to greatest extent possible to avoid expansive parking lots and to incorporate more clustered parking lot designs to maximize security and efficient access.

PDF 5.12.2-3 The Project shall incorporate various lighting features that would enhance security within public spaces and maximize visibility.

4. Project Impacts

Result in substantial adverse physical impacts that would affect acceptable service ratios, response times, or other performance objectives

Active Adult Community

Development of the Active Adult Community is expected to increase demand for law enforcement services and facilities provided by the Sheriff's Department. As a result, additional law enforcement equipment, facilities, and personnel would potentially be required to accommodate the demands of the Active Adult Community.

PDF 5.12.2-1 and PDF 5.12.2-3 ensure that the Active Adult Community would be a gated community and contain security features that would help minimize the need for services from the Sheriff's Department. Response times are not anticipated to be significantly impacted since the Project would be located within a Beat currently serviced by the Sheriff's Department.

If the Active Adult Community is annexed into the City, then up to 2,160 residents[9] would be added to the City's current population for a total City population of 19,905 residents. The resulting officer-to-resident ratio would be 1.26 officers per 1,000 people which would exceed the 1 officer per 1,000

9 Average active adult residential dwelling unit is 1.8 persons. 1,200 active adult dwelling units * 1.8 persons per dwelling unit = 2,160 residents.

resident ratio identified for the City, but would be lower than the existing 1.41 officers per 1,000 people. Although this ratio would meet the commonly accepted officer-to-population ratio used by other jurisdictions, the Sheriff's Department has indicated that in order to accommodate the increased requests for law enforcement services associated with the Project, 24 Beat would require the addition of 3 patrol deputies to service the Active Adult Community.[10] Therefore, Mitigation Measure **MM 5.12.2-1** will require payment of the City's development impact fee for law enforcement services, or its equivalent, in order to maintain acceptable levels of law enforcement services in the area. Accordingly, impacts would be less than significant with mitigation.

Tribal Planning Areas

Development within the Tribal Planning Areas is projected to include 1,206 multi-family attached residential units and approximately 3.1 million square feet of commercial uses across an area. PDF 5.12.2-2 and PDF 5.12.2-3 would incorporate parking designs and safety lighting that provide for more efficient security and access that would help minimize services needs by the Sheriff's Department. Response times are not anticipated to be significantly impacted since the Project would be located within a Beat that is currently serviced by the Sheriff's Department.

Along with the various employees and visitors to the Project Site, a total of up to 2,171 new residents[11] would reside within the Tribal Planning Areas. When Tribal Planning Area residents are combined with the existing City population, a total of 19,916 residents would reside in the area, which would result in an officer-to-resident ratio of 1.26 officers to 1,000 people, which exceeds the City's standard of 1.0 officer per 1,000 people but is lower than the existing 1.41 officers per 1,000 people. Although this ratio would meet the commonly accepted officer-to population ratio as established in the City's General Plan, the Sheriff's Department has indicated that in order to accommodate the increased requests for law enforcement services that would be associated with the Project, 24 Beat would require an additional 7 patrol deputies.[12] Therefore, Mitigation Measure **MM 5.12.2-1** will require payment of a fee equivalent to the City's development impact fee, or provide equivalent funding, to maintain acceptable levels of law enforcement services in the area. Accordingly, impacts would be less than significant with mitigation.

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10 Lt. John Shields, Riverside County Sheriff, Rancho Mirage Police, letter correspondence, June 26, 2014.

11 Average multifamily dwelling unit is 1.8 persons. 1,206 active adult dwelling units * 1.8 persons per dwelling unit = 2,171 residents.

12 Lt. John Shields, Riverside County Sheriff, Rancho Mirage Police, letter correspondence, June 26, 2014.

5. Cumulative Impacts

Related projects within the Reservation, the City's Sphere of Influence, or within unincorporated Riverside County could contribute to a potentially significant adverse cumulative impact on the Sheriff's Department emergency and non-emergency services and their ability to provide acceptable response times. These impacts would include increased numbers of requests for law enforcement services due to the increased presence of structures, traffic volume, and people within the area. Development projects within the City would be reviewed by the City and the Sheriff's Department and payment of development impact fees in accordance with the Title 3, Chapter 28 and Chapter 29 of the City of Rancho Mirage's Municipal Code to minimize impacts to local police services. Therefore, implementation of related projects would not adversely impact future demand on law enforcement services provided by the Sheriff's Department. Accordingly, cumulative impacts would be less than significant.

C. MITIGATION MEASURES

In addition to the Project Design Features identified in **Section B.3** above, the following Mitigation Measure would reduce impacts to police protection services:

Active Adult Community and Tribal Planning Areas

MM 5.12.2-1 Prior to the issuance of building permits, individual Project proponents shall pay applicable development impact fees, or provide equivalent funding, to offset the cost of additional law enforcement services for the Project.

D. LEVEL OF SIGNIFICANCE OF MITIGATION

Project Design Features PDF 5.12.2-1 through PDF 5.12.2-3, Mitigation Measure **MM 5.12.2-1,** and compliance with existing regulations would result in less than significant impacts on law enforcement services. Cumulative impacts would also result in less than significant impacts on law enforcement services.

5.12.3 SCHOOL SERVICES

This Section of the Draft EIS evaluates the potential for the Project to impact Palm Springs Unified School District (PSUSD) school services and facilities. See **Section 9.0** for definitions of terms, definitions, and acronyms used in this Draft EIS.

A. ENVIRONMENTAL SETTING

1. Existing Conditions

The Project Site is located within the attendance boundaries of the PSUSD, which covers the communities of Cathedral City, Desert Hot Springs, Palm Desert, Palm Springs, Rancho Mirage ("City"), and Thousand Palms. The PSUSD facilities include 17 elementary schools with grades K–5; five (5) middle schools with grades 6–8; four (4) high schools with grades 9–12; and six (6) alternative schools, which include an adult school, a virtual school, a training school, and an alternative education center.[1]

PSUSD had a total enrollment of 23,360 students in the 2013–2014 school year.[2] Of this total enrollment, approximately 47 percent of PSUSD students were enrolled in elementary schools (grades K–5), approximately 23 percent were enrolled in middle school (grades 6–8), approximately 30 percent were enrolled in high school (grades 9–12), and a negligible percent were enrolled in alternative schools.[3]

Specifically, the Project Site falls within the attendance boundaries of Sunny Sands Elementary, located at 69-310 McCallum Way (2.5 miles northwest of the Project Site); Nellie N. Coffman Middle, located at 34-603 Plumbley Road (2.0 miles southwest of the Project Site); and Rancho Mirage High, located at 31001 Rattler Road (0.5 miles northwest of the Project Site), as shown in **Figure 5.12-1, Public Services Within Proximity to Project Site**.[4]

According to the most recent data obtained from PSUSD, the current capacity for Sunny Sands Elementary is 1,235 students, Nellie N. Coffman Middle is 1,607 students, and Rancho Mirage High is 2,400 students.[5]

During the 2013–2014 school year, Sunny Sands Elementary had an enrollment of 974 students, Nellie N. Coffman Middle had an enrollment of 1,135 students, and Rancho Mirage High had an enrollment of

1 Palm Springs Unified School District, "Schools" (May 2014), http://www.psusd.us/.
2 California Department of Education, Educational Demographics Unit, "DataQuest, Enrollment Report."
3 California Department of Education, Educational Demographics Unit, "DataQuest, Enrollment Report."
4 Delia A. Diaz, Palm Springs Unified School District, letter correspondence, May 22, 2014.
5 Diaz, (May 22, 2014).

818 students. As shown in **Table 5.12.3-1, PSUSD School Capacities and Current Enrollment,** none of the schools that would serve the Project Site are currently operating over capacity when compared with current enrollment.

Table 5.12.3-1
PSUSD School Capacities and Current Enrollment

School Name	Location	Current Enrollment	Current Capacity
Elementary School			
Sunny Sands Elementary	69-310 Mccallum Way	974	1,235
Middle School			
Nellie N Coffman Middle	34603 Plumley Road	1,135	1,607
High School			
Rancho Mirage High	31001 Rattler Road	818	2,400

Source: Delia A. Diaz, Palm Springs Unified School District, letter correspondence, May 22, 2014.

2. Regulatory Setting

State

California Department of Education

The California Department of Education (CDE) has traditionally been responsible for the funding of local public schools. To assist in providing facilities to serve students generated by new development projects, the legislature passed California State Assembly Bill (AB) 2926 in 1986, which allowed districts to collect impact fees from developers of new residential and commercial/industrial building space. The California Education Code provides that the governing board of any school district is authorized to levy a fee, charge, dedication, or other requirement against any construction within the boundaries of the district, for the purpose of funding the construction or reconstruction of school facilities.

Senate Bill (SB) 50 was passed in California in 1998. This legislation established that school districts are allowed to collect impact fees from developers of new construction as a source of funding to offset associated impacts to school services. These development fees are derived based upon square footage of different land uses and are determined based on three levels of funding.

This Project will comply with SB 50 in order to offset associated impacts to school services by development within the Project Site.

Regional and Local

Rancho Mirage General Plan

The Public Services and Facilities Element of the City's General Plan includes policies related to school services and facilities.[6] This Element identifies the basic need for the City to support and provide educational opportunities within the community. These services are to be accessible to any person of the public, regardless of age, in order to further their personal and professional horizons. The City's ability to provide school services is based upon effective land use, circulation, and safety design. Therefore, any additional development can affect the City's capability to provide these services.

Rancho Mirage Municipal Code

New construction within the City of Rancho Mirage is subject to Title 3 of the *Rancho Mirage Municipal Code*, which sets policy for the requirement of development fees on new construction as a measure to fund local schools.[7]

B. ENVIRONMENTAL IMPACTS

1. Thresholds of Significance

In order to assist in determining whether a project would have a significant effect on the environment, the Tribe finds a project may be deemed to have significant impacts on public services, including schools, if it would:

Threshold 5.12.3-1 **Result in substantial adverse physical impacts associated with the provisions of new or physically altered school facilities, need for new or physically altered school facilities, the construction of which could cause significant environmental impacts, in order to maintain performance objectives for school services.**

2. Methodology

Future student populations were determined using standard generation rates provided by PSUSD. These generation rates allow forecasting of the number of students in elementary, middle, and high school that would be generated by a project.

6 *City of Rancho Mirage General Plan,* "Public Services and Facilities Element," 1997.

7 City of Rancho Mirage, *"Municipal Code,"* http://www.qcode.us/codes/ranchomirage/.

Due to the nature of the Active Adult Community being an age-restricted community (55 years of age and greater), those residents are not anticipated to produce any children. Therefore, for the purposes of this impact analysis, it will be assumed that the Active Adult Community would not generate any additional students within the PSUSD boundaries.

3. Project Design Features

The Project does not include any features specifically related to schools.

4. Project Impacts

Result in substantial adverse physical impacts that would affect acceptable school enrollment capacities of the area

Active Adult Community

As discussed in Section **B.2, Methodology,** the Active Adult Community is not anticipated to generate any additional students within the PSUSD. Sunny Sands Elementary, Nellie N. Coffman Middle, and Rancho Mirage High would not be impacted as a result of development of the Active Adult Community. Accordingly, impacts would be less than significant.

Tribal Planning Areas

The Tribal Planning Areas would develop up to 1,206 multi-family attached residential dwelling units as well as commercial, office, mixed-retail, and resort uses. The multi-family residential units are anticipated to generate additional students that would utilize PSUSD facilities. As shown in **Table 5.12.3-2, Student Generation Table**, the Tribal Planning Areas would generate approximately 98 students' grades K–5, 42 students' grades 6–8, and 49 students' grades 9–12 for a total of 192 students.

The Tribal Planning Areas would add 99 students to Sunny Sands Elementary for a projected enrollment of 1,073 students which would be below the operating capacity of 1,235 students; would add 43 students to Nellie N Coffman Middle School for a projected enrollment of 1,178 students which would be below the operating capacity of 1,607 students; and would add 50 students to Rancho Mirage High School for a projected enrollment of 868 students which is below the operating capacity of 2,400 students. All three of these schools are currently operating below their capacities and would continue to operate below capacity with the addition of the students generated by the Tribal Planning Areas.

The development of additional facilities as a result of implementation of the Project would not be required. Potential school impacts would be considered to be less than significant.

Table 5.12.3-2
Student Generation Table

Grade Levels	PSUSD Generation Rates (Multi-Family Attached Units)	Proposed Students
K-5	0.0816	99
6-8	0.0349	43
9-12	0.0410	50
	Total Students	**192**

Source: Delia A. Diaz, Palm Springs Unified School District, letter correspondence, May 22, 2014.

Individual project proponents will be required to pay applicable development fees to PSUSD to ensure that school facilities are not adversely impacted, as identified in Mitigation Measure MM **5.12.3-1**. Accordingly, impacts would be less than significant.

5. Cumulative Impacts

Related projects within the PSUSD, in accordance with build-out of local jurisdiction General Plan's, could contribute to a potentially significant adverse cumulative impact on school facilities and services. Development projects within PSUSD are required to pay established school impact fees in accordance with SB 50 to minimize impacts to the school system. PSUSD considers payment of the school impact fees to be adequate mitigation to offset impacts to PSUSD's facilities and services. In addition, the PSUSD schools in the Project vicinity are operating well below capacity. Therefore, cumulative impacts would be less than significant.

C. MITIGATION MEASURES

The following Mitigation Measure would reduce impacts on the PSUSD:

MM 5.12.3-1 Prior to the issuance of building permits, individual project proponents shall pay applicable development fees to PSUSD.

D. LEVEL OF SIGNIFICANCE AFTER MITIGATION

Mitigation Measure **MM 5.12.3-1** would reduce potential impacts associated with school facilities and services to be less than significant. Cumulative impacts would also result in less than significant impacts to school services. With regard to the Active Adult Community, the Project would be net beneficial in generating additional fees from a project that should not contribute any additional students.

5.12.4 LIBRARY SERVICES

This Section of the Draft EIS evaluates the potential for the Project to impact library services and facilities within the City of Rancho Mirage ("City"), specifically the Rancho Mirage Public Library ("Library"), and within the region. See **Section 9.0** for terms, definitions, and acronyms used in this Draft EIS.

A. ENVIRONMENTAL SETTING

1. Existing Conditions

There are 32 library branches within the Riverside County Library System (RCLS) and two bookmobiles that serve a population of over 2 million residents within the County of Riverside.[1] However, none of these branches is in the vicinity of the Project; therefore, the Project is not anticipated to increase demand or otherwise impact the RCLS.

The nearest library to the Project Site is the Rancho Mirage Public Library, located at 71-100 Highway 111, as shown on **Figure 5.12-1, Public Services Within Proximity to Project Site**. The 45,000-square-foot facility opened its doors to the public on January 8, 2006, and is a private library that is not part of the RCLS. The Library facilities and services are in high demand by the regional community and the Library still has plenty of room for growth.[2]

The Library currently has an inventory of approximately 100,000 items (e.g. books, magazines, CDs and DVDs, audiobooks, databases, and research materials) that are accessible to the public.[3] In addition, the library also hosts an array of events and programs for all age groups, ranging from children's storytelling, family nights, film and music, to adult book discussions and lectures.

To date, the Library has had over 5.5 million books checked out of its facility since its opening, with an estimated 600,000 checkouts per year, 1,000 visitors per day, and an annual attendance of approximately 35,000 people at its hosted events and programs.[4]

1 Inland Library Network, "Library Info," http://inland.librarycatalog.info/polaris/default.aspx?ctx=1.1033.0.0.3 (May 2014).
2 David Bryant, Library Director, Rancho Mirage Public Library, telephone correspondence, May 27, 2014.
3 David Bryant, Library Director, Rancho Mirage Public Library, telephone correspondence, May 27, 2014.
4 David Bryant, Library Director, Rancho Mirage Public Library, telephone correspondence, May 27, 2014.

2. Regulatory Setting

The City and County have adopted development impact fees to address impacts caused by new development on library facilities and services. This Project will comply with these provisions, as applicable, to maintain library services within the area.

Regional and Local

County of Riverside Ordinance No. 659 (Development Impact Fee Program)

Ordinance 659 establishes the need for addressing impacts caused by new development of residential, commercial and industrial uses. Thus, the Ordinance establishes a development impact fee (DIF) program by which new development is charged fees to address the increased need for additional facilities, services and also open space. The DIF Ordinance does establish the following fees to be collected for "library books": $341 per dwelling unit for single-family homes and $286 per dwelling unit for multifamily homes. The ordinance enforces the program by stating that "no building permit shall be issued for any development project except upon the condition that the development impact fees required by this ordinance are paid."

Rancho Mirage General Plan

The Public Services and Facilities Element of the City's General Plan includes policies pertaining to library services that serve the City.[5] It identifies the formulation of the City's library system and its future plans to accommodate the City's changing demographics, increasing population, and shift of land uses. The Element establishes the goal and policy of ensuring that the City maintains adequate services and convenient access for all members of the community.

Rancho Mirage Municipal Code

New construction within the City of Rancho Mirage is subject to Title 3, Chapter 28 and Chapter 29, Section 145 of the Rancho Mirage Municipal Code, which set policy for the requirement of an imposed tax on new construction to support the increased demand for public services and infrastructure improvements, such as library services.[6]

5 *City of Rancho Mirage General Plan,* "Public Services and Facilities Element," 1997.

6 City of Rancho Mirage, Municipal Code, accessed at http://www.qcode.us/codes/ranchomirage/.

B. ENVIRONMENTAL IMPACTS

1. Thresholds of Significance

In order to assist in determining whether a project would have a significant effect on the environment, the Tribe finds a project may be deemed to have significant impacts on public services, including library services, if it would:

Threshold 5.12.4-1 **Result in capacity or service level problems, or result in substantial adverse physical impact associated with the provision of new or physically altered library facilities in order to maintain acceptable service ratios, or other performance objectives for library services.**

2. Methodology

Typically, the need for library services depends on the number of people a library is serving and the number of volumes within the library. Information was gathered from personal communication with staff from the Library in order to provide level of service analysis.

3. Project Design Features

The Project does not include any features specifically related to libraries.

4. Project Impacts

Result in substantial adverse physical impacts that would result in a need for new or altered library facilities.

Active Adult Community

There are no specific requirements for quantifying the community's needs for public library services. The Library's services are assessed on an on-demand basis as a function of demographics measured against existing library resources. The Active Adult Community would add up to 2,160 new residents[7] who would have access to the Library. This increase in residents would result in an increased demand on the Library for services and facilities.

The Library has indicated that it is more than able to accommodate the population growth generated by the Project.[8] It anticipates transitioning its inventory to a more "E-Content" based system, meaning it

7 Average active adult residential dwelling unit is 1.8 persons. 1,200 active adult dwelling units x 1.8 persons per dwelling unit = 2,160 residents.

8 David Bryant, Library Director, Rancho Mirage Public Library, telephone correspondence, May 27, 2014.

will be able to open up more space for other uses, such as lounging, computer rooms, and common areas for recreational activities, events, and lectures.

The Library relies on its budget from private fund sources and taxed-based revenue from the City (development impact fees). Therefore, Mitigation Measure **MM 5.12.4-1** will require payment of applicable development impact fees for library services, or its equivalent, in order to maintain library services in the area. Accordingly, impacts would be less than significant with mitigation.

Tribal Planning Areas

Implementation of the Tribal Planning Areas includes the development of 1,206 multifamily attached residential units and approximately 3.1 million square feet of commercial uses. It is anticipated that up to 2,171 new residents[9] would be generated from the Project, which would also result in an increased demand on the Library for services and facilities. Therefore, Mitigation Measure **MM 5.12.4-1** will require payment of applicable development impact fees for library services, or its equivalent, in order to maintain library services in the area. Accordingly, impacts would be less than significant with mitigation. As previously mentioned, the Library has plenty of room for growth and would be able to serve the additional residents generated within the Tribal Planning Areas.[10] Accordingly, impacts would be less than significant with mitigation.

5. Cumulative Impacts

Since the Tribe will be utilizing library services from the Library, due to its close proximity to the Project Site, implementation of the Project in combination with related projects within the City's Sphere of Influence, in accordance with the build-out of the City's General Plan, could contribute to potentially significant cumulative impacts on library facilities and services. Related projects developed within the City would be required to pay development impact fees as required by the City Municipal Code Section 3.29.145. Cumulative impacts to the library system would be mitigated through the license tax and development impact fees that are imposed upon new construction within the City. Therefore, to the extent that library facilities are expanded to serve cumulative development, no significant impacts to library services and facilities are anticipated to occur. Accordingly, cumulative impacts would be less than significant.

9 A total of 4,331 residents are projected to reside within the Project Site. The Tribal Planning Areas would generate a total of 2,171 residents and the Active Adult Community would generate 2,160 residents.

10 David Bryant, Library Director, Rancho Mirage Public Library, telephone correspondence, May 27, 2014.

C. MITIGATION MEASURES

The following Mitigation Measure would reduce impacts to library services:

Active Adult Community and Tribal Planning Areas

MM 5.12.4-1 Prior to the issuance of building permits, individual project proponents shall pay applicable development impact fees, or provide equivalent funding, to the City if annexed and under City jurisdiction or the County as applicable.

D. LEVEL OF SIGNIFICANCE AFTER MITIGATION

Mitigation Measure **MM 5.12.4-1** and along with the implementation of the existing regulations previously mentioned, potential impacts on library facilities and services would be less than significant. Cumulative impacts would also result in less than significant impacts on library services.

5.13 RECREATION

This Section of the Draft EIS describes and evaluates the potential impacts to existing and future parks and recreation facilities that would be available to the Project Site. Since the Project Site falls within the boundaries of unincorporated Riverside County, as well as the City of Rancho Mirage Sphere of Influence (SOI), the potential for adverse impacts to recreational facilities was evaluated based on current facilities and existing usages of both the County of Riverside ("County") and City of Rancho Mirage ("City").

A. ENVIRONMENTAL SETTING

1. Existing Conditions

Regional

The Riverside County Regional Park and Open-Space District ("Riverside County Parks") operate county-wide programs that encourage and provide recreational opportunities, as well as to preserve and protect the region's natural, cultural, and historical characteristics. Riverside County Parks is broken down into three bureaus: the Parks and Recreation Bureau, the Resources Bureau, and the Business Operations Bureau.[1]

The Parks and Recreation Bureau is responsible for providing an array of recreational activities for the County's residents, such as aquatic centers, parks and playgrounds, sport complexes, campgrounds, and special events. The Resources Bureau is dedicated to preserving the County's natural resources, ensuring that these resources are taken into account during planning and construction activities, and to promoting community outreach and educational opportunities. The Business Operations Bureau oversees the operation, administrative, and financials aspects of Riverside County Parks.

Joshua Tree National Park and Mount San Jacinto State Park fall within the Riverside County boundaries. These parks also provide a range of recreational opportunities for the region, such as hiking trails, campgrounds, and fishing. Joshua Tree National Park lies to the northeast of the City with the Little San Bernardino Mountains running through the southwestern portion of the park. Joshua Tree National Park is operated and maintained by the National Park Service, which has the mission to revitalize and conserve the Nation's natural resources through securing properties. Mount San Jacinto State Park is

1 Riverside County Parks, "About Us," (accessed June 2014), http://www.rivcoparks.org/about-us/about-us/.

located to the west of the City of Rancho Mirage and encompasses the San Jacinto Mountains – the second highest mountain range in southern California.[2]

Additionally, the Agua Caliente Band of Cahuilla Indians ("Tribe") manages the Indian Canyons, which are located to the south of Palm Springs along the eastern side of the San Jacinto Mountains. The Andreas, Murray, and Palm Canyons make up this area and provide a variety of recreation opportunities for the public, such as hiking, horseback riding, camping, scenic drives, picnicking, and sightseeing. The Indian Canyons hold an important site of ancestral heritage to the Tribe.

The Riverside County Regional Park and Open-Space District operates high-quality recreational opportunities and the preservation of the County's natural, cultural, and historical heritage. The County's eight major parks are summarized in **Table 5.13-1, County of Riverside Parks and Recreation Facilities**.

Table 5.13-1
County of Riverside Parks and Recreation Facilities

Facilities	Location	Acres	Features
Lake Cahuilla Recreational Area	14 miles southeast of Project Site	1,888	Equestrian facilities/trails, fishing, hiking trails, overnight camping, and swimming facilities
Canal Regional Park	15 miles south by southeast of Project Site	369	Picnic facilities, radio control plane field
Coral Mountain Regional Park	10 miles southeast of Project Site in La Quinta	600	Planned
Mecca Community Park & Community Center	25 miles southeast of Project Site	5	Community center, picnic facilities, swimming, sports fields/facilities
Mecca Hills Mini Park	27 miles southeast of Project Site	N/A	Picnic facilities, playground/tot lot
Thousand Palms Park & Community Center	0.75 miles northeast of Project Site	9	Community center, picnic facilities, playground/tot lot, sports fields/facilities
Desert Regional Park	5 miles south of Project Site	280	Planned
Indio Hills Park	5 miles northeast of Project Site	2,200	Picnic facilities, playground, sports fields, open space

Source: County of Riverside General Plan Draft EIR, Section 4.16 Parks and Recreation, Table 4-16B: Existing and Proposed Parks and Recreation in Riverside County, February 2014.
Abbreviation: N/A = not available

2 California Department of Parks and Recreation, "Mount San Jacinto State Park," http://www.parks.ca.gov/?page_id=636.

The City provides a vast amount of recreational opportunities for its residents and visitors, including golf courses, tennis and basketball courts, playgrounds, hiking trails, and campgrounds and recreational vehicle (RV) parks. The City's Park Master Plan was developed in order to assess the community's local park needs. As summarized in **Table 5.13-2, Park Classification and Service Area Standards,** this Park Master Plan categorizes different parks and trails that are accessible to the local community, including mini-parks, local parks, community parks, and multi-city recreation facilities. The Park Master Plan also analyzes the cross-utilization of recreational facilities between the Cove Communities (Palm Desert, Indian Wells, and Rancho Mirage). In 1990, these three cities created a Memorandum of Understanding (MOU) in regards to the use and funding of recreational facilities based upon a formula of population and assessed value.[3] The City's five major parks are summarized in **Table 5.13-3, City of Rancho Mirage Park and Recreation Facilities.**

Table 5.13-2
Park Classification and Service Area Standards

Component	Service Area	Size (acres)	Amount per 1,000 population (acres)	Desirable Uses	Site Characteristics
Mini-Park	N/A	Less than 1 acre	N/A	Playgrounds, city entry features, special purpose open space	Private open space or high-density residential areas
Local Park	1.5-mile radius	5 to 10	0.2	Picnicking, play area, athletic fields and courts	Suited for low residential densities and gated communities
Community Park	5-mile radius	20 to 40 acres	N/A	Multipurpose building, athletic field and courts, picnicking, open space areas	Suited for intense development with safe pedestrian access; intended to be used between multiple cities

Source: City of Rancho Mirage General Plan, Conservation and Open Space Element, 1996.
Abbreviation: N/A = not available

3 *City of Rancho Mirage General Plan*, "Conservation and Open Space Element," 1997.

Table 5.13-3
City of Rancho Mirage Parks and Recreation Facilities

Facilities	Location	Acres	Park Category	Features
Whitewater Park	San Jacinto Drive along the Whitewater River Channel	8.25	Local Park	Athletic fields and courts, picnic facilities, playground, walking and fitness paths, life-size fire engine
Michael S. Wolfson Park	Da Vall and Frank Sinatra Drive	1.0	Mini-Park	Victorian theme with a Braille-marked trail and fragrance garden and a "Welcome" greeting from Dinah Shore and Frank Sinatra
Cancer Survivors Park	Adjacent to City Hall along Highway 111	N/A	Mini-Park	Pyramid kiosk, inspirational plaques, sculptures, ponds, and a hillside waterfall; designed to giver cancer survivors hope
Magnesia Falls Park	North of Rancho Mirage Elementary School	1.3	Local Park	Playground equipment, picnic tables, informal ball field, and shaded areas
Blixseth Mountain Park	East of the Magnesia Storm Channel and Rancho Mirage Elementary School	7.0	Local Park	Native desert landscaping and walking paths

Source: City of Rancho Mirage General Plan," Conservation and Open Space Element," 1997.
Abbreviation: N/A = not available

The State's established Quimby Act authorizes local jurisdictions to adopt standards upon new development for payment of impact fees to fund the maintenance and operation of local parks. The County Ordinance No. 460 (Regulating the Division of Land) addresses park and recreation fees and dedications. The City Municipal Code Section 3.29.140 (Park Improvements Development Impact Fees) establishes park improvement development impact fees and Section 16.18.060 (Parks and Recreation Facilities) establishes parks and recreation fees and dedications. According to the City's 1997 Conservation and Open Space Element, the City expects that a total of 97 acres will be needed to accommodate its growing population needs. In regards to all of the City SOI lands, if those are entirely annexed, the total amount of parklands would be 133 acres. The General Plan currently provides 48 acres of parkland with the capacity to expand up to 128 acres.[4]

Bikeways and Trails

The City has numerous bikeways, trails, and golf cart travel access ways all throughout the City. These are implemented as a part of the goals within the Conservation and Open Space Element to meet the active and passive recreation needs of all residents and visitors of the City.

4 *City of Rancho Mirage General Plan,* "Conservation and Open Space Element," 1997.

Bicycle facilities are designed according to the Class I, II, and III categories in order to provide a diverse range of bicycle accessibility options for the community and to encourage other modes of transportation to that of the automobile. These paths are designed to maximize safety and ease of use by both bicyclists and pedestrians.

The hiking and equestrian trails are available as additional recreation opportunities for residents and visitors. Numerous unpaved trails, which follow various paths, dirt roads, or utility access routes within the foothills of Santa Rosa Mountains, are available to the public mainly within the Magnesia Falls area. These main trails are named (1) the Butler-Abrams Trail, (2) the Clancy Lane Trail, and (3) the Bighorn Overlook Trail. Protection of the bighorn sheep is balanced with recreational uses of the area as recommended with the Coachella Valley Multiple Species Habitat Conservation Plan and the Tribal Habitat Conservation Plan. The City's equestrian trails are planned in neighborhoods that allow the keeping of horses. These trails tend to serve as a connection of the equestrian areas with Whitewater Channel and other mountain trails.

Lastly, golf cart travel is a very prominent mode of transportation within the Coachella Valley region for residents to access different neighborhoods, golf courses, and commercial and office facilities. Similar to the City's bike trails, golf cart facilities are categorized as I, II, or III. These paths can either be completely separated from the rest of automobile traffic (Class I) or be designated within automobile traffic under conditional street uses (Class III).

2. Regulatory Setting

State

Quimby Act

Government Code Section 66477, more commonly referred to as the Quimby Act, was enacted by the California legislature in 1965 to provide parks for the growing communities in California. The Quimby Act authorizes cities to adopt ordinances addressing parkland and/or fees for residential subdivisions for the purpose of providing and preserving open space and recreational facilities and improvements.[5] The Quimby Act also specifies acceptable uses and expenditures of such funds.

Regional and Local

The County and City have adopted Quimby Act standards for local parks and have established a ratio of 3 acres per 1,000 residents as a standard for how facilities funding is planned for and implemented.[6]

5 *California Government Code*, Sections 66477.

6 *The City of Rancho Mirage Municipal Code*, Title 3, Chapter 29, sec.140.

This Project will comply with these requirements for the Tribal Planning Areas to maintain consistency for recreational needs and operations within the Project Site.

Riverside County General Plan

The County of Riverside General Plan Multipurpose Open Space Element addresses the existing parks and recreational facilities that are provided throughout the County. Goals and policies are established in order to guide preservation and maintenance efforts of these valuable resources for the use of the community. Additionally, the General Plan identifies the importance of ensuring concurrency of recreational facilities in an area with new development projects.

Riverside County Ordinance 460 (Regulating the Division of Land)

This ordinance establishes the key provisions addressing the division of land in Riverside County. Among other things, in Section 10.35, it specifies that: "Whenever land that is proposed to be divided for residential use lies within the boundaries of a public agency designated to receive dedications and fees pursuant to this section, a fee and/or the dedication of land shall be required as a condition of approval of the division of land." It further specifies that dedication of 3 acres of parkland per 1,000 population, or payment of a fee in-lieu of such dedication, is necessary for the "public interest, convenience, health, welfare and safety." The fee and/or land dedications or improvements can only be used to provide neighborhood and community parks that would serve the proposed development.

Rancho Mirage General Plan

The Conservation and Open Space Element of the City's General Plan includes policies related to the parks and recreational services that are needed to support the City and its residents.[7] It identifies and establishes open space and conservation goals and policies to preserve and promote recreational resources within the City. The element also expands on biological, energy and mineral, water, and archaeological and historic resources which are also important to sustaining the viability of the region's open space resources. In addition, the City of Rancho Mirage adopted a Parks Master Plan in 1989 to guide park development to accommodate the City's growing population. It also expands on the inclusion of parks facilities in the cities of Palm Desert, Cathedral City, and Indian Wells to cross utilize park resources between cities to meet the demands of the Rancho Mirage population.

7 *City of Rancho Mirage General Plan,* "Conservation and Open Space Element," 1997.

Rancho Mirage Municipal Code

In relation to recreational and park resources, the *Rancho Mirage Municipal Code* states various provisions to ensure that these resources are provided in consistency with the Conservation and Open Space Element. Title 3, Chapters 28 and 29 and Title 16, Chapter 18, Section 60 identifies City measures that will provide funding for recreation and park facilities as a result of the increased demand on existing services. For instance, a License Tax is imposed on new construction to collect revenue towards the City's General Fund. Development Impact Fees are used as a mitigation measure to collect additional funds from new development to finance parks and recreational facilities and improvements. Lastly, individual project proponents are required to pay a recreation and park fee in-lieu as a condition of approval for a tentative map.

B. ENVIRONMENTAL IMPACTS

1. Thresholds of Significance

In order to assist in determining whether a project would have a significant effect on the environment, the Tribe finds a project may be deemed to have significant impacts on park and recreational resources, if it would:

Threshold 5.13-1 **Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.**

Threshold 5.13-2 **Does the Project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.**

2. Methodology

An assessment of the impact of the Project on park and recreation facilities in the City and the County is provided below. The Project's assessment is based on County and City planning standards for park and recreation facilities and the increase in population that would result from the Project.

The potential for cumulative impacts associated with parks and recreation was assessed, based upon consideration of the Project and related projects in the City and its SOI. These related projects are identified in **Section 4.0, Environmental Setting.**

3. Project Design Features

The following Project Design Features (PDFs) are incorporated into the Project and would substantially reduce potential park and recreational impacts.

PDF 5.13-1 The Section 24 Specific Plan establishes a park requirement for residential development of 3 acres of park space per 1,000 residents, which will be met through a combination of land dedication, improvements, private recreation, and in-lieu fees. The following parks and recreation aspects shall be included within the Project Site:

- Pedestrian trails
- Bicycle Trails
- Golf cart linkages
- Neighborhood parks
- Water features
- Athletic courts and facilities
- Community club houses/pools/spas, plazas, courtyards, jogging paths

PDF 5.13-2 Parks developed within the Project Site will complement the natural desert environment of the Coachella Valley through the use of drought tolerant plants detailed in the Section 24 Specific Plan, Chapter 4.5, Table 2, Landscape Plant Palette.

4. Project Impacts

Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated

Active Adult Community

The Active Adult Community would develop up to 1,200 single-family residential dwelling units that would generate approximately 2,160 residents[8] within the Project Site. Approximately 85 acres within the Active Adult Community would be provided for private parks and open space. As the Project Site is

8 Average active adult residential dwelling unit is 1.8 persons. 1,200 active adult dwelling units * 1.8 persons per dwelling unit = 2,160 residents.

located within unincorporated Riverside County and within the City SOI, it would have direct impacts to the County and City recreational and park facilities.

This increase in population would incrementally increase the demand of existing neighborhood and community parks in Rancho Mirage as well as within the Cove Communities. The Section 24 Specific Plan establishes park requirements for residential development of 3 acres of park space per 1,000 residents. The Active Adult Community is required to provide 6.5 acres of usable parkland. This parkland requirement would be met through a combination of land dedication, improvements, private recreation, and in-lieu fees to the City if annexed. Parkland within the Active Adult Community would complement the natural desert context of the Coachella Valley and would incorporate public art and water features combined with enhanced vegetation providing recreational opportunities within the development, as identified in PDF 5.13-2.

If the 6.5 acres of parkland in the Active Adult Community is developed under the City's jurisdiction, the developer will pay the City's in lieu fee, subject to partial credit for the private recreational facilities constructed on site. For property developed under Tribal jurisdiction, the Tribe will require the developer to either construct the required parks (another 6.5 acres total) or pay to the City an amount equal to the City's in lieu fee to fund City park facilities.

The Active Adult Community would provide an extensive private parks and open space component of approximately 85 acres, which would substantially exceed the 6.5-acre parkland requirement. The Active Adult Community would consist of a combination of neighborhood parks, trail linkages, water features, clubhouses, plazas, courtyards, jogging paths, and community pools as identified in PDF 5.13-1. The nature of development within the Active Adult Community would be a master planned community that would have a variety of private streets and recreational open space. Open space and landscaping would be used to provide people with places to sit, relax, and gather. The recreational amenities are integrated into the design of the Project and would be constructed consistent with City guidelines; therefore, impacts are considered to be less than significant.

Tribal Planning Areas

The development of the Tribal Planning Areas would result in similar impacts to existing parks and recreational facilities. The Tribal Planning Areas would consist of mixed-use, resort, and retail development, which would include common and private recreational opportunities such as walkways, multipurpose paths, enhanced streetscapes, and plazas for gathering spaces. The Tribal Planning areas would develop up to 1,206 multi-family residential dwelling units that would generate approximately

2,171 residents[9] within the Project Site This increase in population from the Project would incrementally increase the use of existing neighborhood and community parks in County and the City, as well as within the Cove Communities. As previously discussed, the Specific Plan's established park land-to-resident ratio of approximately 3 acres per 1,000 residents, translates to a demand of 6.5 acres within the Tribal Planning Areas. This incorporation of parkland within the Tribal Planning Areas would minimize the demand of the Tribal Planning Area residents on the County and City's existing parks and recreational facilities. However, as previously discussed, residents may use other County and City parks and recreation facilities.

If less than 6.5 acres of parkland is set aside and improved in the Tribal Planning Areas, Mitigation Measure **MM 5.13-1** would require the contribution of an in-lieu parkland fee, or their equivalent, to mitigate potential impacts to County and/or City (if annexed) parks and recreation facilities. Accordingly, impacts would be less than significant.

Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment

Active Adult Community & Tribal Planning Areas

The Active Adult Community would include recreational amenities throughout the development which would consist of neighborhood parks, trail linkages, water features, clubhouses, plazas, courtyards, jogging paths, and community pools. These recreational amenities are incorporated into the design of the Project and would be constructed concurrently with the Project. The short-term impacts, applicable Project Design Features, and Mitigation Measures associated with the construction of these facilities are addressed in **Sections 5.2, Air Quality**; **5.5, Geology and Soils**; **5.6, Greenhouse Gas Emissions**; **5.7, Hydrology and Water Quality**; **5.10, Noise**; and **5.14, Traffic and Transportation.** Construction of the recreational amenities would not result in significant impacts, but would contribute to the overall construction impacts. As described in the EIS sections listed above, impacts would be less than significant.

Tribal Planning Areas

Development within the Tribal Planning Areas would consist of residential, resort, commercial, and mixed-use open spaces. The residential open space would include common and private recreational

9 According to the Section 24 Specific Plan, a total of 4,331 residents are projected to reside within the Project Site. The Tribal Planning Areas would generate a total of 2,171 residents and the Active Adult Community would generate 2,160 residents.

opportunities that provide unfettered access for residents. Potential resort projects may consist of hotels that would incorporate paths or greenbelts to connect open spaces in adjacent Planning Areas. Walkways, multipurpose paths, enhanced streetscapes, and plazas for gathering spaces would be integrated into the commercial and mixed-use open spaces.

As with the Active Adult Community, these recreational amenities are incorporated into the design of the Project and would be constructed concurrently with the Project. The short-term impacts associated with the construction of these facilities are addressed in **Sections 5.2, Air Quality**; **5.5, Geology and Soils**; **5.6, Greenhouse Gas Emissions**; **5.7, Hydrology and Water Quality**; **5.10, Noise**; and **5.14, Traffic and Transportation.** Construction of the recreational amenities would not result in significant impacts, but would contribute to the overall construction impacts. As described in the EIS sections listed above, impacts would be less than significant.

5. Cumulative Impacts

Implementation of the Project and related projects, along with the buildout of the Agua Caliente Indian Reservation ("Reservation") and the City and County General Plans, would increase the use of existing recreational facilities in the Reservation, the City, and County. This increase in population would put an additional demand on the existing parks and recreational facilities that serve the Reservation, the City, and the County. All of these projects would be subject to the development impact fees, and developer in-lieu fees, or their equivalent, as established in the Section 24 Specific Plan, the City's Municipal Code, and the County development impact fee for Western Coachella Valley. Development of the related projects would not demand any unanticipated construction or expansion of park and recreational facilities within the Reservation, the City, and the County as those amenities would be incorporated within each Project design, and in each jurisdiction's General Plan. Therefore, the cumulative impacts on parks and recreation would be less than significant.

C. MITIGATION MEASURES

In addition to the PDFs identified in **Section B.3,** the following Mitigation Measure has been identified to mitigate parks and recreation impacts:

Active Adult Community and Tribal Planning Areas

MM 5.13-1 Prior to the issuance of building permits, individual project proponents shall pay applicable in-lieu parkland fees, or equivalent, to ensure adequate funding for parks and recreation improvements.

D. LEVEL OF SIGNIFICANCE AFTER MITIGATION

Mitigation Measure **MM 5.13-1** requires payment of in-lieu parkland fees, or their equivalent, to minimize the Project's impact on parks and recreation land and facilities within the County and/or City. Therefore, payment of these fees and PDF 5.13-1 and PDF 5.13-2 would result in less than significant impacts to existing and future parks and recreational facilities.

5.14 TRAFFIC AND TRANSPORTATION

This Section of the Draft EIS evaluates the potential for the proposed Project to result in transportation and traffic impacts within the Coachella Valley, the Agua Caliente Indian Reservation ("Reservation"), the City of Rancho Mirage ("City"), and surrounding communities. Information from the following study of the Project Site and surrounding area is incorporated into this Section:

- *Traffic Impact Study for Section 24 Specific Plan,* Endo Engineering, April 2014.

A complete copy of this study is included in the Technical Appendices to this Draft EIS (**Appendix G**). Please see **Section 9.0** for a glossary of terms, definitions, and acronyms used in this Draft EIS.

A. ENVIRONMENTAL SETTING

1. Existing Conditions

Regional Access

The Project Site is centrally located within the Coachella Valley, which is separated from the Greater Los Angeles Area to the northwest by the San Gorgonio Pass, through which Interstate 10 (I-10) and the Union Pacific Railroad are the major transportation corridors. The Project Site is situated between the desert resort cities of Palm Springs on the west and Palm Desert on the east. Cathedral City is located both west and north of the site. The City surrounds the Project Site on all sides and the Specific Plan area is an island of unincorporated land.

Regional access in the Coachella Valley is provided by the I-10, which provides access through the valley from the northwest to the southeast. I-10 extends from western Los Angeles County, through San Bernardino County and Riverside County to the east across Arizona.

Regional access to the Project Site is currently available from I-10, via the recently completed interchange at Bob Hope Drive. Motorists can access I-10 in both directions through the Bob Hope Drive Interchange, which includes a new eight-lane overcrossing at I-10 and new ramps configured as a spread diamond interchange. Motorists from Palm Springs, Cathedral City, Rancho Mirage, and Thousand Palms to the east can also access I-10 from Ramon Road through the eastbound on-ramp located east of Bob Hope Drive and the Union Pacific Railroad.

Highways and Local Streets

Highways

Interstate 10 (I-10) is located one-quarter mile north of the Project Site. I-10 is currently an eight-lane freeway west of the Monterey Avenue Interchange and a six-lane freeway east of this Interchange. The posted speed limit on I-10 in the Project vicinity is 70 miles per hour (mph).

In the vicinity of the Project Site, diamond interchanges are located at Monterey Avenue, Bob Hope Drive, and Date Palm Drive. The Date Palm Drive interchange is located 3.5 miles northwest of the Bob Hope Drive Interchange. The Monterey Avenue Interchange is approximately 1.5 miles southeast of the Bob Hope Drive Interchange.

Regional access to the Project Site is provided from the Bob Hope Drive Interchange via eastbound and westbound on and off-ramps.

Local Streets

Bob Hope Drive is classified as a six-lane divided Major Arterial roadway in the *Rancho Mirage General Plan* and a six-lane divided Urban Arterial highway in the *County of Riverside General Plan.* Bob Hope Drive is a designated truck route and scenic corridor that was recently improved in conjunction with the interchange improvements at I-10. Adjacent to the Project Site, Bob Hope Drive currently consists of three northbound through lanes and two southbound through lanes with a posted speed limit of 55 mph. The posted speed limit is 50 mph south of Dinah Shore Drive.

Bob Hope Drive overpass of I-10 provides three northbound and southbound lanes. Dual left-turn lanes and two through lanes in one direction with three through lanes in the opposite direction are provided at the end of the ramps. The street flares at Ramon Road to provide an exclusive southbound right-turn lane, dual southbound left-turn lanes, and three through lanes.

Ramon Road is a four-lane divided arterial street immediately east of Bob Hope Drive. West of Bob Hope Drive, Ramon Road is a five-lane divided arterial street for approximately 950 feet, with two westbound and three eastbound through lanes. West of the five-lane section, Ramon Road provides three through lanes in each direction with a raised center median divider. Ramon Road is classified as a Major Arterial roadway in the *Rancho Mirage General Plan* with a 120-foot right-of-way. In the vicinity of the Project Site, Ramon Road has intersections with Da Vall Drive, Los Alamos Road, and Bob Hope Drive. The posted speed limit is 55 mph between Bob Hope Drive and Da Vall Drive.

Dinah Shore Drive is a four-lane divided Minor Arterial roadway with 110-foot right-of-way containing a 16-foot wide raised landscape median and two travel lanes in each direction. The south side of Dinah

Shore Drive is fully improved adjacent to the Mission Hills Golf Resort with a 23- to 25-foot wide landscaped parkway containing a meandering 5- to 8-foot multi-use trail. The posted speed limit on Dinah Shore Drive is 45 mph west of Da Vall Drive, and 50 mph between Da Vall Drive and Monterey Avenue.

Los Alamos Road is currently a two-lane undivided roadway between Ramon Road and Dinah Shore Drive. It is fully improved on the west side. The posted speed limit is 50 mph. A meandering 8-foot wide multiuse trail exists on the west side of Los Alamos Road that accommodates golf carts, pedestrians, and cyclists. Both the City and County circulation plans classify Los Alamos Road as a future four-lane divided roadway with the required right-of-way by the City classification at 110 feet.

Da Vall Drive, north of Ramon Road, is a four-lane undivided roadway that narrows to a two-lane undivided roadway before terminating south of the Union Pacific Railroad and I-10. Da Vall Drive is improved as a four-lane divided roadway south of Dinah Shore Drive with a posted speed limit of 45 miles per hour. North of Dinah Shore Drive, Da Vall Drive is partially improved. The east side of Da Vall Drive was fully improved in conjunction with the development of the adjacent Mission Hills community. The west side of Da Vall Drive is not fully improved at this time. The west of the roadway is fully improved for approximately one-quarter mile south of Ramon Road, adjacent to the Desert Shadows RV Resort and Forest Lawn Memorial Park and Mortuary. Approximately 3,500 feet south of Sunshine Way, Da Vall Drive is currently a two-lane undivided roadway except where the pavement width flares to 38 feet to accommodate a southbound left-turn bay for access to the Mission Hills community. The west side of Da Vall is fully improved for 130 feet immediately north of Dinah Shore Drive.

Rattler Road is designated as a four-lane divided Major Collector roadway between Ramon Road and 30th Street. Rattler Road was recently improved between 30th Avenue and Ramon Road to provide access to the Rancho Mirage High School, but is not completely built out. The posted speed limit on Rattler Road is 40 mph unless children are present, when it is 25 mph.

Gerald Ford Drive is a four-lane divided Minor Arterial roadway with a 110-foot right-of-way. The posted speed limit is 50 mph in the vicinity of the Project Site. Trucks are not allowed to use Gerald Ford Drive.

Monterey Avenue is a six-lane divided roadway north of Dinah Shore Drive that provides north-south access between I-10 and State Route (SR) 111. It is designated as a six-lane divided Major Arterial roadway by the *Rancho Mirage General Plan.*

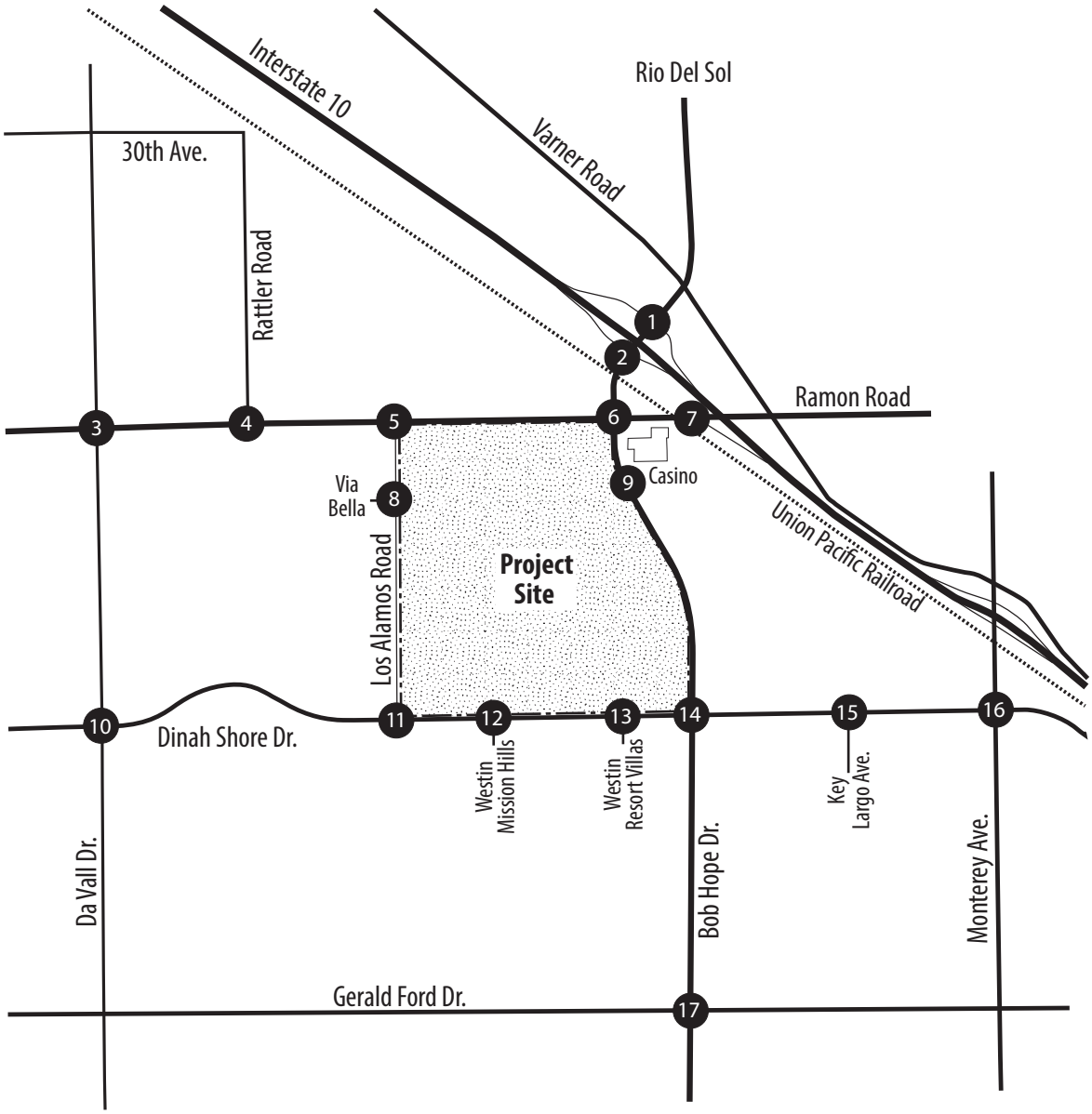
Traffic Study Intersections

The Project Site is bounded by four of the roadways described above: Bob Hope Drive, Dinah Shore Drive, Los Alamos Road, and Ramon Road. It is bordered to the south and west by the Westin Mission Hills Golf Resort and Mission Hills community. The Desert Ridge Shopping Center is located on the southeast corner of the intersection of Bob Hope Drive and Dinah Shore Drive. The Agua Caliente Casino Resort Spa is located south of Ramon Road and east of Bob Hope Drive.

Based on the location of the Project Site, the configuration of roadway network in the vicinity of the Project Site, the amount of traffic the proposed uses would generate, and existing and projected traffic conditions, a "Study Area" was defined to identify the traffic impacts of the proposed Project that extends east of Da Vall Drive to Monterey Avenue and south of I-10 to Gerald Ford Drive.

The locations of the study intersections are shown on **Figure 5.14-1, Study Area Intersections.** The seventeen existing major signalized intersections in this Study Area include:

1. Bob Hope Drive at the I-10 Westbound Ramps
2. Bob Hope Drive at the I-10 Eastbound Ramps
3. Da Vall Drive at Ramon Road
4. Rattler Road at Ramon Road
5. Los Alamos Road at Ramon Road
6. Bob Hope Drive at Ramon Road
7. I-10 Eastbound Ramp at Ramon Road
8. Los Alamos Road at Via Bella
9. Bob Hope Drive at Casino
10. Da Vall Drive at Dinah Shore Drive
11. Los Alamos Road at Dinah Shore Drive
12. Westin Mission Hills Access at Dinah Shore Drive
13. Westin Resort Villas Access at Dinah Shore Drive
14. Bob Hope Drive at Dinah Shore Drive
15. Key Largo Avenue at Dinah Shore Drive
16. Monterey Avenue at Dinah Shore Drive
17. Bob Hope Drive at Gerald Ford Drive



Legend

1 Existing Key Intersection

Project Site

0 1600 3200 6400

APPROXIMATE SCALE IN FEET

SOURCE: Endo Engineering - 2014

FIGURE **5.14-1**

SECTION 24 SPECIFIC PLAN

Study Area Intersections

044-001-13

In addition, there are six proposed intersections in the Study Area, as shown in **Figure 5.14-2**:

18. Street "C" at Ramon Road
19. Street "D" at Ramon Road
20. Bob Hope Drive at Street "D"
21. Bob Hope Drive at Street "E"
22. Los Alamos Road at Street "A"
23. Los Alamos Road at Street "B"

Existing Transportation System

Public Transportation

SunLine Transit Authority (SunLine) provides public transit service within the Coachella Valley. The Project Site is served by SunLine Route 32, which travels between Rancho Mirage, Thousand Palms, and Cathedral City via Bob Hope Drive, Dinah Shore Drive, Monterey Avenue, and Ramona Road. The buses are equipped with wheelchair lifts and bike racks, facilitating mass-transit travel for a wide variety of riders.

Golf Carts and NEVs

The design of the proposed Project is intended to maximize connectivity for pedestrians between the different uses within the Planning Areas defined by the Specific Plan. Residents of Rancho Mirage use golf carts for more than transportation on individual golf courses. They are used for local trips made between residences and commercial and medical facilities, City Hall, and golf cart paths in adjoining cities. The California Vehicle Code (CVC) defines golf carts as vehicles designed to operate at a maximum speed of 15 mph and states that golf carts can be driven only on roadways with posted speed limits of up to 25 mph except in cases where travel on roadways with higher speed limits is permitted by ordinance or resolution of a local authority. The CVC defines neighborhood electric vehicles (NEVs) as vehicles that can reach speeds of 20 to 25 mph within one mile. NEVs may be operated on any roadway with a posted speed limit of 35 mph or less and may cross at intersections that have a higher speed limit than 35 mph.

There are three classifications for Golf cart paths (Class I, Class II, and Class III). Class I paths are completely separated from the roadway used by motor vehicles. Class I facilities are for shared one-way or two-way use by golf carts, bicyclists, and pedestrians and are incorporated in Class I bikeways. Class II golf cart facilities provide a striped lane on a street or highway for one-way golf cart and bicycle travel.

Class III facilities are established by placing "Golf Cart Route" signs along roadways with speed limits of 25 mph or less to provide linkages for Class I or Class II facilities.

Bikeways

Caltrans standards are used to design bikeways by most jurisdictions throughout California, and the City adheres to Caltrans bikeway standards. There are three classifications for bicycle facilities: Class I, Class II, and Class III bikeways.

A Class I Bikeway is a bike path that provides for bicycle travel on a right-of-way completely separated from any street or highway. The paths may be located along alignments parallel to streets or unrelated alignments as long as there is no encroachment from motor vehicle or pedestrian traffic except at grade intersections. A Class II Bikeway is a bike lane that provides a striped lane for one-way bike travel within the paved area of a street or highway. These bike lanes are within an exclusive right-of-way designated for use by bicyclists. However, cross traffic is permitted for driveway access. A Class III Bikeway is a bike route in which both bicycle and motor vehicle traffic share the same roadway surface area. The route is marked with signs or stenciled lettering on the pavement identifying the roadway as part of a bikeway system.

Within the City, Class I bikeways are typically a combined meandering sidewalk and bike path within the landscaped parkway along arterial streets. Most of the arterial streets within the City have a roadbed of sufficient width to allow for a minimum four-foot wide Class II bike lane along the curb. The Conservation and Open Space Element states that Class III bike routes are not recommended for Rancho Mirage except: (1) where Class I and II facilities are not feasible and an essential regional bike route connection is desired, or (2) where Class I and Class II facilities are not warranted due to lesser roadway classifications.

The combined length of the existing bikeways within the City totals approximately 17 miles. The existing bikeways have been funded by the City with General Funds or Development Impact Fees (DIF) and new development projects are required to construct and pay for required bikeways. The following Class II bikeways exist within the vicinity of the Project Site.

- A Class II bikeway extends 4.7 miles along the east side of Bob Hope Drive, from Ramon Road south to Sunrise Drive
- A Class II bikeway extends 2.0 miles along Gerald Ford Drive from Los Alamos Road to Monterey Avenue

- A Class II bikeway extends 1.7 miles along Ramon Road from the western city limit to Bob Hope Drive
- A Class II bikeway extends 0.4 miles along Los Alamos Road, south of Gerald Ford Drive to Sunny Lane
- A Class II bikeway is located on the west side of Bob Hope Drive, south of Cherry Hills Drive to Sunrise Drive
- A Class II bikeway is located on Monterey Avenue, between Dinah Shore Drive and Gerald Ford Drive.

Railroad Facilities

The Union Pacific Railroad line is located south of I-10 and north of Ramon Road, approximately 0.2 miles north of the Project Site. A grade separated railroad crossing exists where Bob Hope Drive crosses over the railroad line, north of the project site. The recently completed I-10 interchange project at Bob Hope Drive included the construction of a new six-lane bridge over the Union Pacific Railroad. The Union Pacific Railroad provides freight rail service to Riverside County.

AMTRAK provides regional passenger rail and bus service in the Coachella Valley. The nearest AMTRAK station to the Project Site is located within the City of Palm Springs. AMTRAK provides bus connections on a daily basis to and from the San Bernardino AMTRAK station for other Riverside County areas.

Existing Traffic Conditions

Available 24-hour traffic count data collected for roadways within the northern portion of the Study Area during September 2012 are provided in **Table 5.14-1, Weekday Traffic Counts.** These traffic counts were conducted shortly after the Bob Hope Drive I-10 interchange was completed. Peak-season traffic count data available from the City is also shown in **Table 5.14-1.** A comparison of the count data collected in March 2013 to the new 24-hour traffic counts collected in November 2013 validated the use of a five percent seasonal expansion factor. Existing weekday level of service (LOS) counts for both signalized and unsignalized intersections are provided in **Table 5.14-2, Existing Weekday Peak-Hour Delay and LOS at the Unsignalized Key Intersections,** and **Table 5.14-3, Existing Weekday Peak-Hour Delay and LOS at the Signalized Key Intersections**. All of the 17 key intersections are currently providing acceptable levels of service in peak season during the weekday morning and evening peak hours.

Table 5.14-1
Weekday Traffic Counts

Roadway Segment	Traffic Count Date[a]	Weekday Two-Way Volume[b]
Da Vall Drive		
North of Ramon Road	3/19/13	8,655
South of Ramon Road	3/19/13	10,771
North of Dinah Shore Drive	3/19/13	9,009
North of Gerald Ford Drive	3/19/13	10,708
Bob Hope Drive		
South of Varner Road	9/05/12	11,802
North of Ramon Road	11/06/13	17,035
North of Ramon Road	9/5/12	13,394
South of Ramon Road	11/7/13	18,243
South of Ramon Road	3/11/13	18,954
South of Ramon Road	9/15/12	14,611
North of Dinah Shore Drive	Winter 2013	[17,559][b]
North of Gerald Ford Drive	3/11/13	19,923
North of Frank Sinatra	3/12/13	18,712
Rio Del Sol Road		
North of Varner Road	9/5/12	5,488
Monterey Avenue		
North of Dinah Shore Drive	Winter 2013	[44,125][b]
South of Dinah Shore Drive	Winter 2013	[31,702][b]
Dinah Shore Drive		
West of Da Vall Drive	3/19/13	18,940
West of Bob Hope Drive	11/6/13	17,481
West of Bob Hope Drive	3/11/13	16,415
West of Monterey Avenue	3/5/13	24,627
East of Monterey Avenue	Winter 2013	9,575
Gerald Ford Drive		
West of Bob Hope Drive	3/11/13	14,296
East of Bob Hope Drive	3/11/13	12,470
Ramon Road		
West of Da Vall Drive	Winter 2013	[22,682][b]
East of Da Vall Drive	3/19/13	24,255
West of Bob Hope Drive	11/6/13	20,557
West of Bob Hope Drive	Winter 2013	[23,736][b]
West of Bob Hope Drive	9/5/12	17,695
East of Bob Hope Drive	11/6/13	16,280

Roadway Segment	Traffic Count Date[a]	Weekday Two-Way Volume[b]
East of Bob Hope Drive	Winter 2013	[26,402][b]
East of Bob Hope Drive	9/5/12	13,589
West of Varner Road	Winter 2013	[11,693][b]
West of Varner Road	9/5/12	9,658
East of Varner Road	9/5/12	10,506
Varner Road		
West of Bob Hope Drive	9/5/12	4,153
East of Bob Hope Drive	9/5/12	11,791

a. *Traffic count data shown for September 2012 and November 2013 was collected by Count Unlimited, Inc. and was not expanded to reflect peak season conditions. The 24-hour directional traffic count data shown for March 2013 was collected by Newport Traffic Studies and reflect peak season conditions. This data was available on the City of Rancho Mirage website.*
b. The Winter 2013 24-hour two-way traffic count data shown in brackets was taken from the CVAG 2013 Traffic Census Report.

Table 5.14-2
Existing Weekday Peak-Hour Delay and LOS[a]
at the Unsignalized Key Intersections

	Existing (2013)		
	Major Street Left-Turn[b]	Minor Street Approach[c]	
Unsignalized Intersection	Delay/LOS	Move	Delay/LOS
Morning Peak Hour [PHF = 0.77]	7.5/A	EB	9.4/A
Evening Peak Hour [PHF = 0.88]	7.4/A	EB	9.0/A
Morning Peak Hour [PHF = 0.82]	9.5/A	NB	12.3/B
Evening Peak Hour [PHF = 0.91]	10.2/B	NB	18.0/C

Notes:
a. *The values shown assume an 8 percent truck mix and the intersection geometrics. The change in delay and LOS associated with site traffic is not directly comparable if an intersection is unsignalized without the proposed Project but signalized with the project.*
b. Delay = average control delay (seconds/vehicle) for the left-turn move from the major street onto the minor street. LOS was determined from the delay (0-10 sec./veh. = LOS A; 10-15 sec./veh. = LOS B; 15-25 sec./veh. = LOS C; 25-35 sec./veh. = LOSD; 35-50 sec./veh. = LOS E; 50+ sec./veh. = LOS F) per HCM 2000 page 17-2 and 17-32.
c. EB = Eastbound. NB = Northbound. Delay = average approach control delay (seconds/vehicle) for the minor-street approach that exhibits the most delay at this intersection. LOS was determined per the HCM 2000 (page 17-2 and 17-32).

Table 5.14-3
Existing Weekday Peak-Hour Delay and LOS
at the Signalized Intersections

Signalized Intersection	Existing Without Project		
	Delay (Sec./Veh.)	Critical V/C	LOS
Bob Hope Drive at Westbound I-10 Ramps [Intersection 1]			
Morning Peak Hour [PHF=0.87]	15.2	0.32	B
Evening Peak Hour [PHF=0.91]	19.0	0.41	B
Bob Hope Drive at Eastbound I-10 Ramps [Intersection 2]			
Morning Peak Hour [PHF = 0.87]	10.0	0.38	A
Evening Peak Hour [PHF = 0.97]	9.1	0.27	A
Da Vall Drive at Ramon Road [Intersection 3]			
Morning Peak Hour [PHF = 0.96]	28.7	0.63	C
Evening Peak Hour [PHF = 0.90]	24.8	0.52	C
Rattler Road at Ramon Road [Intersection 4]			
Morning Peak Hour [PHF = 0.91]	8.8	0.29	A
Evening Peak Hour [PHF = 0.86]	7.3	0.34	A
Los Alamos Road at Ramon Road [Intersection 5]			
Morning Peak Hour [PHF = 0.83]	5.0	0.32	A
Evening Peak Hour [PHF = 0.93]	4.2	0.27	A
Bob Hope Drive at Ramon Road [Intersection 6]			
Morning Peak Hour [PHF = 0.86]	20.6	0.56	C
Evening Peak Hour [PHF = 0.97]	21.2	0.52	C
Eastbound I-10 Ramps at Ramon Road [Intersection 7]			
Morning Peak Hour [PHF = 0.88]	3.6	0.48	A
Evening Peak Hour [PHF = 0.91]	5.2	0.49	A
Bob Hope Drive at Casino [Intersection 9]			
Morning Peak Hour [PHF = 0.83]	4.7	0.37	A
Evening Peak Hour [PHF = 0.87]	7.5	0.43	A
Da Vall Drive at Dinah Shore Drive [Intersection 10]			
Morning Peak Hour [PHF = 0.83]	27.5	0.64	C
Evening Peak Hour [PHF = 0.88]	27.5	0.69	C
Los Alamos Road at Dinah Shore Drive [Intersection 11]			
Morning Peak Hour [PHF = 0.78]	5.7	0.30	A
Evening Peak Hour [PHF = 0.85]	5.2	0.43	A
Westin Mission Hills at Dinah Shore Drive [Intersection 12]			
Morning Peak Hour [PHF = 0.90]	5.9	0.29	A
Evening Peak Hour [PHF = 0.91]	6.9	0.41	A
Bob Hope Drive @ Dinah Shore Drive [Intersection 14]			
Morning Peak Hour [PHF = 0.84]	25.9	0.56	C
Evening Peak Hour [PHF = 0.89]	25.7	.61	C

Signalized Intersection	Existing Without Project Delay (Sec./Veh.)	Critical V/C	LOS
Key Largo Ave at Dinah Shore Drive [Intersection 15]			
Morning Peak Hour [PHF = 0.86]	5.1	0.20	A
Evening Peak Hour [PHF = 0.92]	5.2	0.26	A
Monterey Ave at Dinah Shore Drive [Intersection 16]			
Morning Peak Hour [PHF = 0.86]	21.8	0.66	C
Evening Peak Hour [PHF = 0.95]	30.0	0.82	C
Bob Hope Drive at Gerald Ford Drive [Intersection 17]			
Morning Peak Hour [PHF = 0.85]	31.3	0.73	C
Evening Peak Hour [PHF = 0.96]	29.2	0.66	C

2. Regulatory Setting

Regional and Local Setting

Regional Transportation Improvement Plans

The Regional Transportation Plan (RTP) is a multi-modal long-range planning document prepared by the Southern California Association of Governments (SCAG) in coordination with federal, state, and other regional, subregional, and local agencies in southern California. The RTP, prepared every three years, addresses future needs based on a 20-year projection. It includes programs and policies for congestion management, transit, bicycles, pedestrians, roadways, freight, and finances. It is used as a long-range plan for federally funded transportation projects.

The Capital Improvement Program (CIP) is a 7-year program including all regional and local capital improvement projects that maintain or improve the LOS for traffic and transit and conform to transportation-related emission air quality mitigation measures. Currently, regional projects are programmed in the Riverside County Transportation Improvement Plan (TIP), while locally funded projects (off the State Highway System) are identified in local agency CIPs. To comply with Congestion Management Plan (CMP) Statutes, CIP requirements are identified through the RCTC TIP development process. Projects in the CIP may be incorporated into the Regional Transportation Improvement Program (RTIP) for the programming of Flexible Congestion Relief (FCR) and Urban and Commuter Rail funds.

Congestion Management Program

The Congestion Management Program (CMP) is intended to link land use, transportation, and air quality with reasonable growth management methods, strategies and programs that effectively utilize new transportation funds to alleviate traffic congestion and related impacts. The Riverside County Transportation Commission (RCTC) is the designated Congestion Management Agency (CMA) that

prepares the Riverside County Congestion Management Program updates in consultation with local agencies, the County of Riverside, transit agencies, and subregional agencies like the Coachella Valley Association of Governments (CVAG).

The RCTC has designated a system of highways and roadways to include (at a minimum) all State Highway facilities within Riverside County and a system of principal arterials as the Congestion Management System (CMS). All State Highways within Riverside County have been designated as part of the CMP System of Highways and Roadways. The following facilities are designated as part of the Riverside CMP System of Highways and Roadways in the Coachella Valley:

- I-10 (San Bernardino County line to State line)
- SR 111 (I-10 to Imperial County line)
- Ramon Road (I-10 to SR 111/Gene Autry Trail)
- Monterey Avenue (I-10 to SR 111)

Coachella Valley Regional Arterial Program

The Coachella Valley Association of Governments (CVAG) administers the Coachella Valley Regional Arterial Program, which allocates Measure A and Transportation Uniform Mitigation Fee (TUMF) funds for necessary improvements to the regional transportation system.

Measure A, approved by Riverside County voters in 1988, approved a one-half cent increase in sales tax over a twenty year period to be used for transportation purposes. In November 2002, Riverside County voters approved a 30-year extension of Measure "A" (2009–2039). Measure A funds contribute a portion of the cost of transportation system improvements projected to be needed over the next 25 years.

The Transportation Uniform Mitigation Fees (TUMF) program was developed to generate additional funds to fund improvements to the regional arterial roadway system. The TUMF is a development impact assessment that provides funding for transportation improvements required to support new development based on the number of vehicle trips new development will generate. Approximately 55 percent of the funding provided by CVAG consists of TUMF funds with the remainder consisting of Measure A funds. CVAG prepares the Transportation Project Priority Study (TPSS) every five years to determine funding for improvements to regional arterials by prioritizing the eligible study segments based on an assessment of the need for improvement.

Available TUMF and Measure A revenues are applied to the TPPS projects in order of priority. Because the project priorities set out in the TPPS control the order of funding, it also generally controls the approximate timeframe for each project.

To conform to CVAG policies, all CVAG member agencies require the construction of adopted road construction standard improvements for regional roads located adjacent to land development projects.

City of Rancho Mirage General Plan

The Project Site is located within the Sphere of Influence of the City of Rancho Mirage as defined by the Riverside County Local Agency Formation Commission (LAFCo). The City has adopted LOS D as the maximum acceptable service level for peak operating periods in the Circulation Element of the *City of Rancho Mirage 2005 General Plan*.

Bob Hope Drive is classified as a Major Arterial (six-lane divided) in the *City of Rancho Mirage 2005 General Plan* to accommodate future traffic projections and be consistent with the Riverside County Integrated Project (RCIP) network designations. Bob Hope Drive was extended north of Ramon Road to Varner Road in conjunction with the recent construction of a new spread diamond I-10 interchange. This new interchange replaces three of the four ramps previously located at the Ramon Road diamond interchange. Only the eastbound I-10 on-ramp from Ramon Road was retained.

Ramon Road is classified as a 6-lane divided Major Arterial between Da Vall Drive and the I-10 overcrossing. A 120-foot right-of-way is typically required of facilities with a Major Arterial designation.

Dinah Shore Drive is classified as a 6-lane divided Major Arterial, between Los Alamos Road and Monterey Avenue. A 120- foot right-of-way is typically required of roadways with a Major Arterial designation. Between Plumley Road and Los Alamos Road, Dinah Shore Drive is classified as a 4-lane divided Minor Arterial, which typically requires a 110-foot right-of-way. Prior to the 2005 update of the *City of Rancho Mirage General Plan*, Dinah Shore Drive, between Los Alamos Road and Bob Hope Drive, was designated and constructed as a 4-lane divided Minor Arterial with a 110-foot right-of-way.

Los Alamos Road is classified as a 4-lane divided Minor Arterial, which typically requires a 110-foot right-of-way.

Da Vall Drive, south of I-10, is designated as a 4-lane divided Minor Arterial, which typically requires a 110-foot right-of-way.

Monterey Avenue is a six-lane divided roadway, north of Dinah Shore Drive, which provides north-south access between I-10 and SR 111. It is designated as a 6-lane divided Major Arterial within the study area in the *Rancho Mirage General Plan*.

Rattler Road is designated as a four-lane divided Major Collector between Ramon Road and 30th Street. Major Collectors typically require a 100-foot right-of-way.

North of Ramon Road, a future four-lane divided Minor Arterial is shown in the Circulation Element extending across Section 13 to the Union Pacific Railroad corridor where it turns northwest and continues to Da Vall Drive. This future Minor Arterial is shown intersecting Ramon Road opposite Street "C," the future full-turn Section 24 access connection proposed between Planning Areas 1 and 2.

A Future Minor Arterial with a four-lane divided cross-section is shown in the Circulation Element extending east of Bob Hope Drive across the Section 19 Specific Plan area to Key Largo Avenue. This Minor Arterial intersects Bob Hope Drive north of the point where the alignment of Bob Hope Drive turns west of the eastern boundary of Section 24. This location appears to be opposite the Section 24 Specific Plan future full-turn site access proposed on Bob Hope Drive at Street "D" [Intersection 20].

Riverside County General Plan

Riverside County collaborates with cities to implement and integrate right-of-way requirements and improvements standards for General Plan roadways that cross jurisdictional boundaries. For development with the Sphere of Influence of an incorporated jurisdiction, city standards should generally apply where annexation to the City will logically occur in the short to intermediate range future. Where roadways designed to differing city and County standards meet, the transitional areas are to be designed on an individual basis to facilitate satisfactory operational and safety performance.

Urban arterials typically provide six or eight through lanes. Riverside County has designated four Urban Arterials within the study area: (1) Bob Hope Drive, between Varner Road and Dinah Shore Drive, (2) Ramon Road, west of I-10 to Da Vall Drive, (3) Dinah Shore Drive, between Los Alamos Road and Monterey Avenue, and (4) Monterey Avenue, between Varner Road and Gerald Ford Drive.

Arterial Highways typically provide four or six through lanes and have a raised median. Six roadways in the study area are designated Arterial Highway in the Riverside County Circulation Element: 1) Varner Road, northwest of Ramon Road, (2) Ramon Road, east of Varner Road, (3) Dinah Shore Drive, between Plumley Road and Los Alamos Road, (4) Gerald Ford Drive, (5) Bob Hope Drive, south of Dinah Shore Drive, and (6) Monterey Avenue, south of Gerald Ford Drive.

Major Highways typically provide four through lanes with a painted median. Riverside County has designated three Major Highways in the study area including: (1) Da Vall Drive, south of I-10, (2) Los Alamos Road, between Ramon Road and Dinah Shore Drive, and (3)Monterey Avenue, between Ramon Road and Varner Road.

Secondary Highways require a 100-foot right-of-way and provide four through lanes with no median. Two of the roadways within the Study Area are classified as Secondary Highways by the County of Riverside: Rio Del Sol Road, north of Varner Road, and Varner Road, southeast of Ramon Road.

B. ENVIRONMENTAL IMPACTS

1. Thresholds of Significance

In order to assist in determining whether a project would have a significant effect on the environment, the Tribe finds a project may be deemed to have a significant impact to traffic and transportation if it would:

Threshold 5.14-1: **Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)**

Threshold 5.14-2: **Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways**

Threshold 5.14-3: **Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks**

Threshold 5.14-4: **Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)**

Threshold 5.14-5: **Result in inadequate emergency access**

Threshold 5.14-6: **Result in inadequate parking capacity**

Threshold 5.14-7: **Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)**

2. Methodology

The following provides an overview of the methodology utilized to conduct the impact analysis presented in this section.

Riverside County Traffic Analysis Model

The Riverside County Traffic Analysis Model (RivTAM), completed in May 2009, was developed with the cooperative efforts of the Riverside County Transportation Department (RCTD), Western Riverside Council of Governments (WRCOG), Coachella Valley Association of Governments (CVAG), Riverside County Transportation Commission (RCTC), Southern California Association of Governments (SCAG), and California Department of Transportation (Caltrans).

The SCAG Regional Transportation Model encompasses a large geographic area that consists of the Counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura. The RivTAM incorporates a detailed description of Riverside County, while maintaining consistency with the SCAG Regional Model.

RivTAM is intended for use for transportation planning purposes throughout Riverside County by all levels of governmental jurisdiction and by private entities and as a tool to determine the potential impacts of large development proposals, General Plan land use changes, and forecasting for Transportation projects.

Analysis Years and Scenarios

Development of the Active Adult Community in Planning Area 8 will occur first with development of this area projected to be completed by the year 2022. While no specific timeframes have been identified for development of the Tribal Planning Areas, development by the 2035 horizon year in the RivTAM Model is anticipated. This is a conservative assumption made for the purpose of assessing the potential traffic impact of the Project. The Tribe currently has no plans or timing defined for development of the Tribal Planning Areas, and it is anticipated that development of the uses that would be allowed by the Section 24 Specific Plan would extend beyond 2035. To assess the potential project and cumulative impacts with the development of the Active Adult Community by 2022 and development of the Tribal Planning Areas by 2035, the following scenarios were studied:

- Existing Conditions
- Existing Conditions Baseline Plus Initial Phase - Active Adult Community
- Existing Conditions Baseline Plus Full Project Development of Tribal Planning Areas

- Future (Year 2022) Baseline Traffic Conditions
- Future Conditions (Year 2022) Baseline Plus Initial Phase -Active Adult Community
- Future (Year 2035) Baseline Traffic Conditions
- Future Conditions (Year 2035) Baseline Plus Full Project Development of Tribal Planning Areas

For each development scenario, peak season morning and evening peak hour conditions were evaluated to establish whether or not mitigation would be required to achieve the applicable intersection performance standards.

Intersection Analysis

Intersection analysis was completed using the most recent version of the Highway Capacity Software (HCS+). An 8-percent truck mix was assumed for the peak hour operational analysis of existing and year 2022 conditions. A 5-percent truck mix was assumed for the future year 2035 operational analyses. The peak hour factors determined from the peak hour traffic counts at the existing key intersection were assumed for the existing and year 2022 operational analyses. The future year 2035 analysis assumed a peak hour factor of 1.0.

Traffic Counts

Manual intersection turning movements were counted at the seventeen existing intersections studied to document the existing travel patterns within the study area.[1] The intersection counts were collected continuously in the morning peak hours (7:00 AM to 9:00 AM) and evening peak hours (4:00 PM to 6:00 PM). This data was used to evaluate the existing baseline traffic operations during the peak travel hours on the adjacent streets.

Additionally, 24-hour directional traffic counts were collected at the following five locations: Bob Hope Drive (north and south of Ramon Road); Ramon Road (west of Bob Hope Drive and west of I-10 eastbound on-ramp); and Dinah Shore Drive (west of Bob Hope Drive). The 24-hour traffic counts were used to identify the relationship between the daily two-way traffic volumes on area roadways and the peak hour traffic volumes on those roadways. The 24-hour traffic count data was also used to identify an appropriate seasonal adjustment factor for use in expanding the peak hour count data to reflect peak season conditions in the study area.

1 Count Unlimited, Inc., November 6, 2013.

Trip Generation and Distribution

The proposed Project would allow development of up to 2,406 residential dwelling units and 3,138,600 feet of non-residential development. The active adult residential, multi-family residential and range of commercial uses allowed by the Specific Plan will each generate trips with a unique profile that peak at slightly different times of the day, on different days of the week, and with different percentages of inbound versus outbound trips during the peak hours.

The number of trips generated by the proposed residential and non-residential uses will vary by season and peak during the winter months, when tourists and visitors are attracted to the area. The tourist season in the Coachella Valley extends from October through May, with the peak occurring in January. The seasonal influx of part-year residents begins in October and reverses by April. The number of tourists and part-year seasonal residents decrease substantially after April.

The development of mixed-use projects, such as the proposed Project, reduces trip generation because some of trips generated by the residential uses would be captured by the commercial uses within the Project. The internal capture rate between the proposed residential and non-residential uses on-site would be limited by the total number of residential trips. Since the residential trips represent approximately 14 percent of the total amount of trips generated by all the proposed uses, a conservative internal capture rate of 15 percent of the residential trips was assumed for purposes of analysis.

The Active Adult Community in Planning Area 8 would generate approximately 4,480 weekday trips, 234 morning peak hour trips and 289 evening peak hour trips. As no commercial uses are anticipated in this initial phase of development, no adjustments were made to this amount of trips for the analysis of the first phase.

When all uses allowed by the Specific Plan in Planning Areas 1-8 are fully developed, the proposed Project would generate a combined total of 71,260 adjusted weekday trips. Approximately 2,630 weekday trips are expected to occur between the different uses proposed within the site using internal streets.

Approximately 68,630 weekday trips are projected to be external trips; that is trips that start or end outside of the Project Site. During the morning peak hour on weekdays, the proposed Project would generate a total of 1,677 adjusted trip-ends of which 1,565 would be external trips and 112 would be internal trips. The external trips would include 751 inbound and 812 outbound trips. During the evening peak hour, a total of 6,957 trips would be generated. Approximately 6,759 would be external trips and

the remaining 198 would be internal trips. The external trips would include 3,524 inbound and 3,433 outbound trips.

Pass-by trips will be attracted to the commercial uses in the Project Site from traffic passing the site on adjacent streets. While these pass-by trips would be turning in and out of the site access points, these trips would not be new trips on the roadway network. For this reason, these trips were deducted from the background traffic when the site traffic was assigned to the adjacent roadways. The pass-by trips were included in the traffic volumes entering and exiting the development at the site access points to fully assess potential impacts. Depending on the type of commercial uses developed, up to approximately 25 percent of the commercial trips could come from pass-by traffic on the adjacent streets. Since the commercial uses anticipated on-site have not been established, a conservative pass-by rate of 15 percent was assumed.

The 68,630 projected external weekday trips include an estimated 9,180 daily pass-by trips that would be using the adjacent roadways with or without development within the Project Site. Therefore, full development of the uses that would be allowed by the proposed Specific Plan would add 59,450 new weekday trips to the surrounding street system. During the morning peak hour on weekdays, the proposed Project would add 688 new inbound and 749 new outbound trips to the surrounding street system. During the evening peak hour on weekdays, the proposed Project would add 688 new inbound and 749 new outbound trips to the surrounding street system.

The Coachella Valley Association of Governments (CVAG) *2004 Origin Destination Survey* found that 92 percent of all trips by Coachella Valley residents were made in private passenger vehicles. Four percent of trips in were completed by walking, one percent by riding a bicycle, and one percent by public transportation. The remaining trips were completed by school buses and other modes. Based on this study alternative transportation modes account for less than five percent of all trips generated in the Coachella Valley. While the proposed Specific Plan has been designed to maximize the use of alternative transportation modes, no adjustment was made for the use of alternative transportation modes in order to provide a conservative assessment of the potential traffic impacts of the proposed Project.

Project Site traffic was assigned to the surrounding street system based upon the location of the existing and future land uses that would attract site traffic and generate trips destined to the site. The proposed Project Site access locations (as shown in **Figure 5.14-2, Access and Intersection Control**), any anticipated left-turn restrictions at the proposed site driveways, and access to regional transportation facilities were also considered in the site traffic assignment.

As discussed above, the proposed initial phase of development, the Active Adult Community would generate approximately 4,480 weekday trips. The Active Adult Community would be developed as a gated community with three access connections to the surrounding roadways located opposite existing intersections. The distribution of the traffic from the Active Adult Community is shown in **Figure 5.14-3, Site Traffic Distribution: Active Adult Community.**

The primary access for the initial phase is proposed on Dinah Shore Drive, opposite the existing signalized access to the Westin Mission Hills Golf Resort [Intersection 12]. Approximately 57 percent of the traffic generated by the Active Adult Community (2,550 ADT) is projected to access Dinah Shore Drive at this location. Access to Bob Hope Drive is proposed opposite the signalized intersection of Casino via an internal street aligned south of Planning Areas 2 and 3 and north of Planning Areas 4 and 5. This access would accommodate approximately 35 percent of the traffic generated by the initial phase (1,570 ADT) and provide the most direct connection to I-10 for regional trips. Access to Los Alamos Road would be opposite the existing unsignalized intersection at Via Bella [Intersection 8]. Approximately 43 percent of the site traffic generated by the initial phase (1,930 ADT) would enter and leave the Active Adult Community via this access connection. This intersection would remain unsignalized upon completion of the initial phase of development.

The Active Adult Community will ultimately have access to Bob Hope Drive via the westerly extension of Casino Road between Planning Areas 2 and 3 and Planning Areas 4 and 5). This access would accommodate 35 percent of the traffic generated by the initial phase (1,570 ADT) and provide the most direct connection to I-10 for regional trips.

The distribution of all traffic generated from full development of the uses allowed by the Section 24 Specific Plan as proposed are shown in **Figure 5.14-4, Site Traffic Distribution: Full Project Development**. The percentages shown in **Figure 5.14-4** reflect the combination of all new inbound and outbound external site trips to be added to the surrounding street system. The percentages shown were determined for the 59,450 primary external weekday trips generated by the proposed Project.

Consultation with City of Rancho Mirage

The scope and methodology for preparation of the Section 24 Traffic Impact Study was discussed and coordinated with the City at a meeting held in January 2014, prior to preparation of the study. The number and locations of the intersections to be studied were reviewed, as well as the use of the RivTAM to assess project and cumulative impacts. The number of intersections proposed for study was increased at the request of the City. In addition, it was agreed that the RivTAM was the most appropriate traffic demand model available for use.

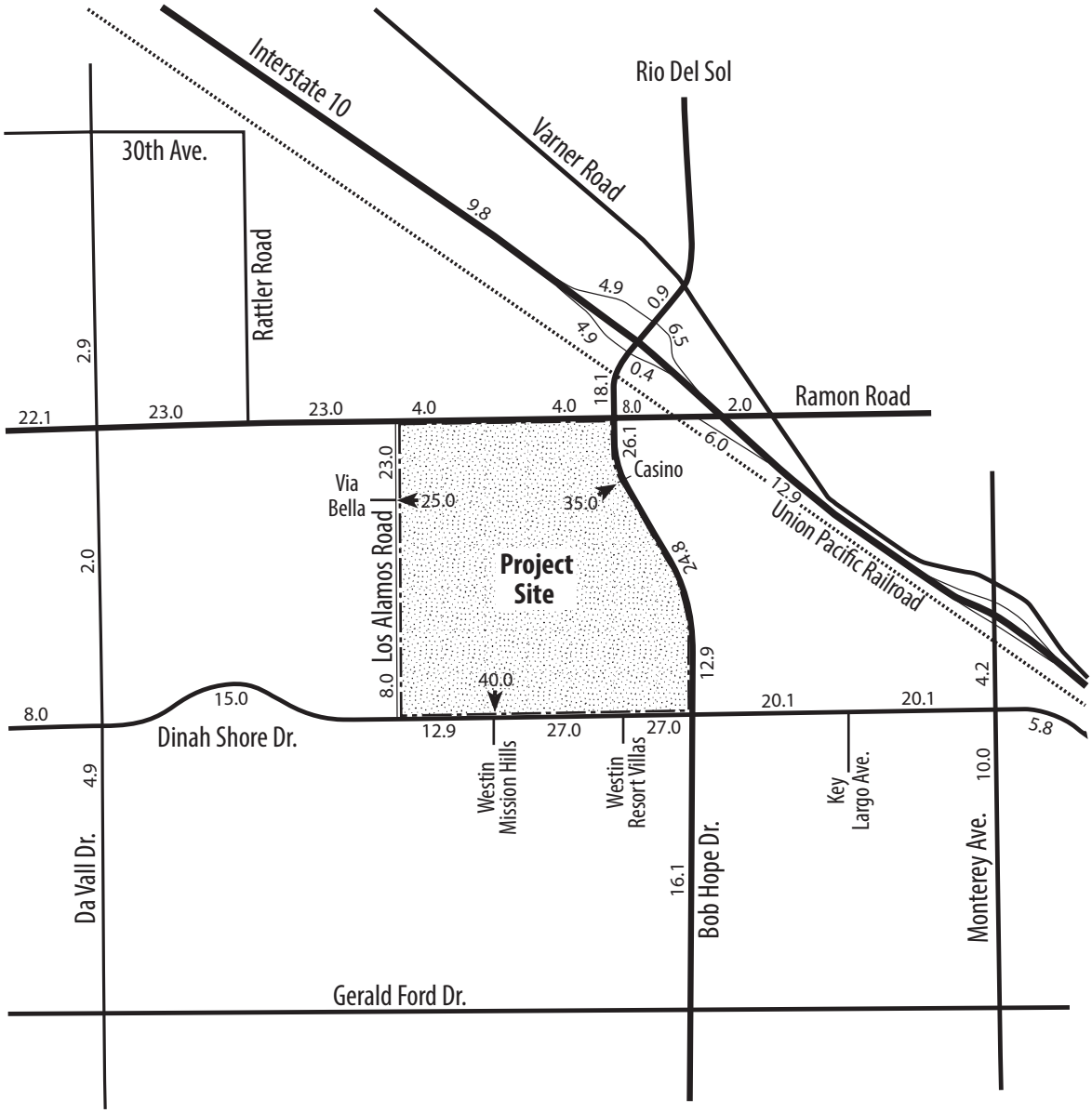
SOURCE: MSA Consulting - 2014

FIGURE **5.14-2**

SECTION 24 SPECIFIC PLAN

Access and Intersection Control

044-001-13



Legend
5.7 Percent of Primary Daily Trips

0 1600 3200 6400

APPROXIMATE SCALE IN FEET

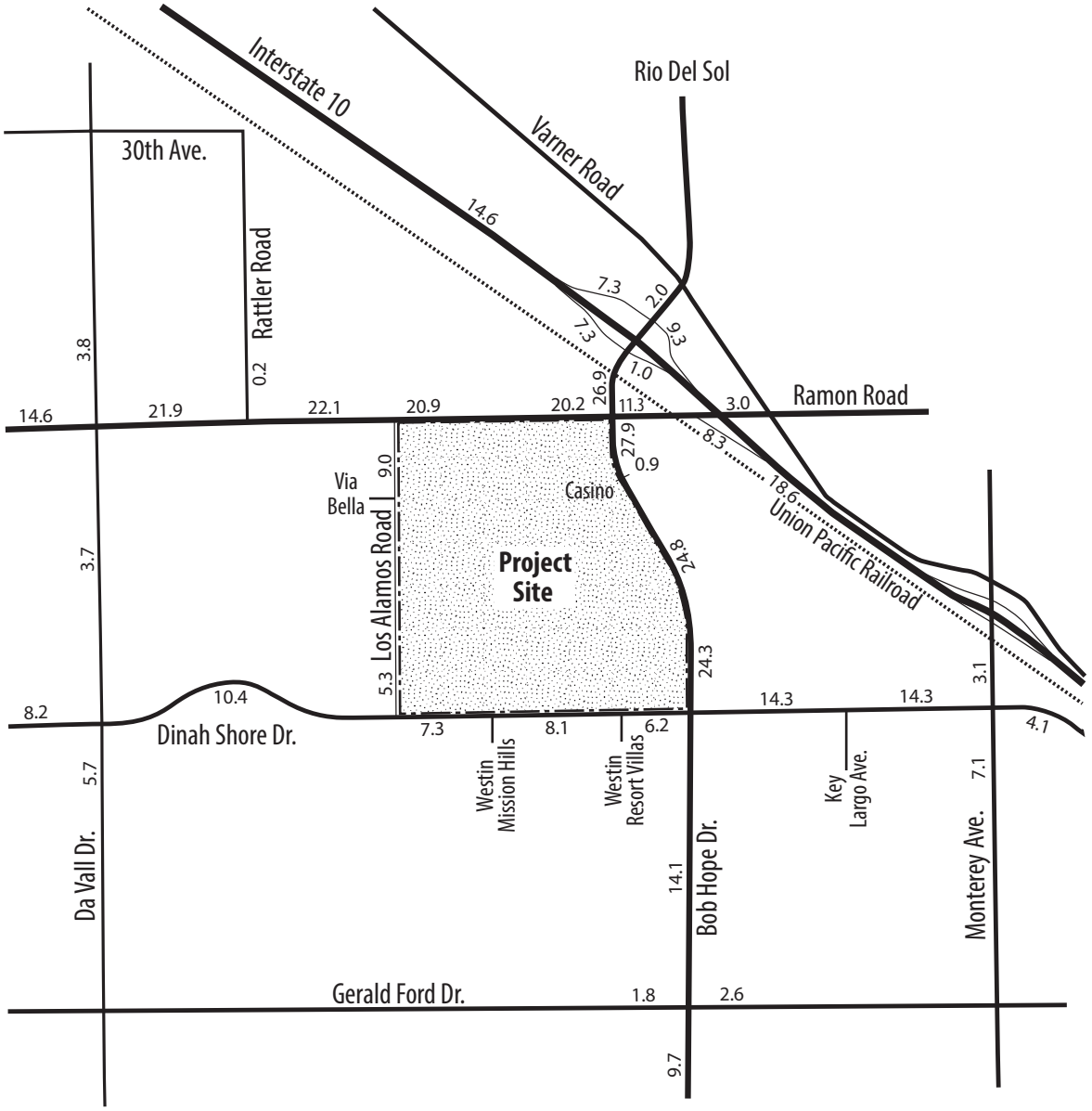
SOURCE: Endo Engineering - 2014

FIGURE **5.14-3**

SECTION 24 SPECIFIC PLAN

Site Traffic Distribution: Active Adult Community

044-001-13



Legend
5.7 Percent of Primary Daily Trips

0 1600 3200 6400

APPROXIMATE SCALE IN FEET

SOURCE: Endo Engineering - 2014

FIGURE **5.14-4**

SECTION 24 SPECIFIC PLAN

Site Traffic Distribution: Full Project Development

The City was also provided the opportunity to review a draft of the Traffic Impact Study. The City provided three major comments related to the approach and methodology used to develop the Traffic Impact Study. The first comment from the City questioned whether the RivTAM accurately represented full development of the land uses allowed by the City's General Plan, given that the traffic volumes in the Section 24 Traffic Impact Study projected for the year 2035 for Bob Hope Drive north and south of Ramon Road, Ramon Road, and Dinah Shore Drive were lower than the volumes produced by the City's 2005 General Plan Traffic Model (RMTM). In response to this comment, the assumptions in both the City's model and RivTAM were reviewed in detail. Through this review, it was determined that the RivTAM model used in the Section 24 Specific Plan Traffic Study is a more sophisticated, comprehensive, and current model than the 2005 RMTM, and reflects the full amount of population and housing projected in the City's General Plan. It was also determined that the 2005 RMTM assumed that a large amount of employment-generating uses would be developed north of the I-10 in areas that were in the City's Sphere of Influence at that time. As a result of subsequent changes to this area, including adoption of the Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP) that permanently preserves a substantial amount of land north of the I-10, this area is no longer expected to generate the amount of employment assumed in the RMTM. Thus, the RMTM future traffic projections overstate the development potential and future traffic volumes that will impact the circulation network within the City. RivTAM includes an updated employment forecast for the City that reflects regional growth forecasts prepared by the Southern California Association of Governments (SCAG). Therefore, while RivTAM includes less employment in the City than the City's 2005 RMTM, the employment projection in RivTAM is both more current and more reliable. The other major factor identified that results in the difference in traffic volumes produced by the two models is that the 2005 RMTM does not reflect recent major and the future planned improvements to the circulation system in the area, such as the improvement of the Bob Hope Interchange and five other nearby freeway interchanges. These improvements added capacity to accommodate additional traffic that would reduce the traffic volumes on major arterial roadways near the I-10 that are not reflected in the RMTM. For these reasons, the RivTAM model provides more reliable future forecasts that more accurately reflect the traffic impacts that will result from development of the land uses allowed by the City's General Plan.

The second comment asked if the 1-mile study area was sufficient in size and noted that studies typically prepared for similar projects under the Riverside County Traffic Impact Analysis (TIA) Guidelines generally examine all intersections within 5 miles of a site where the project would contribute 50 or more peak-hour trips. In determining the scope of study, the Riverside County TIA Preparation Guide was reviewed and considered because Section 24 is located in unincorporated Riverside County. Under the County TIA Guidelines, proposed specific plans that generate more trips than the land uses allowed by the Riverside County General Plan, which are reflected in the RivTAM model, may need

improvements beyond the General Plan Circulation Element classifications and require a larger study area. Similarly, specific plans in undeveloped areas with interim roadway improvements may require a larger study area to evaluate the timing of future roadway widening. In addition, specific plans with rapid development schedules may result in near-term impacts over a larger area and require an extended study area. The Section 24 Specific Plan has none of these characteristics. The proposed Section 24 Specific Plan would generate fewer trips than the development that would be allowed by the Riverside County General Plan land use designations for Section 24. Most of the streets serving the development are also fully widened. The traffic study area was expanded at the request of the City to include all key intersections within 1 mile of the site, a study area much larger than the area studied by the City for the Section 19 Specific Plan project, located immediately east of Section 24, that will generate an amount of traffic similar to the proposed Section 24 Specific Plan. For these reasons, the study area was determined to be sufficient to identify all potential impacts of the project on traffic conditions in the area.

The third comment related to the use of the RivTAM model for analysis of cumulative impacts and questioned if the RivTAM model data needed to be adjusted to reflect related projects in the City and adjacent jurisdictions that would contribute to cumulative impacts. The potential for the Section 24 Specific Plan to contribute to short-term cumulative impacts would be limited because the only portion of the Project planned for development by 2022 is the Active Adult Community, which represents only 6 percent of the Project's total trip generation. The cumulative impact analysis for the year 2022 reflects the related projects identified by the City that would develop by 2022. The other related projects in the area consist of other major specific plan projects where no development has occurred or is proposed at this time and, for these reasons, these projects are not expected to contribute to short-term cumulative impacts. For the year 2035 long-term traffic scenario, the Section 24 Specific Plan Traffic Impact Study used the RivTAM to address cumulative traffic impacts based on the growth projections included in RivTAM, which include growth projected throughout six Southern California counties. All cumulative development through the year 2035 in Rancho Mirage, unincorporated Riverside County, and Tribal lands, as well as in the neighboring cities, is included in RivTAM. The SCAG growth forecasts used to develop RivTAM are also considered to be conservative at this time because these projections do not reflect the slower growth that has occurred since 2008 due to the economic recession. When these growth forecasts and RivTAM are updated, the horizon year growth forecast is expected to decrease by approximately seven percent to reflect the slower growth during the recent recession. As a result, the current version of RivTAM provides a conservative estimate of projected growth and likely cumulative traffic impacts from this growth. All of the City's comments on the traffic study are attached to the Traffic Impact Study as Appendix 6, which is located in Appendix G in the EIS.

Level of Service

The *Highway Capacity Manual* provides the best available techniques for determining capacity, delay, and levels of service for transportation facilities.[2] The relationship between peak hour intersection control delay and levels of service is shown in **Table 5.14-4, Signalized Intersection Level of Service.**

Table 5.14-4
Signalized Intersection Level of Service

LOS	Average Total Delay per Vehicle (Seconds)		Traffic Flow Characteristics
	Signalized	Unsignalized	
A	≤ 10	≤ 10	Good progression, few stops, and short cycle lengths. Most vehicles arrive during the green phase and many do not stop. Little or no delay at unsignalized intersections.
B	> 10 and ≤ 20	> 10 and ≤ 15	Good progression, short cycle lengths or both. More vehicles stop than with LOS A, causing higher levels of average delay. Short traffic delays at unsignalized intersections.
C	> 20 and ≤ 35	> 15 and ≤ 25	Satisfactory operation with fair progression, longer cycle lengths, or both. Individual cycle failures may begin to appear. Cycle failure occurs when a given green phase does not serve queued vehicles and overflow occurs. A significant number of vehicle stop but many pass through without stopping. Average traffic delays at unsignalized intersections.
D	> 35 and ≤ 55	> 25 and ≤ 35	Tolerable delay, where congestion becomes more noticeable and many vehicles stop. Individual cycle failures are noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high V/C ratios. Long traffic delays at unsignalized intersections.
E	> 55 and ≤ 80	> 35.0 and ≤ 50.0	Unstable flow with poor progression, frequent cycle failures, long cycle lengths and high V/C ratios. Individual cycle failures and long queues are frequent occurrences. This is considered the limit of acceptable delay by many agencies. Very long traffic delays at unsignalized intersections.
F	> 80	> 50	Considered unacceptable to most drivers. Arrival flow rates exceed the discharge capacity of intersection with many individual cycle failures. Poor progression and long cycle lengths as well as high V/C ratios and high delay. Unacceptable traffic delays at unsignalized intersections

Source: Highway Capacity Manual, Special Report 209, Transportation Research Board, Fourth Edition, 2000; pp. 10-16.

2 *Highway Capacity Manual;* Fourth Edition; TRB Report 209; Transportation Research Board, National Research Council; Washington, D.C.; 2000

Local and Regional Performance Standards

Public agencies with jurisdiction over the transportation facilities within the Study Area include: (1) the California Department of Transportation (Caltrans), (2) the Riverside County Transportation Commission (as the designated Congestion Management Agency for Riverside County), (3) the Riverside County Land Management Agency, (4) the City of Rancho Mirage, (6) the City of Cathedral City, and (7) the City of Palm Desert. Each of these agencies has adopted roadway performance standards, as described below:

Caltrans

Caltrans District 8 has jurisdiction over I-10 and the traffic signal timing for ramps that provide access to I-10. For freeway segments, Caltrans requests operational analysis based on the methods outlined in the *Highway Capacity Manual* (HCM 2000). For basic freeway segments, the measure of effectiveness is density in terms of passenger cars per mile per lane. The truck mix is needed to expand the traffic volume on the freeway segment to passenger car equivalents (PCEs) and the performance standard throughout California is set at the transition between LOS C and LOS D.

However, the Interstate 10 Route Concept Fact Sheet (Caltrans, March 2000) which is currently being updated identified future right-of-way requirements and a design concept to accommodate development of the uses allowed by local general plans with a target of maintaining LOS "E" during the peak periods in the urbanized and urbanizing areas and LOS "C" in the rural areas. The rationale for maintaining these levels of service was "to achieve a reasonable balance between desired levels of mobility and forecasted traffic with consideration of development abutting rights of way and constrained financial transportation resources."

Riverside County Transportation Commission

The Riverside County Transportation Commission (RCTC) has jurisdiction over all intersections and segments along the CMP System of Highways and Roadways within Riverside County. The CMP System includes all State highways (I-10 and SR 111) and the following Principal Arterials: Ramon Road (west of I-10), and Monterey Avenue (between I-10 and SR 111). RCTC requires LOS analyses to be conducted using HCM-based methods.

The minimum level of service standard for intersections and roadway segments within the CMP System of Highways and Roadways is LOS E unless the intersection or segment had a lower level of service or LOS F in 1991 when the baseline CMP data was collected.

County of Riverside

The *Riverside County Comprehensive General Plan* establishes Level of Service C as a target for all county maintained roadways and conventional State highways, except that LOS D is allowed in urban areas at intersections of any combination of Major Streets, Arterials, Expressways, or conventional State highways within one mile of a freeway interchange, and also at freeway ramp intersections. The Western Coachella Valley Area Plan states that LOS D is allowed in Community Development areas at intersections of any combination of secondary highways, major highways, arterials, urban arterials, expressways, conventional state highways or freeway ramp intersections with LOS E allowed in community centers as designated in the General Plan, to the extent that it would support transit-oriented development and walkable communities.

Riverside County policy also permits applying city standards to development within the Sphere of Influence of an incorporated jurisdiction where annexation to the city will logically occur in the short to intermediate range future. The Project Site is within the sphere of influence of the City of Rancho Mirage.

City of Rancho Mirage

The Circulation Element of the City's General Plan calls for the maintenance of Level of Service D for the Rancho Mirage circulation network, based upon peak hour intersection operation.

Cathedral City

For planning and design purposes, Cathedral City has also established Level of Service D as the minimum peak hour system performance standard for Cathedral City circulation network.

City of Palm Desert

The Circulation Element of the *City of Palm Desert General Plan* states that peak hour intersection operation at LOS "C" or better is generally acceptable. Because LOS "C" represents a standard that is progressively more difficult and costly to achieve as traffic volumes grow in the City LOS "D" and/or a maximum volume to capacity ratio of 0.90 is provisionally considered the generally acceptable service level for peak operating periods when all feasible intersection improvements have been implemented.

3. Project Design Features

The following features incorporated into the proposed Project would reduce the potential traffic and transportation impacts of the Project. These features were taken into account in the analysis of potential impacts. In addition to the specific features identified below, the Project includes improving

the roadways adjacent to the Project Site consistent with adopted standards as required by CVAG Regional Arterial Program policies.

Active Adult Community

PDF 5.14-1 To ensure compliance with applicable roadway and access design standards, the final layout and site access design will be subject to the review and approval by the Tribe and, as appropriate, the City of Rancho Mirage and/or the County of Riverside, during the development review process. Entry drives, the internal circulation design, and other features may require additional street width beyond the minimums defined in the Specific Plan.

PDF 5.14-2 Adequate stacking distance (100 feet) will be provided on the approach to each of the three proposed gated entries to store vehicles entering the initial phase. The pavement in advance of the gate should be wide enough to allow an approaching vehicle to turn around in advance of the gate. Any gated entry that allows visitor access should provide two entry lanes to allow residents to bypass the vehicles of visitors awaiting entry authorization.

PDF 5.14-3 The controlled primary entryways to the Active Adult Community will include provisions to facilitate access by emergency vehicles. If required, all power-operated controlled access devices shall have a radio-controlled override system capable of opening the gate or barrier when activated by a special transmitter located in emergency vehicles and be equipped to facilitate opening in the event of a power failure.

PDF 5.14-4 The streets within the Active Adult Community will be constructed and maintained as private streets in conformance with the standards in the proposed Specific Plan and designed to meet the standards of the applicable jurisdiction (e.g. City, County, or Tribe) public street system at the point where they connect.

PDF 5.14-5 Adequate off-street parking will be provided to meet the needs of residents and visitors. Regular use of on-street parking for visitors will be accommodated.

PDF 5.14-6 The following improvements will be made at the access points to Planning Area 8:

1. The existing traffic control signal and approach lane geometrics at the intersection of Bob Hope Drive and Casino [Intersection 9] will be modified, as required when Casino is constructed between Street “D” and Bob Hope Drive.

2. The existing traffic control signal and approach lane geometrics will be modified at the intersection of the Westin Mission Hills Golf Resort access with Dinah Shore Drive [Intersection 12] to provide access to the initial phase of development. Two southbound entry lanes will be provided to permit residents to enter while a visitor awaiting authorization for entry.

3. A "STOP" sign will be installed facing vehicles in a single westbound exit lane at the site access point on Los Alamos Road, opposite Via Bella [Intersection 8]. A northbound and southbound left-turn bay shall be provided in the median on Los Alamos Road at this intersection.

Tribal Planning Areas

PDF 5.14-7 Adequate intersection approach lane geometrics, "STOP" signs, and new traffic control signals, will be provided as needed to accommodate the traffic generated by the development of the proposed Project.

PDF 5.14-8 Traffic signals will be warranted and shall be installed when warranted along Ramon Road and Bob Hope Drive at the following five site access intersections to maintain acceptable levels of service in conjunction with adjacent development:

1. The Westin Resort Villas at Dinah Shore Drive [Intersection 13]

2. Street "C" at Ramon Road [Intersection 18]

3. Street "D" at Ramon Road [Intersection 19]

4. Bob Hope Drive at Street D [Intersection 20]

5. Bob Hope Drive at Street E [Intersection 21]

A minimum of two approach lanes will be provided at each of the minor-street approaches at each of these intersections to minimize the disruption of through traffic on the major street.

Adequate stopping sight distance, intersection sight distance and corner clearance will be provided at each of these intersections to avoid conflicts between driveway traffic and vehicles waiting or turning at adjacent roadway intersections.

PDF 5.14-9 While not required to achieve acceptable levels of service, provision of right-turn deceleration lanes at the site access intersections on Bob Hope Drive, Ramon Road, and

Dinah Shore Drive will be provided where 40 or more vehicles are projected to turn right into the site during the peak hour.

4. Project Impacts

Would the Project cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections).

Construction

Project construction would generate traffic from construction worker travel, as well from the arrival and departure of trucks delivering construction materials, and the removal of debris generated by on-site activities. Both the number of construction workers and trucks would vary throughout the construction process in order to maintain a reasonable schedule of completion.

Project construction is anticipated to last approximately 6 to 8 years for the Active Adult Community and up to 20 years for the entire Project. Construction for the Active Adult Community is expected to commence during or after 2016. Temporary impacts would occur during the construction of infrastructure improvements serving the Project, including the widening of Bob Hope Drive, and other offsite roadway and infrastructure improvements. Construction of these infrastructure improvements would cause short-term impacts related to noise, dust, and traffic flows as a result of temporary lane closures. Mitigation Measure **MM 5.14-1** would substantially reduce the temporary short term construction related traffic impacts to a level of less than significant.

Existing Conditions Plus Initial Phase (Active Adult Community)

The evaluation of peak hour traffic operations at the seventeen key intersections in terms of control delay and levels of service (LOS) is summarized in **Table 5.14-5, Initial Phase Weekday Peak-Hour Delay and LOS at Unsignalized Intersections** and **Table 5.14-6, Initial Phase Weekday Peak-Hour Delay and LOS at Signalized Intersections.** The addition of project traffic, associated with the initial phase of the proposed Project, to existing traffic volumes, would result in minimal change to the peak hour level of service at the intersection of Bob Hope Drive and Casino [Intersection 9]. The morning and evening peak hour service level at this intersection would drop from LOS A to LOS B.

The intersections of Monterey Avenue at Dinah Shore Drive [Intersection 16] and Key Largo Avenue at Dinah Shore Drive [Intersection 15] are addressed in the General Plans of both the City of Rancho Mirage and the City of Palm Desert. Although Palm Desert has identified LOS C as a target, for peak operating periods, LOS D and/or a maximum volume to capacity ratio of 0.90 is provisionally acceptable

where maximum feasible intersection improvements have been implemented. Because all maximum feasible intersection improvements have been made at the intersection of Monterey Avenue at Dinah Shore, LOS D is used as the performance standard for this intersection. Key Largo Avenue at Dinah Shore Drive is not yet fully improved, but the projected LOS in the future will not exceed LOS C.

The intersection of Bob Hope Drive at Gerald Ford Drive [Intersection 17] would require additional queue storage length to prevent spillback into the adjacent through lane. The City of Rancho Mirage has included improvements to this intersection in the 2014-2015 Capital Improvement Program (CIP). Construction is scheduled to start in May 2015 and end in October 2015. These improvements would provide an adequate level of service at this intersection in 2035.

Table 5.14-5
Initial Phase Weekday Peak-Hour Delay and LOS[a]
at Unsignalized Intersections

	Existing Without Project			Existing With Initial Phase			Change In	
		Minor Street Approach[c]			Minor Street Approach[c]		Minor Street Approach	
Unsignalized Intersection	Major Street Left Turn[b] Delay/LOS	Move	Delay/ LOS	Major Street Left Turn[b] Delay/LOS	Move	Delay/ LOS	Delay	LOS
Los Alamos Road at Via Bella [Intersection 8]								
Morning Peak Hour [PHF = 0.77]	7.5/A	EB	9.4/A	7.5/A	EB	10.3/B	0.9	No
Evening Peak Hour [PHF = 0.88]	7.4/A	EB	9.0/A	7.5/A	EB	10.0/B	1.0	No
Westin Resort Villas at Dinah Shore Drive [Intersection 13]								
Morning Peak Hour [PHF = 0.82]	9.5/A	NB	12.3/B	9.8/A	NB	13.0/B	0.7	No
Evening Peak Hour [PHF = 0.91]	10.2/B	NB	18.0/C	10.5/B	NB	19.9/C	1.9	No

Notes:
a. *The values shown assume an eight percent truck mix and the intersection geometrics. The change in delay and LOS associated with site traffic is not directly comparable if an intersection is unsignalized without the proposed Project but signalized with the project.*
b. Delay = average control delay (seconds/vehicle) for the left-turn move from the major street onto the minor street. LOS was determined from the delay (0-10 sec./veh. = LOS A; 10-15 sec./veh. = LOS B; 15-25 sec./veh. = LOS C; 25-35 sec./veh. = LOSD; 35-50 sec./veh. = LOS E; 50+ sec./veh. = LOS F) per HCM 2000 page 17-2 and 17-32.
c. EB = Eastbound. NB = Northbound. Delay = average approach control delay (seconds/vehicle) for the minor-street approach that exhibits the most delay at this intersection. LOS was determined per the HCM 2000 (page 17-2 and 17-32).

Based on the City performance standard for intersection operations, and the other performance standards identified by Riverside County and nearby cities, the proposed Project would not result insignificant impacts on the operation of the intersections studied.

Table 5.14-6
Initial Phase Weekday Peak-Hour Delay and LOS
at Signalized Intersections[a]

Signalized Intersection	Existing Without Project Delay (Sec./ Veh.)	Critical V/C	LOS	Existing With Initial Phase Delay (Sec./ Veh.)	Critical V/C	LOS	Change In Delay (Sec./ Veh.)	LOS
Bob Hope Drive at Westbound I-10 Ramps [Intersection 1]								
Morning Peak Hour [PHF=0.87]	15.2	0.32	B	15.3	0.33	B	0.1	No
Evening Peak Hour [PHF=0.91]	19.0	0.41	B	19.4	0.42	B	0.4	No
Bob Hope Drive at Eastbound I-10 Ramps [Intersection 2]								
Morning Peak Hour [PHF = 0.87]	10.0	0.38	A	9.9	0.39	A	-0.1	No
Evening Peak Hour [PHF = 0.97]	9.1	0.27	A	8.9	0.28	A	-0.2	No
Da Vall Drive at Ramon Road [Intersection 3]								
Morning Peak Hour [PHF = 0.96]	28.7	0.63	C	28.7	0.63	C	0.0	No
Evening Peak Hour [PHF = 0.90]	24.8	0.52	C	25.0	0.54	C	0.2	No
Rattler Road at Ramon Road [Intersection 4]								
Morning Peak Hour [PHF = 0.91]	8.8	0.29	A	8.7	0.30	A	-0.1	No
Evening Peak Hour [PHF = 0.86]	7.3	0.34	A	7.2	0.35	A	-0.1	No
Los Alamos Road at Ramon Road [Intersection 5]								
Morning Peak Hour [PHF = 0.83]	5.0	0.32	A	6.2	0.36	A	1.2	No
Evening Peak Hour [PHF = 0.93]	4.2	0.27	A	5.3	0.31	A	1.1	No
Bob Hope Drive at Ramon Road [Intersection 6]								
Morning Peak Hour [PHF = 0.86]	20.6	0.56	C	20.7	0.57	C	0.1	No
Evening Peak Hour [PHF = 0.97]	21.2	0.52	C	21.2	0.52	C	0.0	No
Eastbound I-10 Ramps at Ramon Road [Intersection 7]								
Morning Peak Hour [PHF = 0.88]	3.6	0.48	A	3.6	0.49	A	0.0	No

Signalized Intersection	Existing Without Project Delay (Sec./ Veh.)	Critical V/C	LOS	Existing With Initial Phase Delay (Sec./ Veh.)	Critical V/C	LOS	Change In Delay (Sec./ Veh.)	LOS
Evening Peak Hour [PHF = 0.91]	5.2	0.49	A	5.2	0.50	A	0.0	No
Bob Hope Drive at Casino [Intersection 9]								
Morning Peak Hour [PHF = 0.83]	4.7	0.37	A	4.7	0.37	B	0.0	No
Evening Peak Hour [PHF = 0.87]	7.0	0.32	A	7.0	0.32	A	0.0	No
Da Vall Drive at Dinah Shore Drive [Intersection 10]								
Morning Peak Hour [PHF = 0.83]	27.5	0.64	C	27.8	0.64	C	0.3	No
Evening Peak Hour [PHF = 0.88]	27.5	0.69	C	27.5	0.69	C	0.0	No
Los Alamos Road at Dinah Shore Drive [Intersection 11]								
Morning Peak Hour [PHF = 0.78]	5.7	0.30	A	5.9	0.31	A	0.2	No
Evening Peak Hour [PHF = 0.85]	5.2	0.43	A	5.5	0.44	A	0.3	No
Westin Mission Hills at Dinah Shore Drive [Intersection 12]								
Morning Peak Hour [PHF = 0.90]	5.9	0.29	A	11.0	0.36	B	5.1	A-B
Evening Peak Hour [PHF = 0.91]	6.9	0.41	A	8.6	0.47	A	1.7	No
Bob Hope Drive @ Dinah Shore Drive [Intersection 14]								
Morning Peak Hour [PHF = 0.84]	25.9	0.56	C	26.1	0.58	C	0.2	No
Evening Peak Hour [PHF = 0.89]	25.7	0.61	C	26.3	0.64	C	0.6	No
Key Largo Ave at Dinah Shore Drive [Intersection 15]								
Morning Peak Hour [PHF = 0.86]	5.1	0.20	A	5.1	0.21	A	0.0	No
Evening Peak Hour [PHF = 0.92]	5.2	0.26	A	5.2	0.26	A	0.0	No
Monterey Ave at Dinah Shore Drive [Intersection 16]								
Morning Peak Hour [PHF = 0.86]	21.8	0.66	C	22.1	0.67	C	0.3	No
Evening Peak Hour [PHF = 0.95]	30.0	0.82	C	30.6	0.82	C	0.6	No
Bob Hope Drive at Gerald Ford Drive [Intersection 17]								
Morning Peak Hour [PHF = 0.85]	31.3	0.73	C	31.6	0.74	C	0.3	No
Evening Peak Hour [PHF = 0.96]	29.2	0.66	C	29.3	0.67	C	0.1	No

Signalized Intersection	Existing Without Project Delay (Sec./ Veh.)	Critical V/C	LOS	Existing With Initial Phase Delay (Sec./ Veh.)	Critical V/C	LOS	Change In Delay (Sec./ Veh.)	LOS

a. *Delay = Intersection Control Delay (seconds per vehicle). Assumes intersection geometrics and an eight percent truck mix. Based upon the Highway Capacity Manual signalized operation methodology implemented by the Highway Capacity Software (HCS+ Version 5.3). LOS is the intersection level of service. LOS was determined from the delay (≤ 10 sec./veh. = LOS A; > 10 and ≤ 20 sec./veh. = LOS B; > 20 and ≤ 35 sec./veh. = LOS C; > 35 and ≤ 55 sec./veh. = LOS D; > 55 and ≤ 80 sec./veh. = LOS E; > 80 sec./veh. = LOS F) per 2000 HCM page 10-16.*

Existing Conditions Plus Full Project Development (Tribal Planning Areas)

Table 5.14-7, Full Project Development Weekday Peak-Hour Delay and LOS at Unsignalized Intersections, and **Table 5.14.8, Full Project Development Weekday Peak-Hour Delay and LOS at Signalized Intersections,** shows the changes that would result from the additional traffic generated by full development of the uses that would be allowed by the Specific Plan as proposed**.** The addition of traffic from full development of the proposed Project would potentially impact the unsignalized intersection of Westin Resort Villas at Dinah Shore Drive [Intersection 13]. A traffic control signal would be installed in conjunction with the site access connection proposed opposite the existing Westin Resort Villas access on Dinah Shore Drive [Intersection 13] and activated when warranted by site traffic volumes. With traffic signal control, this intersection would operate at LOS A during the morning peak hour and maintain LOS C operation during the evening peak hour.

The addition of site traffic associated with full development of the proposed Project to existing traffic volumes would result in a change in the morning peak hour LOS at two intersections where site access connections are proposed. The eastbound approach at the unsignalized intersection of Los Alamos Road and Via Bella would experience change from LOS A to LOS B with the addition of project traffic. This impact is not significant.

Table 5.14-7
Full Project Development Weekday Peak-Hour Delay and LOS[a]
at Unsignalized Intersections

Unsignalized Intersection	Existing Without Project			Existing With Full Project Development			Change In	
	Major Street Left Turn[b] Delay/LOS	Minor Street Approach[c] Move	Minor Street Approach[c] Delay/ LOS	Major Street Left Turn[b] Delay/LOS	Minor Street Approach[c] Move	Minor Street Approach[c] Delay/ LOS	Minor Street Approach Delay	Minor Street Approach LOS
Los Alamos Road at Via Bella [Intersection 8]								
Morning Peak Hour [PHF = 0.77]	7.5/A	EB	9.4/A	7.6/A	EB	10.3/B	0.9	A-B
Evening Peak Hour [PHF = 0.88]	7.4/A	EB	9.0/A	7.8/A	EB	11.5/B	2.5	A-B
Westin Resort Villas at Dinah Shore Drive [Intersection 13]								
Morning Peak Hour [PHF = 0.82]	9.5/A	NB	12.3/B	NA[d]	NA[d]	NA[d]	NA	NA
Evening Peak Hour [PHF = 0.88]	10.2/B	NB	18.0/C	NA[d]	NA[d]	NA[d]	NA	NA

a. *The values shown assume an eight percent truck mix and the intersection geometrics and traffic control. NA = Not Applicable. The change in delay and LOS associated with site traffic is not directly comparable if an intersection is unsignalized without the Proposed Project but signalized with the project.*
b. Delay = average control delay (seconds/vehicle) for the left-turn move from the major street onto the minor street. LOS was determined from the delay (0-10 sec./veh. = LOS A; 10-15 sec./veh. = LOS B; 15-25 sec./veh. = LOS C; 25-35 sec./veh. = LOS D; 35-50 sec./veh. = LOS E; 50+ sec./veh. = LOS F) per HCM 2000 page 17-2 and 17-32.
c. EB = Eastbound. NB = Northbound. Delay = average approach control delay (seconds/vehicle) for the minor-street approach that exhibits the most delay at this intersection. LOS was determined per the HCM 2000 (page 17-2 and 17-32).
d. Signal warrants me.

As shown in **Table 5.14-8, Full Project Development Weekday Peak-Hour Delay and LOS at Signalized Intersections,** the addition of traffic from the Project will change the level of service at eight of the intersections studied. All intersections in the City would continue to operate at an acceptable level of service based on the City's performance standards for intersection operations with existing plus full project development traffic volumes and the site access improvements proposed at intersections 8, 9 and 13.

The level of service is projected to drop from LOS C to LOS D at intersections 3, 16, and 17. With the installation of a traffic signal at the intersection of Westin Resort Villas at Dinah Shore Drive [Intersection 13] all of the intersections studied would provide acceptable levels of service with existing plus full project development volumes and the site access improvements. Impacts would not be significant for this reason.

Table 5.14-8
Full Project Development Weekday Peak-Hour Delay and LOS[a]
at Signalized Intersections

Signalized Intersection	Existing Without Project			Existing With Full Project Development			Change In	
	Delay (Sec./ Veh.)	Critical V/C	LOS	Delay (Sec./ Veh.)	Critical V/C	LOS	Delay (Sec./ Veh.)	LOS
Bob Hope Drive at Westbound I-10 Ramps [Intersection 1]								
Morning Peak Hour [PHF=0.86]	15.2	0.32	B	17.6	0.40	B	2.4	No
Evening Peak Hour [PHF=0.91]	19.0	0.41	B	28.1	0.80	C	9.1	B-C
Bob Hope Drive at Eastbound I-10 Ramps [Intersection 2]								
Morning Peak Hour [PHF = 0.87]	10.0	0.38	A	9.1	0.46	A	-0.9	No
Evening Peak Hour [PHF = 0.97]	9.1	0.27	A	5.8	0.47	A	-3.3	No
Da Vall Drive at Ramon Road [Intersection 3]								
Morning Peak Hour [PHF = 0.96]	28.7	0.63	C	29.2	0.67	C	0.5	No
Evening Peak Hour [PHF = 0.90]	24.8	0.52	C	35.2	0.87	D	10.4	C-D
Rattler Road at Ramon Road [Intersection 4]								
Morning Peak Hour [PHF = 0.91]	8.8	0.29	A	8.2	0.33	A	-0.6	No
Evening Peak Hour [PHF = 0.86]	7.3	0.34	A	6.6	0.52	A	-0.7	No
Los Alamos Road at Ramon Road [Intersection 5]								
Morning Peak Hour [PHF = 0.83]	5.0	0.32	A	7.1	0.43	A	2.1	No
Evening Peak Hour [PHF = 0.93]	4.2	0.27	A	10.6	0.58	B	6.4	A-B
Bob Hope Drive at Ramon Road [Intersection 6]								
Morning Peak Hour [PHF = 0.86]	20.6	0.56	C	21.4	0.65	C	0.8	No
Evening Peak Hour [PHF = 0.97]	21.2	0.52	C	29.7	0.87	C	8.5	No
Eastbound I-10 Ramps at Ramon Road [Intersection 7]								
Morning Peak Hour [PHF = 0.88]	3.6	0.48	A	3.8	0.57	A	0.2	No
Evening Peak Hour [PHF = 0.91]	5.2	0.49	A	11.0	0.88	B	5.8	A-B

Signalized Intersection	Existing Without Project			Existing With Full Project Development			Change In	
	Delay (Sec./ Veh.)	Critical V/C	LOS	Delay (Sec./ Veh.)	Critical V/C	LOS	Delay (Sec./ Veh.)	LOS
Bob Hope Drive at Casino [Intersection 9]								
Morning Peak Hour [PHF = 0.83]	4.7	0.37	A	22.3	0.68	C	17.6	A-C
Evening Peak Hour [PHF = 0.87]	7.5	0.43	A	50.1	0.92	D	42.6	A-D
Da Vall Drive at Dinah Shore Drive [Intersection 10]								
Morning Peak Hour [PHF = 0.83]	27.5	0.64	C	28.9	0.68	C	1.4	No
Evening Peak Hour [PHF = 0.88]	27.5	0.69	C	34.2	0.70	C	6.7	No
Los Alamos Road at Dinah Shore Drive [Intersection 11]								
Morning Peak Hour [PHF = 0.78]	5.7	0.30	A	6.9	0.36	A	1.2	No
Evening Peak Hour [PHF = 0.85]	5.2	0.43	A	10.0	0.64	B	4.8	A-B
Westin Mission Hills at Dinah Shore Drive [Intersection 12]								
Morning Peak Hour [PHF = 0.90]	5.9	0.29	A	7.1	0.34	A	1.2	No
Evening Peak Hour [PHF = 0.91]	6.9	0.41	A	7.9	0.52	A	1.0	No
Westin Resort Villas at Dinah Shore Drive [Intersection 13]								
Morning Peak Hour [PHF =0.82]	NA[b]	NA[b]	NA[b]	7.1	0.33	A	NA	NA
Evening Peak Hour [PHF = 0.91]	NA[b]	NA[b]	NA[b]	20.3	0.76	C	NA	NA
Bob Hope Drive at Dinah Shore Drive [Intersection 14]								
Morning Peak Hour [PHF = 0.84]	25.9	0.56	C	26.4	0.64	C	0.5	No
Evening Peak Hour [PHF = 0.89]	25.7	0.61	C	31.8	0.84	C	6.1	No
Key Largo Ave at Dinah Shore Drive [Intersection 15]								
Morning Peak Hour [PHF = 0.86]	5.1	0.20	A	4.9	0.23	A	-0.2	No
Evening Peak Hour [PHF = 0.92]	5.2	0.26	A	5.7	0.37	A	0.5	No
Monterey Ave at Dinah Shore Drive [Intersection 16]								
Morning Peak Hour [PHF = 0.86]	21.8	0.66	C	23.3	0.71	C	1.5	No
Evening Peak Hour [PHF = 0.95]	30.0	0.82	C	41.9	0.93	D	11.9	C-D

Signalized Intersection	Existing Without Project			Existing With Full Project Development			Change In	
	Delay (Sec./ Veh.)	Critical V/C	LOS	Delay (Sec./ Veh.)	Critical V/C	LOS	Delay (Sec./ Veh.)	LOS
Bob Hope Drive at Gerald Ford Drive [Intersection 17]								
Morning Peak Hour [PHF = 0.85]	31.3	0.73	C	33.3	0.79	C	2.0	No
Evening Peak Hour [PHF = 0.96]	29.2	0.66	C	36.1	0.85	D	6.9	C-D

a. *Delay = Intersection Control Delay (seconds per vehicle). Assumes intersection geometrics and a five percent truck mix. Based upon the Highway Capacity Manual signalized operation methodology implemented by the Highway Capacity Software (HCS+ Version 5.3). LOS was determined from the delay (≤ 10 sec./veh. = LOS A; > 10 and ≤ 20 sec./veh. = LOS B; > 20 and ≤ 35 sec./veh. = LOS C; > 35 and ≤ 55 sec./veh. = LOS D; > 55 and ≤ 80 sec./veh. = LOS E; > 80 sec./veh. = LOS F) per 2000 HCM page 10-16. NA = Not Applicable. The change in delay and LOS associated with site traffic is not directly comparable when an intersection is unsignalized without the proposed Project but signalized and improved with the Project*
b. Unsignalized (See Table 5.14-5).

Future (Year 2022) Traffic Conditions with Initial Phase (Active Adult Community)

Future traffic conditions in 2022 were projected to allow for identification of the impacts of development of the initial phase of the Project, the Active Adult Community in Planning Area 8. **Table 5.14-9, Future (Year 2022) Weekday Peak-Hour Delay and LOS at Unsignalized Intersections Conditions** and **Table 5.14-10, Future (Year 2022) Weekday Peak-Hour Delay and LOS Summary at Signalized Intersections,** show projected traffic conditions without and with the addition of traffic from the Active Adult Community. As shown, all intersections will operate at acceptable levels or service in the year 2022 and the initial phase of the Project will not result in any significant impacts.

Table 5.14-9
Future (Year 2022) Weekday Peak-Hour Delay and LOS[a]
at Unsignalized Intersections

Unsignalized Intersection	Year 2022 Without Project			Year 2022 With Initial Phase			Change In Minor Street Approach	
	Major Street Left Turn[b] Delay/LOS	Minor Street Approach[c] Move	Minor Street Approach[c] Delay/LOS	Major Street Left Turn[b] Delay/LOS	Minor Street Approach[c] Move	Minor Street Approach[c] Delay/LOS	Delay	LOS
Los Alamos Road at Via Bella [Intersection 8]								
Morning Peak Hour [PHF = 0.77]	7.7/A	EB	10.3/B	7.7/A	EB	11.3/B	1.0	No
Evening Peak Hour [PHF = 0.88]	7.5/A	EB	9.5/A	7.7/A	EB	10.6/B	1.1	A-B
Westin Resort Villas at Dinah Shore Drive [Intersection 13]								
Morning Peak Hour [PHF = 0.82]	9.6/A	NB	12.5/B	10.0/A	NB	13.2/B	0.7	No
Evening Peak Hour [PHF = 0.88]	10.4/B	NB	19.8/C	10.7/B	NB	22.1/C	2.3	No

a. *The values shown assume an eight percent truck mix. The change in delay and LOS associated with site traffic is not directly comparable if an intersection is unsignalized without the proposed Project but signalized with the project.*
b. Delay = average control delay (seconds/vehicle) for the left-turn move from the major street onto the minor street. LOS was determined from the delay (0-10 sec./veh. = LOS A; 10-15 sec./veh. = LOS B; 15-25 sec./veh. = LOS C; 25-35 sec./veh. = LOS D; 35-50 sec./veh. = LOS E; 50+ sec./veh. = LOS F) per HCM 2000 page 17-2 and 17-32
c. EB = Eastbound. NB = Northbound. Delay = average approach control delay (second vehicle) for the minor street approach that exhibits the most delay at this intersection. LOS was determined per the HCM 2000 (page 17-2 and 17-32).

Table 5.14-10
Future (Year 2022) Weekday Peak-Hour Delay and LOS
at Signalized Intersections

Signalized Intersection	Year 2022 Without Project			Year 2022 With Initial Phase			Change In	
	Delay (Sec./ Veh.)	Critical V/C	LOS	Delay (Sec./ Veh.)	Critical V/C	LOS	Delay (Sec./ Veh.)	LOS
Bob Hope Drive at Westbound I-10 Ramps [Intersection 1]								
Morning Peak Hour [PHF=0.86]	16.1	0.45	B	16.6	0.45	B	0.5	No
Evening Peak Hour [PHF=0.91]	20.5	0.56	C	20.7	0.57	C	0.2	No
Bob Hope Drive at Eastbound I-10 Ramps [Intersection 2]								
Morning Peak Hour [PHF = 0.87]	10.5	0.48	B	10.5	0.49	B	0.0	No
Evening Peak Hour [PHF = 0.97]	8.5	0.38	A	8.4	0.39	A	-0.1	No

Signalized Intersection	Year 2022 Without Project Delay (Sec./ Veh.)	Critical V/C	LOS	Year 2022 With Initial Phase Delay (Sec./ Veh.)	Critical V/C	LOS	Change In Delay (Sec./ Veh.)	LOS
Da Vall Drive at Ramon Road [Intersection 3]								
Morning Peak Hour [PHF = 0.96]	36.5	0.83	D	37.4	0.84	D	0.9	No
Evening Peak Hour [PHF = 0.90]	28.0	0.71	C	28.4	0.72	C	0.4	No
Rattler Road at Ramon Road [Intersection 4]								
Morning Peak Hour [PHF = 0.91]	9.1	0.40	A	9.1	0.41	A	0.0	No
Evening Peak Hour [PHF = 0.86]	8.2	0.48	A	8.2	0.49	A	0.0	No
Los Alamos Road at Ramon Road [Intersection 5]								
Morning Peak Hour [PHF = 0.83]	6.3	0.47	A	7.1	0.51	A	0.8	No
Evening Peak Hour [PHF = 0.93]	4.8	0.39	A	6.1	0.41	A	1.3	No
Bob Hope Drive at Ramon Road [Intersection 6]								
Morning Peak Hour [PHF = 0.86]	22.7	0.73	C	23.0	0.74	C	0.3	No
Evening Peak Hour [PHF = 0.97]	23.0	0.68	C	23.3	0.68	C	0.3	No
Eastbound I-10 Ramps at Ramon Road [Intersection 7]								
Morning Peak Hour [PHF = 0.88]	4.3	0.59	A	4.4	0.60	A	0.1	No
Evening Peak Hour [PHF = 0.91]	5.9	0.60	A	5.9	0.61	A	0.0	No
Bob Hope Drive at Casino [Intersection 9]								
Morning Peak Hour [PHF = 0.83]	4.7	0.49	A	4.7	0.49	A	0.0	No
Evening Peak Hour [PHF = 0.87]	6.9	0.41	A	6.9	0.41	A	0.0	No
Da Vall Drive at Dinah Shore Drive [Intersection 10]								
Morning Peak Hour [PHF = 0.83]	29.3	0.70	C	29.9	0.71	C	0.6	No
Evening Peak Hour [PHF = 0.88]	30.0	0.76	C	30.0	0.76	C	0.0	No
Los Alamos Road at Dinah Shore Drive [Intersection 11]								
Morning Peak Hour [PHF = 0.78]	6.7	0.37	A	6.9	0.38	A	0.2	No
Evening Peak Hour [PHF = 0.85]	6.0	0.52	A	6.2	0.54	A	0.2	No
Westin Mission Hills at Dinah Shore Drive [Intersection 12]								
Morning Peak Hour [PHF = 0.90]	6.1	0.34	A	10.7	0.40	B	4.6	A-B

Signalized Intersection	Year 2022 Without Project Delay (Sec./ Veh.)	Critical V/C	LOS	Year 2022 With Initial Phase Delay (Sec./ Veh.)	Critical V/C	LOS	Change In Delay (Sec./ Veh.)	LOS
Evening Peak Hour [PHF = 0.91]	7.7	0.49	A	8.8	0.53	A	1.1	No
Bob Hope Drive @ Dinah Shore Drive [Intersection 14]								
Morning Peak Hour [PHF = 0.84]	27.2	0.67	C	27.7	0.70	C	0.5	No
Evening Peak Hour [PHF = 0.89]	26.4	0.65	C	27.0	0.66	C	0.6	No
Key Largo Ave at Dinah Shore Drive [Intersection 15]								
Morning Peak Hour [PHF = 0.86]	5.1	0.26	A	5.1	0.27	A	0.0	No
Evening Peak Hour [PHF = 0.92]	5.6	0.33	A	5.7	0.34	A	0.1	No
Monterey Ave at Dinah Shore Drive [Intersection 16]								
Morning Peak Hour [PHF = 0.86]	21.6	0.67	C	21.8	0.68	C	0.2	No
Evening Peak Hour [PHF = 0.95]	33.2	0.87	C	33.8	0.88	C	0.6	No
Bob Hope Drive at Gerald Ford Drive [Intersection 17]								
Morning Peak Hour [PHF = 0.85]	38.9	0.83	D	40.0	0.84	D	1.1	No
Evening Peak Hour [PHF = 0.96]	33.4	0.79	C	33.8	0.80	C	0.4	No

a. Delay = Intersection Control Delay (seconds per vehicle). Based upon the Highway Capacity Manual signalized operation methodology implemented by the Highway Capacity Software (HCS+ Version 5.3). LOS is the intersection level of service. LOS was determined from the delay ≤10 sec./veh. = LOS A; >10 and ≤20 sec./veh. = LOS B; >20 and ≤35 sec./veh. = LOS C; >35 and ≤55 sec./veh. = LOS D; >55 and ≤80 sec./veh. = LOS E; >80 sec./veh. = LOS F) per 2000 HCM page 10-16.

Future (Year 2035) Traffic Conditions with Full Project Development

Future projected traffic conditions in 2035 were analyzed to allow for identification of the impacts of full development of the proposed Project. Future year 2035 conditions without and with the addition of traffic from the Project are presented in **Table 5.14-11, Future (Year 2035) Weekday Peak-Hour Delay and LOS at Unsignalized Site Access Intersections** and **Table 5.14-12, Future (Year 2035) Weekday Peak-Hour Delay and LOS at Signalized Intersections.** As discussed above, additional improvements to the intersection of Bob Hope Drive at Gerald Ford Drive [Intersection 17] are needed to maintain an acceptable level of service. The City will be constructing these improvements in 2015 and with these improvements, this intersection will operate at an acceptable level of service in 2035.

Table 5.14-11
Future (Year 2035) Weekday Peak-Hour Delay and LOS[a]
at Unsignalized Site Access Intersections

	Year 2035 Without Project			Year 2035 With Full Project Development			Change In	
	Major Street Left Turn[b]	Minor Street Approach[c]		Major Street Left Turn[b]	Minor Street Approach[c]		Minor Street Approach	
Unsignalized Intersection	Delay/LOS	Move	Delay/LOS	Delay/LOS	Move	Delay/LOS	Delay	LOS
Los Alamos Road at Via Bella [Intersection 8]								
Morning Peak Hour	7.7/A	EB	10.2/B	7.8/A	EB	11.0/B	0.8	No
Evening Peak Hour	7.5/A	EB	9.7/A	7.9/A	EB	12.3/B	2.6	A-B
Los Alamos Road at Multi-Family Residential Access [Intersection 22]								
Morning Peak Hour	N/A[d]	N/A[d]	N/A[d]	7.7/A	WB	10.0/A	N/A	N/A
Evening Peak Hour	N/A[d]	N/A[d]	N/A[d]	8.0/A	WB	10.5/B	N/A	N/A
Los Alamos Road at Retail Access [Intersection 23]								
Morning Peak Hour	N/A[d]	N/A[d]	N/A[d]	7.8/A	WB	10.0/B	N/A	N/A
Evening Peak Hour	N/A[d]	N/A[d]	N/A[d]	8.3/A	WB	12.6/B	N/A	N/A

a. *The values shown assume a five percent truck mix, a peak hour factor of 1.00. N/A = Not Applicable. The change in delay and LOS associated with site traffic is not directly comparable if an intersection is unsignalized without the proposed Project but signalized with the project.*
b. Delay = average control delay (seconds/vehicle) for the left-turn move from the major street onto the minor street. LOS was determined from the delay (0-10 sec./veh. = LOS A; 10-15 sec./veh. = LOS B; 15-25 sec./veh. = LOS C; 25-35 sec./veh. = LOS D; 35-50 sec./veh. = LOS E; 50+ sec/veh = LOS F) per HCM 2000 page 17-2 and 17-32. Intersection 22 has an average control delay that rounds up to 10.0 seconds per vehicle (LOS A) whereas intersection 22 has slightly more than 10.0 but less than 10.1 seconds per vehicle of delay, which corresponds to LOS B.
c. EB = Eastbound. WB = Westbound. Delay = average approach control delay (seconds/vehicle) for the minor-street approach that exhibits the most delay at this intersection. LOS was determined per the HCM 2000 (page 17-2 and 17-32).
d. This intersection would not exist.

Table 5.14-12
Future (Year 2035) Weekday Peak-Hour Delay and LOS[a]
at Signalized Intersections

	Year 2035 Without Project			Year 2035 With Full Project Development			Change In	
Signalized Intersection	Delay (Sec./Veh.)	Critical V/C	LOS	Delay (Sec./Veh.)	Critical V/C	LOS	Delay (Sec./Veh.)	LOS
Bob Hope Drive at Westbound I-10 Ramps [Intersection 1]								
Morning Peak Hour [PHF = 1.00]	15.4	0.45	B	17.6	0.50	B	2.2	No
Evening Peak Hour [PHF = 1.00]	20.0	0.56	C	35.8	0.91	D	15.8	C-D

Signalized Intersection	Year 2035 Without Project Delay (Sec./Veh.)	Critical V/C	LOS	Year 2035 With Full Project Development Delay (Sec./Veh.)	Critical V/C	LOS	Change In Delay (Sec./Veh.)	LOS
Bob Hope Drive at Eastbound I-10 Ramps [Intersection 2]								
Morning Peak Hour [PHF = 1.00]	10.8	0.39	B	10.6	0.46	B	-0.2	No
Evening Peak Hour [PHF = 1.00]	8.9	0.37	A	7.0	0.57	A	-1.9	No
Da Vall Drive at Ramon Road [Intersection 3] [b]								
Morning Peak Hour [PHF = 1.00]	41.0	0.90	D	47.7	0.95	D	6.7	No
Evening Peak Hour [PHF = 1.00]	27.0	0.70	C	40.5	0.93	D	13.5	C-D
Rattler Road at Ramon Road [Intersection 4]								
Morning Peak Hour [PHF = 1.00]	8.7	0.40	A	9.1	0.44	A	0.4	No
Evening Peak Hour [PHF = 1.00]	7.3	0.47	A	7.5	0.62	A	0.2	No
Los Alamos Road at Ramon Road [Intersection 5]								
Morning Peak Hour [PHF = 1.00]	6.0	0.42	A	7.3	0.52	A	1.3	No
Evening Peak Hour [PHF = 1.00]	4.9	0.41	A	11.5	0.69	B	6.6	A-B
Bob Hope Drive at Ramon Road [Intersection 6]								
Morning Peak Hour [PHF = 1.00]	21.1	0.62	C	21.9	0.69	C	0.8	No
Evening Peak Hour [PHF = 1.00]	22.5	0.63	C	37.6	0.85	D	15.1	C-D
Eastbound I-10 Ramps at Ramon Road [Intersection 7]								
Morning Peak Hour [PHF = 1.00]	3.4	0.48	A	3.6	0.56	A	0.2	No
Evening Peak Hour [PHF = 1.00]	5.1	0.51	A	9.2	0.85	A	4.1	No
Bob Hope Drive at Casino [Intersection 9]								
Morning Peak Hour [PHF = 1.00]	12.8	0.47	B	15.9	0.59	B	3.1	No
Evening Peak Hour [PHF = 1.00]	12.2	0.37	B	30.7	0.83	C	18.7	B-C
Da Vall Drive at Dinah Shore Drive [Intersection 10]								
Morning Peak Hour [PHF = 1.00]	26.4	0.58	C	27.2	0.62	C	0.8	No
Evening Peak Hour [PHF = 1.00]	27.6	0.66	C	31.6	0.79	C	4.0	No
Los Alamos Road at Dinah Shore Drive [Intersection 11]								
Morning Peak Hour [PHF = 1.00]	6.4	0.30	A	7.2	0.34	A	0.8	No

Signalized Intersection	Year 2035 Without Project Delay (Sec./Veh.)	Critical V/C	LOS	Year 2035 With Full Project Development Delay (Sec./Veh.)	Critical V/C	LOS	Change In Delay (Sec./Veh.)	LOS
Evening Peak Hour [PHF = 1.00]	5.6	0.46	A	9.7	0.63	A	4.1	No
Westin Mission Hills at Dinah Shore Drive [Intersection 12]								
Morning Peak Hour [PHF = 1.00]	5.9	0.28	A	6.8	0.31	A	0.9	No
Evening Peak Hour [PHF = 1.00]	7.3	0.43	A	7.8	0.51	A	0.5	No
Westin Resort Villas at Dinah Shore [Intersection 13]								
Morning Peak Hour [PHF = 1.00]	5.1	0.24	A	6.7	0.29	A	1.6	No
Evening Peak Hour [PHF = 1.00]	6.0	0.36	A	17.0	0.65	B	11.0	A-B
Bob Hope Drive @ Dinah Shore Drive [Intersection 14]								
Morning Peak Hour [PHF = 1.00]	23.1	0.54	C	25.5	0.58	C	2.4	No
Evening Peak Hour [PHF = 1.00]	25.9	0.63	C	30.9	0.82	C	5.0	No
Key Largo Ave at Dinah Shore Drive [Intersection 15]								
Morning Peak Hour [PHF = 1.00]	10.2	0.35	B	9.9	0.37	A	-0.3	B-A
Evening Peak Hour [PHF = 1.00]	13.5	0.56	B	13.9	0.66	B	0.4	No
Monterey Ave at Dinah Shore Drive [Intersection 16]								
Morning Peak Hour [PHF = 1.00]	20.1	0.58	C	21.2	0.61	C	1.1	No
Evening Peak Hour [PHF = 1.00]	33.5	0.83	C	41.0	0.93	D	7.5	C-D
Bob Hope Drive at Gerald Ford Drive [Intersection 17] [c d]								
Morning Peak Hour [PHF = 1.00]	35.5	0.80	D	38.6	0.84	D	3.1	No
Evening Peak Hour [PHF = 1.00]	31.7	0.76	C	41.0	0.90	D	9.3	C-D

a. Delay = Intersection Control Delay (seconds per vehicle). Based upon the Highway Capacity Manual signalized operation methodology implemented by the Highway Capacity Software (HCS+ Version 5.3). LOS is the intersection level of service. LOS was determined from the delay ≤10 sec./veh. = LOS A; >10 and ≤20 sec./veh. = LOS B; >20 and ≤35 sec./veh. = LOS C; >35 and ≤55 sec./veh. = LOS D; >55 and ≤80 sec./veh. = LOS E; >80 sec./veh. = LOS F) per 2000 HCM page 10-16.

b. Add second southbound left-turn lane

c. Add a second eastbound left-turn lane

d. The mitigation identified for intersection 17 to maintain LOS D or better operation was assumed both with and without site traffic to show the change in the delay and LOS associated with site traffic.

As shown in **Table 5.14-12**, the site traffic associated with full Project development is projected to change the evening peak hour LOS at nine of the key intersections evaluated by one level of service. Five

of these intersections are projected to operate at LOS D or better without mitigation. Two of these intersections, Da Vall Drive at Ramon Road [Intersection 3] and Bob Hope Drive at Gerald Ford Drive [Intersection 17] are projected to operate at an unacceptable level of service. The remaining intersections would be improved with the development of the proposed Project to accommodate site access and these improvements would result in an acceptable level of service.

As shown in **Table 5.14-12**, the intersection of Bob Hope Drive and Gerald Ford Drive is projected to operate at an unacceptable level of service in 2035. The eastbound left-turn volume on Gerald Ford Drive at the intersection of Bob Hope Drive will require additional queue storage length in the future. The City has approved and funded improvements to this intersection planned for completion in 2015. The planned improvements will provide dual left-turn lanes and a dedicated right-turn lane on all four approaches at this intersection, which will ensure an adequate level of service is maintained. The Project will not result in a significant impact at this intersection for this reason.

The intersection of Da Vall Drive at Ramon Road is also projected to operate at an unacceptable level of service in 2035 and additional improvements will be needed to maintain an acceptable level of service.

The eastern side of Da Vall Drive has been improved, between Ramon Road and a point just north of Via Del Paradiso, to provide approximately 35 feet of pavement with curbs, gutters, and a multi-use trail. The two existing southbound lanes on Da Vall Drive at this intersection include a dedicated left-turn lane and a shared through/right-turn lane. One additional southbound left-turn lane will be required on Da Vall Drive, at the intersection of Ramon Road, to accommodate the projected future year 2035 traffic volumes at acceptable levels of service.

Both Ramon Road and Da Vall Drive are included in the Regional Arterial Program and eligible for Measure A and TUMF funds for these improvements. Future improvements to Da Vall Drive are identified in CVAG Transportation Project Prioritization Study (TPPS). While not currently identified for funding, these improvements would be funded in the future when needed to maintain an acceptable level of service.

Future Site Access Intersections

All of the future proposed full-turn site access intersections would operate at acceptable levels of service with the proposed improvements and full development of the uses that would be allowed by the proposed Specific Plan. Future conditions at the three unsignalized site access intersections along Los Alamos Road [Intersections 8, 22, and 23] are shown in **Table 5.14-11**. As shown, these three unsignalized site access intersections would provide LOS B or better operation for motorists on the minor-street approaches.

Future conditions at the three signalized site access intersections proposed opposite the existing T-intersections on Bob Hope Drive and Dinah Shore Drive [Intersections 9, 12, and 13] are shown in **Table 5.14-12.** Signalized full-turn site access connections are proposed at 0.25-mile spacing intervals along Ramon Road and Bob Hope Drive. Full-turn site access connections along Dinah Shore Drive are proposed opposite the existing signalized intersection providing access for the Westin Mission Hills Golf Resort and Spa (1,780 feet east of Los Alamos Road) as well as opposite the unsignalized access for the Westin Resort Villas (1,220 feet west of Bob Hope Drive). With site traffic, the peak hour traffic signal warrants would be met and new traffic control signals would be installed at these intersections concurrent with development.

Table 5.14-13, Future (Year 2035) Weekday Peak-Hour Delay and LOS at Signalized Site Access Intersections, shows the projected overall intersection average delay and levels of service during the peak hours at the proposed future full-turn signalized site access intersections along Ramon Road and Bob Hope Drive [Intersections 18, 19, 20, and 21]. As shown, all four of the intersections proposed along Ramon Road and Bob Hope Drive are projected to operate at acceptable levels of service during the peak hours in the future year 2035 with the traffic volumes generated by full development of the Project. During the peak hours the levels of service at these site access intersections are projected to be LOS C or better.

Table 5.14-13
Future (Year 2035) Weekday Peak-Hour Delay and LOS
at Signalized Site Access Intersections

Signalized Intersection	Avg. Delay[a] (Sec./Veh.)	Critical V/C Ratio	LOS[b]
Street "C" at Ramon Road [Intersection 18]			
Morning Peak Hour [PHF = 1.00]	5.0	0.44	A
Evening Peak Hour [PHF = 1.00]	17.1	0.81	B
Street "D" at Ramon Road [Intersection 19]			
Morning Peak Hour [PHF = 1.00]	5.6	0.47	A
Evening Peak Hour [PHF = 1.00]	28.2	0.93	C
Bob Hope Drive at Street "D" [Intersection 20]			
Morning Peak Hour [PHF = 1.00]	6.8	0.51	A
Evening Peak Hour [PHF = 1.00]	16.7	0.78	B
Bob Hope Drive at Street "E" [Intersection 21]			
Morning Peak Hour [PHF = 1.00]	6.4	0.53	A
Evening Peak Hour [PHF = 1.00]	11.2	0.69	B

a. *Average Delay = Average Control Delay (seconds per vehicle). Assumes existing intersection geometrics and a five percent truck mix. Based upon the Highway Capacity Manual signalized operational methodology implemented by Version 5.3 of the Highway Capacity Software (HCS+). PHF is the peak hour factor specified in the Riverside County Transportation Department Traffic Impact Analysis Preparation Guide (2008).*

Signalized Intersection	Avg. Delay[a] (Sec./Veh.)	Critical V/C Ratio	LOS[b]

b. LOS is the intersection level of service. The LOS was determined from the delay (≤10 sec./veh. = LOS A; >10 and ≤20./veh. = LOS B; >20 and ≤ 35 sec./veh. = LOS C; > 35 and ≤ 55 sec./veh. = LOS D; > 55 and ≤ 80 sec./veh. = LOS E; > 80 sec./veh. = LOS F) per page 10-16 of the HCM.

As demonstrated above, all intersections would operate at an acceptable LOS under each development scenario. Additionally, the Project street system would be designed and constructed to maximize mobility, minimize congestion, and assure that all intersections operate at LOS or better during peak hours of traffic, as generated by the full project development of the proposed Project.

Would the Project exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?

The CMP identifies LOS E as the minimum level of service standard for intersections and roadways segments within the CMP System of Highways and Roadways, including Ramon Road and Monterey Avenue. The City of Rancho Mirage and the City of Cathedral City have identified Level of Service D as the minimum performance standard for the circulation network, based upon peak hour intersection operation. Both cities experience seasonal variations in traffic demand, which must be addressed in maintaining LOS D. For peak operating periods, LOS D and/or a maximum volume-to-capacity ratio of 0.90 is provisionally considered the generally acceptable service level by the City of Palm Desert, provided the target LOS "C" goal is only exceeded where maximum feasible intersection improvements have been implemented. As shown in **Tables 5.14-5** through **5.14-13**, all intersections studies along these roadways would operate at an acceptable LOS (LOS D or better) under existing and future (Year 2022) conditions. Maximum feasible improvements have been implemented for those intersections under the City of Palm Desert performance standard.

Additionally, the proposed Project will pay the CVAG Transportation Uniform Mitigation Fee (TUMF), or an in-lieu fee equal to TUMF, which is the major source of regional roadway improvement fees in the Coachella Valley. The TUMF is a traffic mitigation fee program developed to ensure that fair-share contribution is made to future roadway infrastructure improvements of area-wide benefit prior to the issuance of building permits that results in a change of use and generates additional vehicular trips.

Would the Project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

Palm Springs International Airport is the largest of the three airports serving the Coachella Valley. The airport is located approximately 3.6 miles west of the Project Site, within the City of Palm Springs. This

commercial airport is located north of Ramon Road and south of Vista Chino, between Gene Autry Trail and Farrell Drive. Air traffic patterns would not result in any safety risks to the project.

Would the Project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Would the Project result in inadequate emergency access?

One of the objectives of the proposed Specific Plan is to design a street system that maximizes mobility, minimizes congestion, and assures that all intersections and street segments operate at LOS "D" or better during the peak hours of traffic. The number of access points and intersections along arterials is limited in order to preserve mid-block and intersection capacities and to maintain public safety.

Initial Phase (Active Adult Community) Access

The initial phase of development would include the development of up to 1,200 single-family homes for active adults within Planning Area 8. The initial phase would be accessed via full-turn access connections proposed opposite two existing T-type intersections: Los Alamos Road at Via Bella [Intersection 8], and the Westin Mission Hills Access at Dinah Shore Drive [Intersection 12]. Ultimately, a third access to Planning Area 8 would be provided by the extension of Casino Road, from Bob Hope Drive to Planning Area 8.

The timing of the construction of Casino Road on-site, between Planning Area 8 and Bob Hope Drive, is currently unknown. The extension of Casino Road to Planning Area 8 may not occur until adjacent land within Planning Areas 2, 3, 4, and/or 5 is developed. Therefore, evaluations of the traffic impacts associated with the completion of the initial phase of development assumed that Casino Road would not be constructed between Planning Area 8 and Bob Hope Drive by the year 2022.

Access Plan to Support Development Upon Project Completion

The site access plan proposed to support full development within the Project Site would include two existing signalized intersections (Intersection 9 and 12). Five future signalized full-turn site access intersections (Intersections 13, 18, 19, 20, and 21) are proposed. Three unsignalized full-turn site access intersections (Intersections 8, 22, and 23) along Los Alamos Road would serve site traffic. Seven future right-in/right-out site access connections are proposed in conjunction with the proposed Project, three on Ramon Road, three on Bob Hope Drive, and one on Dinah Shore Drive. All of these right-in/right-out site access points would all be associated with phases of site development after the initial phase is completed.

The two future signalized full-turn site access intersections proposed on Ramon Road, between Los Alamos Road and Bob Hope Drive, (Intersections 18 and 19) would be located opposite the future access intersections associated with the adopted City of Rancho Mirage Section 13 Specific Plan to the north. The two future signalized full-turn site access intersections proposed on Bob Hope Drive, between Casino Road and Dinah Shore Drive, (Intersection 20 and 21) would be located opposite future access intersections associated with the adopted City of Rancho Mirage Section 19 Specific Plan to the east.

The site access points in the Section 24 Specific plan were located and designed in accordance with accepted planning principles and current traffic engineering practices. The site access and internal circulation plan would control access to more efficiently serve the mobility needs of through traffic on the adjacent arterial roadways as well as site access needs. The right-turn only access points would distribute the site traffic more evenly along key mobility corridors. The internal circulation plan is designed to provide cross-parcel connections to encourage site traffic to utilize the internal roadways for internal trip making.

The site access plan would maintain adequate spacing from adjacent street and driveway intersections for the primary signalized access points along the perimeter of the Project. The Riverside County access standards by corridor classification specify the use of one-quarter mile (1,320-foot) intersection spacing along Urban Arterials and Arterial Highways.[3] The signalized site access intersections proposed to serve the project would be located at one quarter-mile spacing intervals along Ramon Road and Bob Hope Drive, consistent with the Riverside County standards.

Adequate inbound and outbound capacity shall be provided to accommodate the site traffic volumes. The proposed traffic control type at the site access intersections appears to be appropriate. The proposed site access plan incorporates joint access (the sharing of a driveway access point by two or more Planning Areas), which is a desirable and effective means of minimizing the adverse impacts of site access connections on adjacent streets.

Right-In/Right-Out Access Connections

The proposed right-in/right-out access connections were designated by letter in clockwise order, beginning at the northwest corner of the site. Access A through Access C are proposed from west to east along Ramon Road to serve Planning Areas 1A, 2A, and 3 respectively. Access D through Access F are proposed from north to south along Bob Hope Drive to serve Planning Areas 4, 6A, and 7A respectively. Access G is proposed on Dinah Shore Drive, west of Bob Hope Drive, to serve Planning Area 7A.

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3 County of Riverside, *General Plan,* "Circulation Plan," Table C-1.

Access to Ramon Road

The proposed site access plan for Ramon Road would include the use of the existing signalized intersection of Los Alamos Road with Ramon Road [Intersection 5] to accommodate site traffic destined to and from Planning Areas 1A, 1B and 8. A future signalized full-turn site access would be constructed on the south side of Ramon Road, one-quarter mile east of Los Alamos Road, at Street "C" [Intersection 18] to serve both the Resort uses in Planning Area 1 and the most intense Mixed Use Core uses proposed in Planning Area 2. A future signalized full-turn site access would also be constructed on the south side of Ramon Road, one-quarter mile west of Bob Hope Drive, at Street "D" [Intersection 19] to serve both the more intense Mixed Use Core uses in Planning Area 2 and the Retail uses in Planning Area 3. Street "D" would be improved within the Project Site as a four-lane divided Minor Arterial Roadway with a raised landscape median (16 feet in width) within a 110- foot right-of-way. Sidewalks (5-feet in width) and bicycle lanes (5-feet in width) would be incorporated on both sides of this roadway.

Access to Bob Hope Drive

The proposed access along Bob Hope Drive would include the full improvement of the fourth intersection leg at the existing signalized intersection of Bob Hope Drive and Casino (Intersection 9). This intersection currently has signal mast arms and signal heads on all four approaches. The westerly extension of Casino Road would provide a direct and convenient route to and from the Agua Caliente Casino Resort Spa for all transportation modes. It would also substantially reduce the volume of site traffic turning right onto and left across Ramon Road, west of Bob Hope Drive.

Two future signalized full-turn intersections are proposed at one-quarter-mile intervals along Bob Hope Drive, between the existing signalized intersections at Dinah Shore Drive and at Casino. The future intersection of Bob Hope Drive with Street "D" (Intersection 20) would connect the proposed internal boulevard through the Project Site from Ramon Road to Bob Hope Drive. Intersection 20 would be located opposite the street proposed to serve the Section 19 Specific Plan area (east of Bob Hope Drive). The future intersection proposed at Street "E" (Intersection 21) would be located between Planning Areas 6 and 7, opposite the future access proposed to serve the Section 19 Specific Plan area to the east.

Access to Dinah Shore Drive

The existing signalized intersection of Los Alamos Road with Dinah Shore Drive (Intersection 11) is located on the southwest corner of the initial phase of the Section 24 Specific Plan. The primary gated entry for the initial phase of development would be located approximately 1,770 feet east of Los Alamos Road, opposite the existing signalized access on Dinah Shore Drive associated with the Westin Mission

Hills Golf Resort (Intersection 12). This access would require the construction of a north leg at the existing intersection and the modification of the existing traffic control signals.

The future access for Planning Area 7B would be located approximately 1,220 feet west of Bob Hope Drive, opposite the existing unsignalized access on Dinah Shore Drive associated with the Westin Mission Hills Resort Villas (Intersection 13). The ultimate site traffic volumes at this intersection are expected to meet traffic signal warrants. Traffic signal control would be constructed at this intersection in conjunction with the proposed site access improvements. This signalized intersection would be approximately 2,300 feet east of the signalized Westin Mission Hills Golf Resort access (Intersection 12).

Access to Los Alamos Road

The proposed Project would take access to Los Alamos Road at three proposed unsignalized full-turn site access intersections. The initial phase of the proposed Project would take access to Los Alamos Road opposite Via Bella at the existing unsignalized intersection [Intersection 8]. This intersection is located approximately 1,430 feet south of Ramon Road and 3,860 feet north of Dinah Shore Drive. It would be two-way stop controlled in the future.

Subsequent phases of development would take access to Los Alamos Road for the multi-family residential land uses proposed within Planning Area 1B via Street "A" [Intersection 22]. This future site access connection on Los Alamos Road is not expected to accommodate sufficient future traffic volumes to warrant traffic control signals. The proposed Resort uses within Planning Area 1 would take access to Los Alamos Road via Street "B" [Intersection 23]. This intersection is also expected to be two-way stop controlled.

Street "D" (Proposed Internal Boulevard)

Street "D" would provide two travel lanes in each direction, separated by a raised landscape median 16 feet in width within a 110-foot right-of-way. This internal multi-modal corridor would extend from its signalized intersection with Ramon Road to its signalized intersection with Bob Hope Drive. It would be aligned with Planning Areas 3 and 4 to the east and Planning Areas 2, 5 and 6 to the west. The alignment would facilitate the phased construction of various Planning Areas within the Specific Plan without interrupting access to the initial phase or previous phases of the development.

Street "D" would be accessible to automobiles, service vehicles, emergency vehicles, NEVs, and neighborhood circulator vehicles. This boulevard would provide seven-foot wide landscaped buffers with Palo Verde trees between the adjacent development areas and five-foot sidewalks proposed on both sides of the roadbed. A 5-foot-wide sidewalk and a Class II Bicycle Lane would be provided on each side of Street "D," separated from the travel lanes by a 2-foot buffer.

Site Access Spacing on Los Alamos Road

The Project includes two access intersections along Los Alamos Road within a distance of approximately 1,430 feet between Ramon Road [Intersection 5] and Via Bella [Intersection 8]. If the two access locations are evenly spaced, Intersection 22 and Intersection 23 would be approximately 475 feet apart. Driveway spacing is tied to the posted speed limit along arterials as well as the separation between the proposed access connections and adjacent roadway intersections.

Criteria used for the spacing of unsignalized access points include: (1) the distance from an intersection to the nearest driveway (corner clearance); and (2) the distance between driveways. Adequate corner clearance avoids conflicts between driveway traffic and vehicles stacking or turning at adjacent roadway intersections. The 95th-percentile back-of-queue length for the northbound left-turn movement on Los Alamos Road at Ramon Road is projected to be 12 car lengths (300 feet) during the evening peak hour in the year 2035 with site traffic. Therefore, if Street "B" intersects Los Alamos at least 300 feet south of Ramon Road, it will be outside the functional area of the adjacent intersection and provide adequate corner clearance.

The minimum standard for access spacing is frequently the same as for stopping sight distance. For example, a 35 mph roadway would require a minimum of 250 feet between site access points. This access spacing allows drivers on roadway where site access in being proposed to be prepared for entering and exiting vehicles at each site access point.

The current posted speed limit on Los Alamos Road is 50 mph. With a posted speed of 50 mph, the stopping sight distance would be 425 feet, and the intersection sight distance would 590 feet. Therefore, the minimum separation between the site access points would be the stopping sight distance of 425 feet. Desirable intersection spacing would be equal to the intersection sight distance of 590 feet for a passenger car making a left turn onto Los Alamos Road from a stop. When Los Alamos Road is fully improved, it will likely have a lower posted speed limit. With a lower posted speed of 45 mph, the stopping sight distance would 360 feet and the intersection sight distance would 530 feet. The site access spacing along Los Alamos Road, between Via Bella and Ramon Road, should reflect the minimum stopping sight distance, based on the speed of the vehicles on Los Alamos Road. Clear sight triangles should be provided and maintained at each of the proposed site access intersections along Los Alamos Road.

Would the Project provide adequate parking?

The various uses proposed within the Project Site will be required to meet the parking standards specified in **Table 5.14-14, Parking Standards**, and the amount of parking will vary depending on the

number of units proposed and square footage of the non-residential uses. Parking may be provided through a combination of surface parking and/or parking structures, and there will be opportunities for shared parking among different land uses.

Shared parking can reduce the amount of land needed for parking, creating opportunities for more compact development, more space for pedestrian circulation, and more open space and landscaping. Shared parking analyses establish that as different land uses peak at different times, together these land uses do not need their maximum parking supply at the same time. Planning for each land use individually would result in an over-supply of parking in a location where there is a combination of land uses. Therefore, within the Project Site, there is the potential to share a pool of parking that is smaller than the amount that would be required for each land use individually.

However, because shared parking reductions depend on the specific type and size of land uses within a project, the specific parking demand ratio for each land use requires further study involving the specific type of land use and peak-hour demand. Therefore, a more specific shared parking analysis approved by the Tribal Council may be completed for projects proposed within the Project Site. As part of each study, the applicant will have to demonstrate that the proposed uses have different peak hours of parking demand or that the total parking demand at any one time will be adequately served by the total number of parking spaces provided.

Table 5.14-14
Parking Standards

Topic	Standard	Notes
Commercial and Office		
General retail	3.0 per 1,000 sq. ft. GLA	
Family restaurant	10.5 per 1,000 sq. ft. GLA	
Fast food restaurant	15.0 per 1,000 sq. ft. GLA	
Casual and fine dining	18.0 per 1,000 sq. ft. GLA	
Active Adult Community Club House	5.0 per 1,000 sq. ft. GLA	
General office	3.5 per 1,000 sq. ft. GLA for first 5,000 sq. ft.	Parking decreases to 2.5 per 1,000 sq. ft. GLA for additional sq. ft.
Medical office	4.0 per 1,000 sq. ft. GLA for first 5,000 sq. ft.	
Hotel		
Hotel	1.1 per room	Plus required spaces for ancillary uses
Restaurant/lounge	10.0 per 1,000 sq. ft. GLA	6-foot maximum
Meeting area/banquet room	30.0 per 1,000 sq. ft. GLA	Parking standard refers to “gross assembly or viewing area”

Topic	Standard	Notes
Convention center	20.0 per 1,000 sq. ft. GLA	
Residential		
Multifamily 0-1	1.50 per unit	All spaces must be enclosed in a garage or carport
Multifamily 2+ bedroom	1.75 per unit	All spaces must be enclosed in a garage or carport
Single Family	2.00 per unit	All spaces must be enclosed in a garage
Guest spaces	0.15 – 0.25 per unit	0.15 multifamily/0.25 single family spaces may be uncovered
Structured Parking		
Landscaping	50% coverage of visible concrete surfaces	Parking structure facades shall achieve 50 percent coverage of visible concrete surfaces with landscaping. Coverage can be achieved through measures such as planters along the visible edge of the structure planted or through a vertical trellis planted at the parking level, or by other means.
Bicycle Parking		
Bicycle Parking	2 racks per project that requires 40 or more non-residential parking spaces	For any development that requires 40-80 non-residential parking spaces, 1 rack that can support 2 bicycles shall be provided. For any development that requires more than 80 non-residential parking spaces, 1 rack that can support 4 bicycles or 2 racks that can support two bicycles shall be provided.
Alternative Vehicle Parking and Carpooling		
Golf cart or neighborhood electric vehicle parking	1 dedicated space for 0-25 residential units; 2 dedicated spaces for 26-50 residential units; 3 dedicated spaces for 51-100 residential units; 4 dedicated spaces for 101 or more residential units	Parking shall be provided in a central location accessible to the residential units. Parking stalls shall be covered to shield the vehicles from sun and weather. The parking area shall also function as a recharging station by providing electric vehicle ports. As an alternative, projects may provide these spaces within an enclosed garage as part of an individual unit, so long as the space is in addition to the area needed to accommodate the standard parking spaces.
Electric vehicle charging station	1 charging station for every application for 100,000 or more square feet of non-residential development.	The charging station shall be installed and function prior to the issuance of final building permits for half of the proposed square footage. The charging station location shall be as close as feasible to majority of the building entrances.
Carpool Parking	Three percent of parking spaces shall be set aside exclusively for carpools	This requirement applies only to general or medical office buildings with a GLA greater than 20,000 square feet. Fractional requirements shall be rounded down to the nearest whole number.
Parking Dimensions		
Parking for non-residential use		**Parking for residential use**
90 degree parking stall	9 feet x 18 feet	90 or 45 degree parking stall	9 feet x 18 feet
45 degree parking stall	9 feet x 19 feet	Parallel degree parking stall	8 feet x 22 feet
Parallel degree parking stall	9 feet x 26 feet		

Topic	Standard	Notes
Parking for alternative vehicle use		
90 or 45 degree parking stall	8 feet x 16 feet	
Parallel parking stall	8 feet x 20 feet	

Notes: sq. ft. = square foot; GLA = gross leasable area

Would the Project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety such facilities?

Residents of Rancho Mirage use golf carts for more than transportation on individual golf courses. Golf carts are used for access between residences and the golf courses in adjacent neighborhoods. They are also used for local trips made between residences and commercial and medical facilities, the City Hall, and golf cart paths in adjoining cities. Refer to **Figure 3.0-8, Conceptual Pedestrian and Alternative Vehicle Circulation Plan,** for the Specific Plan's existing and future non-motorized circulation system. Future sidewalk/bikeway/golf cart paths are planned on the perimeter of the Project Site (along Ramon Road, Bob Hope Drive, and Los Alamos Road) that would link with the integrated system being developed throughout the Study Area.

The County of Riverside has pedestrian and multi-purpose trails that accommodate hikers and others as an integral part of the circulation system. These trails connect communities and activity centers and also provide recreational and leisure opportunities.

The City encourages pedestrian and non-motorized transportation by making provisions for sidewalks, bike lanes, and multi-use trails within roadway designs and rights-of-way. Alternative transportation corridors enhance and provide a range of mobility options for residents and visitors. The City encourages developments to consider pedestrian safety and accommodate safe routes that are clearly marked and striped. They should be designed as one-way routes to flow in the same direction as the adjacent automobile traffic. Combination sidewalk/bikeway/golf cart paths require a minimum eight-foot width.

The *Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way* require that when new pedestrian facilities are planned in the United States, they must be accessible and usable by persons with disabilities (including physical, visual, hearing or cognitive impairments).[4] This includes provisions

4 United States Access Board, Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way; Shared Use Paths, 2013. (36 CFR Part 1190)

for curb ramps and sidewalks where appropriate. These guidelines consider pedestrian facilities to include sidewalks, shared-use paths, shared streets, and off-road paths.

In accommodating pedestrians with disabilities, auditory, tactile, and kinesthetic information may be required to aid pedestrian movements at intersections and mid-block crossing locations. Treatments may include accessible pedestrian signals, audible signals, and other wayfinding cues. Ramps rather than stairs, curbs, or raised channelizing islands can enhance the mobility of people with disabilities including pedestrians with visual impairments.

No significant impacts would occur as the Project would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety such facilities.

5. Cumulative Impacts

The year 2022 and 2035 traffic analysis discussed above includes traffic from individual related projects and projected traffic increases from projected growth in background traffic.

The 2022 analysis considers traffic that will be generated by two approved projects in the City. The Pelagic Residential project includes 122 single-family detached dwelling units and is located on the west side of Rattler Road, north of Ramon Road. The Rancho Mirage Rehabilitation Hospital is located on the southeast corner of the intersection Da Vall Drive and Ramon Road, and includes an access on both Ramon Road and Da Vall Drive.

The trips that would be generated by these two approved projects was estimated and assigned to the surrounding street system and added to the future year 2022 non-site traffic volumes.

RIVTAM was used to forecast traffic volumes for the future horizon year 2035. Riverside County, the Riverside County Transportation Commission (RCTC), and the members of the Coachella Valley Association of Governments (CVAG) have approved RIVTAM as the regional traffic model for Riverside County, including the Coachella Valley. Future traffic projections from RIVTAM represent the best available projections for the study area through year 2035.

The traffic analysis zones in RIVTAM reflect SCAG modeling by Census Tract. Base year and future land use forecasts provided by individual jurisdictions and Riverside County are used in developing the socio-economic input data required by RIVTAM. The 2035 SCAG population and employment growth projections were allocated by area, based on the existing and proposed future land use forecasts identified by each city. Riverside County planners provided estimates for Tribal lands and

unincorporated areas. RIVTAM reflects the transportation network shown in the approved general plans of the jurisdictions within the Coachella Valley.

Other major approved projects anticipated to develop in the vicinity of the Project Site include the Section 19 Specific Plans in the City to the east of the Project Site and the North City Specific Plan and North City Extended Specific Plans located north of I-10 in Cathedral City.

The Section 19 Specific Plan, adopted by the City in 2010, addresses the area located north of Dinah Shore Drive, between Bob Hope Drive and Key Largo Avenue. This adopted specific plan allows development of residential uses and non-residential (commercial/retail, office, resort, and mixed-use) development along with public facilities. The mixed-use development would include a town center, community retail shops and boutiques, high-end thematic restaurants, medium-density and high-density residential neighborhoods, resort and business hotels, retail space for the sale of furniture and furnishings, designer outlets, and resort recreational uses. No development activity has been initiated to date within this specific plan area.

The North City Specific Plan was approved by Cathedral City in 2009. The North City Specific Plan addresses the future development of 4,664 acres located north of I-10, between the future northerly extension of Da Vall Drive and Palm Drive. The North City Specific Plan mixed-use development was projected to require 50 years to complete. This specific plan designates approximately 235 acres BP (Business Park) and 518 acres are designated MU-U (Mixed Use-Urban). A total of 402 acres are designated MU-N (Mixed Use-Neighborhood) and a light industrial designation applies to 267 acres. Finally, an OS-R (Open Space-Residential) designation applies to 832 acres and overall, 2,900 acres would remain in OS (Open Space-Conservation). No development activity has been initiated to date within this specific plan area.

The North City Extended Specific Plan was approved in 2013 by Cathedral City to address the long range planning for approximately 592 acres annexed to the City located north of I-10 north and south of Varner Road on both sides of Bob Hope Drive. This specific plan designates approximately 65 acres Mixed-Use Urban (MU-U), 116 acres Mixed-Use Neighborhood (MU-N), 74 acres Industrial (I-1), and 240 Open Space (OS). No development activity has been initiated to date within this specific plan area.

In addition to these approved projects, the City annexed 193 acres in Section 13, located north of Ramon Road and west of Bob Hope Drive. The City adopted a Regional Commercial Land Use designation for this area at the time of annexation. Preparation and adoption of a specific plan is required before development occurs in this area.

C. MITIGATION MEASURES

MM 5.14-1 Prior to obtaining a grading permit, the individual project proponent shall prepare and submit to the Agua Caliente Band of Cahuilla Indians, City of Rancho Mirage and/or Riverside County for review and approval detailed construction traffic management plans, including street closure information, detour plans, haul routes, and staging plans as necessary for any off-site work that would encroach on public right-of-way. The construction traffic management plans shall include the following elements, as appropriate:

- Provisions for temporary traffic control during all construction activities adjacent to public right-of-way to improve traffic flow on public roadways (e.g., flag person);
- Construction-related vehicles shall not park on surrounding public streets;
- Provision of safety precautions for pedestrians and bicyclists through such measures as alternate routing and protection barriers;
- Schedule construction-related deliveries to reduce travel during peak travel periods;
- Obtain the required permits for truck haul routes from the Tribe, City of Rancho Mirage and/or Riverside County prior to the issuance of any permit for the project;
- Obtain a Caltrans transportation permit for use of oversized transport vehicles on Caltrans facilities;
- Outline adequate measures to ensure emergency vehicle access during all aspects of the project's construction, including, but not limited to, the use of flagmen during partial closures to streets surrounding the Project Site to facilitate the traffic flow until construction is complete; and
- Include the implementation of security measures during construction in areas that are accessible to the general public to help reduce any increased demand on law enforcement services, including fencing construction areas, providing security lighting, and providing security personnel to patrol construction sites.

MM 5.14-2 Appropriate right-of-way shall be provided by individual development projects to accommodate the ultimate improvement of the abutting public roadways, and these roadways sections shall be fully improved in conjunction with the adjacent development project.

MM 5.14-3 To ensure compliance with applicable roadway and access design standards when individual development projects are processed, their final layout and site access design shall be subject to review and approval by the Tribe and, as appropriate, the City of Rancho Mirage and/or Riverside County. The need for street widening to accommodate entry drives, the internal circulation design, and other features shall be accommodated on a project by project basis. A traffic signing and striping plan may also be required for review and approval in conjunction with detailed construction plans for any individual development project within the Project Site.

MM 5.14-4 All individual development projects shall comply with applicable requirements in the Section 24 Specific Plan and construct the future combination sidewalk / bikeway / golf cart paths along Ramon Road, Bob Hope Drive, Dinah Shore Drive and Los Alamos Road.

MM 5.14-5 The developers of individual development projects within the Project Site shall make a fair-share contribution to the cost for planned future roadway improvements by paying an in-lieu fee equal in amount to what the CVAG Traffic Uniform Mitigation Fee (TUMF) would be for that project at the time building permits are issued.

MM 5.14-6 Individual proponents shall pay applicable fees to the appropriate jurisdictions to ensure that a fair-share contribution is made for improvements to the intersection of Da Vall Drive and Ramon Road, such as the TUMF program.

D. LEVEL OF SIGNIFICANCE AFTER MITIGATION

Compliance with existing regulations and implementation of the mitigation measures identified above would reduce potential transportation and traffic impacts to a less-than-significant level.

5.15 UTILITIES AND SERVICE SYSTEMS

This Section addresses the potential impacts of the Project on water service, sewer service, solid waste, and dry utilities. The information provided in this Section is based on correspondence and consultation with the Coachella Valley Water District, information from the Riverside County Waste Management Department, Southern California Edison, and the Southern California Gas Company. Each subsection includes an introduction, followed by discussions of existing conditions, regulatory framework, methodology, Project Design Features, environmental impacts, cumulative impacts, and Mitigation Measures.

5.15.1 WATER SERVICE

This Section of the Draft EIS evaluates the potential for the Project to result in water service impacts within the Coachella Valley, the Agua Caliente Indian Reservation ("Reservation"), the City of Rancho Mirage ("City"), and surrounding communities. More specifically, this Section evaluates impacts associated with the Project that may potentially affect the regional and local water supply and water service systems. Various federal, State, regional, Tribal, and local programs and regulations related to anticipated water supply and demand impacts are also discussed in this Section. Information from the following study of the Project Site is incorporated into this Section:

- *Section 24 Specific Plan Water Supply Assessment and Water Supply Verification, November 2014*

A complete copy of the Water Supply Assessment and Water Supply Verification is included in the Technical Appendices to this Draft EIS (**Appendix H**). Please see **Section 9.0** for a glossary of terms, definitions, and acronyms used in this Draft EIS.

A. ENVIRONMENTAL SETTING

1. Existing Conditions

Public Water Supply

The Coachella Valley Water District (CVWD) is the Public Water System (PWS) for the area in which the Project is located. CVWD provides services for domestic water, irrigation water, sanitation sewer collection, wastewater reclamation and recycling, imported water, stormwater protection, and agricultural drainage. Some of the services provided by CVWD include the following:

- Colorado River irrigation distribution system. Agriculture is the primary user of Colorado River water reaching the Coachella Valley (totaling 98.5 percent or approximately 300,000 acre-feet per year [afy]).

- CVWD provides domestic water for approximately 305,000 Coachella Valley residents. The distribution system includes 60 reservoirs, 1,993 miles of pipelines, and 96 active wells.

- Sanitation service became a CVWD responsibility in 1968, when it acquired the Palm Desert Country Club Water Reclamation Plant and domestic water system. Presently, there are six water reclamation plants (WRP) providing wastewater treatment as well as recycled water supply in the CVWD service area.

- CVWD has been recharging the groundwater basin in the Upper Valley since 1919, first with local water and later with imported water.

Development throughout the Coachella Valley has been dependent on groundwater as a source of supply. The demand for groundwater has annually exceeded the limited natural recharge of the groundwater basin. Therefore, imported water is used to recharge the aquifer and reduce groundwater overdraft.

Historical Context

The need to enhance the public water supply in the Coachella Valley has been recognized for many years. The formation of CVWD in 1918 was a direct result of the concern of local residents about a plan to export water from the Whitewater River to Imperial County. Early on, valley residents also recognized that action was needed to stem the decline of the water table, which was occurring as a result of local pumping in the east valley. As a result, CVWD entered into an agreement for the construction of the Coachella Branch of the All-American Canal in order to bring Colorado River water to the Coachella Valley. Since 1949, the approximate 120-mile Coachella Branch of the All-American Canal has been providing water for irrigation use in the area that generally encompasses Indio and La Quinta southerly to the Salton Sea. Colorado River water is delivered by an underground irrigation distribution system from the canal to farms and a growing number of golf courses in the Coachella Valley. In recent years, CVWD has begun a program of recharging the aquifer in the eastern Coachella valley with this source.

The need for additional water supplies was recognized due to the onset of development in the western Coachella Valley. As a result, in 1963 CVWD and the Desert Water Agency (DWA), which serves the Palm Springs area and a portion of Cathedral City, entered into separate contracts with the State of California in order to ensure that State Water Project (SWP) water would be available. Because a direct pipeline from the SWP system to the Coachella Valley does not exist, CVWD and DWA entered into an exchange agreement with MWD to receive water from the MWD Colorado River Aqueduct, which crosses the upper portion of the Coachella Valley near Whitewater. In exchange, CVWD and DWA send their SWP water allocations to MWD. Since 1973, CVWD and DWA have been receiving Colorado River water from MWD's Colorado River Aqueduct turnout located at Whitewater Canyon to replenish groundwater in the Coachella Valley.

In addition, CVWD has recognized the need to provide other sources of water to replenish the Coachella Valley groundwater basin. CVWD has been recycling reclaimed wastewater since 1967 and operates six WRPs, three of which currently provide recycled water for reuse. Recycled water is currently used for golf course and greenbelt irrigation in the cities of Palm Desert, Indian Wells, Indio, and portions of

unincorporated Riverside County, thereby reducing demand on groundwater in the Coachella Valley basin.

Tribal Water History

The Reservation was established in 1876, and expanded in 1877. Documented reports by Federal Indian Agents in the Coachella Valley in the mid-1890s confirmed substantial ongoing Cahuilla agricultural activities, as well as the presence of an elaborate system of irrigation ditches and dams developing the water from the Whitewater River system, including a more than one mile long irrigation conveyance ditch from Tahquitz Canyon which was constructed around 1830.

In 1910, the United States Indian Irrigation Service (IIS) initiated a systematic effort to provide the Agua Caliente Band of Cahuilla Indians "(Tribe") with water resource development in support of the Tribe's irrigation, including household and other water needs. In 1922, the Division of Water of the California Department of Public Works began the process of determining rights to the Whitewater River system, including tributaries of Andreas Creek and Tahquitz Creek.

In a recently filed lawsuit, the Tribe alleges that CVWD and DWA development of the groundwater resources has adversely affected the quantity and quality of the groundwater underlying the Reservation, and is currently in the process of asking the federal court to recognize, declare, and quantify the priority rights of the Tribe in the Coachella Valley. In regards to quantification, the Tribe does not specifically request a certain amount of groundwater, but rather requests that the court quantify "an amount necessary and sufficient to satisfy, foster, and promote the homeland purposes of the Tribe's Reservation."[1] Please note that the Tribe used water supply and demand documentation prepared by CVWD to comply with Tribal, local, State, and federal law, although it does not necessarily agree with the data and analysis contained in each of the respective documents.

Primary Water Sources

The primary source of water supply for the Coachella Valley is the Coachella Valley Groundwater Basin, which is recharged by other sources of water such as Colorado River water, reclaimed water, SWP supplies and potentially desalinated agricultural drain water. Colorado River water is also available for potential domestic use if treated. Colorado River water via the Coachella Canal supplies water for irrigation of the eastern valley. The Project is located in the western portion of the Coachella Valley, which does not currently have access to this water.

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1 Agua Caliente Band of Cahuilla Indians v. Coachella Valley Water District, Case 5:13-cv-00883-JGB-SP, United States District Court, Central Division of California—Eastern Division, *Complaint for Declaratory and Injunctive Relief,* 19.

Groundwater

Since the early part of the 20th century, the Coachella Valley has been dependent primarily on groundwater as a source of domestic water supply. Groundwater is also used to supply water for crop irrigation, fish farms, duck clubs, golf courses, greenhouses, and industrial uses in the Coachella Valley.

Water Code Section 10910(f) requires additional information when a groundwater basin is cited as the water supply source for a project, including a description of the basin, the rights of the PWS to use the basin, the overdraft status of the basin, any past or planned overdraft mitigation efforts, historical use of the basin by the PWS, projected use of the basin by the project, and a sufficiency analysis of the basin.

Description of the Aquifer

Groundwater is the principal source of municipal water supply in the Coachella Valley.[2] CVWD serves domestic water to most of the developed portions of the Coachella Valley and along both sides of the Salton Sea in Imperial Valley.

The Coachella Valley Groundwater Basin, as described by the California Department of Water Resources (DWR), is bounded on the north and east by non-water-bearing crystalline rocks of the San Bernardino and Little San Bernardino Mountains and on the west by the crystalline rocks of the Santa Rosa and San Jacinto Mountains.[3] At the west end of the San Gorgonio Pass, between Beaumont and Banning, the Coachella Valley Groundwater Basin boundary is defined by a surface drainage divide separating the Coachella Valley Groundwater Basin from the Beaumont Groundwater Basin of the Upper Santa Ana drainage area.

The Coachella Valley Groundwater Basin can be described as a giant tilted bathtub full of sand, with the high end at the northwest edge of the Coachella Valley near the community of Whitewater and the low end at the Salton Sea. The aquifer underlies the cities of Palm Springs, Cathedral City, Rancho Mirage, Palm Desert, Indian Wells, La Quinta, Indio, and Coachella, and the unincorporated communities of Thousand Palms, Thermal, Bermuda Dunes, Oasis, and Mecca. The Coachella Valley Groundwater Basin is sub divided into smaller subbasins based on different geologic characteristics. The subbasins, with their groundwater storage reservoirs, are defined without regard to water quality or quantity. They delineate areas underlain by formations that readily yield the stored water through water wells and offer natural reservoirs for the regulation of water supplies. Minor subareas have been delineated based

2 Coachella Valley Water District (CVWD), *2010 Urban Water Management Plan* (June 2011), p. 4-4.

3 CVWD, *2010 Urban Water Management Plan* (June 2011), P. 4-9; CVWD, *Coachella Valley WMP 2010 Update* (January 2012), P. 4-1.

on one of more of the following geologic of hydrologic characteristics: type of water bearing formations, water quality, areas of confined groundwater, forebay areas, groundwater divides and surface drainage divides.

CVWD obtains water from both the upper and lower Whitewater River Subbasins and the Mission Creek Subbasin. A common groundwater source, the Whitewater River Subbasin, is shared by CVWD, DWA, the cities of Indio and Coachella, Mission Springs Water District, Myoma Dunes Water Company, and numerous private groundwater users.

The Whitewater Subbasin includes four subareas: Palm Springs, Thermal, Thousand Palms, and Oasis.[4] The Palm Springs Subarea is the forebay or main area of recharge to the subbasin, and the Thermal Subarea comprises the pressure or confined area within the basin. The Thousand Palms and Oasis subareas are peripheral areas having unconfined groundwater conditions. From a management perspective, the Whitewater River Subbasin is commonly divided into a west and east portion, with the dividing line extending from Point Happy in La Quinta to the northeast, terminating at the San Andreas Fault and the Indio Hills at Jefferson Street. The west portion of the Whitewater River Subbasin is defined generally as that portion of the Thermal Subarea west of this line including the Palm Springs Subarea, and the Thousand Palms Subarea.

Groundwater Storage

As shown in **Table 5.15.1-1, Groundwater Storage Capacity of the Coachella Valley Groundwater Basin**, DWR estimated that the Coachella Valley Groundwater Basin contained a total of approximately 39.2 million acre-feet of water in the first 1,000 feet below the ground surface, much of which originated from runoff from adjacent mountains. However, the amount of water in the aquifer has decreased over the years due to pumpage to serve urban, rural, and agricultural development in the Coachella Valley, which has withdrawn water from the aquifer at a rate faster than its natural rate of recharge.

4 CVWD, *2010 Urban Water Management Plan* (June 2011), p. 4-9; CVWD, *Coachella Valley WMP 2010 Update* (January 2012), p. 4-3.

Table 5.15.1-1
Groundwater Storage Capacity of the Coachella Valley Groundwater Basin

Area	Storage (acre-feet)
San Gorgonio Pass Subbasin	2,700,000
Mission Creek Subbasin	2,600,000
Desert Hot Springs Subbasin	4,100,000
Garnet Hill Subbasin	1,000,000
Subtotal	**10,400,000**
Whitewater River Subbasin	
Palm Springs Subarea	4,600,000
Thousand Palms Subarea	1,800,000
Oasis Subarea	3,000,000
Thermal Subarea	19,400,000
Subtotal Whitewater River Subbasin	**28,800,000**
Total all Subbasins	**39,200,000**

Source: CVWD, Engineer's Report on Water Supply and Replenishment Assessment, West Whitewater River Subbasin Area of Benefit 2014-2015. *(April 2014). Table 1.*

Groundwater Levels

Although water levels have been declining throughout most of the Subbasins since 1945, water levels in the southeastern portion of the Coachella Valley had risen until the early 1980s because of the use of imported water from the Coachella Canal and the resulting decreased pumpage in that area.[5] The rate of groundwater level decline has increased since the early 1980s due to increasing urbanization and increased groundwater use by domestic water purveyors, local farmers, golf courses, and fish farms. Since 2010, groundwater levels in the eastern portion of the Coachella Valley have risen due to recharge of Colorado River water at the Thomas E. Levy Recharge Facility.

The historic declining water table in the Whitewater River Subbasin led to a determination by CVWD and DWA that a management program is required to stabilize water levels and prevent other adverse effects such as water quality degradation and land subsidence within the west portion of the Whitewater River Subbasin. CVWD's East and West Whitewater River Subbasin Groundwater Replenishment Programs are reducing declining water levels in this subbasin. Groundwater recharge in the West Whitewater River

5 CVWD, *Engineer's Report on Water Supply and Replenishment Assessment, West Whitewater River Subbasin Area of Benefit 2014–2015* (Coachella, CA: CVWD, April 2014), 14.

Subbasin began in 1973, and the benefits of recharge can be seen in recent groundwater-level measurements.

Water surface elevations in the western area of the Coachella Valley are highest at the northwest end of each subbasin, illustrating that regional groundwater flow is from the northwest to the southeast in the center of the Coachella Valley.

Groundwater Production

As illustrated in **Table 5.15.1-2, Estimated Groundwater Production within the West Whitewater River Subbasin**, total groundwater production within the West Whitewater River Subbasin CVWD Area of Benefit from all producers was estimated to 204,275 acre-feet in 2003. In 2013, total groundwater production within the West Whitewater River Subbasin from all producers was estimated to be 181,994 acre-feet.

Table 5.15.1-2
Estimated Groundwater Production within the West Whitewater River Subbasin

Year	Acre-Feet
2003	204,275
2004	212,700
2005	204,341
2006	213,850
2007	211,014
2008	210,693
2009	199,149
2010	182,823
2011	182,823
2012	183,108
2013	181,994

Source: CVWD, Engineer's Report on Water Supply and Replenishment Assessment, West Whitewater River Subbasin Area of Benefit 2014-2015. (April 2014). Table 2.

Groundwater Inflows and Outflows

Total inflows and outflows to the West Whitewater River Subbasin Area of Benefit for the year 2013 are summarized in **Table 5.15.1-3**, **Annual Water Balance in the West Whitewater River Subbasin.** The natural inflow of 36,000 acre-feet includes natural recharge and flow across Subbasin boundaries. The non-consumptive return of applied water is estimated at 63,698 acre-feet, which is 35 percent of the reported production of 181,994 acre-feet. The total inflow includes the natural inflow, the non-

consumptive return, and the 26,620 acre-feet of actual water replenished. Total outflow is the reported groundwater production estimate plus the 7,000 acre-feet of natural outflow. The annual balance is the total inflow less the total outflow for a loss of approximately 62,700 acre-feet of water in storage from the Subbasin.

During the last 10-year period, urban per capita water use has decreased as a result of ongoing conservation programs. In addition, imported water supplies have increased. As a result, the 2014 CVWMP Status Report showed that overdraft has not occurred between 2003 and 2013; and with continued implementation of 2010 CVWMP Update Programs, overdraft will be eliminated by 2021.

Table 5.15.1-3
Annual Water Balance in the West Whitewater River Subbasin

Item	Annual Calculation (acre-feet)
2013 Groundwater Production	-181,994
Non-consumptive return	63,698
Natural Inflow	36,000
Natural Outflow	-7,000
Groundwater replenishment	26,620
Annual balance	**-62,676**

Source: CVWD, Engineer's Report on Water Supply and Replenishment Assessment, West Whitewater River Subbasin Area of Benefit 2014-2015. *(April 2014). Table 3.*

Surface runoff and subsurface inflow are significant sources of recharge to the Whitewater River Subbasin. In addition, the Whitewater River spreading grounds northwest of Palm Springs receives Colorado River Aqueduct water and has a maximum capacity of 300,000 afy.[6] Average historical natural recharge is approximately 49,000 afy. The Whitewater River spreading grounds recharged 61,200 afy in 1999. Average historical natural recharge is approximately 49,000 afy. Colorado River water is conveyed into the subbasin via the Coachella Canal, which also supplies recharge project facilities located in the southwestern part of the subbasin.[7] DWR has calculated the storage capacity of the subbasin to be 28.8 million acre-feet.

Status of the Aquifer

6 Department of Water Resources, *California's Groundwater,* Bulletin 118, Coachella Valley Groundwater Basin, Indio Subbasin (February 27, 2004).

7 CVWD, *Coachella Valley Water Management Plan 2010 Update* (January 2012).

Groundwater overdraft is manifested not only as a prolonged decline in groundwater storage but also through secondary adverse effects including decreased well yields, increased energy costs, water quality degradation, and land subsidence. The Coachella Valley Water Management Plan (CVWMP) 2010 Update defined overdraft as the calculated change in storage based on long-term hydrology and imported water deliveries.[8]

Based on the water balance information presented in **Table 5.15.1-3**, in 2013 the annual water balance for the West Whitewater River Subbasin was negative, providing an increase in the cumulative overdraft.[9] The average rise in water levels observed in monitored wells in the West Whitewater River Subbasin Area of Benefit, from 2012 to 2013, was 1.1 feet.[10] Imported water may offset groundwater overdraft in a particular year. However, on a long-term basis, water requirements are likely to continue to place demands on groundwater storage. It should be noted that overdrafting the groundwater basin allows poor water quality from irrigation return to replace fresh water storage. The previously described 2010 CVWMP Update outlines a plan to address long-term overdraft in the Coachella Valley.

CVWD recently prepared a 2014 CVWMP Status Report to evaluate the effectiveness of the 2010 CVWMP Update, including progress on eliminating overdraft; the report can be found in appendix D in **Appendix H** of the EIS. The 2014 CVWMP Status Report demonstrated that the 2010 CVWMP Update is working, and continued implementation of the programs in the 2010 CVWMP Update ensures that overdraft will be eliminated by 2021. During the last 10-year period, there has been no overdraft—mainly the results of increases in urban conservation and increases in imported water deliveries to the Coachella Valley. Water levels have increased in both the Palm Springs area and the East Valley. However, water levels are still declining in the mid-Valley areas near Rancho Mirage, Palm Desert, and Indian Wells. Groundwater levels in this area will continue to decline until full implementation of mid-Valley programs that reduce pumping. These mid-Valley programs include urban conservation to reduced urban demand 20 percent by 2020; source-substitution programs, including non-potable water system expansion to golf courses; Colorado River water treatment for municipal use; and additional recharge.

Overdraft Mitigation Efforts

CVWD has developed the 2010 CVWMP Update to comprehensively protect and augment the groundwater supply. The 2010 CVWMP Update Preferred Alternative reduces reliance on groundwater

8 CVWD, *Engineer's Report on Water Supply and Replenishment Assessment* (April 2014), 18.
9 CVWD, *Engineer's Report on Water Supply and Replenishment Assessment* (April 2014), 18.
10 CVWD, *Engineer's Report on Water Supply and Replenishment Assessment* (April 2014), 14.

sources by utilizing more Colorado River water, SWP water, and recycled water. The 2010 CVWMP Update also recommends that source substitution and conservation measures be implemented to reduce demands on the aquifer.

As previously mentioned, the 2010 CVWMP Update reaffirms a dedication to the goal of maintaining a reduced level of water consumption through 2036, and emphasizes cooperation with municipalities, local water agencies, and tribes in regional planning and implementation. As part of the 2009 comprehensive water package, the California Legislature adopted SBx7-7 (Steinberg), which mandates that California urban water agencies to achieve a 20 percent reduction in per capita water demand by 2020. This legislation will require Coachella Valley urban water users to increase conservation over and above the goal established in the 2002 Water Management Plan (WMP). CVWD domestic customers have reduced overall water use by more than 20 percent in the last eight years, despite increased growth, and CVWD officials do not anticipate the need to impose water restrictions or rationing.[11]

CVWD Landscape Ordinance

CVWD Landscape Ordinance 1302.1 requires a series of reduction methods, including requirements that new developments install weather-based irrigation controllers that automatically adjust water allocation. Additional requirements include setbacks of spray emitters from impervious surfaces, as well as use of porous rock and gravel buffers between grass and curbs to eliminate runoff onto streets. With the exception of turf, all landscaping, including groundcover and shrubbery, must be irrigated with a drip system. Also, the maximum water allowance[12] for landscaped areas throughout the CVWD service area has been reduced. This new reduction goal requires that developers maximize the use of native and other drought-tolerant landscape materials, and to minimize use of more water-intensive landscape features, including turf and fountains.

Source Substitution

Source substitution is the delivery of an alternate source of water to users currently pumping groundwater. The substitution of an alternate water source reduces groundwater extraction and allows the groundwater to remain in storage, thus reducing overdraft. Alternative sources of water include municipal recycled water from WRP-7, WRP-9, WRP-10, and the City of Palm Springs Wastewater

11 CVWD, "In Response to Statewide Drought, CVWD Reminds Residents to Reduce Water Use," http://www.cvwd.org/news/news214.php

12 For design purposes, the upper limit of annual applied water for the established landscape area as identified in Division 2, Title 23, California Code of Regulations, Chapter 7, Section 702. It is based on an area's calculated evapotranspiration rate. The estimated applied water for landscaping shall not exceed the maximum applied water allowance.

Treatment Plant; Colorado River water, desalinated agricultural drain water, grey water, and reuse of water used in aquaculture.

Source substitution projects under the 2010 CVWMP Update Preferred Alternative include the following:[13]

- Canal water to agricultural groundwater users within Improvement District 1 (ID-1),
- Desalted agricultural drain water for agricultural irrigation outside ID-1,
- Canal water for golf course irrigation within ID-1,
- Additional recycled water to West Valley golf courses,
- Direct delivery of SWP exchange water for West Valley golf course irrigation.

Examples of effective alternative source substitution efforts include the following:[14]

- CVWD has a recycled water system that delivers treated recycled water from six WRPs, three of which generate recycled water for irrigation of golf courses and large landscaped areas. Based on the most recent data from CVWD and DWA, recycled water usage in the Western Coachella Valley is approximately 11,700 afy.
- CVWD has completed construction of a 54-inch diameter pipeline to deliver Colorado River water to the Mid-Valley area for use with CVWD's recycled water for golf course and open space irrigation. A total of 45 golf courses within CVWD's service area now use either recycled or canal water, or a combination of both. This reduces pumping from the groundwater basin for these uses.
- CVWD has secured rights to the Colorado River and participated in the construction of the All-American Canal and the Coachella Canal. Beginning in the late 1940s, CVWD worked with the U.S. Bureau of Reclamation (USBR) and constructed a distribution system to deliver Colorado River water to the farms in the Lower Coachella Valley. This system delivered 245,894 acre-feet of Colorado River water in 2006 and increased deliveries to approximately 331,000 acre-feet in 2013.
- CVWD recharges Coachella Valley groundwater basin with Colorado River water at three locations. The largest recharge program is operated at the Whitewater River Recharge Facility. The Thomas E. Levy Groundwater Replenishment Facility recharges up to 40,000 afy in the East Valley.

13 CVWD, *Coachella Valley Water Management Plan 2010 Update* (January, 2012).
14 CVWD, *Coachella Valley Water Management Plan 2010 Update* (January, 2012).

- CVWD has secured rights to SWP water and negotiated exchange and advanced delivery agreements with the MWD to exchange CVWD's SWP water for MWD's Colorado River water source. The SWP exchange water is used to recharge the aquifer in the West portion of the Valley. This recharge program was started in 1972 and has replenished the aquifer with almost 3 million acre-feet of water.

- The 2010 CVWMP Update considers desalination of Canal water for municipal water supply (approximately 90,000 afy) and drain water from the Coachella Valley Storm Channel (up to 85,000 afy) for urban and agricultural use in the Valley as water supply options. Desalination of additional Colorado River water used for groundwater recharge (up to 100,000 afy in the West Valley) has been suggested by some stakeholders.

- CVWD has worked with an aquaculture farm and developed water efficiency programs that include water treatment and reuse.

Conservation Programs

CVWD is working with the cities in its service area to limit the amount of water that can be used for outdoor landscaping, and maintains an ongoing turf rebate program to encourage homeowners to replace turf areas with desert-friendly landscaping. As a result of the adoption of Statewide indoor water conservation measures requiring low-flush toilets, shower and faucet flow restrictors, and other devices, the amount of water used inside homes has been significantly reduced. In addition, in 2010 CVWD adopted water budget–based tiered rates to discourage excessive water use and implemented a "20 by 2020" urban water use reduction target. CVWD is also working with the golf course industry to reduce its water use. In 2014, CVWD began a partnership with the Southern California Golf Association and formed the Golf and Water Task Force to reduce overall golf course water use by 10 percent. Key activities being implemented are the establishment of water budgets to limit golf course groundwater pumping and a regionwide golf course turf reduction program. Given the large number of new communities being constructed, these conservation programs have reduced impacts of new development on the aquifer.

Aquifer Adjudication

The groundwater basin has not been adjudicated. CVWD shares a common groundwater source with other public water systems, including DWA, the Mission Springs Water District, the City of Coachella, the City of Indio, and the Myoma Dunes Mutual Water Company. Other groundwater users include the Tribe, some individual residents, farmers, golf courses, businesses, and commercial facilities. DWA and CVWD both operate groundwater replenishment programs whereby groundwater pumpers (other than

minimal pumpers) pay a per acre-foot charge that is used to pay the cost of importing and recharging the aquifer.

Groundwater Sufficiency

The 2010 Urban Water Management Plan (UWMP) projects that urban water demand by all users in the CVWD service area, except agriculture, will increase to 596,000 afy by 2015, and 689,400 afy by 2035.[15] The total water demand from all users identified in the 2010 CVWMP Update, including agriculture, was reported to be 668,000 afy in 1999, is projected to increase to 719,100 afy by 2020, and may reach 885,400 afy by 2045.[16] The 2010 CVWMP Update assumes continued growth in demand and sets forth how that growth will be served.

As shown in the 2014 Status Report, long-term supply programs may be reduced by a combined value of 70,000 afy in 2045 as a result of the approximately 14 percent reduction in demand. Programs that may be deferred or slowed based on this reduction include desalination of agricultural drain water, purchase of additional imported allocations, and conversion of non-potable water supplies to urban uses, except as necessary for full utilization of Colorado River water supplies.

A reduction in growth projections does not reduce the rate at which development of Colorado River water supplies occurs. These supplies, available through the Quantification Settlement Agreement (QSA), will continue to increase at an average rate of 5,500 afy through 2026. Therefore, the need for source substitution and recharge programs to utilize this supply is not affected by changes in population projections. Also, a reduction in growth projections does not reduce the need to implement conservation programs for existing and future customers.

Additional Water Sources

Groundwater provides the main water supply of water for users within the Coachella Valley. Additional water sources are considered as a supplement to groundwater in that they are used to recharge the aquifer, serve as a source substitution for groundwater, or are used for irrigation in other locations of the subbasin.

Colorado River Water

The Coachella Canal is a branch of the All-American Canal, which brings Colorado River water into the Imperial and Coachella valleys. The service area for Colorado River water delivery under CVWD contract

15 CVWD, 2010 Urban Water Management Plan (July, 2011).

16 CVWD, Coachella Valley Water Management Plan 2010 Update (January, 2012).

with the US Bureau of Reclamation (USBR) is defined as Improvement District No. 1 (ID-1). Under the 1931 California Seven Party Agreement,[17] CVWD has water rights to Colorado River water as part of the first 3.85 million acre-feet allocated to California. CVWD is in the third priority position along with the Imperial Irrigation District (IID). This priority is ahead of the 550,000 acre-feet allocation to MWD, which has the lowest priority of the California Seven parties.

However, California's Colorado River supply is protected by the 1968 Colorado River Basin Project Act, which provides that certain Colorado River supplies to Arizona and Nevada after 1968 shall be reduced to zero before California will be reduced below 4.4 million acre-feet in any year. It is estimated that this reduction is about 1.5 million acre-feet. This reduction together with the reduction by California agencies with lower priorities than CVWD results in reduction in excess of 2 million acre-feet in Colorado River water available to the Lower Basin States before the Colorado River supply available to CVWD are impacted. This assumes that the California agricultural agencies with rights to Colorado River water are using less than 3.85 million acre-feet.

Historically, CVWD has received approximately 330,000 afy of Priority 3a Colorado River water. **Table 5.15.1-4, Annual CVWD Colorado River Diversions at Imperial Dam—1964 to 2013 (after measured Returns)** contains the diversions of Colorado River water at Imperial Dam to CVWD for the period 1964–2014. The 2003 QSA among some of the California Colorado River contractors resulted in a firm contractual obligation for the supply to CVWD.

Table 5.15.1-4
Annual CVWD Colorado River Diversions at Imperial Dam—1964 to 2013
(after measured Returns)

Year	Diversion Volume (acre-feet)	Year	Diversion Volume (acre-feet)
1964	526,417	1989	359,419
1965	524,686	1990	322,625
1966	489,429	1991	331,821
1967	465,053	1992	359,419
1698	449,263	1993	369,685
1969	470,683	1994	317,563
1970	511,476	1995	309,367
1971	522,356	1996	318,990
1972	558,864	1997	326,102
1973	522,356	1998	326,697

17 Seven principal claimants include the Palo Verde Irrigation District, Yuma Project, Imperial Irrigation District, Coachella Valley Irrigation District, MWD, and the City and County of San Diego.

Year	Diversion Volume (acre-feet)	Year	Diversion Volume (acre-feet)
1974	558,864	1999	333,810
1975	570,987	2000	342,871
1976	524,800	2001	329,367
1977	508,635	2002	331,107
1978	509,491	2003	296,808
1979	530,733	2004	318,616
1980	531,791	2005	304,768
1981	452,260	2006	329,322
1982	424,868	2007	311,971
1983	362,266	2008	299,064
1984	355,789	2009	308,560
1985	337,002	2010	306,141
1986	339,702	2011	309,348
1987	322,625	2012	329,576
1988	331,821	2013	331,137

Source: Records of releases of water through regulatory structures in accordance with Article V(A) of the Decree of the Supreme Court of the United States in Arizona v. California dated March 9, 1964.

The QSA was entered into and between CVWD, IID, MWD, and the San Diego County Water Authority (SDCWA). The QSA quantifies distribution allotments of Colorado River water in California, including CVWD's Colorado River water rights, for the next 75 years. The agreements further provide for additional transfer of Colorado River water to CVWD from the IID and MWD. Under the QSA, the total Colorado River water ultimately available to CVWD is 444,000 afy, as shown in **Table 5.15.1-5, Colorado River Deliveries to CVWD under the Quantification Settlement Agreement (QSA).**

Table 5.15.1-5
Colorado River Deliveries to CVWD under the Quantification Settlement Agreement (QSA)

Component	2010 Amount (afy)	2045 Amount (afy)
Base Allocation	330,000	330,000
1998 MWD/IID Approval Agreement	20,000	20,000
Coachella Canal Lining (to SDCWA)	-26,000	-26,000
To Miscellaneous/Indian PPRs	-3,000	-3,000
IID/CVWD First Transfer	12,000	50,000
IID/CVWD Second Transfer	0	53,000
MWD WWP Transfer	35,000	35,000
Total Less Diversion	368,000	459,000

Component	2010 Amount (afy)	2045 Amount (afy)
Less Conveyance Losses	-31,000	-31,000
Total Deliveries to CVWD	**337,000**	**428,000**

Source: CVWD, Coachella Valley Water Management Plan 2010 Update (January 2012). Table ES-1.

Water from the Coachella Canal provides a significant supply source for the Eastern Coachella Valley area. In 1999, the Coachella Canal supplied over 60 percent of the water used in Eastern Coachella Valley area, but provided less than 1 percent of the water supply to the Western Coachella Valley area. Most of the canal water was used for crop irrigation. In 1995, CVWD began operating the Dike No. 4 pilot recharge facility in the La Quinta area and has successfully demonstrated the efficacy of this site to recharge the aquifer. This facility, the Thomas E. Levy Groundwater Replenishment Facility, was expanded in 1998 and was put into operation in 2009. Recharge operations at the Thomas E. Levy Facility have caused groundwater levels to recover since mid-2009.[18] Testing of the groundwater recharge facilities at Martinez Canyon has also yielded positive results.

Future development and associated increases in water demand, as well as quality concerns, are expected to increase use of Colorado River water for domestic purposes. Determining the best way to treat this water in order to substitute for and decrease the area's dependency on groundwater is an important objective of the CVWD WMP. Long-term water management plans for the Coachella Valley call for the treatment and distribution of as much as 32,000 acre-feet of Colorado River water for domestic use annually.[19]

Recent studies suggesting substantial changes in runoff may occur over the next century in the Colorado River Basin are of great concern to the region's water managers. The range of estimated impacts on Colorado River discharge has been from slight increases to a 45 percent decrease by midcentury. While this range of projections and associated hypotheses maybe of intellectual interest and stimulate scientific debate, to users and decision makers at the federal level, in the seven basin states, and, internationally, providing conflicting information on future conditions is a serious impediment to drought and climate change planning.

Extended droughts in the southwestern United States are believed to have occurred a number of times in the past 1,200 years. A study published in 2007 reconstructed Upper Colorado River flows at Lee Ferry

18 USGS, Land Subsidence, Groundwater Levels, and Geology in the Coachella Valley, California, 1993-2010 (2014).

19 CVWD, CVWD Press Release, Program Will Test Methods to Treat Imported Water for Domestic Use, (October 16, 2007).

(below Lake Powell) using tree-ring data for the period A.D. 762 to 2005. This study indicated that the Colorado River basin may have experienced two droughts extending for 60 to 80 years during the Medieval period, including a drought in the mid-1100s where the average flow over a 25-year period decreased by 15 percent. One of these droughts is believed to have caused the decline of the Anasazi culture in the Southwest. Several droughts having durations of 20 to 30 years are also inferred from the tree-ring data. Although basinwide inflows have exceeded water use over the past 100 years, the reconstructed hydrology suggests that the average flow at Lee Ferry might be 14.55 million afy, which is significantly lower than the 16.5 million afy allocated to Colorado River users.

CVWD will continue to monitor the supply conditions on the Colorado River, make adjustments to its operations as appropriate, and actively participate in efforts to augment the water supplies of Colorado River. Looking 20 years into the future and assuming a linear relationship, these studies would have a decrease in runoff in 2030 of between -10 to -35 percent. Reductions on these magnitudes would not impact CVWD's rights to Colorado River water.

The source of water supply for the Project is the Whitewater River groundwater basin, which is recharged by other sources of water including the Colorado River water.

State Water Project Water

Purchases and Deliveries

CVWD and DWA are SWP contractors for the Whitewater River basin aquifer. The SWP includes 660 miles of aqueduct and conveyance facilities extending from Lake Oroville in the north to Lake Perris in the south. The SWP has contracts to deliver 4.1 million afy to 29 contracting agencies. CVWD's original SWP water right (Table A Amount) was 23,100 afy, and DWA's original SWP Table A Amount was 38,100 afy—for a combined Table A Amount of 61,200 afy. In 2004, CVWD purchased an additional 9,900 afy of SWP water from the Tulare Lake Basin Water Storage District, which brought CVWD's SWP allotment to 33,000 afy.

In addition, CVWD and DWA have also negotiated an exchange agreement with MWD for 100,000 afy of SWP Table A Amount. MWD has permanently transferred 88,100 afy and 11,900 afy of its SWP Table A Amounts to CVWD and DWA, respectively. This exchange agreement increases the total SWP Table A Amount for CVWD and DWA to 178,100 afy, with CVWD's portion equal to 126,350 afy. This agreement provides that CVWD and DWA generally receive this water from the SWP during wet years, which allows the two agencies to recharge the groundwater basin and operate a conjunctive use program, storing water in wet years and pumping the groundwater basin in dry years.

In the past, allocated SWP charges have been apportioned to CVWD and DWA based on production from the Whitewater River Subbasin Management Area. Since 2003/2004, allocated SWP charges have been apportioned to CVWD and DWA based on production from the combined Whitewater River Subbasin and Mission Creek Subbasin Management Areas. In 2013, DWA was responsible for approximately 25 percent of the combined water production within the Whitewater River and Mission Creek Subbasins.[20]

Therefore, the total SWP Table A Amount for CVWD and DWA is 194,100 afy, with CVWD's portion equal to 138,350 afy. **Table 5.15.1-6, SWP Water Sources (afy)**, summarizes CVWD and DWA total allocations of Table A SWP water to be delivered when available.

Table 5.15.1-6
SWP Water Sources (afy)

	Original SWP Table A	Tulare Lake Basin 2004 Transfer	Metropolitan 2003 Transfer	Tulare Lake Basin 2007 Transfer	Berrenda Mesa 2007 Transfer	Total
CVWD	23,100	9,900	88,100	5,250	12,000	138,350
DWA	38,100	--	11,900	1,750	4,000	55,750
Total	61,200	9,900	100,000	7,000	160,000	194,100

Source: CVWD, Coachella Valley Water Management Plan 2010 Update *(January 2012). Table 4-4.*

SWP contractors make annual requests to DWR for water allocations and DWR makes an initial SWP Table A allocation for planning purposes, typically in the last month before the next water delivery year. Throughout the year, as additional information regarding water availability becomes available to DWR, its allocation/delivery estimates are updated. **Table 5.15.1-7, Department of Water Resources Table A Water Allocations,** outlines the historic reliability of SWP deliveries, including their initial and final allocations for the past 12 years (2003 through 2014). The 2014 initial allocation of SWP water for CVWD is 6,918 acre-feet and DWA is 2,778 acre-feet, for a combined total of 9,696 acre-feet or 5 percent of the requested total.[21] CVWD and DWA are allowed to schedule up to 20 percent of their allocated Table A to be delivered starting in June 2014.[22]

20 DWA, Engineer's Report: Groundwater Replenishment and Assessment Program for the Whitewater River Subbasin 2014/2015, (April, 2014).

21 Department of Water Resources, State Water Project, Notice to State Water Project Contractors 14-08, November 19, 2013.

22 DWR 2014 State Water Project Allocation Scheduling Revision, May 30, 2014.

Table 5.15.1-7
Department of Water Resources Table A Water Allocations

Year	Initial Allocation	Final Allocation
2003	20%	90%
2004	35%	65%
2005	40%	90%
2006	55%	100%
2007	60%	60%
2008	25%	35%
2009	15%	40%
2010	5%	50%
2011	25%	80%
2012	60%	65%
2013	30%	35%
2014	5%	-5%
Average	31%	61%

Source: California Department of Water Resources, "Notice to State Water Project Contractors." (2014).

As noted previously, CVWD and DWA do not directly receive SWP water. Rather, CVWD and DWA have entered into an exchange agreement with MWD that allows MWD to take delivery of CVWD and DWA SWP Table A water. In exchange, MWD provides an equal amount of Colorado River water that MWD transports through its Colorado River Aqueduct, which crosses the Coachella Valley near Whitewater. The advanced delivery agreement allows for advanced delivery and storage of water, thereby providing better and more efficient water management. As a result, water is not recharged in every year, but when SWP and exchange waters are available. The large storage capacity of the Coachella Valley aquifer and the large volume of water in storage allow CVWD and DWA to pump from the aquifer for a number of years without recharging and to recharge large amounts of water to refill the aquifer when the water is available.

Factors Potentially Impacting SWP Delivery Reliability

In the Draft 2013 State Water Project Delivery Reliability Report, DWR presents its method for calculating SWP delivery reliability, the factors affecting SWP delivery reliability, and the limitations to estimating future water delivery reliability. In the report, "water delivery reliability" is defined as the annual amount of water that can be expected to be delivered with a certain numeric frequency. SWP

delivery reliability is calculated using CALSIM II, a computer model jointly developed by DWR and USBR, which simulates operation of the Central Valley Project (CVP)/SWP system based upon 82 years of historic data. The annual amounts of SWP water deliveries are ranked from smallest to largest and a probability is calculated for each amount. These results are then displayed graphically as an exceedance plot and presented in tabular format. Based on information in the Draft 2013 State Water Project Delivery Reliability Report, the average long term reliability of future SWP Table A deliveries through 2029 is projected to be 62 percent.[23]

The amount of SWP water supply delivered to the SWP Contractors in a given year depends on the demand for the supply; the amount of rainfall, snowpack, runoff, water in storage, pumping capacity from the Delta; and legal constraints on SWP operation. There are three significant factors contributing to uncertainty in the delivery reliability of the SWP: possible effects from climate change and sea level rise, the vulnerability of Delta levees to failure, and greater operation restrictions imposed by the US Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) in response to decreasing populations of endangered fish species.[24] Each of these uncertainties is discussed below.

Climate Change and Sea Level Rise

Climate change is identified in the draft 2013 update of the California Water Plan (Bulletin 160-09) as one of the key considerations in planning for the State's water management. California's reservoirs and water delivery systems were developed based on historical hydrology and, under climate change; the past may no longer be a good guide for the future.

California's climate is expected to continue to change into the future. Mean temperatures are predicted to increase by 1.5 degrees to 5.0 degrees Fahrenheit by midcentury and 3.5 degrees to 11 degrees by the end of the century. These rising air temperatures are expected to continue to reduce snowpack, especially in low-elevation watersheds where more precipitation may fall as rain rather than snow. Reduced snow pack is expected to lead to higher winter runoff and lower spring runoff. This could increase flooding during the winter and reduce river flows in the spring and summer, which may require water managers to evaluate the tradeoffs between flood protection and water supply. Future sea level rise estimates range from 4 to 16 inches by midcentury and 7 to 55 inches by the end of the century. Higher sea levels could threaten the existing levee system in the Sacramento-San Joaquin Delta. Salinity intrusion into the Delta could also require increased releases of freshwater from upstream reservoirs to maintain compliance with water quality standards.

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23 California Department of Water Resources, Bay-Delta Office, Draft State Water Project Delivery Reliability Report 2013.
24 California Department of Water Resources, Bay-Delta Office, Draft State Water Project Delivery Reliability Report 2013.

For the SWP, these climate changes have the potential to simultaneously affect the availability of source water, the ability to convey water, and users' demands for water. This may exacerbate the existing mismatch in California between where and when precipitation occurs and where and when people use water.

Vulnerability of Delta Levees to Failure

Delta levees provide constant protection from flooding because much of the lands in the Delta are below sea level. Most Delta levees, however, do not meet modern engineering standards and are highly susceptible to failure. Levees are subject to failure at times of high flood flows, but also at any time of the year due to seepage or the piping of water through the levee, slippage or sloughing of levee material, or sudden failure due to an earthquake.

A breach of one or more levees and island flooding may affect Delta water quality and water operations. Depending on the hydrology and the size and locations of the breaches and flooded islands, a significant amount of saline water may be drawn into the interior Delta from Suisun and San Pablo bays. At the time of island flooding, exports may be drastically reduced or ceased to evaluate the salinity distribution in the Delta and to avoid drawing higher saline water toward the pumps. The introduced salinity then could become dispersed and degrade Delta water quality for a prolonged period because of complex relationships between Delta inflows, tidal mixing, and the time taken to repair the breaches.

A large earthquake in the Delta causing significant levee failures and island flooding could lead to multiyear disruptions in water supply and significant water quality degradation. A worst-case scenario for water supply effects would be a moderate or large earthquake causing extensive levee failure in the late summer or fall of a dry year. A strong earthquake affecting the Delta could cause simultaneous levee failures on several islands, with these islands flooding simultaneously. Preliminary analysis indicates that some water may not be treatable by municipal agencies for many months due to high organic carbon concentrations. This would extend the period that Delta water supple would be unavailable for users.

Possible effects on SWP deliveries due to earthquakes include the following:

- there is about a 40 percent chance of 27 or more islands simultaneously failing during a major earthquake in the next 25 years;
- a moderate to large earthquake capable of causing multiple levee failures could happen in the next 25 years. Under such an earthquake, extensive levee failure would most likely occur in the west and

central Delta. Levee repairs could take more than 2.5 years and exports from the Delta could be disrupted for about a year with a loss of up to 8 million acre-feet of water; and

- by 2050, the risk of island flooding from seismic events is expected to increase by 35 percent over 2005 conditions, if a seismic event has not occurred.

Federal ESA Litigation

In response to declining fish populations, the rules defined by the federal biological opinions issued under the Endangered Species Act (ESA) for the operation of the SWP and Central Valley Project (CVP) in the Delta have become more and more restrictive. Litigation filed by several environmental interest groups (*NRDC v. Kempthorne* and *Pacific Coast Federation of Fishermen's Associations v. Gutierrez*) in the U.S. District Court for the Eastern District of California alleged that the 2004 and 2005 biological opinions and incidental take statements inadequately analyzed impacts on listed species under the Federal ESA.

On May 25, 2007, Federal District Judge Wanger issued a decision on summary judgment in *NRDC v. Kempthorne*, finding the USFWS's biological opinion for Delta smelt to be invalid. The USFWS released a new biological opinion on the impacts of the State Water Project and Central Valley Project on Delta smelt on December 15, 2008. The MWD, the San Luis & Delta Mendota Water Authority, the Westlands Water District, the Kern County Water Agency, the Coalition for a Sustainable Delta and State Water Contractors, a California nonprofit corporation formed by agencies contracting with DWR for water from the State Water Project (the "State Water Contractors"), the Family Farm Alliance, and the Pacific Legal Foundation on behalf of several owners of small farms in California's Central Valley filed separate lawsuits in federal district courts challenging the biological opinion, which the federal court consolidated under the caption Delta Smelt Consolidated Cases.

On December 14, 2010, Judge Wanger issued a decision on summary judgment finding that there were major scientific and legal flaws in the Delta smelt biological opinion. The court found that some but not all of the restrictions on project operations contained in the 2008 Delta smelt biological opinion were arbitrary, capricious, and unlawful. On May 18, 2011, Judge Wanger issued a final amended judgment directing the USFWS to complete a new draft biological opinion by October 1, 2011, and a final biological opinion with environmental documentation by December 1, 2013. Later stipulations and orders changed the October 1, 2011 due date for a draft biological opinion to December 14, 2011. A draft biological opinion was issued on December 14, 2011. The draft biological opinion deferred specification of a reasonable and prudent alternative and an incidental take statement pending completion of environmental impact review under the National Environmental Policy Act (NEPA). The federal defendants and environmental interveners appealed the final judgment invalidating the 2008 Delta

smelt biological opinion to the U.S. Court of Appeals for the Ninth Circuit. The State Water Project and Central Valley Project contractor plaintiffs, including MWD, have cross-appealed from the final judgment. Those appeals and cross-appeals are currently pending in the Ninth Circuit. On March 13, 2014, the Ninth Circuit Court reversed Judge Wanger's finding, which had invalidated the USFWS's 2008 biological opinion. The Ninth Circuit Court upheld the scientific basis of the biological opinion. The Ninth Circuit Court affirmed the order that the Bureau of Reclamation must complete an EIS for implementing the Biological Opinion.

On February 25, 2011, the federal court approved a settlement agreement modifying biological opinion restrictions on Old and Middle River flows that would have otherwise applied in spring 2011. The settlement agreement expired on June 30, 2011. State Water Project and Central Valley Project contractors also moved to enjoin certain fall salinity requirements in the biological opinion that were set to become operable in September and October 2011. After an evidentiary hearing on the water contractors' motion in July 2011, Judge Wanger issued a decision on August 31, 2011, modifying the fall salinity-related requirements in the biological opinion. The effect of the injunction was to reduce water supply impacts from the biological opinion's fall salinity requirements. The federal defendants and the environmental interveners appealed the injunction on fall salinity requirements, but the federal defendants subsequently dismissed their appeal in October 2011. The environmental interveners' appeal to the Ninth Circuit on the fall salinity requirement injunction is pending. The SWP and Central Valley Project contractors have moved to dismiss the environmental interveners' appeal of the fall salinity requirement on the ground that the salinity requirement for 2011 has expired and is therefore invalid.

On April 16, 2008, in *Pacific Coast Federation of Fishermen's Associations v. Gutierrez*, the court invalidated the 2004 NMFS's biological opinion for the salmon and other fish species that spawn in rivers flowing into the Bay-Delta. Among other things, the court found that the no-jeopardy conclusions in the biological opinion were inconsistent with some of the factual findings in the biological opinion, that the biological opinion failed to adequately address the impacts of SPW and Central Valley Project operations on critical habitat, and that there was a failure to consider how climate change and global warming might affect the impacts of the projects on salmonid species.

The NMFS released a new biological opinion for salmonid species to replace the 2004 biological opinion on June 4, 2009. The 2009 salmonid species biological opinion contains additional restrictions on SWP and Central Valley Project operations. The NMFS calculated that these restrictions will reduce the amount of water the SWP and Central Valley Project combined will be able to export from the Bay-Delta by 5 to 7 percent. DWR had estimated a 10 percent average water loss under this biological opinion. Six lawsuits were filed challenging the 2009 salmon biological opinion. These various lawsuits have been

brought by the San Luis & Delta Mendota Water Authority, the Westlands Water District, the Stockton East Water District, the Oakdale Irrigation District, the Kern County Water Agency, the State Water Contractors, and the MWD. The court consolidated the cases under the caption: Consolidated Salmon Cases.

On May 25, 2010, the court granted the plaintiffs' request for preliminary injunction in the Consolidated Salmon Cases, restraining enforcement of two requirements under the salmon biological opinion that limit exported water during the spring months based on San Joaquin River flows into the Bay-Delta and reverse flows on the Old and Middle Rivers. Hearings on motions for summary judgment in the Consolidated Salmon Cases were held on December 16, 2010. On September 20, 2011, Judge Wanger issued a decision on summary judgment, finding that the salmon biological opinion was flawed, and that some but not all of the project restrictions in the biological opinion were arbitrary and capricious. On December 12, 2011, Judge O'Neill (who was assigned to this case following Judge Wanger's retirement) issued a final judgment in the Consolidated Salmon Cases. The final judgment remands the 2009 salmon biological opinion to the NMFS and directs that a new draft salmon biological opinion be issued by October 1, 2014, and that a final biological opinion be issued by February 1, 2016, after completion of environmental impact review under NEPA. On January 19, 2012, Judge O'Neill approved a joint stipulation of the parties that specifies how to comply with one of the salmon biological opinion restrictions that applies to water project operations in April and May of 2012. In January and February 2012, the federal defendants and environmental interveners filed appeals of the final judgment in the Consolidated Salmon Cases, and the SWP and Central Valley Project contractors filed cross-appeals. Those appeals and cross-appeals are now pending in the Ninth Circuit. The original date for the oral argument was moved from February 10, 2014 to September 15, 2014 in anticipation of the March 2014 decision in the Delta Smelt Consolidated Cases appeal.

On November 13, 2009, the Center for Biological Diversity filed separate lawsuits challenging the USFWS's failure to respond to a petition to change the Delta smelt's federal status from threatened to endangered, and the USFWS's denial of federal listing for the longfin smelt. On April 2, 2010, the USFWS issued a finding that uplisting the Delta smelt was warranted but precluded by the need to devote resources to higher priority matters. This "warranted but precluded" finding did not change the regulatory restrictions applicable to Delta smelt. For the longfin smelt litigation, a settlement agreement was approved on February 2, 2011. Under the agreement, the USFWS agreed to complete a range-wide status review of the longfin smelt and consider whether the Bay-Delta longfin smelt population, or any other longfin smelt population from California to Alaska, qualifies as a "distinct population" that warrants federal protection. On April 2, 2012, the USFWS issued its finding that the Bay-Delta longfin smelt population warrants protection under the ESA but is precluded from listing as a threatened or

endangered species by the need to address other higher priority listing actions. The review identified several threats facing longfin smelt in the Bay-Delta, including reduced freshwater Bay-Delta outflows. The finding includes the determination that the Bay-Delta longfin smelt will be added to the list of candidates for ESA protection, where its status will be reviewed annually.

California ESA Litigation

In addition to the litigation under the Federal ESA, other environmental groups sued DWR on October 4, 2006, in the Superior Court of the State of California for Alameda County alleging that DWR was "taking" listed species without authorization under the California ESA. This litigation (*Watershed Enforcers, a project of the California Sportfishing Protection Alliance v. California Department of Water Resources*) requested that DWR be mandated to either cease operation of the SWP pumps, which deliver water to the California Aqueduct, in a manner that results in such "taking" of listed species or obtain authorization for such "taking" under the California ESA. On April 18, 2007, the Alameda County Superior Court issued its Statement of Decision finding that DWR was illegally "taking" listed fish through operation of the SWP export facilities. The Superior Court ordered DWR to "cease and desist from further operation" of those facilities within 60 days unless it obtained take authorization from the California Department of Fish and Game.

DWR appealed the Alameda County Superior Court's order on May 7, 2007. This appeal stayed the order pending the outcome of the appeal. The Court of Appeal stayed processing of the appeal in 2009 to allow time for DWR to obtain incidental take authorization for the Delta smelt and salmon under the California ESA, based on the consistency of the federal biological opinions with California ESA requirements ("Consistency Determinations"). After the California Department of Fish and Game issued the Consistency Determinations under the California ESA, authorizing the incidental take of both Delta smelt and salmon, appellants DWR and State Water Contractors dismissed their appeals of the Watershed Enforcers decision. The Court of Appeal subsequently issued a decision finding that DWR was a "person" under the California ESA and subject to its take prohibitions, which was the only issue left in the case. The State Water Contractors and Kern County Water Agency have filed suit in State courts challenging the Consistency Determinations under the California ESA that have been issued for both Delta smelt and salmon. Those lawsuits challenging the Consistency Determinations are pending. The parties are continuing discussions of adjustments to the incidental take authorizations in light of the summary judgment ruling in the Delta Smelt Consolidated Cases and the Consolidated Salmon Cases, discussed under the heading **Federal ESA Litigation**, discussed previously.

The California Fish and Game Commission listed the longfin smelt as a threatened species under the California ESA on June 25, 2009. On February 23, 2009, in anticipation of the listing action, the California

Department of Fish and Game issued a California ESA section 2081 incidental take permit to DWR authorizing the incidental take of longfin smelt by the SWP. This permit authorizes continued operation of the SWP under the conditions specified in the section 2081 permit. The State Water Contractors filed suit against the California Department of Fish and Game on March 25, 2009, alleging that the export restrictions imposed by the section 2081 permit have no reasonable relationship to any harm to longfin smelt caused by SWP operations, are arbitrary and capricious, and are not supported by the best available science. A decision was filed on March 13, 2014. The decision partially reversed, and partially affirmed, the district court's judgment invalidating the 2008 biological opinion by the Department of Fish and Wildlife that concluded that the Central Valley and State Water Projects jeopardized the existence of the smelt and its habitat.[25]

State Water Project Operational Constraints

DWR has altered the operations of the SWP to accommodate species of fish listed under the ESAs. These changes in project operations have adversely affected SWP deliveries. The impact on total SWP deliveries attributable to the Delta smelt and salmonid species biological opinions combined is estimated to be 1 million acre-feet in an average year, reducing SWP deliveries from approximately 3.3 million acre-feet to approximately 2.3 million acre-feet for the year under average hydrology, and are estimated to range from 0.3 million acre-feet during critically dry years to 1.3 million acre-feet in above normal water years. SWP deliveries to contractors were reduced by approximately 285,000 acre-feet of water in calendar year 2011 as a result of pumping restrictions, with 135,000 acre-feet of export reductions in January and February, and 150,000 acre-feet in the fall. Despite operational restrictions in 2011, high flows from above normal precipitation in late 2010 and early 2011 reaching the Bay-Delta resulted in above average storage levels remaining in Lake Oroville through May 2012. As of January 2014, the storage levels remaining in Lake Oroville are 36 percent of total capacity as a result of well below average precipitation and snowpack levels.

Operational constraints likely will continue until long-term solutions to the problems in the Bay-Delta are identified and implemented. The Delta Vision process, established by then-Governor Schwarzenegger, was aimed at identifying long-term solutions to the conflicts in the Bay-Delta, including natural resource, infrastructure, land use, and governance issues. In addition, State and federal resource agencies and various environmental and water user entities are currently engaged in the development of the Bay-Delta Conservation Plan, which is aimed at addressing ecosystem needs and securing long-term operating permits for the SWP, and includes the Delta Habitat Conservation and Conveyance

25 United States Court of Appeals for the Ninth Circuit, San Luis v. Jewell, 11-15871 (March 13, 2014).

Program (DHCCP) (together, the "BDCP"). The DHCCP's current efforts consist of the preparation of the environmental documentation and preliminary engineering design for Bay-Delta water conveyance and related habitat conservation measures under the BDCP. In July 2012, the governor and U.S. Interior Secretary outlined revisions and alternative proposals to the proposed Bay Delta Conservation Plan (BDCP). Subsequently, the California Natural Resources Agency released four draft chapters of the BDCP in March 2013. Most recently on December 9, 2013, the State released an updated BDCP, along with a draft EIR/Environmental Impact Statement (EIS) for formal public review. The formal public review and comment period for the draft EIR/EIS was from December 13, 2013 through July 29, 2014.

Other issues, such as the decline of some fish populations in the Bay-Delta and surrounding regions and certain operational actions in the Bay-Delta, may significantly reduce MWD's water supply from the Bay-Delta. SWP operational requirements may be further modified under new biological opinions for listed species under the Federal ESA or by the California Department of Fish and Game's issuance of incidental take authorizations under the California ESA. Biological opinions or incidental take authorizations under the Federal ESA and the California ESA might further adversely affect SWP and Central Valley Project operations. Additionally, new litigation, listings of additional species, or new regulatory requirements could further adversely affect SWP operations in the future by requiring additional export reductions, releases of additional water from storage, or other operational changes impacting water supply operations. MWD has indicated that it cannot predict the ultimate outcome of any of the litigation or regulatory processes described previously, but believes they could have a materially adverse impact on the operation of the SWP pumps, MWD's SWP supplies, and MWD's water reserves.

"Area of Origin" Litigation

Four SWP contractors located north of the SWP's Bay-Delta pumping plant filed litigation against DWR on July 17, 2008, asserting that since they are located in the "area of origin" of SWP water, they are entitled to receive their entire contract amount before any water is delivered to contractors south of the Bay-Delta. If the plaintiffs are successful in this litigation, SWP water available to MWD in a drought period could be reduced by approximately 25,000 afy of a multiyear drought or by as much as 40,000 acre-feet in an exceedingly dry year. MWD and 12 other SWP contractors located south of the Bay-Delta filed motions to intervene in this litigation, which were granted on February 25, 2009. In May 2012, the parties reached an agreement, in principle, that plaintiffs will dismiss the action with prejudice and agree to certain limitations on asserting area of origin arguments in the future; in return, DWR and the interveners will agree to operational changes that will increase the reliability of plaintiffs' SWP supplies at little or minimal cost to other SWP water contractors. The DWR completed and adopted a Final Initial Study/Mitigated Negative Declaration (IS/MND) in September 2013 for the SWP Allocation Settlement

Agreements. The Final IS/MND which describes the potential environmental impacts as a result of the proposed changes to SWP operations determined there were no potentially significant impacts.

Surface Water

Surface water supplies come from several local rivers and streams, including the Whitewater River, Snow Creek, Falls Creek, and Chino Creek. Because surface water supplies are affected by variations in annual precipitation, the annual supply is highly variable. Since 1936, the estimated historical surface water supply has ranged from approximately 4,000 to 9,000 afy. Direct use of surface water is expected to be 3,400 afy in 2045.[26]

Recycled Water

Wastewater that has been highly treated and disinfected can be reused for landscape irrigation and other purposes; treated wastewater is not suitable for potable use. Recycled wastewater has historically been used for irrigation of golf courses and municipal landscaping in the Coachella Valley since the early 1960s. In addition, fish farm effluent is available in certain localized areas of the East Valley and is being recycled for reuse.

CVWD operates six water treatment plants, three of which generate recycled irrigation water for golf courses and large landscaped areas, thereby reducing demand on the groundwater basin. Currently CVWD is planning to expand recycled water use throughout the mid-valley.

Desalinated Drain Water

The Coachella Valley WMP 2010 Update reaffirms that a drain water desalination facility will commence operation between 2010 and 2015, building up to full diversion in 2063. Up to 11,000 afy of agricultural drain water may be desalted to a quality equivalent to Colorado River water and delivered for agriculture and other irrigation use. As a result of this program, approximately 13.6 mgd of drain water would be diverted and filtered prior to its desalination. The desalination facility is planned to have a 10 mgd capacity that would produce about 7.5 mgd of product water. Approximately 3.5 mgd of the flow would bypass desalination and will be blended with the product water to produce the desired quality. Delivery of this water would begin at a rate of approximately 4,000 afy and is projected to reach 11,000 afy in approximately 15 years.[27]

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26 CVWD, Coachella Valley Water Management Plan 2010 Update (January, 2012).
27 CVWD, Coachella Valley Water Management Plan 2010 Update (January, 2012).

A brackish groundwater treatment pilot study and feasibility study was completed in 2008. Reverse osmosis (RO) was recommended to meet water quality goals and provide additional flexibility in the level of water quality produced should the facility's objectives change in the future. The recommended approach to brine management was to convey the RO concentrate via pipeline to constructed wetlands located at the north shore of the Salton Sea. This study concluded that agricultural drainage water can be treated for reuse as non-potable water and potentially as new potable water.

Permanent Water Purchases

CVWD purchases Table A Amounts from SWP contractors as they have become available and meet CVWD's needs. Additional purchases from the SWP and from others with water rights, mainly in the Central Valley of California, will be evaluated as they become available to determine whether they meet CVWD's needs. If they do, CVWD may purchase additional SWP water rights.

Summary of Primary and Additional Water Sources

Table 5.15.1-8, Existing CVWD Water Supply Table A Amounts Water Rights and Water Service Contracts, shows CVWD's existing water supply entitlements, rights and service contracts as discussed above.

Table 5.15.1-8
Existing CVWD Water Supply Table A Amounts
Water Rights and Water Service Contracts

Supply	Existing Supplies (afy)	Entitlement	Right	Contract	Other	Ever Utilized?
Groundwater	Unspecified[1]				X	Yes
Coachella Canal	459,000[2]			X		Yes
SWP Exchange Water[3]	138,350[4]	X	Yes			
Recycled Water	14,000				X	Yes

1 CVWD shares a common groundwater source that has not been adjudicated
2 As quantified in the Quantification Settlement Agreement between IID, MWD, and DVWD, October, 2003.
3 Imported SWP Exchange Water is not used as a direct water supply source, but rather is used to recharge groundwater supplies in the Coachella Valley.
4 *Includes Original Table A Amount, Tulare Agreement, Berrenda Mesa Agreement, and MWD Agreement.*

The UWMP 2010 projects that the percentage of water from each of the current water supply sources will change significantly by 2035, relative to 2010 conditions. **Table 5.15.1-9, Summary of Historical and Projected Average Water Supply**, shows the actual water supplies in 2010 as well as the projected water supplies from 1995 through 2035.

Table 5.15.1-9
Summary of Historical and Projected Average Water Supply

Year	Groundwater Supply[1]	Colorado River Water Supply[2]	SWP Exchange Water[3]	Recycled Water	Desalinated Drain Water	Total Supply
1995	66,600	285,929	45,214	11,100	--	408,843
1996	50,700	289,726	100,376	11,520	--	452,322
1997	52,400	281,179	83,407	12,550	--	429,536
1998	71,100	281,714	99,729	13,657	--	466,200
1999	53,800	282,021	70,446	13,397	--	419,664
2000	71,000	282,781	56,161	13,289	--	423,231
2001	73,000	272,741	3,242	12,923	--	361,906
2002	76,500	280,845	26,912	13,289	--	397,546
2003	78,600	245,069	3,177	13,903	--	340,749
2004	73,400	238,456	16,167	14,831	--	342,854
2005	85,100	282,000	46,000	15,300	--	428,400
2010	106,700	318,000	62,000	23,100	4,000	513,800
2015	123,100	342,000	70,600	25,100	8,000	568,800
2020	123,700	379,000	70,100	26,500	8,000	607,300
2025	124,200	404,000	68,100	27,600	11,000	634,900
2030	123,200	429,000	66,500	28,300	11,000	658,000

Source: CVWD, 2010 Urban Water Management Plan *(July 2011).*

1 CVWD Share of net groundwater inflow to Whitewater and Mission Creek Subbasins, shared with DWA Service Area and private pumpers.

2 Net water deliveries to Coachella Valley, excluding conveyance losses.

3 Anticipated average availability assuming MWD calls-back 50 percent of the time in dry years.

4 Modified version of CVWD UWMP 2010 Update to account for advanced deliveries, DWR SWP 2013 Draft Reliability Report, and reductions to associate with Longfin Smelt and other issues

Water Demand

Historical Water Use

Historical demands for water in the Coachella Valley are classified as urban and agricultural uses. Urban uses include domestic, industrial, and golf course use. Historical water demand for the Coachella Valley is presented below, in **Table 5.15.1-10**, **Summary of Historical Water Demands in the Coachella Valley.** In 1999, water demand for the Coachella Valley was approximately 668,990 afy. By 2010, demands were approximately 600,665 afy.

Table 5.15.1-10
Summary of Historical Water Demands in the Coachella Valley

Component	1999	2005	2010
Agricultural			
Crop Irrigation	332,500	283,100	298,600
Total Agricultural Demand	**332,500**	**283,100**	**298,600**
Urban			
Municipal	202,900	205,400	192,200
Industrial	1,100	1,700	2,300
Total Urban Demand	**204,000**	**207,100**	**194,500**
Golf Course Demand	**106,200**	**109,800**	**100,500**
Fish Farms and Duck Clubs			
Fish Farms	21,100	23,500	5,648
Duck Clubs	4,300	4,600	1,418
Total Fish Farms and Duck Clubs	**25,400**	**28,100**	**7,065**
Total Demand	**668,990**	**628,100**	**600,665**

Source: CVWD, Coachella Valley Water Management Plan 2010 Update *(January, 2012).Table 3-2. CVWD, 2014 Status Report for the 2010 CVWMP Update, (2014) Table 1.*

Urban Demand

Historical water demands primarily include domestic, golf course, and agricultural uses. Although golf courses and agricultural lands represent a considerable water demand in the Coachella Valley, they are generally not served by CVWD's domestic water system. Most agriculture users irrigate with water from the Coachella Canal System or groundwater sources. Golf courses irrigate with a combination of imported Coachella Canal water, groundwater, and recycled water.

As previously discussed, the urban and golf course water demands are reduced when compared to the 2010 CVWMP Update, while the agricultural demand is increased (see appendix D in **Appendix H** of the EIS). The water usage per meter is highly seasonal due to irrigation, varying by approximately 800 gallons per day per meter. However, on a yearly basis, water usage per meter has remained relatively constant between 2005 and 2010. An evaluation of wastewater flows per connection indicates an average wastewater flow of about 220 gallons per day per meter. From this, it can be inferred that outdoor usage including irrigation may represent about 80 percent of total water usage.

As shown on **Table 5.15.1-10**, the total urban demand for the Coachella Valley was approximately 204,000 afy in 1999 and approximately 194,500 afy in 2010. Total urban demand is projected to reach 419,300 afy by 2045.[28]

Municipal water use includes residential, commercial, governmental, and institutional demands in the Coachella Valley. Also included is on-farm domestic use in the Lower Valley. Three major domestic water purveyors, DWA, CVWD, and the Mission Springs Water District, serve water in the Western Coachella Valley. Four major domestic water purveyors serve the Eastern Coachella Valley: CVWD, the City of Coachella, the City of Indio, and Myoma Dunes Mutual Water Company. Small water users and some households are supplied by individual wells. Municipal use currently accounts for 99 percent of the total urban water demand.

Golf course irrigation is a significant use in the Coachella Valley. The first golf course in Western Coachella Valley was constructed in 1925. Golf-course demand in 1999 was approximately 106,200 afy, of which 77,700 afy is in the Western Coachella Valley and 28,500 afy is in the Eastern Coachella Valley. Golf course demand in the Coachella Valley has increased from 106,200 afy in 1999 to 100,500 afy in 2010.

Industrial use is a minor portion (less than 1 percent) of the total water demand in the Coachella Valley. The Colmac Mecca Biomass Cogeneration plant, located near Mecca in the Eastern Coachella Valley, generates 48 megawatts of power using wood and agricultural waste as fuel. Groundwater is used as the source of boiler feed and cooling water. Current industrial water use is estimated to be approximately 2,300 afy.

Agricultural Demand

The Coachella Valley has approximately 56,973 acres of land that are currently under agricultural production.[29] CVWD has an agricultural irrigation water service area of 65,581 acres to which irrigation water may be delivered.[30] Historical demands for water in the Coachella Valley are classified as urban and agricultural uses. Agricultural uses include crop irrigation, fish farming, greenhouses and duck clubs. The Coachella Valley is known for its production of a variety of crops including citrus, table grapes, dates, and a variety of fruits and vegetables.

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28 CVWD, *2014 Status Report for the 2010 Urban Water Management Plan* (2014), Table 1.
29 Riverside County Agricultural Commissioner's Office, Coachella Valley Acreage and Agricultural Crop Report (2012).
30 CVWD, 2012-13 Annual Review (2014).

Agricultural water demand increased dramatically from 1936 to the early 1960s, especially after Canal water became available. Since that time, demand has decreased slightly due to improved irrigation efficiency and development of agricultural land for urban uses, with variation due to weather and crop patterns. As of 1999, agricultural demand was 54 percent of the total Coachella Valley water demand. The agricultural demand served by the CVWD from the Coachella Canal in the year 2012-2013 was 278,398 afy. Agricultural demand met by private groundwater production is approximately 83,700 afy. Total agricultural demand for 2012-2013 was estimated to be about 283,605 afy.[31]

During the last 30 years, CVWD water deliveries for agricultural irrigation have decreased while the amount of cropped acres (including double cropping) has increased. Using the cropped acre and annual irrigation deliveries, CVWD water used for irrigation, on a per acre basis, has decreased over the last 30 years, and is currently about 4 acre-feet per acre annually.[32]

Fish Farms and Duck Clubs

Fish farming is a water-dependent agricultural enterprise that is attracted by the warm groundwater in the Eastern Coachella Valley. A variety of fish are grown in the Coachella Valley for the market, including striped bass, catfish, and tilapia. Fish farm operations range from earthen ponds to highly intensive tank systems using pure oxygen aeration. Approximately 1,000 acres of ponds are located in the Coachella Valley. Duck clubs provide ponded water to attract ducks and other waterfowl during their winter migration. The duck clubs are located north of the Salton Sea. The ponds are typically filled in late summer, and water levels are maintained until mid-winter. As presented in **Table 5.15.1-10,** water demand by duck clubs has decreased from 4,300 afy in 1999 to approximately 1,418 afy in 2010.

Future Water Demands

Average Year

Future population increase will result in a substantial increase in water deliveries. The projected water demands for the period 2015 through 2035 in five-year increments is listed in **Table 5.15.1-11, Supply and Demand Comparison—Average Year (afy).**

31 CVWD, 2012-13 Annual Review (2014).

32 USDA-Natural Resources Conservation Service, A Review of Agricultural Water Use in the Coachella Valley (May 2006), 6.

Table 5.15.1-11
Supply and Demand Comparison—Average Year (afy)

	2015	2020	2025	2030	2035
Water Supply Sources					
Supplier-Produced Groundwater	118,700	125,600	129,900	133,500	128,700
Treated Colorado River Water	5,700	19,300	31,400	39,500	49,100
Untreated Colorado River Water	1,300	11,100	26,300	39,000	54,800
Desalinated Agricultural Drain Water	0	0	0	0	10,000
Supply Totals	**125,700**	**156,000**	**187,600**	**212,000**	**242,600**
Water Demand					
Total Urban Water Deliveries[1]	121,700	151,000	181,600	205,100	234,800
Domestic System Losses[2]	4,100	5,100	6,100	6,900	7,900
Demand Totals	**125,800**	**156,100**	**187,700**	**212,000**	**242,700**

Source: CVWD, 2010 Urban Water Management Plan, *(June 2011). Table 5-14.*
1 Total urban deliveries calculated from CVWD UWMP 2010 Update Table 3-8 through Table 3-12.
2 Domestic system losses is assumed to be 3.2 percent of total water production, which is the average system water loss from 2006-2010.

Dry Water Years

Table 5.15.1-12. Supply and Demand Comparison—Single Dry Year (afy), shows CVWD's projected urban water supplies and demands in a single dry year.

Table 5.15.1-12
Supply and Demand Comparison—Single Dry Year (afy)

	2015	2020	2025	2030	2035
Water Supply Sources					
Supplier-Produced Groundwater	118,700	125,600	129,900	133,500	128,700
Treated Colorado River Water	5,700	19,300	31,400	39,500	49,100
Untreated Colorado River Water	1,300	11,100	26,300	39,000	54,800
Desalinated Agricultural Drain Water	0	0	0	0	10,000
Supply Totals	**125,800**	**156,100**	**187,700**	**212,000**	**242,700**

	2015	2020	2025	2030	2035
Water Demand					
Total Urban Water Deliveries[1]	121,700	151,000	181,600	205,100	234,800
Domestic System Losses[2]	4,100	5,100	6,100	6,900	7,900
Demand Totals	**125,800**	**156,100**	**187,700**	**212,000**	**242,700**

Source: CVWD, 2010 Urban Water Management Plan, *(June 2011). Table 5-15.*
1 Total urban deliveries calculated from CVWD UWMP 2010 Update Table 3-8 through Table 3-12.
2 Domestic system losses is assumed to be 3.2 percent of total water production, which is the average system water loss from 2006-2010.

Table 5.15.1-13, Supply and Demand Comparison—Multiple Dry-Year Events (afy), shows CVWD's projected urban water supplies and demand through 2035. As previously mentioned, groundwater production is driven by demand; therefore, supplies are equal to demand. According to the 2010 CVWMP Update, the aquifer and other sources of supply are adequate for a single dry year and also multiple dry years, for a 20-year period. Without replenishment, the decline in storage would be less than 0.5 percent of the basin storage each year.[33]

Table 5.15.1-13
Supply and Demand Comparison—Multiple Dry-Year Events (afy)

		2015	2020	2025	2030	2035
Multiple-Dry Year First Year Supply	Supply Totals	125,800	156,100	187,700	212,000	242,700
	Demand Totals	125,800	156,100	187,700	212,000	242,700
	Difference	0	0	0	0	0
Multiple-Dry Year Second Year Supply	Supply Totals	125,800	156,100	187,700	212,000	242,700
	Demand Totals	125,800	156,100	187,700	212,000	242,700
	Difference	0	0	0	0	0
Multiple-Dry Year Third Year Supply	Supply Totals	125,800	156,100	187,700	212,000	242,700
	Demand Totals	125,800	156,100	187,700	212,000	242,700
	Difference	0	0	0	0	0

Source: CVWD, 2010 Urban Water Management Plan, *(June 2011). Table 5-16.*

Future Conservation Efforts

Conservation measures can be applied to all water uses; however, in the Coachella Valley, the primary focus of water conservation is on municipal, agricultural irrigation, golf course irrigation, and fish farm uses. Water conservation measures are a key component of the 2010 CVWMP Update and are expected

33 CVWD, 2010 Urban Water Management Plan, (June 2011). 5-8.

to decrease total water demand by approximately 7 percent by 2015.[34] This level of reduction will be maintained through the remainder of the planning period. By 2035, water conservation is expected to reduce demands from Future Baseline conditions by about 66,000 afy.

CVWD prepared and adopted the 2010 CVWMP Update and the 2010 UWMP to manage water supplies and eliminate overdraft. These plans identify programs necessary to ensure reliable water supplies. The Project will participate in the CVWMP programs that are available to it, including compliance with the most current Landscape Ordinance in place at the time of development, conservation programs, outreach and education programs, and budget-based tiered water rates.

Municipal Conservation

CVWD has developed the 2010 CVWMP Update to comprehensively protect and augment the groundwater supply. The 2010 CVWMP Update Preferred Alternative reduces reliance on groundwater sources by utilizing more Colorado River water, SWP water, and recycled water. The 2010 CVWMP Update also recommends that source substitution and conservation measures be implemented to reduce demands on the aquifer.

The 2010 CVWMP Update reaffirms a dedication to the goal of maintaining a reduced level of water consumption through 2035, and emphasizes cooperation with municipalities, local water agencies, and tribes in regional planning and implementation. As part of the 2009 comprehensive water package, the California Legislature adopted SBx7-7 (Steinberg), which mandates that California urban water agencies to achieve a 20 percent reduction in per capita water demand by 2020. This legislation will require Coachella Valley urban water users to increase conservation over and above the goal established in the 2002 WMP.

Agricultural Conservation

The 2010 CVWMP Update reaffirms the goal of the 2002 CVWMP of reducing demand for crop irrigation by approximately 7 percent by 2015. Conservation would be maintained at this level for the remainder of the planning period.[35]

Agricultural conservation measures would consist of working with Valley growers to ensure that the most up-to-date irrigation practices are being employed.[36] In addition to conversion from furrow

34 CVWD, Coachella Valley Water Management Plan 2010 Update (January, 2012).
35 CVWD, Coachella Valley Water Management Plan 2010 Update (January, 2012).
36 CVWD, Coachella Valley Water Management Plan 2010 Update (January, 2012).

irrigation to drip irrigation, there are also refinements that can be made in existing drip irrigation management and design to improve distribution uniformity. Improvements include the use of buried drip systems, installation of pressure compensating emitters, and including more emitters per line. Individual water use practices would be reviewed on a field-by-field basis, evaluating the unique characteristics of each field and crop type. Confidential reports would be provided to each grower indicating the general efficiency of each field and containing recommendations for improved efficiency. The goal would be to improve regional irrigation efficiency from 70 to 75 percent.

Golf Course Conservation

Golf course conservation is expected to maintain a reduced level of water demand throughout the planning period to 2035. All new golf courses are required to implement significant water conservation measures, which would result in a 10 to 25 percent reduction in demand compared to use by existing courses.

Water Quality

Basinwide groundwater quality is difficult to characterize because groundwater quality varies with such factors as depth (or the screened interval of a water supply well), proximity to faults, presence of surface contaminants, proximity to the recharge basin, and other hydro-geologic or cultural features. A complete discussion of water quality may be found in **Section 5.8, Hydrology and Water Quality.**

Project Site

The Project Site includes a total land area of approximately 577 acres within the Reservation, and is currently vacant and uninhabited, and is not being utilized for agriculture or any other purposes. As such, there is no existing water demand on the Project Site. However, an existing 18-inch water main runs along all four boundaries of the Project Site (Ramon Road, Bob Hope Drive, Dinah Shore Drive, and Los Alamos Road). In addition, there is one existing well site along Los Alamos Road, and two existing well sites along Dinah Shore Drive. The existing water mains are within the Mission Hills Pressure Zone.

2. Regulatory Setting

Federal

Safe Drinking Water Act

The federal Clean Water Act (CWA) Section 401 regulates the discharges of pollutants into “waters of the US” from any point or non-point source.

In 1972, the CWA was amended to prohibit the discharge of pollutants to waters of the United States unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. The CWA focused on tracking point sources, primarily from wastewater treatment facilities and industrial waste dischargers, and required implementation of control measures to minimize pollutant discharges. The CWA was amended again in 1987 to provide a framework for regulating municipal and industrial stormwater discharges. In November 1990, the US Environmental Protection Agency (US EPA) published final regulations that establish application requirements for specific categories of industries, including construction projects that encompass greater than or equal to 5 acres of land. The Phase II Rule became final in December 1999, thus expanding regulated construction sites to those greater than or equal to 1 acre. The regulations require that stormwater and non-stormwater runoff associated with construction activity which discharges either directly to surface waters or indirectly through municipal separate storm sewer systems (MS4s) must be regulated by an NPDES permit.

In the State of California, the program is administered by the local Regional Water Quality Control Board (RWQCB).

State

California Water Quality Laws

Under California law, the State Water Resources Control Board (SWRCB) and nine Regional Water Quality Control Boards (RWQCB) are responsible for implementing the federal CWA and the California Porter-Cologne Water Quality Control Act (Porter-Cologne Act).[37]

The Project Site is located within the purview of the Colorado River RWQCB (Region 7).

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act established the principal State program for water quality control.[38] The Porter-Cologne Water Quality Control Act also authorized the SWRCB to implement the provisions of the federal Clean Water Act. The act divided the State into nine RWQCB areas. Each RWQCB implements and enforces provisions of the Porter-Cologne Act and the CWA subject to policy guidance and review by the SWRCB. The Porter-Cologne Act requires each RWQCB to develop a Basin Plan for all areas within its region. The Basin Plan is the basis for each RWQCB's regulatory programs.

37 California Water Code, (1969, as amended), Porter-Cologne Water Quality Control Act.
38 California Water Code, Sections 13000 et seq., Porter-Cologne Act.

California Water Supply Laws

Assembly Bill 1881

Assembly Bill 1881 (AB 1881) was enacted in 2006 and added provisions relating to water conservation measures for Water Conservation in Landscaping to Government Code Sections 65591-65597, including Public Resources Code Section 25401.9 and Water Code Section 535. Section 25401.9 pertains to landscape equipment. The California Energy Commission has adopted performance standards for landscape irrigation controllers and moisture sensors. Water Code Section 535 pertains to the installation of separate water meters to measure the volume of water used exclusively for landscape purposes for all new connections involving property with more than 5,000 square feet of irrigated landscape and 15 or more service connections after January 1, 2008, except for single-family home connections and agricultural/livestock use.

2009 Comprehensive Water Legislation

In November 2009, four legislative bills (SBX7-1, SBX7-6, SBX7-7, and SBX7-8) and the supporting bond bill (SBX7-2), creating a comprehensive water package designed to meet California's water challenges, were approved by Governor Schwarzenegger.[39] The legislation establishes the governmental framework to achieve the co-equal goals of providing a more reliable water supply to California and restoring and enhancing the Delta ecosystem. The package includes requirements to improve the management of our water resources by monitoring groundwater basins, developing agricultural water management plans, reducing Statewide per capita water consumption 20 percent by 2020, and reporting water diversions and uses in the Delta. It also appropriates $250 million for grants and expenditures for projects to reduce dependence on the Delta if the bond issue is approved by the voters in the future.

The Safe, Clean, and Reliable Drinking Water Supply Act of 2010 (SBX 7-2) will likely come before the California voters in the future (November 2014). If enacted, it would provide funding for California's aging water infrastructure and for projects and programs to improve the ecosystem and water supply reliability for California. The bond bill includes $2.25 billion for actions improving Delta sustainability. These investments will help to reduce seismic risk to Delta water supplies, protect drinking water quality, and reduce conflict between water management and environmental protection.

39 Department of Water Resources, California Water Plan Update 2009, Volume 4, (December 2009). Reference Guide, Legislation, 2009 Comprehensive Water Package, Special Session Policy Bills and Bond Summary, (November 2009).

Part of this comprehensive water package included SBX7-7 (Steinberg, Chapter 4, Statutes of 2009—Statewide Water Conservation). This bill creates a framework for future planning and actions by urban and agricultural water suppliers to reduce California's water use. This bill requires the development of agricultural water management plans and requires urban water agencies to reduce Statewide per capita water consumption 20 percent by 2020. CVWD has included the provisions of SBX7-7 in their 2010 UWMP and has reduced water demand by 20 percent since 2006.

Proclamation by the Governor of the State on Water Shortage

To combat California's third consecutive year of drought, Governor Arnold Schwarzenegger, on February 27, 2009, proclaimed a state of emergency and ordered immediate action to manage the crisis.[40] In the proclamation, the Governor uses his authority to direct all State government agencies to utilize their resources, implement a State emergency plan and provide assistance for people, communities and businesses impacted by the drought.

The Governor's order directs various State departments to engage in activity to provide assistance to people and communities impacted by the drought. The proclamation

- requests that all urban water users immediately increase their water conservation activities in an effort to reduce their individual water use by 20 percent;
- directs the DWR to expedite water transfers and related efforts by water users and suppliers;
- directs DWR to offer technical assistance to agricultural water suppliers and agricultural water users, including information on managing water supplies to minimize economic impacts and implementing efficient water management practices;
- directs DWR to implement short-term efforts to protect water quality or water supply, such as the installation of temporary barriers in the Sacramento–San Joaquin Delta or temporary water supply connections;
- directs the Labor and Workforce Development Agency to assist the labor market, including job training and financial assistance;
- directs DWR to join with other appropriate agencies to launch a Statewide water conservation campaign calling for all Californians to immediately decrease their water use; and

40 Proclamation of the Governor of the State of California, State of Emergency – Water Shortage, February 27, 2009.

- directs State agencies to immediately implement a water use reduction plan and take immediate water conservation actions and requests that federal and local agencies also implement water use reduction plans for facilities within their control.

In particular, the order directs that by March 30, 2009, DWR shall provide an updated report on the State's drought conditions and water availability. According to the proclamation, if the emergency conditions have not been sufficiently mitigated, the Governor will consider additional steps. These could include the institution of mandatory water rationing and mandatory reductions in water use; reoperation of major reservoirs in the State to minimize impacts of the drought; additional regulatory relief or permit streamlining as allowed under the Emergency Services Act; and other actions necessary to prevent, remedy or mitigate the effects of the extreme drought conditions.

On January 17, 2014, California Governor Brown declared a drought state of emergency, and directed State officials to take all necessary actions to prepare for these drought conditions.[41] State agencies, led by DWR, are in the process of executing a Statewide water conservation campaign, calling on Californians to reduce their water usage by 20 percent.

Urban Water Management Planning Act

The Urban Water Management Planning Act[42] (UWMPA) requires urban water suppliers that provide water for municipal purposes to more than 3,000 customers, or more than 3,000 afy of water, to prepare an UWMP. The intent of an UWMP is to assist water supply agencies in water resource planning given their existing and anticipated future demands. A UWMP must include a water supply and demand assessment comparing total water supply available to the water supplier with the total projected water use over a 20-year period. It is also mandatory that the management plans be updated every five years.

In recognition of the State requirements, CVWD completed an update of the UWMP 2010 Update in July 2011. Much of the data used in the UWMP 2010 Update was based on information in the 2005 CVWMP. However, domestic water demand projections and SWP purchases and reliability were updated in the UWMP 2010 Update to reflect changes since 2005.

Water Supply Assessments

Requirements for the preparation of a WSA set forth in Section 10910 of the California Water Code (Code) in accordance with SB 610, which was enacted in 2001 and became effective January 1, 2002.

41 Office of the Governor, "Governor Brown Declares Drought State of Emergency," http://gov.ca.gov/news.php?id=18368.
42 Sections 10610–10657, Urban Water Management Planning Act.

The Code requires a WSA be prepared for any project, which would consist of one or more of the following:

- A proposed residential development of more than 500 dwelling units
- A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space
- A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space
- A mixed-use project that includes one or more of the projects specified above
- A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project

The proposed development is a "project," as defined by Water Code Section 10912, and requires a WSA because it proposes over 500 housing units, more than 500,000 square feet of commercial space, and would employ more than 1,000 persons.

Section 10657 of the California Water Code requires cities and counties to request specific information on water supplies from the PWS that would serve any project that is subject to CEQA and is defined as a project in Water Code Section 10912. This information is to be incorporated into the environmental review documents prepared pursuant to CEQA.

Water Supply Verification

SB 221 was enacted in 2001 and became effective as of January 1, 2002. SB 221 amends Section 11010 of the Business and Professional Code, and Sections 66455.3 and 66473.7 and Section 65867.5 of the Government Code. SB 221 establishes the relationship between the WSA prepared for a project and the project approval under the Subdivision Map Act. Pursuant to California Government Code Section 66473.7, CVWD must provide a written verification of sufficient water supply prior to the approval of a new subdivision.

A WSV is required prior to the approval of a tentative subdivision map, or a parcel map for which a tentative map was not required, or a development agreement for a subdivision of property of more than 500 dwelling units. The purpose of the WSV is to provide the legislative body of a city, county, or the designated advisory agency with written verification from the applicable public water purveyor that a sufficient water supply is available or, in addition, a specified finding is made by the local agency that sufficient water supplies are, or will be, available prior to completion of the project. Therefore, a WSV

is required since this project has over 500 housing units and is a "subdivision," as defined by Government Code Section 66473.7.

Regional and Local

Coachella Valley Integrated Regional Water Management Plan

The 2014 Coachella Valley Integrated Regional Water Management Plan (IRWMP) presents an integrated regional approach for addressing water management issues through a process that identifies and involves water management stakeholders from the Coachella Valley. It is aimed at securing long-term water supply reliability within California by first recognizing the inter-connectivity of water supplies, then encouraging the development and implementation of projects that yield combined benefits for water supplies, water quality, and natural resources.

Coachella Valley water supplies are primarily obtained from: imported water supplied through the Coachella Canal and the Colorado River Aqueduct, as well as groundwater pumped from the Coachella Valley Groundwater Basin. Population growth and changes in land use in the context of global climate change correspond to an increase in water demand and pressure on the existing water supply sources, including groundwater basins. The Coachella Valley IRWMP indicates that conservation efforts are critical to reduce water demand over the long term, and to reduce pressure on the groundwater supply. Current water conservation efforts by various agencies have focused on urban use, agricultural irrigation, and golf course irrigation. IRWMP Objectives include:[43]

- Provide reliable water supply for residential and commercial, agricultural community, and tourism needs.
- Manage groundwater levels to reduce overdraft, manage perched water, and minimize subsidence.
- Secure reliable imported water supply, including restoring/improving reliability of SWP supply and securing other imported water supplies.
- Maximize local supply opportunities, including water conservation, water recycling and source substitution, and capture and infiltration of runoff.
- Protect groundwater quality and improve, where feasible.

43 Coachella Valley Regional Water Management Group, 2014 Coachella Valley Integrated Regional Water Management Plan, (February, 2014).

- Preserve and improve surface water quality by maintaining integrity of agricultural drainage systems, protecting the quality of natural runoff used for potable supply, and reducing pollution in stormwater runoff.
- Preserve the water-related local environment and restore, where feasible
- Manage flood risks, including current acute needs and needs for future development.
- Optimize conjunctive use of available water resources.
- Maximize stakeholder involvement and stewardship in water resource management.
- Address water-related needs of local Native American culture.
- Address water and sanitation needs of disadvantaged communities, including those in remote areas.
- Maintain affordability of water.

The Coachella Valley IRWMP engaged the Valley's tribal governments in order to better understand their critical water resources issues and needs. The following six Native American tribes in the region were engaged during outreach for the IRWMP:[44]

- Agua Caliente Band of Cahuilla Indians
- Augustine Band of Mission Indians
- Cabazon Band of Mission Indians
- Morongo Band of Mission Indians
- Torres-Martinez Desert Cahuilla Indians
- Twenty-Nine Palms Band of Mission Indians

Due to their historical presence in the Valley, tribes face specific issues and considerations with relation to the IRWMP. Native Americans are the original inhabitants of the Coachella Valley, having resided in the Coachella Valley for centuries. The water in the Coachella Valley has sustained these Native American people agriculturally, economically, culturally, and spiritually for a long period of time, as it still does today. Key issues on tribal lands include lack of adequate water and wastewater infrastructure,

44 Coachella Valley Regional Water Management Group, 2014 Coachella Valley Integrated Regional Water Management Plan, (February, 2014).

particularly in East Valley areas. The Coachella Valley's tribes are also concerned with protection of culturally significant native plant species and habitats, as well as culturally significant water resources on tribal lands. Establishing new relationships between the IRWMP program and local tribes will improve regional groundwater management. The Coachella Valley Regional Water Management Group intends to collaborate with the local tribes on long-term water management planning to ensure that the water supply within the Coachella Valley is adequate for all users.[45]

Coachella Valley Water District

Coachella Valley Water Management Plan

CVWD released its 2010 CVWMP Update in January 2012 to continue to address the overdraft conditions in the Coachella Valley groundwater basin, and to ensure that CVWD and other water agencies in the Coachella Valley can reliably meet current and future water demands. CVWD recognizes the need to update the Plan periodically to respond to changing external and internal conditions.

The 2010 CVWMP Update is a 35-year blueprint for wise water management and the basis for all of the water district's efforts to preserve the valley's groundwater source, and calls for a multifaceted approach including:

- increased water conservation by all types of water users;
- increasing the imported water supply from the Coachella Canal and SWP;
- increasing the use of the imported supply and recycled water, instead of groundwater, for irrigation; and
- expanding groundwater replenishment efforts, especially in the east valley.

The 2010 CVWMP Update indicates that urban water use in 2009 was 14 percent less per customer than in 2003 and has shown a steady downward trend since 2003. Based on a review of available water usage data, Coachella Valley urban water users appear to have exceeded the 10 percent objective established in the 2002 WMP. Based on comparisons with 2000-2002 average water use per acre, agricultural water usage has varied from 2003 to 2008, but has generally declined about 9.9 percent. Therefore, Coachella Valley agricultural water users have exceeded the 7 percent objective established in the 2002 WMP.

45 Coachella Valley Regional Water Management Group, 2014 Coachella Valley Integrated Regional Water Management Plan, (February, 2014).

The 2010 CVWMP Update reaffirms a dedication to the goal of maintaining a reduced level of water consumption through 2035, and emphasizes cooperation with municipalities, local water agencies, and tribes in regional planning and implementation. As part of the 2009 comprehensive water package, the California Legislature adopted SBx7-7 (Steinberg), which mandates that California urban water agencies achieve a 20 percent reduction in per capita water demand by 2020. This legislation will require Coachella Valley urban water users to increase conservation over and above the goal established in the 2002 WMP. The following are among some of the recommended conservation measures and activities outlined in the 2010 CVWMP Update for the board of directors to consider over the next 25 years in response to increased population growth and potential reductions in future SWP water reliability:[46]

- Continued implementation of the 2009 Valley-wide Landscape Ordinance (Ordinance 1302.1 Revised by Ordinance 1374)
- Installation of automated or "smart" water meters
- Extension of the Landscape Ordinance to include all landscaping regardless of size (current limit is 5,000 square-feet or larger for homeowner furnished landscaping)
- Encourage existing golf courses to convert landscaping to meet the 2009 Landscape Ordinance, limiting turf to 4 acres per hole plus 10 acres for associated practice areas.
- Implementation of water budget-based tiered water rates or other conservation based rates by other water agencies
- Further decreases in the water allocations for landscape irrigation consistent with good irrigation practices and desert landscaping
- Landscape retrofit rebates—i.e., economic incentives for replacing high water use landscaping, also known as "cash for grass"
- Restrictions on the total amount of turf allowed
- Mandated use of smart irrigation controllers by all customers
- Audits of new development to assure continued compliance with the Landscape Ordinance
- Plumbing retrofits for existing properties including mandatory retrofit (ultra low flush toilets, showerhead replacement, etc.) prior to sale of property

46 CVWD, 2013-14 Annual Review and Water Quality Report, Strategic Plan Guides Future Actions, (June 16, 2010) 3.

- Conservation rebates for high-efficiency clothes washers
- Compliance with California Green Building Code Standards (California Code of Regulations Title 24, Part 11, 2009)
- Water distribution system audits and loss reduction programs

The 2010 CVWMP Update recognizes that groundwater capacity fluctuates, in order to make up the difference between the demand and the supply. The demand for groundwater has annually exceeded the limited natural recharge of the groundwater basin. Other than canal water for irrigation, recycled water and desalinated drain water, all water delivered to the end users is obtained from the groundwater basin. The Coachella Valley's principal groundwater basin, the Whitewater River Subbasin, has a capacity of approximately 30 million acre-feet.

The 2010 CVWMP Update discusses that CVWD has many programs to maximize the water resources available to it including recharge of its Colorado River and SWP supplies, recycled wastewater, desalinated agricultural drain water, conversion of groundwater uses to Canal water and water conservation including tiered water rates, landscaping ordinance, outreach and education. The 2010 CVWMP Update and CVWD replenishment assessment programs establish a comprehensive and managed effort to eliminate the overdraft. These programs allow CVWD to maintain the groundwater basin as its primary water supply and to recharge the groundwater basin as its other supplies are available.

Urban Water Management Plan

CVWD completed the UWMP 2010 Update in July 2011, as required under California Water Code, Division 6, Part 2.6. Much of the data used in the UWMP 2010 Update was based on information in the 2005 CVWMP. However, domestic water demand projections and SWP purchases and reliability were updated in the UWMP 2010 Update to reflect changes since 2005. It is important to note that projected water demand and supply data, and water conservation programs in the UWMP 2010 Update, apply only to the CVWD service area, as opposed to the entire Whitewater River Subbasin.

A WSA is required to document the Project's planned future uses and to assess water demand associated with this Project. Water Code Section 10910(c)(2) states that if demand from potential future growth is accounted for in the most recently adopted UWMP, the water supplier may incorporate the requested information from the UWMP in preparing the WSA. CVWD water demand projections contained in the UWMP 2010 Update and 2010 CVWMP Update take into account the increased growth and increased intensity throughout their service area. The Project is within the service area covered by the 2010 CVWMP Update and the UWMP 2010 Update.

Landscape Water Conservation Ordinance No. 1302.1

On July 17, 2007, the Riverside County Board of Supervisors declared a local emergency for Riverside County due to severe drought conditions and issued Ordinance No. 1302.1, an ordinance of CVWD establishing landscape and irrigation system design criteria. In accordance with Ordinance 1302.1, the provisions for new or rehabilitated landscapes apply to all new and rehabilitated landscaping for private, public, recreational, commercial and governmental development projects that require a permit and developer-installed landscaping in single-family tracts, five or more infill lots and multifamily projects.

The purpose of the landscape and irrigation system design criteria is to conserve water by establishing effective water efficient landscape requirements for newly installed and rehabilitated landscapes. It is also the intent of these criteria to implement the requirements of the State of California Water Conservation in Landscaping Act, Government Code Section 65591, et seq. It is the intent of CVWD to promote water conservation through climate appropriate plant material, efficient irrigation systems and to create a "Lush and Efficient" landscape theme through enhancing and improving the physical and natural environment.

As outlined in Ordinance 1302.1, project applicants are required to submit a landscape documentation package, which is required to include a water conservation concept statement; calculation of the maximum applied water allowance; calculation of the estimated applied water use; calculation of the estimated total water use; a landscape design plan; an irrigation design plan; a grading design plan; and a soil analysis (optional).

Agua Caliente Cahuilla Band of Indians

Agua Caliente Land Use Ordinance

The purpose of the Agua Caliente Band of Cahuilla Indians Land Use Ordinance ("Tribal Land Use Ordinance") is to provide standards and regulations to control land uses on Indian Reservation Lands, maintain and protect the Reservation's unique natural and cultural resources, and to preserve the natural environment. Article VII, Landscaping Standards, of the Tribe's Land Use Ordinance promotes the use of native, desert, and other drought tolerant plants to reduce water demand on the Reservation. The landscape management practices identified in this article of the Tribal Land Use Ordinance ensure maximum water efficiency in comprehensive landscaping plans, irrigation plans, plant materials, decorative water features, and places limitations on turf material.

Tribal Ordinance Controlling Pollutant Discharges into the Waters of the Reservation

The purpose of this Tribal Ordinance is to regulate and control all pollutant discharges into the waters of the Reservation.[47] Per this Ordinance, no pollutant discharges are allowed into the waters of the Reservation unless there is prior consultation with the Federal, Tribal, or State agency with jurisdiction under the Clean Water Act and/or the Safe Drinking Water Act, and if required, appropriate permit(s) are obtained.

Tribal Ordinance Regulating Use of Lands Within the Boundaries of the Agua Caliente Indian Reservation for Public Utility Purposes

The purpose of this Tribal Ordinance is to regulate and restrict the use of lands within the exterior boundaries of the Reservation by public utility projects which do not directly benefit and serve the members of the Agua Caliente Band.[48] The Ordinance includes pipelines, canals, aqueducts, and water lines within the realm of public utilities.

City of Rancho Mirage

The City of Rancho Mirage has complied with AB 1881 and with CVWD Ordinance No. 1302.1 with its water-efficient Landscape Ordinance in Chapter 7.02 (Valley-wide Water-efficient Landscaping) of the City of Rancho Mirage's Municipal Code. This section of the City's Municipal Code requires project applicants to submit a landscape documentation package, which is required to include a water conservation concept statement, calculation of maximum allowed water allowance (MAWA), calculation of the estimated applied water use, calculation of the estimated total water use, a landscape design plan, an irrigation design plan, a grading design plan, and a soil analysis (optional).

B. ENVIRONMENTAL IMPACTS

1. Thresholds of Significance

In order to assist in determining whether a project would have a significant effect on the environment, the Tribe finds a project may be deemed to have significant impacts on water service if it would:

47 Agua Caliente Band of Cahuilla Indians, "Tribal Ordinance Controlling Pollutant Discharges into the Waters of the Agua Caliente Indian Reservation," http://www.aguacaliente.org/downloads/Ordinance24.pdf.

48 Agua Caliente Band of Cahuilla Indians, "Tribal Ordinance Regulating the Use of Lands Within the Boundaries of the Agua Caliente Indian Reservation for Public Utility Purposes," http://www.aguacaliente.org/downloads/Ordinance07.pdf.

Threshold 5.15.1 **Require or result in the construction of new water treatment facilities or expansion of existing facilities, construction of which could cause significant environmental impacts; or**

Threshold 5.15.2 **Have insufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed.**

2. Methodology

The available supplies and water demands for CVWD's service area were analyzed to assess the region's ability to satisfy demands during three scenarios: a normal water year, a single dry year, and multiple dry years. The service area for this analysis does not include the water provided by the Cities of Indio or Coachella, or the Myoma Dunes Water Company, Mission Springs Water District, or DWA.

The analysis of water resources and water supply is based upon the understanding of projected water supplies as developed by CVWD and used the WSA/WSV prepared for the Project (**Appendix H**) including estimates of available groundwater, Colorado River water, and SWP sources.

The WSA/WSV relies on the water supply and demand planning considerations established in the 2010 CVWMP Update, the 2014 CVWMP Status Report, the CVWD 2010 UWMP, and the Draft Delivery Reliability Report 2013.

Because groundwater production is driven by demand, CVWD assumes that supplies are equal to demand. This supply is considered reliable and does not vary in dry or multiple dry water years. According to the 2010 UWMP, the aquifer and other sources of supply are adequate for a single dry year and also multiple dry years, for a 20-year period. Without replenishment, the decline in storage would be less than 0.5 percent of the basin storage each year.[49]

The 2014 Status Report recommendation is that population projections be reduced from 1,136,739 in 2045, as published in the 2010 CVWMP Update, to approximately 920,000, based on Southern California Association of Governments (SCAG) Regional Transportation Plan (RTP) 2012 projections. This is approximately an 18 percent reduction in population in 2045 when compared to that of the 2010 CVWMP Update. The 2014 Status Report shows revised water demand projections compared to the 2010 CVWMP Update demand projections. The 2014 Status Report values were determined by revising the basis for the 2010 CVWMP Update population projections from Riverside County Center for

49 CVWD, 2010 Urban Water Management Plan, (June 2011), 5-8.

Demographic Research 2006 growth forecasts (RCP06) to SCAG RTP 2012 projections. While urban and golf course demands are reduced by 22 percent and 16 percent, respectively, agricultural demand is increased by approximately 13 percent. This agricultural demand increase results from a slower rate of agricultural land conversion to urban uses. Total reduction in 2045 water demands is approximately 14 percent. However, it is important to note that this is not an elimination of demand but a deferral of demand to later years. Buildout growth will occur over a longer period of time.

It is assumed that population growth associated with the Project is included in the population growth projections for the CVWD area. Therefore, it can be assumed that Project water demand is also included within 2010 UWMP growth projections. Since supply is driven by demand, it can be assumed that supply is also included within the 2010 UWMP growth projections, and therefore that adequate water is available to supply the Project. The following tables show Project Demand through 2022, at which point construction of the Tribal Planning Areas would be underway, through 2035.

Quantitative estimates of water supplies and demands were considered as part of the impact assessment. The Project's water supply analysis included in this draft EIS is based upon the WSA/WSV, which is incorporated herein by reference and included as **Appendix H**.

The WSA for the Project focuses on the adequacy of groundwater and other alternative water sources to supply amounts of water sufficient to meet the water demands of the Project. Additional water sources are considered as a supplement to groundwater in that they are used to recharge the aquifer, serve as a source substitution for groundwater, or are used for irrigation.

Once available to the Project Site, the Project will utilize recycled water on site to supplement non-potable water demands. Additionally, the Project may also use drainage water (stormwater) contained on- site for reuse.

3. Project Design Features

The following Project Design Features (PDFs) are incorporated into the Project and would reduce impacts on the water supply. These features were taken into account in the analysis of potential impacts.

PDF 5.15.1-1 Development within the Active Adult Community shall include the extension of an 18-inch water main to Planning Area 8 from Point of Connection (POC) 5 at Ramon Road and future "A" Street Boulevard intersection within a mutually agreed upon easement along "A" Street Boulevard and Casino Drive to be established by Tribal Council and the developers of the Active Adult Community.

PDF 5.15.1-2 All connections of the Active Adult Community water lines to the existing 18-inch water line beneath Dinah Shore Drive (POC 1) and Los Alamos Road (POC 2 and 3 on Section 24 Specific Plan Figure 24, Conceptual Potable Water Plan) shall be consistent with Tribal, City standards if property is annexed, and/or Coachella Valley Water District (CVWD) standards.

PDF 5.15.1-3 All connections of the Project water lines to the existing 18-inch water lines beneath Los Alamos Road, Ramon Road, Bob Hope Drive, and Dinah Shore Drive shall be consistent with the CVWD Development Design Manual.

PDF 5.15.1-4 All proposed water wells to be constructed within the Project Site shall be consistent with the CVWD Development Design Manual.

PDF 5.15.1-5 Application of Low Impact Design (LID) standards to all interior and exterior plumbing features, including low-flow toilets, low-gpm plumbing fixtures, and tankless water heaters.

PDF 5.15.1-6 Utilization of xeriscape planting principles and use of native and/or drought-tolerant plant materials that require little or no irrigation. Plants with similar water requirements should be grouped together, a technique known as hydro zoning. Decorative water features are to be designed to minimize water consumption and evaporation.

PDF 5.15.1-7 Automated, high-efficiency irrigation systems (such as bubbler irrigation and low-angle, low-flow spray heads) shall be installed to reduce water demand and use. Moisture sensors and other similar irrigation technology shall be utilized to ensure that landscaping is watered only as needed.

PDF 5.15.1-8 Minimize use of turf except within active outdoor recreation uses.

PDF 5.15.1-9 Grey and recycled water infrastructure should be integrated in the landscape design so that grey water, recycled water and/or collected rainwater can be used wherever feasible for landscape irrigation.

PDF 5.15.1-10 Reduced width streets (32 feet) that reduce impervious surfaces that generate run-off.

PDF 5.15.1-11 Retain and treat all stormwater on site from up to a 100-year storm event.

4. Project Impacts

Require or result in the construction of new water treatment facilities or expansion of existing facilities, construction of which could cause significant environmental impacts

Active Adult Community and Tribal Planning Areas

Development of the Project is expected to increase demand for water service within CVWD service boundaries. As a result, additional water supplies would be required to accommodate the demands of the Project. Infrastructure improvements would be installed to support the development of the Project, including water and utility improvements. CVWD is the PWS for the Project Site and would provide water service for the Project.

The Project Site is located within a combination of the Mission Hills Pressure Zone and the Sky Mountain Pressure Zone. CVWD has agreements in place with a developer and the City of Rancho Mirage for the expansion of the Mission Hills Pressure Zone. These agreements obligate CVWD to design and construct a 3.2 million gallon reservoir and approximately 17,500 feet of 36-inch diameter domestic water transmission pipeline located on the north side of Interstate 10 (I-10) which would be constructed by CVWD.[50] Although the Project would benefit from the Mission Hills Pressure Zone project outlined above, CVWD would need additional facilities to provide for the orderly expansion of its domestic water systems.

As shown on **Figure 3.0-10, Conceptual Potable Water Plan**, the conceptual potable water plan illustrates the location of existing and proposed domestic use water lines and up to seven well sites on site that would be provided within the Project Site. The on-site potable water lines would be a combination of 18-inch, 12-inch, and 8-inch lines. The proposed 18-inch water lines would serve the central, southern, and western portion of the Active Adult Community and all of the Tribal Planning Areas. The proposed 12-inch and 8-inch water lines would branch off the 18-inch water lines to supply the remaining areas of the Active Adult Community with potable water. Project Design Feature 5.15.1-1 provides an agreed upon easement for the construction of the proposed 18-inch water lines which would connect to Ramon Road. Project Design Features 5.15.1-2 and PDF 5.15.1-3 will ensure that the construction of the potable water lines at POC 1, 2, and 3 are consistent with Tribal standards, City standards if the property is annexed, and/or CVWD design standards. Similar to the 12-inch and 8-inch water lines, the 18-inch water line would be designed consistent with CVWD standards as identified in

50 CVWD, *Letter to Mr. Bob Paradise concerning Section 24 Development: APN Nos. 673-120-023; 673-120-024; 673-120-025*; dated March 14, 2013.

PDF 5.15.1-3. A total of seven well sites are proposed within the Project Site; four within the Active Adult Community and three within the Tribal Planning Areas. Project Design Feature 5.15.1-4 will ensure that all future wells developed on site would be constructed consistent with the CVWD Development Design Manual.

Project Design Features PDF 5.15.1-5 through PDF 5.15.1-11 require the use of LID interior and exterior plumbing fixtures, landscaping that requires little or no irrigation consistent with the Tribe's Land Use Ordinance, high efficiency irrigation systems, use of grey and recycled water where feasible, less impervious surface area, and the retention of on-site stormwater to allow for groundwater infiltration. The Project would, therefore, be consistent with the Tribe's and CVWD water efficiency goals. As such, the Project would not require the construction of new water treatment facilities or the expansion of existing facilities which would cause significant environmental impacts. Accordingly, impacts would be less than significant.

Have insufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed

A WSA/WSV prepared for the Project is provided in **Appendix H** of this Draft EIS. The WSA/WSV relied on CVWD's 2010 UWMP, 2010 CVWMP Update, the 2014 CVWMP Status Report, Coachella Valley Integrated Regional Water Management Plan, CVWD Engineer's Report on Water Supply and Replenishment Assessment for both the West and East Whitewater River Subbasin Areas, and the CVWD Annual Water Quality Report in 2014. The WSA/WSV was prepared in compliance with requirements of SB 610 and SB 221 and was reviewed and approved by CVWD. The Project would rely on groundwater as a water supply source for water demand.

Water Demand Estimate—Active Adult Community

General consumption estimates by land uses from standardized historical data are presented in the *Section 24 Specific Plan Water Supply Assessment and Water Supply Verification* (**Appendix H**) to calculate annual consumption. Using the Project-specific demand rates, the Active Adult Community would demand approximately 437 acre-feet of water per year, as identified in **Table 5.15.1-14, Active Adult Community Estimated Water Demand**. In accordance with the requirements of State

legislation,[51] specific performance standards for indoor, landscape, and commercial, industrial and institutional uses have been used.

Table 5.15.1-14
Active Adult Community Estimated Water Demand

Water Demand Use	afy
Residential Use	133.1
Clubhouse	3.1
Clubhouse-Restaurant	1.3
Open Space	299.5
Total	**437.0**

Indoor Demand

Potable water demand was calculated for all indoor uses based on Project-specific estimates. An interior residential model rate of 99 gallons per unit per day (gpud) has been used as an interior component for all new residential water sues within the Project Site.[52] For Clubhouse uses, a demand factor of 0.096 gallons per square foot was used;[53] for Clubhouse-Restaurant, a demand factor of 0.907 was used.[54]

Outdoor Demand

The Project proposes potable water sources for open space, requiring 299.5 afy of potable water, using a demand factor of 3.89 afy per acre. Initially, the Project would rely on groundwater for its outdoor irrigation demand. However, as previously described in PDF 5.15.1-9, the Project would gradually implement the use of recycled and grey water into landscape design, where feasible. The use of water would reduce the demand of the Active Adult Community on the groundwater basin.

51 SB 7-7 (Steinberg, Chapter 4, Statutes of 2009), Statewide Water Conservation, creates a framework for future planning and actions by urban and agricultural water suppliers to reduce California's water use. For the first time in California's history, this bill requires the development of agricultural water management plans and requires urban water agencies to reduce Statewide per capita water consumption 20 percent by 2020. Specifically, the bill requires urban water suppliers to utilize methods to achieve the required reduction. Among the methods that can be used include the use of performance standards for water use that are specific to indoor, landscape and commercial, industrial and institutional uses.

52 0.55 gpd/person x 1.80 person/unit = 99.0 gpd/unit.

53 Office building demand is established using prior accepted reference (rate of 35 gallons/year/square foot of office space as obtained from Commercial and Institutional End Used of Water, AWWA Research Foundation Table 6.18.

54 Restaurant domestic demand is established using prior accepted reference rate of 331 gallons/year/square foot of restaurant space as obtained from Commercial and Institutional End Uses of Water, AWWA Research Foundation Table 6.16.

Water Demand Estimate—Tribal Planning Areas

Table 5.15.1-15, Tribal Planning Areas Estimated Water Demand, identifies water demand for the Tribal Planning Areas would be 1,342.6 acre-feet of water per year, using the Project-specific demand rates.

Table 5.15.1-15
Tribal Planning Areas Estimated Water Demand

Water Demand Use	afy
Non-Residential	1,050.3
Open Space	71.6
Residential Use	220.7
Total	**1,342.6**

Indoor Demand

Potable water demand was calculated for all indoor uses based on project-specific estimates in the same manner as for the Active Adult Community. An interior residential model rate of 163.35 gpud has been used as an interior component for all new residential water uses within the Project Site. For retail/commercial and office uses, a demand factor of 0.096 gallons per square foot was used; for restaurant uses, a demand factor of 0.907 was used. The Tribal Planning Areas would rely on groundwater for its potable water supply and would require a total of 1,050.3 afy for indoor uses.

Outdoor Demand

Using a demand factor of 3.89 afy per acre of Open Space, water demand proposed for Tribal Planning Areas outdoor use would be 71.6 afy. Initially, the Project would rely on groundwater for its open space and outdoor water demand. PDF 5.15.1-5 would direct development within the Project Site to gradually implement the use of recycled and grey water into landscape design, where feasible. The use of water would reduce the demand of the Tribal Planning Area on the groundwater basin.

Water Demand Estimate - Whole Project

As shown in **Table 5.15.1-16, Projected Annual Project Demand (afy),** when taken together the Active Adult Community and Tribal Planning Areas would result in a total demand of 1,779.6 afy, which is approximately 0.7 percent of the CVWD projected total water demand for an average, dry year, or multiple dry water year in 2036.

Table 5.15.1-16
Projected Annual Project Demand (afy)

Year	Demand	Cumulative Project Demand
Active Adult Community		
Phase 1 (2017)	87.4	87.4
Phase 2	87.4	174.8
Phase 3	87.4	262.2
Phase 4	87.4	349.6
Phase 5 (2021)	87.4	437.0
Tribal Planning Area		
2022	89.5	526.5
2023	89.5	616.0
2024	89.5	705.5
2025	89.5	795.0
2026	89.5	884.5
2027	89.5	974.0
2028	89.5	1,063.5
2029	89.5	1,153.0
2030	89.5	1,242.5
2031	89.5	1,332.0
2032	89.5	1,421.5
2033	89.5	1,511.0
2034	89.5	1,600.5
2035	89.5	1,690.0
2036	89.5	1,779.5

Note: Rounding results in 1,779.5 afy when compared to the unrounded number of 1,779.6 afy.

Analysis of Water Supply and Demand—Active Adult Community

The available supplies and water demands for CVWD's service area were analyzed in the 2010 UWMP to assess the region's ability to satisfy demands during three scenarios: a normal water year, a single-dry

year, and multiple-dry years (see **Appendix H**). The following discussion presents the supply-demand balance for the various drought scenarios in the CVWD service area for the Project.

Table 5.15.1-17, Dry Water Year Supply and Demand Assessment—2017 to 2020, sets forth the supply and demand scenario, showing CVWD growth in water demand and the percentage the total supply and the percentage of the groundwater supply that would be utilized by the Active Adult Community annually between 2017 and 2020.

Table 5.15.1-18, Dry Water Year Supply and Demand Assessment—2021 to 2024, sets forth the supply and demand scenario, showing CVWD growth in water demand and the percentage of the total supply and the percentage of the groundwater supply that would be utilized by the Active Adult Community annually between 2021 and 2024.

The Active Adult Community would require an estimated 437 afy, or 196 gpcd, at buildout in 2022. This estimate is based on the demand rates previously noted and is consistent with the maximum water allowance requirements set forth in SBX 7-7, the CVWD Landscape Ordinance 1302.1, the Tribe Land Use Ordinance, the City Municipal Code, and CVWD demand estimates.

The Active Adult Community incorporates a number of features that reduce the overall water demand and provide for a reduction in use. These include a number of water conservation measures for both indoor and outdoor use for both residential and commercial development, as described in PDF 5.15.1-5 through PDF 5.15.1-11.

As previously discussed in the Methodology, the 2010 UWMP utilizes approved population projections from CVAG, which includes projections from buildout of the Project Site. CVWD's 2020 urban water use target for urban water use is 473 gpcd.[55] The Active Adult Community's demand would be 196 gpcd, which is below the20 by 2020 per capita target of 473 gpcd necessary to manage the groundwater basin. By 2022, the Active Adult Community would utilize 0.39 percent of the total CVWD water supply and 0.55 percent of the total groundwater supply for the CVWD, for which there would not be an increase in overdraft. Therefore, the Active Adult Community's demand is within the CVWD 20 by 2020 target necessary to manage the groundwater basin.

55 Coachella Valley Water District, *2010 Urban Water Management Plan,* (June 2011). Table 3-7.

Table 5.15.1-17
Dry Water Year Supply and Demand Assessment—2017 to 2020

	Average Water Year	Single Dry Water Year	Multiple Dry Water Years		
	2017	2018	2018	2019	2020
Supply					
Supplier-Produced Groundwater	121,421	122,806	122,806	124,206	125,600
Treated Colorado River Water	9,285	11,850	11,850	15,125	19,300
Untreated Colorado River Water	3,065	4,707	4,707	7,289	11,100
Desalinated Agricultural Drain Water	0	0	0	0	0
Total Supply	**137,140**	**143,188**	**143,188**	**149,503**	**156,100**
Project Water Demand	87.4	174.8	174.8	262.2	349.6
Percent of Total Supply	**0.06**	**0.12**	**0.12**	**0.18**	**0.22**
Percent of Groundwater Supply	**0.07**	**0.14**	**0.14**	**0.21**	**0.28**

*Source: See **Table 5.15.1-16** for supply growth rates and for annual Project water demand.*

Table 5.15.1-18
Dry Water Year Supply and Demand Assessment—2021 to 2024

	Average Water Year	Single Dry Water Year	Multiple Dry Water Years		
	2021	2022	2022	2023	2024
Supply					
Supplier-Produced Groundwater	126,454	127,314	127,314	128,180	129,051
Treated Colorado River Water	21,272	23,447	23,447	25,843	28,484
Untreated Colorado River Water	13,190	15,674	15,674	18,625	22,132
Desalinated Agricultural Drain Water	0	0	0	0	0
Total Supply	161,969	168,059	168,059	174,378	180,935
Project Water Demand	437.0	526.5	526.5	616.0	705.5
Percent of Total Supply	**0.27**	**0.31**	**0.31**	**0.35**	**0.39**
Percent of Groundwater Supply	**0.35**	**0.41**	**0.41**	**0.48**	**0.55**

*Source: See **Table 5.15.1-16** for supply growth rates and for annual Project water demand.*

Given that the Active Adult Community has an adequate supply of water from existing entitlements and resources, impacts would be less than significant.

Analysis of Water Supply and Demand—Whole Project

Development of the Tribal Planning Areas is assumed to occur after the buildout of the Active Adult Community in 2022. Based on a 14-year buildout between 2023 and 2036, the average annual increase in demand would be 89.5 afy as illustrated in **Table 5.15.1-16**. To provide a conservative analysis of the Project's water demand, it is assumed that the Tribal Planning Area would build out in a linear fashion between 2022 and 2036. **Table 5.15.1-16** also includes the cumulative Project total demand. The supply and demand methodology previously explained for the Active Adult Community also applies to the Tribal Planning Areas.

Table 5.15.1-18 sets forth the supply and demand scenario, showing CVWD growth in water demand and the percentage of the total supply and the percentage of the groundwater supply that would be utilized by the Project annually between 2021 and 2024.

Table 5.15.1-19, Dry Water Year Supply and Demand Assessment—2025 to 2028, sets forth the supply and demand scenario, showing CVWD growth in water demand and the percentage of the total supply and the percentage of the groundwater supply that would be utilized by the Project annually between 2025 and 2028.

Table 5.15.1-20, Dry Water Year Supply and Demand Assessment—2029 to 2032, sets forth the supply and demand scenario, showing CVWD growth in water demand and the percentage of the total supply and the percentage of the groundwater supply that would be utilized by the Project annually between 2029 and 2032.

Table 5.15.1-21, Dry Water Year Supply and Demand Assessment—2033 to 2036, sets forth the supply and demand scenario, showing CVWD growth in water demand and the percentage of the total supply and the percentage of the groundwater supply that would be utilized by the Project annually between 2033 and 2036.

The Project would require an estimated 1,779.6 afy, which is approximately 0.7 percent of the CVWD projected total water supply for an average year, dry year, or multiple dry water year in 2036. This estimate is based on the demand rates previously noted and is consistent with the maximum water allowance requirements set forth in SBX 7-7, the CVWD Landscape Ordinance 1302.1, the Tribe's Land Use Ordinance, the City Municipal Code, and CVWD demand estimates.

Table 5.15.1-19
Dry Water Year Supply and Demand Assessment—2025 to 2028

	Average Water Year	Single Dry Water Year	Multiple Dry Water Years		
	2025	2026	2026	2027	2028
Supply					
Supplier-Produced Groundwater	129,900	130,612	130,612	131,328	132,047
Treated Colorado River Water	31,400	32,876	32,876	34,421	36,039
Untreated Colorado River Water	26,300	28,457	28,457	30,790	33,315
Desalinated Agricultural Drain Water	0	0	0	0	0
Total Supply	187,700	192,317	192,317	197,048	201,896
Project Water Demand	795.0	884.5	884.5	974.0	1,063.5
Percent of Total Supply	0.42	0.46	0.46	0.49	0.53
Percent of Groundwater Supply	**0.61**	**0.68**	**0.68**	**0.74**	**0.81**

*Source: See **Table 5.15.1-16** for supply growth rates and for annual Project water demand.*

Table 5.15.1-20
Dry Water Year Supply and Demand Assessment—2029 to 2032

	Average Water Year	Single Dry Water Year	Multiple Dry Water Years		
	2029	2030	2030	2031	2032
Supply					
Supplier-Produced Groundwater	137,771	133,500	133,500	134,475	135,456
Treated Colorado River Water	37,733	39,500	39,500	41,258	43,094
Untreated Colorado River Water	36,047	39,000	39,000	41,746	44,685
Desalinated Agricultural Drain Water	0	0	0	2,000	4,000
Total Supply	206,863	212,000	212,000	217,809	223,777
Project Water Demand	1,153.0	1,242.5	1,242.5	1,332.0	1,421.5
Percent of Total Supply	**0.56**	**0.59**	**0.59**	**0.61**	**0.64**
Percent of Groundwater Supply	**0.84**	**0.93**	**0.93**	**0.99**	**1.05**

*Source: See **Table 5.15.1-16** for supply growth rates and for annual Project water demand.*

Table 5.15.1-21
Dry Water Year Supply and Demand Assessment—2033 to 2036

	Average Water Year	Single Dry Water Year	Multiple Dry Water Years		
	2033	2034	2034	2035	2036
Supply					
Supplier-Produced Groundwater	136,445	137,441	137,441	128,700	129,640
Treated Colorado River Water	45,011	47,014	47,014	49,100	51,285
Untreated Colorado River Water	47,830	51,198	51,198	54,800	58,658
Desalinated Agricultural Drain Water	6,000	8,000	8,000	10,000	12,000
Total Supply	229,908	236,708	236,708	242,700	249,329
Proposed Project Water Demand	1,511.0	1,600.5	1,600.5	1,690.0	1,779.5
Percent of Total Supply	**0.66**	**0.68**	**0.68**	**0.70**	**0.71**
Percent of Groundwater Supply	**1.11**	**1.16**	**1.16**	**1.31**	**1.37**

*Source: See **Table 5.15.1-16** for supply growth rates and for annual Project water demand.*

The Project incorporates a number of features that reduce the overall water demand and provide for a reduction in use. These include a number of water conservation measures for both indoor and outdoor use for both residential and commercial development, as described in PDF 5.15.1-5 through PDF 5.15.1-11. As shown in **Table 5.15.1-20**, the Project would utilize approximately 0.71 percent of the total CVWD water supply and 1.37 percent of the total groundwater supply for the CVWD by 2036.

The Project's total water demand estimate is approximately 1,780 afy; this total water demand corresponds to approximately 3.1 afy per acre which is within the average future water use per acre estimated in the 2010 CVWMP Update. As previously discussed in the Methodology, the 2010 UWMP utilizes approved population projections from CVAG which includes projections from buildout of the Project Site. CVWD's 20 by 2020 target for urban water use is 473 gpcd.[56] The Project's total urban water use would be 277 gpcd, or 0.74 afy per residential dwelling unit. As such, the Project's demand of 277 gpcd is below the 20 by 2020 per capita target of 473 gpcd necessary to manage the groundwater basin.

56 Coachella Valley Water District, *2010 Urban Water Management Plan,* (June 2011). Table 3-7.

In 2036, the Project would account for 1.6 percent of the total CVWD's 2010 UWMP urban demand and approximately 0.3 percent of CVWD's total potable and non-potable 2010 demand when compared to the urban water demands presented in **Table 5.15.1-10**. Given that the CVWD has an adequate supply of water from existing entitlements and resources and that the Project would demand less than 3 percent of groundwater supplies in 2036, Project impacts would be less than significant.

5. Cumulative Impacts

Future Water Demands

Regional development of residential, commercial, and industrial sites will result in an increased demand on the potable water supply. The entire Coachella Valley utilizes an underground aquifer for its water supply needs. Therefore, cooperation between regional communities and CVWD is required to prevent depletion of this water supply, as identified in the 2010 CVWMP Update.

The population of the CVWD service area is projected to increase up to 512,200 people by 2035.[57] This population increase will result in a substantial increase in water deliveries. The projected water demands for the period 2010 through 2035 in five-year increments is shown in **Table 5.15.1-22, Past, Current, and Projected Domestic Water Demand**. As shown, the total estimated domestic water demand for the year 2035 will be 234,800 acre-feet.

Total Projected Water Uses

Table 5.15.1-23, Summary of Water Demands in the Coachella Valley, shows water uses for the CVWD service area for the period 2015 through 2045. CVWD estimates that the total projected water demand for all users will be 885,400 afy by the year 2045. This amount of water includes buildout of the Project (Active Adult Community and Tribal Planning Areas), related projects, and other projects that will be developed by the year 2045.

57 CVWD, 2010 Urban Water Management Plan (July, 2011).

Table 5.15.1-22
Past, Current, and Projected Domestic Water Demand

Year	Water Use	Single Family	Multi-Family	Commercial	Governmental	Landscape	Construction	Total
2005	# Accounts	90,386	3,309	3,420	236	4,147	420	101,522
	Deliveries (afy)	81,571	6,716	5,170	924	25,851	2,975	123,207
2010	# Accounts	92,863	3,610	3,821	377	5,142	188	106,018
	Deliveries (afy)	59,902	8,629	4,841	1,023	28,994	920	104,309
2015	# Accounts	110,400	4,500	4,400	430	6,100	240	126,100
	Deliveries (afy)	69,900	10,100	5,600	1,200	33,800	1,100	121,700
2020	# Accounts	138,900	6,000	5,400	530	7,600	290	158,700
	Deliveries (afy)	86,700	12,500	7,000	1,500	42,000	1,300	151,000
2025	# Accounts	169,400	7,500	6,400	630	9,100	340	193,400
	Deliveries (afy)	104,300	15,000	8,400	1,800	50,500	1,600	181,600
2030	# Accounts	194,900	8,500	7,400	730	10,600	390	229,500
	Deliveries (afy)	117,800	17,000	9,500	2,000	57,000	1,800	205,100
2035	# Accounts	223,900	10,000	8,400	830	12,100	440	255,700
	Deliveries (afy)	134,800	19,400	10,900	2,300	65,300	2,100	234,800

Source: CVWD, 2010 Urban Water Management Plan *(July, 2011). Table 3-8 through Table 3-12.*

Table 5.15.1-23
Summary of Water Demands in the Coachella Valley

Component	2015	2020	2025	2030	2035	2040	2045
Agricultural							
Crop Irrigation	281,300	267,300	251,200	235,200	219,100	203,100	187,100
Total Agricultural Demand	281,300	267,300	251,200	235,200	219,100	203,100	187,100
Urban							
Municipal	224,800	254,600	287,100	319,400	351,700	384,200	417,000
Industrial	2,300	2,300	2,300	2,300	2,300	2,300	2,300
Total Urban Demand	**227,100**	**256,900**	**289,400**	**321,700**	**354,000**	**386,500**	**419,300**
Golf Course Demand	**106,200**	**111,800**	**111,800**	**124,081**	**130,300**	**136,500**	**142,600**
Fish Farms and Duck Clubs							
Fish Farms	8,500	8,500	8,500	8,500	8,500	8,500	8,500
Duck Clubs	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Total Fish Farms and Duck Clubs	**10,500**	**10,500**	**10,500**	**10,500**	**10,500**	**10,500**	**10,500**
Total Demand	**625,100**	**646,500**	**669,100**	**691,481**	**713,900**	**736,600**	**759,500**

Source: CVWD, Coachella Valley Water Management Plan 2010 Update *(January, 2012). Table 3-2. CVWD, 2014 Status Report for the 2010 CVWMP Update, (2014) Table 1.*

Non-Potable Water Usage Demand

Implementation of the 2010 CVWMP Update includes conversion of a portion of the non-potable groundwater pumping to canal water or recycled water to reduce groundwater overdraft. The 2010 CVWMP Update estimated the future demand for agricultural and other non-potable water use through 2035 that would be served by the CVWD. These demand estimates are shown in **Table 5.15.1-24, Historical and Future CVWD Non-Potable Water Demand.**

Table 5.15.1-24
Historical and Future CVWD Non-Potable Water Demand

Year	Agriculture	Golf Course and Municipal	Total
2005	283,000	22,800	305,800
2010	313,400	33,700	347,100
2015	279,700	59,300	339,000
2020	242,700	76,700	319,400
2025	222,300	91,900	314,200
2030	204,700	94,700	299,400
2035	184,000	99,600	283,600

Source: CVWD, 2010 Urban Water Management Plan *(July, 2011). Table 3-17.*

Groundwater Recharge Demand

CVWD and DWA operate groundwater recharge programs in the West Whitewater River and Mission Creek subbasins. From 1973 through 2013, CVWD and DWA have replenished the Whitewater River and Mission Creek Subbasins with approximately 2,630,572 acre-feet (2,493,239 acre-feet to Whitewater River Subbasin and 137,333 acre-feet to Mission Creek Subbasin) of exchange deliveries (Colorado River water exchanged for SWP water).[58] A recharge program is currently operating in the West Whitewater River Subbasin Area of Benefit. The West Valley Whitewater Recharge Facility has a recharge capacity in excess of 300,000 afy. Because this capacity is enough to capture the full SWP Table A amount with additional capacity for supplemental recharge, no recharge capacity expansion is required.[59]

Groundwater recharge in the Mission Creek Subbasin commenced in 2004 using SWP Exchange water. This program is jointly administered by CVWD and DWA with facilities constructed and operated by DWA. This program is expected to increase as groundwater extraction increases to meet projected growth. **Table 5.15.1-25, Projected Groundwater Recharge Demand,** shows the past and estimated groundwater recharge demand for the period 2005–2035.

58 DWA, Engineer's Report: Groundwater Replenishment and Assessment Program for the Whitewater River Subbasin 2014/2015, (April, 2014).

59 CVWD, Coachella Valley Water Management Plan 2010 Update (January, 2012).

Table 5.15.1-25
Projected Groundwater Recharge Demand

Year	Whitewater Spreading Facility	Levy Spreading Facility	Martinez Canyon Spreading Facility	Indio	Mission Creek Spreading Facility	Total
2005	165,600	4,000	800	0	24,700	195,100
2010	87,400	32,500	4,000	0	8,200	132,100
2015	72,300	40,000	4,000	5,000	9,900	131,200
2020	88,800	40,000	4,000	5,000	10,700	148,500
2025	78,000	40,000	20,000	10,000	10,700	158,700
2030	78,700	40,000	20,000	10,000	10,700	159,400
2035	82,000	40,000	20,000	10,000	11,100	163,100

Source: CVWD, 2010 Urban Water Management Plan *(July, 2011). Table 3-16.*

CVWD has three WRPs that produced a combined total of nearly 15,000 acre-feet of recycled water in 2006, which was used to reduce the demand on the groundwater basin.[60] In addition, DWA in partnership with CVWD operates a reclamation plant in Palm Springs and produced 3,000 acre-feet of recycled water per year, which also reduces the demand on the groundwater basin.

Future Water Supplies

In addition to water conservation and alternative water sources, CVWD and DWA will need to obtain additional water supplies to eliminate current and future overdraft due to buildout of future cumulative projects within the boundaries of the CVWD. Evaluation of many potential alternative supplies has identified four sources that will be augmented as part of the 2010 CVWMP Update. These sources are the Quantification Settlement Agreement, exchanges and transfers, recycled water, and desalinated agricultural drainage water. The steps to be taken to assure ample supplies of water are discussed below.

The future water supply during average years is summarized below in **Table 5.15.1-26, Projected Average Future Water Supply—CVWD.** The available supplies and water demand for CVWD's service area were analyzed to assess the region's ability to satisfy demands during three scenarios: a normal water year, single dry year, and multiple dry years. The tables in this cumulative analysis present the

60 CVWD, Water and the Coachella Valley, Recycled Water, http://www.cvwd.org/about/waterandcv.php.

supply-demand balance for the various drought scenarios for the 20-year planning period 2010 to 2030. It is expected that the region will be able to meet 100 percent of its dry-year domestic water demand under every scenario.

Table 5.15.1-26
Projected Average Future Water Supply—CVWD

Year	Groundwater Supply[1]	Colorado River Water Supply[2]	SWP Exchange Water[3]	Recycled Water	Desalinated Drain Water	Total Supply
2010	106,700	318,000	62,000	23,100	4,000	513,800
2015	123,100	342,000	70,600	25,100	8,000	568,800
2020	123,700	379,000	70,100	26,500	8,000	607,300
2025	124,200	404,000	68,100	27,600	11,000	634,900
2030	123,200	429,000	66,500	28,300	11,000	658,000

Source: CVWD, 2010 Urban Water Management Plan *(July, 2011).*

1 CVWD Share of net groundwater inflow to Whitewater and Mission Creek Subbasins, shared with DWA Service Area and private pumpers.

2 Net water deliveries to Coachella Valley, excluding conveyance losses.

3 Anticipated average availability assuming MWD calls-back 50 percent of the time in dry years.

4 Modified version of CVWD UWMP 2010 Update to account for advanced deliveries, DWR SWP 2013 Draft Reliability Report, and reductions to associate with Longfin Smelt and other issues

Table 5.15.1-27, Supply Reliability by Source shows the supply reliability for the CVWD supply sources during normal, dry, and multiple dry water year events. In general, all CVWD water supply sources can provide for 100 percent of the demand in the Coachella Valley for a substantial period of time.

Table 5.15.1-27
Projected Supply Reliability by Source

			Multiple Dry Years		
Supply Sources	Normal Water Year	Single Dry Year	Year 1	Year 2	Year 3
Groundwater	100%	100%	100%	100%	100%
Colorado River Water	100%	100%	100%	100%	100%
Recycled Water	100%	100%	100%	100%	100%
Desalinated Drain Water	100%	100%	100%	100%	100%

Source: CVWD, 2010 Urban Water Management Plan, *(June 2011).*

CVWD will have sufficient water supplies for related projects. Again, as explained above, population projections utilized in the 2010 CVWMP Update are provided by regional SCAG and CVAG projections. Variations in supply and demand during dry and multiple dry years are expected to be minimal due to

the water supply planning and projects undertaken by CVWD. In addition, CVWD is required to prepare UMWP every five years to ensure that adequate water supplies exist for future growth. Therefore, based on the above analysis, and the analyses set forth in CVWD's 2010 UWMP and the Project WSA/WSV, the total projected water supplies available to CVWD over the 20-year period, including normal, single dry, and multiple dry years, is sufficient to meet the projected water demand of the Project, in addition to existing and planned future uses, including agricultural and industrial uses, in accordance with the requirements of SB 610. Accordingly, cumulative water supply impacts are less than significant.

C. MITIGATION MEASURES

No Mitigation Measures are required.

D. LEVEL OF SIGNIFICANCE AFTER MITIGATION

Project Design Features PDF 5.15.1-1 through PDF 5.15.1-11 and compliance with the existing regulations would reduce potential impacts associated with water service to less than significant. Cumulative impacts would also result in less than significant impacts to water service.

5.15.2 SEWER

This Section of the Draft EIS evaluates the potential for the Project to impact the local sewer system and Water Reclamation Plant (WRP) No. 7 (WRP-7) operated by the Coachella Valley Water District (CVWD). See **Section 9.0** for terms, definitions, and acronyms used in this Draft EIS.

A. ENVIRONMENTAL SETTING

1. Existing Conditions

Sewer Service Systems

The Project Site is within the service boundary of CVWD for wastewater conveyance and treatment. Six WRPs provide, receive, and treat wastewater in the CVWD service area. Most of the communities within the CVWD service area receive sanitation service from one of these plants. Of CVWD's six WRPs, three are equipped to treat wastewater to meet State standards for non-potable water for irrigation. Septic tanks serve the remaining areas. The Project Site would be in the service area of WRP-7, which is located at Avenue 38 and Madison Street in North Indio. The plant is a 5.0 million gallon per day (mgd) secondary treatment facility with current tertiary treatment capacity of 2.5 mgd. The tertiary treated wastewater is used for irrigation of golf courses in the Sun City area. The average annual flow is currently 2.11 mgd (2,400 afy). Recycled water not used for irrigation is percolated at on-site and off-site ponds. A plant expansion is currently under design that will increase the plant capacity to 7.5 mgd. Growth is expected to increase WRP-7 flows to 9,200 afy without additional conservation.

Existing 15-inch sewer lines are located beneath Los Alamos Road and Ramon Road. The sewer line beneath Ramon Road transitions to an 18-inch sewer line that crosses underneath the Union Pacific Railroad and Interstate 10 (I-10) northeast of the Project Site, and then east along Varner Road to connect to WRP-7. CVWD has determined that this sewer line is currently at maximum capacity.

Storm Drainage Systems

All storm water systems are maintained by CVWD and Riverside County Flood Control within the Coachella Valley. Existing storm water drains are located at the southwest corner of Bob Hope Drive and Ramon Road, along Ramon Road west of Bob Hope Drive, along the north side of Dinah Shore Drive, and along the west side of Bob Hope Drive. These flows drain into stormwater protection channels in the regional area, including the channelized Whitewater River, or into small retention basins south of Ramon Road.

2. Regulatory Setting

Federal

In 1972, the Federal Water Pollution Control Act (Clean Water Act)[1] was amended to prohibit the discharge of pollutants to waters of the United States unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. The Clean Water Act focused on tracking point sources, primarily from wastewater treatments plants and industrial waste dischargers, and required implementation of control measures to minimize pollutant discharges. In 2011, the Agua Caliente Band of Cahuilla Indians ("Tribe") received an exemption from NPDES Permit requirements from the USEPA because those portions of the Agua Caliente Indian Reservation ("Reservation") under Tribal jurisdiction (i.e. areas outside of the Land Use Agreements) do not qualify for maintaining permit coverage.

State

Regional Water Quality Control Board

The State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Boards (RWQCBs) are the principle State agencies with primary responsibility for the coordination and control of water quality. In the Porter-Cologne Water Quality Control Act[2] (Porter-Cologne), the California legislature declared that the "state must be prepared to exercise its full power and jurisdiction to protect the quality of the waters in the state from degradation." Porter-Cologne grants the boards authority to implement and enforce water quality laws, regulations, policies, and plans to protect the State's groundwater and surface waters.

The Porter-Cologne Act directs each RWQCB to develop a water quality control plan (basin plan) for all areas within its region.[3] The Project is located within the Colorado River Basin Region of the California Regional Water Quality Control Board, which provides guidelines for sewage disposal from land developments. The guidelines provide an explanation of the principle statutory authority and administrative procedures under which the Regional Board will fulfill its responsibilities to protect against pollution, nuisance, contamination, unreasonable degradation of water quality, and violation of water quality objectives, as each may occur from the disposal of sewage from land developments.

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1 Federal Water Pollution Control Act (Clean Water Act), 33 USC Sections 1251-1387, October 18, 1972, as amended.

2 State Water Resources Control Board, "Porter Cologne Water Quality Control Act," California Water Code, Division 7. Water Quality, effective January 1, 2008.

3 California Water Code Sec. 13000 et seq.

State Water Quality Control Board Order No. 2006-0003-DWQ

Order No. 2006-0003-DWQ[4] was adopted by the State Water Quality Control Board on May 2, 2006. This order provides federal and State agencies, municipalities, counties, districts, and other public entities waste discharge requirements for sanitary sewer systems.

Title 22

The California Water Code requires the Department of Health Services (DHS) to establish water reclamation criteria. In 1975, the DHS prepared Title 22 to fulfill this requirement. Title 22 regulates production and use of recycled water in California by establishing three categories of recycled water:

- primary effluent, which typically includes grit removal and initial sedimentation or settling tanks;
- adequately disinfected, oxidized effluent (secondary effluent), which typically involves aeration and additional settling basins; and
- adequately disinfected, oxidized, coagulated, clarified, filtered effluent (tertiary effluent), which typically involves filtration and chlorination.

In addition to defining recycled water uses, Title 22 also defines requirements for sampling and analysis of effluent and requires specific design requirements for plants.

Tribe

Agua Caliente Band of Cahuilla Indians Tribal Building and Safety Code

As adopted from the CBC, the purpose of the Tribal Building and Safety Code is to provide standards and regulations to control minimum building safety standards of all buildings and structures on the Reservation. These standards are intended to protect the health, safety, and welfare of the general public related to any potential building hazards. All building permit approvals from the Tribe are based upon this Code.

Tribal Ordinance Controlling Pollutant Discharges into the Waters of the Reservation

The purpose of this Tribal Ordinance is to regulate and control all pollutant discharges into the waters of the Reservation. Per this Ordinance, no pollutant discharges are allowed into the waters of the Reservation unless there is prior consultation with the Federal, Tribal, or State agency with jurisdiction under the Clean Water Act and/or the Safe Drinking Water Act, and if required, appropriate permit(s) are obtained.

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4 State Water Resources Control Board, Order No. 2006-0003-DWQ, Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, adopted May 2, 2006.

Local

Coachella Valley Water District

CVWD is the wastewater (sanitation) service provider for a good part of the Coachella Valley. CVWD provides domestic water, wastewater (sanitation), non-potable water (recycled wastewater and Colorado River water), irrigation/drainage, and stormwater and groundwater management services to a major portion of the Coachella Valley. CVWD service area is approximately 1,000 square miles, mostly within the central and eastern Coachella Valley in Riverside County, but also extends into Imperial and San Diego counties. CVWD is governed and regulated under the Regional Board and is subject to its policies and regulations regarding proper wastewater disposal techniques.

CVWD Standards and Guidelines

CVWD developed standards and design guidelines, which include the CVWD Development Design Manual (DDM).[5] The DDM provides comprehensive procedural and technical requirements for the planning, design, and construction of CVWD service infrastructure required for new development. CVWD Sanitation and Irrigation and Drainage Rules and Regulations[6] are incorporated into the DDM, and they provide general provisions and standards for the development of wastewater systems in CVWD. CVWD Standard Specifications for the Construction of Sanitary Sewer Systems[7] are also incorporated into the DDM; these provide specification standards for the development of new wastewater systems within the CVWD service area. Additionally, construction methods, materials and disposal of products would also be subject to current standards established by the South Coast Air Quality Management District, Regional Water Quality Control Board and any other local, State, or federal agencies having authority in their respective jurisdictions.

CVWD Sanitation Fees

CVWD Ordinance No. 1373 requires new developments to pay for capital construction costs for new sanitation facilities through the Sanitation Capacity Rate (SCR). Wastewater flows are calculated on a case-by-case basis and are expressed in terms relative to the discharge of an EDU. The SCR was created

5 Coachella Valley Water District, Development Design Manual for Domestic Water, Sanitation, Stormwater, Irrigation/Drainage and Non-Potable Water, January 2014.

6 CVWD, Development Design Manual for Domestic Water, Sanitation, Stormwater, Irrigation/Drainage and Non-Potable Water, Appendix I and K, Regulations Governing Sanitation Service, January 2014.

7 Coachella Valley Water District, Development Design Manual for Domestic Water, Sanitation, Stormwater, Irrigation/Drainage and Non-Potable Water, Appendix I and K, Standard Specifications for the Construction of Sanitary Sewer Systems, January 2014.

as a funding mechanism for the construction of wastewater collection system and wastewater treatment infrastructure.

City of Rancho Mirage Municipal Code

New construction within the City of Rancho Mirage ("City") is subject to Title 3, Chapter 28 and Chapter 29, Section 145 and Title 13, Chapter 13.05, Section 13.05.010 of the Rancho Mirage Municipal Code, which set policy for the requirement of an imposed tax on new construction to support the increased demand for public services and infrastructure improvements, such as sewer, drainage facilities and required on-site retention.[8]

B. ENVIRONMENTAL IMPACTS

1. Thresholds of Significance

In order to assist in determining whether a project would have a significant effect on the environment, the Tribe finds a project may be deemed to have a significant impact to sewer service and storm drain facilities, if it would:

Threshold 5.15.2-1 **Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.**

Threshold 5.15.2-2 **Require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.**

Threshold 5.15.2-3 **Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.**

2. Methodology

Analysis was conducted using wastewater flows as provided in the CVWD Water Management Plan and the CVWD Development Design Manual. These flows were used to determine the amount of wastewater that would be generated by the Project. Based on these flows, the existing sewer line west of Cook Street within Varner Road would need to be upgraded to handle additional sewage flows upstream of this location. In addition, a preliminary Synthetic Unit Hydrograph was used to determine

8 City of Rancho Mirage, Municipal Code, accessed at http://www.qcode.us/codes/ranchomirage/.

the retention volume needed to accept 100 percent of the stormwater runoff within the Project Site of the 100-year governing event.

3. Project Design Features

The following Project Design Features (PDF) are applicable to development within the Project Site and would reduce the potential sewer impacts of the Project. These features were taken into account in the analysis of potential impacts.

Implementation of Project Design Features PDF 5.15.1-1 through 5.15.1-9, provided in **Section 5.15.1, Water Service**, shall require the applicant to incorporate water conservation measures into the design of the Project.

PDF 5.15.2-1 Development within the Active Adult Community shall include the extension of a 12 inch sewer line from Point of Connection (POC) 4 at Ramon Road and the future "A" Street Boulevard intersection within a mutually agreed upon easement along "A" Street Boulevard and Casino Drive to be established by Tribal Council and the developers of the Active Adult Community.

PDF 5.15.2-2 All connections of the Active Adult Community sewer lines to the existing 15-inch sewer line beneath Los Alamos Road (POC 1, 2, and 3 on Section 24 Specific Plan Figure 24, Conceptual Master Sewer Plan) shall be consistent with Tribal, City standards if property is annexed, and/or CVWD standards.

PDF 5.15.2-3 All connections of the Project sewer lines to the existing 15-inch sewer lines beneath Los Alamos Road and Ramon Road shall be consistent with the design standards of the Coachella Valley Water District (CVWD) Development Design Manual.

PDF 5.15.2-4 Development within the Project Site shall use linear bioswales, landscaped with native or drought-tolerant grasses, and smaller scale bio-retention cells in surface or subsurface storage areas where feasible.

PDF 5.15.2-5 Development within the Project Site shall use tree box filters as "mini-retention areas," where feasible.

PDF 5.15.2-6 Development within the Project Site shall use permeable interlocking concrete pavers in parking courts, where feasible.

PDF 5.15.2-7 Development within the Project Site shall use pervious concrete and asphalt for other paved areas, where proper maintenance can be achieved.

4. Project Impacts

Exceed Wastewater Treatment Requirements

Active Adult Community

CVWD uses a peak flow factor of 250 gallons per day per equivalent dwelling unit (EDU) to determine wastewater generation. Based on the number of EDUs determined for the Active Adult Community, the Active Adult Community is expected to generate 0.3015 mgd of wastewater, as identified in **Table 5.15.2-1, Wastewater Generation of the Project**. This is considered a very conservative assumption because active adult communities typically have much lower occupancy rates than the traditional neighborhoods that form the basis for the 250 gallons per day assumption (approximately 1.8 persons per household versus 3.3 persons per household in traditional neighborhoods).

Table 5.15.2-1
Wastewater Generation of the Project

Building Type	Equivalent Dwelling Units	Rate (gpd)	Daily Wastewater (mgd)
Active Adult Community			
Residential	1,200	250	0.3
Clubhouse	6	250	0.0015
Subtotal			*0.3015*
Tribal Planning Areas			
Residential	1,206	250	0.3015
Commercial	1,311	250	0.3278
Subtotal			*0.6293*
Total			**0.9308**

Source: MSA Consulting, Section 24 Specific Plan, Table 4: Water Demand Table, 2014.

WRP-7's existing secondary treatment capacity is 5.0 mgd and tertiary treatment capacity of 2.5 mgd. The average annual flow at WRP-7 is 2.11 mgd. The Active Adult Community wastewater flow would increase the existing average annual flow by approximately 14 percent to 2.4115 mgd. The Active Adult Community increase to WRP-7's secondary treatment capacity would be within the existing secondary treatment capacity of the treatment plant. Furthermore, the Active Adult Community's increase would be within WRP-7's tertiary treatment capacity.

Tribal Planning Areas

As identified in **Table 5.15.2-1**, the Tribal Planning Area would generate 0.6293 mgd which would be treated at WRP-7. The Tribal Planning Areas wastewater flow would increase the existing average annual flow by approximately 30 percent to 2.7393 mgd. The Tribal Planning Area increase to WRP-7's secondary treatment capacity would be within the existing secondary treatment capacity of the treatment plant. However, the Tribal Planning Area's increase would exceed WRP-7's existing tertiary treatment capacity. The CVWD 2010 Urban Water Management Plan (UWMP) identifies that the treatment capacity of WRP-7 would increase as buildout of the CVWD service area occurs and indicates that WRP-7 would have the capacity to treat 7.5 mgd of wastewater.[9] The Tribal Planning Areas are projected to build out by 2035, and as such, WRP-7 is expected to treat 7.5 mgd. Accordingly, available treatment capacity would be provided and impacts would be less than significant.

Combined Project

As identified in **Table 5.15.2-1**, the Project would generate 0.9308 mgd which would be treated at WRP-7. The Project wastewater flow would increase the existing average annual flow by approximately 44 percent to 3.0408 mgd. The Project increase to WRP-7's secondary treatment capacity would be within the existing secondary treatment capacity of the treatment plant. However, the Project's increase would exceed WRP-7's existing tertiary treatment capacity. The CVWD 2010 UWMP identifies that the treatment capacity of WRP-7 would increase as buildout of the CVWD service area occurs and indicates that WRP-7 would have the capacity to treat 7.5 mgd of wastewater.[10] The Project is projected to build out by 2035, and as such, WRP-7 is expected to treat 7.5 mgd. Accordingly, available treatment capacity would be provided and impacts would be less than significant.

The Project is in jurisdiction of the Colorado River Basin RWQCB, which issues NPDES permits for non-Tribal projects the area. Treatment of water at WRP-7 currently meets secondary and tertiary standards, allowing treated wastewater not used as recycled water to be discharged into percolation pools and used for irrigation. Accordingly, the impacts would be less than significant.

9 CVWD, 2010 Urban Water Management Plan, page 4-23 (2013).
10 CVWD, 2010 Urban Water Management Plan, page 4-23 (2013).

Require New Wastewater Drainage Facilities

Active Adult Community and Tribal Planning Areas

The conveyance system for the Project's wastewater would be designed to be congruent with the CVWD's wastewater master plan, as identified by the Section 24 Specific Plan. As shown on **Figure 3.0-11, Conceptual Sewer Plan**, the on-site wastewater collection system for the Active Adult Community would connect proposed 8-inch sewer lines to the existing 15-inch sewer line within Los Alamos Road. The proposed 8-inch sewer line would serve the southern and western portion of the Active Adult Community. Project Design Feature PDF 5.15.2-2 and PDF 5.15.2-3 will ensure that the construction and connection of the 8-inch sewer lines at POC 1, 2, and 3 are consistent with Tribal, City and/or CVWD design standards. The proposed 12-inch sewer line would connect to the existing 15-inch sewer line within Ramon Road and serve the central and northeastern portion of the Active Adult Community and the Tribal Planning Areas. Project Design Feature PDF 5.15.2-1 provides an agreed upon easement for the construction of the proposed 12-inch sewer lines which would connect to Ramon Road. Similar to the 8-inch proposed sewer lines, the 12-inch sewer lines would be designed consistent with CVWD standards as identified in PDF 5.15.2-3. All on-site sewer lines will gravity feed to the existing sewer lines.

However, as previously discussed in Subsection A.1 Existing Conditions, CVWD has indicated that the sewer line beneath Varner Road east of Cook Street which serves WRP-7 is currently at capacity. As such, the Project would potentially result in significant impacts on CVWD's existing sewer system. Mitigation Measure **MM 5.15.2-1** requires that prior to the issuance of the first occupancy permit, that the individual development proponent provide its fair share contribution to upgrade the existing sewer line within Varner Road east of Cook Street. Accordingly, impacts would be less than significant.

Require New Storm Water Drainage Facilities

Active Adult Community and Tribal Planning Areas

Development of the Project will incorporate a conceptual storm water drainage plan, as described in **Section 3.0 Project Description** and identified in **Figure 3.0-12, Conceptual Drainage Plan.** The Project is designed to provide 15 retention basins within the Active Adult Community and up to 11 retention basins within the Tribal Planning Areas for a total of 26 retention basins. Retention basis will be a maximum of 5-feet deep with maximum slopes of 5 to 1 unless control methods are incorporated. Project Design Features PDF 5.15.2-4 through PDF 5.15.2-7 identify water facilities which would connect to the water retention basins as well as reduce the flow of on-site storm water into the retention basins.

The Active Adult Community would have the capacity to retain 40.98 acre-feet of stormwater runoff and the Tribal Planning Areas would have the capacity retain 51.18 acre-feet of stormwater runoff, for a total capacity of 92.16 acre-feet. The conceptual plan would accept 100 percent of the 100-year flood event generated on site to maintain existing on-site runoff volumes. Accordingly, the Project would maintain existing storm water runoff rates into the existing storm drain system. Impacts would be less than significant.

5. Cumulative Impacts

Cumulative impacts related to wastewater and stormwater conveyance and/or treatment would occur when new development would require the use of the same existing facilities as the Project. A cumulative increase in wastewater and/or stormwater flow could cause significant impacts to the existing offsite conveyance systems and to WRP-7. The CVWD 2010 UWMP identifies the projected increase in total wastewater flows to all treatment plants in the service area.[11] These projected increases in wastewater flows would require expansion of water treatment facilities. Proposed projects within Riverside County would be required to undergo environmental review to determine if:

1. the existing CVWD wastewater infrastructure system would have adequate capacity to provide service to the related projects, and

2. the related project would need to develop a wastewater infrastructure conveyance system or wastewater treatment plants within their boundaries to provide adequate service to their inhabitants.

All new projects to be implemented in the area would be required to complete environmental analysis per CEQA, and to disclose and analyze any potentially significant impacts on wastewater and/or stormwater services. As noted in the Project impact analysis, the sewer line along Varner Road east of Cook Street is currently at capacity. Related projects would exceed the capacity of this sewer line which would result in potentially significant impacts. Therefore, the Project would mitigate this impact to less than significant through payment of the existing connection fees, or their equivalent. Accordingly, cumulative impacts would be less than significant.

11 CVWD, 2010 Urban Water Management Plan, page 4-23 (2013).

C. MITIGATION MEASURES

In addition to the Project Design Features identified in Section B.3 above, the following Mitigation Measure would reduce impacts on the CVWD sewer system.

Active Adult Community and Tribal Planning Areas

MM 5.15.2-1 Prior to the issuance of the first occupancy permit, individual project proponents shall pay applicable fees, or provide equivalent funding, to CVWD to update the sewer line beneath Varner Road east of Cook Street, as requested by CVWD, and to cover the Project's fair share from the cumulative need to expand WRP-7.

Implementation of Mitigation Measure **MM 5.6-7**, provided in **Section 5.6, Greenhouse Gas Emissions**, would also require individual project proponents to provide evidence of water efficient irrigation systems to the appropriate Planning Department to reduce water demand impacts, and consequently, impacts on the sewer system.

D. LEVEL OF SIGNIFICANCE AFTER MITIGATION

Project Design Features PDF 5.15.2-1 through PDF 5.15.2-4 and Mitigation Measures **MM 5.15.2-1** and **MM 5.6-7** would reduce impacts on the CVWD sewer system to less than significant.

5.15.3 SOLID WASTE

This Section of the Draft EIS evaluates the potential for the Project to impact the capacity of local landfills and transfer stations. This Section also discusses the active landfills, transfer stations, and diversion and recycling programs that currently serve regional solid waste disposal service needs. See **Section 9.0** for terms, definitions, and acronyms used in this Draft EIS.

A. ENVIRONMENTAL SETTING

1. Existing Conditions

Solid Waste Services

The Riverside County Waste Management Department (RCWMD) is responsible for the efficient and effective landfill disposal of non-hazardous county waste. To accomplish this, the RCWMD operates six active landfills and administers a contract agreement for waste disposal at the private El Sobrante Landfill. RCWMD also oversees several transfer station leases, as well as a number of recycling and other special waste diversion programs.

All of the active landfills currently located in Riverside County are rated as Class III landfills according to Title 27 of the California Code of Regulations (CCR). Such landfills only accept nonhazardous, municipal solid wastes. Franchise solid waste collection companies are granted permits to collect commercial and residential waste throughout unincorporated Riverside County under Riverside County's general operating authority. As part of its long-range planning and management activities, RCWMD also ensures that Riverside County has a minimum of 15 years of capacity, at any time, for future landfill disposal.

Solid waste not dumped directly in a landfill is deposited temporarily in several transfer stations throughout Riverside County. The region's transfer stations play a vital role in accommodating throughput to landfills, serving as collection and separation points for solid waste and recyclables. Transfer stations also help reduce traffic congestion and provide flexibility for hauling waste to distant landfills or processing plants outside the region when appropriate. Solid waste services are provided by Burrtec Waste and Recycling Services (Burrtec). Solid waste is transported to one of three landfills and/or the Edom Hills Transfer Station. The Edom Hills facility is closed for receiving solid waste but is used for transferring and processing of materials.

- El Sobrante: The local service areas for the El Sobrante Landfill typically include cities/communities within southwestern Riverside County, as well as multiple jurisdictions within the counties of Los Angeles, Orange, San Bernardino and San Diego. Located near the center of the highly populated western third of Riverside County, according to Waste Management, Inc., the landfill's operator, it processes approximately 43 percent of Riverside County's annual waste. This landfill is open 311

days per year, has a permitted daily capacity of 5,000 tons per day, a current design capacity of 52.3 million tons, an average intake of 2,201 tons per day, with an estimated landfill closure date of 2045.

- Lamb Canyon: This landfill receives waste from the entire Coachella Valley through the Edom Hill and Coachella Valley Transfer Stations. Land Canyon is open 311 days per year, has a permitted daily capacity of 5,000 tons per day, a current design capacity of 15.6 million tons, an average intake of 1,703 tons per day, with an estimated landfill closure date of 2021.
- Badlands: As a regional disposal facility, the landfill is also permitted to receive waste from the cities and unincorporated communities of the Coachella Valley in the eastern portion of Riverside County. This landfill is open 310 days per year, has a permitted daily capacity of 4,000 tons per day, currently design capacity is approximately 17.6 million tons, has an average intake of 1,667 tons per day, with an estimated landfill closure date of 2024.
- Edom Hills Transfer Station: The Edom Hill Transfer Station processes an average of 1,500 tons per day, with a maximum permitted capacity of 3,500 tons per day.[1]

The Project Site does not currently generate any solid waste. The City of Rancho Mirage ("City") which is adjacent to the Project Site, generated approximately 24,700 tons in 2013. The majority of this waste was disposed of at the Lamb Canyon Sanitary Landfill.[2]

2. Regulatory Setting

Federal

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) was enacted in 1976 and is the principal federal law in the United States governing the disposal of solid waste and hazardous waste. The U.S. Environmental Protection Agency (USEPA) oversees waste management regulation pursuant to Title 40 of the Code of Federal Regulations. Under RCRA, however, states are authorized to carry out many of the functions of the federal law through their own hazardous waste programs and laws, as long as they are at least as stringent (or more so) than the federal regulations. Thus, the California Department of Resources Recycling and Recovery (CalRecycle) manages the State of California's solid waste and hazardous materials programs pursuant to USEPA approval.

1 Riverside County Waste Management Department, Riverside County Nondisposal Facility Element, (2009), Table A-4; Riverside County Waste Management Department, Solid Waste Facility Permit, Edom Hill Transfer Station, May 2011.

2 CalRecycle, Disposal Reporting System, Disposal during 2013 for Rancho Mirage, http://www.calrecycle.ca.gov/lgcentral/Reports/DRS/Destination/JurDspFa.aspx, accessed June 2014.

State

CalRecycle (formerly California Integrated Waste Management Board)

Post-closure use of waste disposal sites, including landfills, are governed by the State of California via regulations set forth under Title 27.[3] These include criteria for all waste management units, facilities and disposal sites.

As provided for under Subchapter 5, Closure and Post-Closure Maintenance,[4] dischargers (e.g., landfill operators) who are implementing final closure of a new or existing classified solid waste management unit (unit) or are implementing complete final closure of a portion of a solid waste landfill (incremental closure) shall comply with the required provisions. The discharger shall carry out both mandatory closure and normal closure which the Regional Water Quality Control Board (RWQCB) finds meets all applicable requirements. Classified Units shall be closed according to an approved closure and post closure maintenance plan which provides for continued compliance with the applicable SWRCB-promulgated standards for waste containment and precipitation and drainage controls, and the monitoring program requirements, throughout the closure period and the post closure maintenance period. Relative to the applicable State Water Resources Control Board (SWRCB) promulgated requirements, the post closure maintenance period shall extend as long as the wastes pose a threat to water quality; for Units concurrently regulated by RWQCB and by other State agencies (including the agents of such agencies), RWQCB's finding that the waste in the Unit no longer poses a threat to water quality shall release the discharger only from the need to comply with the SWRCB-promulgated portions of this title, for that Unit.

Assembly Bill 939

Assembly Bill (AB) 939 (Chapter 1095, Statutes of 1989), the Integrated Waste Management Act, requires, among other things, every California city and county to divert 50 percent of its waste from landfills by the year 2000. In addition, AB 939 requires each county and incorporated cities to prepare a Source Reduction and Recycling Element for its jurisdiction, identifying waste characterization; source reduction; recycling; composting, solid waste facility capacity; education and public information; funding; special waste (asbestos, sewage sludge, etc.); and household hazardous waste in addition to a countywide siting element specifying areas for transformation or disposal sites to provide capacity for solid waste generated in the jurisdiction that cannot be reduced or recycled for a 15-year period.

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3 Title 27, Environmental Protection, Division 2, Solid Waste, Chapter 3, Criteria for All Waste Management Units, Facilities and Disposal Sites.

4 Title 27, Environmental Protection, Division 2, Solid Waste, Chapter 3, Criteria for All Waste Management Units, Facilities and Disposal Sites, Subchapter 5, Closure and Postclosure Maintenance, Section 21190 – Postclosure Lane Use.

California's 75 Percent "Recycling" Goal

On October 6, 2011, Governor Brown signed Assembly Bill 341 establishing a State policy goal that no less than 75 percent of solid waste generated be source reduced, recycled, or composted by 2020, and requiring CalRecycle to provide a report to the Legislature that recommends strategies to achieve the policy goal by January 1, 2014. The bill also mandates that local jurisdictions implement commercial recycling by July 1, 2012.

Local

Riverside Countywide Integrated Waste Management Plan

The Riverside County Waste Management Division (RCWMD) over sees solid waste activities in the County. The Riverside Countywide Integrated Waste Management Plan (CIWMP) outlines the goals, policies, and programs the County of Riverside and its cities would implement to create an integrated and cost-effective waste management system that complies with the provisions of AB 939 and its diversion mandates.[5] The CIWMP is composed of the Riverside Countywide Summary Plan and the Riverside Countywide Siting Element, a Source Reduction and Recycling Element (SRRE), a Nondisposal Facility Element (NDFE), and a Household Hazardous Waste Element (HHWE) for the County and each provides information with regard to solid waste and hazardous waste disposal and recycling.

Agua Caliente Band of Cahuilla Indian Land Use Ordinance

The purpose of this Ordinance is to provide standards and regulations to control land uses on Agua Caliente Indian Reservation ("Reservation") Lands, to maintain and protect the Reservation's unique natural and cultural resources, and to preserve the natural environment. In addition, the Tribal Land Use Ordinance also contains provisions for solid, hazardous, and toxic waste collection and disposal from construction, renovation, and reclamation sites.

City of Rancho Mirage Municipal Code

New construction within the City of Rancho Mirage is subject to Title 7, Chapter 7, Section 7.07.060, 7.07.070, and 7.07.080 of the Rancho Mirage Municipal Code, which set policies for the requirement of a construction and demolition debris plan, reporting, and onsite practices related to solid waste.[6]

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5 Riverside County, Riverside Countywide Integrated Waste Management Plan, dated September 1996, approved by CalRecyle (formerly CIWMB) September 1998.

6 The City of Rancho Mirage, "Municipal Code," accessed at http://www.qcode.us/codes/ranchomirage/.

B. ENVIRONMENTAL IMPACTS

1. Thresholds of Significance

In order to assist in determining whether a project would have a significant effect on the environment, the Agua Caliente Band of Cahuilla Indians ("Tribe") finds a project may be deemed to have a significant impact to solid waste, if it cannot:

Threshold 5.15.3-1 **Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.**

Threshold 5.15.3-2 **Comply with federal, state, and local statutes and regulations related to solid waste.**

2. Methodology

Information regarding the current intake and capacity of each facility was gathered to determine if the existing transfer stations and landfills in Riverside County could accommodate solid waste generated by the proposed Project. Analysis was conducted using solid waste generation rates provided in the County of Riverside Draft General Plan Environmental Impact Report to determine generation of solid waste by the Project.

3. Project Design Features

The Project does not include any features specifically related to solid waste.

4. Project Impacts

Served by a Landfill with Sufficient Capacity to Accommodate purposed Project

Construction of the Project would generate waste materials. A majority of the construction waste would be readily recyclable materials such as wood, concrete, metals, and soil. This material will be collected on site in accordance with the Tribe's Land Use Ordinance and the City's Construction and Demolition Debris Recycling Ordinance and sent to the Edom Hills Transfer Station. Therefore, the impact of waste generated during the construction of the Project would be less than significant.

Active Adult Community

The Active Adult Community is expected to generate 465 tons of solid waste per year, as identified in **Table 5.15.3-1, Solid Waste Generation of the Project**. This waste would be diverted to either the Edom Hills Transfer Station or would directly be delivered to the Lamb Canyon Sanitary Landfill.

Table 5.15.3-1
Solid Waste Generation of the Project

Building Type	Units	Rate	Solid Waste (tons/year)
Active Adult Community			
Residential	1,200 du	0.41 tons per du	429.0
Clubhouse	15,000 sq. ft.	2.4 tons per 1,000 sq. ft.	36.0
Subtotal			*465.0*
Tribal Planning Areas			
Residential	1,206 du	0.41 tons per du	494.5
Commercial	3,138,600 sq. ft.	2.4 tons per 1,000 sq. ft.	7,532.6
Subtotal			*8,027.1*
Total			**8,492.1**

Source: County of Riverside Environmental Impact Report No. 521, Public Review Draft, March 2014, Table 4.17-N.
Abbreviations: du = dwelling units; sq. ft. = square feet
Note: The solid waste generation rates do not take into account required solid waste reductions.

The permitted daily maximum capacity for the Edom Hills Transfer Station is 3,500 tons per day. The permitted maximum daily capacity of the Lamb Canyon Sanitary Landfill is 5,000 tons per day. The Active Adult Community would contribute 1.3 tons of solid waste per day, or less than 1 percent of remaining daily capacity, to the Edom Hills Transfer Station, which averages 1,500 tons per day of solid waste. It should be noted that the generation of solid waste does not take into account solid waste reduction requirements. The 1.3 tons of solid waste would then transfer to the Lamb Canyon Sanitary Landfill, which has a permitted daily capacity of 5,000 tons. The Lamb Canyon Sanitary Landfill is expected to remain open through 2020, therefore, only a portion of the Active Adult Community would generate solid waste which would be delivered to Lamb Canyon Sanitary Landfill.

The next landfill available to accept solid waste from the Edom Hills Transfer Station would be the El Sobrante Landfill, which has an estimated closure date of 2045. The El Sobrante Landfill has a permitted daily capacity of 5,000 tons per day with an average intake of 2,201 tons per day. The Active Adult Community would contribute less than one percent of the remaining daily intake permitted at El Sobrante Landfill. Since there is adequate daily intake capacity at existing landfills, impacts would be less than significant.

Tribal Planning Areas

The Tribal Planning Areas are expected to generate 8,021.1 tons of solid waste per year, as identified in **Table 5.15.3-1**. This waste would be diverted to either the Edom Hills Transfer Station or would directly be delivered to the El Sobrante Landfill.

The Tribal Planning Areas would contribute 25.8 tons of solid waste per day, or 1.3 percent of remaining daily capacity, to the Edom Hills Transfer Station, which averages 1,500 tons per day of solid waste. It should be noted that the generation of solid waste does not take into account solid waste reduction requirements. The 25.8 tons of solid waste would then transfer to the El Sobrante Landfill, which has a permitted daily capacity of 5,000 tons. The El Sobrante Landfill has a permitted daily capacity of 5,000 tons per day with an average intake of 2,201 tons per day. The Tribal Planning Areas would contribute approximately 1 percent of the remaining daily intake permitted at El Sobrante Landfill. Since there is adequate daily intake capacity at existing landfills, impacts would be less than significant.

Combined Project

The Project is expected to generate 8,429.1 tons of solid waste per year, as identified in **Table 5.15.3-1**. This waste would be diverted to either the Edom Hills Transfer Station or would directly be delivered to the El Sobrante Landfill.

The Project would contribute 27.1 tons of solid waste per day, or 1.4 percent of remaining daily capacity, to the Edom Hills Transfer Station, which averages 1,500 tons per day of solid waste. The 27.1 tons of solid waste would then transfer to the El Sobrante Landfill, which has a permitted daily capacity of 5,000 tons. The El Sobrante Landfill has a permitted daily capacity of 5,000 tons per day with an average intake of 2,201 tons per day and an estimated closure date of 2045. The Project would contribute approximately 1 percent of the remaining daily intake permitted at El Sobrante Landfill. Since there is adequate daily intake capacity at existing landfill, impacts would be less than significant.

Although adequate capacity exists for the near term, the Project would generate solid waste that would require disposal, thus decreasing the capacity of existing permitted landfills. However, there is adequate capacity and expansion potential within the regional landfill system to accommodate the solid waste expected to be generated by the Project. Closure dates of landfills for the existing landfills are estimates and subject to change depending on the actual tonnage that is received prior to their estimated closing date. Expansion potential exists at other nearby landfills in Riverside County. Therefore, while the Project would increase demand for waste disposal services, with mitigation, impacts would be less than significant.

Comply with all Regulations Related to Solid Waste

Active Adult Community and Tribal Planning Areas

Mitigation Measures **MM 5.15.3-1** through **MM 5.15.3-6** would require that each individual development proponent implement a waste diversion program in an effort to reduce solid waste impacts on existing landfill capacities, similar to the State's waste diversion goal of 75 percent as

identified by State law (SB 1016 and AB 939). The Project would be required to divert up to 75 percent of its operational solid waste by 2020. Since the Project would implementation mitigation similar to regulations set forth in the CIWMP and other local and State regulations, impacts would be less than significant.

5. Cumulative Impacts

The Southern California Association of Governments projects that Riverside County buildout would continue to occur through the year 2035. While all the currently active landfills have estimated closure dates that predate the buildout year of 2035, except for the El Sobrante Landfill.

The Project and related projects would contribute to the cumulative amount of solid waste that is disposed of within the Riverside County landfill system. However, as discussed above, the Project in conjunction with other projects within the area would generate a total amount of waste that could be accommodated by existing landfills and would not contribute to cumulatively significant impacts to landfill capacity such that all landfills exceed their capacity. Therefore, due to available capacity and implementation of Mitigation Measures to reduce solid waste generation by 75 percent by 2020, impacts would be less than significant. In addition, related projects are also required to comply with applicable municipal codes. Cumulative impacts to the existing landfills resulting from waste generated by related projects are considered less than significant.

C. MITIGATION MEASURES

The following Mitigation Measures shall be implemented to reduce the Project's solid waste impacts:

Construction

MM 5.15.3-1 Prior to implementing individual project approval, a Waste Recycling Plan (WRP) shall be submitted and approved by the appropriate Planning Department and provided to the appropriate Department of Building and Safety prior to the issuance of building permits. At a minimum the WRP shall identify the materials (e.g., concrete, asphalt, wood, etc.) that would be generated by construction and development, the project amounts, measures/methods that would be implemented to recycle, reuse, and/or reduce the amount of materials, the facilities and haulers that would be utilized, and the targeted recycling or reduction rates to be achieved.

MM 5.15.3-2 Each individual project proponent shall recycle, reuse, and/or reduce, to the maximum extent feasible, the amount of construction and demolition materials (i.e., concrete, asphalt, wood, etc.) generated by development of the Project that would otherwise be

taken to a landfill. This diversion of waste must exceed a 50 percent reduction by weight. The Project shall complete a Construction and Demolition Waste form as evidence to ensure compliance. The reporting form must be approved by the appropriate Planning Department and submitted to the Department of Building and Safety prior to the issuance of certificate of occupancy/final inspection.

Operation

MM 5.15.3-3 All commercial and residential refuse generated from the Project shall be delivered to regional transfer stations; any residual waste that these transfer stations could not accept shall be disposed of at the Lamb Canyon Landfill or El Sobrante Landfill or other locations as determined by the Riverside County Waste Management Department.

MM 5.15.3-4 The Homeowners Association established for the proposed development shall establish green waste recycling through its yard maintenance or waste hauling contracts. Green waste recycling includes such things as grass recycling (where lawn clippings from a mulching-type mower are left on the lawn) and on- or off-site composting. This measure shall be implemented to reduce green waste going to landfills. If such services are not available through the yard maintenance or waste haulers in the area, the HOA shall provide individual homeowners with information about ways to recycle green waste individually and collectively. Homeowners shall be notified of such in the CC&Rs.

MM 5.15.3-5 Prior to issuance of building permits for any multi-unit residential or commercial facilities, the project proponent shall obtain clearance from the applicable Waste Management Department to verify compliance with local jurisdiction requirements, including providing adequate areas for collecting and loading recyclable materials.

MM 5.15.3-6 Prior to implementing project approval, individual project proponents shall submit for review and approval to the appropriate Planning Department landscape plans that provide for the use of xeriscape landscaping and the use of drought tolerant low maintenance vegetation in all landscaped areas of the Project.

D. LEVEL OF SIGNIFICANCE AFTER MITIGATION

Mitigation Measures **MM 5.15.3-1** through **MM 5.15.3-6** would reduce all potential impacts on solid waste services to less than significant.

6.0 ALTERNATIVES

This Section provides a comparative analysis of the environmental effects of alternatives to the Project. This analysis has been prepared in accordance with the guidance provided by both the National Environmental Policy Act (*NEPA*) and the California Environmental Quality Act (*CEQA*). Analysis of a reasonable range of alternatives would be required by both *NEPA* and *CEQA*. The purpose of the alternatives analysis is to explain potentially feasible ways to avoid or minimize the significant effects identified for the Project.

Based on the guidance provided by both *NEPA* and *CEQA*, several factors are relevant for consideration in determining a reasonable range of alternatives to be analyzed in detail. These factors include: (1) the nature of the proposed Project and the significant impacts identified for the Project, (2) the ability of alternatives to avoid or lessen the significant impacts associated with the Project, (3) the ability of the alternatives to meet the objectives of the Project, and (4) the feasibility of the alternatives.

The State *CEQA Guidelines* provides guidance on determining a reasonable range of alternatives to a project for analysis. Under *CEQA*, analysis is provided for those alternatives that could feasibly meet most of the basic objectives of the Project. The factors considered when determining the feasibility of alternatives include site suitability, economic viability, availability of infrastructure, general plan consistency, jurisdictional boundaries, and whether the project proponent can reasonably acquire, control, or otherwise have access to alternative sites.

A. SELECTION OF ALTERNATIVES FOR ANALYSIS

As discussed above, one of the factors to be considered in determining a reasonable nature of alternatives to a proposed Project is the nature of the impacts of the project as proposed. **Section 5.0, Environmental Impact Analysis**, of this EIS concludes that all of the potential environmental impacts of the proposed Project will either not be significant or can be mitigated to a less than significant level, with the exception of certain air quality and noise impacts. Specifically, the proposed Project's potentially significant impacts that can be mitigated to a less than significant level include: certain local and regional air quality emissions, biological resources, cultural resources, geology and soils, greenhouse gas emissions, hazards, hydrology and water quality, on-site and off-site noise impacts, public services including fire protection, law enforcement, schools, and libraries, traffic, and utilities and service systems including water, sewer, and solid waste.

The analysis of the potential air quality impacts of the Project determined the Project would result in temporary air quality impacts during construction and from occupancy and use of the proposed residential and commercial facilities. Even with the incorporation of all feasible measures to reduce

these impacts, the amount of these emissions would remain above the numerical thresholds of significance identified by the South Coast Air Quality Management District (SCAQMD) used in the analysis of air quality impacts. Specifically, contribution of daily mass volatile organic compounds (VOCs), nitrogen oxides (NOx), and carbon monoxide (CO) emissions during construction and operation of the Project, and if both the Active Adult Community and Tribal Planning Areas are constructed concurrently, cumulative contribution of VOCs, NOx, and CO emissions to the air quality within the Salton Sea and South Coast Air Basins.

The analysis of the potential noise impacts of the Project-determined that short-term noise impacts during construction would be significant; and noise levels along certain streets would result in significant noise impacts to certain on-site uses from vehicle operations. Specifically, vehicular noise impacts along Los Alamos Road south of Ramon Road may cause a significant impact. Cumulative traffic increases within the Project Site would result in noise increases along Ramon Road (east of Los Alamos, west of Los Alamos, and east of Dal Vall Drive), Bob Hope Drive (north of Dinah Shore Drive, north of Ramon Road, and north of I-10 interchanges), and Rattler Road (north of Ramon Road).

Both *NEPA* and *CEQA* require consideration of a No Action or No Project Alternative, with the definition of this Alternative to be based on several factors, including consideration of what is likely to occur if the proposed Project is not approved.

Based on consideration of these factors, the Tribe identified several alternatives to the Project for analysis. If the Project is not approved, the site could remain in its current undeveloped state or, since both the City of Rancho Mirage ("City") and Riverside County General Plans designate the site for residential and commercial development, development of the site could occur with the mix and intensity of uses identified in the City or County General Plans. In response to these circumstances, analysis is provided of the No-Project/No Development, City General Plan, and County General Plan alternatives.

Additionally, the range of alternatives analyzed considers changes to the type and intensity of the proposed land uses, including an alternative that considers development of single family homes in Planning Area 8 that are not restricted to residents aged 55 and above, and an alternative that reduces the intensity of all the proposed land uses by 25 percent.

B. ALTERNATIVES INITIALLY CONSIDERED BUT DETERMINED TO BE INFEASIBLE

The Tribe also initially considered an alternative site for the Project in accordance with *NEPA* and *CEQA*. As the primary objective of the Project is to develop a comprehensive master plan for Section 24 that is

complementary to the existing and planned uses on adjacent land located within the Agua Caliente Indian Reservation ("Reservation"), planning for development of alternative sites with the mix of residential and commercial uses proposed would not feasibly meet this basic Project objective. With regard to the broader objectives of the Tribe for the management and stewardship of Tribal Reservation lands, the Reservation does not contain any nearby sites with similar characteristics and no other nearby sites are available to the Tribe that would meet the underlying purpose of the Project to develop the mix of residential and commercial uses proposed. Any potential sites would need to be between 500 and 600 acres in size to accommodate the land use program proposed for the Project Site.

While the Tribe does own additional Reservation lands within the vicinity of the Project Site, these alternative sites either are already partially developed, not large enough in size to accommodate the proposed land use program, or consist of a mix of Tribal trust and Allottee ownership that would affect the ability to comprehensively plan and implement the project. In addition, other nearby alternative sites within the Reservation are not located within an area with similar proximity to existing and planned utility infrastructure, or are located in areas that may result in similar or more significant environmental impacts, or are located in other public service provider jurisdictions which would require additional negotiations for public services and utilities. Section 24 is located within the sphere of influence of the City of Rancho Mirage and the City's General Plan calls for the preparation of a specific plan for Section 24. The Tribal Land Use Ordinance also calls for the preparation of a specific plan for the Project Site.

Furthermore, the development of an alternative site would not avoid the significant air quality and noise impacts identified for the proposed Project that cannot be mitigated to a less than significant level. Specifically, construction and operation-related emissions would likely occur regardless of the location since build out of the Section 24 Specific Plan would still occur under a similar schedule with the use of similar equipment and similar intensity of land uses, thus resulting in comparable significant and unavoidable air quality impacts. It is expected that if there were a suitable alternative site available, depending on the availability of off-site utility infrastructure, the nature and extent of other future development expected in the surrounding vicinity, and the presence of nearby noise-sensitive uses such as residences, the Project impacts associated with construction-related noise would also occur at another location. Project impacts would likely shift to the alternative site and could potentially be greater.

Based on the above, an alternative site is not considered feasible as it is not expected that the Tribe can reasonably utilize alternative Reservation lands that would provide for the design of the Section 24 Specific Plan. In addition, an alternative site would not avoid the significant impacts of the Project, nor would such an alternative meet the basic objectives of the Project, including development of tribal land

in Section 24, which is a unique location in relation to the existing Agua Caliente Casino Resort Spa. Therefore, this alternative has been eliminated from detailed consideration within this EIS.

C. ALTERNATIVES EVALUATED IN DETAIL

As discussed previously, the Tribe identified several alternatives for analysis in the EIS to determine if these alternatives could avoid or substantially lessen the significant impacts of the Project and meet the basic Project objectives. The following objectives for the Project are listed in **Section 3.0, Project Description.** The objectives of the Project are to:

- Establish a vibrant, unified vision for the Project Site based upon a cohesive, complementary mix of land uses structured around a comprehensive set of circulation and infrastructure systems, and sensitivity to environmental sustainability issues.
- Promote the highest and best use of Reservation lands in order to maximize the economic development opportunities for the Tribe and its members, including Tribal land immediately adjacent to the existing Agua Caliente Casino Resort Spa.
- Plan for an appropriate mix of commercial, hotel, entertainment, office and residential uses, in order to meet the trade area's growing demand and build in the flexibility to respond to changes in the market over time.
- Create a new mixed-use project that compliments the Tribe's existing Agua Caliente Casino Resort Spa located across Bob Hope Drive to create a regional destination development.
- Apply planning and design solutions to create a unique and pleasant "sense of place" at multiple scales.
- Provide a range of contemporary housing concepts, including an "active adult" development, which will encourage residential opportunities that appeal to residents seeking shorter commutes to jobs, restaurants, and a broad selection of entertainment opportunities.
- Implement a "Complete Streets" circulation concept that optimizes both vehicular and pedestrian/ bicycle modes of traffic, internalizes pedestrian activity to buffer it from the vehicular traffic along perimeter roadways, and establishes connectivity between land use activities featuring pedestrian-friendly and walkable spaces.
- Create a community with a focus on water conservation through design that supports groundwater recharge, minimizes stormwater runoff and incorporates drought-tolerant/low water landscaping that acknowledges the desert environment.
- Provide infrastructure that incorporates "readiness" for sustainable technologies, such as solar power generation and plug-in electrical vehicle charging connections/stations.

As discussed above, the alternatives selected for evaluation in this EIS, include:

1. Alternative 1 – No Project/No Development
2. Alternative 2 – City General Plan

3. Alternative 3 – County General Plan
4. Alternative 4 – Project with all Standard Residential Development
5. Alternative 5 – Reduced Intensity Alternative

A brief description of each of these alternatives is provided below, along with a discussion of the reasons why each alternative was selected for evaluation. More detailed descriptions of each of these alternatives are provided below, along with a discussion comparing the environmental impacts that would result from these alternatives with the impacts identified for the Project.

D. EVALUATION OF ALTERNATIVES

1. Alternative 1—No Project/No Development

Alternative Description

Both *NEPA* and *CEQA* require consideration of a No Action or No Project alternative, with the definition of this alternative to be based on several factors, including consideration of what is likely to occur if the Project is not approved. As required by *NEPA* and *CEQA*, the analysis must examine the impacts that might occur if the Project Site is left in its existing condition, as well as what may reasonably be expected to occur in the foreseeable future if the Project were not approved, based on current plans and consistent with available infrastructure and community services.

Under the No Project/No Development Alternative, the Project Site would remain in its current and existing condition. The vacant undeveloped land would remain. These existing uses would continue and the existing environmental conditions would be maintained. The Project Site would retain its visual characteristics and the existing visual resources for the surrounding land uses would not be impacted.

None of the impacts associated with construction and operational activities would occur if the No Project/No Development Alternative was selected. No construction and operations related air quality emission impacts would occur, nor would construction related noise impacts, vehicle noise operations at Project buildout and under cumulative conditions.

Comparative Impact Evaluation

Aesthetics

Under the No Project Alternative, the existing visual character of the Project Site, which is currently undeveloped, would remain unchanged. The existing visual characteristics and quality of the surrounding Project Site would also remain unchanged under this Alternative. As the change in the visual character of the Project Site and the surrounding area that would result from the Project was determined to be less than significant, neither this Alternative nor the Project would result in significant

impacts. However, as no changes to existing conditions to the site would occur and the visual appearance of the site would remain as it is today, no impacts relative to aesthetic impacts would occur under this Alternative. Since no impacts would occur under this Alternative, impacts would be less than the Project.

Air Quality

Under Alternative 1, no construction activities or construction-related vehicle trips would occur; and the short-term emissions related to construction activities would be avoided.

Since the Project would not be built on the Project Site, the emissions generated by construction and operation of the Project would also be avoided. The significant unavoidable impacts related to construction emissions for VOC, operational emissions for VOC, NOx, and CO, would be avoided. As discussed in **Section 5.2, Air Quality**, these impacts are predominantly the result of architectural coating of all buildings and mobile source (vehicle trip) emissions from visitors to the non-residential land uses within the Tribal Planning Areas. This Alternative would result in less air quality impacts when compared to the Project, as it would avoid the potential for construction and operational emissions.

Biological Resources

Under the No Project Alternative, the existing biological character of the Project Site would remain unchanged. The Project Site currently provides some habitat suitable for foraging and nesting sensitive bird species, specifically the burrowing owl and loggerhead shrike.

The potential impact of the Project on the burrowing owl and loggerhead shrike was mitigated through payment of the Tribal Habitat Conservation Plan (THCP) fee and was determined to be less than significant. While impacts on biological resources would be less than significant under the Project, since no impacts would occur under this Alternative, impacts would be less than the Project.

Cultural Resources

Under this Alternative, the Project Site would remain in its current condition. The Tribe has specifically identified the Project as an area of concern for sensitive cultural resources. The Project involves grading of the Project Site that has the potential to disturb any subsurface cultural resources (historic or prehistoric) that might be present on the Project Site.

This Alternative does not involve any disturbance of subsurface soils and the potential disturbance to cultural resources would be avoided. Since this Alternative would not result in any possible impacts on cultural resources, impacts would be less than the Project.

Geology and Soils

Alternative 1 would allow the Project Site to remain in its current condition, and no grading or development would occur. The potential for impacts related to loss of topsoil, sedimentation, erosion and landform alterations associated with construction of the Project were determined to be less than significant for the Project as proposed with the incorporation of the identified Project Design Features and Mitigation Measures.

Alternative 1 would not result in construction of the site, the temporary impacts associated with construction of the Project would be avoided under this Alternative. This Alternative would result in less geology and soils impacts when compared to the Project.

Greenhouse Gas Emissions

No construction activities or construction related vehicle trips would occur with this Alternative, and accordingly greenhouse gas emissions (GHGs) related to temporary construction activities would be avoided. As the Project would not be built or operated, GHGs from operation of the Active Adult Community and Tribal Planning Areas would also be avoided. As the Project would be built and operated in a manner determined to be consistent with the California Air Resources Board (CARB) Updated Climate Change Scoping Plan (2014 Updated Scoping Plan), these emissions were determined to be less than significant. However, potential GHG impacts under this Alternative would be less than under the Project.

Hazards and Hazardous Materials

Alternative 1 would not introduce any potentially new hazardous materials related to the Project's construction or operational activities. There would be no uses on site that would potentially create a hazardous risk to the public or environment or any activities that would inhibit any established hazard evacuation plan. Additionally, since no new residents, employees, or visitors of the site would be introduced onto the site, people would not be exposed to risks related to the Project Site's close proximity to the I-10/Union Pacific Railroad (UPRR) corridor. Therefore, this Alternative would result in less impacts than under the Project.

Hydrology and Water Quality

Under this Alternative, the Project Site would remain in its current condition, and no grading or development would occur. Existing stormwater flows across the Project Site would continue to occur and the existing hydrologic and drainage patterns would remain unchanged. Hydrology and water quality impacts during construction of the Project would not occur. Although the Project would incorporate Project Design Features and Best Management Practices to ensure that impacts associated

with hydrology during Project operation would be less than significant, impacts under this Alternative would not occur and thus would be less than the Project. Since the site is currently vacant and would remain so under this Alternative, Alternative 1 would not result soil erosion and sedimentation impacts. Nonetheless, it is conservatively estimated that hydrology and water quality impacts would be less under this Alternative when compared with the Project.

Land Use and Planning

With the No Project Alternative, there would be no changes in existing land use conditions or in the local or regional land use planning and regulatory frameworks that currently govern the affected land area. Accordingly, there would be no land use impacts. None of the objectives and community benefits of the Project would occur. There would be no development on Reservation land that might improve the Tribe's and the surrounding jurisdictions' economic base, nor would the site complement the existing pattern and scale of development in the City of Rancho Mirage (City). The No Project/No Development Alternative would not implement a key General Plan land use policy to expand the City's urban limits into the City's Sphere of Influence to provide a suitable site for a residential and commercial center providing good and services not presently available within the northern portion of the City. Consequently, this Alternative would have negative impacts with respect to land use and planning, while the Project would have both positive and less than significant impacts.

This Alternative, like the Project, would not divide an established community and would have no effect on any habitat conservation plans.

Noise

No construction activities would occur with this Alternative, and potential temporary noise impacts from construction would be avoided. As this Alternative would not result in new development, there would be no increase in traffic. Consequently, the increase in noise levels along Los Alamos Road south of Ramon Road; along Ramon Road east of Los Alamos, west of Los Alamos, and east of Da Vall Drive; and along Bob Hope Drive north of Dinah Shore Drive, north of Ramon Road, and north of I-10 interchange; and Rattler Road north of Ramon Road identified for the Project and related projects would not occur. In addition, Alternative 1 would not include the introduction of stationary noise sources such as mechanical equipment, loading docks, or parking lots. Measures have been identified to mitigate all potential noise impacts identified for the Project. Nevertheless, impacts from noise would be less under this Alternative than under the Project.

Population and Housing

The Project's impact with regard to employment would be considered beneficial because it would provide employment opportunities to construction workers and permanent employment opportunities within the Project Site. Under this Alternative, no employment opportunities for construction workers or permanent employment opportunities would be generated because no on-site construction activities or development would occur. This Alternative would not result in construction- and operation-related employment impacts.

No residential units would be developed on the site under Alternative 1. As such, no new residential population would be introduced into the Project Site. Although the Project would have a less than significant impact on population growth, no impacts would occur under this Alternative and, as such, impacts would be less than under the Project.

Public Services

Under this Alternative, development of the Project Site would not occur and no new residents, employees, or visitors would be introduced to the Project area. There would be no increase in demand on local public services, such as fire and emergency services, law enforcement, schools, and libraries and payment of development impact fees to fund these services would not be required. The existing public services that support the local area would remain as is, thus no potential significant impacts on public services would occur under this Alternative. Although the Project will have no significant and unavoidable impacts on public services, under this Alternative, impacts would be less than under the Project.

Recreation

The No Project Alternative would not entail any development of the Project Site, thus the addition of new residents, employees, or visitors to the Project Site would not occur. Therefore, there would not be an increase in demand for park or recreational facilities or services and payment of parkland in-lieu fees, or an equivalent, would not be required. The existing parks and recreation services that support the local area would remain as is, thus no potential significant impacts on parks and recreation facilities would occur under this Alternative. Although the Project will have no significant and unavoidable impacts on parks and recreation facilities, under this Alternative, impacts would be less than under the Project.

Traffic and Transportation

Under Alternative 1, no short-term (construction) or additional long-term (operational) vehicle trips would be generated on roadways adjacent to the Project Site. The Project would result in less than

significant construction and operational impacts with implementation of Project Design Features and Mitigation Measures. However, Alternative 1 would avoid construction and operation related traffic impacts of the Project. Therefore, potential construction and operational impacts related to transportation and traffic would be less than those of the Project.

Utilities and Service Systems

Water Service

Under this Alternative, development of the Project Site would not occur. There would be no increase in demand on water supplies. No new demand on local groundwater supplies would occur and this Alternative would result in fewer impacts than those of the Project. Even though neither the Project nor this Alternative would result in a significant impact, impacts associated with this Alternative would be considered less than those of the Project.

Sewer

Under this Alternative, development of the Project Site would not occur. There would be no increase in demand on wastewater treatment. This Alternative would result in lesser impacts than those of the Project. Even though neither the Project nor this Alternative would result in a significant impact, impacts associated with this Alternative would be less than those of the Project.

Solid Waste

Under this Alternative, no development on the Project Site would occur. As such, no solid waste would be generated under this Alternative. Even though the Project will not have any significant impacts relating to solid waste, impacts under this Alternative would be less than under the Project.

Summary of Comparative Impacts

A summary comparison of impacts associated with the Project Alternatives is provided in **Table 6.0-12, Comparison of Alternatives to Project**. As described above, the No Project/No Development Alternative would eliminate the potentially significant impacts associated with construction- and operation-related air emissions and construction-and vehicle-related noise increases on local roadways. However, impacts related to land use would be greater as the economic employment opportunities would not occur on Reservation land. This Alternative would result in less impacts related to aesthetic, biological resources, cultural resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, operation noise, population, public services, recreation, traffic, and utilities and service systems.

Relationship to Project Objectives

While potentially significant impacts would be avoided with this Alternative, the following Project objectives would not be achieved with the No Project Alternative:

- Establish a vibrant, unified vision for the Project Site based upon a cohesive, complementary mix of land uses structured around a comprehensive set of circulation and infrastructure systems, and sensitivity to environmental sustainability issues.
- Promote the highest and best use of Reservation lands in order to maximize the economic development opportunities for the Tribe and its members, including tribal land immediately adjacent to the existing Agua Caliente Casino Resort Spa.
- Plan for an appropriate mix of commercial, hotel, entertainment, office, and residential uses, in order to meet the trade area's growing demand and build in the flexibility to respond to changes in the market over time.
- Create a new mixed-use project that compliments the Tribe's existing Agua Caliente Casino Resort Spa located across Bob Hope Drive to create a regional destination development.
- Apply planning and design solutions to create a unique and pleasant "sense of place" at multiple scales.
- Provide a range of contemporary housing concepts, including an "active adult" development, which will encourage residential opportunities that appeal to residents seeking shorter commutes to jobs, restaurants, and a broad selection of entertainment opportunities.
- Implement a "Complete Streets" circulation concept that optimizes both vehicular and pedestrian/ bicycle modes of traffic, internalizes pedestrian activity to buffer it from the vehicular traffic along perimeter roadways, and establishes connectivity between land use activities featuring pedestrian-friendly and walkable spaces.
- Create a community with a focus on water conservation through design that supports groundwater recharge, minimizes stormwater runoff, and incorporates drought-tolerant/low water landscaping that acknowledges the desert environment.
- Provide infrastructure that incorporates "readiness" for sustainable technologies, such as solar power generation and plug-in electrical vehicle charging connections/stations.

2. Alternative 2—City General Plan

Alternative Description

This Alternative examines the impacts that would result from development of the Project Site with the type and intensity of land uses allowed by the City General Plan land use designations for the Project Site, as shown on **Figure 4.0-6, City of Rancho Mirage Land Use Designation Plan,** in **Section 4.0, Environmental Setting**. The City's General Plan has a greater portion of the Project Site designated for residential development than the proposed Section 24 Specific Plan. The General Plan designates 414

acres for Medium Density Residential uses with a maximum allowed density of 4 dwelling units (DU) per acre, 39 acres of the Project Site as High Density Residential uses with a maximum allowed density of 9 DU per acre, and 80 acres as Community Commercial uses with a maximum allowed Floor Area Ratio (FAR) of 0.35. The Community Commercial designation allows regional and community scale shopping centers and the definition states that hotels and motels may also be appropriate. For purposes of analysis, the residential development in this Alternative is not assumed to be age restricted, which is consistent with the City's General Plan.

Table 6.0-1, Alternative 2 Land Use Summary, presents an estimate of the amount of residential and commercial development that would be allowed based on the City General Plan land use designations for the Project Site**.** The City's General Plan considers the amount of land typically needed for streets and estimates the resulting amount of development based on the remaining amount of land. For the 457 acres designated Medium Density Residential, the estimate of the land available for residential development after accounting for the amount of land typically required for streets, rights-of-ways, and easements would be approximately 414 acres. The estimated number of residential units is based on applying the allowed 4 units per acre to 414 acres. For the smaller 40 acre area designated for High Density Residential uses, about an acre would be required for streets and 39 acres would be available for development. The estimated number of residential units is based on applying the allowed 9 units per acre to 39 acres. About 5 acres of the 80 acres designated for commercial uses would typically be required for streets and the estimate of commercial development is based on applying the 0.35 FAR to 75 acres.

Table 6.0-1
Alternative 2 Land Use Summary

Land Use Category	Acreage	Amount
Medium Density Residential	457 acres	1,656 units
High Density Residential	40 acres	351 units
Community Commercial	80 acres	1,143,450 square feet

A total of 2,007 residential units and approximately 1.15 million square feet of commercial development would occur with this Alternative as compared to the 2,406 residential units and approximately 3.1 million square feet of commercial development the proposed Section 24 Specific Plan would allow. This Alternative includes about 400 fewer residential units and 1.9 million square feet less of commercial development than the Project.

Comparative Impact Evaluation

Aesthetics

The City's General Plan limits commercial development to 80 acres on the southwest corner of Ramon Road and Bob Hope Drive. The remainder of the site on Ramon Road would contain higher density multi-family residential development. The majority of the Project Site would be developed with lower-density single-family homes. Development of these uses would change the existing visual character of the Project Site, as would the Project. Both the Project and this Alternative would develop the majority of the southern portion of the Project Site along Dinah Shore Drive and Los Alamos Drive with single-family residential development and Ramon Road and the northern portion of Bob Hope Drive with commercial and other higher-intensity uses. This Alternative would result in the majority of Bob Hope Drive being developed with lower-intensity single-family residential development than the Project, which would develop higher-intensity commercial uses on Bob Hope Drive.

Alternative 2 would result in a similar grading, building, and landscape designs as the Project. While this Alternative would involve a different mix of land uses across the Project Site, it would result in a similar impact to visual character as would the Project.

Air Quality

Alternative 2 would involve similar construction activities to those associated with the Project, such as to grading of the site, installation of infrastructure, and construction of residential and commercial buildings. The estimated maximum daily construction emissions during Alternative 2 are listed in **Table 6.0-2, Alternative 2 Worst-Case Construction Emissions (pounds/day).** Similar construction assumptions were used as those of the Project including SCAQMD Rule 403 and 403.1 compliance for watering to minimize dust and requirements that construction equipment are equipped with Tier 4 interim off-road engines.

Alternative 2 would result in 255.3 pounds/day of VOC emissions generated during construction when compared to 260.2 pounds/day for the Project.1 VOC emissions would be incrementally reduced under this Alternative, but would still exceed SCAQMD significance threshold. Therefore, Alternative 2 would result in slightly reduced but similar construction air quality impacts related to VOC emissions as those identified for the Project.

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1 It should be noted that the construction emissions are based on the single maximum daily emission. Even though this Alternative would result in 50 percent fewer units and square footage; the amount of emissions generated from equipment during any one day would be slightly reduced when compared to the Project.

Table 6.0-2
Alternative 2 Worst-Case Construction Emissions (pounds/day)

	Pollutant (pounds/day)					
Source	**VOC**	**NOx**	**CO**	**SOx**	**PM10**	**PM2.5**
Year 2027						
Maximum	255.3	38.8	132.7	0.3	19.4	6.1
SCAQMD threshold	75	100	550	150	150	55
Threshold Exceeded?	**Yes**	**No**	**No**	**No**	**No**	**No**

*Note: Refer to the data sheets in **Appendix I, Alternative 2 Air Quality and Greenhouse Gas Emissions Modeling.***
Abbreviations: CO = carbon monoxide; NO_X = nitrogen oxide; PM10 = particulate matter less than 10 microns; PM2.5 = particulate matter less than 2.5 microns; ROG = reactive organic gas; SCAQMD = South Coast Air Quality Management District; SO_X = sulfur oxide.

The estimated emissions for the residential and commercial uses included in Alternative 2 are presented in **Table 6.0-3, Alternative 2 Estimated Operational Emissions**.

Table 6.0-3
Alternative 2 Estimated Operational Emissions

	Pollutant (pounds/day)					
Source	**VOC**	**NOx**	**CO**	**SOx**	**PM10**	**PM 2.5**
Maximum	355.4	194.4	1,287.6	2.1	139.1	43.1
SCAQMD threshold	75	100	550	150	150	55
Threshold exceeded?	**Yes**	**Yes**	**Yes**	**No**	**No**	**No**

*Source: Refer to the data sheets in **Appendix I, Alternative 2 Air Quality and Greenhouse Gas Emissions Modeling.***

As indicated in **Table 6.0-3,** the operational emissions associated with Alternative 2 would exceed SCAQMD's recommended operational emission thresholds for VOC, NOx, and CO. The primary source of NOx and CO from the residential and commercial uses would be the vehicle trips generated by the residential and commercial uses. Operation emissions generated under Alternative 2 would result in somewhat reduced emissions when compared to the Project for all sources; however, the amount of VOC, NOx, and CO emissions would still exceed the SCAQMD significance threshold. Alternative 2 would not avoid significant VOC, NOx and CO impacts. Therefore, Alternative 2 would result in comparatively less air quality impacts than those under the Project, but would not avoid or substantially lessen to a level of less than significant the significant air quality impacts of the Project.

Biological Resources

Under Alternative 2, the Project Site would result in similar grading and disturbance activities as those of the Project. Since this Alternative would result in development of the entire 577 acre Project Site, impacts to biological resources would be similar to those of the Project. There would be comparable impacts to sensitive habitat, sensitive plants, and sensitive wildlife, of which Mitigation Measures would be required in accordance with the requirements of the THCP. Under this Alternative, payment of the THCP fee would also be required in order to mitigate potential impacts to burrowing owl and loggerhead shrike. Both this Alternative and the Project would result in similar, less than significant impacts.

Cultural Resources

Alternative 2 would fully develop the entire 577 acre Project Site with a mixture of residential and commercial uses, as would the Project. This Alternative would have similar potential to uncover previously unknown archeological resources, fossils of paleontological importance, and human remains. Appropriate mitigation during the construction phase would ensure that development would not result in significant impacts to potential cultural resources. Therefore, Alternative 2 would not result in significant impacts to cultural resources, and its impacts would be similar to those of the Project.

Geology and Soils

Alternative 2 would involve a reduction in total dwelling units and square footage of commercial uses when compared to the Project. However, construction would have comparable grading and excavating activities for the development of the mixture of residential and commercial uses and would result in similar impacts related to erosion and sedimentation on the Project Site. Any future development within the Project Site occurring as permitted by the City General Plan would have to comply with the California Building Code (CBC) requirements for seismicity, liquefaction, subsidence and expansive soils. Similar to the Project, this Alternative would mitigate potential significant impacts associated with the existing soils and geology conditions of the site. Alternative 2 would be required to develop and implement a Stormwater Pollution Prevention Plan (SWPPP) along with all Project Design Features of the Project and Mitigation Measures pertaining to erosion control plans. For this reason, the geology and soils impacts of this Alternative would be similar to the Project.

Greenhouse Gas Emissions

Alternative 2 would involve construction activities similar to those associated with the Project. As stated previously, equipment use and vehicular travel related to construction activities and their respective emissions would be similar to that required for the Project.

The annual net GHG emissions associated with the construction and operation of Alternative 2 are provided in **Table 6.0-4, Alternative 2 Estimated Greenhouse Gas Emissions.** The estimates represent emissions with incorporation of similar Project Design Features and Mitigation Measures as those identified for the Project.

Table 6.0-4
Alternative 2 Estimated Greenhouse Gas Emissions

GHG Emissions Source	Emissions (MTCO2e/year)
Construction (amortized)	747.7
Operational (mobile) sources*	21,182.0
Area sources	1,762.8
Energy	8,992.3
Waste	258.0
Water	1,304.0
Annual Total	**34,246.8**

*Source: CalEEMod Emissions calculations are provided in **Appendix I, Alternative 2 Air Quality and Greenhouse Gas Emissions Modeling.***
Notes: Totals in table may not appear to add exactly due to rounding in the computer model calculations.
Abbreviations: MTCO2e = metric tons of carbon dioxide emissions.
**N2O emissions account for 0.86 MTCO2e/year.*

As shown in **Table 6.0-4,** the operational GHG emissions for Alternative 2 would be 34,246.8 MTCO2e per year. Business as usual emissions for Alternative would be 42,204.5 MTCO2e per year. This Alternative includes about 400 fewer residential units and 1.9 million square feet less of commercial development than the Project. The primary GHG emission source is from mobile emissions traveling to and from the site. The commercial component generates a higher amount of trips to the site when compared to residential uses. Since this Alternative would generate fewer trips than under the Project, fewer GHG emissions would be generated under this Alternative. Alternative 2 would result in 11,653.2 MTCO2e per year fewer GHG emissions when compared to the Project. Therefore, Alternative 2 would result in less than significant impacts in regards to greenhouse gas emission impacts and would result in impacts similar under this Alternative to the Project.

Hazards and Hazardous Materials

Alternative 2 would result in grading and excavating activities across the entire Project Site similar to the Project. The temporary transport, storage, handling, use, and disposal of hazardous materials during construction of this Alternative would compare to those activities of the Project. As with the Project, the residential and commercial uses associated with the operational activities of Alternative 2 would involve

the limited use of potentially hazardous materials, which would be handled and disposed of in accordance with applicable standards and regulations.

The Project Site is not considered to be a hazardous materials site, nor would this Alternative involve any uses that would cause a significant hazard to those occupants on the site, similar to the Project. As the Project Site is not within an airport land use plan or within proximity to a private airstrip, this Alternative would not subject people to any potential safety hazards. This Alternative would involve similar road closures during construction, but appropriate Mitigation Measures would substantially reduce potential impacts related to impairment of operations of any emergency response plan. Fire hazards would not be associated with this Alternative, as with the Project, since the Project Site contains minimal vegetation that could pose any flammable hazards. Alternative 2 would incorporate similar Project Design Features as the Project that would reduce any foreseeable fire hazards on the Project Site. Therefore, this Alternative would result in less than significant impacts. Impacts to hazards and hazardous materials would be similar to those of the Project.

Hydrology and Water Quality

Similar to the Project, Alternative 2 would require the construction of new storm-drain systems, including retention basins used to retain the 100-year flood event. Construction activities under this Alternative would involve temporary surface water runoff and water quality impacts that would be considered to be potentially significant. However, implementation of Project Design Features and Mitigation Measures similar to the Project would minimize surface water runoff from the Project Site and reduce degradation of surface water runoff and water quality, in compliance with the NPDES Program. Development of the Project Site would increase the amount of impervious surfaces resulting in an increase of long-term surface water runoff. This Alternative would incorporate applicable Mitigation Measures and Project Design Features to ensure these impacts remain less than significant. Therefore, Alternative 2 would result in similar impacts to hydrology and water quality when compared to the Project.

Land Use and Planning

Implementation of Alternative 2 considers a mixture of residential and commercial uses permitted by the City's General Plan land use designations. A total of 1,656 residential units and approximately 1.15 million square feet of commercial space would be developed on the Project Site compared to the 2,406 residential dwelling units and 3.1 million square feet of commercial as the Project. This would result in approximately 400 fewer residential units and 1.9 million square feet less of commercial development than the Project.

Alternative 2 would not conflict or result in any consistencies with the goals, objectives, or policies of the Tribe's Land Use Ordinance or City's General Plan, as well with any polices established by the Southern California Association of Governments (SCAG), Coachella Valley Association of Governments (CVAG), and the Riverside County Land Formation Commission (LAFCo). Alternative 2 would result in less than significant impacts, similar to the Project.

Noise

Both Alternative 2 and the Project would include earthmoving activities during construction and would involve the use of heavy equipment, such as air compressors, backhoes, generators, excavators, pavers, rollers, and scrapers. While construction under this Alternative would be reduced in scale and duration, these construction equipment sources would cause significant noise impacts to both on- and off-site receptors. Implementation of various Project Design Features and Mitigation Measures under this Alternative would reduce these noise impacts; however, construction activities would still result in short-term significant impacts.

Operational vehicle trips associated with Alternative 2 would result in 25,110 fewer weekday trips when compared to the Project. Long-term operational noise generated by traffic under this Alternative would decrease when compared to the Project. This is due to the decrease in the amount of traffic generated by this Alternative. However, like the Project, this Alternative would not result in a decrease of 3 dB(A) in the noise levels on roadway segments adjacent to the Project Site, and therefore any decrease in roadway noise levels would not be noticeable. Impacts under this Alternative would be incrementally lesser than under the Project.

Population and Housing

Under Alternative 2, the site would contain approximately 400 fewer residential units and 1.95 million square feet less of commercial development than the Project. At 1.8 people per household, this Alternative would generate up to 3,611 residents, a decrease of 720 residents than the Project. While this Alternative would generate fewer people, there would be a comparable demand on the existing utility infrastructure that services the area. Even though neither the Project nor Alternative 2 would result in a significant impact, impacts associated with Alternative 2 would be similar to the Project.

Public Services

Fire Protection and Emergency Services

Both Alternative 2 and the Project would increase demand on the Riverside County Fire Department (RCFD) for fire protection and emergency services due to the development of various residential and commercial uses on the Project Site. While there would be a reduction in residential dwelling units and

total square footage for commercial uses under this Alternative, the removal of the 55 and above age restriction associated with the Project would result in a comparable amount of calls for service. Construction of Alternative 2 would not obstruct emergency access to the site or surrounding areas nor would operational activities impair any response times since the site is located within an area currently serviced by the RCFD. Under this Alternative, all residential and commercial development would comply with the most current adopted fire and building codes and standards and all applicable development impact fees would be paid to the appropriate jurisdiction. Therefore, implementation of this Alternative would not result in the need for new or the physical alternation to any existing governmental facility in regards to fire protection and emergency services, and impacts would be less than significant. Accordingly, Alternative 2 would have similar impacts to those of the Project.

Law Enforcement

Alternative 2, like the Project, would increase demand on the Riverside County Sherriff's Department (Sheriff's Department) for law enforcement services due to the development of various residential and commercial uses on the site. While there would be a reduction in residential dwelling units and total square footage for commercial uses under this Alternative, this Alternative would still create additional calls for service. Like the Project, this Alternative would also incorporate Project Design Features that would enhance security and access throughout the site to reduce needed service from the Sheriff's Department. However, in order to accommodate the Alternative's increased demand for services, the Sheriff's Department would require additional officers to service the site. Mitigation Measures similar to the Project would require payment of development impact fees to the appropriate jurisdiction to reduce impacts to less than significant. Accordingly, Alternative 2 would have similar law enforcement impacts to those of the Project.

Schools

Alternative 2 would increase demand on the Palm Springs Unified School District (PSUSD) for school services due to the increase of school age residents associated with the removal of the 55 and over age restriction. With the increase in an unrestricted age population, more students are anticipated to be generated within the residential uses of this Alternative. As with the Project, Alternative 2 would fall within the attendance boundaries of PSUSD and would be serviced by the three schools of Sunny Sands Elementary, Nellie N. Coffman Middle, and Rancho Mirage High. There would be an increase in the number of students within PSUSD because the Project's single-family and multi-family generation rates would be applied toward the Alternative's medium density and high density residential uses. This Alternative would generate approximately 495 more students than the Project. The three schools that would service Alternative 2 are currently operating below their capacities and the addition of students generated by this Alternative would cause Sunny Sands Elementary to operate over its capacity.

Therefore, Alternative 2 would result in potentially significant impacts. Impacts associated with Alternative 2 would result in greater impacts than the Project. However, payment of applicable impact fees would be paid to PSUSD to mitigate these impacts. Even though neither this Alternative nor the Project would result in significant impacts, impacts associated with this Alternative would be considered comparatively greater than the Project.

Libraries

Alternative 2, like the Project, would increase demand on the Rancho Mirage Public Library for library services. While this Alternative would involve a reduction in the total amount of residential dwelling units, the removal of the 55 and over age restriction would result in a greater introduced population, which would then create an increased demand for library services when compared to the Project. The Rancho Mirage Library has indicated that it currently has sufficient capacity to accommodate the growing demands of the City, including the Project. However, similar to the Project, this Alternative would require payment of applicable development impact fees to the appropriate jurisdiction. Therefore, Alternative 2 would result in less than significant impacts. Impacts under this Alternative would be considered similar to those of the Project.

Recreation

Implementation of Alternative 2 would result in an increase in demand for parks and recreational facilities due to the increase in residents on the site. While there will be a decrease in the total number of residential dwelling units, there would be an increase in both children and overall residents introduced to the site as a result of the removal of the 55 and over age restriction. This increase in population would create a greater demand on the County and City's existing parks and recreational facilities when compared to the Project. Like the Project, implementation of Alternative 2 would provide parkland and open spaces throughout the site for recreational opportunities of residents and those visiting the site. However, it is unlikely that the residential development would contain the same level of recreation as that proposed in Planning Area 8. On the other hand, this Alternative's reduction in residential and commercial development on the site would involve the ability to integrate more space for recreational opportunities within the Alternative's land use design. This increase in recreational opportunity on the site would help minimize the increased demand on existing County and City parks and recreational facilities as a result of the increased population generation. Applicable development impact fees would be paid to the appropriate jurisdiction to minimize recreational impacts. Additionally, these recreational facilities would be constructed concurrently with development of the Alternative and would contribute to overall construction impacts. Overall, Alternative 2 would result in less than significant impacts, similar to those of the Project.

Traffic and Transportation

Alternative 2 would generate 25,110 fewer weekday trips, which is less than the 73,890 total trips that would be generated under full implementation of the Project. All intersections were determined to result in a level of service (LOS) D or better with the Project. Since impacts to study intersections associated with the Project would be less than significant with incorporation of various Project Design Features and Mitigation Measures, the impacts associated with Alternative 2 would also be less than significant. Even though the Project and Alternative 2 would not have any significant impacts relating to traffic, impacts under Alternative 2 would result in comparatively less overall traffic.

Utilities and Service Systems

Water Service

Alternative 2 would result in approximately 400 fewer residential units and 1.9 million square feet less of commercial space than the Project. Under this Alternative 2, 2,007 residential units and 1.15 million square feet of commercial space would correspond to a water demand of approximately 1,385.0 acre-feet per year (afy).[2] The aquifer and other sources of supply are adequate for a single dry year and also multiple dry years for a 20-year period. Since the water demand associated with this Alternative is less than the Project's water demand of 1,780 afy, Alternative 2 would result in reduced impacts to water service when compared to the Project. Even though neither the Project nor Alternative 2 would result in a significant impact, impacts associated with Alternative 2 would be comparatively less than the Project.

Sewer

Alternative 2 would have a total of 2,007 residential units and approximately 64 percent less commercial square feet than the Project. The Coachella Valley Water District (CVWD) uses a peak flow factor of 250 gallons per day per equivalent dwelling unit (EDU) to determine wastewater generation. Based on the number of EDUs for this Alternative (2,007 residential EDU and 472 commercial EDU), this Alternative would generate 0.62 million gallons per day (mgd) of wastewater, approximately 0.31 mgd fewer than the Project. Similar to the Project, wastewater generated by this Alternative would be treated at the water reclamation plant (WRP) No. 7. Accordingly, available treatment capacity would be provided and impacts would be less than significant under this Alternative. The Alternative's sewage increase to the lines in the CVWD's sewer capacity would be mitigated through payment of the sewer capacity increase fee, as required by the Project, and Alternative 2 impacts would be reduced to a less than significant

2 Residential units = 367.2 acre-feet per year (afy); Residential Open Space = 299.5 afy; Commercial Uses = 646.7 afy (average rate of 0.907 for restaurant and 0.096 for commercial uses was used); Commercial Open Space = 71.6 afy.

level. Even though neither the Project nor Alternative 2 would result in a significant impact, impacts associated with Alternative 2 would be less than those of the Project.

Solid Waste

Alternative 2 would have a total of 2,007 residential dwelling units and 1.15 million square feet of commercial development. **Table 6.0-5, Solid Waste Generation of Alternative 2**, indicates that this Alternative would generate 8,262.9 tons per year, which is 4,924.9 tons per year fewer than the Project. In comparison to the Project, Alternative 2 would contribute 11.3 fewer tons of solid waste per day.

Table 6.0-5
Solid Waste Generation of Alternative 2

Building Type	Units	Rate	Solid Waste (tons/year)
Residential	2,007 du	0.41 tons per du	822.9
Commercial	1,143,450 sq. ft.	2.4 tons per 1,000 sq. ft.	2,744.3
Total			**3,567.2**

Source: County of Riverside Environmental Impact Report No. 521, Public Review Draft, March 2014, Table 4.17-N.
Abbreviations: du = dwelling units; sq. ft. = square feet
Note: The solid waste generation rates do not take into account required solid waste reductions.

There is adequate capacity and expansion potential within the regional landfill system to accommodate the solid waste expected to be generated by this Alternative or the Project. Closure dates of landfills for the existing landfills are estimates and subject to change depending on the actual tonnage that is received prior to their estimated closing date. Even though neither the Project nor Alternative 2 would result in a significant impact, impacts associated with Alternative 2 would be comparatively less than the Project.

Summary of Comparative Impacts

Alternative 2 would result in incrementally reduced impacts when compared to the Project with respect to operation related impacts to air quality, noise, demand for library services, recreation, traffic and transportation, hydrology and water quality, and utilities and service systems. Impacts related to Alternative 2 would be similar to aesthetics, biological resources, cultural resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials, land use and planning, population and housing, and fire and law enforcement services. Alternative 2 would result in greater impacts when compared to the Project on school services. No significant air quality or noise impacts would be avoided or substantially reduced to a level of less than significant by this Alternative.

Relationship to Project Objectives

With the implementation of the City's General Plan, Alternative 2 considers the reduction of the number of residential dwelling units (with the elimination of the 55 and over age restriction) and total square footage of commercial development on the Project Site compared to the proposed Project. While the Tribe's goal would be met in regards to the development of a cohesive set of residential and commercial uses that are structured around existing infrastructure systems and available public services, Alternative 2 would not allow for an Active Adult Community as proposed by the Tribe. This Alternative would also not provide the highest and best use of Tribal Property as the majority of the site would be designated for residential uses as opposed to the more mixed commercial, resort, residential uses proposed by the Project. This Alternative would only provide for commercial uses west of the Agua Caliente Casino Resort Spa with residential uses along Bob Hope Drive south of the commercial uses as opposed to complimentary commercial and mixed uses along both Ramon Road and Dinah Shore Drive. No significant impacts would be avoided with this Alternative. Furthermore, the following Project objectives would not be achieved with this Alternative:

- Provide a range of contemporary housing concepts, including an "active adult" development, which will encourage residential opportunities that appeal to residents seeking shorter commutes to jobs, restaurants, and a broad selection of entertainment opportunities.
- Plan for an appropriate mix of commercial, hotel, entertainment, office and residential uses, in order to meet the trade area's growing demand and build in the flexibility to respond to changes in the market over time.

The following Project objectives would be partially met:

- Promote the highest and best use of Reservation lands in order to maximize the economic development opportunities for the Tribe and its members, including Tribal land immediately adjacent to the existing Agua Caliente Casino Resort Spa.
- Create a new mixed-use project that compliments the Tribe's existing Agua Caliente Casino Resort Spa located across Bob Hope Drive to create a regional destination development.

3. Alternative 3—County General Plan

Alternative Description

The County General Plan Alternative would allow for the development of the site according to the County of Riverside (County) General Plan, as shown on **Figure 4.0-5, County of Riverside Land Use Designation Map,** in **Section 4.0, Environmental Setting.** The County's General Plan has a greater portion of the Project Site designated for commercial development than the Project as the General Plan designates 337 gross acres for commercial uses with a FAR of 0.35. The County's General Plan considers

the amount of land typically needed for streets and estimates the resulting amount of development based on the remaining amount of land. For the 337 acres designated for Commercial Uses, the estimate of the land available for residential development after accounting for the amount of land typically required for streets, rights-of-ways, and easements would be approximately 252.75 acres. The 240 gross acres of residential development associated with Alternative 3 would only include Medium Density Residential uses at 5 dwelling units per acre.

Since the age restriction in the residential development land use designations would be removed for this site, the Medium Density Residential units will not be analyzed as an active adult community. The number of uses associated with the implementation of the County's General Plan is shown in **Table 6.0-6, Land Uses Proposed Under Alternative 3.**

Table 6.0-6
Land Uses Proposed Under Alternative 3

Land Use Category	Acreage	Amount
Medium Density Residential	240 acres	1,200 units
Community Commercial	337 acres	3,853,427 square feet

A total of 1,200 residential units and approximately 3.9 million square feet of commercial development is allowed when compared to the 2,406 residential units and 3.1 million square feet of commercial development allowed under the Project. This results in a reduction of 1,206 fewer residential units (about a 50 percent reduction) and approximately 800,000 square feet more of total commercial square footage.

As with the Project, Alternative 3 would create a cohesive mixture of residential and commercial land uses with the incorporation of open space and recreational uses. This Alternative would still provide for restaurant and office/services and hotel uses within the commercial use designations. Even without the age-restricted component, the substantial reduction in residential uses would result in a reduction of direct population growth generated under this Alternative.

Comparative Impact Evaluation

Aesthetics

Under Alternative 3, the site would be developed with a greater portion of commercial uses compared to residential uses. The majority of the site would be developed with lower-density single-family homes within the central portion of the site along Los Alamos Road, similar to the Project. The portion of the

site would develop commercial uses along Ramon Road, similar to the Project. However, Dinah Shore Drive would contain commercial tourist development, which is a higher-intensity use than the Project.

Alternative 3 would result in a similar grading, building, and landscape design as the Project. While this Alternative would involve a different mix of land uses across the Project Site, due to the greater dedication of commercial uses verses residential uses along Dinah Shore Drive, it would result in a incrementally greater impact to the visual character of the site when viewed from the south to the north. Views of the surrounding scenic vistas would be comparable to views that would be accessible under implementation of the Project. Therefore, Alternative 3 would result in less than significant impacts that would be incrementally greater than those of the Project.

Air Quality

Alternative 3 would involve similar construction activities to those associated with the Project. The estimated maximum daily worst-year construction emissions during Alternative 3 is listed in **Table 6.0-7, Alternative 3 Worst-Case Construction Emissions (pounds/day).** Similar construction assumptions were used, including SCAQMD Rule 403 and 403.1 compliance for watering to minimize dust and requirements that construction equipment are equipped with interim Tier 4 off-road engines.

Table 6.0-7
Alternative 3 Worst-Case Construction Emissions (pounds/day)

	Pollutant (pounds/day)					
Source	**VOC**	**NOx**	**CO**	**SOx**	**PM10**	**PM2.5**
Year 2027						
Maximum	341.6	59.7	225.1	0.5	30.9	9.0
SCAQMD threshold	75	100	550	150	150	55
Threshold Exceeded?	**Yes**	**No**	**No**	**No**	**No**	**No**

*Note: Refer to the data sheets in **Appendix I, Alternative 3 Air Quality and Greenhouse Gas Emissions Modeling.***
Abbreviations: CO = carbon monoxide; NO_X = nitrogen oxide; PM10 = particulate matter less than 10 microns; PM2.5 = particulate matter less than 2.5 microns; ROG = reactive organic gas; SCAQMD = South Coast Air Quality Management District; SO_X = sulfur oxide.

Construction of Alternative 3 would result in significantly higher VOC emissions of 341.6 pounds per day when compared to 260.2 pounds per day for the Project. The amount of VOC emissions would also exceed SCAQMD significance threshold when compared to the Project. Therefore, Alternative 3 would result in greater significant construction air quality impacts, related to VOC, as compared to the Project.

The estimated emissions for the residential and commercial uses included in Alternative 3 are presented in **Table 6.0-8, Alternative 3 Estimated Operational Emissions,** and compared to the SCAQMD established operational significance thresholds.

Table 6.0-8
Alternative 3 Estimated Operational Emissions

	Pollutant (pounds/day)					
Source	**VOC**	**NOx**	**CO**	**SOx**	**PM10**	**PM 2.5**
Maximum	933.6	771.8	5,571.1	6.7	415.7	121.6
SCAQMD threshold	75	100	550	150	150	55
Threshold exceeded?	**Yes**	**Yes**	**Yes**	**No**	**Yes**	**Yes**

Source: Refer to the data sheets in ***Appendix I, Alternative 3 Air Quality and Greenhouse Gas Emissions Modeling.***

As shown in **Table 6.0-8,** the operational emissions associated with Alternative 3 would exceed SCAQMD's recommended operational emission thresholds for VOC, NOx, CO, PM10, and PM2.5. Operation of Alternative 3 would result in similar significant VOC, NOx, and CO operation emission impacts. However, this Alternative would also result in significant PM10 and PM2.5 operation emission impacts not identified as significant under the Project. Therefore, impacts to air quality for Alternative 3 would be greater than those for the Project.

Biological Resources

Under Alternative 3, the Project Site would result in similar grading and disturbance activities as those of the Project. Since this Alternative would result in development of the entire 577 acre Project Site, impacts to biological resources would be similar to those of the Project. There would be comparable impacts to sensitive habitat, sensitive plants, and sensitive wildlife, for which Mitigation Measures would be required in accordance with the requirements of the THCP. Under this Alternative, payment of the THCP fee would also be required in order to mitigate potential impacts to burrowing owl and loggerhead shrike. Both this Alternative and the Project would result in similar, less than significant impacts.

Cultural Resources

Alternative 3 would fully develop the entire 577 acre Project Site with a mixture of residential and commercial uses, as would the Project. This Alternative would have similar potential to uncover previously unknown archeological resources, fossils of paleontological importance, and human remains. Appropriate mitigation during the construction phase would ensure that development would not result in significant impacts to potential cultural resources. Therefore, Alternative 3 would not result in significant impacts to cultural resources, and impacts would be similar to those of the Project.

Geology and Soils

While the mixture of residential and commercial land uses would be different than the Project, implementation of Alternative 3 would still result in comparable grading and excavating activities for the 577-acre site. This Alternative would result in similar impacts related to erosion and sedimentation on the Project Site. Any future development within the Project Site occurring as permitted by the existing County zoning would have to comply with the CBC requirements for seismicity, liquefaction, subsidence, and expansive soils, similar to the Project, which would mitigate potential significant impacts associated with the existing soils and geology conditions of the site. Alternative 3 would be required to develop and implement a SWPPP along with all Project Design Features of the Project and Mitigation Measures pertaining to erosion control plans. For this reason, the geology and soils impacts under this Alternative would be similar to the Project, and would be less than significant.

Greenhouse Gas Emissions

Alternative 3 would involve similar construction activities to those associated with the Project. Construction equipment use and vehicular travel related to construction activities and their respective emissions would be similar to those of the Project.

The annual net GHG emissions associated with the construction and operation of Alternative 3 are provided in **Table 6.0-9, Alternative 3 Estimated Greenhouse Gas Emissions.** The estimates represent emissions with incorporation of similar Project Design Features and Mitigation Measures as those identified for the Project.

Table 6.0-9
Alternative 3 Estimated Greenhouse Gas Emissions

GHG Emissions Source	Emissions (MTCO2e/year)
Construction (amortized)	1,196.0
Operational (mobile) sources*	65,714.4
Area sources	966.1
Energy	19,027.2
Waste	671.9
Water	2,504.8
Annual Total	**90,080.4**

*Source: CalEEMod Emissions calculations are provided in **Appendix I, Alternative 3 Air Quality and Greenhouse Gas Emissions Modeling.***
Notes: Totals in table may not appear to add exactly due to rounding in the computer model calculations.
Abbreviations: MTCO2e = metric tons of carbon dioxide emissions.
**N2O emissions account for 2.67 MTCO2e/year.*

As shown in **Table 6.0-9,** the operational GHG emissions for Alternative 3 would generate 90,080.4 MTCO2e per year. Alternative 3 would result in an additional 44,180.5 MTCO2e per year when compared to the Project. Assuming the residential and commercial uses included in Alternative 3 would include similar Project Design Features and Mitigation Measures as those identified for the Project, the GHG emissions would be reduced by approximately 41 percent from the business as usual scenario. The reduction in GHG emissions would exceed the 17 percent reduction in GHG emissions from business as usual consistent with the 2020 reduction goal and would exceed the 35 percent reduction by 2035 to meet the goals identified in the 2014 Updated Scoping Plan. Therefore, Alternative 3 would result in less than significant impacts in regards to greenhouse gas emission impacts by 2020 and 2035 and impacts under this Alternative would be similar, but comparatively greater than under the Project.

Hazards and Hazardous Materials

Alternative 3 would result in similar grading and excavating activities as would the Project due to the mixture of residential and commercial development on the 577-acre site. The temporary transport, storage, handling, use, and disposal of hazardous materials during construction of this Alternative would be comparable to those activities of the Project. While this Alternative involves a greater portion of the Project Site dedicated to commercial uses than residential uses, and thus a reduction of residents inhabiting the site, people would still be exposed to potential hazards. The residential and commercial uses associated with the operational activities of Alternative 3 would involve the limited use of potentially hazardous materials. There would be a greater proportion of hazardous materials associated with commercial development, such as industrial-level products, than hazardous materials associated within residential development, such as use of pesticides, paints, household cleaners, and landscaping products. The use, storage, and disposal of these hazardous materials would be handled and disposed of in accordance with applicable standards and regulations.

The Project Site is not considered to be a hazardous materials site nor would this Alternative involve any uses that would cause a significant hazard to those occupants on the site, similar to the Project. As the site is not within an airport land use plan or within proximity to a private airstrip, this Alternative would not subject people to any potential safety hazards. This Alternative would involve similar road closures during construction, and appropriate Mitigation Measures would reduce potential impacts related to impairment of operations of any emergency response plan. Fire hazards would not be associated with this Alternative, as with the Project, since the site contains minimal vegetation that could pose any flammable hazards. Alternative 3 would incorporate Project Design Features that would reduce any foreseeable fire hazards on the site. Therefore, this Alternative would result in less than significant impacts, and impacts to hazards and hazardous materials would be similar to those of the Project.

Hydrology and Water Quality

Similar to the Project, Alternative 3 would require the construction of new storm-drain systems, including retention basins used to retain the 100-year flood event. Construction activities under this Alternative would involve temporary surface water runoff and water quality impacts that would be considered to be potentially significant. However, implementation of Project Design Features and Mitigation Measures similar to the Project would minimize surface water runoff from the Project Site and reduce degradation of surface water runoff and water quality, in compliance with the NPDES Program. Development of the Project Site would increase the amount of impervious surfaces resulting in an increase in long-term surface water runoff. Like the Project, this Alternative would incorporate applicable Mitigation Measures and Project Design Features to ensure these impacts remain less than significant. Therefore, Alternative 3 would result in similar impacts to hydrology and water quality when compared to the Project.

Land Use and Planning

Implementation of Alternative 3 would develop the Project Site with a mixture of residential and commercial uses permitted by the County's General Plan land use designations. A total of 1,200 residential units and approximately 3.9 million square feet of commercial space would be developed on the Project Site compared to the 2,406 residential dwelling units and 3.1 million square feet of commercial. This would result in an approximate 50 percent reduction in residential units and 800,000 square feet more of commercial development than the Project.

Similar to the Project, Alternative 3 would not conflict or result in any consistencies with the goals, objectives, or policies of the Tribe's Land Use Ordinance or County's General Plan, as well with any polices established by the SCAG, CVAG, and the LAFCo. Alternative 3 would result in less than significant impacts, similar to the Project.

Noise

Like the Project, Alternative 3 would include earthmoving activities during construction and would involve the use of heavy equipment, such as air compressors, backhoes, generators, excavators, pavers, rollers, and scrapers. While overall construction under this Alternative would be reduced in scale and duration, these construction equipment sources would cause significant noise impacts to both on- and off-site receptors. Implementation of various Project Design Features and Mitigation Measures under this Alternative would reduce these noise impacts; however, construction activities would still result in short-term significant impacts.

Furthermore, operational activities with Alternative 3 would result in 14,670 more weekday trips when compared to the Project. Long-term operational noise generated by traffic under this Alternative would increase when compared to the Project. This is due to the increase in the amount of traffic generated by this Alternative. However, like the Project, this Alternative would not result in an increase of 3 dB(A) in the noise levels on roadway segments adjacent to the Project Site, so any increase in roadway noise levels would not be noticeable. The development of Alternative 3 would create an incremental increase in noise along area roadways, as compared to the Project. Therefore, impacts under this Alternative would be similar, but comparatively greater than the Project.

Population and Housing

Under Alternative 3, the site would contain approximately 1,206 fewer residential units and 800,000 square feet more of commercial development than the Project. The County's average household size is 3.21 people per household. Thus, this Alternative would introduce up to 3,852 residents, which is 479 fewer residents than the Project. While this Alternative would generate fewer people, there would be a comparable demand on the existing utility infrastructure that services the area because the 577-acre site would be fully developed. Even though the Project and Alternative 3 would result in less than significant impacts, impacts associated with Alternative 3 would be similar to the Project.

Public Services

Fire Protection and Emergency Services

Alternative 3, like the Project, would increase demand on the RCFD for fire protection and emergency services due to the development of various residential and commercial uses on the site. Even with the removal of the 55 and above age restriction associated with the Project, this Alternative's substantial reduction in residential dwelling units would result in a reduction of total residents introduced to the site. Therefore, the Alternative's reduction of residential uses in combination with the increase in commercial development on the site would result in comparable amount of calls for service as would the Project. Construction of Alternative 3 would not obstruct emergency access to the site or surrounding areas nor would operational activities impair any response times since the site is located within an area currently serviced by the RCFD. Under this Alternative, all residential and commercial development would comply with the most current adopted fire and building codes and standards and all applicable development impact fees would be paid to the appropriate jurisdiction. Implementation of this Alternative would not result in the need for new or physically altered governmental facility in regards to fire protection and emergency services, and impacts would not be significant. Therefore, Alternative 3 would have similar impacts to those of the Project.

Law Enforcement

Alternative 3, like the Project, would increase demand on the Sherriff's Department for law enforcement services due to the development of various residential and commercial uses on the site. Even with the removal of the 55 and above age restriction associated with the Project, the Alternative's substantial reduction in residential dwelling units would result in a reduction of total residents introduced to the site. Therefore, the Alternative's reduction of residential uses in combination with the increase in commercial development on the site would result in a comparable amount of calls for service, as compared with the Project. Alternative 3 would also incorporate Project Design Features that would enhance security and access throughout the site to minimize needed service from the Sherriff's Department. However, in order to accommodate the Alternative's increased demand for services, the Sherriff's Department would require additional officers to service the site. Mitigation Measures similar to the Project would require payment of development impact fees to the appropriate jurisdiction to reduce impacts to less than significant. Therefore, Alternative 3 would have similar law enforcement impacts to those of the Project.

Schools

Alternative 3, like the Project, would increase demand on PSUSD for school services. The removal of the 55 and over age restriction is anticipated to generate more students within the residential uses of this Alternative. As with the Project, Alternative 3 would fall within the attendance boundaries of PSUSD and would be serviced by the three schools of Sunny Sands Elementary, Nellie N. Coffman Middle, and Rancho Mirage High. This Alternative would generate 266 more students than the Project. The three schools that would service Alternative 3 are currently operating below their capacities and would continue to operate below capacity with the addition of students generated by this Alternative. Payment of applicable impact fees to the PSUSD would mitigate for the increase in the number of students generated by this Alternative. Therefore, Alternative 3 would result in less than significant impacts. Alternative 3 would generate more students for the PSUSD, and thus impacts to school services and facilities would be greater than those under the Project.

Libraries

Alternative 3, like the Project, would increase demand on the Rancho Mirage Public Library. However, the reduced population of Alternative 3 would result in a decreased demand for use of library resources and facilities as compared to the Project. The Rancho Mirage Library has indicated that it currently has plenty of capacity and can accommodate plenty of growth, Project included. However, similar to the Project, this Alternative would require payment of applicable development impact fees to the appropriate jurisdiction. Therefore, since Alternative 3 would not result in the need for any new facilities

or expansion of the Rancho Mirage Public Library, Alternative 3 would not result in potentially significant impacts and would result in similar impacts under this Alternative to those of the Project.

Recreation

Implementation of Alternative 3 would result an increase in demand for additional parks and recreational facilities due to serve the Project. However, the reduced number of residential units in this Alternative would create a reduced demand on the County and City's existing parks and recreational facilities when compared to the Project. Like the Project, implementation of Alternative 3 would provide parkland and open spaces throughout the site for recreational opportunities of residents and those visiting the site. This Alternative's land use design, with a higher proportion of commercial uses to residential uses, would still involve the integration of open space and recreational facilities throughout the site. These recreational opportunities incorporated by Alternative 3, along with payment of applicable development impact fees to the appropriate jurisdiction, would help minimize any impacts on existing County and City parks and recreational facilities. Additionally, the on-site recreational facilities would be constructed concurrently with development of Alternative 3 and would be available to Project residents. Even though the Project will not have any significant impacts related to parks and recreation facilities, impacts associated with this Alternative would be similar to those of the Project.

Traffic and Transportation

Implementation of this Alternative would guide the development of tourist-oriented commercial, local serving retail and service uses, professional offices, entertainment, and hotel uses. Since the number of trips generated would be a function of the total size of the non-residential building gross floor space developed, Alternative 3 would be expected to generate 18.6 percent more non-residential trips on weekdays than the Project. Alternative 3 would generate 88,560 weekday trips, 14,670 weekday trips more than the Project. Impacts associated with the study intersections would be greater than the Project due to the increase number of weekday trips. However, with similar Project Design Features and Mitigation Measures as those identified for the Project, the traffic and transportation impacts associated with Alternative 3 would be less than significant. Even though the Project and this Alternative will not have any significant impacts relating to traffic, impacts under this Alternative would be comparatively greater than under the Project.

Utilities and Service Systems

Water Service

Alternative 3 would result in the construction of 1,200 residential units, along with 3.9 million square feet of commercial area. The water demand associated with this Alternative would be approximately

2,783.7 afy.[3] The aquifer and other sources of supply are adequate for a single dry year and also multiple dry years for a 20-year period. Like the Project, this Alternative would require additional water infrastructure to serve the site. Since the water demand associated with this Alternative is greater than the Project's water demand of 1,780 afy, Alternative 3 would result in greater impacts to water service. Even though neither the Project nor Alternative 3 would result in any significant impacts, impacts associated with Alternative 3 would be greater than those under the Project.

Sewer

Alternative 3 would have a total of 1,200 residential and 800,000 additional commercial square feet, an increase of approximately 25 percent. The CVWD uses a peak flow factor of 250 gallons per day per EDU to determine wastewater generation. Based on the number of EDUs determined for this Alternative (1,200 residential EDU and 1,639 commercial EDU), this Alternative would generate 0.71 mgd of wastewater, approximately 0.22 mgd fewer than the Project. Similar to the Project, wastewater generated by this Alternative would be treated at the WRP No. 7. Accordingly, available treatment capacity would be provided and impacts would be less than significant under this Alternative. The Alternative's sewage increase to the lines in the CVWD's sewer capacity would be mitigated through payment of the sewer capacity increase fee, as required for the Project, and Alternative 3 impacts would be reduced to a less than significant level. Even though neither the Project nor Alternative 3 would result in a significant impact, impacts associated with Alternative 3 would be comparatively less than those of the Project.

Solid Waste

Alternative 3 would have a total of 1,200 residential units and 3.8 million square feet of commercial development. **Table 6.0-10, Solid Waste Generation of Alternative 3**, indicates that this Alternative would generate 9,740 tons per year, which is approximately 1,248 tons per year greater than the Project. As compared to the Project, this Alternative would contribute 4.2 greater tons of solid waste per day.

3 Residential units = 219.6 acre-feet per year (afy); Residential Open Space = 299.5 afy; Commercial Uses = 2,193.0 afy; Commercial Open Space = 71.6 afy.

Table 6.0-10
Solid Waste Generation of Alternative 3

Building Type	Units	Rate	Solid Waste (tons/year)
Residential	1,200 du	0.41 tons per du	492
Commercial	3,853,427 square feet	2.4 tons per 1,000 sq. ft.	9,248
Total			**9,740**

Source: County of Riverside Environmental Impact Report No. 521, Public Review Draft, March 2014, Table 4.17-N.
Abbreviations: du = dwelling units; sq. ft. = square feet
Note: The solid waste generation rates do not take into account required solid waste reductions.

However, there is adequate capacity and expansion potential within the regional landfill system to accommodate the solid waste expected to be generated by this Alternative or the Project. Closure dates of landfills for the existing landfills are estimates and subject to change depending on the actual tonnage that is received prior to their estimated closing date. Even though neither the Project nor Alternative 3 would result in a significant impact, impacts associated with Alternative 3 would be greater than those of the Project.

Summary of Comparative Impacts

Alternative 3 would result in incrementally reduced impacts when compared to the Project with respect to the demand for library services, demand on recreational facilities, and sewer demand. Impacts related to Alternative 3 would be similar with respect to biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, noise, population and housing, fire and law enforcement services. Alternative 3 would result in greater impacts in comparison to the Project with respect to aesthetics along Dinah Shore Drive, operational air quality emissions, greenhouse gas emissions, schools, traffic, water demand, and solid waste. The Project's significant air quality and noise impacts would not be avoided or substantially reduced by this Alternative. It should be noted that this Alternative results in PM10 and PM2.5 exceeding the SCAQMD thresholds, which would not result from the Project.

Relationship to Project Objectives

With the implementation of the County's General Plan, Alternative 3 considers the reduction of the number of residential dwelling units (with the elimination of the 55 and over age restriction) and an increase in the total square footage of commercial development compared to the Project. While the Tribe's goal would be met in regards to the development of a cohesive set of residential and commercial uses that are structured around existing infrastructure systems and available public services, implementation of the County's General Plan for the Project Site would not allow for as desirable a mix

of land uses, including an Active Adult Community. This Alternative would also not provide the highest and best use of Tribal Property because the southern edge of the site would be designated for commercial uses as opposed to the more compatible residential uses proposed by the Project. This Alternative would consist primarily of commercial uses, which would not offer an appropriate mix of uses on the Project Site. No significant impacts would be avoided or substantially reduced. Furthermore, the following Project objectives would not be achieved with this Alternative:

- Provide a range of contemporary housing concepts, including an "active adult" development, which will encourage residential opportunities that appeal to residents seeking shorter commutes to jobs, restaurants, and a broad selection of entertainment opportunities.

The following Project objectives would be partially met:

- Promote the highest and best use of Reservation lands in order to maximize the economic development opportunities for the Tribe and its members, including Tribal land immediately adjacent to the existing Agua Caliente Casino Resort Spa.
- Plan for an appropriate mix of commercial, hotel, entertainment, office and residential uses, in order to meet the trade area's growing demand and build in the flexibility to respond to changes in the market over time.
- Create a new mixed-use project that compliments the Tribe's existing Agua Caliente Casino Resort Spa located across Bob Hope Drive to create a regional destination development.

4. Alternative 4—Project with all Standard Residential Development

Alternative Description

This Alternative would include the proposed land use plan as identified in the Section 24 Specific Plan; however, the 55 and above age restriction associated with the 1,200 single family homes within Planning Area 8 would be removed. Therefore, none of the residential development land use designations will be analyzed as an active adult community. The Project would still be implemented with each of the eight Planning Areas with the same land uses as established by the Section 24 Specific Plan.

The commercial designated land uses within Tribal Planning Areas 1 to 7 would still provide for restaurant and office/services and hotel uses and a mixture of single- and multi-family residential dwelling units, and Planning Area 8 would still provide for single-family residential dwelling units. Additionally, Alternative 4 would incorporate the 13 total acres of open space and recreational opportunities throughout the Project Site as established in the Section 24 Specific Plan, such as parks, walkways and jogging paths, enhanced streetscapes, courtyards, and plazas to provide gathering spaces for people shopping, eating, or just enjoying the atmosphere. A population increase is anticipated to

occur under this Alternative as a result of the removal of the 55 and older age restriction. Thus, there would be an increased demand for public services and utilities.

Comparative Impact Evaluation

Aesthetics

Alternative 4 would result in identical grading, building, and landscape design as the Project. Alternative 4 would also have identical impacts to the visual character of the Project Site, and views of the surrounding scenic vistas would not change. Therefore, as with the Project, Alternative 4 would result in less than significant aesthetic impacts.

Air Quality

Alternative 4 would involve similar construction activities to those associated with the Project, including grading of the site, installation of infrastructure, and construction of residential and commercial buildings. Equipment use and vehicular travel related to construction activities, and their emissions of criteria pollutants, would be similar to those for the Project.

The proposed land use plan, without age-restricted houses, would result in approximately 5,492 greater trips than the Project, or a 7 percent increase in vehicular emissions. This increase would incrementally increase operational emissions under this Alternative as compared to the Project. Similar to the Project, this Alternative would exceed the SCAQMD thresholds for VOC, NOx, and CO.

Biological Resources

Under Alternative 4, the Project Site would result in identical grading and disturbance activities as the Project and would have similar impacts to biological resources. There would be comparable impacts to sensitive habitat, sensitive plants, and sensitive wildlife, for which Mitigation Measures would be required in accordance with the requirements of the THCP. Under this Alternative, payment of the THCP fee would also be required in order to mitigate potential impacts to burrowing owl and loggerhead shrike. Both this Alternative and the Project would result in less than significant impacts.

Cultural Resources

Alternative 4 would fully develop the entire 577 acre Project Site with the identical land use plan of the Project. This Alternative would have similar potential to uncover previously unknown archeological resources, fossils of paleontological importance, and human remains. Appropriate mitigation during the construction phase would ensure that development would not result in significant impacts to potential cultural resources. Therefore, Alternative 4 would not result in significant impacts to cultural resources. Impacts would be similar to those under the Project.

Geology and Soils

Alternative 4 would still involve the development of the 577-acre site with the same land use plan as proposed by the Project. The removal of the 55 and over age restriction in this Alternative would not affect any development plans of the site. Thus, this Alternative's grading and excavation activities would be identical and would result in similar erosion and sedimentation impacts to those of the Project. Any future development within the Project Site, occurring as permitted by the Tribal Land Use Ordinance, would have to comply with the CBC requirements for seismicity, liquefaction, subsidence and expansive soils, which would mitigate potential significant impacts associated with the existing soils and geology conditions of the site. Alternative 4 would be required to develop and implement a SWPPP along with all Project Design Features and Mitigation Measures of the Project pertaining to erosion control plans. For this reason, the geology and soils impacts of this Alternative would be similar to the Project.

Greenhouse Gas Emissions

Alternative 4 would involve construction activities similar to those associated with the Project to grade the site, install infrastructure and construct residential and commercial buildings. As stated previously, equipment use and vehicular travel related to construction activities and their respective emissions would be similar to that required for the Project.

The proposed land use plan, without the age-restricted units, would result in approximately 5,492 more trips than would the Project, or a 7 percent increase in vehicular emissions. This increase would incrementally increase operational GHG emissions. Therefore, this Alternative would result in incrementally greater impacts than under the Project.

Hazards and Hazardous Materials

Alternative 4 would result in identical grading and excavating activities on the 577 acres and would implement the same land use plan on the 577-acre site as that proposed by the Project. The temporary transport, storage, handling, use, and disposal of hazardous materials during construction of this Alternative would be similar to the Project. Removal of the age restriction within Planning Area 8 would increase the number of residents exposed to potential hazards. The operational activities of Alternative 4 would involve the same limited use of potentially hazardous materials, such as industrial-level products within the commercial uses and pesticides, paints, household cleaners, and landscaping products with the residential uses. The use, storage, and disposal of these hazardous materials would be handled and disposed of in accordance with applicable standards and regulations.

The site where Alternative 4 would be developed is not considered to be a hazardous materials site nor would it involve any uses that would result in a significant hazard. As the site is not within an airport

land use plan or within proximity to a private airstrip, this Alternative would not subject people to any potential safety hazards. This Alternative would involve similar road closures during construction, and appropriate Mitigation Measures would reduce potential impacts related to impairment of operations of any emergency response plan. Fire hazards would not be associated with this Alternative, as with the Project, since the site contains minimal vegetation that could pose any flammable hazards. Alternative 4 would incorporate Project Design Features that would reduce any foreseeable fire hazards on the site. Therefore, this Alternative would have less than significant impacts regarding hazards. Impacts would be similar to those under the Project.

Hydrology and Water Quality

Similar to the Project, Alternative 4 would require the construction of new storm-drain systems, including retention basins used to retain the 100-year flood event. Construction activities under this Alternative would involve temporary surface water runoff and water quality impacts that would be considered to be potentially significant. However, implementation of Project Design Features and Mitigation Measures would minimize surface water runoff from the Project Site and reduce degradation of surface water runoff and water quality, in compliance with the NPDES Program. Development of the Project Site would increase the amount of impervious surfaces resulting in an increase of long-term surface water runoff. This Alternative would incorporate applicable Mitigation Measures and Project Design Features to ensure these impacts remain less than significant. Alternative 4 would result in similar impacts to hydrology and water quality when compared to the Project.

Land Use and Planning

Implementation of Alternative 4 would develop the Project Site with a mixture of residential and commercial uses identical to the land use designations established by the Project. Thus, a total of 2,406 residential dwelling units and approximately 3.1 million square feet of commercial space would be developed on the Project Site.

Alternative 4 would not conflict or result in any consistencies with the goals, objectives, or policies of the Tribe's Land Use Ordinance or City's General Plan, as well with any polices established by the SCAG, CVAG, and the LAFCo. Similar to the Project, Alternative 4 would result in less than significant impacts.

Noise

Alternative 4 would include identical earthmoving activities during construction and would involve the use of heavy equipment, such as air compressors, backhoes, generators, excavators, pavers, rollers, and scrapers. Construction under this Alternative would have an identical schedule and operations, thus these construction equipment sources would cause significant noise impacts to both on- and off-site

receptors. Implementation of various Project Design Features and Mitigation Measures under this Alternative would reduce noise impacts; however, construction activities would still result in short-term significant and unavoidable impacts. Under Alternative 4, construction related noise would not avoid a significant impact and would result in similar impacts when compared to the Project.

Long-term operational noise generated by traffic under Alternative 4 would slightly increase due to the increase in vehicular trips when compared to the Project. Cumulative traffic noise increases within the Project area would continue under this Alternative along Los Alamos Road (south of Ramon Road and north of Dinah Shore Drive), Ramon Road (east of Los Alamos, west of Los Alamos, and east of Dal Vall Drive), Bob Hope Drive (north of Dinah Shore Drive, north of Ramon Road, and north of I-10 interchanges, and Rattler Road (north of Ramon Road). Therefore, Alternative 4 would create an incremental increase in noise along area roadways. This Alternative would be considered incrementally greater than those of the Project.

Population and Housing

Under Alternative 4, the Project Site would include a total of 2,406 residential units and 3.1 million square feet of commercial, identical to the Project. However, a population increase would occur under this Alternative as a result of the removal of the 55 and older age restriction The City's average household size is 2.97 for multifamily residential units; thus, this Alternative would introduce up to 7,146 residents, an increase of 2,815 residents when compared with the Project. However, this Alternative would still be consistent with SCAG growth projections. Therefore, implementation of Alternative 4 would result in greater impacts than the Project, but impacts would still be less than significant.

Public Services

Fire Protection and Emergency Medical Services

Alternative 4 would create an increased demand on RCFD for fire protection and emergency services due to the anticipated increase in population. While the residential and commercial uses within the land use plan of the Alternative would be identical to the Project, the removal of the 55 and above age restriction within Planning Area 8 would result in increased calls for service, because Alternative 4 would result in more residents on-site. Construction of Alternative 4 would not obstruct emergency access to the site or surrounding areas nor would operational activities impair any response times since the site is located within an area currently serviced by RCFD. Therefore, the increased demand for services associated with implementation of this Alternative may potentially result in the need for a new RCFD fire station or addition of more firefighting personnel for those stations currently servicing the site. Under this Alternative, all residential and commercial development would comply with the most current

adopted fire and building codes and standards and all applicable development impact fees would be paid to the appropriate jurisdiction. Impacts under this Alternative would be greater than under the Project, but still less than significant.

Law Enforcement

Alternative 4 would create an increased demand on the Sherriff's Department for law enforcement services due to the anticipated increase in population. While the residential and commercial uses within the land use plan of the Alternative would be identical to the Project, the removal of the 55 and above age restriction would result in increased calls for service, because Alternative 4 would result in more residents on-site. This Alternative would also incorporate Project Design Features that would enhance security and access throughout the site to minimize service from the Sheriff's Department. However, in order to accommodate the Alternative's increased demand for services, the Sheriff's Department would require additional officers to service the site. Applicable development impact fees would be paid to the appropriate jurisdiction to help reduce impacts on the Sheriff's Department. Even though the Project will not have any significant impacts relating to law enforcement, impacts under this Alternative would be greater than under the Project.

Schools

Alternative 4 would increase demand on PSUSD for school services. The removal of the 55 and over age restriction is anticipated to generate more students within the residential uses of this Alternative. As with the Project, Alternative 4 would fall within the attendance boundaries of PSUSD and would be serviced by the three schools of Sunny Sands Elementary, Nellie N. Coffman Middle, and Rancho Mirage High. There would only be an increase in the number of students associated with PSUSD's single-family generation rates. This Alternative would generate approximately 459 additional students as compared to the Project. The three schools that would service Alternative 4 are currently operating below their capacities and the addition of students generated by this Alternative would cause Sunny Sands Elementary to operate over its capacity. Therefore, Alternative 4 would result in potentially significant impacts. Payment of applicable impact fees would also be paid to PSUSD for services for the increase in the number of students generated by this Alternative. Therefore, Alternative 4 would result in less than significant impacts after payment of mitigation fees. Even though the Project will not have any significant impacts relating to schools, impacts under this Alternative would be incrementally greater than under the Project.

Libraries

Alternative 4, like the Project, would increase demand on the Rancho Mirage Public Library. The removal of age restriction and implementation of standard residential development would result in increased

population, which would then create an increased demand for library services when compared to the Project. The Rancho Mirage Library has indicated that it currently has sufficient capacity to accommodate the growing demands of the City, including the Project. Similar to the Project, this Alternative would require payment of applicable development impact fees to the appropriate jurisdiction. Therefore, Alternative 4 would not result in the need for any new facilities or the expansion of the Rancho Mirage Public Library. Even though the Project will not have any significant impacts relating to libraries, impacts under this Alternative would be similar to the Project.

Recreation

Implementation of Alternative 4 would result in an increase in demand for additional parks and recreational facilities as a result of the removal of the age-restricted units, which would increase population and create a greater demand on County and City existing parks and recreational facilities when compared to the Project. Since Alternative 4 would implement the same land use design plan as the Project, there would be the same 13 acres of allotted parkland and open spaces provided throughout the site for recreational opportunities. Applicable development impact fees would be paid to the appropriate jurisdiction to minimize recreational impacts. Additionally, the on-site recreational facilities would be constructed concurrently with development of Alternative 4, and would be available to Project residents. Nevertheless, Alternative 4 would have a comparatively greater impact on recreation facilities/parks than the Project, but less than significant.

Traffic and Transportation

The Project would generate a total of 73,890 total weekday trips with a trip generation rate of 3.73 trips per active adult unit. This Alternative would not include active adult units. Therefore, this Alternative would generate 8.31 trips per single-family unit. As such, this Alternative would generate 5,492 additional weekday trips, as compared to the Project. Since impacts to study intersections associated with the Project would be less than significant with incorporation of various Project Design Features and Mitigation Measures, the incremental increase of trips associated with this Alternative would not be significant. Even though the Project will not have any significant impacts relating to traffic, impacts under this Alternative would be incrementally greater than those under the Project.

Utilities and Service Systems

Water Service

Alternative 4 would have the same number of residential units as the Project. Since this Alternative would have no age restriction, the demand factor would be 163.35 gallons per day for each equivalent dwelling unit. The water demand associated with this Alternative would be approximately 1,861.6 afy.[4] This alternative would increase water demand by approximately 82 afy. The aquifer and other sources of supply are adequate for a single dry year and also multiple dry years for a 20-year period. The Project would result in a total water demand of 1,780 afy. Like the Project, this Alternative would require additional water infrastructure to serve the site. Given that neither the Project nor Alternative 4 would result in a significant impact, impacts associated with Alternative 4 would be incrementally greater than the Project.

Sewer

Alternative 4 would have a total of 2,406 residential dwelling units and 3.2 million square feet of commercial uses, similar to the Project. The CVWD uses a peak flow factor of 250 gallons per day per EDU to determine wastewater generation. Based on the number of EDUs determined for this Alternative, approximately 0.93 mgd of wastewater would be generated and then treated at WRP No. 7, similar to the Project. However, it should be noted that the active adult units would demand less water and, consequently, generate less wastewater. As a result, Alternative 4 would generate more wastewater than the Project. Accordingly, available treatment capacity would be provided and impacts would be less than significant under this Alternative. The Alternative's sewage increase to the lines in the CVWD's sewer capacity would be mitigated through payment of the sewer capacity increase fee, as required by the Project, and Alternative 4 impacts would be reduced to a less than significant level. Given that neither the Project nor Alternative 4 would result in a significant impact, impacts associated with Alternative 4 would be incrementally greater than the Project.

Solid Waste

Alternative 4 would have a total of 2,406 residential dwelling units and 3.1 million square feet of commercial space. Similar to the Project, this Alternative would generate 8,492.1 tons per year and contribute 27.1 tons of solid waste per day to the transfer station or nearby landfill.

However, there is adequate capacity and expansion potential within the regional landfill system to accommodate the solid waste expected to be generated by this Alternative or the Project. Closure dates of landfills for the existing landfills are estimates and subject to change depending on the actual tonnage

4 Residential units = 440.2 acre-feet per year (afy); Residential Open Space = 299.5 afy; Commercial Uses = 1,050.3 afy; Commercial Open Space = 71.6 afy.

that is received prior to their estimated closing date. Given that neither the Project nor Alternative 4 would result in a significant impact, impacts associated with Alternative 4 would be similar to the Project.

Summary of Comparative Impacts

Alternative 4 would result in similar impacts when compared to the Project. Incremental increases in impacts not identified as significant include air quality, greenhouse gas emissions, noise, schools, libraries, recreation, traffic and transportation, and water demand. The significant construction noise impacts would be similar and the air quality impacts would not be avoided or substantially reduced by this Alternative, but rather, would be comparatively greater than the Project.

Relationship to Project Objectives

Alternative 4 considers the implementation of the land use plan of the Project with the only difference being the elimination of the age restriction within Planning Area 8. Commercial uses would remain, but the designation of the Active Adult Community as proposed by the Tribe would not be allowed under this Alternative. This Alternative would also not provide the highest and best use of Tribal Property as the residential uses would be limited to only single-family uses. While potentially significant impacts would be minimized with this Alternative, the following Project objectives would not be achieved with this Alternative:

- Provide a range of contemporary housing concepts, including an "active adult" development, which will encourage residential opportunities that appeal to residents seeking shorter commutes to jobs, restaurants, and a broad selection of entertainment opportunities.

5. Alternative 5—Reduced Intensity Alternative

Alternative Description

Alternative 5 considers implementation of the Project as proposed, with the intensity of all land uses reduced by 25 percent. As shown in **Table 6.0-11, Land Use Summary Under Alternative 5,** this Alternative would include the development of 900 residential dwelling units within Planning Area 8, 904 total residential dwelling units within Tribal Planning Areas 1B, 2B, 5, 6B, and 7B, 953,700 square feet of Resort Flex uses, 582,750 square feet of Retail uses, and 817,500 square feet of Mixed-Use Core uses.

Table 6.0-11
Land Use Summary Under Alternative 5

Land Use Category	Planning Area (PA)	Amount
Active Adult Community	PA 8	900 units
Multi-Family Residential	PA 1B, 2B, 5, 6B, and 7B	904 units
Resort Flex	PA 1A, 4, and 7A	953,700 square feet
Retail	PA 3 and 7A	582,750 square feet
Mixed-Use Core	PA 2A	817,500 square feet

Under Alternative 5, the layout of the land uses would not change as compared to the Project. As a result of the 25 percent reduction of the amount of development on the Project Site, the construction duration of this Alternative would also be reduced. In addition, a reduction in the amount of residential dwelling units and commercial uses would reduce the amount of direct population growth and visitors that would be introduced to the Project Site, thus decreasing the demand for public services and utilities. While the acreage of open space and recreational uses required in accordance with the Section 24 Specific Plan would be reduced due to the decreased population generation, Alternative 5 would provide for an increased amount of open space and recreational opportunities. The 25 percent reduction in development on the 577 acre Project Site would allow for the ability to integrate more parks, walkways and jogging paths, enhanced streetscapes, courtyards, and plazas throughout the design of the site.

Comparative Impact Evaluation

Aesthetics

Under Alternative 5, the Project Site would be developed according to the land use plan of the Project with the intensity of residential and commercial uses areas reduced by 25 percent. This Alternative would change the visual nature of the Project Site, as would the Project, but the aesthetic changes would be of less intensity. Development of the Project Site in conformance with the Specific Plan's development and design standards would not result in significant impacts to the visual character of the Project Site and the surrounding area. As the entire 577-acre site would still be fully developed, the aesthetic impacts of this Alternative would be similar to the Project, but to a less degree.

Alternative 5 would result in a similar grading, building, and landscape design as the Project. Thus, it would involve the same mix of land uses across the Project Site, just at a reduced intensity. Therefore, Alternative 5 would have less than significant impacts, similar to those of the Project.

Air Quality

Construction activities (e.g., equipment use assumptions) under Alternative 5 would be similar to those of the Project on a daily basis. This Alternative would result in a reduced intensity of all residential and commercial uses by 25 percent.

Alternative 5 would reduce operational VOC emissions for the Active Adult Community to 80.1 pounds per day; however, like the Project, VOC emissions would exceed SCAQMD regional significance thresholds. NOx, CO, SOx, PM10, and PM2.5 would remain less than significant. Operation impacts under this Alternative would be similar to the Project, albeit somewhat reduced, as a result of the reduction in residential units.

Alternative 5 would reduce construction VOC emissions for the Tribal Planning Areas to 94.4 pounds per day; however, like the Project, VOC emissions would exceed SCAQMD regional significance thresholds. NOx, CO, SOx, PM10, and PM2.5 would remain less than significant. Operational emissions for the Tribal Planning Areas would reduce VOC to 308.8 pounds per day, NOx to 164.4 pounds per day, and CO to 1,259.5 pounds per day. This Alternative would still exceed significance thresholds for VOC, NOx, and CO, similar to the Project, but the emissions would be incrementally reduced.

Overall, Alternative 5 would reduce construction VOC emissions for the Project to 195 pounds per day; however, like the Project, VOC emissions would exceed SCAQMD regional significance thresholds. NOx, CO, SOx, PM10, and PM2.5 would remain less than significant. Operational emissions for the Project would reduce VOC emissions to 415.4 pounds per day, NOx to 229.7 pounds per day, and CO to 1,648.2 pounds per day. Overall, Alternative 5 would result in comparatively less impacts than those under the Project; however, this Alternative would still exceed SCAQMD significance thresholds for VOC, NOx, and CO.

Biological Resources

Under Alternative 5, the Project Site would result in similar grading and disturbance activities as would the Project. While this Alternative would involve a 25 percent intensity reduction, it would still result in development of the entire 577 acre Project Site. Thus, impacts to biological resources would be similar to those of the Project. There would be comparable impacts to sensitive habitat, sensitive plants, and sensitive wildlife, for which Mitigation Measures would be required in accordance with the requirements of the THCP. Under this Alternative, payment of the THCP fee would also be required in order to mitigate potential impacts to burrowing owl and loggerhead shrike. Both this Alternative and the Project would result in similar, less than significant impacts.

Cultural Resources

Alternative 5 would fully develop the entire 577 Project Site with a mixture of residential and commercial uses, as would the Project. This Alternative would have similar potential to uncover previously unknown archeological resources, fossils of paleontological importance, and human remains. Appropriate mitigation during the construction phase would ensure that development would not result in significant impacts to potential cultural resources. Therefore, Alternative 5 would result in less than significant impacts to cultural resources. Impacts would be similar to those of the Project.

Geology and Soils

Alternative 5 would still involve the development of the 577 acre site with the same land use plan as proposed by the Project. Thus, this Alternative's grading and excavation activities would be identical and would result in similar erosion and sedimentation impacts to those of the Project. Any future development within the Project Site occurring as permitted by the Tribal Land Use Ordinance would have to comply with the CBC requirements for seismicity, liquefaction, subsidence, and expansive soils, similar to the Project, which would mitigate potential significant impacts associated with the existing soils and geology conditions of the site. Alternative 5 would be required to develop and implement a SWPPP along with all Project Design Features and Mitigation Measures of the Project pertaining to erosion control plans. For this reason, the geology and soils impacts of this Alternative would be similar to the Project.

Greenhouse Gas Emissions

Alternative 5 would involve construction activities similar to those associated with the Project to grade the site, install infrastructure and construct residential and commercial buildings. As stated previously, equipment use and vehicular travel related to construction activities and their respective emissions would be similar to that required for the Project.

As discussed in **Section 5.6, Greenhouse Gas Emissions,** the operational GHG emissions for the Active Adult Community, Tribal Planning Areas, and overall Project are estimated to emit 8,879.4 MTCO2e per year, 39,326.1 MTCO2e per year, and 45,899.9 MTCO2e per year, respectively. Alternative 5 would reduce the number of residential uses, mixed-use, and retail in the Tribal Planning Areas by 25 percent which would result in significantly fewer GHG emissions of 6,659.5 MTCO2e per year, 29,494.6 MTCO2e per year, and 34,425 MTCO2e per year, respectively. Assuming the residential and commercial uses included in Alternative 5 would include similar Project Design Features and Mitigation Measures as those identified for the Project, the GHG emissions for the Active Adult Community, Tribal Planning Areas, and overall Project would be reduced by approximately 25 percent (smaller reduction than the Project), 43 percent (larger reduction than the Project), and 44 percent (larger reduction than the

Project), respectively, from the business as usual scenario. Reduction in GHG emissions from the business as usual scenario would be consistent with the 2020 and 2040 GHG emissions reduction goals recommended in the 2014 Updated Scoping Plan, similar to the Project. Overall, Alternative 5 would incrementally reduce impacts compared to the Project.

Hazards and Hazardous Materials

While Alternative 5 would result in a reduction in the intensity of uses on the 577-acre site, it would still involve similar grading and excavating activities as would the Project. The temporary transport, storage, handling, use, and disposal of hazardous materials during construction of this Alternative would compare to those activities of the Project, but at a reduced level. The residential and commercial uses associated with the operational activities of Alternative 5 would involve a reduced use of potentially hazardous materials, which would be handled and disposed of in accordance with applicable standards and regulations.

The site where Alternative 5 would be developed is not considered to be a hazardous materials site nor would involve any uses that would cause a significant hazard to those occupants on the site. As the site is not within an airport land use plan or within proximity to a private airstrip, this Alternative would not subject people to any potential safety hazards. This Alternative would involve similar road closures during construction, and appropriate Mitigation Measures would reduce potential impacts related to impairment of operations of any emergency response plan. Fire hazards would not be associated with this Alternative, as with the Project, since the site contains minimal vegetation that could pose any flammable hazards. Alternative 5 would incorporate Project Design Features that would reduce any foreseeable fire hazards on the site. Therefore, this Alternative would have less than significant impacts and impacts would be similar to those of the Project.

Hydrology and Water Quality

Similar to the Project, Alternative 5 would require the construction of new storm-drain systems, including retention basins used to retain the 100-year flood event. Construction activities under this Alternative would involve temporary surface water runoff and water quality impacts that would be considered to be potentially significant. However, implementation of Project Design Features and Mitigation Measures similar to the Project would minimize surface water runoff from the Project Site and reduce degradation of surface water runoff and water quality, in compliance with the NPDES Program. Development of the Project Site would increase the amount of impervious surfaces resulting in an increase of long-term surface water runoff. This Alternative would incorporate applicable Mitigation Measures and Project Design Features to ensure these impacts remain less than significant. Thus,

Alternative 5 would result in similar impacts to hydrology and water quality when compared to the Project.

Land Use and Planning

Implementation of Alternative 5 would be developed with the identical mixture of residential and commercial uses as the Project, but with a reduced intensity of 25 percent. A total of 1,804 residential units and approximately 2.4 million square feet of commercial space would be developed on the Project Site compared to the 2,406 residential dwelling units and 3.1 million square feet of commercial space. The difference would amount to 602 fewer residential units and 0.7 million square feet less of commercial uses.

Alternative 5 would not conflict or result in any consistencies with the goals, objectives, or policies of the Tribe's Land Use Ordinance or City's General Plan, as well with any polices established by the SCAG and the Riverside County LAFCo. Therefore, similar to the Project, Alternative 5 would result in similar less than significant land use impacts.

Noise

Alternative 5 would include earthmoving activities during construction and would involve the use of heavy equipment, such as air compressors, backhoes, generators, excavators, pavers, rollers, and scrapers. While construction under this Alternative would be reduced in scale and duration due to the reduced intensity of uses on the Project Site, these construction equipment sources would cause significant noise impacts to both on- and off-site receptors. Implementation of various Project Design Features and Mitigation Measures under this Alternative would reduce noise impacts; however, similar to the Project, construction activities would still result in short-term significant and unavoidable impacts.

Furthermore, operational activities of Alternative 5 would result in 25 percent fewer weekday trips when compared to the Project. Long-term operational noise generated by traffic under this Alternative would decrease when compared to the Project. However, this Alternative would not result in a decrease of 3 dB(A) in the noise levels on roadway segments adjacent to the Project Site, and therefore, any decrease in roadway noise levels would not be noticeable. Even though this Alternative would not avoid any significant impacts, impacts would be relatively less than those under the Project.

Population and Housing

Under Alternative 5, the Project Site would involve approximately 602 fewer residential units and 0.7 million square feet less of commercial development. This Alternative would generate 3,248 residents,

1,083 fewer residents than the Project. While this Alternative would generate fewer people than the Project, there would be a comparable demand on the existing utility infrastructure that services the area. Accordingly, implementation of Alternative 5 would result in similar, but comparatively less, impacts than those under the Project.

Public Services

Fire Protection and Emergency Medical Services

Alternative 5 would increase demand on the RCFD for fire protection and emergency services. However demand would be less, as compared to the Project, and would in turn result in a decreased number of additional service calls, since there would be a reduction in the population on site. Construction of Alternative 5 would not obstruct emergency access to the site or surrounding areas nor would operational activities impair any response times since the site is located within an area currently serviced by the RCFD. Under this Alternative, all residential and commercial development would comply with the most current adopted fire and building codes and standards and all applicable development impact fees would be paid to the appropriate jurisdiction. Therefore, implementation of this Alternative would not result in the need for new governmental facilities in regards to fire protection and emergency services, and impacts would be less than significant. Alternative 5 would have reduced impacts compared to those under the Project, but both the Project and Alternative 5 would have less than significant impacts.

Law Enforcement

Alternative 5, like the Project, would increase demand on the Sheriff's Department for law enforcement services. However, demand would be less, as compared to the Project, and would in turn result in a decreased number of service calls because there would be a reduction in the population on site. This Alternative would also incorporate Project Design Features that would enhance security and access throughout the site to minimize needed service from the Sheriff's Department. Similar to the Project, implementation of Alternative 5 would require the Sheriff's Department to provide additional officers to service the site. There would still be a payment of development impact fees to the appropriate jurisdiction to ensure impacts remain at a level of less than significant, similar to the Project.

Schools

Alternative 5, like the Project, would increase demand on PSUSD for school services. However, fewer students are anticipated to be generated due to the reduced intensity of residential uses. Like the Project, Alternative 5 would fall within the attendance boundaries of PSUSD and would be serviced by the three schools of Sunny Sands Elementary, Nellie N. Coffman Middle, and Rancho Mirage High. This

Alternative would still implement the age-restricted community, which would not involve the addition of generated students. Thus, the increase in the number of students would result from the Project's multi-family generation rates associated with the non-age restricted communities. This Alternative would generate approximately 48 fewer students than the Project. The three schools that would service Alternative 5 are currently operating below their capacities and would continue to operate below capacity with the addition of students by this Alternative. Payment of applicable impact fees would also be paid to PSUSD for services to ensure impacts remain less than significant Alternative, similar to the Project.

Libraries

Alternative 5, like the Project, would increase demand on the Rancho Mirage Public Library for library services. The 25 percent reduction of residential uses would result in a reduced introduced population that would utilize the Library, as compared, to the Project. The Library has indicated that it currently has sufficient capacity to accommodate the growing demands of the City, including the Project. However, similar to the Project, this Alternative would require payment of applicable development impact fees to the appropriate jurisdiction. Therefore, similar to those of the Project, Alternative 5 would not result in potentially significant impacts to libraries.

Recreation

Implementation of Alternative 5 would result in an increase in demand for parks and recreational facilities. However, demand on the County and City's parks and recreational facilities would be less, as compared to the Project, since there would be reduction in residents on site. Like the Project, implementation of Alternative 5 would provide parkland and open spaces throughout the site for recreational opportunities of residents and those visiting the site. The Alternative's reduced intensities of residential and commercial development on the site would allow more space for recreational opportunities within the Alternative's land use design. This increase in recreational opportunity on the site would help minimize demand on existing County and City parks and recreational facilities. Applicable development impact fees would be paid to the appropriate jurisdiction to minimize any recreational impacts. Additionally, these recreational facilities would be constructed concurrently with development of Alternative 5 to be available to Project residents. Under this Alternative, impacts would be less than significant, similar to those under the Project.

Traffic and Transportation

The Project would generate a total of 73,890 total weekday trips with approximately 2,630 weekday trips expected to occur between the different uses proposed within the Project Site using internal streets. Alternative 5 would reduce the number of residential units and other land uses by 25 percent

when compared to the Project. Since impacts to study intersections associated with the Project would be less than significant with incorporation of various Project Design Features and Mitigation Measures, the impacts associated with Alternative 5 would also be less than significant. Therefore, this Alternative would result in incrementally less traffic, but impacts would be less than significant, similar to the Project.

Utilities and Service Systems

Water Service

Alternative 5 would result in a total of 1,804 residential units, and 2,353,950 square feet of commercial space. Although reduced development intensity would lead to a 25 percent reduction in residential water use, landscaping water use would increase by 25 percent. Therefore, there would not be a direct 25 percent reduction in water demand when compared to the Project. Total water use under this Alternative would amount to approximately 1,517.0 afy.[5] The aquifer and other sources of supply are adequate for a single dry year and also multiple dry years for a 20-year period. Since the water demand associated with this Alternative is less than the Project water demand of 1,780 afy, Alternative 5 would result in an incremental reduction in total water use, but would require the same extension of infrastructure. Even though neither the Project nor this Alternative would result in any significant impact, impacts associated with this Alternative would be relatively less than those of the Project.

Sewer

Under Alternative 5, the Project Site would be developed according to the Project's land use plan, but with the intensity of residential and commercial uses reduced by 25 percent. This Alternative would generate 0.70 mgd of wastewater, approximately 0.23 mgd fewer than the Project, and wastewater generated by this Alternative would be treated at WRP No. 7. Accordingly, available treatment capacity would be provided and impacts would be less than significant under this Alternative. The Alternative's sewage increase to the lines in the CVWD's sewer capacity would be mitigated through payment of the sewer capacity increase fee, as required by the Project. Thus, Alternative 5 impacts would be reduced to a less than significant level. Even though neither the Project nor this Alternative would result in a significant impact, impacts associated with this Alternative would be considered less than those of the Project.

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5 Residential units = 265.4 acre-feet per year (afy); Residential Open Space = 374.4 afy; Commercial Uses = 787.7afy; Commercial Open Space = 89.5 afy.

Solid Waste

This Alternative would result in a reduced intensity of 25 percent when compared to the Project. Solid waste generated by this Alternative would total 6,369.1 tons per year. This waste would be diverted to either the Edom Hills Transfer Station or would directly be delivered to the Lamb Canyon Sanitary Landfill. This Alternative would contribute 20.3 tons of solid waste per day.

However, there is adequate capacity and expansion potential within the regional landfill system to accommodate the solid waste expected to be generated by this Alternative or the Project. Closure dates of landfills for the existing landfills are estimates and subject to change depending on the actual tonnage that is received prior to their estimated closing date. Even though neither the Project nor this Alternative would result in a significant impact, impacts associated with this Alternative would be considered less than those of the Project.

Summary of Comparative Impacts

Alternative 5 would result in an incremental reduction in air quality during operation of the Project. Impacts related to Alternative 5 would be similar to aesthetics, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, noise. Alternative 5 does incrementally reduce identified population and housing, public services, recreation, traffic, and utilities and service systems. This Alternative does not avoid significant impacts nor reduce them to a level of less-than-significant.

Relationship to Project Objectives

Alternative 5 considers the implementation of the land use plan of the Project with the only difference being a 25 percent reduction in the intensity of residential and commercial uses throughout the Project Site. Many impacts would be incrementally reduced with this Alternative. However, the significant and unavoidable impacts related to air quality and noise would not be avoided or reduced to a level of less than significant.

This Alternative would also not provide the highest and best use of Tribal Property as the site would likely result in reduced employment opportunities for the region, fewer economic development opportunities, and a reduced regional destination development. While the Reduced Intensity Alternative would include all the components of the Project, it would only partially meet all of the following Project objectives.

- Promote the highest and best use of Reservation lands in order to maximize the economic development opportunities for the Tribe and its members, including Tribal land immediately adjacent to the existing Agua Caliente Casino Resort Spa.

- Plan for an appropriate mix of commercial, hotel, entertainment, office and residential uses, in order to meet the trade area's growing demand and build in the flexibility to respond to changes in the market over time.
- Create a new mixed-use project that compliments the Tribe's existing Agua Caliente Casino Resort Spa located across Bob Hope Drive to create a regional destination development.

E. ENVIRONMENTALLY SUPERIOR ALTERNATIVE

As previously discussed, analysis of a reasonable range of Alternatives is required by both *NEPA* and *CEQA*. The purpose of the Alternatives analysis is to explain potentially feasible ways to avoid or minimize the significant effects identified for the Project. Furthermore, State *CEQA Guidelines,* Section 15126.6(e)(2) requires an EIR, or for this Project the EIS, to identify an environmentally superior Alternative among those evaluated in an EIR. As stated throughout this document, this Draft EIS is also complying with the State *CEQA Guidelines* for the purposes of environmental analysis.

A summary comparison of impacts associated with the Project Alternatives is provided in **Table 6.0-12**. As indicated in **Table 6.0-12**, the first line compares the Alternative's incremental increase, decrease, or results in similar impacts, to the Project's identified impact. The second line below that comparison then compares the level of significance of the Alternative's impact to the level of significance of the Project's impact. Of the Alternatives considered in this Draft EIS Section, the No Project/No Development Alternative is environmentally superior to the other Alternatives, because this Alternative would avoid the significant and unavoidable impacts identified for the Project.

According to the State *CEQA Guidelines,* if the No Project/No Development Alternative is identified as the environmentally superior Alternative, the EIS shall also identify an environmentally superior Alternative among the other Alternatives. Of the other Alternatives considered, Alternative 5, a 25 Percent Reduced Intensity Project, would be considered environmentally superior, because it would result in the greatest incremental reduction of the overall level of impact when compared to the Project. Alternative 5 would reduce, but not avoid or reduce to a level of less than significant, the significant construction and operational air quality impacts related to VOC, NOx, and CO, and the construction impacts identified for the Project.

While the Reduced Project Density Alternative would include all of the components proposed by the Project, such components would be reduced under this Alternative. A reduction in the number of homes would result in a 25 percent reduction in the amenity package as the reduced number of homes would not be able to support the level of amenities offered by the Project. As such, the 25 Percent Reduced Intensity Alternative would not be as effective in meeting the Project's purpose to create a regional

destination development that stimulates economic development opportunities for the Agua Caliente Band of Cahuilla Indians and the greater community.

This Alternative would develop all of the components proposed by the Project, this Alternative would be consistent with the objective to establish a vibrant, unified vision for the Specific Plan, and plan for an appropriate mix of commercial, hotel, entertainment, office and residential uses, in order to meet the trade area's growing demand. However, since this Alternative would develop 75 percent of the Project and those amenities offered by the Project, this objective would not be achieved to the same extent as the Project.

Overall, the 25 Percent Reduced Intensity Alternative would not meet the Project's purpose and the objectives that support the Project's purpose to the same extent as the Project.

Table 6.0-12
Comparison of Alternatives to Project

Environmental Issue Area	Project	Alternative 1—No Project/No Development	Alternative 2—City General Plan	Alternative 3—County General Plan	Alternative 4—Standard Residential Development	Alternative 5—Reduced Intensity
Aesthetics	Less than Significant	Less (No impact)	Similar (Less than Significant)	Greater (Less than Significant)	Similar (Less than Significant)	Similar (Less than Significant)
Air Quality	Significant and Unavoidable	Less (No impact)	Less (Significant and Unavoidable)	Greater (Significant and Unavoidable)	Greater (Significant and Unavoidable)	Less (Significant and Unavoidable)
Biological Resources	Less than Significant with Mitigation	Less (No impact)	Similar (Less than Significant)	Similar (Less than Significant)	Similar (Less than Significant)	Similar (Less than Significant)
Cultural Resources	Less than Significant with Mitigation	Less (No impact)	Similar (Less than Significant)	Similar (Less than Significant)	Similar (Less than Significant)	Similar (Less than Significant)
Geology and Soils	Less than Significant with Mitigation	Less (No impact)	Similar (Less than Significant)	Similar (Less than Significant)	Similar (Less than Significant)	Similar (Less than Significant)
Greenhouse Gas Emissions	Less than Significant	Less (No impact)	Greater (Significant by 2035)	Greater (Less than Significant)	Greater (Less than Significant)	Less (Less than Significant)
Hazards and Hazardous Materials	Less than Significant with Mitigation	Less (No impact)	Similar (Less than Significant)	Similar (Less than Significant)	Similar (Less than Significant)	Similar (Less than Significant)
Hydrology and Water Quality	Less than Significant with Mitigation	Similar (Less than Significant)	Similar (Less than Significant)	Similar (Less than Significant)	Similar (Less than Significant)	Similar (Less than Significant)

Environmental Issue Area	Project	Alternative 1—No Project/No Development	Alternative 2—City General Plan	Alternative 3—County General Plan	Alternative 4—Standard Residential Development	Alternative 5—Reduced Intensity
Land Use and Planning	Less than Significant	Greater (Less than Significant)	Similar (Less than Significant)	Similar (Less than Significant)	Similar (Less than Significant)	Similar (Less than Significant)
Noise	Significant and Unavoidable for Construction Less than Significant vehicle noise Less than Significant with Mitigation for stationary noise	Less (No impact)	Less (Significant and Unavoidable) Less for Vehicle noise (Less than Significant)	Similar (Significant and Unavoidable) Greater for Vehicular noise (Less than Significant)	Similar (Significant and Unavoidable) Greater for Vehicle noise (Less than Significant)	Similar for Construction (Significant and Unavoidable) Less for Vehicular noise (Less than Significant)
Population and Housing	Less than Significant	Less (No impact)	Similar (Less than Significant)	Similar (Less than Significant)	Similar (Less than Significant)	Similar (Less than Significant)
Fire Protection and Emergency Services	Less than Significant with Mitigation	Less (No impact)	Similar (Less than Significant)	Similar (Less than Significant)	Similar (Less than Significant)	Similar (Less than Significant)
Law Enforcement	Less than Significant with Mitigation	Less (No impact)	Similar (Less than Significant)	Similar (Less than Significant)	Similar (Less than Significant)	Similar (Less than Significant)
Schools	Less than Significant with Mitigation	Less (No impact)	Greater (Less than Significant)	Similar (Less than Significant)	Greater (Less than Significant)	Similar (Less than Significant)
Libraries	Less than Significant with Mitigation	Less (No impact)	Less (Less than Significant)	Similar (Less than Significant)	Similar (Less than Significant)	Similar (Less than Significant)

Environmental Issue Area	Project	Alternative 1—No Project/No Development	Alternative 2—City General Plan	Alternative 3—County General Plan	Alternative 4—Standard Residential Development	Alternative 5—Reduced Intensity
Recreation	Less than Significant with Mitigation	Less (No impact)	Similar (Less than Significant)	Similar (Less than Significant)	Greater (Less than Significant)	Similar (Less than Significant)
Traffic and Transportation	Less than Significant with Mitigation	Less (No impact)	Less (Less than Significant)	Greater (Less than Significant)	Greater (Less than Significant)	Less (Less than Significant)
Water Service	Less than Significant	Less (No impact)	Less (Less than Significant)	Greater (Less than Significant)	Greater (Less than Significant)	Less (Less than Significant)
Sewer	Less than Significant with Mitigation	Less (No impact)	Less (Less than Significant)	Less (Less than Significant)	Similar (Less than Significant)	Less (Less than Significant)
Solid Waste	Less than Significant with Mitigation	Less (No impact)	Less (Less than Significant)	Greater (Less than Significant)	Similar (Less than Significant)	Less (Less than Significant)

7.0 GROWTH-INDUCING IMPACTS

As previously discussed in **Section 1.0 Introduction**, the Agua Caliente Band of Cahuilla Indians ("Tribe"), acting as the Lead Agency for the planning and environmental review of this Project, has decided to prepare this EIS in compliance with both Tribal Environmental Policy Act (TEPA) and California Environmental Quality Act (CEQA), including the State *CEQA Guidelines*. According to *CEQA Guidelines* Section 15126.2 [d], a project may foster economic or population growth, or additional housing, either directly or indirectly, in a geographical area if it meets any one of the following criteria below:[1]

- A project would remove obstacles to population growth.
- Increases in the population may tax existing community service facilities, causing significant environmental effects.
- A project would encourage and facilitate other activities that could significantly affect the environment.

CEQA does not consider growth inducement to be necessarily detrimental, beneficial, or of significance to the environment. Typically, the growth-inducing potential of a project is considered significant if it fosters growth or a concentration of population in excess of what is assumed in pertinent master plans, land use plans, or in projections made by regional planning agencies. Significant growth impacts could also be manifested through the provision of infrastructure or service capacity to accommodate growth beyond the levels currently permitted by local or regional plans and policies.

The Southern California Association of Governments (SCAG) is the Metropolitan Planning Organization (MPO) for a six-county region (Ventura, Los Angeles, Orange, Riverside, San Bernardino, and Imperial Counties) and is charged by the federal government to research and prepare plans for transportation, growth management, hazardous waste management, and air quality. One of the many responsibilities mandated to SCAG by the State is the development of demographic projections, which are in **Section 5.11, Population and Housing**.

A. GROWTH-INDUCING IMPACT ANALYSIS

1. Remove Obstacles to Population Growth

Growth in an area may result from the removal of physical impediments or restrictions to growth, as well as the removal of planning impediments resulting from land use plans and policies. In this context,

1 California Public Resources Code, Title 14, Division 6, Chapter 3, *California Environmental Quality Act Guidelines*, Section 15126(d).

physical growth impediments may include nonexistent or inadequate access to an area or the lack of essential public services (e.g., water service), while planning impediments may include restrictive zoning and/or general plan designations.

The Project is located in an area that contains established land uses and supporting infrastructure. Construction of the Project may require the modification of off-site infrastructure and the development of on-site infrastructure in order to support the increased land use intensity associated with the Project.

Growth projections contained in the RTP/SCS are based on a compilation of county and local projections. RTP forecasts are then used in the formulation of regional plans dealing with regional air quality, housing, transportation/circulation, and other infrastructure issues. SCAG does not provide a specific methodology for establishing the consistency of a proposed project with its regional growth forecasts. However, the RCP contains policies that support the use of these forecasts in the preparation and review of local and regional plans and projects.

The proposed Specific Plan would account for approximately 1 percent of the anticipated increase in residents within the Coachella Valley between 2008 and 2035, which is consistent with the estimated growth projection for the CVAG subregion of SCAG (see discussion in **Section 5.11 Population and Housing**). The projected population increase that would be generated represents approximately 37 percent of the population growth projected in the City's Sphere of Influence south of I-10 between 2014 and 2030. The population increase within the Project Site would account for approximately 13 percent of the City population increase between 2014 and 2030 as identified in the City's 2005 General Plan. The Project would account for approximately 2 percent of the anticipated 144,000 housing units within the CVAG subregion between 2008 and 2035. As discussed in **Section 5.11**, SCAG projections for Reservation lands indicate that housing would grow by 4,386 units between 2020 and 2035. The Project would account for approximately 55 percent of growth on Reservation lands. The projected housing increase that would result from the Project would represent approximately 62 percent of the housing growth projected in the City's Sphere of Influence south of I-10. The housing increase within the Project Site would account for approximately 14 percent of the City housing growth projected for the City between 2014 and 2030. According to SCAG projections, the number of employment opportunities is forecast to increase to 315,000 employment opportunities between 2008 and 2035, an increase of 140,000 employment opportunities. The Project would account for approximately 5 percent of the anticipated 140,000 employment opportunities within the CVAG subregion between 2008 and 2035. The Project's population, housing, and employment opportunity projections would be consistent with the SCAG and City's projections.

The City of Rancho Mirage ("City") and County of Riverside General Plans both project housing and commercial growth within the Project Site. The general plans are master plans providing the framework by which public officials will be guided on making decisions relative to development within the Project Site. The implementation of land use policies will incrementally increase demands for public services, utilities, and infrastructure, and the need for medical, education, and recreation facilities.

An established transportation network exists in the surrounding area that offers regional and local access to the Project Site. Regional access to the Project Site would be provided by the I-10 Freeway. Local access to the Project Site would be provided by Bob Hope Drive, Los Alamos Road, Ramon Road, and Dinah Shore Drive. Roadway improvements would be made as development occurs for each individual project, including the payment of fees equivalent to TUMF fees for identified roadway infrastructure projects in the western Coachella Valley.

The Project Site is bordered by the City of Rancho Mirage to the north, east, south, and west. Section 13 to the north has been zoned for commercial retail and resort uses; the Agua Caliente Casino Resort Spa and the Section 19 Specific Plan which includes planned mixed use, resort, and residential uses to the east; the Westin Mission Hills Resort to the south and commercial uses to the southeast; and the Westin Mission Country Club to the west.

The water, wastewater, electrical, and natural gas infrastructure required to support the Project would be available to the Project Site from surrounding streets. Potable water would be provided to the Project Site from the Coachella Valley Water District (CVWD). There are 18-inch CVWD potable water connections in the surrounding streets. Wastewater disposal from the Project Site would flow in an 8- and 12-inch gravity system that drains all sewage generated on the Project Site in a northerly direction to Ramon Road. The Project Site would contain storm drains within the Active Adult Community which would convey surface water runoff to the retention basins located in the southern and northern portion of the Active Adult Community. Retention basins would be located in the northeastern portion of each Planning Area within the Tribal Planning Areas.

Water and wastewater infrastructure upgrades are intended to meet Project-related demand. The new water and wastewater lines have been designed to provide for the Project and would not generate substantial capacity that would induce growth within the area. The 18-, 12-, and 8-inch water mains would connect to each of the eight Planning Areas. As such, the development of the potable water system would not induce growth within the immediate area.

Natural gas transmission infrastructure presently exists near the Project Site; however, infrastructure does not presently exist on the Project Site. During development of the Project, a natural gas line would

be constructed on site to connect to the existing Southern California Gas Company 6-inch-diameter gas main located beneath Dinah Shore Drive and with a 4-inch main located beneath Los Alamos Road. The Project Site currently has aboveground power lines that traverse the southern Project Site. The Project would connect to these existing power lines during on-site utility infrastructure improvements. Natural gas and electricity infrastructure upgrades are intended to meet Project-related demand. The new natural gas and electrical lines have been designed to provide for the Project and would not generate substantial capacity that would induce growth within the area. No growth-inducing impacts due to the connection of electrical and natural gas service lines would occur with the development of the Project.

In summary, the design and construction of roadways, water, sewer, electrical, and natural gas infrastructure needed to accommodate the Project would not induce growth within undeveloped areas surrounding the Project Site.

2. Tax Existing Community Service Facilities, Causing Significant Environmental Effects

A project would indirectly induce growth if it would increase the capacity of infrastructure in an area in which the public service currently met demand or would extend infrastructure to an area that was not previously served. Examples would be increasing the capacity of a sewer treatment plant or a roadway beyond the capacity needed to meet existing demand, or extending a water or sewer line to a project where other properties could also use that line extension.

As discussed in **Section 5.12 Public Services**, the Riverside County Sheriff Department (RCSD) opened a new station in 2012 in Palm Desert to serve the area of the Project Site, so additional police protection facilities would not be required. According to the RCSD, implementation of the Project is projected to require an increased demand for police protection services, such as an increased number of sworn officers servicing the Project Site. The Riverside County Fire Department, Palm Springs School District, and the Rancho Mirage Public Library all indicated that they are below capacity and are able to provide the Project Site with a sufficient amount of services and facilities. While the expansion of public services would primarily be provided to serve the needs of the Project, the increase in police services would also likely facilitate services of future growth within the area.

Construction of the Project would create an array of employment opportunities for the region, such as design, engineering, and construction-related jobs. This direct, growth-inducing effect for employment would last until the Project's anticipated build-out by year 2035. The commercial aspect of the Project entails the development of approximately 3.2 million square feet of commercial, retail, office, restaurant, hotel, and entertainment uses. This increase in mixed-use development would stimulate a major new source of tax base for the region. As discussed in **Section 5.11,** development of the Project

would generate an estimated 6,822 jobs. With the provision of a total of 2,406 various residential units, the jobs/housing ratio for the Project would be 2.84 jobs per residence. New residents of the Project would also have available opportunities for shopping, entertainment, and employment outside of those offered by the Project. This would represent an increased demand for economic goods and services within the region. Therefore, the Project would not induce significant growth within the surrounding area.

3. Encourage and Facilitate Other Activities That Could Significantly Affect the Environment

A project would directly induce growth if it would remove barriers to population growth such as a change to a jurisdiction's general plan and Zoning Ordinance that allowed new residential development to occur.

Urbanization of the Project Site could potentially influence continued development within adjacent properties by providing or extending roadways, extending water and sewer service, and extending energy services to the immediate area. Since the surrounding area is primarily vacant or rural-type properties, the infrastructure improved/expanded by the project could eliminate potential constraints for future development in this area. However, as previously mentioned, the Project Site is surrounded by existing development to the northeast, south, and west with approved land uses to the north and east. Development of the Project Site would not encourage and facilitate other activities that could significantly affect the environment.

The Project Site is currently under the jurisdiction of the Tribe. The Tribe has sovereign authority over the use and regulation of its land, thus the Project Site is not subject to City or County land use approval. However, it anticipated that each of the Planning Areas would annex within the boundaries of the City of Rancho Mirage, upon authority of the Riverside LAFCo. Therefore, the Tribe would coordinate its land use decisions within the Project Site with those of the City and County in order to ensure jurisdictional consistency of goals, polices, and objectives.

Moreover, no changes to any of the Tribe's building safety standards (i.e. building, grading, plumbing, mechanical, electrical, fire codes) are proposed or required to implement the Project. Project Design Features and Mitigation Measures have been identified in **Sections 5.1** to **5.15** to ensure that subsequent subdivision maps and site-specific development projects comply with all applicable Tribal, City, and County plans, policies, and ordinances. Pressures to develop Section 13 and Section 19 to the north and east of the Project Site would be dependent upon regional economic conditions and market demands for housing, commercial office, and industrial land uses that are not directly or indirectly influence by the Project. Therefore, approval of the Project would not involve a precedent setting action

that would be applied to other properties and thereby encourage or facilitate growth that would not otherwise occur. Accordingly, the Project would not be considered growth inducing.

8.0 OTHER ENVIRONMENTAL IMPACTS

This Section provides a brief discussion of the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIS. This Section also discusses the significant irreversible environmental changes that would be caused by the Project, including the use of nonrenewable resources, and primary and secondary impacts which generally commit future generations to similar uses. In addition, although not required, the Agua Caliente Band of Cahuilla Indians ("Tribe") has decided to prepare the Environmental Impact Statement (EIS) in compliance with the provisions of the *California Environmental Quality Act (CEQA) Guidelines.*[1] Please see **Section 9.0** for a glossary of terms, definitions, and acronyms used in the Draft EIS.

1 California Code of Regulations, Title 14, Section 15000 et seq. CEQA Guidelines Section 15127 and 15128.

8.1 EFFECTS NOT FOUND TO BE SIGNIFICANT

As previously discussed in **Section 1.0 Introduction**, the Agua Caliente Band of Cahuilla Indians ("Tribe"), acting as the Lead Agency for the planning and environmental review of this Project, has decided to prepare this EIS in compliance with the Tribal Environmental Policy Act (TEPA) and the California Environmental Quality Act (CEQA), including the *CEQA Guidelines.* Section 15128 of the CEQA Guidelines requires a brief description of any possible significant effects that were determined not to be significant and were not analyzed in detail within the environmental analysis. Therefore, this Section has been included in the EIS as required by CEQA. The discussion below presents the analysis of the effects related to agriculture and forestry resources and mineral resources not found to be significant. Any items not addressed in this Section were addressed in **Section 5.0 Environmental Impact Analysis**, of the Draft EIS.

A. AGRICULTURE AND FORESTRY RESOURCES

Threshold: **Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.**

The 577-acre Project Site is currently vacant and located within the Agua Caliente Indian Reservation ("Reservation") in unincorporated Riverside County. The Project Site is designated as "Other Land" by the California Department of Conservation, Farmland Mapping and Monitoring Program.[1] The land surrounding the Project Site is designated as "Other Land" to the north and east, and as "Urban and Built Up Land to the west, south, and northeast. Implementation of the Project would not involve changes that would result in the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to nonagricultural uses. Therefore, no significant impacts would occur.

Threshold: **Conflict with existing zoning for agricultural use or a Williamson Act contract.**

The Project Site is designated as "Non-Enrolled" by California Department of Conservation, Conservation Program Support.[2] The land surrounding the Project Site is designated as "Non-Enrolled Land" to the north and east and as "Urban and Built Up Land to the west, south, and northeast. Therefore, the Project would not conflict with a Williamson Act contract.

1 California Department of Conservation, Farmland Mapping and Monitoring Program, "Riverside County Important Farmland 2010," Sheet 2 of 3 (January 2012).

2 California Department of Conservation, Division of Land Resource Protection, Conservation Program Support, "Riverside County Williamson Act FY 200/2009," Sheet 2 of 3 (2012).

The Project Site is zoned by the Tribe as Tribal Enterprise, Specific Plan, and Land Use Contract (Riverside County), as shown in **Figure 4.0-4**. The Project Site is also designated by the County of Riverside for Commercial Tourist, Medium Density Residential, and Commercial Retail, as shown in **Figure 4.0-5**.[3] Additionally, since the Project Site falls within the City of Rancho Mirage's Sphere of Influence, the Project Site is zoned for medium- and high-density residential and community commercial uses, as shown in **Figure 4.0-6**.[4]

The area surrounding the Project Site is characterized by features typical of the urban landscape, which include commercial and residential uses. The Agua Caliente Casino/Resort/Spa is located to the northeast, and the Westin Mission Hills Golf Resort & Spa located to the south and west of the Project Site. The land north and east of the Project Site is currently vacant. Therefore, the Project would not conflict with existing zoning for agricultural uses or a Williamson Act contract and no significant impacts to agricultural resources would occur.

Threshold: **Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g)).**

As defined by the Public Resources Code Section 12220(g), forestland is land that can support 10 percent native tree cover of any species under natural conditions and that allows for management of one or more forest resources. Since there is minimal vegetative cover on the Project Site and the site is not zoned as forestland, the Project would not affect any forestlands as defined by the Public Resources Code.

A Timberland Production Zone is defined by the Government Code Section 51104(g) as an area that is zoned for the sole purpose of growing and harvesting timber. Because the Project Site does not contain any timber resources, nor is it zoned as timberland or timberland zoned Timberland Production, the Project would not conflict with timberland or Timberland Production areas. Therefore, no significant impacts would occur to any forestry resources.

Threshold: **Result in the loss of forest land or conversion of forest land to non-forest use.**

As previously discussed, the Project Site is not located within a forest area. Thus, the Project would not result in the loss of forestland or result in the conversion of forestland to nonforest uses. No significant impacts would occur.

3 Riverside County, *Western Coachella Valley Area Land Use Plan* (2003).

4 *City of Rancho Mirage General Plan,* "Land Use Element" (2005).

Threshold: **Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use.**

As previously discussed, the Project Site does not contain any lands designated as Farmland or forestland and would not result in the loss of Farmland or forest land or the conversion of Farmland or forestland to nonforest use. Therefore, no significant impacts would occur.

B. MINERAL RESOURCES

Threshold: **Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State.**

There are areas within the County of Riverside containing mineral resources that are considered to have significant value to many industries within the region, such as deposits of clay, limestone, iron, sand, and aggregates.[5] However, these deposits are only found within the surrounding hills and mountains to the north and south of the Project Site. As a result, the Project would not affect the availability of a known mineral resource. No significant impacts would occur.

Threshold: **Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.**

The Project Site and surrounding areas are characterized by features typical of the urban landscape and include various commercial and residential uses. According to the County of Riverside *General Plan*, the Project Site is designated within a Mineral Resource Zone (MRZ)-3. MRZ-3 is defined as an area where it has been determined mineral deposits are likely to exist; however, the significance of these deposits is undetermined.[6] Additionally, the City of Rancho Mirage *General Plan* indicates that there are no significant mineral resources within the City. Therefore, implementation of the Project would not result in the loss of locally important mineral resource recovery sites. No significant impacts would occur.

5 Riverside County, *General Plan,* "Multipurpose Open Space Element" (2008).
6 Riverside County, *General Plan,* "Multipurpose Open Space Element" (2008).

8.2 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

As the EIS will be prepared in compliance with both the Tribal Environmental Policy Act (TEPA) and CEQA, the *CEQA Guidelines* state, "[u]ses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely."[1] Primary impacts and, particularly, secondary impacts (such as highway improvement that provides access to a previously inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with a project. Irretrievable commitments of resources should be evaluated to ensure that such current consumption is justified. Therefore, the purpose of this analysis is to identify any significant irreversible environmental effects of Project implementation that cannot be avoided.

Implementation of the Project would irreversibly commit approximately 577 acres of the vacant and undeveloped Project Site for residential, commercial retail, office, restaurant, hotel, and entertainment uses. The irreversible environmental changes of this urbanization include increased traffic volumes, incremental degradation of the regional air quality, additional noise created by traffic generated by inhabitants of the Project, incremental demands for public services and utilities, and changes to the visual environment that will not likely be reversed. Significant unavoidable adverse environmental effects associated with degradation of air quality and ambient noise will result from development, despite implementation of all Mitigation Measures, conditions of approval, Project Design Features, and local, State, and federal regulations.

Primary impacts will result from the consumption of nonrenewable resources during construction and operation of the proposed Project. Nonrenewable resources such as sand, gravel, and steel, and renewable resources such as lumber, will be consumed during Project construction. Energy, fossil fuels, oils, and natural gas will be irreversibly committed during construction. These same resources are used for vehicles and heating/cooling equipment during operations. The continued use of these resources associated with Project operations represents a long-term obligation. The energy consumed in developing and maintaining the site for urban use may be considered a permanent investment.

Construction of the Project would consume limited amounts of certain types of lumber; other raw materials in steel; metals such as copper and lead; aggregate materials used in concrete and asphalt such as sand and stone; water, petrochemical construction materials such as plastic; petroleum-based construction materials; and other similar slowly renewable or nonrenewable resources. Additionally, fossil fuels for construction vehicles and equipment would be consumed. In terms of Project operations, the following slowly renewable and nonrenewable resources would be required: natural gas and

1 California Public Resources Code, Title 14, Division 6, Chapter 3, California Environmental Quality Act Guidelines, Section 15126(c).

electricity, petroleum-based fuels, fossil fuels, and water. The California Administrative Code regulates the amount of energy consumed by new development for heating, cooling, ventilation, and lighting purposes. Nevertheless, the consumption of such resources would represent a long-term commitment of those resources.[2]

The commitment of resources required for the construction and operation of the Project would limit the availability of such resources for future generations or for other uses during the life of the Project. However, continued use of such resources is consistent with the anticipated growth and planned changes on the Project Site and within the general vicinity.

The Project would also result in an increased commitment of certain public services to the proposed land uses, including the provision of police and emergency medical services, water supply services, wastewater treatment services, and solid waste disposal. However, as indicated in the respective sections of this EIS, impacts associated with these public services would be less than significant.

In addition, the Project would result in a long-term, irreversible change in the visual character of the Project Site. The nonurbanized character of the site would be transformed into residential/commercial development. Night lighting in the Project vicinity would incrementally increase as a result of the proposed development.

Project implementation will cause the average daily trips (ADT) to increase substantially when combined with ambient growth in the vicinity. The increased number of vehicles will contribute to the degradation of air quality. The Project air quality analysis indicates that impacts to air quality are significant, even after mitigation.

A secondary impact that results from increased traffic is an increase in ambient noise levels. Currently, the area surrounding the Project is developed with relatively medium to high ambient noise levels, with some existing street segments higher than 65 dB(A). Once the Project conducts roadway improvements and introduces Project traffic on those roads, the noise levels will increase, including along roadway segments next to existing sensitive receptors. Implementation of the Project, together with ambient growth and other cumulative projects in the vicinity, will result in significant areawide noise impacts. Noise levels will remain higher permanently.

The Project's contribution to State, national, and global greenhouse gases (GHG) emission inventories and the resultant effect on global climate change is evaluated on a cumulative basis. Secondary impacts result from fuel consumption in the form of air pollution, which both degrades air quality in general and contributes to the formation of GHGs that cumulatively affect global warming. Human activities

2 California Administrative Code, Title 24.

associated with industrial/manufacturing, utilities, transportation, residential, and agricultural sectors contribute to GHG emissions. While the Project would generate GHG emissions, its contribution was found not to be cumulatively considerable.

9.0 TERMS, DEFINITIONS, AND ACRONYMS

°C	degrees Celsius
°F	degrees Fahrenheit
AB	Assembly Bill
Active Adult Community	Planning Area 8
Administrator	United States Environmental Protection Agency Administrator
ADT	average daily trips
AGO	Attorney General's Office
amsl	above mean sea level
APN	assessors' parcel number
AQMP	Air Quality Management Plan
ASTM	American Society for Testing and Materials
ATM	automated teller machine
BAM	best available mapping
BDCP	Bay Delta Conservation Plan
bgs	below ground surface
BLM GLO	Bureau of Land Management General Land Office
BMP	best management practice
BP	before present
BTU	British Thermal Unit
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAFE	Corporate Average Fuel Economy
Cal Fire	California Department of Forestry and Fire Protection
CalEEMod	California Emissions Estimator Model (2013.2.2)
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CBC	California Building Code
CBSC	California Building Standards Commission
C-C	Community Commercial
CCAR	California Climate Action Registry
CCR	California Code of Regulations
CDE	California Department of Education
CEQA	California Environmental Quality Act

CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFC	California Fire Code
CFR	Code of Federal Regulations
CGS	California Geological Survey
CH4	methane
CHEERS	California Home Energy Efficiency Rating System
CHL	California Historical Landmarks
CHP	California Highway Patrol
CIP	Capital Improvement Program
CITRC	Cahuilla Inter-Tribal Repatriation Committee
City	City of Rancho Mirage
CMA	Congestion Management Agency
CMP	Congestion Management Plan
CMS	Congestion Management System
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	carbon monoxide
CO2	carbon dioxide
CO2e	carbon dioxide equivalent
Conceptual Landscape Plan	Provides guidelines for the treatment of areas within the Project Site, including the surrounding streets, parkways, development edges, project entries, and open space areas.
Conceptual Open Space	The location of a portion of the open space to be provided in a manner that works with individual projects.
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
CRWQCB	Colorado River Basin Regional Water Quality Control Board
CUPA	Certified Unified Program Agency
CVAG	Coachella Valley Association of Governments
CVC	California Vehicle Code
CVFED	Central Valley Floodplain Evaluation and Delineation
CVMSHCP	Coachella Valley Multiple Species Habitat Conservation Plan
CVSC	Coachella Valley Stormwater Channel
CVSIP	Coachella Valley State Implementation Plan
CVWD	Coachella Valley Water District
CWA	Clean Water Act

dB(A)	A-weighted decibel
DFIRM	Digital Flood Insurance Rate Maps
DHCCP	Delta Habitat Conservation and Conveyance Program
DHS	Department of Health Services
DIF	development impact fee
DOF	California Department of Finance
DOSH	Division of Occupational Safety and Health
DPM	diesel particulate matter
DSUSD	Desert Sands Unified School District
DTSC	Department of Toxic Substances Control
DWA	Desert Water Agency
DWR	California Department of Water Resources
ECC	Emergency Command Center
EDR	Environmental Data Report
EDU	equivalent dwelling unit
EIC	Eastern Information Center
EIR	environmental impact report
EIS	environmental impact statement
EMT	emergency medical training
ENERGY STAR certification	performance standard set by EPA
EOC	Emergency Operations Center
EPCRA	Emergency Planning and Community Right-To-Know Act
EV	electric vehicle
FAR	floor area ratio
FCR	Flexible Congestion Relief
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
FIND	Facility Information Detail
FIRM	Flood Insurance Rate Map
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
GHG	greenhouse gas
GLA	gross leasable area
gpcd	gallons per capita per day
gpm	gallons per minute
GPS	global positioning system

gpud	gallons per unit per day
GWP	global warming potential
HAZNET	Hazardous Waste System/Facility and Manifest Data
HCM	Highway Capacity Manual
HCP	Habitat Conservation Plan
HCS	Highway Capacity Software
HFE	hydrofluorinated ethers
HHWE	household hazardous waste element
HPLV	high-pressure, low-volume
HSC	Health and Safety Code
HUD	U.S. Department of Housing and Urban Development
HWCL	Hazardous Waste Control Law
HWMP	Hazardous Waste Management Plan
I	industrial
I-10	Interstate 10
IID	Imperial Irrigation District
IIS	Indian Irrigation Service
INDIAN	indian reservation (SWEETPS classification)
Industrial Age	time period consisting of the previous 150 years
IPCC	Intergovernmental Panel on Climate Change
km	kilometers
LAFCo	Riverside Local Agency Formation Commission
Lead Agency	Agua Caliente Band of Cahuilla Indians
LED	light-emitting diode
LEED	Leadership in Energy and Environmental Design
LFPZ	levee flood protection zone
LID	low impact design
LOS	level of service
LRA	Local Responsibility Area
LST	localized significance thresholds
LUST	leaking underground storage tank
MATES III	Multiple Air Toxics Exposure Study III
MAWA	maximum allowed water allowance
MBTA	Migratory Bird Treaty Act
MCL	maximum contaminant level
MFR	Multi-Family Residential (land use category)
MHFP	Multi-Hazard Functional Plan

MHMP	Multi-Hazard Mitigation Plan
MM	mitigation measure
MMTCO2e	million metric tons of carbon dioxide equivalents
MOU	Memorandum of Understanding
MPO	Metropolitan Planning Organization
MS4	municipal separate storm sewer system
MSWD	Mission Springs Water District
MTCO2e	metric tons of carbon dioxide equivalents
MTR	military training route
MU-N	mixed use – neighborhood
MU-U	mixed use – urban
MWD	Metropolitan Water District of Southern California
MXD CORE	Mixed-Use Core (land use category)
N2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAGPRA	Native American Graves Protection and Repatriation Act
NAHC	Native American Heritage Commission
NCHRP	National Cooperative Highway Research Program
NDFE	nondisposal facility element
NEV	Neighborhood Electric Vehicle
NF3	nitrogen triflouride
NHPA	National Historic Preservation Act
NHTSA	National Highway Traffic Safety Administration
NO	nitrogen monoxide
NO2	nitrogen dioxide
NOA	Notice of Availability
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
OCP	organochlorine pesticide
OES	Governor's Office of Emergency Services
OHP	California Office of Historic Preservation
OLED	organic light-emitting diode
OPR	Office of Planning and Research
OS	open space – conservation
OS-R	open space – residential
Park Master Plan	Assesses the community's local park needs to ensure sufficient

	recreational opportunities for residents.
Pb	lead
PDF	Project Design Features
PEIR	program environmental impact report
PFC	perflourocarbons
PHF	peak hour factor
PM	particulate matter
PM10	respirable particulate matter
PM2.5	fine particulate matter
POC	point of connection
PPV	peak particle velocity
PRC	Public Resources Code
PRD	Planned Residential Development
Primary Access	Access point in the Project area providing direct access to the site.
Project Site	The 577-acre area within Section 24 designated for development of the Specific Plan
PSUSD	Palm Springs Unified School District
PUC	Public Utilities Commission
PVC	polyvinyl chloride
PWS	Public Water System
QSP/D	Qualified SWPPP Practitioner/Developer
RCFCWCD	Riverside County Flood Control and Water Conservation District
RCFD	Riverside County Fire Department
RCIP	Riverside County Integrated Project
RCLS	Riverside County Library System
RCRA	Resource Conservation and Recovery Act
RCTC	Riverside County Transportation Commission
RCTD	Riverside County Transportation Department
RCWMD	Riverside County Waste Management Department
Reservation	Agua Caliente Indian Reservation
RESORT	Resort Flex (land use category)
RETAIL	Retail (land use category)
R-H	High Density Residential
RHNA	Regional Housing Needs Assessment
Right In/Out Access	Access point in the Project Site providing one-way access to the site.
RivTAM	Riverside County Traffic Analysis Model
R-M	Medium Density Residential

RNCM	Roadway Noise
RO	reverse osmosis
ROG	reactive organic gas
RRCDR	Riverside County Center for Demographic Research
RTP	Regional Transportation Plan
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategies
RV	recreational vehicle
RW	recycled water
RWQCB	Regional Water Quality Control Board
San Andreas Fault Zone	a major structural geographic feature consisting of several northwest-trending right lateral strike slip faults that extend through the San Gorgonio pass along the San Bernardino Mountains and the Coachella Valley.
SARA	Superfund Amendments and Reauthorization Act
SB	Senate Bill
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SCGC	Southern California Gas Company
SCR	sanitation capacity rate
SCS	Sustainable Communities Strategies
SDWA	Safe Drinking Water Act
SF6	sulfur hexaflouride
SFR	Single Family Residential (land use category)
Sheriff's Department	Riverside County Sheriff's Department
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SOI	sphere of influence
SOx	sulfur dioxide
Specific Plan	Development of a portion of Section 24 located on the Agua Caliente Indian Reservation in unincorporated Riverside County
SRA	source receptor areas
SRI	Statistical Research, Inc.
SRRE	source reduction and recycling element
SSAB	Salton Sea Air Basin
SWEETPS	Statewide Environmental Evaluation and Planning System
SWP	State Water Project
SWPPP	Storm Water Pollution Prevention Plan

SWRCB	State Water Resources Control Board
Synthetic Unit Hydrograph	unit hydrograph for ungaged basins based on theoretical or empirical methods
TAC	toxic air contaminant
TEPA	Tribal Environmental Policy Act
THCP	Tribal Habitat Conservation Plan
THPO	Tribal Historic Preservation Office
TMDL	total maximum daily load
TPH	Total petroleum hydrocarbon
TPPS	Transportation Project Prioritization Study
Tribal Planning Areas	Planning Areas 1 to 7
Tribe	Agua Caliente Band of Cahuilla Indians
TUA	Traditional Use Area
TUMF	Transportation Uniform Mitigation Fee
UBC	Uniform Building Code
UPRR	Union Pacific Railroad
USDA	United States Department of Agriculture
USDOT	U.S. Department of Transportation
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UST	underground storage tank
UWMP	Urban Water Management Plan
UWMPA	Urban Water Management Planning Act
VFPA	Valley Floor Planning Area
VMT	vehicle miles traveled
VOC	volatile organic compounds
WARP	Wastewater Reclamation Plant
WCVAP	Western Coachella Valley Area Plan
WQMP	Water Quality Management Plan
WRCC	Western Regional Climate Center
WRCOG	Western Riverside Council of Governments
WRP	water reclamation plan
WSA	water supply assessment
WSV	water supply verification

10.0 ORGANIZATIONS AND PERSONS CONSULTED

This Draft Environmental Impact Statement (EIS) was prepared by the Agua Caliente Band of Cahuilla Indians (Tribe) with the assistance of Meridian Consultants LLC. Tribal staff, report preparers, and consultants are identified as follows, along with agencies and individuals that provided information used to prepare this Draft EIS.

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APPENDIX A

Notice of Intent and Comment Letters

Notice of Intent to Prepare an Environmental Impact Statement for the Proposed Section 24 Specific Plan, Riverside County

The Agua Caliente Band of Cahuilla Indians ("Tribe") intends to prepare an Environmental Impact Statement (EIS) for the proposed Section 24 Specific Plan in compliance with the Agua Caliente Tribal Environmental Policy Act (Tribal Ordinance No. 28). The Tribe is acting as the lead agency for the preparation of this EIS as the Section 24 Specific Plan area is located within the boundaries of the Agua Caliente Indian Reservation.

The Specific Plan area is located within the Sphere of Influence of the City of Rancho Mirage as identified by the Riverside Local Agency Formation Commission (LAFCO). Following action on the EIS and Section 24 Specific Plan by the Tribe, the Specific Plan area may be annexed to the City of Rancho Mirage. To facilitate compliance with CEQA by the City of Rancho Mirage, the Riverside LAFCO, and other agencies and to minimize duplication of the environmental studies and documentation, the Tribe will prepare the EIS in compliance with the provisions of the California Environmental Quality Act (CEQA) Guidelines (California Code of Regulations Title 14 Section 15000 et seq.). Section 15221 of the CEQA Guidelines provides for the use of an EIS prepared in accordance with the CEQA Guidelines by public agencies required to comply with CEQA.

Project Location

The proposed Section 24 Specific Plan addresses the 577-acre portion of Section 24 bounded by Ramon Road on the north; Bob Hope Drive on the east; Dinah Shore Drive on the south; and Los Alamos Road on the west. The Specific Plan area is located immediately west of the Agua Caliente Casino Resort Spa; north and east of the Westin Mission Hills resort community, and northwest of the Desert Ridge Plaza shopping center. Figure 1 provides a regional location map and Figure 2 provides a project location map.

Project Description

The Tribe and Pulte Home Corporation/SCC Rancho Mirage Holdings LP ("Pulte/SCC") are proposing the Section 24 Specific Plan to coordinate the planning and future development of the Specific Plan area, which consists of land under separate ownerships, including approximately 120 acres located on Ramon Road that is owned by the Tribe, approximately 97 acres located on Bob Hope Drive that is allotted to members of the Tribe and under contract to be acquired by the Tribe, approximately 40 acres located on the corner of Bob Hope Drive and Dinah Shore Drive that is allotted to members of the Tribe, and 320 acres located north of Dinah Shore Drive that is currently allotted to members of the Tribe and under contract to be acquired by Pulte Homes/SCC and developed as an active adult residential community for residents aged 55 and above.

The Section 24 Specific Plan would allow development of a mix of retail, entertainment, office, hotel and residential uses intended to complement existing and planned surrounding uses in the City of Rancho Mirage.

FIGURE **1**

SECTION 24 SPECIFIC PLAN

Regional Location Map

044-001-13

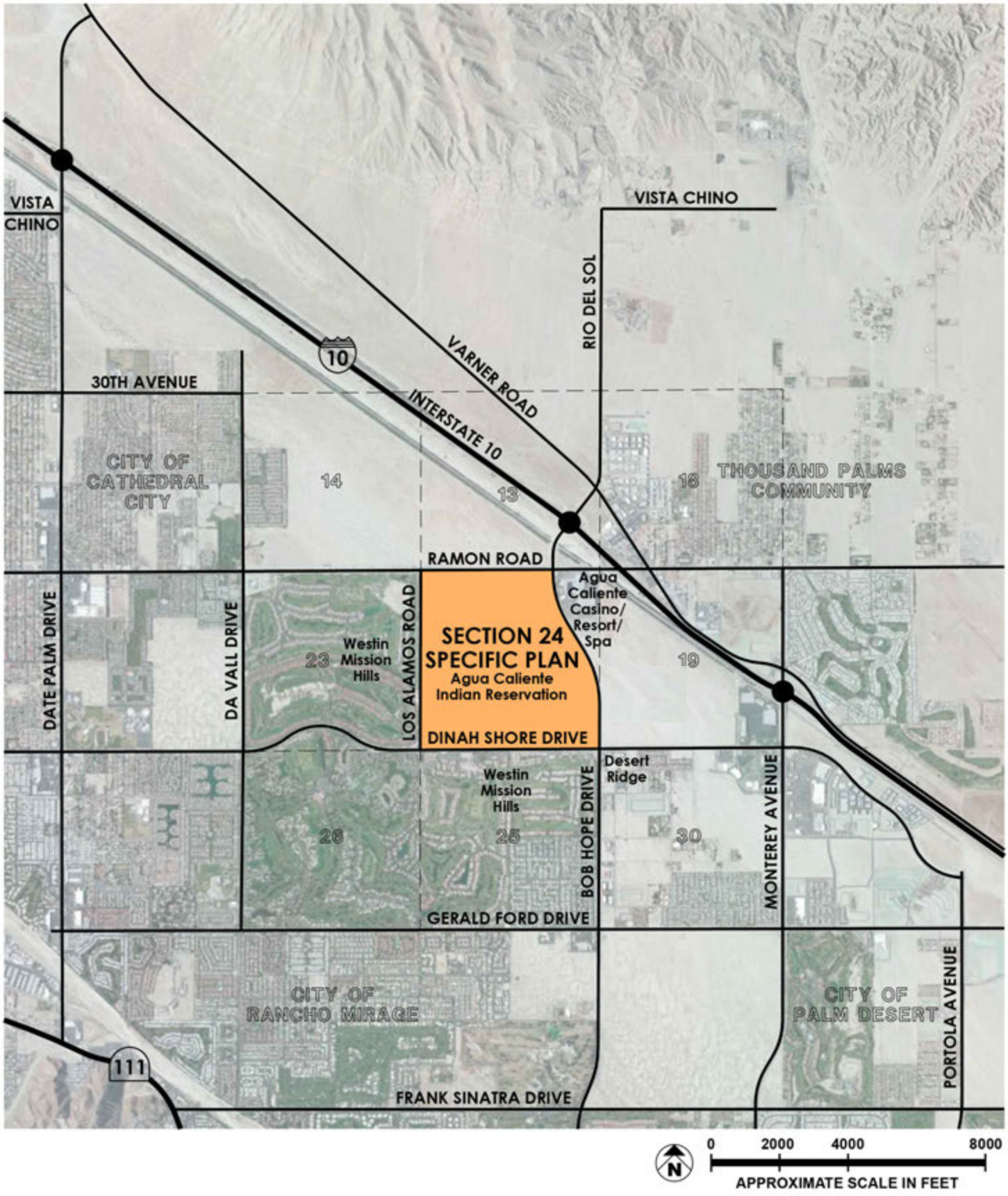

FIGURE **2**

SECTION 24 SPECIFIC PLAN

Project Location Map

044-001-13

As shown in the proposed land use plan provided in Figure 3, the Section 24 Specific Plan would create eight Planning Areas and a circulation system planned to support the proposed uses. Commercial uses are proposed on Ramon Road and Bob Hope Drive with residential uses proposed for the remainder of the Specific Plan area.

An active adult residential community, containing up to 1,200 units, is proposed on the 312 acres located north of Dinah Shore Drive in Planning Area 8. The Specific Plan will include development standards and design guidelines for this new residential community. Planning Area 8 will be the first portion of the Specific Plan area to develop, with full development anticipated to occur within 6-8 years.

No timeframes have been identified for development of the remaining Planning Areas, which are being programmatically planned at this time to coordinate streets and other infrastructure, and to ensure the comprehensive land use planning of the Specific Plan area in relation to existing and planned surrounding uses. The Specific Plan will include development and design standards for the Ramon Road, Bob Hope Drive and Dinah Shore Drive frontages to promote compatibility with surrounding uses. The land uses that would be allowed by the proposed Specific Plan in Planning Areas 1-7 are described below.

The proposed Specific Plan will allow approximately 67 acres of multi-family residential development, at a density of up to 18 dwelling units per acre, in Planning Areas 1B, 2B, 5, 6B and 7B as shown in Figure 3. Up to 1,206 multi-family residential units would be allowed by the proposed Specific Plan in these areas.

Retail commercial uses would be allowed in Planning Area 3, located on the corner of Ramon Road and Bob Hope Drive and Planning Area 7A, located on the corner of Bob Hope Drive and Dinah Shore Drive. The Specific Plan would allow development of up to 777,000 square feet (s.f.) of development on the 51 acres designated for retail commercial uses.

Resort flex uses, a mix of hotel, retail commercial and entertainment uses, would be allowed in Planning Areas 1A, 4 and 6A on Ramon Road and Bob Hope Drive. Up to 1,271,600 s.f. of retail commercial, hotel, and entertainment uses would be allowed on the 73 acres designated for resort flex uses.

Planning Area 2A, centrally located on Ramon Road, would be designated Mixed Use Core, with up to 1,090,000 million s.f. of development allowed on this 25 acres. This land use designation would allow a mix of uses, including community retail commercial uses, office, and attached residential units.

In total the Specific Plan would allow a maximum of 2,406 residential dwelling units and 3,138,000 million square feet of commercial development.

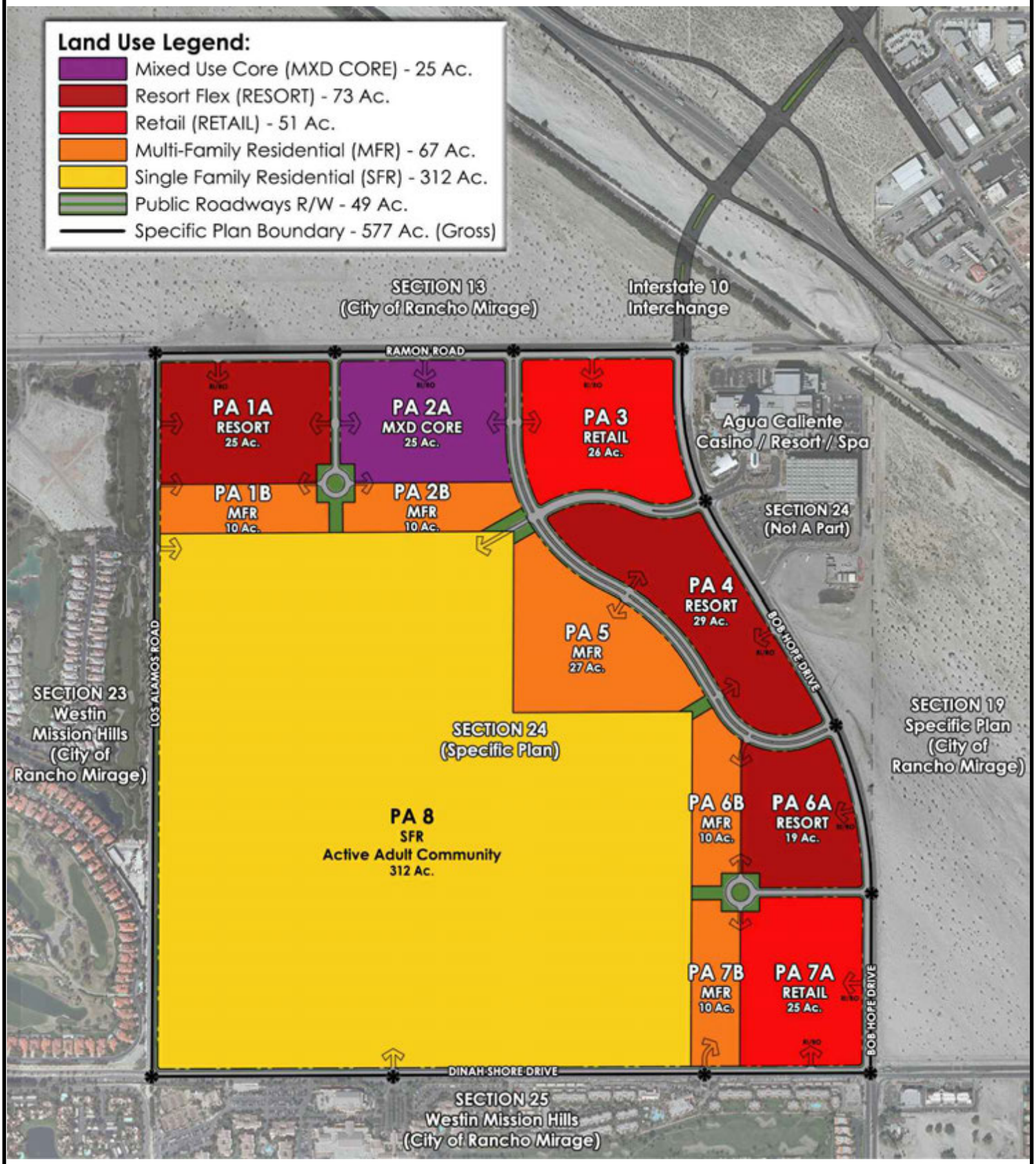

FIGURE **3**

SECTION 24 SPECIFIC PLAN

Proposed Land Use Plan

044-001-13

A summary of the proposed land uses is provided in Table 1:

Table 1
Section 24 Specific Plan
Land Use Summary

Planning Area	Land Use Designation	Size (Net Acres)	Proposed Intensity/Density		Proposed Amount of Development	
PA 1A	Resort Flex	25	0.40	FAR	435,600	SF
PA 1B	Multi-Family Residential	10	18	DU/Acre	180	DU
PA 2A	Mixed Use Core	25	1.00	FAR	1,090,000	SF
PA 2B	Multi-Family Residential	10	18	DU/Acre	180	DU
PA 3	Retail	26	0.35	FAR	396,000	SF
PA 4	Resort Flex	29	0.40	FAR	505,000	SF
PA 5	Multi-Family Residential	27	18	DU/Acre	486	DU
PA 6A	Resort Flex	19	0.40	FAR	331,000	SF
PA 6B	Multi-Family Residential	10	18	DU/Acre	180	DU
PA 7A	Retail	25	0.35	FAR	381,000	SF
PA 7B	Multi-Family Residential	10	18	DU/Acre	180	DU
PA 8	Active Adult Single Family Residential	312	4	DU/Acre	1,200	DU
	Subtotal Net Acres	528	Acres			
	Street Right of Way	49	Acres			
	Total	**577**	Acres			

Probable Environmental Effects of the Proposed Project

The EIS will include research, analysis and study of potential environmental effects related to the following topics:

• Aesthetics - the EIS will evaluate the changes to the visual character of the Project site and surrounding area, the obstruction of views, effects on ambient nighttime light levels and the creation of new sources of daytime or nighttime glare.

• Air Quality & Greenhouse Gases – the EIS will evaluate the impact of air quality and greenhouse gas emissions from construction and the new uses in accordance with the guidance provided by the South Coast Air Quality Management District (SCAQMD) guidelines applicable to the Coachella Valley. The Agua Caliente Band of Cahuilla Indians is a member of the Coachella Valley Association of Governments (CVAG) and the assessment of potential greenhouse gas impacts will incorporate information from the regional greenhouse gas inventory for the Coachella Valley prepared by CVAG and the SCAQMD and address programs to reduce greenhouse gases, including the Coachella Valley Voluntary Green Building Program.

• Biological Resources – the EIS will evaluate potential impacts to biological resources present on the site based on biological resource surveys to identify vegetation communities and associated plant and wildlife species. Any special-status plant and wildlife species and sensitive habitats, including any wetland or other jurisdictional habitat will also be identified and addressed.

• Geology & Soils - the EIS will address the potential for impacts related to existing geologic and soils conditions based a geotechnical study of the site and the proposed grading.

• Cultural Resources – the EIS will address the potential for impacts to cultural resources based on a cultural resource survey of the site.

• Hazards & Hazardous Materials - the EIS will address the potential for hazardous materials on the project site or in surrounding areas, and use of hazardous materials, to affect existing and planned uses.

• Hydrology & Water Quality – the EIS will evaluate the changes to existing drainage patterns and water quality based on a hydrology study of the site and proposed project.

• Land Use & Planning - the EIS will evaluate the consistency of the project with applicable local and regional land use plans and policies.

• Noise - the EIS will assess the potential for the proposed uses to be impacted by noise from the surrounding streets and other sources of noise in the surrounding area and for the proposed uses to create noise that would impact existing and planned surrounding uses.

• Population & Housing – the EIS will address the consistency of the increase in population, housing and employment that would occur as a result of the project with adopted local and regional growth projections and applicable policies.

• Public Services – the EIS will address the need for police and fire protection, emergency medical, school, recreation services and facilities.

• Transportation & Traffic - the EIS will evaluate the potential for transportation and traffic impacts on local streets, state transportation facilities and transit services based on a traffic impact analysis study.

• Utilities and Service Systems – the EIS will evaluate the potential impact of the new development proposed on water supply and water delivery facilities, wastewater collection and treatment facilities, and other utility services including electricity and natural gas facilities, and solid waste collection and disposal facilities.

Submission of Comments

The Tribe needs to know the views of your agency as to the scope and content of the environmental information relevant to your agency's statutory responsibilities in connection with the proposed Specific Plan. Comments are also invited from all other interested parties.

A scoping meeting will be held on February 12, 2014 at the Agua Caliente Casino Resort Spa, located at 32-250 Hope Drive in Rancho Mirage to provide an additional opportunity to learn more about the project and provide comments on the possible environmental effects that should be studied in the EIS. This meeting will be held in the Star AB Room at 4:00 and 7:00 PM.

All comments need to be provided by February 14, 2014 to:

Margaret Park, AICP
Director of Planning and Natural Resources
5401 Dinah Shore Drive
Palm Springs, CA 92264
Fax: (760) 699-6822
Email: mpark@aguacaliente-nsn.gov

Please provide the name, address and other contact information for a contract person at your agency who should receive future notices and correspondence related to this project.

Thank you for participating in the Tribe's environmental review of this proposed project.

STATE OF CALIFORNIA EDMUND G. BROWN JR., *Governor*

PUBLIC UTILITIES COMMISSION
320 WEST 4TH STREET, SUITE 500
LOS ANGELES, CA 90013
(213) 576-7083

January 22, 2014

Ms. Margaret Park
Agua Caliente Band of Cahuilla Indians
5401 Dinah Shore Drive
Palm Springs, California 92264

Dear Ms. Park:

SUBJECT: SCH 2014011035 Agua Caliente Band of Cahuilla Indians Section 24 Specific Plan - NOI

The California Public Utilities Commission (Commission) has jurisdiction over the safety of highway-rail crossings (crossings) in California. The California Public Utilities Code requires Commission approval for the construction or alteration of crossings and grants the Commission exclusive power on the design, alteration, and closure of crossings in California. The Commission Rail Crossings Engineering Section (RCES) is in receipt of the *Notice of Intent (NOI)* for the proposed Agua Caliente Band of Cahuilla Indians (AGBCI) Section 24 Specific Plan project.

The project area includes active railroad tracks. RCES recommends that the AGBCI add language to the Specific Plan so that any future development adjacent to or near the railroad/light rail right-of-way (ROW) is planned with the safety of the rail corridor in mind. New developments may increase traffic volumes not only on streets and at intersections, but also at at-grade crossings. This includes considering pedestrian circulation patterns or destinations with respect to railroad ROW and compliance with the Americans with Disabilities Act. Mitigation measures to consider include, but are not limited to, the planning for grade separations for major thoroughfares, improvements to existing at-grade crossings due to increase in traffic volumes and continuous vandal resistant fencing or other appropriate barriers to limit the access of trespassers onto the railroad ROW.

If you have any questions in this matter, please contact me at (213) 576-7076, ykc@cpuc.ca.gov.

Sincerely,

Ken Chiang, P.E.
Utilities Engineer
Rail Crossings Engineering Section
Safety and Enforcement Division

C: State Clearinghouse

LOZEAU DRURY LLP

T 510.836.4200
F 510.836.4205

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www.lozeaudrury.com
christina@lozeaudrury.com

Via Email and U.S. Mail

January 27, 2014

Mr. Jeff L. Grubbe, Chairman
Agua Caliente Band of Cahuilla Indians
5401 Dinah Shore Drive
Palm Springs, CA 92264
jgrubbe@aguacaliente.net

Ms. Margaret Park
Director of Planning and Natural Resources
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Ms. Cindy Scott, City Clerk
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Mr. Randal Bynder, City Manager
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69-825 Highway 111
Rancho Mirage, CA 92270
randalb@ranchomirageca.gov

Mr. Bud Kopp, Planning Manager
City of Rancho Mirage
69-825 Highway 111
Rancho Mirage, CA 92270
budk@RanchoMirageCA.gov

Re: **TEPA/CEQA and Land Use Notice Request for the Section 24 Specific Plan (SCH 2014011035; APNs 673120021, 22, 23, 24, and 25)**

Dear All:

I am writing on behalf of the Laborers International Union of North America, Local Union 1184 and its members living in Riverside County ("LiUNA"), regarding the Section 24 Specific Plan (SCH 2014011035; APNs 673120021, 22, 23, 24, and 25), including all actions referring or related to the development of a mix of retail, entertainment, office, hotel, and residential uses on approximately 577 acres of land within the boundaries of the Agua Caliente Band of Cahuilla Indians Reservation and adjacent to the City of Rancho Mirage, at or near Bob Hope Drive and Ramon Road in Rancho Mirage ("Project"). The Project includes a maximum of 1,200 units in an active adult residential community, 1,206 multifamily residential units, and approximately 3.14 million square feet of commercial development.

TEPA

We hereby request that the Agua Caliente Band of Cahuilla Indians ("Band") send by mail and electronic mail to our firm at the address below notice of any and all hearings related to the Project held pursuant to the Band's Tribal Environmental Policy Act (TEPA),

Ordinance No. 28, as well as any and all notices prepared for the Project pursuant to TEPA, including but not limited to notice of the availability of the Environmental Impact Statement ("EIS"), and notices of Major Tribal Actions, Records of Decision, or any other approvals or decisions related to the Project.

CEQA

We also hereby request that the City of Rancho Mirage ("City") send by mail and electronic mail to our firm at the address below notice of any and all actions or hearings related to activities undertaken, authorized, approved, permitted, licensed, or certified by the City and any of its subdivisions, and/or supported, in whole or in part, through contracts, grants, subsidies, loans or other forms of assistance from the City, including, but not limited to the following:

- Notice of any public hearing in connection with the Project as required by California Planning and Zoning Law pursuant to Government Code Section 65091.

- Any and all notices prepared for the Project pursuant to the California Environmental Quality Act ("CEQA"), including, but not limited to:

    - Notices of any public hearing held pursuant to CEQA.
    - Notices of determination that an Environmental Impact Report ("EIR") is required for a project, prepared pursuant to Public Resources Code Section 21080.4.
    - Notices of any scoping meeting held pursuant to Public Resources Code Section 21083.9.
    - Notices of preparation of an EIR or a negative declaration for a project, prepared pursuant to Public Resources Code Section 21092.
    - Notices of availability of an EIR or a negative declaration for a project, prepared pursuant to Public Resources Code Section 21152 and Section 15087 of Title 14 of the California Code of Regulations.
    - Notices of approval and/or determination to carry out a project, prepared pursuant to Public Resources Code Section 21152 or any other provision of law.
    - Notices of approval or certification of any EIR or negative declaration, prepared pursuant to Public Resources Code Section 21152 or any other provision of law.
    - Notices of determination that a project is exempt from CEQA, prepared pursuant to Public Resources Code section 21152 or any other provision of law.
    - Notice of any Final EIR prepared pursuant to CEQA.

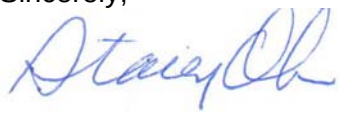
Please note that we are requesting notices of CEQA actions and notices of any public hearings to be held under any provision of Title 7 of the California Government Code governing California Planning and Zoning Law. **This request is filed pursuant to Public Resources Code Sections 21092.2 and 21167(f), and Government Code Section 65092**, which require agencies to mail such notices to any person who has filed a written request for them with the clerk of the agency's governing body.

Please send notice by mail and electronic mail to:

Richard Drury
Christina Caro
Stacey Oborne
Lozeau Drury LLP
410 12th Street, Suite 250
Oakland, CA 94607
richard@lozeaudrury.com; christina@lozeaudrury.com; stacey@lozeaudrury.com

Please call should you have any questions. Thank you for your attention to this matter.

Sincerely,



Stacey Oborne
Paralegal
Lozeau | Drury LLP

NATIVE AMERICAN HERITAGE COMMISSION
1550 Harbor Boulevard, Suite 100
West Sacramento, CA 95691
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Fax (916) 373-5471
Web Site www.nahc.ca.gov
Ds_nahc@pacbell.net
e-mail: ds_nahc@pacbell.net

January 29, 2014

Ms. Margaret Park, Project Planner

Agua Caliente Band of Cahuilla Indians
5401 Dinah Shore Drive
Palm Springs, CA 92264

RE: SCH#2014011035CEQA Notice of Notice of Preparation (NOP); draft Environmental Impact Report (DEIR) for the **"Section 24 Specific Plan (Mixed-Use Development-Senior Housing & Commercial);"** located in the Palm Springs area; Coachella Valley; Riverside County, California

Dear Ms. Park:

The Native American Heritage Commission (NAHC) has reviewed the above-referenced environmental document.

The California Environmental Quality Act (CEQA) states that any project which includes archeological resources, is a significant effect requiring the preparation of an EIR (CEQA guidelines 15064.5(b).. To adequately comply with this provision and mitigate project-related impacts on archaeological resources, the Commission recommends the following actions be required:

Lead agencies should include in their mitigation plan provisions for the identification and evaluation of accidentally discovered archeological resources, pursuant to California Environmental Quality Act (CEQA) §15064.5(f). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American, with knowledge in cultural resources, should monitor all ground-disturbing activities. Also, California Public Resources Code Section 21083.2 require documentation and analysis of archaeological items that meet the standard in Section 15064.5 (a)(b)(f).

We suggest that this (additional archaeological activity) be coordinated with the NAHC, if possible. The final report containing site forms, site significance, and mitigation measurers should be submitted immediately to the planning department. Any information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for pubic disclosure pursuant to California Government Code Section 6254.10.

A list of appropriate Native American Contacts for consultation concerning the project site has been provided and is attached to this letter to determine if the proposed active might impinge on any cultural resources.

California Government Code Section 65040.12(e) defines "environmental justice" to provide "fair treatment of People...with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations and policies." (The California Code is consistent with the Federal Executive Order 12898 regarding 'environmental justice.' Also, applicable to state agencies is Executive Order B-10-11 requires consultation with Native American tribes their elected officials and other representatives of tribal governments to provide meaningful input into the development of legislation, regulations, rules, and policies on matters that may affect tribal communities.

Lead agencies should consider first, avoidance for sacred and/or historical sites, pursuant to CEQA Guidelines 15370(a). Then if the project goes ahead then, lead agencies include in their mitigation and monitoring plan provisions for the analysis and disposition of recovered artifacts, pursuant to California Public Resources Code Section 21083.2 in consultation with culturally affiliated Native Americans.

Lead agencies should include provisions for discovery of Native American human remains in their mitigation plan. Health and Safety Code §7050.5, CEQA §15064.5(e), and Public Resources Code §5097.98 mandates the process to be followed in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery.

Sincerely,

Dave Singleton
Program Analyst

CC: State Clearinghouse

Attachment: Native American Contacts list

Native American Contacts
Riverside County California
January 29, 2014

Cabazon Band of Mission Indians
Doug Welmas, Chairperson
84-245 Indio Springs Cahuilla
Indio , CA 92203-3499
(760) 342-2593
(760) 347-7880 Fax

Santa Rosa Band of Mission Indians
John Marcus, Chairman
P.O. Box 391820 Cahuilla
Anza , CA 92539
(951) 659-2700
(951) 659-2228 Fax

Los Coyotes Band of Mission Indians
Shane Chapparosa, Chairman
P.O. Box 189 Cahuilla
Warner , CA 92086
(760) 782-0711
(760) 782-2701 - FAX

Augustine Band of Cahuilla Mission Indians
Mary Ann Green, Chairperson
P.O. Box 846 Cahuilla
Coachella , CA 92236
(760) 398-4722
760-369-7161 - FAX

Ramona Band of Cahuilla Mission Indians
Joseph Hamilton, Chairman
P.O. Box 391670 Cahuilla
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his list s only applicable for contacting local Native Americans with regard to cultural resources for the proposed SCH#20144011035; CEQA Notice of Preparation (NOP); draft Environmental Impact Report (DEIR) for the Section 24 Specific Plan Project; located in the Palm Springs area; Coachella Valley; Riverside County, California.

Native American Contacts
Riverside County California
January 29, 2014

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Indio , CA 92203-3499
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ptuck@augacaliente-nsn.gov
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Karen Kupcha
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Coachella , CA 92236
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Established in 1918 as a public agency
Coachella Valley Water District

Directors:
John P. Powell, Jr., President - Div. 3
Franz W. De Klotz, Vice President - Div. 1
Ed Pack - Div. 2
Peter Nelson - Div. 4
Debi Livesay - Div. 5

Officers:
Jim Barrett, General Manager
Julia Fernandez, Board Secretary

Redwine and Sherrill, Attorneys

February 12, 2014

File: 0022.100.11
1150.08

Margaret Park
Director of Planning and Natural Resources
Agua Caliente Band of Cahuilla Indians
5401 Dinah Shore Drive
Palms Springs, CA 92264

Dear Ms. Park:

Subject: Notice of Intent to Prepare an Environmental Impact Statement for the Proposed Section 24 Specific Plan, Riverside County

Thank you for affording the Coachella Valley Water District (CVWD) the opportunity to review the Notice of Intent to Prepare an Environmental Impact Statement for the Proposed Section 24 Specific Plan in Rancho Mirage, Riverside County.

CVWD provides domestic water, wastewater, recycled water, irrigation/drainage, regional stormwater protection and groundwater management services to a population of nearly 300,000 throughout the Coachella Valley.

At this time, CVWD submits the following comments regarding proposed project:

Stormwater Issues

1. The Proposed Section 24 Specific Plan ("Project") is currently designated "Zone X" on Federal Flood Insurance rate maps, which are in effect at this time, by the Federal Emergency Management Agency (FEMA). However, CVWD master plan studies for North Cathedral City and the Thousand Palms areas show that the Project is subject to flooding hazards from the Morongo Wash, Long Canyon, East and West Wide Canyon, Willow Hole, and various washes/canyons in the Edom and Indio Hills. Enclosed is Exhibit 6-4 which shows the extent of flooding under existing conditions for a 100-Year Flood. Also enclosed is Exhibit 6.5 which shows the extent of flooding with the proposed Thousand Palms Flood Control Project in place.

   The above referenced CVWD master plan studies were presented to the public and reports were posted on the CVWD website at www.cvwd.org/news/publicinfo. A copy of the revised (final) report that includes the above-mentioned exhibits can be made available upon request.

2. Prior to approval of the Project, CVWD requests that the Agua Caliente Band of Cahuilla Indians (Agua Caliente) and/or developer incorporate the above results into the proposed Project. The developer shall comply with Riverside County Ordinance No. 458 and CVWD Ordinance 1234.1 in the preparation of on-site flood protection facilities for this project. The developer will be required to pay fees and submit plans to CVWD as part of the flood management review. Flood protection measures shall include detailed hydrologic and hydraulic analysis of off-site flows and plans for flood protection. Flood protection measures may include design and construction of flood conveyance facilities.

3. CVWD also requests Agua Caliente/County require the developer to:
    - Submit construction plans for the proposed flood control facilities and a detailed hydrological and hydraulic design report for review and approval.
    - Obtain a Conditional Letter of Map Revision Obtain a Conditional Letter of Map Revision (CLOMR) through the Federal Emergency Management Agency.
    - Execute an agreement with CVWD, which shall include provisions outlined in CVWD Ordinance No. 1234.1.
    - Submit a Flood Control Facility Operations and Maintenance Manual to CVWD for review and approval.
    - Grant flooding easements over the flood control facilities in a form and content reasonably acceptable to CVWD.
    - Agua Caliente/County shall require mitigation measures to be incorporated into the development to prevent flooding of site and/or downstream properties. These measures shall require onsite retention of the incremental increase of runoff from the 100-year storm.

4. Prior to occupancy, CVWD requests the County/Agua Caliente require the developer to obtain a Letter of Map Revision (LOMR) through the FEMA, which removes the development from the special flood hazard area.

5. At the completion of construction of the flood control facilities, submit "as-built" topography, construction drawings and engineering analysis for CVWD review to verify that the design capacity is adequate.

Other Comments

1. Domestic water and sanitation system improvements will be determined through hydraulic modeling studies. Based on the number of proposed units, a Water Supply Assessment will be required for the project.

2. The proposed project site is not included within the Coachella Valley Multiple Species Habitat Conservation Plan (Plan) and is not associated with any Conservation Area covered by the Plan. Modeled habitat for six Plan species appears to be present onsite. CVWD suggests that any biological survey results for these species be made available to the Coachella Valley Conservation Commission in order to gain a better understanding of the species presence within the Plan area.

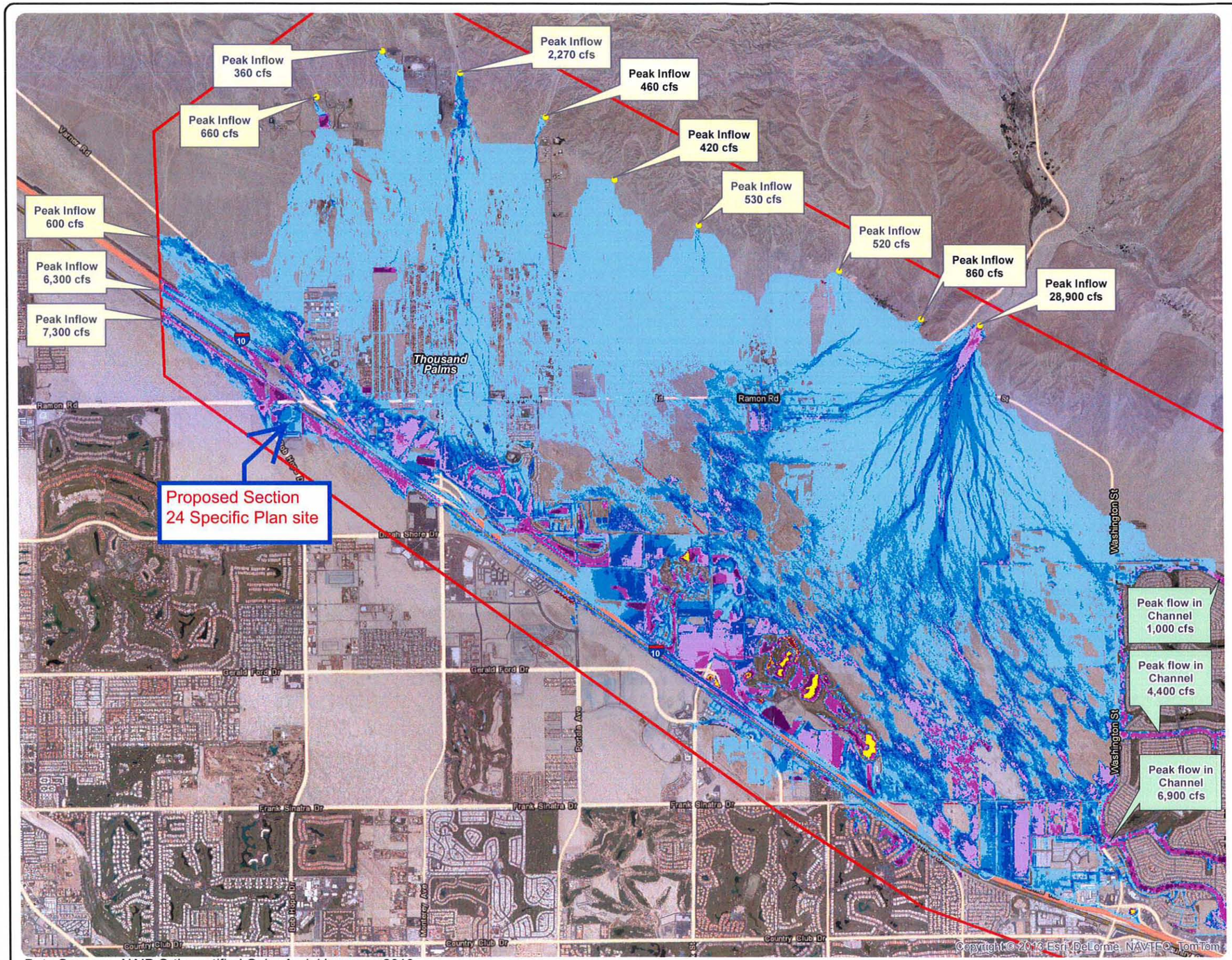
If you have any questions, please call Luke Stowe, Senior Environmental Specialist, extension 2545.

Sincerely,

Steve Bigley
Director of Environmental Services

Enclosures/2/as

LS:ch/env serv/14/feb/ Agua Caliente Sexn 24 SP



Data Sources: NAIP Orthorectified Color Aerial Imagery, 2010.

North Cathedral/Thousand Palms Stormwater Plan

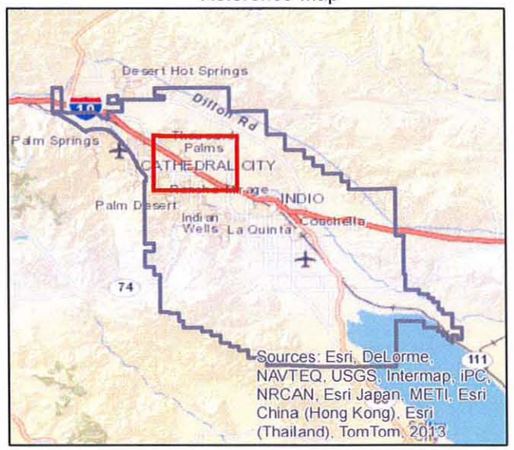
Thousand Palms Flood Control Project

Scale - 1:48,000 1 inch = 4,000 feet

0 2,000 4,000 8,000 Feet

CA State Plane, Zone VI	horz. datum: NAD 83	horz. units: feet
northwest hydraulic consultants	project no. 500058	September 2013

Reference Map



Legend

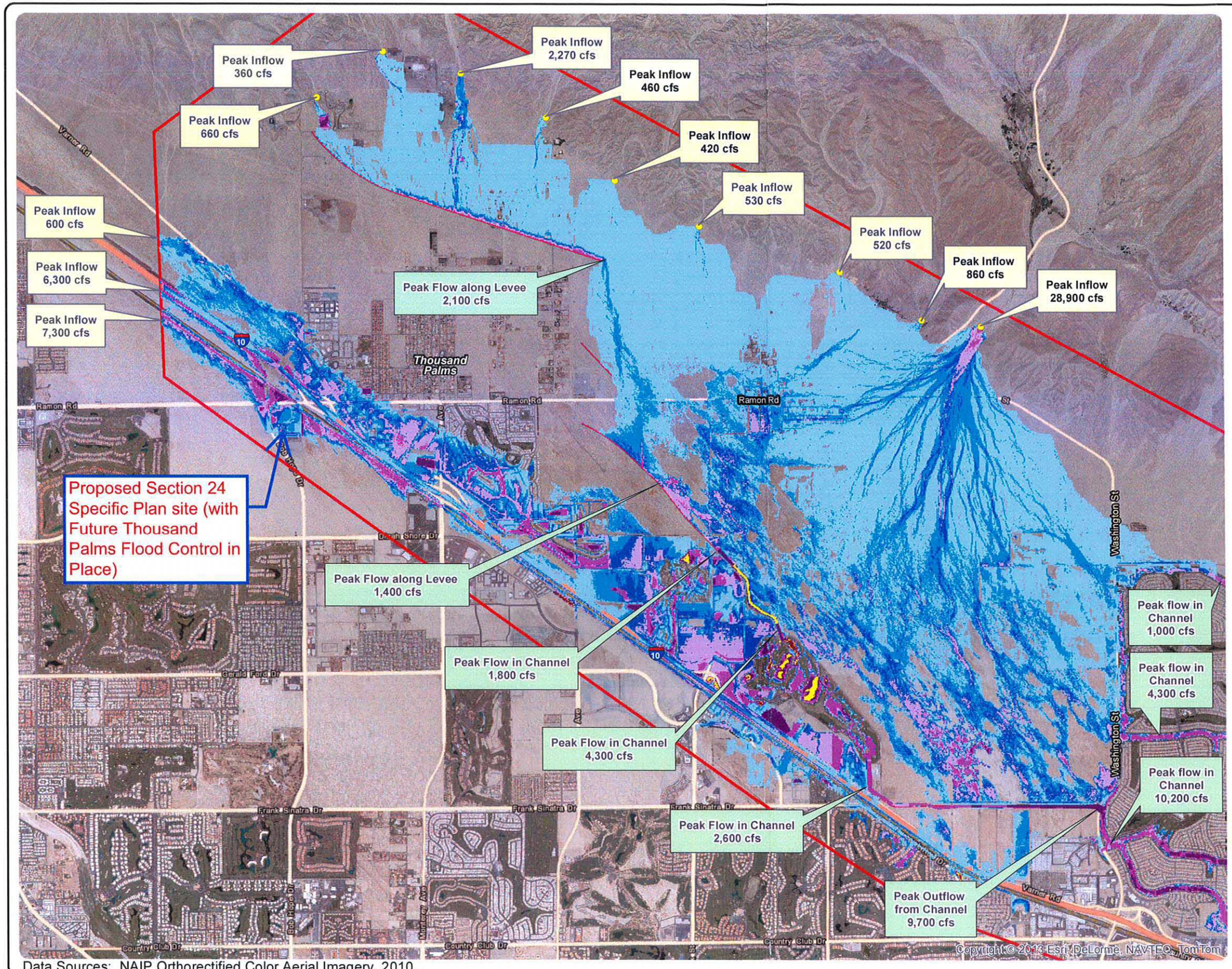
Max Depth (ft)

- 0 - 1
- 1 - 2
- 2 - 3
- 3 - 5
- 5 - 10
- 10 - 15
- 15 - 20
- > 20

Model Boundary

Inflow Locations (CP)

Figure 6-4: 100-yr Maximum Depth (Thousand Palms Canyon Storm Centering, Existing Conditions with Riverine Flows, 10 m Grid)



Data Sources: NAIP Orthorectified Color Aerial Imagery, 2010.

North Cathedral/Thousand Palms Stormwater Plan

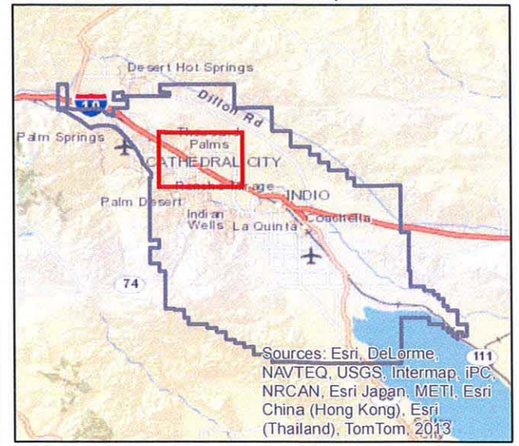
Thousand Palms Flood Control Project

Scale - 1:48,000 1 inch = 4,000 feet

0 2,000 4,000 8,000 Feet

CA State Plane, Zone VI	horz. datum: NAD 83	horz. units: feet
northwest hydraulic consultants	project no. 500058	September 2013

Reference Map



Legend

Max Depth (ft)

- 0 - 1
- 1 - 2
- 2 - 3
- 3 - 5
- 5 - 10
- 10 - 15
- 15 - 20
- > 20

Model Boundary

Inflow Locations (CP)

Figure 6-5: 100-yr Maximum Depth (Thousand Palms Canyon Storm Centering, Project Conditions with Riverine Flows, 10 m Grid)

CITY OF RANCHO MIRAGE

February 12, 2014

Margaret Park, AICP
Director of Planning and Natural Resources
Agua Caliente Band of Cahuilla Indians
5401 Dinah Shore Drive
Palm Springs, CA 92264

Re: Section 24 Specific Plan Environmental Document Scoping

Dear Margaret:

Thank you for providing us with a copy of the Notice of Intent to Prepare an Environmental Impact Statement for review and comment. Based on our previous discussion, we understand that this will be a joint NEPA/CEQA document.

We appreciate the multi-family residential density being lowered from 28 units per acre to 18 units per acre. However, we still feel that this density is excessive and incompatible with the adjacent land uses within close proximity to Los Alamos (Mira Vista) and Dinah Shore (Westin resort). While it may be appropriate for Planning Areas 2B, 5 and 6B to permit the highest densities, a transition to more moderate densities where Planning Areas 1B and 7B adjoin existing portions of the City should be more in-line with our High Density Residential (R-H) standards of 9 dwelling units per acre maximum.

Currently, the City's adopted General Plan specifies that this area within the City's Sphere of Influence would include 80 acres of commercial. We feel that a plan that includes over 3.1 million square feet of commercial, resort flex and mixed use core will have a significant individual and cumulative impact in several areas, unless mitigated.

One issue that should be discussed in detail is proposed mitigation if annexation occurs prior to development, and comparing that to mitigation measures if annexation does not occur prior to development. We believe that the mitigation measures, in many cases, will be different depending on whether or not development is permitted prior to annexation. The City strongly encourages annexation as soon as possible and prior to development occurring. Without a concurrent application for annexation, are we to assume that the County will provide all services?

1. The adopted Section 19 Specific Plan and EIR and Section 13 Annexation (Lazar) needs to be considered as a part of the cumulative impacts.

2. Aesthetics – Edge treatments within and adjacent to all public right-of-ways around the project perimeter (Bob Hope, Dinah Shore, Ramon and Los Alamos) need to be discussed. Upgraded entry and intersection treatments should also be discussed and illustrated, and be compatible with adopted Section 19 Design Standards. Additionally, aesthetic standards should be described for internal amenities on-site such as landscaped parkways along streets, design standards for major entry points, and design standards for common areas. Sight line studies may be necessary.

3. Air Quality – Because the proposed project is more dense than anticipated by the City's General Plan/Zoning Map; mitigation measures should be proposed that go above and beyond standard

mitigation practices. In furtherance of City ordinances and policies in implementing AB-32 and SB375 related to state mandated goals in improving air quality, the Specific Plan EIR needs to comply with programs and policies established in the adopted Greenhouse Gas Inventory, Sustainability and Energy Action Plans and Voluntary Green Building Code. Greenhouse Gas Emissions needs to be discussed in the EIR.

4. Hazards and Hazardous Materials – Mitigation measures need to be included to both limit hazardous materials and delivery of any hazardous materials within close proximity to existing or proposed residential land uses. The proximity of additional residences within ¼ mile of Interstate 10 and the railroad should be addressed and mitigation measures for potential hazards discussed.

5. Hydrology and Water Quality – Section 24 is located within the Mission Hills Pressure Zone and the Coachella Valley Water District is purveyor of water and sewer service. There are current deficiencies within the Mission Hills Pressure Zone that CVWD is currently working toward resolving along with adding additional capacity to serve Phase I development in Section 19 (Rancho Mirage Commons). A detailed water analysis needs to be completed as a part of the Draft EIR that describes existing system conditions, existing plus proposed conditions (i.e. the current project that CVWD is working on to extend trunk line and capacity to Section 19), and the impact of developing Section 24 in addition to existing planned projects. Close consultation with CVWD would be required. Method of proposed on site stormwater retention should be discussed and mitigated with high levels of aesthetic standards in mind.

6. Land Use & Planning – We are especially concerned about edge treatment and land use compatibility (heights, setbacks) between the proposed project and single family residences across Los Alamos (west) and Dinah Shore (south). Sight-line studies need to be done where any structures around the perimeter exceed our adopted 20'/1-story requirement (also see earlier discussion on density).

7. Noise – The traffic study will affect projected noise contour lines along perimeter arterial streets. The EIR needs to update the City's Noise Element in vicinity of the project where traffic volumes significantly increase.

8. Population & Housing – Affordable Housing needs to be addressed in the EIR. Discussion is needed and mitigation needs to be proposed related to how the project will accommodate the City's increase in future "fair share affordable" housing caused by approximately 3 million square feet of new commercial land uses. The City should not be burdened to accommodate State affordable housing requirements on non-tribal associated land in the upcoming RHNA and Housing Element cycle. Until such time that the State Department of Housing and Community Development (HCD) develops a policy to exclude land under jurisdiction of the Tribe from the regional Housing Needs Allocation (RHNA) numbers, mitigation would need to be provided in order to have a less than significant impact on the City in relation to affordable housing.

9. Public Services – An ambitious Specific Plan of this scale and magnitude will undoubtedly have a significant impact on the provision of public services. Significant impacts will likely impact all emergency services (police, fire, ambulance) and City provided facilities (library, recreational facilities). Emergency response times, capital improvements and staffing needs to be discussed. A substation location may need to be identified in order to maintain adequate response times. As the land is within the City's Sphere of Influence, the City would expect to both annex the land prior to development occurring, and annex said property into the Community Facilities District to mitigate the impacts on police and fire services. Similarly, mitigation would include requiring

development to contribute toward the City's Development Impact Fees for funding other improvements that residents and businesses in the Section would benefit from.

10. Recreational Resources - The impact and mitigation of City Recreational facilities needs to be discussed in the EIR. Consideration should be given for a public park within Section 24 for the benefit of future residents. Assuming that annexation occurs prior to development, mitigation may include payment of City Park Impact (Quimby) fees. If development occurs without annexation, there will be an unmitigated impact on City parkland.

11. Transportation & Traffic – Traffic & circulation needs to be modeled for both off-site and on-site build-out conditions. Proposed intersections with perimeter roads in Section 24 need to align with those already adopted as a part of the Section 19 Specific Plan.

    - Street intersections on perimeter streets should align with existing and those shown on existing planning documents. (May be shown that way, but not confirmed)
    - Intersection of Bob Hope Drive/Dinah shore drive should be developed to buildout configuration, which will require relocation of some high voltage power lines at the corner.
    - The City and County of Riverside have had to deal with continuous blowsand problems at the intersection of Bob Hope Drive/Dinah Shore Drive and along both streets. Development of a phased major project in the area should address that problem.
    - Los Alamos should be built out with landscaped medians.
    - The medians in this portion of Dinah Shore were landscaped by the City with minimized plantings to withstand the blowsand from the undeveloped parcels upwind. As these parcels are developed, the landscaping and lighting should be upgraded.
    - With the addition of over 3 million square feet of commercial and 2,000 dwelling units, all intersections and road segments within a mile of the project site should be studied including the impact on the newly completed Bob Hope freeway bridge and Ramon Road.

12. Utilities and Service Systems - The quantity and capacity of service systems needs to be analyzed (water, sewer, gas, electric, telecommunications; also see comments under Hydrology). We prefer a comprehensively designed storm drain system on-site rather than a series of smaller independent basins.

We hope to work with the Tribe on a wide variety of issues in common in the future and we are committed to a mutually beneficial working relationship. If you would like to meet to discuss our comments, please give me a call at 760-328-2266.
Sincerely,

Bud Kopp, AICP
Planning Manager

Cc: Randal K. Bynder, City Manager
Curt Watts, Development Services Director

South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

February 14, 2014

Margaret Park, AICP
Director of Planning and Natural Resources
5401 Dinah Shore Drive
Palm Springs, CA 92264

Notice of Preparation of a NEPA Document for the
Section 24 Specific Plan, Riverside County

The South Coast Air Quality Management District (SCAQMD) staff appreciates the opportunity to comment on the above-mentioned document. The SCAQMD staff's comments are recommendations regarding the analysis of potential air quality impacts from the proposed project that should be included in the draft NEPA document. Please send the SCAQMD a copy of the Draft EIR upon its completion. Note that copies of the Draft EIR that are submitted to the State Clearinghouse are not forwarded to the SCAQMD. Please forward a copy of the Draft EIR directly to SCAQMD at the address in our letterhead. **In addition, please send with the draft EIR all appendices or technical documents related to the air quality and greenhouse gas analyses and electronic versions of all air quality modeling and health risk assessment files. These include original emission calculation spreadsheets and modeling files (not Adobe PDF files). Without all files and supporting air quality documentation, the SCAQMD will be unable to complete its review of the air quality analysis in a timely manner. Any delays in providing all supporting air quality documentation will require additional time for review beyond the end of the comment period.**

Air Quality Analysis

The SCAQMD adopted its California Environmental Quality Act (CEQA) Air Quality Handbook in 1993 to assist other public agencies with the preparation of air quality analyses. The SCAQMD recommends that the Lead Agency use this Handbook as guidance when preparing its air quality analysis. Copies of the Handbook are available from the SCAQMD's Subscription Services Department by calling (909) 396-3720. More recent guidance developed since this Handbook was published is also available on SCAQMD's website here: www.aqmd.gov/ceqa/hdbk.html. SCAQMD staff also recommends that the lead agency use the CalEEMod land use emissions software. This software has recently been updated to incorporate up-to-date state and locally approved emission factors and methodologies for estimating pollutant emissions from typical land use development. CalEEMod is the only software model maintained by the California Air Pollution Control Officers Association (CAPCOA) and replaces the now outdated URBEMIS. This model is available free of charge at: www.caleemod.com.

The Lead Agency should identify any potential adverse air quality impacts that could occur from all phases of the project and all air pollutant sources related to the project. Air quality impacts from both construction (including demolition, if any) and operations should be calculated. Construction-related air quality impacts typically include, but are not limited to, emissions from the use of heavy-duty equipment from grading, earth-loading/unloading, paving, architectural coatings, off-road mobile sources (e.g., heavy-duty construction equipment) and on-road mobile sources (e.g., construction worker vehicle trips, material transport trips). Operation-related air quality impacts may include, but are not limited to, emissions from stationary sources (e.g., boilers), area sources (e.g., solvents and coatings), and vehicular trips (e.g., on- and off-road tailpipe emissions and entrained dust). Air quality impacts from indirect sources, that is, sources that generate or attract vehicular trips should be included in the analysis.

The SCAQMD has also developed both regional and localized significance thresholds. The SCAQMD staff requests that the lead agency quantify criteria pollutant emissions and compare the results to the recommended regional significance thresholds found here: http://www.aqmd.gov/ceqa/handbook/signthres.pdf. In addition to analyzing regional air quality impacts, the SCAQMD staff recommends calculating localized air quality impacts and comparing the results to localized significance thresholds (LSTs). LST's can be used in addition to the recommended regional significance thresholds as a second indication of air quality impacts when preparing a CEQA document. Therefore,

when preparing the air quality analysis for the proposed project, it is recommended that the lead agency perform a localized analysis by either using the LSTs developed by the SCAQMD or performing dispersion modeling as necessary. Guidance for performing a localized air quality analysis can be found at: http://www.aqmd.gov/ceqa/handbook/LST/LST.html.

In the event that the proposed project generates or attracts vehicular trips, especially heavy-duty diesel-fueled vehicles, it is recommended that the lead agency perform a mobile source health risk assessment. Guidance for performing a mobile source health risk assessment ("*Health Risk Assessment Guidance for Analyzing Cancer Risk from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis*") can be found at: http://www.aqmd.gov/ceqa/handbook/mobile_toxic/mobile_toxic.html. An analysis of all toxic air contaminant impacts due to the use of equipment potentially generating such air pollutants should also be included.

In addition, guidance on siting incompatible land uses (such as placing homes near freeways) can be found in the California Air Resources Board's *Air Quality and Land Use Handbook: A Community Perspective*, which can be found at the following internet address: http://www.arb.ca.gov/ch/handbook.pdf. CARB's Land Use Handbook is a general reference guide for evaluating and reducing air pollution impacts associated with new projects that go through the land use decision-making process.

Mitigation Measures

In the event that the project generates significant adverse air quality impacts, CEQA requires that all feasible mitigation measures that go beyond what is required by law be utilized during project construction and operation to minimize or eliminate these impacts. Pursuant to state CEQA Guidelines §15126.4 (a)(1)(D), any impacts resulting from mitigation measures must also be discussed. Several resources are available to assist the Lead Agency with identifying possible mitigation measures for the project, including:

- Chapter 11 of the SCAQMD *CEQA Air Quality Handbook*
- SCAQMD's CEQA web pages at: www.aqmd.gov/ceqa/handbook/mitigation/MM_intro.html
- CAPCOA's *Quantifying Greenhouse Gas Mitigation Measures* available here: http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf.
- SCAQMD's Rule 403 – Fugitive Dust, and the Implementation Handbook for controlling construction-related emissions
- Other measures to reduce air quality impacts from land use projects can be found in the SCAQMD's Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning. This document can be found at the following internet address: http://www.aqmd.gov/prdas/aqguide/aqguide.html.

Data Sources

SCAQMD rules and relevant air quality reports and data are available by calling the SCAQMD's Public Information Center at (909) 396-2039. Much of the information available through the Public Information Center is also available via the SCAQMD's webpage (http://www.aqmd.gov).

The SCAQMD staff is available to work with the Lead Agency to ensure that project emissions are accurately evaluated and mitigated where feasible. If you have any questions regarding this letter, please contact me at imacmillan@aqmd.gov or call me at (909) 396-3244.

Sincerely,

Ian MacMillan
Program Supervisor, CEQA Inter-Governmental Review
Planning, Rule Development & Area Sources

RVC140116-04
Control Number

SOUTHERN CALIFORNIA
ASSOCIATION of GOVERNMENTS

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February 14, 2014

Ms. Margaret Park, AICP
Director of Planning and Natural Resources
5401 Dinah Shore Drive
Palm Springs, CA 92264
mpark@aguacaliente-nsn.gov

RE: SCAG Comments on the Notice of Preparation of an Environmental Impact Report for the Section 24 Specific Plan [IGR7956]

Dear Ms. Park:

Thank you for submitting the Notice of Preparation of an Environmental Impact Report for the Section 24 Specific Plan to the Southern California Association of Governments (SCAG) for review and comment. SCAG is the authorized regional agency for Inter-Governmental Review (IGR) of programs proposed for federal financial assistance and direct development activities, pursuant to Presidential Executive Order 12372. Additionally, SCAG reviews the Environmental Impact Reports of projects of regional significance for consistency with regional plans pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines.

SCAG is also the designated Regional Transportation Planning Agency under state law, and is responsible for preparation of the Regional Transportation Plan (RTP) including its Sustainable Communities Strategy (SCS) component pursuant to SB 375. As the clearinghouse for regionally significant projects per Executive Order 12372, SCAG reviews the consistency of local plans, projects, and programs with regional plans.[1] Guidance provided by these reviews is intended to assist local agencies and project sponsors to take actions that contribute to the attainment of the regional goals and policies in the RTP/SCS.

SCAG staff has reviewed the Notice of Preparation of an Environmental Impact Report for the Section 24 Specific Plan. The proposed project is the development of a mix of retail, entertainment, office, hotel and residential uses located within the boundaries of the Agua Caliente Indian Reservation located within the Sphere of Influence of the City of Rancho Mirage.

When available, please send environmental documentation to SCAG's *office in Los Angeles or by email to leep@scag.ca.gov* providing, at a minimum, the full comment period for review. If you have any questions regarding the attached comments, please contact Pamela Lee at (213) 236-1895 or leep@scag.ca.gov. Thank you.

Sincerely,

Jonathan Nadler,
Manager, Compliance and Performance Assessment

[1] SB 375 amends CEQA to add Chapter 4.2 Implementation of the Sustainable Communities Strategy, which allows for certain CEQA streamlining for projects consistent with the RTP/SCS. Lead agencies (including local jurisdictions) maintain the discretion and will be solely responsible for determining "consistency" of any future project with the SCS. Any "consistency" finding by SCAG pursuant to the IGR process should not be construed as a finding of consistency under SB 375 for purposes of CEQA streamlining.

COMMENTS ON THE NOTICE OF PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT FOR THE SECTION 24 SPECIFIC PLAN [SCAG NO. IGR7956]

CONSISTENCY WITH RTP/SCS

SCAG reviews environmental documents for regionally significant projects for their consistency with the adopted RTP/SCS.

RTP/SCS Goals

The 2012 RTP/SCS links the goal of sustaining mobility with the goals of fostering economic development, enhancing the environment, reducing energy consumption, promoting transportation-friendly development patterns, and encouraging fair and equitable access to residents affected by socio-economic, geographic and commercial limitations (see http://rtpscs.scag.ca.gov). The goals included in the 2012 RTP/SCS may be pertinent to the proposed project. These goals are meant to provide guidance for considering the proposed project within the context of regional goals and policies. Among the relevant goals of the 2012 RTP/SCS are the following:

SCAG 2012 RTP/SCS GOALS	
RTP/SCS G1:	*Align the plan investments and policies with improving regional economic development and competitiveness*
RTP/SCS G2:	*Maximize mobility and accessibility for all people and goods in the region*
RTP/SCS G3:	*Ensure travel safety and reliability for all people and goods in the region*
RTP/SCS G4:	*Preserve and ensure a sustainable regional transportation system*
RTP/SCS G5:	*Maximize the productivity of our transportation system*
RTP/SCS G6:	*Protect the environment and health for our residents by improving air quality and encouraging active transportation (non-motorized transportation, such as bicycling and walking)*
RTP/SCS G7:	*Actively encourage and create incentives for energy efficiency, where possible*
RTP/SCS G8:	*Encourage land use and growth patterns that facilitate transit and non-motorized transportation*
RTP/SCS G9:	*Maximize the security of the regional transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies*

For ease of review, we encourage the use of a side-by-side comparison of SCAG goals with discussions of the consistency, non-consistency or non-applicability of the policy and supportive analysis in a table format. Suggested format is as follows:

SCAG 2012 RTP/SCS Goals		
Goal		Analysis
RTP/SCS G1:	*Align the plan investments and policies with improving regional economic development and competitiveness.*	*Consistent: Statement as to why* *Not-Consistent: Statement as to why* *or* *Not Applicable: Statement as to why* *DEIR page number reference*
RTP/SCS G2:	*Maximize mobility and accessibility for all people and goods in the region.*	*Consistent: Statement as to why* *Not-Consistent: Statement as to why* *or* *Not Applicable: Statement as to why* *DEIR page number reference*
etc.	etc.	etc.

RTP/SCS Strategies

To achieve the goals of the 2012 RTP/SCS, a wide range of strategies are included in SCS Chapter (starting on page 152) of the RTP/SCS focusing on four key areas: 1) Land Use Actions and Strategies; 2) Transportation Network Actions and Strategies; 3) Transportation Demand Management (TDM) Actions and Strategies and; 4) Transportation System Management (TSM) Actions and Strategies. If applicable to the proposed project, please refer to these strategies as guidance for considering the proposed project within the context of regional goals and policies. To access a listing of the strategies, please visit http://rtpscs.scag.ca.gov/Documents/2012/final/f2012RTPSCS.pdf (Tables 4.3 – 4.7, beginning on page 152).

Regional Growth Forecasts

The Draft EIR for the Section 24 Specific Plan should reflect the most recently adopted SCAG forecasts (see http://scag.ca.gov/Documents/2012AdoptedGrowthForecastPDF.pdf), which consists of the 2012 RTP/SCS population, household and employment forecasts. The forecasts for the region and applicable jurisdictions are below.

	Adopted SCAG Region Wide Forecasts		Adopted Unincorporated Riverside County Forecasts	
Forecast	Year 2020	Year 2035	Year 2020	Year 2035
Population	19,663,000	22,091,000	43,500	58,100
Households	6,458,000	7,325,000	15,400	20,900
Employment	8,414,000	9,441,000	5,100	6,900

MITIGATION

SCAG staff recommends that you review the SCAG 2012 RTP/SCS Final Program EIR Mitigation Measures for guidance, as appropriate. See Chapter 6 (beginning on page 143) at:
http://rtpscs.scag.ca.gov/Documents/peir/2012/final/Final2012PEIR.pdf

As referenced in Chapter 6, a comprehensive list of example mitigation measures that may be considered as appropriate is included in Appendix G: *Examples of Measures that Could Reduce Impacts from Planning, Development and Transportation Projects.* Appendix G can be accessed at:
http://rtpscs.scag.ca.gov/Documents/peir/2012/final/2012fPEIR_AppendixG_ExampleMeasures.pdf

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL™ Company

Jennifer Cusack
Local Public Affairs
36100 Cathedral Canyon Drive
Cathedral City, CA 92234

February 14, 2014

Margaret Park, AICP
Director of Planning and Natural Resources
5401 Dinah Shore Drive
Palm Springs, CA 92264

Re: Section 24 Specific Plan

Dear Margaret:

Southern California Edison (SCE) appreciates the opportunity to review and provide comments on the Notice of Intent to prepare an Environmental Impact Statement (EIS) for the Section 24 Specific Plan. The project would include the development of a mix of retail, entertainment, office, hotel, and residential uses intended to complement existing and planned surrounding uses in the City of Rancho Mirage. There are eight planning areas and a circulation system planned. The Specific Plan would allow a maximum of 2,406 residential dwelling units and 3,138,000 square feet of commercial development.

SCE is the electrical service provider for the project area and maintains an electrical system that consists of a network of electrical facilities (transmission, distribution, and supporting appurtenances). SCE has not evaluated the electric service requirements for the proposed project. Based on the scope of the project, it may require upgrades to SCE's electric system and infrastructure. To initiate the service evaluation, SCE requests that the project developer contact our Tract Planning Department at (909) 421-6433.

The proposed project has the potential to impact SCE's overhead and underground 115 kilovolt (kV) sub-transmission lines on the north side of Dinah Shore and the east side of Bob Hope Drive, as well as SCE's exclusive easement(s) and/or fee owned property. If the proposed project results in the need to relocate or build new SCE electrical facilities that operate at or above 50 kV, SCE may be subject to California Public Utilities Commission's (CPUC) General Order (GO) 131-D process. Please be advised, should the construction of SCE's facilities result in significant environmental impacts, such impacts should be thoroughly described and evaluated in this EIS. If SCE does not have any other applicable exemption from the CPUC's GO 131-D Permit to Construct application requirements SCE may need to consult with the CPUC to determine whether the CPUC would allow for the project to proceed exempt or if SCE would instead be required to file a Permit to Construct application and attach the final NEPA document in lieu of its own Proponents Environmental Assessment.

Impacts to SCE's facilities will need to be consented to and addressed prior to finalizing the Plan of Development. Please forward five (5) sets of plans depicting SCE's facilities and associated land rights to the following location:

Real Properties Department
Southern California Edison Company
2131 Walnut Grove Avenue
G.O.3 – Second Floor
Rosemead, CA 91770

If you have any questions regarding this letter, please do not hesitate to contact me at Jennifer.Cusack@sce.com or (760) 202-4211.

Regards,

Jennifer Cusack
Local Public Affairs Region Manager
Southern California Edison Company

SunLine TRANSIT AGENCY

A Public Agency

MEMBERS: Desert Hot Springs Palm Springs Cathedral City Rancho Mirage
Palm Desert Indian Wells La Quinta Indio Coachella Riverside County

February 18, 2014

Ms. Margaret Park, AICP
Director of Planning & Natural Resources
Agua Caliente Band of Cahuilla Indians
5401 Dinah Shore Drive
Palm Springs, CA 92262

Re: Section 24 Specific Plan

Dear Ms. Park:

The SunLine Transit Agency (SunLine) would like to thank you for the opportunity to review and comment on the Agua Caliente Cultural Museum Project. SunLine staff has reviewed the report and offers the following suggestions.

The project is located on the 577-acre portion of Section 24 bound by Ramon Road on the north, Bob Hope Drive on the east, Dinah Shore Drive on the south, and Los Alamos Road on the west. SunLine does not currently provide bus service near the proposed project. Based on our review of existing transit amenities in the vicinity, SunLine has two existing bus stops near the development plan, which offer service to Line 32. Bus stop (#450) is located at the northeast corner of Ramon Road near Bob Hope Drive and bus stop (#945) is located at the southwest corner of Ramon Road and Bob Hope Drive near the entrance to the Agua Caliente Casino Resort and Spa.

Provisions should be made by the developer to ensure that a bus stop is installed at a location Ramon Road northbound farside of Los Alamos. It is understood that this intersection will be signalized with provision for pedestrians to cross to a bus stop on southbound Ramon Road. Furthermore, the developer for this project should be required to construct additional amenities including bus turnout and bus shelter, ideally for both sides of Ramon Road at Los Alamos.

In addition, if the proposed development should impact any bus stops and/or service provided by SunLine, the developer must contact SunLine 15 days prior to beginning of construction. This will give SunLine the sufficient time needed to schedule the bus stop removal as well as inform passengers of any change in service.

32-505 Harry Oliver Trail, Thousand Palms, California 92276 Phone 760-343-3456 Fax 760-343-1986 www.sunline.org

Should you have questions or concerns regarding this letter, please contact me at (760) 343-3456, ext. 162.

Sincerely,

Phenvana Panpradith
Transit Grants Analyst

cc: Lauren L. Skiver, General Manager
Joseph Forgiarini, Director of Transit Planning
Anita M. Petke, Transit Planning Assistant
Dan Malcolm, Senior Planner, Agua Caliente Band of Cahuilla Indians

APPENDIX B

Air Quality and Greenhouse Gas Emissions Model Output

Active Adult Community (Planning Area 8)

Salton Sea Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	25.00	Acre	25.00	1,089,000.00	0
Parking Lot	425.00	Space	3.82	170,000.00	0
City Park	7.00	Acre	7.00	304,920.00	0
User Defined Recreational	78.00	User Defined Unit	0.00	0.00	0
User Defined Recreational	0.00	User Defined Unit	0.00	23,000.00	0
Single Family Housing	1,200.00	Dwelling Unit	234.00	2,160,000.00	2340

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.4	**Precipitation Freq (Days)**	20
Climate Zone	10			**Operational Year**	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Population based on 1.95 factor
Private Park 7 acres
25 acres of road right of way
23,000 sf = clubhouse

Construction Phase - Construction Assumptions

Off-road Equipment -

Off-road Equipment - no cranes

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Construction assumptions

Off-road Equipment - Typical equipment used for trenching of utilities

Trips and VMT - Construction assumptions from CalEEMod User's Guide

On-road Fugitive Dust - 100% paved roads

Grading - clearance of any vegetation on the site

Architectural Coating -

Vehicle Trips - Private City Park/Open Space

Vechicle Emission Factors -

Vechicle Emission Factors -

Vechicle Emission Factors -

Road Dust - 100% paved road

Woodstoves - No woodstoves

Area Coating -

Water And Wastewater - Calculated

Land Use Change -

Sequestration -

Construction Off-road Equipment Mitigation - Per SCAQMD, All off-road diesel powered construction equipment greater than 50 hp shall meet Tier 4 emission standards, where available
Fugitive Dust requirements per SCAQMD Rule 403 and 403.1

Mobile Land Use Mitigation - 3.75 units per acre
12.7 low penetration NEV network

Mobile Commute Mitigation -

Area Mitigation - Per SCAQMD Rule 1113

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	50
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	80
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim

tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	330.00	1,385.00
tblConstructionPhase	NumDays	4,650.00	1,044.00
tblConstructionPhase	NumDays	465.00	180.00
tblConstructionPhase	NumDays	330.00	120.00
tblConstructionPhase	NumDays	180.00	20.00
tblConstructionPhase	PhaseEndDate	3/15/2022	7/22/2022
tblConstructionPhase	PhaseEndDate	11/20/2020	11/22/2016
tblConstructionPhase	PhaseEndDate	1/6/2023	5/7/2021
tblConstructionPhase	PhaseEndDate	1/20/2017	11/21/2016
tblConstructionPhase	PhaseStartDate	11/23/2016	4/1/2017
tblConstructionPhase	PhaseStartDate	7/23/2022	11/23/2020
tblConstructionPhase	PhaseStartDate	8/6/2016	6/7/2016
tblFireplaces	FireplaceWoodMass	457.60	0.00
tblFireplaces	NumberGas	1,020.00	400.00
tblFireplaces	NumberNoFireplace	60.00	0.00
tblFireplaces	NumberWood	120.00	0.00
tblLandUse	LandUseSquareFeet	0.00	23,000.00

tblLandUse	LotAcreage	389.61	234.00
tblLandUse	Population	3,876.00	2,340.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	7.00	0.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblProjectCharacteristics	OperationalYear	2014	2022
tblRoadDust	RoadPercentPave	50	100
tblSequestration	NumberOfNewTrees	0.00	150.00
tblTripsAndVMT	VendorTripNumber	388.00	129.00
tblTripsAndVMT	WorkerTripNumber	1,099.00	432.00
tblTripsAndVMT	WorkerTripNumber	220.00	90.00

tblVehicleTrips	ST_TR	10.08	6.14
tblVehicleTrips	SU_TR	8.77	5.35
tblVehicleTrips	WD_TR	9.57	3.73
tblWater	IndoorWaterUseRate	78,184,830.75	157,680,000.00
tblWater	IndoorWaterUseRate	0.00	1,413,645.00
tblWater	OutdoorWaterUseRate	8,340,369.45	36,886,345.00
tblWater	OutdoorWaterUseRate	49,290,436.77	157,680,000.00
tblWoodstoves	NumberCatalytic	60.00	0.00
tblWoodstoves	NumberNoncatalytic	60.00	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2015	0.1359	1.5202	1.0632	1.1700e-003	0.9647	0.0765	1.0413	0.4239	0.0704	0.4943	0.0000	110.9949	110.9949	0.0324	0.0000	111.6756
2016	0.6840	7.5223	4.8506	6.9900e-003	0.8030	0.3569	1.1600	0.3297	0.3288	0.6585	0.0000	650.8804	650.8804	0.1906	0.0000	654.8829
2017	7.1432	0.2608	0.6360	1.1300e-003	0.0725	0.0174	0.0899	0.0193	0.0173	0.0366	0.0000	84.2980	84.2980	6.1900e-003	0.0000	84.4280
2018	9.5522	0.3204	0.7945	1.5100e-003	0.0971	0.0203	0.1174	0.0258	0.0202	0.0460	0.0000	109.7605	109.7605	7.6100e-003	0.0000	109.9204
2019	9.5446	0.2937	0.7516	1.5100e-003	0.0971	0.0174	0.1145	0.0258	0.0174	0.0432	0.0000	106.8905	106.8905	7.0200e-003	0.0000	107.0379
2020	9.6046	0.4723	0.9367	1.8600e-003	0.0993	0.0259	0.1252	0.0264	0.0250	0.0513	0.0000	134.0320	134.0320	0.0159	0.0000	134.3654
2021	9.6207	0.8262	1.3720	2.5900e-003	0.1027	0.0432	0.1459	0.0273	0.0407	0.0680	0.0000	196.0746	196.0746	0.0353	0.0000	196.8148
2022	5.2949	0.1278	0.3725	8.4000e-004	0.0539	6.2700e-003	0.0602	0.0143	6.2500e-003	0.0206	0.0000	56.5787	56.5787	3.3100e-003	0.0000	56.6482
Total	**51.5799**	**11.3438**	**10.7771**	**0.0176**	**2.2905**	**0.5639**	**2.8543**	**0.8923**	**0.5261**	**1.4184**	**0.0000**	**1,449.5095**	**1,449.5095**	**0.2983**	**0.0000**	**1,455.7732**

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2015	0.0208	0.3701	0.7161	1.1700e-003	0.3572	1.8700e-003	0.3591	0.1571	1.8700e-003	0.1589	0.0000	110.9947	110.9947	0.0324	0.0000	111.6755
2016	0.1201	2.1609	4.1626	6.9900e-003	0.2961	0.0125	0.3086	0.1221	0.0124	0.1345	0.0000	650.8796	650.8796	0.1906	0.0000	654.8821
2017	7.1161	0.1511	0.6325	1.1300e-003	0.0222	8.5000e-004	0.0231	6.9000e-003	8.2000e-004	7.7200e-003	0.0000	84.2980	84.2980	6.1900e-003	0.0000	84.4280
2018	9.5203	0.1970	0.7917	1.5100e-003	0.0297	1.1300e-003	0.0308	9.2400e-003	1.0900e-003	0.0103	0.0000	109.7604	109.7604	7.6100e-003	0.0000	109.9204
2019	9.5170	0.1925	0.7504	1.5100e-003	0.0297	1.1300e-003	0.0308	9.2400e-003	1.0900e-003	0.0103	0.0000	106.8905	106.8905	7.0200e-003	0.0000	107.0379
2020	9.5654	0.3332	0.9742	1.8600e-003	0.0304	1.6800e-003	0.0321	9.4400e-003	1.6300e-003	0.0111	0.0000	134.0319	134.0319	0.0159	0.0000	134.3653
2021	9.5581	0.6363	1.4911	2.5900e-003	0.0314	2.8400e-003	0.0343	9.7700e-003	2.7900e-003	0.0126	0.0000	196.0745	196.0745	0.0353	0.0000	196.8146
2022	5.2840	0.1025	0.3738	8.4000e-004	0.0165	6.4000e-004	0.0171	5.1300e-003	6.1000e-004	5.7400e-003	0.0000	56.5787	56.5787	3.3100e-003	0.0000	56.6482
Total	**50.7019**	**4.1435**	**9.8924**	**0.0176**	**0.8133**	**0.0226**	**0.8358**	**0.3288**	**0.0223**	**0.3512**	**0.0000**	**1,449.5083**	**1,449.5083**	**0.2983**	**0.0000**	**1,455.7720**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**1.70**	**63.47**	**8.21**	**0.00**	**64.49**	**95.99**	**70.72**	**63.15**	**95.76**	**75.24**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	19.9620	0.1029	8.9264	4.7000e-004		0.0713	0.0713		0.0711	0.0711	0.0000	329.6240	329.6240	0.0201	5.7800e-003	331.8369
Energy	0.2185	1.8671	0.7945	0.0119		0.1510	0.1510		0.1510	0.1510	0.0000	4,842.3187	4,842.3187	0.1646	0.0651	4,865.9665
Mobile	2.7237	6.5681	31.2295	0.0676	4.4253	0.1318	4.5571	1.1824	0.1214	1.3038	0.0000	4,663.4261	4,663.4261	0.1722	0.0000	4,667.0419
Waste						0.0000	0.0000		0.0000	0.0000	194.8713	0.0000	194.8713	11.5166	0.0000	436.7192
Water						0.0000	0.0000		0.0000	0.0000	50.4731	1,211.3990	1,261.8720	5.2398	0.1339	1,413.4245
Total	**22.9041**	**8.5381**	**40.9505**	**0.0800**	**4.4253**	**0.3540**	**4.7793**	**1.1824**	**0.3435**	**1.5258**	**245.3444**	**11,046.7679**	**11,292.1122**	**17.1133**	**0.2048**	**11,714.9889**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	14.7837	0.0923	7.8654	3.9000e-004		0.0651	0.0651		0.0648	0.0648	0.0000	327.4587	327.4587	0.0168	5.7800e-003	329.6017
Energy	0.1915	1.6364	0.6963	0.0105		0.1323	0.1323		0.1323	0.1323	0.0000	4,034.7498	4,034.7498	0.1347	0.0551	4,054.6567
Mobile	2.4970	4.9971	25.6274	0.0467	2.9946	0.0922	3.0868	0.8001	0.0850	0.8851	0.0000	3,220.6144	3,220.6144	0.1237	0.0000	3,223.2126
Waste						0.0000	0.0000		0.0000	0.0000	48.7178	0.0000	48.7178	2.8791	0.0000	109.1798
Water						0.0000	0.0000		0.0000	0.0000	40.3785	952.6588	993.0372	4.1911	0.1070	1,114.2148
Total	**17.4722**	**6.7258**	**34.1891**	**0.0575**	**2.9946**	**0.2896**	**3.2842**	**0.8001**	**0.2821**	**1.0822**	**89.0963**	**8,535.4818**	**8,624.5781**	**7.3454**	**0.1679**	**8,830.8657**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**23.72**	**21.23**	**16.51**	**28.05**	**32.33**	**18.22**	**31.28**	**32.33**	**17.87**	**29.07**	**63.69**	**22.73**	**23.62**	**57.08**	**18.05**	**24.62**

2.3 Vegetation

Vegetation

	CO2e
Category	MT
New Trees	106.2000
Total	**106.2000**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/1/2015	11/27/2015	5	20	
2	Grading	Grading	11/28/2015	8/5/2016	5	180	
3	Utilities	Trenching	6/7/2016	11/21/2016	5	120	
4	Building Construction	Building Construction	11/22/2016	11/22/2016	5	1044	
5	Architectural Coating	Architectural Coating	4/1/2017	7/22/2022	5	1385	
6	Paving	Paving	11/23/2020	5/7/2021	5	120	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 450

Acres of Paving: 0

Residential Indoor: 4,374,000; Residential Outdoor: 1,458,000; Non-Residential Indoor: 2,133,030; Non-Residential Outdoor: 711,010 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Utilities	Forklifts	1	4.00	89	0.20
Utilities	Off-Highway Trucks	2	8.00	400	0.38
Utilities	Signal Boards	1	8.00	6	0.82
Utilities	Trenchers	1	6.00	80	0.50
Utilities	Welders	1	4.00	46	0.45
Building Construction	Cranes	0	0.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Utilities	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	432.00	129.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	90.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Site Preparation - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0526	0.5689	0.4263	3.9000e-004		0.0309	0.0309		0.0284	0.0284	0.0000	37.3011	37.3011	0.0111	0.0000	37.5350
Total	**0.0526**	**0.5689**	**0.4263**	**3.9000e-004**	**0.1807**	**0.0309**	**0.2115**	**0.0993**	**0.0284**	**0.1277**	**0.0000**	**37.3011**	**37.3011**	**0.0111**	**0.0000**	**37.5350**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.5000e-004	1.1900e-003	0.0115	2.0000e-005	1.4900e-003	1.0000e-005	1.5000e-003	4.0000e-004	1.0000e-005	4.0000e-004	0.0000	1.3213	1.3213	9.0000e-005	0.0000	1.3231
Total	**8.5000e-004**	**1.1900e-003**	**0.0115**	**2.0000e-005**	**1.4900e-003**	**1.0000e-005**	**1.5000e-003**	**4.0000e-004**	**1.0000e-005**	**4.0000e-004**	**0.0000**	**1.3213**	**1.3213**	**9.0000e-005**	**0.0000**	**1.3231**

3.2 Site Preparation - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0669	0.0000	0.0669	0.0368	0.0000	0.0368	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.1000e-003	0.1238	0.2340	3.9000e-004		6.3000e-004	6.3000e-004		6.3000e-004	6.3000e-004	0.0000	37.3011	37.3011	0.0111	0.0000	37.5349
Total	**7.1000e-003**	**0.1238**	**0.2340**	**3.9000e-004**	**0.0669**	**6.3000e-004**	**0.0676**	**0.0368**	**6.3000e-004**	**0.0374**	**0.0000**	**37.3011**	**37.3011**	**0.0111**	**0.0000**	**37.5349**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.5000e-004	1.1900e-003	0.0115	2.0000e-005	4.6000e-004	1.0000e-005	4.7000e-004	1.4000e-004	1.0000e-005	1.5000e-004	0.0000	1.3213	1.3213	9.0000e-005	0.0000	1.3231
Total	**8.5000e-004**	**1.1900e-003**	**0.0115**	**2.0000e-005**	**4.6000e-004**	**1.0000e-005**	**4.7000e-004**	**1.4000e-004**	**1.0000e-005**	**1.5000e-004**	**0.0000**	**1.3213**	**1.3213**	**9.0000e-005**	**0.0000**	**1.3231**

3.3 Grading - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.7806	0.0000	0.7806	0.3237	0.0000	0.3237	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0813	0.9486	0.6101	7.4000e-004		0.0456	0.0456		0.0420	0.0420	0.0000	70.6107	70.6107	0.0211	0.0000	71.0533
Total	**0.0813**	**0.9486**	**0.6101**	**7.4000e-004**	**0.7806**	**0.0456**	**0.8262**	**0.3237**	**0.0420**	**0.3657**	**0.0000**	**70.6107**	**70.6107**	**0.0211**	**0.0000**	**71.0533**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1400e-003	1.5900e-003	0.0153	2.0000e-005	1.9800e-003	1.0000e-005	2.0000e-003	5.3000e-004	1.0000e-005	5.4000e-004	0.0000	1.7618	1.7618	1.1000e-004	0.0000	1.7642
Total	**1.1400e-003**	**1.5900e-003**	**0.0153**	**2.0000e-005**	**1.9800e-003**	**1.0000e-005**	**2.0000e-003**	**5.3000e-004**	**1.0000e-005**	**5.4000e-004**	**0.0000**	**1.7618**	**1.7618**	**1.1000e-004**	**0.0000**	**1.7642**

3.3 Grading - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2892	0.0000	0.2892	0.1199	0.0000	0.1199	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0117	0.2435	0.4553	7.4000e-004		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003	0.0000	70.6106	70.6106	0.0211	0.0000	71.0533
Total	**0.0117**	**0.2435**	**0.4553**	**7.4000e-004**	**0.2892**	**1.2100e-003**	**0.2904**	**0.1199**	**1.2100e-003**	**0.1211**	**0.0000**	**70.6106**	**70.6106**	**0.0211**	**0.0000**	**71.0533**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1400e-003	1.5900e-003	0.0153	2.0000e-005	6.1000e-004	1.0000e-005	6.2000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	1.7618	1.7618	1.1000e-004	0.0000	1.7642
Total	**1.1400e-003**	**1.5900e-003**	**0.0153**	**2.0000e-005**	**6.1000e-004**	**1.0000e-005**	**6.2000e-004**	**1.9000e-004**	**1.0000e-005**	**2.0000e-004**	**0.0000**	**1.7618**	**1.7618**	**1.1000e-004**	**0.0000**	**1.7642**

3.3 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.7806	0.0000	0.7806	0.3237	0.0000	0.3237	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5054	5.8355	3.8327	4.8100e-003		0.2796	0.2796		0.2572	0.2572	0.0000	453.9267	453.9267	0.1369	0.0000	456.8020
Total	**0.5054**	**5.8355**	**3.8327**	**4.8100e-003**	**0.7806**	**0.2796**	**1.0602**	**0.3237**	**0.2572**	**0.5809**	**0.0000**	**453.9267**	**453.9267**	**0.1369**	**0.0000**	**456.8020**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.6300e-003	9.3400e-003	0.0893	1.5000e-004	0.0129	9.0000e-005	0.0130	3.4200e-003	8.0000e-005	3.5000e-003	0.0000	11.0109	11.0109	6.8000e-004	0.0000	11.0252
Total	**6.6300e-003**	**9.3400e-003**	**0.0893**	**1.5000e-004**	**0.0129**	**9.0000e-005**	**0.0130**	**3.4200e-003**	**8.0000e-005**	**3.5000e-003**	**0.0000**	**11.0109**	**11.0109**	**6.8000e-004**	**0.0000**	**11.0252**

3.3 Grading - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2892	0.0000	0.2892	0.1199	0.0000	0.1199	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0763	1.5825	2.9596	4.8100e-003		7.8700e-003	7.8700e-003		7.8700e-003	7.8700e-003	0.0000	453.9261	453.9261	0.1369	0.0000	456.8015
Total	**0.0763**	**1.5825**	**2.9596**	**4.8100e-003**	**0.2892**	**7.8700e-003**	**0.2971**	**0.1199**	**7.8700e-003**	**0.1278**	**0.0000**	**453.9261**	**453.9261**	**0.1369**	**0.0000**	**456.8015**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.6300e-003	9.3400e-003	0.0893	1.5000e-004	3.9500e-003	9.0000e-005	4.0300e-003	1.2300e-003	8.0000e-005	1.3100e-003	0.0000	11.0109	11.0109	6.8000e-004	0.0000	11.0252
Total	**6.6300e-003**	**9.3400e-003**	**0.0893**	**1.5000e-004**	**3.9500e-003**	**9.0000e-005**	**4.0300e-003**	**1.2300e-003**	**8.0000e-005**	**1.3100e-003**	**0.0000**	**11.0109**	**11.0109**	**6.8000e-004**	**0.0000**	**11.0252**

3.4 Utilities - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1652	1.6556	0.8481	1.9000e-003		0.0763	0.0763		0.0706	0.0706	0.0000	176.1334	176.1334	0.0523	0.0000	177.2309
Total	**0.1652**	**1.6556**	**0.8481**	**1.9000e-003**		**0.0763**	**0.0763**		**0.0706**	**0.0706**	**0.0000**	**176.1334**	**176.1334**	**0.0523**	**0.0000**	**177.2309**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8200e-003	5.3900e-003	0.0515	9.0000e-005	7.4400e-003	5.0000e-005	7.4900e-003	1.9800e-003	5.0000e-005	2.0200e-003	0.0000	6.3524	6.3524	3.9000e-004	0.0000	6.3607
Total	**3.8200e-003**	**5.3900e-003**	**0.0515**	**9.0000e-005**	**7.4400e-003**	**5.0000e-005**	**7.4900e-003**	**1.9800e-003**	**5.0000e-005**	**2.0200e-003**	**0.0000**	**6.3524**	**6.3524**	**3.9000e-004**	**0.0000**	**6.3607**

3.4 Utilities - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0316	0.5529	1.0336	1.9000e-003		4.3000e-003	4.3000e-003		4.3000e-003	4.3000e-003	0.0000	176.1332	176.1332	0.0523	0.0000	177.2307
Total	**0.0316**	**0.5529**	**1.0336**	**1.9000e-003**		**4.3000e-003**	**4.3000e-003**		**4.3000e-003**	**4.3000e-003**	**0.0000**	**176.1332**	**176.1332**	**0.0523**	**0.0000**	**177.2307**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8200e-003	5.3900e-003	0.0515	9.0000e-005	2.2800e-003	5.0000e-005	2.3300e-003	7.1000e-004	5.0000e-005	7.5000e-004	0.0000	6.3524	6.3524	3.9000e-004	0.0000	6.3607
Total	**3.8200e-003**	**5.3900e-003**	**0.0515**	**9.0000e-005**	**2.2800e-003**	**5.0000e-005**	**2.3300e-003**	**7.1000e-004**	**5.0000e-005**	**7.5000e-004**	**0.0000**	**6.3524**	**6.3524**	**3.9000e-004**	**0.0000**	**6.3607**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.3900e-003	0.0105	7.9500e-003	1.0000e-005		8.1000e-004	8.1000e-004		7.7000e-004	7.7000e-004	0.0000	0.9781	0.9781	2.3000e-004	0.0000	0.9829
Total	**1.3900e-003**	**0.0105**	**7.9500e-003**	**1.0000e-005**		**8.1000e-004**	**8.1000e-004**		**7.7000e-004**	**7.7000e-004**	**0.0000**	**0.9781**	**0.9781**	**2.3000e-004**	**0.0000**	**0.9829**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.7000e-004	4.7100e-003	8.6500e-003	1.0000e-005	3.1000e-004	1.0000e-004	4.1000e-004	9.0000e-005	9.0000e-005	1.8000e-004	0.0000	0.9544	0.9544	1.0000e-005	0.0000	0.9545
Worker	9.2000e-004	1.2900e-003	0.0124	2.0000e-005	1.7900e-003	1.0000e-005	1.8000e-003	4.7000e-004	1.0000e-005	4.8000e-004	0.0000	1.5246	1.5246	9.0000e-005	0.0000	1.5266
Total	**1.5900e-003**	**6.0000e-003**	**0.0210**	**3.0000e-005**	**2.1000e-003**	**1.1000e-004**	**2.2100e-003**	**5.6000e-004**	**1.0000e-004**	**6.6000e-004**	**0.0000**	**2.4790**	**2.4790**	**1.0000e-004**	**0.0000**	**2.4811**

3.5 Building Construction - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.3000e-004	4.7900e-003	7.5900e-003	1.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.9781	0.9781	2.3000e-004	0.0000	0.9829
Total	**2.3000e-004**	**4.7900e-003**	**7.5900e-003**	**1.0000e-005**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.9781**	**0.9781**	**2.3000e-004**	**0.0000**	**0.9829**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.7000e-004	4.7100e-003	8.6500e-003	1.0000e-005	1.3000e-004	1.0000e-004	2.2000e-004	4.0000e-005	9.0000e-005	1.3000e-004	0.0000	0.9544	0.9544	1.0000e-005	0.0000	0.9545
Worker	9.2000e-004	1.2900e-003	0.0124	2.0000e-005	5.5000e-004	1.0000e-005	5.6000e-004	1.7000e-004	1.0000e-005	1.8000e-004	0.0000	1.5246	1.5246	9.0000e-005	0.0000	1.5266
Total	**1.5900e-003**	**6.0000e-003**	**0.0210**	**3.0000e-005**	**6.8000e-004**	**1.1000e-004**	**7.8000e-004**	**2.1000e-004**	**1.0000e-004**	**3.1000e-004**	**0.0000**	**2.4790**	**2.4790**	**1.0000e-004**	**0.0000**	**2.4811**

3.6 Architectural Coating - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	7.0773					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0324	0.2130	0.1821	2.9000e-004		0.0169	0.0169		0.0169	0.0169	0.0000	24.8942	24.8942	2.6300e-003	0.0000	24.9494
Total	**7.1097**	**0.2130**	**0.1821**	**2.9000e-004**		**0.0169**	**0.0169**		**0.0169**	**0.0169**	**0.0000**	**24.8942**	**24.8942**	**2.6300e-003**	**0.0000**	**24.9494**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0335	0.0478	0.4539	8.4000e-004	0.0725	4.7000e-004	0.0730	0.0193	4.3000e-004	0.0197	0.0000	59.4038	59.4038	3.5600e-003	0.0000	59.4786
Total	**0.0335**	**0.0478**	**0.4539**	**8.4000e-004**	**0.0725**	**4.7000e-004**	**0.0730**	**0.0193**	**4.3000e-004**	**0.0197**	**0.0000**	**59.4038**	**59.4038**	**3.5600e-003**	**0.0000**	**59.4786**

3.6 Architectural Coating - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	7.0773					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.3100e-003	0.1033	0.1787	2.9000e-004		3.9000e-004	3.9000e-004		3.9000e-004	3.9000e-004	0.0000	24.8942	24.8942	2.6300e-003	0.0000	24.9494
Total	**7.0826**	**0.1033**	**0.1787**	**2.9000e-004**		**3.9000e-004**	**3.9000e-004**		**3.9000e-004**	**3.9000e-004**	**0.0000**	**24.8942**	**24.8942**	**2.6300e-003**	**0.0000**	**24.9494**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0335	0.0478	0.4539	8.4000e-004	0.0222	4.7000e-004	0.0227	6.9000e-003	4.3000e-004	7.3300e-003	0.0000	59.4038	59.4038	3.5600e-003	0.0000	59.4786
Total	**0.0335**	**0.0478**	**0.4539**	**8.4000e-004**	**0.0222**	**4.7000e-004**	**0.0227**	**6.9000e-003**	**4.3000e-004**	**7.3300e-003**	**0.0000**	**59.4038**	**59.4038**	**3.5600e-003**	**0.0000**	**59.4786**

3.6 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	9.4727					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0390	0.2618	0.2420	3.9000e-004		0.0197	0.0197		0.0197	0.0197	0.0000	33.3200	33.3200	3.1700e-003	0.0000	33.3865
Total	**9.5116**	**0.2618**	**0.2420**	**3.9000e-004**		**0.0197**	**0.0197**		**0.0197**	**0.0197**	**0.0000**	**33.3200**	**33.3200**	**3.1700e-003**	**0.0000**	**33.3865**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0405	0.0586	0.5525	1.1200e-003	0.0971	6.1000e-004	0.0977	0.0258	5.7000e-004	0.0264	0.0000	76.4405	76.4405	4.4500e-003	0.0000	76.5339
Total	**0.0405**	**0.0586**	**0.5525**	**1.1200e-003**	**0.0971**	**6.1000e-004**	**0.0977**	**0.0258**	**5.7000e-004**	**0.0264**	**0.0000**	**76.4405**	**76.4405**	**4.4500e-003**	**0.0000**	**76.5339**

3.6 Architectural Coating - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	9.4727					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.1100e-003	0.1383	0.2391	3.9000e-004		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	33.3200	33.3200	3.1700e-003	0.0000	33.3865
Total	**9.4798**	**0.1383**	**0.2391**	**3.9000e-004**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**33.3200**	**33.3200**	**3.1700e-003**	**0.0000**	**33.3865**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0405	0.0586	0.5525	1.1200e-003	0.0297	6.1000e-004	0.0303	9.2400e-003	5.7000e-004	9.8000e-003	0.0000	76.4405	76.4405	4.4500e-003	0.0000	76.5339
Total	**0.0405**	**0.0586**	**0.5525**	**1.1200e-003**	**0.0297**	**6.1000e-004**	**0.0303**	**9.2400e-003**	**5.7000e-004**	**9.8000e-003**	**0.0000**	**76.4405**	**76.4405**	**4.4500e-003**	**0.0000**	**76.5339**

3.6 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	9.4727					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0348	0.2395	0.2403	3.9000e-004		0.0168	0.0168		0.0168	0.0168	0.0000	33.3200	33.3200	2.8100e-003	0.0000	33.3791
Total	**9.5074**	**0.2395**	**0.2403**	**3.9000e-004**		**0.0168**	**0.0168**		**0.0168**	**0.0168**	**0.0000**	**33.3200**	**33.3200**	**2.8100e-003**	**0.0000**	**33.3791**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0372	0.0542	0.5113	1.1200e-003	0.0971	6.1000e-004	0.0977	0.0258	5.7000e-004	0.0264	0.0000	73.5706	73.5706	4.2000e-003	0.0000	73.6589
Total	**0.0372**	**0.0542**	**0.5113**	**1.1200e-003**	**0.0971**	**6.1000e-004**	**0.0977**	**0.0258**	**5.7000e-004**	**0.0264**	**0.0000**	**73.5706**	**73.5706**	**4.2000e-003**	**0.0000**	**73.6589**

3.6 Architectural Coating - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	9.4727					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.1100e-003	0.1383	0.2391	3.9000e-004		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	33.3199	33.3199	2.8100e-003	0.0000	33.3790
Total	**9.4798**	**0.1383**	**0.2391**	**3.9000e-004**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**33.3199**	**33.3199**	**2.8100e-003**	**0.0000**	**33.3790**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0372	0.0542	0.5113	1.1200e-003	0.0297	6.1000e-004	0.0303	9.2400e-003	5.7000e-004	9.8100e-003	0.0000	73.5706	73.5706	4.2000e-003	0.0000	73.6589
Total	**0.0372**	**0.0542**	**0.5113**	**1.1200e-003**	**0.0297**	**6.1000e-004**	**0.0303**	**9.2400e-003**	**5.7000e-004**	**9.8100e-003**	**0.0000**	**73.5706**	**73.5706**	**4.2000e-003**	**0.0000**	**73.6589**

3.6 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	9.5090					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0317	0.2206	0.2399	3.9000e-004		0.0145	0.0145		0.0145	0.0145	0.0000	33.4476	33.4476	2.5900e-003	0.0000	33.5020
Total	**9.5407**	**0.2206**	**0.2399**	**3.9000e-004**		**0.0145**	**0.0145**		**0.0145**	**0.0145**	**0.0000**	**33.4476**	**33.4476**	**2.5900e-003**	**0.0000**	**33.5020**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0348	0.0509	0.4799	1.1300e-003	0.0975	6.2000e-004	0.0981	0.0259	5.7000e-004	0.0265	0.0000	70.8542	70.8542	4.0200e-003	0.0000	70.9387
Total	**0.0348**	**0.0509**	**0.4799**	**1.1300e-003**	**0.0975**	**6.2000e-004**	**0.0981**	**0.0259**	**5.7000e-004**	**0.0265**	**0.0000**	**70.8542**	**70.8542**	**4.0200e-003**	**0.0000**	**70.9387**

3.6 Architectural Coating - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	9.5090					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.1400e-003	0.1388	0.2401	3.9000e-004		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	33.4476	33.4476	2.5900e-003	0.0000	33.5020
Total	**9.5161**	**0.1388**	**0.2401**	**3.9000e-004**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**33.4476**	**33.4476**	**2.5900e-003**	**0.0000**	**33.5020**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0348	0.0509	0.4799	1.1300e-003	0.0298	6.2000e-004	0.0304	9.2700e-003	5.7000e-004	9.8500e-003	0.0000	70.8542	70.8542	4.0200e-003	0.0000	70.9387
Total	**0.0348**	**0.0509**	**0.4799**	**1.1300e-003**	**0.0298**	**6.2000e-004**	**0.0304**	**9.2700e-003**	**5.7000e-004**	**9.8500e-003**	**0.0000**	**70.8542**	**70.8542**	**4.0200e-003**	**0.0000**	**70.9387**

3.6 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	9.4727					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0286	0.1993	0.2372	3.9000e-004		0.0123	0.0123		0.0123	0.0123	0.0000	33.3200	33.3200	2.2900e-003	0.0000	33.3680
Total	**9.5012**	**0.1993**	**0.2372**	**3.9000e-004**		**0.0123**	**0.0123**		**0.0123**	**0.0123**	**0.0000**	**33.3200**	**33.3200**	**2.2900e-003**	**0.0000**	**33.3680**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0329	0.0481	0.4553	1.1200e-003	0.0971	6.2000e-004	0.0977	0.0258	5.8000e-004	0.0264	0.0000	69.5448	69.5448	3.8900e-003	0.0000	69.6266
Total	**0.0329**	**0.0481**	**0.4553**	**1.1200e-003**	**0.0971**	**6.2000e-004**	**0.0977**	**0.0258**	**5.8000e-004**	**0.0264**	**0.0000**	**69.5448**	**69.5448**	**3.8900e-003**	**0.0000**	**69.6266**

3.6 Architectural Coating - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	9.4727					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.1100e-003	0.1383	0.2391	3.9000e-004		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	33.3199	33.3199	2.2900e-003	0.0000	33.3679
Total	**9.4798**	**0.1383**	**0.2391**	**3.9000e-004**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**33.3199**	**33.3199**	**2.2900e-003**	**0.0000**	**33.3679**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0329	0.0481	0.4553	1.1200e-003	0.0297	6.2000e-004	0.0303	9.2400e-003	5.8000e-004	9.8200e-003	0.0000	69.5448	69.5448	3.8900e-003	0.0000	69.6266
Total	**0.0329**	**0.0481**	**0.4553**	**1.1200e-003**	**0.0297**	**6.2000e-004**	**0.0303**	**9.2400e-003**	**5.8000e-004**	**9.8200e-003**	**0.0000**	**69.5448**	**69.5448**	**3.8900e-003**	**0.0000**	**69.6266**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	5.2626					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0148	0.1021	0.1315	2.2000e-004		5.9200e-003	5.9200e-003		5.9200e-003	5.9200e-003	0.0000	18.5111	18.5111	1.2100e-003	0.0000	18.5364
Total	**5.2774**	**0.1021**	**0.1315**	**2.2000e-004**		**5.9200e-003**	**5.9200e-003**		**5.9200e-003**	**5.9200e-003**	**0.0000**	**18.5111**	**18.5111**	**1.2100e-003**	**0.0000**	**18.5364**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0174	0.0257	0.2410	6.2000e-004	0.0539	3.5000e-004	0.0543	0.0143	3.2000e-004	0.0146	0.0000	38.0676	38.0676	2.1000e-003	0.0000	38.1118
Total	**0.0174**	**0.0257**	**0.2410**	**6.2000e-004**	**0.0539**	**3.5000e-004**	**0.0543**	**0.0143**	**3.2000e-004**	**0.0146**	**0.0000**	**38.0676**	**38.0676**	**2.1000e-003**	**0.0000**	**38.1118**

3.6 Architectural Coating - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	5.2626					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.9500e-003	0.0768	0.1329	2.2000e-004		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004	0.0000	18.5111	18.5111	1.2100e-003	0.0000	18.5364
Total	**5.2665**	**0.0768**	**0.1329**	**2.2000e-004**		**2.9000e-004**	**2.9000e-004**		**2.9000e-004**	**2.9000e-004**	**0.0000**	**18.5111**	**18.5111**	**1.2100e-003**	**0.0000**	**18.5364**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0174	0.0257	0.2410	6.2000e-004	0.0165	3.5000e-004	0.0169	5.1300e-003	3.2000e-004	5.4500e-003	0.0000	38.0676	38.0676	2.1000e-003	0.0000	38.1118
Total	**0.0174**	**0.0257**	**0.2410**	**6.2000e-004**	**0.0165**	**3.5000e-004**	**0.0169**	**5.1300e-003**	**3.2000e-004**	**5.4500e-003**	**0.0000**	**38.0676**	**38.0676**	**2.1000e-003**	**0.0000**	**38.1118**

3.7 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0193	0.1999	0.2081	3.2000e-004		0.0107	0.0107		9.8600e-003	9.8600e-003	0.0000	28.4230	28.4230	9.1900e-003	0.0000	28.6160
Paving	9.1200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0284**	**0.1999**	**0.2081**	**3.2000e-004**		**0.0107**	**0.0107**		**9.8600e-003**	**9.8600e-003**	**0.0000**	**28.4230**	**28.4230**	**9.1900e-003**	**0.0000**	**28.6160**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.4000e-004	9.4000e-004	8.8500e-003	2.0000e-005	1.8000e-003	1.0000e-005	1.8100e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.3071	1.3071	7.0000e-005	0.0000	1.3087
Total	**6.4000e-004**	**9.4000e-004**	**8.8500e-003**	**2.0000e-005**	**1.8000e-003**	**1.0000e-005**	**1.8100e-003**	**4.8000e-004**	**1.0000e-005**	**4.9000e-004**	**0.0000**	**1.3071**	**1.3071**	**7.0000e-005**	**0.0000**	**1.3087**

3.7 Paving - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.7600e-003	0.1425	0.2455	3.2000e-004		5.3000e-004	5.3000e-004		5.3000e-004	5.3000e-004	0.0000	28.4230	28.4230	9.1900e-003	0.0000	28.6160
Paving	9.1200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0139**	**0.1425**	**0.2455**	**3.2000e-004**		**5.3000e-004**	**5.3000e-004**		**5.3000e-004**	**5.3000e-004**	**0.0000**	**28.4230**	**28.4230**	**9.1900e-003**	**0.0000**	**28.6160**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.4000e-004	9.4000e-004	8.8500e-003	2.0000e-005	5.5000e-004	1.0000e-005	5.6000e-004	1.7000e-004	1.0000e-005	1.8000e-004	0.0000	1.3071	1.3071	7.0000e-005	0.0000	1.3087
Total	**6.4000e-004**	**9.4000e-004**	**8.8500e-003**	**2.0000e-005**	**5.5000e-004**	**1.0000e-005**	**5.6000e-004**	**1.7000e-004**	**1.0000e-005**	**1.8000e-004**	**0.0000**	**1.3071**	**1.3071**	**7.0000e-005**	**0.0000**	**1.3087**

3.7 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0560	0.5761	0.6531	1.0200e-003		0.0303	0.0303		0.0278	0.0278	0.0000	89.1686	89.1686	0.0288	0.0000	89.7742
Paving	0.0286					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0846**	**0.5761**	**0.6531**	**1.0200e-003**		**0.0303**	**0.0303**		**0.0278**	**0.0278**	**0.0000**	**89.1686**	**89.1686**	**0.0288**	**0.0000**	**89.7742**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9100e-003	2.8000e-003	0.0265	7.0000e-005	5.6400e-003	4.0000e-005	5.6800e-003	1.5000e-003	3.0000e-005	1.5300e-003	0.0000	4.0412	4.0412	2.3000e-004	0.0000	4.0460
Total	**1.9100e-003**	**2.8000e-003**	**0.0265**	**7.0000e-005**	**5.6400e-003**	**4.0000e-005**	**5.6800e-003**	**1.5000e-003**	**3.0000e-005**	**1.5300e-003**	**0.0000**	**4.0412**	**4.0412**	**2.3000e-004**	**0.0000**	**4.0460**

3.7 Paving - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0149	0.4471	0.7702	1.0200e-003		1.6700e-003	1.6700e-003		1.6700e-003	1.6700e-003	0.0000	89.1685	89.1685	0.0288	0.0000	89.7741
Paving	0.0286					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0436**	**0.4471**	**0.7702**	**1.0200e-003**		**1.6700e-003**	**1.6700e-003**		**1.6700e-003**	**1.6700e-003**	**0.0000**	**89.1685**	**89.1685**	**0.0288**	**0.0000**	**89.7741**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9100e-003	2.8000e-003	0.0265	7.0000e-005	1.7300e-003	4.0000e-005	1.7600e-003	5.4000e-004	3.0000e-005	5.7000e-004	0.0000	4.0412	4.0412	2.3000e-004	0.0000	4.0460
Total	**1.9100e-003**	**2.8000e-003**	**0.0265**	**7.0000e-005**	**1.7300e-003**	**4.0000e-005**	**1.7600e-003**	**5.4000e-004**	**3.0000e-005**	**5.7000e-004**	**0.0000**	**4.0412**	**4.0412**	**2.3000e-004**	**0.0000**	**4.0460**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Increase Diversity

Improve Walkability Design

Improve Destination Accessibility

Increase Transit Accessibility

Improve Pedestrian Network

Provide Traffic Calming Measures

Implement NEV Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.4970	4.9971	25.6274	0.0467	2.9946	0.0922	3.0868	0.8001	0.0850	0.8851	0.0000	3,220.6144	3,220.6144	0.1237	0.0000	3,223.2126
Unmitigated	2.7237	6.5681	31.2295	0.0676	4.4253	0.1318	4.5571	1.1824	0.1214	1.3038	0.0000	4,663.4261	4,663.4261	0.1722	0.0000	4,667.0419

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	11.13	11.13	11.13	21,220	14,360
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Single Family Housing	4,476.00	7,368.00	6420.00	11,557,852	7,821,299
User Defined Recreational	0.00	0.00	0.00		
User Defined Recreational	0.00	0.00	0.00		
Total	4,487.13	7,379.13	6,431.13	11,579,072	7,835,659

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	12.50	4.20	5.40	33.00	48.00	19.00	66	28	6
Other Asphalt Surfaces	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Parking Lot	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Single Family Housing	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3
User Defined Recreational	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
User Defined Recreational	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.469364	0.065576	0.169825	0.159036	0.038089	0.006139	0.011322	0.071493	0.001371	0.001211	0.003602	0.000518	0.002454

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

Percent of Electricity Use Generated with Renewable Energy

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,139.6258	2,139.6258	0.0984	0.0204	2,147.9992
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,680.0010	2,680.0010	0.1232	0.0255	2,690.4892
NaturalGas Mitigated	0.1915	1.6364	0.6963	0.0105		0.1323	0.1323		0.1323	0.1323	0.0000	1,895.1241	1,895.1241	0.0363	0.0347	1,906.6575
NaturalGas Unmitigated	0.2185	1.8671	0.7945	0.0119		0.1510	0.1510		0.1510	0.1510	0.0000	2,162.3177	2,162.3177	0.0414	0.0396	2,175.4772

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	4.05203e+007	0.2185	1.8671	0.7945	0.0119		0.1510	0.1510		0.1510	0.1510	0.0000	2,162.3177	2,162.3177	0.0414	0.0396	2,175.4772
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.2185**	**1.8671**	**0.7945**	**0.0119**		**0.1510**	**0.1510**		**0.1510**	**0.1510**	**0.0000**	**2,162.3177**	**2,162.3177**	**0.0414**	**0.0396**	**2,175.4772**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	3.55133e+007	0.1915	1.6364	0.6963	0.0105		0.1323	0.1323		0.1323	0.1323	0.0000	1,895.1241	1,895.1241	0.0363	0.0347	1,906.6575
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.1915**	**1.6364**	**0.6963**	**0.0105**		**0.1323**	**0.1323**		**0.1323**	**0.1323**	**0.0000**	**1,895.1241**	**1,895.1241**	**0.0363**	**0.0347**	**1,906.6575**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	149600	42.8106	1.9700e-003	4.1000e-004	42.9781
Single Family Housing	9.21557e+006	2,637.1904	0.1212	0.0251	2,647.5111
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		**2,680.0010**	**0.1232**	**0.0255**	**2,690.4892**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	71060	20.3350	9.3000e-004	1.9000e-004	20.4146
Single Family Housing	7.40579e+006	2,119.2908	0.0974	0.0202	2,127.5846
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		**2,139.6258**	**0.0984**	**0.0204**	**2,147.9992**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

Use only Natural Gas Hearths

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	14.7837	0.0923	7.8654	3.9000e-004		0.0651	0.0651		0.0648	0.0648	0.0000	327.4587	327.4587	0.0168	5.7800e-003	329.6017
Unmitigated	19.9620	0.1029	8.9264	4.7000e-004		0.0713	0.0713		0.0711	0.0711	0.0000	329.6240	329.6240	0.0201	5.7800e-003	331.8369

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	5.0267					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	14.6336					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0318	0.0000	1.7400e-003	0.0000		0.0220	0.0220		0.0218	0.0218	0.0000	315.0599	315.0599	6.0400e-003	5.7800e-003	316.9773
Landscaping	0.2699	0.1029	8.9247	4.7000e-004		0.0493	0.0493		0.0493	0.0493	0.0000	14.5641	14.5641	0.0141	0.0000	14.8595
Total	**19.9620**	**0.1029**	**8.9264**	**4.7000e-004**		**0.0713**	**0.0713**		**0.0711**	**0.0711**	**0.0000**	**329.6240**	**329.6240**	**0.0201**	**5.7800e-003**	**331.8369**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.0053					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	13.5395					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0318	0.0000	1.7400e-003	0.0000		0.0220	0.0220		0.0218	0.0218	0.0000	315.0599	315.0599	6.0400e-003	5.7800e-003	316.9773
Landscaping	0.2071	0.0923	7.8636	3.9000e-004		0.0431	0.0431		0.0431	0.0431	0.0000	12.3988	12.3988	0.0107	0.0000	12.6244
Total	**14.7837**	**0.0923**	**7.8654**	**3.9000e-004**		**0.0651**	**0.0651**		**0.0648**	**0.0648**	**0.0000**	**327.4587**	**327.4587**	**0.0168**	**5.7800e-003**	**329.6017**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Use Reclaimed Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Turf Reduction

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	993.0372	4.1911	0.1070	1,114.2148
Unmitigated	1,261.8720	5.2398	0.1339	1,413.4245

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 36.8863	117.2733	5.3900e-003	1.1200e-003	117.7322
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	157.68 / 157.68	1,138.8828	5.1881	0.1317	1,288.6512
User Defined Recreational	1.41365 / 0	5.7160	0.0463	1.1400e-003	7.0411
Total		**1,261.8720**	**5.2398**	**0.1339**	**1,413.4245**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 29.5091	93.8186	4.3100e-003	8.9000e-004	94.1858
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	126.144 / 126.144	894.7921	4.1497	0.1052	1,014.5430
User Defined Recreational	1.13092 / 0	4.4265	0.0370	9.1000e-004	5.4861
Total		**993.0372**	**4.1911**	**0.1070**	**1,114.2148**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	48.7178	2.8791	0.0000	109.1798
Unmitigated	194.8713	11.5166	0.0000	436.7192

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.6	0.1218	7.2000e-003	0.0000	0.2730
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	959.4	194.7495	11.5094	0.0000	436.4463
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		**194.8713**	**11.5166**	**0.0000**	**436.7192**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.15	0.0305	1.8000e-003	0.0000	0.0682
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	239.85	48.6874	2.8773	0.0000	109.1116
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		**48.7178**	**2.8791**	**0.0000**	**109.1798**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	106.2000	0.0000	0.0000	106.2000

10.2 Net New Trees

Species Class

	Number of Trees	Total CO2	CH4	N2O	CO2e
		MT			
Miscellaneous	150	106.2000	0.0000	0.0000	106.2000
Total		**106.2000**	**0.0000**	**0.0000**	**106.2000**

Active Adult Community (Planning Area 8)

Salton Sea Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	25.00	Acre	25.00	1,089,000.00	0
Parking Lot	425.00	Space	3.82	170,000.00	0
City Park	7.00	Acre	7.00	304,920.00	0
User Defined Recreational	78.00	User Defined Unit	0.00	0.00	0
User Defined Recreational	0.00	User Defined Unit	0.00	23,000.00	0
Single Family Housing	1,200.00	Dwelling Unit	234.00	2,160,000.00	2340

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.4	**Precipitation Freq (Days)**	20
Climate Zone	10			**Operational Year**	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Population based on 1.95 factor
Private Park 7 acres
25 acres of road right of way
23,000 sf = clubhouse

Construction Phase - Construction Assumptions

Off-road Equipment -

Off-road Equipment - no cranes

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Construction assumptions

Off-road Equipment - Typical equipment used for trenching of utilities

Trips and VMT - Construction assumptions from CalEEMod User's Guide

On-road Fugitive Dust - 100% paved roads

Grading - clearance of any vegetation on the site

Architectural Coating -

Vehicle Trips - Private City Park/Open Space

Vechicle Emission Factors -

Vechicle Emission Factors -

Vechicle Emission Factors -

Road Dust - 100% paved road

Woodstoves - No woodstoves

Area Coating -

Water And Wastewater - Calculated

Land Use Change -

Sequestration -

Construction Off-road Equipment Mitigation - Per SCAQMD, All off-road diesel powered construction equipment greater than 50 hp shall meet Tier 4 emission standards, where available
Fugitive Dust requirements per SCAQMD Rule 403 and 403.1

Mobile Land Use Mitigation - 3.75 units per acre
12.7 low penetration NEV network

Mobile Commute Mitigation -

Area Mitigation - Per SCAQMD Rule 1113

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	50
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	80
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim

tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	330.00	1,385.00
tblConstructionPhase	NumDays	4,650.00	1,044.00
tblConstructionPhase	NumDays	465.00	180.00
tblConstructionPhase	NumDays	330.00	120.00
tblConstructionPhase	NumDays	180.00	20.00
tblConstructionPhase	PhaseEndDate	3/15/2022	7/22/2022
tblConstructionPhase	PhaseEndDate	11/20/2020	11/22/2016
tblConstructionPhase	PhaseEndDate	1/6/2023	5/7/2021
tblConstructionPhase	PhaseEndDate	1/20/2017	11/21/2016
tblConstructionPhase	PhaseStartDate	11/23/2016	4/1/2017
tblConstructionPhase	PhaseStartDate	7/23/2022	11/23/2020
tblConstructionPhase	PhaseStartDate	8/6/2016	6/7/2016
tblFireplaces	FireplaceWoodMass	457.60	0.00
tblFireplaces	NumberGas	1,020.00	400.00
tblFireplaces	NumberNoFireplace	60.00	0.00
tblFireplaces	NumberWood	120.00	0.00
tblLandUse	LandUseSquareFeet	0.00	23,000.00

tblLandUse	LotAcreage	389.61	234.00
tblLandUse	Population	3,876.00	2,340.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	7.00	0.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblProjectCharacteristics	OperationalYear	2014	2022
tblRoadDust	RoadPercentPave	50	100
tblSequestration	NumberOfNewTrees	0.00	150.00
tblTripsAndVMT	VendorTripNumber	388.00	129.00
tblTripsAndVMT	WorkerTripNumber	1,099.00	432.00
tblTripsAndVMT	WorkerTripNumber	220.00	90.00

tblVehicleTrips	ST_TR	10.08	6.14
tblVehicleTrips	SU_TR	8.77	5.35
tblVehicleTrips	WD_TR	9.57	3.73
tblWater	IndoorWaterUseRate	78,184,830.75	157,680,000.00
tblWater	IndoorWaterUseRate	0.00	1,413,645.00
tblWater	OutdoorWaterUseRate	8,340,369.45	36,886,345.00
tblWater	OutdoorWaterUseRate	49,290,436.77	157,680,000.00
tblWoodstoves	NumberCatalytic	60.00	0.00
tblWoodstoves	NumberNoncatalytic	60.00	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	6.8921	79.1702	52.2694	0.0637	18.2169	3.8033	21.3062	9.9706	3.4991	12.8128	0.0000	6,651.1252	6,651.1252	1.9470	0.0000	6,692.0111
2016	9.4160	102.6021	65.5184	0.0968	8.9662	4.8581	13.8242	3.6742	4.4762	8.1504	0.0000	9,928.3388	9,928.3388	2.9121	0.0000	9,989.4931
2017	73.3456	2.6427	7.0818	0.0118	0.7530	0.1781	0.9311	0.1997	0.1778	0.3775	0.0000	965.8019	965.8019	0.0700	0.0000	967.2718
2018	73.2710	2.4256	6.5925	0.0118	0.7530	0.1553	0.9083	0.1997	0.1549	0.3546	0.0000	939.4270	939.4270	0.0643	0.0000	940.7778
2019	73.2071	2.2233	6.2222	0.0117	0.7530	0.1335	0.8865	0.1997	0.1331	0.3329	0.0000	914.7702	914.7702	0.0593	0.0000	916.0153
2020	75.1722	15.8923	20.9591	0.0355	0.8785	0.8555	1.7340	0.2330	0.7960	1.0290	0.0000	3,151.1235	3,151.1235	0.7601	0.0000	3,167.0858
2021	75.0283	14.5897	20.7150	0.0355	0.8785	0.7649	1.6434	0.2330	0.7112	0.9443	0.0000	3,140.1480	3,140.1480	0.7564	0.0000	3,156.0314
2022	73.0868	1.7393	5.5210	0.0117	0.7530	0.0865	0.8395	0.1997	0.0862	0.2859	0.0000	871.3106	871.3106	0.0503	0.0000	872.3667
Total	**459.4191**	**221.2853**	**184.8795**	**0.2785**	**31.9520**	**10.8351**	**42.0731**	**14.9098**	**10.0344**	**24.2873**	**0.0000**	**26,562.0452**	**26,562.0452**	**6.6194**	**0.0000**	**26,701.0531**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	1.0949	20.4121	39.3726	0.0637	6.7394	0.1020	6.8039	3.6936	0.1019	3.7579	0.0000	6,651.1252	6,651.1252	1.9470	0.0000	6,692.0111
2016	4.0556	29.6992	59.2623	0.0968	3.3027	0.2889	3.4772	1.3602	0.2717	1.5346	0.0000	9,928.3388	9,928.3388	2.9121	0.0000	9,989.4931
2017	73.0677	1.5175	7.0462	0.0118	0.2295	8.7500e-003	0.2382	0.0712	8.3700e-003	0.0796	0.0000	965.8019	965.8019	0.0700	0.0000	967.2718
2018	73.0268	1.4797	6.5707	0.0118	0.2295	8.6700e-003	0.2381	0.0712	8.3200e-003	0.0795	0.0000	939.4270	939.4270	0.0643	0.0000	940.7778
2019	72.9952	1.4478	6.2133	0.0117	0.2295	8.6700e-003	0.2381	0.0712	8.3300e-003	0.0796	0.0000	914.7702	914.7702	0.0593	0.0000	916.0153
2020	73.9826	11.3094	23.5354	0.0355	0.2677	0.0461	0.3138	0.0831	0.0457	0.1288	0.0000	3,151.1235	3,151.1235	0.7601	0.0000	3,167.0858
2021	73.9612	11.2876	23.3047	0.0355	0.2677	0.0461	0.3138	0.0831	0.0457	0.1288	0.0000	3,140.1480	3,140.1480	0.7564	0.0000	3,156.0314
2022	72.9368	1.3907	5.5398	0.0117	0.2295	8.7600e-003	0.2382	0.0712	8.4100e-003	0.0796	0.0000	871.3106	871.3106	0.0503	0.0000	872.3667
Total	**445.1208**	**78.5439**	**170.8450**	**0.2785**	**11.4953**	**0.5179**	**11.8614**	**5.5048**	**0.4984**	**5.8684**	**0.0000**	**26,562.0452**	**26,562.0452**	**6.6194**	**0.0000**	**26,701.0531**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**3.11**	**64.51**	**7.59**	**0.00**	**64.02**	**95.22**	**71.81**	**63.08**	**95.03**	**75.84**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	111.5026	1.1435	99.2052	5.2300e-003		1.0843	1.0843		1.0786	1.0786	0.0000	8,648.9682	8,648.9682	0.3346	0.1553	8,704.1368
Energy	1.1972	10.2308	4.3535	0.0653		0.8272	0.8272		0.8272	0.8272		13,060.5331	13,060.5331	0.2503	0.2394	13,140.0174
Mobile	24.9088	48.7423	252.5646	0.5375	35.0647	1.0310	36.0956	9.3598	0.9501	10.3099		40,825.6754	40,825.6754	1.4860		40,856.8808
Total	**137.6086**	**60.1166**	**356.1233**	**0.6080**	**35.0647**	**2.9424**	**38.0071**	**9.3598**	**2.8559**	**12.2157**	**0.0000**	**62,535.1767**	**62,535.1767**	**2.0709**	**0.3947**	**62,701.0350**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	82.7748	1.0253	87.4159	4.3200e-003		1.0150	1.0150		1.0093	1.0093	0.0000	8,622.4476	8,622.4476	0.2939	0.1553	8,676.7613
Energy	1.0493	8.9666	3.8156	0.0572		0.7250	0.7250		0.7250	0.7250		11,446.6668	11,446.6668	0.2194	0.2099	11,516.3293
Mobile	23.0170	37.3356	203.6886	0.3714	23.7286	0.7206	24.4491	6.3339	0.6641	6.9980		28,201.4744	28,201.4744	1.0672		28,223.8857
Total	**106.8410**	**47.3274**	**294.9200**	**0.4329**	**23.7286**	**2.4605**	**26.1891**	**6.3339**	**2.3984**	**8.7323**	**0.0000**	**48,270.5887**	**48,270.5887**	**1.5805**	**0.3652**	**48,416.9762**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	22.36	21.27	17.19	28.80	32.33	16.38	31.09	32.33	16.02	28.52	0.00	22.81	22.81	23.68	7.49	22.78

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/1/2015	11/27/2015	5	20	
2	Grading	Grading	11/28/2015	8/5/2016	5	180	
3	Utilities	Trenching	6/7/2016	11/21/2016	5	120	
4	Building Construction	Building Construction	11/22/2016	11/22/2016	5	1044	
5	Architectural Coating	Architectural Coating	4/1/2017	7/22/2022	5	1385	
6	Paving	Paving	11/23/2020	5/7/2021	5	120	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 450

Acres of Paving: 0

Residential Indoor: 4,374,000; Residential Outdoor: 1,458,000; Non-Residential Indoor: 2,133,030; Non-Residential Outdoor: 711,010 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Utilities	Forklifts	1	4.00	89	0.20
Utilities	Off-Highway Trucks	2	8.00	400	0.38
Utilities	Signal Boards	1	8.00	6	0.82
Utilities	Trenchers	1	6.00	80	0.50
Utilities	Welders	1	4.00	46	0.45
Building Construction	Cranes	0	0.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Utilities	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	432.00	129.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	90.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Site Preparation - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	5.2609	56.8897	42.6318	0.0391		3.0883	3.0883		2.8412	2.8412		4,111.7444	4,111.7444	1.2275		4,137.5225
Total	**5.2609**	**56.8897**	**42.6318**	**0.0391**	**18.0663**	**3.0883**	**21.1545**	**9.9307**	**2.8412**	**12.7719**		**4,111.7444**	**4,111.7444**	**1.2275**		**4,137.5225**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1053	0.1112	1.2865	1.7600e-003	0.1506	1.0300e-003	0.1516	0.0400	9.4000e-004	0.0409		148.3937	148.3937	9.4800e-003		148.5928
Total	**0.1053**	**0.1112**	**1.2865**	**1.7600e-003**	**0.1506**	**1.0300e-003**	**0.1516**	**0.0400**	**9.4000e-004**	**0.0409**		**148.3937**	**148.3937**	**9.4800e-003**		**148.5928**

3.2 Site Preparation - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.6936	0.0000	6.6936	3.6793	0.0000	3.6793			0.0000			0.0000
Off-Road	0.7103	12.3804	23.4003	0.0391		0.0634	0.0634		0.0634	0.0634	0.0000	4,111.7444	4,111.7444	1.2275		4,137.5224
Total	**0.7103**	**12.3804**	**23.4003**	**0.0391**	**6.6936**	**0.0634**	**6.7570**	**3.6793**	**0.0634**	**3.7428**	**0.0000**	**4,111.7444**	**4,111.7444**	**1.2275**		**4,137.5224**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1053	0.1112	1.2865	1.7600e-003	0.0459	1.0300e-003	0.0469	0.0142	9.4000e-004	0.0152		148.3937	148.3937	9.4800e-003		148.5928
Total	**0.1053**	**0.1112**	**1.2865**	**1.7600e-003**	**0.0459**	**1.0300e-003**	**0.0469**	**0.0142**	**9.4000e-004**	**0.0152**		**148.3937**	**148.3937**	**9.4800e-003**		**148.5928**

3.3 Grading - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	6.7751	79.0467	50.8400	0.0618		3.8022	3.8022		3.4980	3.4980		6,486.2433	6,486.2433	1.9364		6,526.9080
Total	**6.7751**	**79.0467**	**50.8400**	**0.0618**	**8.6733**	**3.8022**	**12.4755**	**3.5965**	**3.4980**	**7.0945**		**6,486.2433**	**6,486.2433**	**1.9364**		**6,526.9080**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1170	0.1236	1.4294	1.9500e-003	0.1673	1.1500e-003	0.1685	0.0444	1.0500e-003	0.0454		164.8819	164.8819	0.0105		165.1031
Total	**0.1170**	**0.1236**	**1.4294**	**1.9500e-003**	**0.1673**	**1.1500e-003**	**0.1685**	**0.0444**	**1.0500e-003**	**0.0454**		**164.8819**	**164.8819**	**0.0105**		**165.1031**

3.3 Grading - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.2135	0.0000	3.2135	1.3325	0.0000	1.3325			0.0000			0.0000
Off-Road	0.9779	20.2885	37.9432	0.0618		0.1009	0.1009		0.1009	0.1009	0.0000	6,486.2433	6,486.2433	1.9364		6,526.9080
Total	**0.9779**	**20.2885**	**37.9432**	**0.0618**	**3.2135**	**0.1009**	**3.3143**	**1.3325**	**0.1009**	**1.4334**	**0.0000**	**6,486.2433**	**6,486.2433**	**1.9364**		**6,526.9080**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1170	0.1236	1.4294	1.9500e-003	0.0510	1.1500e-003	0.0521	0.0158	1.0500e-003	0.0169		164.8819	164.8819	0.0105		165.1031
Total	**0.1170**	**0.1236**	**1.4294**	**1.9500e-003**	**0.0510**	**1.1500e-003**	**0.0521**	**0.0158**	**1.0500e-003**	**0.0169**		**164.8819**	**164.8819**	**0.0105**		**165.1031**

3.3 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	6.4795	74.8137	49.1374	0.0617		3.5842	3.5842		3.2975	3.2975		6,414.9807	6,414.9807	1.9350		6,455.6154
Total	**6.4795**	**74.8137**	**49.1374**	**0.0617**	**8.6733**	**3.5842**	**12.2576**	**3.5965**	**3.2975**	**6.8940**		**6,414.9807**	**6,414.9807**	**1.9350**		**6,455.6154**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1051	0.1117	1.2832	1.9500e-003	0.1673	1.0900e-003	0.1684	0.0444	1.0100e-003	0.0454		158.5493	158.5493	9.6700e-003		158.7524
Total	**0.1051**	**0.1117**	**1.2832**	**1.9500e-003**	**0.1673**	**1.0900e-003**	**0.1684**	**0.0444**	**1.0100e-003**	**0.0454**		**158.5493**	**158.5493**	**9.6700e-003**		**158.7524**

3.3 Grading - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.2135	0.0000	3.2135	1.3325	0.0000	1.3325			0.0000			0.0000
Off-Road	0.9779	20.2885	37.9432	0.0617		0.1009	0.1009		0.1009	0.1009	0.0000	6,414.9807	6,414.9807	1.9350		6,455.6154
Total	**0.9779**	**20.2885**	**37.9432**	**0.0617**	**3.2135**	**0.1009**	**3.3143**	**1.3325**	**0.1009**	**1.4334**	**0.0000**	**6,414.9807**	**6,414.9807**	**1.9350**		**6,455.6154**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1051	0.1117	1.2832	1.9500e-003	0.0510	1.0900e-003	0.0521	0.0158	1.0100e-003	0.0168		158.5493	158.5493	9.6700e-003		158.7524
Total	**0.1051**	**0.1117**	**1.2832**	**1.9500e-003**	**0.0510**	**1.0900e-003**	**0.0521**	**0.0158**	**1.0100e-003**	**0.0168**		**158.5493**	**158.5493**	**9.6700e-003**		**158.7524**

3.4 Utilities - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.7527	27.5930	14.1355	0.0317		1.2719	1.2719		1.1769	1.1769		3,235.8968	3,235.8968	0.9602		3,256.0611
Total	**2.7527**	**27.5930**	**14.1355**	**0.0317**		**1.2719**	**1.2719**		**1.1769**	**1.1769**		**3,235.8968**	**3,235.8968**	**0.9602**		**3,256.0611**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0788	0.0837	0.9624	1.4600e-003	0.1255	8.2000e-004	0.1263	0.0333	7.5000e-004	0.0340		118.9120	118.9120	7.2500e-003		119.0643
Total	**0.0788**	**0.0837**	**0.9624**	**1.4600e-003**	**0.1255**	**8.2000e-004**	**0.1263**	**0.0333**	**7.5000e-004**	**0.0340**		**118.9120**	**118.9120**	**7.2500e-003**		**119.0643**

3.4 Utilities - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5263	9.2153	17.2272	0.0317		0.0718	0.0718		0.0718	0.0718	0.0000	3,235.8968	3,235.8968	0.9602		3,256.0611
Total	**0.5263**	**9.2153**	**17.2272**	**0.0317**		**0.0718**	**0.0718**		**0.0718**	**0.0718**	**0.0000**	**3,235.8968**	**3,235.8968**	**0.9602**		**3,256.0611**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0788	0.0837	0.9624	1.4600e-003	0.0382	8.2000e-004	0.0391	0.0119	7.5000e-004	0.0126		118.9120	118.9120	7.2500e-003		119.0643
Total	**0.0788**	**0.0837**	**0.9624**	**1.4600e-003**	**0.0382**	**8.2000e-004**	**0.0391**	**0.0119**	**7.5000e-004**	**0.0126**		**118.9120**	**118.9120**	**7.2500e-003**		**119.0643**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.7762	21.0412	15.8949	0.0219		1.6287	1.6287		1.5368	1.5368		2,156.3310	2,156.3310	0.5073		2,166.9844
Total	**2.7762**	**21.0412**	**15.8949**	**0.0219**		**1.6287**	**1.6287**		**1.5368**	**1.5368**		**2,156.3310**	**2,156.3310**	**0.5073**		**2,166.9844**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.3355	8.9573	16.3602	0.0212	0.6265	0.1889	0.8154	0.1777	0.1737	0.3513		2,113.8990	2,113.8990	0.0141		2,114.1946
Worker	2.2694	2.4116	27.7162	0.0422	3.6144	0.0236	3.6381	0.9587	0.0217	0.9804		3,424.6652	3,424.6652	0.2089		3,429.0509
Total	**3.6048**	**11.3689**	**44.0764**	**0.0634**	**4.2409**	**0.2125**	**4.4535**	**1.1364**	**0.1954**	**1.3318**		**5,538.5642**	**5,538.5642**	**0.2229**		**5,543.2456**

3.5 Building Construction - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4508	9.5786	15.1859	0.0219		0.0763	0.0763		0.0763	0.0763	0.0000	2,156.3310	2,156.3310	0.5073		2,166.9844
Total	**0.4508**	**9.5786**	**15.1859**	**0.0219**		**0.0763**	**0.0763**		**0.0763**	**0.0763**	**0.0000**	**2,156.3310**	**2,156.3310**	**0.5073**		**2,166.9844**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.3355	8.9573	16.3602	0.0212	0.2581	0.1889	0.4470	0.0873	0.1737	0.2609		2,113.8990	2,113.8990	0.0141		2,114.1946
Worker	2.2694	2.4116	27.7162	0.0422	1.1014	0.0236	1.1250	0.3419	0.0217	0.3636		3,424.6652	3,424.6652	0.2089		3,429.0509
Total	**3.6048**	**11.3689**	**44.0764**	**0.0634**	**1.3595**	**0.2125**	**1.5720**	**0.4291**	**0.1954**	**0.6245**		**5,538.5642**	**5,538.5642**	**0.2229**		**5,543.2456**

3.6 Architectural Coating - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	72.5875					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733		281.4481	281.4481	0.0297		282.0721
Total	**72.9198**	**2.1850**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**		**281.4481**	**281.4481**	**0.0297**		**282.0721**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4258	0.4577	5.2138	8.7800e-003	0.7530	4.7800e-003	0.7578	0.1997	4.4100e-003	0.2041		684.3539	684.3539	0.0403		685.1997
Total	**0.4258**	**0.4577**	**5.2138**	**8.7800e-003**	**0.7530**	**4.7800e-003**	**0.7578**	**0.1997**	**4.4100e-003**	**0.2041**		**684.3539**	**684.3539**	**0.0403**		**685.1997**

3.6 Architectural Coating - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	72.5875					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0545	1.0598	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0297		282.0721
Total	**72.6419**	**1.0598**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0297**		**282.0721**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4258	0.4577	5.2138	8.7800e-003	0.2295	4.7800e-003	0.2342	0.0712	4.4100e-003	0.0756		684.3539	684.3539	0.0403		685.1997
Total	**0.4258**	**0.4577**	**5.2138**	**8.7800e-003**	**0.2295**	**4.7800e-003**	**0.2342**	**0.0712**	**4.4100e-003**	**0.0756**		**684.3539**	**684.3539**	**0.0403**		**685.1997**

3.6 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	72.5875					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.0102
Total	**72.8861**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**		**281.4485**	**281.4485**	**0.0267**		**282.0102**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3849	0.4198	4.7383	8.7800e-003	0.7530	4.7100e-003	0.7577	0.1997	4.3500e-003	0.2041		657.9785	657.9785	0.0376		658.7676
Total	**0.3849**	**0.4198**	**4.7383**	**8.7800e-003**	**0.7530**	**4.7100e-003**	**0.7577**	**0.1997**	**4.3500e-003**	**0.2041**		**657.9785**	**657.9785**	**0.0376**		**658.7676**

3.6 Architectural Coating - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	72.5875					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0545	1.0598	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4485	281.4485	0.0267		282.0102
Total	**72.6419**	**1.0598**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4485**	**281.4485**	**0.0267**		**282.0102**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3849	0.4198	4.7383	8.7800e-003	0.2295	4.7100e-003	0.2342	0.0712	4.3500e-003	0.0756		657.9785	657.9785	0.0376		658.7676
Total	**0.3849**	**0.4198**	**4.7383**	**8.7800e-003**	**0.2295**	**4.7100e-003**	**0.2342**	**0.0712**	**4.3500e-003**	**0.0756**		**657.9785**	**657.9785**	**0.0376**		**658.7676**

3.6 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	72.5875					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		281.9473
Total	**72.8539**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**		**281.4481**	**281.4481**	**0.0238**		**281.9473**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3532	0.3879	4.3809	8.7700e-003	0.7530	4.7100e-003	0.7577	0.1997	4.3700e-003	0.2041		633.3222	633.3222	0.0355		634.0680
Total	**0.3532**	**0.3879**	**4.3809**	**8.7700e-003**	**0.7530**	**4.7100e-003**	**0.7577**	**0.1997**	**4.3700e-003**	**0.2041**		**633.3222**	**633.3222**	**0.0355**		**634.0680**

3.6 Architectural Coating - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	72.5875					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0545	1.0598	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0238		281.9473
Total	**72.6419**	**1.0598**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0238**		**281.9473**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3532	0.3879	4.3809	8.7700e-003	0.2295	4.7100e-003	0.2342	0.0712	4.3700e-003	0.0756		633.3222	633.3222	0.0355		634.0680
Total	**0.3532**	**0.3879**	**4.3809**	**8.7700e-003**	**0.2295**	**4.7100e-003**	**0.2342**	**0.0712**	**4.3700e-003**	**0.0756**		**633.3222**	**633.3222**	**0.0355**		**634.0680**

3.6 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	72.5875					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9057
Total	**72.8296**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**		**281.4481**	**281.4481**	**0.0218**		**281.9057**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3286	0.3634	4.0932	8.7600e-003	0.7530	4.7200e-003	0.7577	0.1997	4.3800e-003	0.2041		607.6443	607.6443	0.0339		608.3551
Total	**0.3286**	**0.3634**	**4.0932**	**8.7600e-003**	**0.7530**	**4.7200e-003**	**0.7577**	**0.1997**	**4.3800e-003**	**0.2041**		**607.6443**	**607.6443**	**0.0339**		**608.3551**

3.6 Architectural Coating - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	72.5875					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0545	1.0598	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0218		281.9057
Total	**72.6419**	**1.0598**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0218**		**281.9057**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3286	0.3634	4.0932	8.7600e-003	0.2295	4.7200e-003	0.2342	0.0712	4.3800e-003	0.0756		607.6443	607.6443	0.0339		608.3551
Total	**0.3286**	**0.3634**	**4.0932**	**8.7600e-003**	**0.2295**	**4.7200e-003**	**0.2342**	**0.0712**	**4.3800e-003**	**0.0756**		**607.6443**	**607.6443**	**0.0339**		**608.3551**

3.6 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	72.5875					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.8537
Total	**72.8064**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**		**281.4481**	**281.4481**	**0.0193**		**281.8537**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3102	0.3447	3.8954	8.7700e-003	0.7530	4.7800e-003	0.7578	0.1997	4.4300e-003	0.2042		598.6688	598.6688	0.0329		599.3595
Total	**0.3102**	**0.3447**	**3.8954**	**8.7700e-003**	**0.7530**	**4.7800e-003**	**0.7578**	**0.1997**	**4.4300e-003**	**0.2042**		**598.6688**	**598.6688**	**0.0329**		**599.3595**

3.6 Architectural Coating - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	72.5875					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0545	1.0598	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0193		281.8537
Total	**72.6419**	**1.0598**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0193**		**281.8537**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3102	0.3447	3.8954	8.7700e-003	0.2295	4.7800e-003	0.2342	0.0712	4.4300e-003	0.0757		598.6688	598.6688	0.0329		599.3595
Total	**0.3102**	**0.3447**	**3.8954**	**8.7700e-003**	**0.2295**	**4.7800e-003**	**0.2342**	**0.0712**	**4.4300e-003**	**0.0757**		**598.6688**	**598.6688**	**0.0329**		**599.3595**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	72.5875					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.8329
Total	**72.7920**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.8329**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2948	0.3308	3.7074	8.7700e-003	0.7530	4.8000e-003	0.7578	0.1997	4.4500e-003	0.2042		589.8626	589.8626	0.0320		590.5339
Total	**0.2948**	**0.3308**	**3.7074**	**8.7700e-003**	**0.7530**	**4.8000e-003**	**0.7578**	**0.1997**	**4.4500e-003**	**0.2042**		**589.8626**	**589.8626**	**0.0320**		**590.5339**

3.6 Architectural Coating - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	72.5875					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0545	1.0598	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0183		281.8329
Total	**72.6419**	**1.0598**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.8329**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2948	0.3308	3.7074	8.7700e-003	0.2295	4.8000e-003	0.2343	0.0712	4.4500e-003	0.0757		589.8626	589.8626	0.0320		590.5339
Total	**0.2948**	**0.3308**	**3.7074**	**8.7700e-003**	**0.2295**	**4.8000e-003**	**0.2343**	**0.0712**	**4.4500e-003**	**0.0757**		**589.8626**	**589.8626**	**0.0320**		**590.5339**

3.7 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3301	13.7845	14.3523	0.0223		0.7390	0.7390		0.6799	0.6799		2,160.7571	2,160.7571	0.6988		2,175.4326
Paving	0.6292					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.9593**	**13.7845**	**14.3523**	**0.0223**		**0.7390**	**0.7390**		**0.6799**	**0.6799**		**2,160.7571**	**2,160.7571**	**0.6988**		**2,175.4326**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0548	0.0606	0.6822	1.4600e-003	0.1255	7.9000e-004	0.1263	0.0333	7.3000e-004	0.0340		101.2740	101.2740	5.6400e-003		101.3925
Total	**0.0548**	**0.0606**	**0.6822**	**1.4600e-003**	**0.1255**	**7.9000e-004**	**0.1263**	**0.0333**	**7.3000e-004**	**0.0340**		**101.2740**	**101.2740**	**5.6400e-003**		**101.3925**

3.7 Paving - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3281	9.8256	16.9276	0.0223		0.0366	0.0366		0.0366	0.0366	0.0000	2,160.7571	2,160.7571	0.6988		2,175.4326
Paving	0.6292					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9574**	**9.8256**	**16.9276**	**0.0223**		**0.0366**	**0.0366**		**0.0366**	**0.0366**	**0.0000**	**2,160.7571**	**2,160.7571**	**0.6988**		**2,175.4326**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0548	0.0606	0.6822	1.4600e-003	0.0382	7.9000e-004	0.0390	0.0119	7.3000e-004	0.0126		101.2740	101.2740	5.6400e-003		101.3925
Total	**0.0548**	**0.0606**	**0.6822**	**1.4600e-003**	**0.0382**	**7.9000e-004**	**0.0390**	**0.0119**	**7.3000e-004**	**0.0126**		**101.2740**	**101.2740**	**5.6400e-003**		**101.3925**

3.7 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2308	12.6607	14.3528	0.0223		0.6652	0.6652		0.6120	0.6120		2,160.2530	2,160.2530	0.6987		2,174.9250
Paving	0.6292					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.8600**	**12.6607**	**14.3528**	**0.0223**		**0.6652**	**0.6652**		**0.6120**	**0.6120**		**2,160.2530**	**2,160.2530**	**0.6987**		**2,174.9250**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0517	0.0575	0.6492	1.4600e-003	0.1255	8.0000e-004	0.1263	0.0333	7.4000e-004	0.0340		99.7781	99.7781	5.4800e-003		99.8933
Total	**0.0517**	**0.0575**	**0.6492**	**1.4600e-003**	**0.1255**	**8.0000e-004**	**0.1263**	**0.0333**	**7.4000e-004**	**0.0340**		**99.7781**	**99.7781**	**5.4800e-003**		**99.8933**

3.7 Paving - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3281	9.8256	16.9276	0.0223		0.0366	0.0366		0.0366	0.0366	0.0000	2,160.2530	2,160.2530	0.6987		2,174.9250
Paving	0.6292					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9574**	**9.8256**	**16.9276**	**0.0223**		**0.0366**	**0.0366**		**0.0366**	**0.0366**	**0.0000**	**2,160.2530**	**2,160.2530**	**0.6987**		**2,174.9250**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0517	0.0575	0.6492	1.4600e-003	0.0382	8.0000e-004	0.0390	0.0119	7.4000e-004	0.0126		99.7781	99.7781	5.4800e-003		99.8933
Total	**0.0517**	**0.0575**	**0.6492**	**1.4600e-003**	**0.0382**	**8.0000e-004**	**0.0390**	**0.0119**	**7.4000e-004**	**0.0126**		**99.7781**	**99.7781**	**5.4800e-003**		**99.8933**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Increase Diversity

Improve Walkability Design

Improve Destination Accessibility

Increase Transit Accessibility

Improve Pedestrian Network

Provide Traffic Calming Measures

Implement NEV Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	23.0170	37.3356	203.6886	0.3714	23.7286	0.7206	24.4491	6.3339	0.6641	6.9980		28,201.4744	28,201.4744	1.0672		28,223.8857
Unmitigated	24.9088	48.7423	252.5646	0.5375	35.0647	1.0310	36.0956	9.3598	0.9501	10.3099		40,825.6754	40,825.6754	1.4860		40,856.8808

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	11.13	11.13	11.13	21,220	14,360
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Single Family Housing	4,476.00	7,368.00	6420.00	11,557,852	7,821,299
User Defined Recreational	0.00	0.00	0.00		
User Defined Recreational	0.00	0.00	0.00		
Total	4,487.13	7,379.13	6,431.13	11,579,072	7,835,659

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	12.50	4.20	5.40	33.00	48.00	19.00	66	28	6
Other Asphalt Surfaces	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Parking Lot	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Single Family Housing	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3
User Defined Recreational	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
User Defined Recreational	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.469364	0.065576	0.169825	0.159036	0.038089	0.006139	0.011322	0.071493	0.001371	0.001211	0.003602	0.000518	0.002454

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

Percent of Electricity Use Generated with Renewable Energy

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	1.0493	8.9666	3.8156	0.0572		0.7250	0.7250		0.7250	0.7250		11,446.6668	11,446.6668	0.2194	0.2099	11,516.3293
NaturalGas Unmitigated	1.1972	10.2308	4.3535	0.0653		0.8272	0.8272		0.8272	0.8272		13,060.5331	13,060.5331	0.2503	0.2394	13,140.0174

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	111015	1.1972	10.2308	4.3535	0.0653		0.8272	0.8272		0.8272	0.8272		13,060.5331	13,060.5331	0.2503	0.2394	13,140.0174
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**1.1972**	**10.2308**	**4.3535**	**0.0653**		**0.8272**	**0.8272**		**0.8272**	**0.8272**		**13,060.5331**	**13,060.5331**	**0.2503**	**0.2394**	**13,140.0174**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	97.2967	1.0493	8.9666	3.8156	0.0572		0.7250	0.7250		0.7250	0.7250		11,446.6668	11,446.6668	0.2194	0.2099	11,516.3293
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**1.0493**	**8.9666**	**3.8156**	**0.0572**		**0.7250**	**0.7250**		**0.7250**	**0.7250**		**11,446.6668**	**11,446.6668**	**0.2194**	**0.2099**	**11,516.3293**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

Use only Natural Gas Hearths

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	82.7748	1.0253	87.4159	4.3200e-003		1.0150	1.0150		1.0093	1.0093	0.0000	8,622.4476	8,622.4476	0.2939	0.1553	8,676.7613
Unmitigated	111.5026	1.1435	99.2052	5.2300e-003		1.0843	1.0843		1.0786	1.0786	0.0000	8,648.9682	8,648.9682	0.3346	0.1553	8,704.1368

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	27.5435					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	80.1841					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.7765	4.0000e-005	0.0424	0.0000		0.5365	0.5365		0.5308	0.5308	0.0000	8,470.5882	8,470.5882	0.1624	0.1553	8,522.1388
Landscaping	2.9986	1.1435	99.1628	5.2300e-003		0.5478	0.5478		0.5478	0.5478		178.3799	178.3799	0.1723		181.9980
Total	**111.5026**	**1.1435**	**99.2052**	**5.2300e-003**		**1.0843**	**1.0843**		**1.0786**	**1.0786**	**0.0000**	**8,648.9682**	**8,648.9682**	**0.3346**	**0.1553**	**8,704.1368**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	5.5087					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	74.1890					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.7765	4.0000e-005	0.0424	0.0000		0.5365	0.5365		0.5308	0.5308	0.0000	8,470.5882	8,470.5882	0.1624	0.1553	8,522.1388
Landscaping	2.3006	1.0252	87.3735	4.3200e-003		0.4785	0.4785		0.4785	0.4785		151.8594	151.8594	0.1316		154.6225
Total	**82.7748**	**1.0253**	**87.4159**	**4.3200e-003**		**1.0150**	**1.0150**		**1.0093**	**1.0093**	**0.0000**	**8,622.4476**	**8,622.4476**	**0.2939**	**0.1553**	**8,676.7613**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Use Reclaimed Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Turf Reduction

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Active Adult Community (Planning Area 8)

Salton Sea Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	25.00	Acre	25.00	1,089,000.00	0
Parking Lot	425.00	Space	3.82	170,000.00	0
City Park	7.00	Acre	7.00	304,920.00	0
User Defined Recreational	78.00	User Defined Unit	0.00	0.00	0
User Defined Recreational	0.00	User Defined Unit	0.00	23,000.00	0
Single Family Housing	1,200.00	Dwelling Unit	234.00	2,160,000.00	2340

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.4	**Precipitation Freq (Days)**	20
Climate Zone	10			**Operational Year**	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Population based on 1.95 factor
Private Park 7 acres
25 acres of road right of way
23,000 sf = clubhouse

Construction Phase - Construction Assumptions

Off-road Equipment -

Off-road Equipment - no cranes

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Construction assumptions

Off-road Equipment - Typical equipment used for trenching of utilities

Trips and VMT - Construction assumptions from CalEEMod User's Guide

On-road Fugitive Dust - 100% paved roads

Grading - clearance of any vegetation on the site

Architectural Coating -

Vehicle Trips - Private City Park/Open Space

Vechicle Emission Factors -

Vechicle Emission Factors -

Vechicle Emission Factors -

Road Dust - 100% paved road

Woodstoves - No woodstoves

Area Coating -

Water And Wastewater - Calculated

Land Use Change -

Sequestration -

Construction Off-road Equipment Mitigation - Per SCAQMD, All off-road diesel powered construction equipment greater than 50 hp shall meet Tier 4 emission standards, where available
Fugitive Dust requirements per SCAQMD Rule 403 and 403.1

Mobile Land Use Mitigation - 3.75 units per acre
12.7 low penetration NEV network

Mobile Commute Mitigation -

Area Mitigation - Per SCAQMD Rule 1113

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	50
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	80
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim

tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	330.00	1,385.00
tblConstructionPhase	NumDays	4,650.00	1,044.00
tblConstructionPhase	NumDays	465.00	180.00
tblConstructionPhase	NumDays	330.00	120.00
tblConstructionPhase	NumDays	180.00	20.00
tblConstructionPhase	PhaseEndDate	3/15/2022	7/22/2022
tblConstructionPhase	PhaseEndDate	11/20/2020	11/22/2016
tblConstructionPhase	PhaseEndDate	1/6/2023	5/7/2021
tblConstructionPhase	PhaseEndDate	1/20/2017	11/21/2016
tblConstructionPhase	PhaseStartDate	11/23/2016	4/1/2017
tblConstructionPhase	PhaseStartDate	7/23/2022	11/23/2020
tblConstructionPhase	PhaseStartDate	8/6/2016	6/7/2016
tblFireplaces	FireplaceWoodMass	457.60	0.00
tblFireplaces	NumberGas	1,020.00	400.00
tblFireplaces	NumberNoFireplace	60.00	0.00
tblFireplaces	NumberWood	120.00	0.00
tblLandUse	LandUseSquareFeet	0.00	23,000.00

tblLandUse	LotAcreage	389.61	234.00
tblLandUse	Population	3,876.00	2,340.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	7.00	0.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblProjectCharacteristics	OperationalYear	2014	2022
tblRoadDust	RoadPercentPave	50	100
tblSequestration	NumberOfNewTrees	0.00	150.00
tblTripsAndVMT	VendorTripNumber	388.00	129.00
tblTripsAndVMT	WorkerTripNumber	1,099.00	432.00
tblTripsAndVMT	WorkerTripNumber	220.00	90.00

tblVehicleTrips	ST_TR	10.08	6.14
tblVehicleTrips	SU_TR	8.77	5.35
tblVehicleTrips	WD_TR	9.57	3.73
tblWater	IndoorWaterUseRate	78,184,830.75	157,680,000.00
tblWater	IndoorWaterUseRate	0.00	1,413,645.00
tblWater	OutdoorWaterUseRate	8,340,369.45	36,886,345.00
tblWater	OutdoorWaterUseRate	49,290,436.77	157,680,000.00
tblWoodstoves	NumberCatalytic	60.00	0.00
tblWoodstoves	NumberNoncatalytic	60.00	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	6.8632	79.1841	52.0233	0.0636	18.2169	3.8033	21.3062	9.9706	3.4991	12.8128	0.0000	6,639.2095	6,639.2095	1.9470	0.0000	6,680.0954
2016	9.3701	102.6237	65.1289	0.0965	8.9662	4.8581	13.8242	3.6742	4.4762	8.1504	0.0000	9,908.2414	9,908.2414	2.9121	0.0000	9,969.3957
2017	73.2378	2.6925	6.1696	0.0111	0.7530	0.1781	0.9311	0.1997	0.1778	0.3775	0.0000	916.1228	916.1228	0.0700	0.0000	917.5927
2018	73.1724	2.4705	5.7562	0.0111	0.7530	0.1553	0.9083	0.1997	0.1549	0.3546	0.0000	891.5819	891.5819	0.0643	0.0000	892.9327
2019	73.1165	2.2643	5.4425	0.0111	0.7530	0.1335	0.8865	0.1997	0.1331	0.3329	0.0000	868.6345	868.6345	0.0593	0.0000	869.8796
2020	75.0748	15.9368	20.1054	0.0348	0.8785	0.8555	1.7340	0.2330	0.7960	1.0290	0.0000	3,099.3977	3,099.3977	0.7601	0.0000	3,115.3600
2021	74.9377	14.6316	19.8981	0.0348	0.8785	0.7649	1.6434	0.2330	0.7112	0.9443	0.0000	3,089.1925	3,089.1925	0.7564	0.0000	3,105.0760
2022	73.0142	1.7735	4.8536	0.0111	0.7530	0.0865	0.8395	0.1997	0.0862	0.2859	0.0000	828.2539	828.2539	0.0503	0.0000	829.3100
Total	**458.7866**	**221.5770**	**179.3777**	**0.2740**	**31.9520**	**10.8351**	**42.0731**	**14.9098**	**10.0344**	**24.2873**	**0.0000**	**26,240.6341**	**26,240.6341**	**6.6194**	**0.0000**	**26,379.6421**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	1.0660	20.4260	39.1266	0.0636	6.7394	0.1020	6.8039	3.6936	0.1019	3.7579	0.0000	6,639.2095	6,639.2095	1.9470	0.0000	6,680.0954
2016	3.6365	29.7208	58.3311	0.0965	3.3027	0.2916	3.4772	1.3602	0.2742	1.5346	0.0000	9,908.2414	9,908.2414	2.9121	0.0000	9,969.3957
2017	72.9600	1.5673	6.1340	0.0111	0.2295	8.7500e-003	0.2382	0.0712	8.3700e-003	0.0796	0.0000	916.1228	916.1228	0.0700	0.0000	917.5927
2018	72.9282	1.5246	5.7345	0.0111	0.2295	8.6700e-003	0.2381	0.0712	8.3200e-003	0.0795	0.0000	891.5819	891.5819	0.0643	0.0000	892.9327
2019	72.9045	1.4888	5.4336	0.0111	0.2295	8.6700e-003	0.2381	0.0712	8.3300e-003	0.0796	0.0000	868.6345	868.6345	0.0593	0.0000	869.8796
2020	73.8852	11.3539	22.6817	0.0348	0.2677	0.0461	0.3138	0.0831	0.0457	0.1288	0.0000	3,099.3977	3,099.3977	0.7601	0.0000	3,115.3600
2021	73.8706	11.3295	22.4878	0.0348	0.2677	0.0461	0.3138	0.0831	0.0457	0.1288	0.0000	3,089.1925	3,089.1925	0.7564	0.0000	3,105.0760
2022	72.8642	1.4249	4.8724	0.0111	0.2295	8.7600e-003	0.2382	0.0712	8.4100e-003	0.0796	0.0000	828.2539	828.2539	0.0503	0.0000	829.3100
Total	**444.1150**	**78.8357**	**164.8016**	**0.2740**	**11.4953**	**0.5206**	**11.8614**	**5.5048**	**0.5009**	**5.8684**	**0.0000**	**26,240.6341**	**26,240.6341**	**6.6194**	**0.0000**	**26,379.6420**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**3.20**	**64.42**	**8.13**	**0.00**	**64.02**	**95.19**	**71.81**	**63.08**	**95.01**	**75.84**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	111.5026	1.1435	99.2052	5.2300e-003		1.0843	1.0843		1.0786	1.0786	0.0000	8,648.9682	8,648.9682	0.3346	0.1553	8,704.1368
Energy	1.1972	10.2308	4.3535	0.0653		0.8272	0.8272		0.8272	0.8272		13,060.5331	13,060.5331	0.2503	0.2394	13,140.0174
Mobile	20.6316	52.5586	257.3703	0.5093	35.0647	1.0362	36.1009	9.3598	0.9549	10.3147		38,858.1582	38,858.1582	1.4908		38,889.4659
Total	**133.3314**	**63.9328**	**360.9290**	**0.5799**	**35.0647**	**2.9477**	**38.0123**	**9.3598**	**2.8607**	**12.2205**	**0.0000**	**60,567.6595**	**60,567.6595**	**2.0758**	**0.3947**	**60,733.6200**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	82.7748	1.0253	87.4159	4.3200e-003		1.0150	1.0150		1.0093	1.0093	0.0000	8,622.4476	8,622.4476	0.2939	0.1553	8,676.7613
Energy	1.0493	8.9666	3.8156	0.0572		0.7250	0.7250		0.7250	0.7250		11,446.6668	11,446.6668	0.2194	0.2099	11,516.3293
Mobile	18.9578	39.9888	218.5668	0.3521	23.7286	0.7258	24.4543	6.3339	0.6689	7.0028		26,836.4184	26,836.4184	1.0721		26,858.9320
Total	**102.7818**	**49.9807**	**309.7982**	**0.4137**	**23.7286**	**2.4657**	**26.1943**	**6.3339**	**2.4032**	**8.7371**	**0.0000**	**46,905.5327**	**46,905.5327**	**1.5854**	**0.3652**	**47,052.0226**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**22.91**	**21.82**	**14.17**	**28.66**	**32.33**	**16.35**	**31.09**	**32.33**	**15.99**	**28.50**	**0.00**	**22.56**	**22.56**	**23.62**	**7.49**	**22.53**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/1/2015	11/27/2015	5	20	
2	Grading	Grading	11/28/2015	8/5/2016	5	180	
3	Utilities	Trenching	6/7/2016	11/21/2016	5	120	
4	Building Construction	Building Construction	11/22/2016	11/22/2016	5	1044	
5	Architectural Coating	Architectural Coating	4/1/2017	7/22/2022	5	1385	
6	Paving	Paving	11/23/2020	5/7/2021	5	120	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 450

Acres of Paving: 0

Residential Indoor: 4,374,000; Residential Outdoor: 1,458,000; Non-Residential Indoor: 2,133,030; Non-Residential Outdoor: 711,010 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Utilities	Forklifts	1	4.00	89	0.20
Utilities	Off-Highway Trucks	2	8.00	400	0.38
Utilities	Signal Boards	1	8.00	6	0.82
Utilities	Trenchers	1	6.00	80	0.50
Utilities	Welders	1	4.00	46	0.45
Building Construction	Cranes	0	0.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Utilities	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	432.00	129.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	90.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

3.2 Site Preparation - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	5.2609	56.8897	42.6318	0.0391		3.0883	3.0883		2.8412	2.8412		4,111.7444	4,111.7444	1.2275		4,137.5225
Total	**5.2609**	**56.8897**	**42.6318**	**0.0391**	**18.0663**	**3.0883**	**21.1545**	**9.9307**	**2.8412**	**12.7719**		**4,111.7444**	**4,111.7444**	**1.2275**		**4,137.5225**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0792	0.1237	1.0650	1.6300e-003	0.1506	1.0300e-003	0.1516	0.0400	9.4000e-004	0.0409		137.6696	137.6696	9.4800e-003		137.8687
Total	**0.0792**	**0.1237**	**1.0650**	**1.6300e-003**	**0.1506**	**1.0300e-003**	**0.1516**	**0.0400**	**9.4000e-004**	**0.0409**		**137.6696**	**137.6696**	**9.4800e-003**		**137.8687**

3.2 Site Preparation - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.6936	0.0000	6.6936	3.6793	0.0000	3.6793			0.0000			0.0000
Off-Road	0.7103	12.3804	23.4003	0.0391		0.0634	0.0634		0.0634	0.0634	0.0000	4,111.7444	4,111.7444	1.2275		4,137.5224
Total	**0.7103**	**12.3804**	**23.4003**	**0.0391**	**6.6936**	**0.0634**	**6.7570**	**3.6793**	**0.0634**	**3.7428**	**0.0000**	**4,111.7444**	**4,111.7444**	**1.2275**		**4,137.5224**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0792	0.1237	1.0650	1.6300e-003	0.0459	1.0300e-003	0.0469	0.0142	9.4000e-004	0.0152		137.6696	137.6696	9.4800e-003		137.8687
Total	**0.0792**	**0.1237**	**1.0650**	**1.6300e-003**	**0.0459**	**1.0300e-003**	**0.0469**	**0.0142**	**9.4000e-004**	**0.0152**		**137.6696**	**137.6696**	**9.4800e-003**		**137.8687**

3.3 Grading - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	6.7751	79.0467	50.8400	0.0618		3.8022	3.8022		3.4980	3.4980		6,486.2433	6,486.2433	1.9364		6,526.9080
Total	**6.7751**	**79.0467**	**50.8400**	**0.0618**	**8.6733**	**3.8022**	**12.4755**	**3.5965**	**3.4980**	**7.0945**		**6,486.2433**	**6,486.2433**	**1.9364**		**6,526.9080**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0881	0.1374	1.1833	1.8100e-003	0.1673	1.1500e-003	0.1685	0.0444	1.0500e-003	0.0454		152.9662	152.9662	0.0105		153.1874
Total	**0.0881**	**0.1374**	**1.1833**	**1.8100e-003**	**0.1673**	**1.1500e-003**	**0.1685**	**0.0444**	**1.0500e-003**	**0.0454**		**152.9662**	**152.9662**	**0.0105**		**153.1874**

3.3 Grading - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.2135	0.0000	3.2135	1.3325	0.0000	1.3325			0.0000			0.0000
Off-Road	0.9779	20.2885	37.9432	0.0618		0.1009	0.1009		0.1009	0.1009	0.0000	6,486.2433	6,486.2433	1.9364		6,526.9080
Total	**0.9779**	**20.2885**	**37.9432**	**0.0618**	**3.2135**	**0.1009**	**3.3143**	**1.3325**	**0.1009**	**1.4334**	**0.0000**	**6,486.2433**	**6,486.2433**	**1.9364**		**6,526.9080**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0881	0.1374	1.1833	1.8100e-003	0.0510	1.1500e-003	0.0521	0.0158	1.0500e-003	0.0169		152.9662	152.9662	0.0105		153.1874
Total	**0.0881**	**0.1374**	**1.1833**	**1.8100e-003**	**0.0510**	**1.1500e-003**	**0.0521**	**0.0158**	**1.0500e-003**	**0.0169**		**152.9662**	**152.9662**	**0.0105**		**153.1874**

3.3 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	6.4795	74.8137	49.1374	0.0617		3.5842	3.5842		3.2975	3.2975		6,414.9807	6,414.9807	1.9350		6,455.6154
Total	**6.4795**	**74.8137**	**49.1374**	**0.0617**	**8.6733**	**3.5842**	**12.2576**	**3.5965**	**3.2975**	**6.8940**		**6,414.9807**	**6,414.9807**	**1.9350**		**6,455.6154**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0788	0.1240	1.0606	1.8100e-003	0.1673	1.0900e-003	0.1684	0.0444	1.0100e-003	0.0454		147.0651	147.0651	9.6700e-003		147.2681
Total	**0.0788**	**0.1240**	**1.0606**	**1.8100e-003**	**0.1673**	**1.0900e-003**	**0.1684**	**0.0444**	**1.0100e-003**	**0.0454**		**147.0651**	**147.0651**	**9.6700e-003**		**147.2681**

3.3 Grading - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.2135	0.0000	3.2135	1.3325	0.0000	1.3325			0.0000			0.0000
Off-Road	0.9779	20.2885	37.9432	0.0617		0.1009	0.1009		0.1009	0.1009	0.0000	6,414.9807	6,414.9807	1.9350		6,455.6154
Total	**0.9779**	**20.2885**	**37.9432**	**0.0617**	**3.2135**	**0.1009**	**3.3143**	**1.3325**	**0.1009**	**1.4334**	**0.0000**	**6,414.9807**	**6,414.9807**	**1.9350**		**6,455.6154**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0788	0.1240	1.0606	1.8100e-003	0.0510	1.0900e-003	0.0521	0.0158	1.0100e-003	0.0168		147.0651	147.0651	9.6700e-003		147.2681
Total	**0.0788**	**0.1240**	**1.0606**	**1.8100e-003**	**0.0510**	**1.0900e-003**	**0.0521**	**0.0158**	**1.0100e-003**	**0.0168**		**147.0651**	**147.0651**	**9.6700e-003**		**147.2681**

3.4 Utilities - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.7527	27.5930	14.1355	0.0317		1.2719	1.2719		1.1769	1.1769		3,235.8968	3,235.8968	0.9602		3,256.0611
Total	**2.7527**	**27.5930**	**14.1355**	**0.0317**		**1.2719**	**1.2719**		**1.1769**	**1.1769**		**3,235.8968**	**3,235.8968**	**0.9602**		**3,256.0611**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0591	0.0930	0.7954	1.3600e-003	0.1255	8.2000e-004	0.1263	0.0333	7.5000e-004	0.0340		110.2988	110.2988	7.2500e-003		110.4511
Total	**0.0591**	**0.0930**	**0.7954**	**1.3600e-003**	**0.1255**	**8.2000e-004**	**0.1263**	**0.0333**	**7.5000e-004**	**0.0340**		**110.2988**	**110.2988**	**7.2500e-003**		**110.4511**

3.4 Utilities - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5263	9.2153	17.2272	0.0317		0.0718	0.0718		0.0718	0.0718	0.0000	3,235.8968	3,235.8968	0.9602		3,256.0611
Total	**0.5263**	**9.2153**	**17.2272**	**0.0317**		**0.0718**	**0.0718**		**0.0718**	**0.0718**	**0.0000**	**3,235.8968**	**3,235.8968**	**0.9602**		**3,256.0611**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0591	0.0930	0.7954	1.3600e-003	0.0382	8.2000e-004	0.0391	0.0119	7.5000e-004	0.0126		110.2988	110.2988	7.2500e-003		110.4511
Total	**0.0591**	**0.0930**	**0.7954**	**1.3600e-003**	**0.0382**	**8.2000e-004**	**0.0391**	**0.0119**	**7.5000e-004**	**0.0126**		**110.2988**	**110.2988**	**7.2500e-003**		**110.4511**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.7762	21.0412	15.8949	0.0219		1.6287	1.6287		1.5368	1.5368		2,156.3310	2,156.3310	0.5073		2,166.9844
Total	**2.7762**	**21.0412**	**15.8949**	**0.0219**		**1.6287**	**1.6287**		**1.5368**	**1.5368**		**2,156.3310**	**2,156.3310**	**0.5073**		**2,166.9844**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.4838	9.4951	20.2374	0.0210	0.6265	0.1916	0.8181	0.1777	0.1761	0.3538		2,090.4419	2,090.4419	0.0147		2,090.7511
Worker	1.7019	2.6783	22.9079	0.0391	3.6144	0.0236	3.6381	0.9587	0.0217	0.9804		3,176.6057	3,176.6057	0.2089		3,180.9915
Total	**3.1857**	**12.1734**	**43.1452**	**0.0601**	**4.2409**	**0.2152**	**4.4562**	**1.1364**	**0.1979**	**1.3343**		**5,267.0476**	**5,267.0476**	**0.2236**		**5,271.7426**

3.5 Building Construction - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4508	9.5786	15.1859	0.0219		0.0763	0.0763		0.0763	0.0763	0.0000	2,156.3310	2,156.3310	0.5073		2,166.9844
Total	**0.4508**	**9.5786**	**15.1859**	**0.0219**		**0.0763**	**0.0763**		**0.0763**	**0.0763**	**0.0000**	**2,156.3310**	**2,156.3310**	**0.5073**		**2,166.9844**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.4838	9.4951	20.2374	0.0210	0.2581	0.1916	0.4497	0.0873	0.1761	0.2634		2,090.4419	2,090.4419	0.0147		2,090.7511
Worker	1.7019	2.6783	22.9079	0.0391	1.1014	0.0236	1.1250	0.3419	0.0217	0.3636		3,176.6057	3,176.6057	0.2089		3,180.9915
Total	**3.1857**	**12.1734**	**43.1452**	**0.0601**	**1.3595**	**0.2152**	**1.5747**	**0.4291**	**0.1979**	**0.6270**		**5,267.0476**	**5,267.0476**	**0.2236**		**5,271.7426**

3.6 Architectural Coating - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	72.5875					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733		281.4481	281.4481	0.0297		282.0721
Total	**72.9198**	**2.1850**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**		**281.4481**	**281.4481**	**0.0297**		**282.0721**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3180	0.5075	4.3016	8.1300e-003	0.7530	4.7800e-003	0.7578	0.1997	4.4100e-003	0.2041		634.6748	634.6748	0.0403		635.5206
Total	**0.3180**	**0.5075**	**4.3016**	**8.1300e-003**	**0.7530**	**4.7800e-003**	**0.7578**	**0.1997**	**4.4100e-003**	**0.2041**		**634.6748**	**634.6748**	**0.0403**		**635.5206**

3.6 Architectural Coating - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	72.5875					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0545	1.0598	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0297		282.0721
Total	**72.6419**	**1.0598**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0297**		**282.0721**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3180	0.5075	4.3016	8.1300e-003	0.2295	4.7800e-003	0.2342	0.0712	4.4100e-003	0.0756		634.6748	634.6748	0.0403		635.5206
Total	**0.3180**	**0.5075**	**4.3016**	**8.1300e-003**	**0.2295**	**4.7800e-003**	**0.2342**	**0.0712**	**4.4100e-003**	**0.0756**		**634.6748**	**634.6748**	**0.0403**		**635.5206**

3.6 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	72.5875					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.0102
Total	**72.8861**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**		**281.4485**	**281.4485**	**0.0267**		**282.0102**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2863	0.4647	3.9020	8.1200e-003	0.7530	4.7100e-003	0.7577	0.1997	4.3500e-003	0.2041		610.1334	610.1334	0.0376		610.9225
Total	**0.2863**	**0.4647**	**3.9020**	**8.1200e-003**	**0.7530**	**4.7100e-003**	**0.7577**	**0.1997**	**4.3500e-003**	**0.2041**		**610.1334**	**610.1334**	**0.0376**		**610.9225**

3.6 Architectural Coating - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	72.5875					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0545	1.0598	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4485	281.4485	0.0267		282.0102
Total	**72.6419**	**1.0598**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4485**	**281.4485**	**0.0267**		**282.0102**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2863	0.4647	3.9020	8.1200e-003	0.2295	4.7100e-003	0.2342	0.0712	4.3500e-003	0.0756		610.1334	610.1334	0.0376		610.9225
Total	**0.2863**	**0.4647**	**3.9020**	**8.1200e-003**	**0.2295**	**4.7100e-003**	**0.2342**	**0.0712**	**4.3500e-003**	**0.0756**		**610.1334**	**610.1334**	**0.0376**		**610.9225**

3.6 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	72.5875					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		281.9473
Total	**72.8539**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**		**281.4481**	**281.4481**	**0.0238**		**281.9473**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2626	0.4290	3.6012	8.1200e-003	0.7530	4.7100e-003	0.7577	0.1997	4.3700e-003	0.2041		587.1865	587.1865	0.0355		587.9323
Total	**0.2626**	**0.4290**	**3.6012**	**8.1200e-003**	**0.7530**	**4.7100e-003**	**0.7577**	**0.1997**	**4.3700e-003**	**0.2041**		**587.1865**	**587.1865**	**0.0355**		**587.9323**

3.6 Architectural Coating - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	72.5875					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0545	1.0598	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0238		281.9473
Total	**72.6419**	**1.0598**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0238**		**281.9473**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2626	0.4290	3.6012	8.1200e-003	0.2295	4.7100e-003	0.2342	0.0712	4.3700e-003	0.0756		587.1865	587.1865	0.0355		587.9323
Total	**0.2626**	**0.4290**	**3.6012**	**8.1200e-003**	**0.2295**	**4.7100e-003**	**0.2342**	**0.0712**	**4.3700e-003**	**0.0756**		**587.1865**	**587.1865**	**0.0355**		**587.9323**

3.6 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	72.5875					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9057
Total	**72.8296**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**		**281.4481**	**281.4481**	**0.0218**		**281.9057**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2451	0.4016	3.3615	8.1100e-003	0.7530	4.7200e-003	0.7577	0.1997	4.3800e-003	0.2041		563.3079	563.3079	0.0339		564.0187
Total	**0.2451**	**0.4016**	**3.3615**	**8.1100e-003**	**0.7530**	**4.7200e-003**	**0.7577**	**0.1997**	**4.3800e-003**	**0.2041**		**563.3079**	**563.3079**	**0.0339**		**564.0187**

3.6 Architectural Coating - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	72.5875					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0545	1.0598	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0218		281.9057
Total	**72.6419**	**1.0598**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0218**		**281.9057**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2451	0.4016	3.3615	8.1100e-003	0.2295	4.7200e-003	0.2342	0.0712	4.3800e-003	0.0756		563.3079	563.3079	0.0339		564.0187
Total	**0.2451**	**0.4016**	**3.3615**	**8.1100e-003**	**0.2295**	**4.7200e-003**	**0.2342**	**0.0712**	**4.3800e-003**	**0.0756**		**563.3079**	**563.3079**	**0.0339**		**564.0187**

3.6 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	72.5875					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.8537
Total	**72.8064**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**		**281.4481**	**281.4481**	**0.0193**		**281.8537**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2325	0.3806	3.1952	8.1200e-003	0.7530	4.7800e-003	0.7578	0.1997	4.4300e-003	0.2042		554.9927	554.9927	0.0329		555.6834
Total	**0.2325**	**0.3806**	**3.1952**	**8.1200e-003**	**0.7530**	**4.7800e-003**	**0.7578**	**0.1997**	**4.4300e-003**	**0.2042**		**554.9927**	**554.9927**	**0.0329**		**555.6834**

3.6 Architectural Coating - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	72.5875					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0545	1.0598	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0193		281.8537
Total	**72.6419**	**1.0598**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0193**		**281.8537**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2325	0.3806	3.1952	8.1200e-003	0.2295	4.7800e-003	0.2342	0.0712	4.4300e-003	0.0757		554.9927	554.9927	0.0329		555.6834
Total	**0.2325**	**0.3806**	**3.1952**	**8.1200e-003**	**0.2295**	**4.7800e-003**	**0.2342**	**0.0712**	**4.4300e-003**	**0.0757**		**554.9927**	**554.9927**	**0.0329**		**555.6834**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	72.5875					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.8329
Total	**72.7920**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.8329**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2222	0.3650	3.0400	8.1200e-003	0.7530	4.8000e-003	0.7578	0.1997	4.4500e-003	0.2042		546.8058	546.8058	0.0320		547.4771
Total	**0.2222**	**0.3650**	**3.0400**	**8.1200e-003**	**0.7530**	**4.8000e-003**	**0.7578**	**0.1997**	**4.4500e-003**	**0.2042**		**546.8058**	**546.8058**	**0.0320**		**547.4771**

3.6 Architectural Coating - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	72.5875					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0545	1.0598	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0183		281.8329
Total	**72.6419**	**1.0598**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.8329**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2222	0.3650	3.0400	8.1200e-003	0.2295	4.8000e-003	0.2343	0.0712	4.4500e-003	0.0757		546.8058	546.8058	0.0320		547.4771
Total	**0.2222**	**0.3650**	**3.0400**	**8.1200e-003**	**0.2295**	**4.8000e-003**	**0.2343**	**0.0712**	**4.4500e-003**	**0.0757**		**546.8058**	**546.8058**	**0.0320**		**547.4771**

3.7 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3301	13.7845	14.3523	0.0223		0.7390	0.7390		0.6799	0.6799		2,160.7571	2,160.7571	0.6988		2,175.4326
Paving	0.6292					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.9593**	**13.7845**	**14.3523**	**0.0223**		**0.7390**	**0.7390**		**0.6799**	**0.6799**		**2,160.7571**	**2,160.7571**	**0.6988**		**2,175.4326**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0408	0.0669	0.5602	1.3500e-003	0.1255	7.9000e-004	0.1263	0.0333	7.3000e-004	0.0340		93.8847	93.8847	5.6400e-003		94.0031
Total	**0.0408**	**0.0669**	**0.5602**	**1.3500e-003**	**0.1255**	**7.9000e-004**	**0.1263**	**0.0333**	**7.3000e-004**	**0.0340**		**93.8847**	**93.8847**	**5.6400e-003**		**94.0031**

3.7 Paving - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3281	9.8256	16.9276	0.0223		0.0366	0.0366		0.0366	0.0366	0.0000	2,160.7571	2,160.7571	0.6988		2,175.4326
Paving	0.6292					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9574**	**9.8256**	**16.9276**	**0.0223**		**0.0366**	**0.0366**		**0.0366**	**0.0366**	**0.0000**	**2,160.7571**	**2,160.7571**	**0.6988**		**2,175.4326**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0408	0.0669	0.5602	1.3500e-003	0.0382	7.9000e-004	0.0390	0.0119	7.3000e-004	0.0126		93.8847	93.8847	5.6400e-003		94.0031
Total	**0.0408**	**0.0669**	**0.5602**	**1.3500e-003**	**0.0382**	**7.9000e-004**	**0.0390**	**0.0119**	**7.3000e-004**	**0.0126**		**93.8847**	**93.8847**	**5.6400e-003**		**94.0031**

3.7 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2308	12.6607	14.3528	0.0223		0.6652	0.6652		0.6120	0.6120		2,160.2530	2,160.2530	0.6987		2,174.9250
Paving	0.6292					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.8600**	**12.6607**	**14.3528**	**0.0223**		**0.6652**	**0.6652**		**0.6120**	**0.6120**		**2,160.2530**	**2,160.2530**	**0.6987**		**2,174.9250**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0388	0.0634	0.5325	1.3500e-003	0.1255	8.0000e-004	0.1263	0.0333	7.4000e-004	0.0340		92.4988	92.4988	5.4800e-003		92.6139
Total	**0.0388**	**0.0634**	**0.5325**	**1.3500e-003**	**0.1255**	**8.0000e-004**	**0.1263**	**0.0333**	**7.4000e-004**	**0.0340**		**92.4988**	**92.4988**	**5.4800e-003**		**92.6139**

3.7 Paving - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3281	9.8256	16.9276	0.0223		0.0366	0.0366		0.0366	0.0366	0.0000	2,160.2530	2,160.2530	0.6987		2,174.9250
Paving	0.6292					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9574**	**9.8256**	**16.9276**	**0.0223**		**0.0366**	**0.0366**		**0.0366**	**0.0366**	**0.0000**	**2,160.2530**	**2,160.2530**	**0.6987**		**2,174.9250**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0388	0.0634	0.5325	1.3500e-003	0.0382	8.0000e-004	0.0390	0.0119	7.4000e-004	0.0126		92.4988	92.4988	5.4800e-003		92.6139
Total	**0.0388**	**0.0634**	**0.5325**	**1.3500e-003**	**0.0382**	**8.0000e-004**	**0.0390**	**0.0119**	**7.4000e-004**	**0.0126**		**92.4988**	**92.4988**	**5.4800e-003**		**92.6139**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Increase Diversity

Improve Walkability Design

Improve Destination Accessibility

Increase Transit Accessibility

Improve Pedestrian Network

Provide Traffic Calming Measures

Implement NEV Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	18.9578	39.9888	218.5668	0.3521	23.7286	0.7258	24.4543	6.3339	0.6689	7.0028		26,836.4184	26,836.4184	1.0721		26,858.9320
Unmitigated	20.6316	52.5586	257.3703	0.5093	35.0647	1.0362	36.1009	9.3598	0.9549	10.3147		38,858.1582	38,858.1582	1.4908		38,889.4659

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	11.13	11.13	11.13	21,220	14,360
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Single Family Housing	4,476.00	7,368.00	6420.00	11,557,852	7,821,299
User Defined Recreational	0.00	0.00	0.00		
User Defined Recreational	0.00	0.00	0.00		
Total	4,487.13	7,379.13	6,431.13	11,579,072	7,835,659

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	12.50	4.20	5.40	33.00	48.00	19.00	66	28	6
Other Asphalt Surfaces	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Parking Lot	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Single Family Housing	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3
User Defined Recreational	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
User Defined Recreational	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.469364	0.065576	0.169825	0.159036	0.038089	0.006139	0.011322	0.071493	0.001371	0.001211	0.003602	0.000518	0.002454

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

Percent of Electricity Use Generated with Renewable Energy

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	1.0493	8.9666	3.8156	0.0572		0.7250	0.7250		0.7250	0.7250		11,446.6668	11,446.6668	0.2194	0.2099	11,516.3293
NaturalGas Unmitigated	1.1972	10.2308	4.3535	0.0653		0.8272	0.8272		0.8272	0.8272		13,060.5331	13,060.5331	0.2503	0.2394	13,140.0174

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	111015	1.1972	10.2308	4.3535	0.0653		0.8272	0.8272		0.8272	0.8272		13,060.5331	13,060.5331	0.2503	0.2394	13,140.0174
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**1.1972**	**10.2308**	**4.3535**	**0.0653**		**0.8272**	**0.8272**		**0.8272**	**0.8272**		**13,060.5331**	**13,060.5331**	**0.2503**	**0.2394**	**13,140.0174**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	97.2967	1.0493	8.9666	3.8156	0.0572		0.7250	0.7250		0.7250	0.7250		11,446.6668	11,446.6668	0.2194	0.2099	11,516.3293
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**1.0493**	**8.9666**	**3.8156**	**0.0572**		**0.7250**	**0.7250**		**0.7250**	**0.7250**		**11,446.6668**	**11,446.6668**	**0.2194**	**0.2099**	**11,516.3293**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

Use only Natural Gas Hearths

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	82.7748	1.0253	87.4159	4.3200e-003		1.0150	1.0150		1.0093	1.0093	0.0000	8,622.4476	8,622.4476	0.2939	0.1553	8,676.7613
Unmitigated	111.5026	1.1435	99.2052	5.2300e-003		1.0843	1.0843		1.0786	1.0786	0.0000	8,648.9682	8,648.9682	0.3346	0.1553	8,704.1368

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	27.5435					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	80.1841					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.7765	4.0000e-005	0.0424	0.0000		0.5365	0.5365		0.5308	0.5308	0.0000	8,470.5882	8,470.5882	0.1624	0.1553	8,522.1388
Landscaping	2.9986	1.1435	99.1628	5.2300e-003		0.5478	0.5478		0.5478	0.5478		178.3799	178.3799	0.1723		181.9980
Total	**111.5026**	**1.1435**	**99.2052**	**5.2300e-003**		**1.0843**	**1.0843**		**1.0786**	**1.0786**	**0.0000**	**8,648.9682**	**8,648.9682**	**0.3346**	**0.1553**	**8,704.1368**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	5.5087					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	74.1890					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.7765	4.0000e-005	0.0424	0.0000		0.5365	0.5365		0.5308	0.5308	0.0000	8,470.5882	8,470.5882	0.1624	0.1553	8,522.1388
Landscaping	2.3006	1.0252	87.3735	4.3200e-003		0.4785	0.4785		0.4785	0.4785		151.8594	151.8594	0.1316		154.6225
Total	**82.7748**	**1.0253**	**87.4159**	**4.3200e-003**		**1.0150**	**1.0150**		**1.0093**	**1.0093**	**0.0000**	**8,622.4476**	**8,622.4476**	**0.2939**	**0.1553**	**8,676.7613**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Use Reclaimed Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Turf Reduction

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Tribal Land Use (Planning Area 1-7)

Salton Sea Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking Structure	12,000.00	Space	108.00	4,800,000.00	0
Other Asphalt Surfaces	25.00	Acre	25.00	1,089,000.00	0
City Park	6.00	Acre	6.00	261,360.00	0
Condo/Townhouse High Rise	1,206.00	Dwelling Unit	18.84	1,206,000.00	2028
Regional Shopping Center	3,138.60	1000sqft	72.05	3,138,600.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.4	**Precipitation Freq (Days)**	20
Climate Zone	10			**Operational Year**	2035
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Population based on 1.95 factor
User Defined recreation - private open space
Other asphalt surfaces - roadways

Construction Phase - Construction assumptions

Off-road Equipment - Construction Assumptions

Off-road Equipment - Construction Assumptions - no cranes

Trips and VMT - SCAQMDs analysis of Construction Worker and Vendor Trip Rates

On-road Fugitive Dust - 100% paved roads

Grading -

Vehicle Trips - Based on trip generation from Traffic Study
City park is private open space

Vechicle Emission Factors -

Vechicle Emission Factors -

Vechicle Emission Factors -

Road Dust - 100% paved roads

Woodstoves - No woodstoves

Construction Off-road Equipment Mitigation - Mitigation Assumption; Tier 4 required by January 2016 SCAQMD Rule 403 and 403.1

Mobile Land Use Mitigation -

Mobile Commute Mitigation - Applicant Assumption

Area Mitigation - Per SCAQMD Rule 1113 and Specific Plan

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Water And Wastewater - Calculated

Sequestration -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	50

tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	50
tblCommuteMitigation	EmployeeVanpoolPercentModeShare	2	5
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	80
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	330.00	2,133.00
tblConstructionPhase	NumDays	4,650.00	2,600.00
tblConstructionPhase	PhaseEndDate	2/20/2041	12/31/2035
tblConstructionPhase	PhaseStartDate	12/18/2032	10/28/2027
tblFireplaces	FireplaceWoodMass	457.60	0.00
tblFireplaces	NumberGas	1,206.00	402.00
tblLandUse	Population	3,895.00	2,028.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00

tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblProjectCharacteristics	OperationalYear	2014	2035
tblRoadDust	RoadPercentPave	50	100
tblSequestration	NumberOfNewTrees	0.00	150.00
tblTripsAndVMT	VendorTripNumber	1,677.00	129.00
tblTripsAndVMT	WorkerTripNumber	4,506.00	868.00
tblTripsAndVMT	WorkerTripNumber	901.00	825.00
tblVehicleTrips	ST_TR	7.16	5.08
tblVehicleTrips	ST_TR	49.97	23.49
tblVehicleTrips	SU_TR	6.07	4.31
tblVehicleTrips	SU_TR	25.24	11.86
tblVehicleTrips	WD_TR	6.59	4.65
tblVehicleTrips	WD_TR	42.94	20.33
tblWater	IndoorWaterUseRate	78,575,754.90	158,468,400.00
tblWater	IndoorWaterUseRate	232,484,015.93	171,079,397.30
tblWater	OutdoorWaterUseRate	7,148,888.10	36,886,345.00
tblWater	OutdoorWaterUseRate	49,536,888.96	158,468,400.00
tblWater	OutdoorWaterUseRate	142,490,203.31	171,079,397.30
tblWoodstoves	NumberCatalytic	60.30	0.00
tblWoodstoves	NumberNoncatalytic	60.30	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.5448	2.3708	7.4178	0.0163	1.0133	0.0928	1.1061	0.2705	0.0873	0.3578	0.0000	1,121.7629	1,121.7629	0.0899	0.0000	1,123.6514
2024	0.5277	2.2874	7.3576	0.0166	1.0211	0.0837	1.1048	0.2726	0.0787	0.3513	0.0000	1,131.1261	1,131.1261	0.0903	0.0000	1,133.0216
2025	0.5046	2.1761	7.2023	0.0165	1.0172	0.0736	1.0908	0.2715	0.0692	0.3407	0.0000	1,120.2021	1,120.2021	0.0889	0.0000	1,122.0692
2026	0.4977	2.1635	7.1065	0.0165	1.0172	0.0735	1.0907	0.2715	0.0691	0.3406	0.0000	1,114.6675	1,114.6675	0.0885	0.0000	1,116.5258
2027	3.3684	2.2497	7.7070	0.0185	1.1775	0.0759	1.2533	0.3141	0.0714	0.3854	0.0000	1,224.6715	1,224.6715	0.0943	0.0000	1,226.6520
2028	16.3919	2.6571	10.6062	0.0272	1.8999	0.0861	1.9861	0.5059	0.0813	0.5872	0.0000	1,732.5750	1,732.5750	0.1213	0.0000	1,735.1221
2029	16.4459	2.6539	10.5297	0.0273	1.9072	0.0865	1.9938	0.5078	0.0817	0.5895	0.0000	1,732.6204	1,732.6204	0.1210	0.0000	1,735.1623
2030	16.4305	2.2731	10.4860	0.0277	1.9072	0.0452	1.9524	0.5078	0.0431	0.5509	0.0000	1,755.7722	1,755.7722	0.0788	0.0000	1,757.4276
2031	16.4278	2.2689	10.5131	0.0280	1.9073	0.0452	1.9525	0.5078	0.0432	0.5511	0.0000	1,770.9932	1,770.9932	0.0803	0.0000	1,772.6794
2032	16.4664	2.2004	10.2227	0.0275	1.8757	0.0441	1.9197	0.4994	0.0421	0.5415	0.0000	1,730.7521	1,730.7521	0.0784	0.0000	1,732.3978
2033	15.8857	0.4609	3.5153	0.0109	0.8867	9.0900e-003	0.8957	0.2354	8.6300e-003	0.2440	0.0000	628.5967	628.5967	0.0330	0.0000	629.2893
2034	15.8826	0.4573	3.4817	0.0109	0.8867	9.1000e-003	0.8958	0.2354	8.6300e-003	0.2440	0.0000	627.3817	627.3817	0.0327	0.0000	628.0693
2035	15.9393	0.4433	3.4658	0.0110	0.8901	7.7800e-003	0.8978	0.2363	7.3100e-003	0.2436	0.0000	628.8074	628.8074	0.0325	0.0000	629.4907
Total	**135.3132**	**24.6623**	**99.6116**	**0.2550**	**17.4070**	**0.7325**	**18.1395**	**4.6359**	**0.6916**	**5.3276**	**0.0000**	**16,319.9289**	**16,319.9289**	**1.0300**	**0.0000**	**16,341.5584**

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.4389	2.1800	7.4889	0.0163	0.3187	0.0299	0.3485	0.1000	0.0283	0.1283	0.0000	1,121.7627	1,121.7627	0.0899	0.0000	1,123.6511
2024	0.4320	2.1828	7.4325	0.0166	0.3211	0.0301	0.3512	0.1007	0.0285	0.1293	0.0000	1,131.1258	1,131.1258	0.0903	0.0000	1,133.0213
2025	0.4207	2.1605	7.2833	0.0165	0.3199	0.0301	0.3499	0.1004	0.0285	0.1289	0.0000	1,120.2018	1,120.2018	0.0889	0.0000	1,122.0689
2026	0.4138	2.1480	7.1875	0.0165	0.3199	0.0300	0.3498	0.1004	0.0284	0.1288	0.0000	1,114.6672	1,114.6672	0.0885	0.0000	1,116.5255
2027	3.2818	2.2321	7.7886	0.0185	0.3689	0.0312	0.4001	0.1156	0.0296	0.1452	0.0000	1,224.6712	1,224.6712	0.0943	0.0000	1,226.6517
2028	16.2932	2.6305	10.6899	0.0272	0.5899	0.0366	0.6265	0.1843	0.0346	0.2189	0.0000	1,732.5747	1,732.5747	0.1213	0.0000	1,735.1218
2029	16.3468	2.6272	10.6137	0.0273	0.5922	0.0368	0.6290	0.1850	0.0348	0.2198	0.0000	1,732.6201	1,732.6201	0.1210	0.0000	1,735.1620
2030	16.3388	2.6151	10.5186	0.0277	0.5922	0.0369	0.6291	0.1850	0.0349	0.2199	0.0000	1,755.7718	1,755.7718	0.0788	0.0000	1,757.4272
2031	16.3360	2.6109	10.5456	0.0280	0.5922	0.0370	0.6292	0.1850	0.0350	0.2200	0.0000	1,770.9929	1,770.9929	0.0803	0.0000	1,772.6790
2032	16.3774	2.5316	10.2543	0.0275	0.5823	0.0360	0.6183	0.1819	0.0341	0.2160	0.0000	1,730.7518	1,730.7518	0.0784	0.0000	1,732.3975
2033	15.8758	0.4874	3.5198	0.0109	0.2713	6.9700e-003	0.2783	0.0844	6.5000e-003	0.0909	0.0000	628.5966	628.5966	0.0330	0.0000	629.2892
2034	15.8727	0.4838	3.4862	0.0109	0.2713	6.9800e-003	0.2783	0.0844	6.5100e-003	0.0909	0.0000	627.3817	627.3817	0.0327	0.0000	628.0692
2035	15.9310	0.4827	3.4707	0.0110	0.2723	7.0100e-003	0.2793	0.0847	6.5400e-003	0.0912	0.0000	628.8074	628.8074	0.0325	0.0000	629.4907
Total	**134.3588**	**25.3724**	**100.2795**	**0.2550**	**5.4121**	**0.3555**	**5.7675**	**1.6917**	**0.3362**	**2.0279**	**0.0000**	**16,319.9255**	**16,319.9255**	**1.0300**	**0.0000**	**16,341.5551**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.71**	**-2.88**	**-0.67**	**0.00**	**68.91**	**51.47**	**68.20**	**63.51**	**51.39**	**61.94**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	54.1298	0.1042	9.0636	4.8000e-004		0.0723	0.0723		0.0720	0.0720	0.0000	331.5336	331.5336	0.0207	5.8000e-003	333.7677
Energy	0.1733	1.5020	0.7871	9.4500e-003		0.1197	0.1197		0.1197	0.1197	0.0000	26,459.9666	26,459.9666	1.1703	0.2668	26,567.2430
Mobile	26.6221	47.5226	274.5905	0.5694	35.8625	1.0481	36.9106	9.5768	0.9667	10.5435	0.0000	37,111.3437	37,111.3437	1.3544	0.0000	37,139.7867
Waste						0.0000	0.0000		0.0000	0.0000	781.6796	0.0000	781.6796	46.1959	0.0000	1,751.7944
Water						0.0000	0.0000		0.0000	0.0000	104.5503	2,392.9634	2,497.5137	10.8483	0.2763	2,810.9853
Total	**80.9251**	**49.1288**	**284.4411**	**0.5793**	**35.8625**	**1.2401**	**37.1025**	**9.5768**	**1.1584**	**10.7352**	**886.2299**	**66,295.8073**	**67,182.0372**	**59.5897**	**0.5489**	**68,603.5772**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	40.7354	0.0935	7.9735	4.0000e-004		0.0659	0.0659		0.0656	0.0656	0.0000	329.2978	329.2978	0.0172	5.8000e-003	331.4587
Energy	0.1509	1.3082	0.6853	8.2300e-003		0.1043	0.1043		0.1043	0.1043	0.0000	17,417.2662	17,417.2662	0.7606	0.1788	17,488.6733
Mobile	23.9852	31.7732	209.7478	0.2810	16.4141	0.5584	16.9725	4.3833	0.5153	4.8986	0.0000	18,293.1073	18,293.1073	0.7440	0.0000	18,308.7304
Waste						0.0000	0.0000		0.0000	0.0000	195.4199	0.0000	195.4199	11.5490	0.0000	437.9486
Water						0.0000	0.0000		0.0000	0.0000	83.6403	1,880.2745	1,963.9148	8.6771	0.2207	2,214.5587
Total	**64.8716**	**33.1749**	**218.4066**	**0.2896**	**16.4141**	**0.7285**	**17.1426**	**4.3833**	**0.6853**	**5.0685**	**279.0602**	**37,919.9458**	**38,199.0059**	**21.7478**	**0.4054**	**38,781.3698**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**19.84**	**32.47**	**23.22**	**50.01**	**54.23**	**41.25**	**53.80**	**54.23**	**40.84**	**52.79**	**68.51**	**42.80**	**43.14**	**63.50**	**26.15**	**43.47**

2.3 Vegetation

Vegetation

	CO2e
Category	MT
New Trees	106.2000
Total	**106.2000**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	1/2/2023	12/17/2032	5	2600	
2	Architectural Coating	Architectural Coating	10/28/2027	12/31/2035	5	2133	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 2,442,150; Residential Outdoor: 814,050; Non-Residential Indoor: 14,166,540; Non-Residential Outdoor: 4,722,180 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Building Construction	8	868.00	129.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	825.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1645	1.4360	1.9031	2.8500e-003		0.0728	0.0728		0.0689	0.0689	0.0000	243.6804	243.6804	0.0530	0.0000	244.7941
Total	**0.1645**	**1.4360**	**1.9031**	**2.8500e-003**		**0.0728**	**0.0728**		**0.0689**	**0.0689**	**0.0000**	**243.6804**	**243.6804**	**0.0530**	**0.0000**	**244.7941**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0916	0.5065	1.5306	2.7000e-003	0.0805	0.0139	0.0944	0.0228	0.0128	0.0356	0.0000	228.4957	228.4957	1.4300e-003	0.0000	228.5256
Worker	0.2887	0.4283	3.9841	0.0108	0.9329	6.0400e-003	0.9389	0.2477	5.6000e-003	0.2533	0.0000	649.5869	649.5869	0.0355	0.0000	650.3317
Total	**0.3803**	**0.9348**	**5.5147**	**0.0135**	**1.0133**	**0.0199**	**1.0333**	**0.2705**	**0.0184**	**0.2889**	**0.0000**	**878.0826**	**878.0826**	**0.0369**	**0.0000**	**878.8573**

3.2 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0586	1.2452	1.9742	2.8500e-003		9.9200e-003	9.9200e-003		9.9200e-003	9.9200e-003	0.0000	243.6801	243.6801	0.0530	0.0000	244.7938
Total	**0.0586**	**1.2452**	**1.9742**	**2.8500e-003**		**9.9200e-003**	**9.9200e-003**		**9.9200e-003**	**9.9200e-003**	**0.0000**	**243.6801**	**243.6801**	**0.0530**	**0.0000**	**244.7938**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0916	0.5065	1.5306	2.7000e-003	0.0332	0.0139	0.0471	0.0112	0.0128	0.0240	0.0000	228.4957	228.4957	1.4300e-003	0.0000	228.5256
Worker	0.2887	0.4283	3.9841	0.0108	0.2854	6.0400e-003	0.2915	0.0887	5.6000e-003	0.0944	0.0000	649.5869	649.5869	0.0355	0.0000	650.3317
Total	**0.3803**	**0.9348**	**5.5147**	**0.0135**	**0.3187**	**0.0199**	**0.3386**	**0.1000**	**0.0184**	**0.1184**	**0.0000**	**878.0826**	**878.0826**	**0.0369**	**0.0000**	**878.8573**

3.2 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1548	1.3595	1.9144	2.8700e-003		0.0636	0.0636		0.0602	0.0602	0.0000	245.6142	245.6142	0.0530	0.0000	246.7278
Total	**0.1548**	**1.3595**	**1.9144**	**2.8700e-003**		**0.0636**	**0.0636**		**0.0602**	**0.0602**	**0.0000**	**245.6142**	**245.6142**	**0.0530**	**0.0000**	**246.7278**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0907	0.5074	1.5132	2.7300e-003	0.0811	0.0138	0.0949	0.0230	0.0127	0.0357	0.0000	230.8874	230.8874	1.4600e-003	0.0000	230.9182
Worker	0.2823	0.4206	3.9299	0.0110	0.9400	6.2800e-003	0.9463	0.2496	5.8200e-003	0.2554	0.0000	654.6245	654.6245	0.0358	0.0000	655.3756
Total	**0.3730**	**0.9280**	**5.4431**	**0.0137**	**1.0211**	**0.0201**	**1.0412**	**0.2726**	**0.0185**	**0.2911**	**0.0000**	**885.5119**	**885.5119**	**0.0372**	**0.0000**	**886.2938**

3.2 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0591	1.2548	1.9893	2.8700e-003		0.0100	0.0100		0.0100	0.0100	0.0000	245.6139	245.6139	0.0530	0.0000	246.7275
Total	**0.0591**	**1.2548**	**1.9893**	**2.8700e-003**		**0.0100**	**0.0100**		**0.0100**	**0.0100**	**0.0000**	**245.6139**	**245.6139**	**0.0530**	**0.0000**	**246.7275**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0907	0.5074	1.5132	2.7300e-003	0.0335	0.0138	0.0473	0.0113	0.0127	0.0240	0.0000	230.8874	230.8874	1.4600e-003	0.0000	230.9182
Worker	0.2823	0.4206	3.9299	0.0110	0.2876	6.2800e-003	0.2939	0.0894	5.8200e-003	0.0953	0.0000	654.6245	654.6245	0.0358	0.0000	655.3756
Total	**0.3730**	**0.9280**	**5.4431**	**0.0137**	**0.3211**	**0.0201**	**0.3412**	**0.1008**	**0.0185**	**0.1193**	**0.0000**	**885.5119**	**885.5119**	**0.0372**	**0.0000**	**886.2938**

3.2 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1427	1.2656	1.9008	2.8600e-003		0.0535	0.0535		0.0506	0.0506	0.0000	244.7666	244.7666	0.0524	0.0000	245.8674
Total	**0.1427**	**1.2656**	**1.9008**	**2.8600e-003**		**0.0535**	**0.0535**		**0.0506**	**0.0506**	**0.0000**	**244.7666**	**244.7666**	**0.0524**	**0.0000**	**245.8674**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0886	0.5016	1.4915	2.7200e-003	0.0808	0.0138	0.0945	0.0229	0.0127	0.0356	0.0000	229.9399	229.9399	1.4600e-003	0.0000	229.9706
Worker	0.2733	0.4090	3.8100	0.0110	0.9365	6.3000e-003	0.9428	0.2486	5.8500e-003	0.2545	0.0000	645.4956	645.4956	0.0350	0.0000	646.2311
Total	**0.3619**	**0.9105**	**5.3015**	**0.0137**	**1.0172**	**0.0201**	**1.0373**	**0.2715**	**0.0185**	**0.2901**	**0.0000**	**875.4356**	**875.4356**	**0.0365**	**0.0000**	**876.2017**

3.2 Building Construction - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0588	1.2500	1.9818	2.8600e-003		9.9600e-003	9.9600e-003		9.9600e-003	9.9600e-003	0.0000	244.7663	244.7663	0.0524	0.0000	245.8671
Total	**0.0588**	**1.2500**	**1.9818**	**2.8600e-003**		**9.9600e-003**	**9.9600e-003**		**9.9600e-003**	**9.9600e-003**	**0.0000**	**244.7663**	**244.7663**	**0.0524**	**0.0000**	**245.8671**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0886	0.5016	1.4915	2.7200e-003	0.0333	0.0138	0.0471	0.0113	0.0127	0.0240	0.0000	229.9399	229.9399	1.4600e-003	0.0000	229.9706
Worker	0.2733	0.4090	3.8100	0.0110	0.2865	6.3000e-003	0.2928	0.0891	5.8500e-003	0.0949	0.0000	645.4956	645.4956	0.0350	0.0000	646.2311
Total	**0.3619**	**0.9105**	**5.3015**	**0.0137**	**0.3199**	**0.0201**	**0.3400**	**0.1004**	**0.0185**	**0.1189**	**0.0000**	**875.4356**	**875.4356**	**0.0365**	**0.0000**	**876.2017**

3.2 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1427	1.2656	1.9008	2.8600e-003		0.0535	0.0535		0.0506	0.0506	0.0000	244.7666	244.7666	0.0524	0.0000	245.8674
Total	**0.1427**	**1.2656**	**1.9008**	**2.8600e-003**		**0.0535**	**0.0535**		**0.0506**	**0.0506**	**0.0000**	**244.7666**	**244.7666**	**0.0524**	**0.0000**	**245.8674**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0871	0.4952	1.4716	2.7200e-003	0.0808	0.0136	0.0944	0.0229	0.0126	0.0355	0.0000	229.9224	229.9224	1.4500e-003	0.0000	229.9529
Worker	0.2679	0.4028	3.7341	0.0110	0.9365	6.3700e-003	0.9428	0.2486	5.9100e-003	0.2545	0.0000	639.9785	639.9785	0.0346	0.0000	640.7055
Total	**0.3550**	**0.8980**	**5.2057**	**0.0137**	**1.0172**	**0.0200**	**1.0372**	**0.2715**	**0.0185**	**0.2900**	**0.0000**	**869.9010**	**869.9010**	**0.0361**	**0.0000**	**870.6584**

3.2 Building Construction - 2026

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0588	1.2500	1.9818	2.8600e-003		9.9600e-003	9.9600e-003		9.9600e-003	9.9600e-003	0.0000	244.7663	244.7663	0.0524	0.0000	245.8671
Total	**0.0588**	**1.2500**	**1.9818**	**2.8600e-003**		**9.9600e-003**	**9.9600e-003**		**9.9600e-003**	**9.9600e-003**	**0.0000**	**244.7663**	**244.7663**	**0.0524**	**0.0000**	**245.8671**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0871	0.4952	1.4716	2.7200e-003	0.0333	0.0136	0.0470	0.0113	0.0126	0.0238	0.0000	229.9224	229.9224	1.4500e-003	0.0000	229.9529
Worker	0.2679	0.4028	3.7341	0.0110	0.2865	6.3700e-003	0.2929	0.0891	5.9100e-003	0.0950	0.0000	639.9785	639.9785	0.0346	0.0000	640.7055
Total	**0.3550**	**0.8980**	**5.2057**	**0.0137**	**0.3199**	**0.0200**	**0.3399**	**0.1004**	**0.0185**	**0.1188**	**0.0000**	**869.9010**	**869.9010**	**0.0361**	**0.0000**	**870.6584**

3.2 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1427	1.2656	1.9008	2.8600e-003		0.0535	0.0535		0.0506	0.0506	0.0000	244.7666	244.7666	0.0524	0.0000	245.8674
Total	**0.1427**	**1.2656**	**1.9008**	**2.8600e-003**		**0.0535**	**0.0535**		**0.0506**	**0.0506**	**0.0000**	**244.7666**	**244.7666**	**0.0524**	**0.0000**	**245.8674**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0863	0.4921	1.4576	2.7200e-003	0.0808	0.0137	0.0944	0.0229	0.0126	0.0355	0.0000	229.9217	229.9217	1.4500e-003	0.0000	229.9522
Worker	0.2633	0.3971	3.6768	0.0110	0.9365	6.4200e-003	0.9429	0.2486	5.9600e-003	0.2546	0.0000	635.2555	635.2555	0.0342	0.0000	635.9746
Total	**0.3495**	**0.8892**	**5.1344**	**0.0137**	**1.0172**	**0.0201**	**1.0373**	**0.2715**	**0.0185**	**0.2901**	**0.0000**	**865.1772**	**865.1772**	**0.0357**	**0.0000**	**865.9268**

3.2 Building Construction - 2027

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0588	1.2500	1.9818	2.8600e-003		9.9600e-003	9.9600e-003		9.9600e-003	9.9600e-003	0.0000	244.7663	244.7663	0.0524	0.0000	245.8671
Total	**0.0588**	**1.2500**	**1.9818**	**2.8600e-003**		**9.9600e-003**	**9.9600e-003**		**9.9600e-003**	**9.9600e-003**	**0.0000**	**244.7663**	**244.7663**	**0.0524**	**0.0000**	**245.8671**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0863	0.4921	1.4576	2.7200e-003	0.0333	0.0137	0.0470	0.0113	0.0126	0.0238	0.0000	229.9217	229.9217	1.4500e-003	0.0000	229.9522
Worker	0.2633	0.3971	3.6768	0.0110	0.2865	6.4200e-003	0.2930	0.0891	5.9600e-003	0.0950	0.0000	635.2555	635.2555	0.0342	0.0000	635.9746
Total	**0.3495**	**0.8892**	**5.1344**	**0.0137**	**0.3199**	**0.0201**	**0.3399**	**0.1004**	**0.0185**	**0.1189**	**0.0000**	**865.1772**	**865.1772**	**0.0357**	**0.0000**	**865.9268**

3.2 Building Construction - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1422	1.2607	1.8935	2.8500e-003		0.0533	0.0533		0.0504	0.0504	0.0000	243.8287	243.8287	0.0522	0.0000	244.9254
Total	**0.1422**	**1.2607**	**1.8935**	**2.8500e-003**		**0.0533**	**0.0533**		**0.0504**	**0.0504**	**0.0000**	**243.8287**	**243.8287**	**0.0522**	**0.0000**	**244.9254**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0853	0.4873	1.4456	2.7100e-003	0.0804	0.0136	0.0940	0.0228	0.0125	0.0353	0.0000	229.0250	229.0250	1.4500e-003	0.0000	229.0554
Worker	0.2578	0.3897	3.6053	0.0109	0.9329	6.4500e-003	0.9393	0.2477	5.9900e-003	0.2536	0.0000	628.8406	628.8406	0.0337	0.0000	629.5492
Total	**0.3432**	**0.8771**	**5.0509**	**0.0136**	**1.0133**	**0.0200**	**1.0333**	**0.2705**	**0.0185**	**0.2890**	**0.0000**	**857.8656**	**857.8656**	**0.0352**	**0.0000**	**858.6046**

3.2 Building Construction - 2028

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0586	1.2452	1.9742	2.8500e-003		9.9200e-003	9.9200e-003		9.9200e-003	9.9200e-003	0.0000	243.8285	243.8285	0.0522	0.0000	244.9251
Total	**0.0586**	**1.2452**	**1.9742**	**2.8500e-003**		**9.9200e-003**	**9.9200e-003**		**9.9200e-003**	**9.9200e-003**	**0.0000**	**243.8285**	**243.8285**	**0.0522**	**0.0000**	**244.9251**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0853	0.4873	1.4456	2.7100e-003	0.0332	0.0136	0.0468	0.0112	0.0125	0.0237	0.0000	229.0250	229.0250	1.4500e-003	0.0000	229.0554
Worker	0.2578	0.3897	3.6053	0.0109	0.2854	6.4500e-003	0.2919	0.0887	5.9900e-003	0.0947	0.0000	628.8406	628.8406	0.0337	0.0000	629.5492
Total	**0.3432**	**0.8771**	**5.0509**	**0.0136**	**0.3186**	**0.0200**	**0.3387**	**0.1000**	**0.0185**	**0.1185**	**0.0000**	**857.8656**	**857.8656**	**0.0352**	**0.0000**	**858.6046**

3.2 Building Construction - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1427	1.2656	1.9008	2.8600e-003		0.0535	0.0535		0.0506	0.0506	0.0000	244.7666	244.7666	0.0524	0.0000	245.8674
Total	**0.1427**	**1.2656**	**1.9008**	**2.8600e-003**		**0.0535**	**0.0535**		**0.0506**	**0.0506**	**0.0000**	**244.7666**	**244.7666**	**0.0524**	**0.0000**	**245.8674**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0853	0.4869	1.4433	2.7200e-003	0.0807	0.0136	0.0944	0.0229	0.0125	0.0355	0.0000	229.8821	229.8821	1.4500e-003	0.0000	229.9126
Worker	0.2544	0.3855	3.5630	0.0110	0.9365	6.5200e-003	0.9430	0.2486	6.0500e-003	0.2547	0.0000	627.8782	627.8782	0.0335	0.0000	628.5818
Total	**0.3397**	**0.8724**	**5.0063**	**0.0137**	**1.0172**	**0.0202**	**1.0373**	**0.2715**	**0.0186**	**0.2901**	**0.0000**	**857.7603**	**857.7603**	**0.0350**	**0.0000**	**858.4944**

3.2 Building Construction - 2029

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0588	1.2500	1.9818	2.8600e-003		9.9600e-003	9.9600e-003		9.9600e-003	9.9600e-003	0.0000	244.7663	244.7663	0.0524	0.0000	245.8671
Total	**0.0588**	**1.2500**	**1.9818**	**2.8600e-003**		**9.9600e-003**	**9.9600e-003**		**9.9600e-003**	**9.9600e-003**	**0.0000**	**244.7663**	**244.7663**	**0.0524**	**0.0000**	**245.8671**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0853	0.4869	1.4433	2.7200e-003	0.0333	0.0136	0.0470	0.0113	0.0125	0.0238	0.0000	229.8821	229.8821	1.4500e-003	0.0000	229.9126
Worker	0.2544	0.3855	3.5630	0.0110	0.2865	6.5200e-003	0.2930	0.0891	6.0500e-003	0.0951	0.0000	627.8782	627.8782	0.0335	0.0000	628.5818
Total	**0.3397**	**0.8724**	**5.0063**	**0.0137**	**0.3199**	**0.0202**	**0.3400**	**0.1004**	**0.0186**	**0.1189**	**0.0000**	**857.7603**	**857.7603**	**0.0350**	**0.0000**	**858.4944**

3.2 Building Construction - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1406	0.9346	1.9537	3.2300e-003		0.0161	0.0161		0.0161	0.0161	0.0000	273.4791	273.4791	0.0113	0.0000	273.7167
Total	**0.1406**	**0.9346**	**1.9537**	**3.2300e-003**		**0.0161**	**0.0161**		**0.0161**	**0.0161**	**0.0000**	**273.4791**	**273.4791**	**0.0113**	**0.0000**	**273.7167**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0848	0.4849	1.4374	2.7100e-003	0.0807	0.0136	0.0944	0.0229	0.0125	0.0354	0.0000	229.8473	229.8473	1.4500e-003	0.0000	229.8777
Worker	0.2505	0.3804	3.5173	0.0110	0.9365	6.5500e-003	0.9430	0.2486	6.0800e-003	0.2547	0.0000	625.0450	625.0450	0.0332	0.0000	625.7418
Total	**0.3353**	**0.8653**	**4.9547**	**0.0137**	**1.0172**	**0.0202**	**1.0374**	**0.2715**	**0.0186**	**0.2901**	**0.0000**	**854.8923**	**854.8923**	**0.0346**	**0.0000**	**855.6195**

3.2 Building Construction - 2030

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0588	1.2500	1.9818	3.2300e-003		9.9600e-003	9.9600e-003		9.9600e-003	9.9600e-003	0.0000	273.4788	273.4788	0.0113	0.0000	273.7164
Total	**0.0588**	**1.2500**	**1.9818**	**3.2300e-003**		**9.9600e-003**	**9.9600e-003**		**9.9600e-003**	**9.9600e-003**	**0.0000**	**273.4788**	**273.4788**	**0.0113**	**0.0000**	**273.7164**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0848	0.4849	1.4374	2.7100e-003	0.0333	0.0136	0.0470	0.0113	0.0125	0.0238	0.0000	229.8473	229.8473	1.4500e-003	0.0000	229.8777
Worker	0.2505	0.3804	3.5173	0.0110	0.2865	6.5500e-003	0.2931	0.0891	6.0800e-003	0.0952	0.0000	625.0450	625.0450	0.0332	0.0000	625.7418
Total	**0.3353**	**0.8653**	**4.9547**	**0.0137**	**0.3199**	**0.0202**	**0.3400**	**0.1003**	**0.0186**	**0.1190**	**0.0000**	**854.8923**	**854.8923**	**0.0346**	**0.0000**	**855.6195**

3.2 Building Construction - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1406	0.9346	1.9537	3.2300e-003		0.0161	0.0161		0.0161	0.0161	0.0000	273.4791	273.4791	0.0113	0.0000	273.7167
Total	**0.1406**	**0.9346**	**1.9537**	**3.2300e-003**		**0.0161**	**0.0161**		**0.0161**	**0.0161**	**0.0000**	**273.4791**	**273.4791**	**0.0113**	**0.0000**	**273.7167**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0849	0.4852	1.4290	2.7300e-003	0.0808	0.0133	0.0940	0.0229	0.0122	0.0351	0.0000	230.9061	230.9061	1.4800e-003	0.0000	230.9373
Worker	0.2491	0.3781	3.5355	0.0111	0.9365	6.7900e-003	0.9432	0.2486	6.3000e-003	0.2549	0.0000	632.3060	632.3060	0.0339	0.0000	633.0182
Total	**0.3339**	**0.8633**	**4.9644**	**0.0139**	**1.0172**	**0.0200**	**1.0373**	**0.2715**	**0.0185**	**0.2900**	**0.0000**	**863.2121**	**863.2121**	**0.0354**	**0.0000**	**863.9554**

3.2 Building Construction - 2031

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0588	1.2500	1.9818	3.2300e-003		9.9600e-003	9.9600e-003		9.9600e-003	9.9600e-003	0.0000	273.4788	273.4788	0.0113	0.0000	273.7164
Total	**0.0588**	**1.2500**	**1.9818**	**3.2300e-003**		**9.9600e-003**	**9.9600e-003**		**9.9600e-003**	**9.9600e-003**	**0.0000**	**273.4788**	**273.4788**	**0.0113**	**0.0000**	**273.7164**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0849	0.4852	1.4290	2.7300e-003	0.0334	0.0133	0.0466	0.0113	0.0122	0.0235	0.0000	230.9061	230.9061	1.4800e-003	0.0000	230.9373
Worker	0.2491	0.3781	3.5355	0.0111	0.2865	6.7900e-003	0.2933	0.0891	6.3000e-003	0.0954	0.0000	632.3060	632.3060	0.0339	0.0000	633.0182
Total	**0.3339**	**0.8633**	**4.9644**	**0.0139**	**0.3199**	**0.0200**	**0.3399**	**0.1004**	**0.0185**	**0.1189**	**0.0000**	**863.2121**	**863.2121**	**0.0354**	**0.0000**	**863.9554**

3.2 Building Construction - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1358	0.9023	1.8864	3.1200e-003		0.0155	0.0155		0.0155	0.0155	0.0000	264.0488	264.0488	0.0109	0.0000	264.2782
Total	**0.1358**	**0.9023**	**1.8864**	**3.1200e-003**		**0.0155**	**0.0155**		**0.0155**	**0.0155**	**0.0000**	**264.0488**	**264.0488**	**0.0109**	**0.0000**	**264.2782**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0819	0.4678	1.3770	2.6300e-003	0.0780	0.0128	0.0909	0.0222	0.0118	0.0339	0.0000	223.1101	223.1101	1.4300e-003	0.0000	223.1401
Worker	0.2374	0.3612	3.3819	0.0107	0.9042	6.5700e-003	0.9107	0.2400	6.1000e-003	0.2461	0.0000	608.6708	608.6708	0.0325	0.0000	609.3538
Total	**0.3193**	**0.8290**	**4.7589**	**0.0134**	**0.9822**	**0.0194**	**1.0016**	**0.2622**	**0.0179**	**0.2801**	**0.0000**	**831.7809**	**831.7809**	**0.0340**	**0.0000**	**832.4939**

3.2 Building Construction - 2032

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0568	1.2069	1.9134	3.1200e-003		9.6200e-003	9.6200e-003		9.6200e-003	9.6200e-003	0.0000	264.0485	264.0485	0.0109	0.0000	264.2779
Total	**0.0568**	**1.2069**	**1.9134**	**3.1200e-003**		**9.6200e-003**	**9.6200e-003**		**9.6200e-003**	**9.6200e-003**	**0.0000**	**264.0485**	**264.0485**	**0.0109**	**0.0000**	**264.2779**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0819	0.4678	1.3770	2.6300e-003	0.0323	0.0128	0.0451	0.0109	0.0118	0.0227	0.0000	223.1101	223.1101	1.4300e-003	0.0000	223.1401
Worker	0.2374	0.3612	3.3819	0.0107	0.2767	6.5700e-003	0.2832	0.0860	6.1000e-003	0.0921	0.0000	608.6708	608.6708	0.0325	0.0000	609.3538
Total	**0.3193**	**0.8290**	**4.7589**	**0.0134**	**0.3089**	**0.0194**	**0.3283**	**0.0969**	**0.0179**	**0.1148**	**0.0000**	**831.7809**	**831.7809**	**0.0340**	**0.0000**	**832.4939**

3.3 Architectural Coating - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.8271					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.0200e-003	0.0269	0.0425	7.0000e-005		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003	0.0000	6.0002	6.0002	3.3000e-004	0.0000	6.0070
Total	**2.8311**	**0.0269**	**0.0425**	**7.0000e-005**		**1.2100e-003**	**1.2100e-003**		**1.2100e-003**	**1.2100e-003**	**0.0000**	**6.0002**	**6.0002**	**3.3000e-004**	**0.0000**	**6.0070**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0451	0.0680	0.6293	1.8700e-003	0.1603	1.1000e-003	0.1614	0.0426	1.0200e-003	0.0436	0.0000	108.7277	108.7277	5.8600e-003	0.0000	108.8507
Total	**0.0451**	**0.0680**	**0.6293**	**1.8700e-003**	**0.1603**	**1.1000e-003**	**0.1614**	**0.0426**	**1.0200e-003**	**0.0436**	**0.0000**	**108.7277**	**108.7277**	**5.8600e-003**	**0.0000**	**108.8507**

3.3 Architectural Coating - 2027

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.8271					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2800e-003	0.0249	0.0431	7.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	6.0001	6.0001	3.3000e-004	0.0000	6.0070
Total	**2.8284**	**0.0249**	**0.0431**	**7.0000e-005**		**9.0000e-005**	**9.0000e-005**		**9.0000e-005**	**9.0000e-005**	**0.0000**	**6.0001**	**6.0001**	**3.3000e-004**	**0.0000**	**6.0070**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0451	0.0680	0.6293	1.8700e-003	0.0490	1.1000e-003	0.0501	0.0153	1.0200e-003	0.0163	0.0000	108.7277	108.7277	5.8600e-003	0.0000	108.8507
Total	**0.0451**	**0.0680**	**0.6293**	**1.8700e-003**	**0.0490**	**1.1000e-003**	**0.0501**	**0.0153**	**1.0200e-003**	**0.0163**	**0.0000**	**108.7277**	**108.7277**	**5.8600e-003**	**0.0000**	**108.8507**

3.3 Architectural Coating - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	15.6393					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0222	0.1489	0.2352	3.9000e-004		6.7000e-003	6.7000e-003		6.7000e-003	6.7000e-003	0.0000	33.1923	33.1923	1.8100e-003	0.0000	33.2303
Total	**15.6615**	**0.1489**	**0.2352**	**3.9000e-004**		**6.7000e-003**	**6.7000e-003**		**6.7000e-003**	**6.7000e-003**	**0.0000**	**33.1923**	**33.1923**	**1.8100e-003**	**0.0000**	**33.2303**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.2451	0.3704	3.4267	0.0104	0.8867	6.1300e-003	0.8928	0.2354	5.6900e-003	0.2411	0.0000	597.6883	597.6883	0.0321	0.0000	598.3618
Total	**0.2451**	**0.3704**	**3.4267**	**0.0104**	**0.8867**	**6.1300e-003**	**0.8928**	**0.2354**	**5.6900e-003**	**0.2411**	**0.0000**	**597.6883**	**597.6883**	**0.0321**	**0.0000**	**598.3618**

3.3 Architectural Coating - 2028

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	15.6393					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.0800e-003	0.1378	0.2382	3.9000e-004		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	33.1923	33.1923	1.8100e-003	0.0000	33.2303
Total	**15.6464**	**0.1378**	**0.2382**	**3.9000e-004**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**33.1923**	**33.1923**	**1.8100e-003**	**0.0000**	**33.2303**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.2451	0.3704	3.4267	0.0104	0.2713	6.1300e-003	0.2774	0.0844	5.6900e-003	0.0900	0.0000	597.6883	597.6883	0.0321	0.0000	598.3618
Total	**0.2451**	**0.3704**	**3.4267**	**0.0104**	**0.2713**	**6.1300e-003**	**0.2774**	**0.0844**	**5.6900e-003**	**0.0900**	**0.0000**	**597.6883**	**597.6883**	**0.0321**	**0.0000**	**598.3618**

3.3 Architectural Coating - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	15.6994					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0223	0.1495	0.2361	3.9000e-004		6.7200e-003	6.7200e-003		6.7200e-003	6.7200e-003	0.0000	33.3200	33.3200	1.8200e-003	0.0000	33.3581
Total	**15.7217**	**0.1495**	**0.2361**	**3.9000e-004**		**6.7200e-003**	**6.7200e-003**		**6.7200e-003**	**6.7200e-003**	**0.0000**	**33.3200**	**33.3200**	**1.8200e-003**	**0.0000**	**33.3581**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.2418	0.3664	3.3865	0.0104	0.8901	6.1900e-003	0.8963	0.2363	5.7500e-003	0.2420	0.0000	596.7736	596.7736	0.0319	0.0000	597.4424
Total	**0.2418**	**0.3664**	**3.3865**	**0.0104**	**0.8901**	**6.1900e-003**	**0.8963**	**0.2363**	**5.7500e-003**	**0.2420**	**0.0000**	**596.7736**	**596.7736**	**0.0319**	**0.0000**	**597.4424**

3.3 Architectural Coating - 2029

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	15.6994					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.1100e-003	0.1383	0.2391	3.9000e-004		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	33.3199	33.3199	1.8200e-003	0.0000	33.3581
Total	**15.7065**	**0.1383**	**0.2391**	**3.9000e-004**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**33.3199**	**33.3199**	**1.8200e-003**	**0.0000**	**33.3581**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.2418	0.3664	3.3865	0.0104	0.2723	6.1900e-003	0.2785	0.0847	5.7500e-003	0.0904	0.0000	596.7736	596.7736	0.0319	0.0000	597.4424
Total	**0.2418**	**0.3664**	**3.3865**	**0.0104**	**0.2723**	**6.1900e-003**	**0.2785**	**0.0847**	**5.7500e-003**	**0.0904**	**0.0000**	**596.7736**	**596.7736**	**0.0319**	**0.0000**	**597.4424**

3.3 Architectural Coating - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	15.6994					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0171	0.1117	0.2346	3.9000e-004		2.6500e-003	2.6500e-003		2.6500e-003	2.6500e-003	0.0000	33.3200	33.3200	1.3500e-003	0.0000	33.3483
Total	**15.7165**	**0.1117**	**0.2346**	**3.9000e-004**		**2.6500e-003**	**2.6500e-003**		**2.6500e-003**	**2.6500e-003**	**0.0000**	**33.3200**	**33.3200**	**1.3500e-003**	**0.0000**	**33.3483**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.2381	0.3615	3.3430	0.0104	0.8901	6.2200e-003	0.8963	0.2363	5.7700e-003	0.2421	0.0000	594.0808	594.0808	0.0315	0.0000	594.7431
Total	**0.2381**	**0.3615**	**3.3430**	**0.0104**	**0.8901**	**6.2200e-003**	**0.8963**	**0.2363**	**5.7700e-003**	**0.2421**	**0.0000**	**594.0808**	**594.0808**	**0.0315**	**0.0000**	**594.7431**

3.3 Architectural Coating - 2030

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	15.6994					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.1100e-003	0.1383	0.2391	3.9000e-004		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	33.3199	33.3199	1.3500e-003	0.0000	33.3482
Total	**15.7065**	**0.1383**	**0.2391**	**3.9000e-004**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**33.3199**	**33.3199**	**1.3500e-003**	**0.0000**	**33.3482**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.2381	0.3615	3.3430	0.0104	0.2723	6.2200e-003	0.2786	0.0847	5.7700e-003	0.0905	0.0000	594.0808	594.0808	0.0315	0.0000	594.7431
Total	**0.2381**	**0.3615**	**3.3430**	**0.0104**	**0.2723**	**6.2200e-003**	**0.2786**	**0.0847**	**5.7700e-003**	**0.0905**	**0.0000**	**594.0808**	**594.0808**	**0.0315**	**0.0000**	**594.7431**

3.3 Architectural Coating - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	15.6994					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0171	0.1117	0.2346	3.9000e-004		2.6500e-003	2.6500e-003		2.6500e-003	2.6500e-003	0.0000	33.3200	33.3200	1.3500e-003	0.0000	33.3483
Total	**15.7165**	**0.1117**	**0.2346**	**3.9000e-004**		**2.6500e-003**	**2.6500e-003**		**2.6500e-003**	**2.6500e-003**	**0.0000**	**33.3200**	**33.3200**	**1.3500e-003**	**0.0000**	**33.3483**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.2367	0.3593	3.3603	0.0106	0.8901	6.4500e-003	0.8965	0.2363	5.9900e-003	0.2423	0.0000	600.9821	600.9821	0.0322	0.0000	601.6590
Total	**0.2367**	**0.3593**	**3.3603**	**0.0106**	**0.8901**	**6.4500e-003**	**0.8965**	**0.2363**	**5.9900e-003**	**0.2423**	**0.0000**	**600.9821**	**600.9821**	**0.0322**	**0.0000**	**601.6590**

3.3 Architectural Coating - 2031

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	15.6994					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.1100e-003	0.1383	0.2391	3.9000e-004		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	33.3199	33.3199	1.3500e-003	0.0000	33.3482
Total	**15.7065**	**0.1383**	**0.2391**	**3.9000e-004**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**33.3199**	**33.3199**	**1.3500e-003**	**0.0000**	**33.3482**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.2367	0.3593	3.3603	0.0106	0.2723	6.4500e-003	0.2788	0.0847	5.9900e-003	0.0907	0.0000	600.9821	600.9821	0.0322	0.0000	601.6590
Total	**0.2367**	**0.3593**	**3.3603**	**0.0106**	**0.2723**	**6.4500e-003**	**0.2788**	**0.0847**	**5.9900e-003**	**0.0907**	**0.0000**	**600.9821**	**600.9821**	**0.0322**	**0.0000**	**601.6590**

3.3 Architectural Coating - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	15.7596					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0171	0.1122	0.2355	3.9000e-004		2.6600e-003	2.6600e-003		2.6600e-003	2.6600e-003	0.0000	33.4476	33.4476	1.3500e-003	0.0000	33.4761
Total	**15.7767**	**0.1122**	**0.2355**	**3.9000e-004**		**2.6600e-003**	**2.6600e-003**		**2.6600e-003**	**2.6600e-003**	**0.0000**	**33.4476**	**33.4476**	**1.3500e-003**	**0.0000**	**33.4761**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.2346	0.3569	3.3419	0.0106	0.8935	6.4900e-003	0.9000	0.2372	6.0300e-003	0.2432	0.0000	601.4748	601.4748	0.0321	0.0000	602.1497
Total	**0.2346**	**0.3569**	**3.3419**	**0.0106**	**0.8935**	**6.4900e-003**	**0.9000**	**0.2372**	**6.0300e-003**	**0.2432**	**0.0000**	**601.4748**	**601.4748**	**0.0321**	**0.0000**	**602.1497**

3.3 Architectural Coating - 2032

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	15.7596					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.1400e-003	0.1388	0.2401	3.9000e-004		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	33.4476	33.4476	1.3500e-003	0.0000	33.4760
Total	**15.7667**	**0.1388**	**0.2401**	**3.9000e-004**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**33.4476**	**33.4476**	**1.3500e-003**	**0.0000**	**33.4760**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.2346	0.3569	3.3419	0.0106	0.2734	6.4900e-003	0.2799	0.0850	6.0300e-003	0.0910	0.0000	601.4748	601.4748	0.0321	0.0000	602.1497
Total	**0.2346**	**0.3569**	**3.3419**	**0.0106**	**0.2734**	**6.4900e-003**	**0.2799**	**0.0850**	**6.0300e-003**	**0.0910**	**0.0000**	**601.4748**	**601.4748**	**0.0321**	**0.0000**	**602.1497**

3.3 Architectural Coating - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	15.6393					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0170	0.1113	0.2337	3.9000e-004		2.6400e-003	2.6400e-003		2.6400e-003	2.6400e-003	0.0000	33.1923	33.1923	1.3400e-003	0.0000	33.2205
Total	**15.6563**	**0.1113**	**0.2337**	**3.9000e-004**		**2.6400e-003**	**2.6400e-003**		**2.6400e-003**	**2.6400e-003**	**0.0000**	**33.1923**	**33.1923**	**1.3400e-003**	**0.0000**	**33.2205**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.2294	0.3496	3.2816	0.0105	0.8867	6.4600e-003	0.8931	0.2354	5.9900e-003	0.2414	0.0000	595.4044	595.4044	0.0316	0.0000	596.0688
Total	**0.2294**	**0.3496**	**3.2816**	**0.0105**	**0.8867**	**6.4600e-003**	**0.8931**	**0.2354**	**5.9900e-003**	**0.2414**	**0.0000**	**595.4044**	**595.4044**	**0.0316**	**0.0000**	**596.0688**

3.3 Architectural Coating - 2033

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	15.6393					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.0800e-003	0.1378	0.2382	3.9000e-004		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	33.1923	33.1923	1.3400e-003	0.0000	33.2205
Total	**15.6464**	**0.1378**	**0.2382**	**3.9000e-004**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**33.1923**	**33.1923**	**1.3400e-003**	**0.0000**	**33.2205**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.2294	0.3496	3.2816	0.0105	0.2713	6.4600e-003	0.2777	0.0844	5.9900e-003	0.0903	0.0000	595.4044	595.4044	0.0316	0.0000	596.0688
Total	**0.2294**	**0.3496**	**3.2816**	**0.0105**	**0.2713**	**6.4600e-003**	**0.2777**	**0.0844**	**5.9900e-003**	**0.0903**	**0.0000**	**595.4044**	**595.4044**	**0.0316**	**0.0000**	**596.0688**

3.3 Architectural Coating - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	15.6393					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0170	0.1113	0.2337	3.9000e-004		2.6400e-003	2.6400e-003		2.6400e-003	2.6400e-003	0.0000	33.1923	33.1923	1.3400e-003	0.0000	33.2205
Total	**15.6563**	**0.1113**	**0.2337**	**3.9000e-004**		**2.6400e-003**	**2.6400e-003**		**2.6400e-003**	**2.6400e-003**	**0.0000**	**33.1923**	**33.1923**	**1.3400e-003**	**0.0000**	**33.2205**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.2263	0.3460	3.2480	0.0105	0.8867	6.4600e-003	0.8931	0.2354	6.0000e-003	0.2414	0.0000	594.1894	594.1894	0.0314	0.0000	594.8488
Total	**0.2263**	**0.3460**	**3.2480**	**0.0105**	**0.8867**	**6.4600e-003**	**0.8931**	**0.2354**	**6.0000e-003**	**0.2414**	**0.0000**	**594.1894**	**594.1894**	**0.0314**	**0.0000**	**594.8488**

3.3 Architectural Coating - 2034

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	15.6393					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.0800e-003	0.1378	0.2382	3.9000e-004		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	33.1923	33.1923	1.3400e-003	0.0000	33.2205
Total	**15.6464**	**0.1378**	**0.2382**	**3.9000e-004**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**33.1923**	**33.1923**	**1.3400e-003**	**0.0000**	**33.2205**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.2263	0.3460	3.2480	0.0105	0.2713	6.4600e-003	0.2778	0.0844	6.0000e-003	0.0903	0.0000	594.1894	594.1894	0.0314	0.0000	594.8488
Total	**0.2263**	**0.3460**	**3.2480**	**0.0105**	**0.2713**	**6.4600e-003**	**0.2778**	**0.0844**	**6.0000e-003**	**0.0903**	**0.0000**	**594.1894**	**594.1894**	**0.0314**	**0.0000**	**594.8488**

3.3 Architectural Coating - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	15.6994					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0154	0.0989	0.2342	3.9000e-004		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003	0.0000	33.3200	33.3200	1.2300e-003	0.0000	33.3458
Total	**15.7148**	**0.0989**	**0.2342**	**3.9000e-004**		**1.2900e-003**	**1.2900e-003**		**1.2900e-003**	**1.2900e-003**	**0.0000**	**33.3200**	**33.3200**	**1.2300e-003**	**0.0000**	**33.3458**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.2245	0.3444	3.2316	0.0106	0.8901	6.4900e-003	0.8966	0.2363	6.0200e-003	0.2423	0.0000	595.4875	595.4875	0.0313	0.0000	596.1449
Total	**0.2245**	**0.3444**	**3.2316**	**0.0106**	**0.8901**	**6.4900e-003**	**0.8966**	**0.2363**	**6.0200e-003**	**0.2423**	**0.0000**	**595.4875**	**595.4875**	**0.0313**	**0.0000**	**596.1449**

3.3 Architectural Coating - 2035

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	15.6994					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.1100e-003	0.1383	0.2391	3.9000e-004		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	33.3199	33.3199	1.2300e-003	0.0000	33.3458
Total	**15.7065**	**0.1383**	**0.2391**	**3.9000e-004**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**33.3199**	**33.3199**	**1.2300e-003**	**0.0000**	**33.3458**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.2245	0.3444	3.2316	0.0106	0.2723	6.4900e-003	0.2788	0.0847	6.0200e-003	0.0907	0.0000	595.4875	595.4875	0.0313	0.0000	596.1449
Total	**0.2245**	**0.3444**	**3.2316**	**0.0106**	**0.2723**	**6.4900e-003**	**0.2788**	**0.0847**	**6.0200e-003**	**0.0907**	**0.0000**	**595.4875**	**595.4875**	**0.0313**	**0.0000**	**596.1449**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Increase Diversity

Improve Walkability Design

Improve Destination Accessibility

Increase Transit Accessibility

Improve Pedestrian Network

Provide Traffic Calming Measures

Implement NEV Network

Limit Parking Supply

Expand Transit Network

Increase Transit Frequency

Implement Trip Reduction Program

Market Commute Trip Reduction Option

Employee Vanpool/Shuttle

Provide Riade Sharing Program

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	23.9852	31.7732	209.7478	0.2810	16.4141	0.5584	16.9725	4.3833	0.5153	4.8986	0.0000	18,293.1073	18,293.1073	0.7440	0.0000	18,308.7304
Unmitigated	26.6221	47.5226	274.5905	0.5694	35.8625	1.0481	36.9106	9.5768	0.9667	10.5435	0.0000	37,111.3437	37,111.3437	1.3544	0.0000	37,139.7867

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	9.54	9.54	9.54	18,189	8,206
Condo/Townhouse High Rise	5,607.90	6,126.48	5197.86	12,579,115	5,979,322
Enclosed Parking Structure	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Regional Shopping Center	63,807.74	73,725.71	37223.80	81,354,957	37,014,013
Total	69,425.18	79,861.73	42,431.20	93,952,261	43,001,542

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	12.50	4.20	5.40	33.00	48.00	19.00	66	28	6
Condo/Townhouse High Rise	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3
Enclosed Parking Structure	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Other Asphalt Surfaces	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	54	35	11

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.465210	0.067391	0.177305	0.167396	0.031659	0.004952	0.009103	0.067971	0.001188	0.001302	0.002807	0.000452	0.003265

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

Percent of Electricity Use Generated with Renewable Energy

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	15,923.7668	15,923.7668	0.7320	0.1514	15,986.0848
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	24,745.2903	24,745.2903	1.1375	0.2353	24,842.1314
NaturalGas Mitigated	0.1509	1.3082	0.6853	8.2300e-003		0.1043	0.1043		0.1043	0.1043	0.0000	1,493.4994	1,493.4994	0.0286	0.0274	1,502.5885
NaturalGas Unmitigated	0.1733	1.5020	0.7871	9.4500e-003		0.1197	0.1197		0.1197	0.1197	0.0000	1,714.6763	1,714.6763	0.0329	0.0314	1,725.1116

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse High Rise	2.48503e+007	0.1340	1.1451	0.4873	7.3100e-003		0.0926	0.0926		0.0926	0.0926	0.0000	1,326.1050	1,326.1050	0.0254	0.0243	1,334.1755
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	7.28155e+006	0.0393	0.3569	0.2998	2.1400e-003		0.0271	0.0271		0.0271	0.0271	0.0000	388.5713	388.5713	7.4500e-003	7.1200e-003	390.9361
Total		**0.1733**	**1.5020**	**0.7871**	**9.4500e-003**		**0.1197**	**0.1197**		**0.1197**	**0.1197**	**0.0000**	**1,714.6763**	**1,714.6763**	**0.0329**	**0.0314**	**1,725.1116**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Condo/Townhouse High Rise	2.16566e+007	0.1168	0.9979	0.4246	6.3700e-003		0.0807	0.0807		0.0807	0.0807	0.0000	1,155.6768	1,155.6768	0.0222	0.0212	1,162.7100
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	6.33056e+006	0.0341	0.3103	0.2607	1.8600e-003		0.0236	0.0236		0.0236	0.0236	0.0000	337.8226	337.8226	6.4700e-003	6.1900e-003	339.8785
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.1509**	**1.3082**	**0.6853**	**8.2300e-003**		**0.1043**	**0.1043**		**0.1043**	**0.1043**	**0.0000**	**1,493.4994**	**1,493.4994**	**0.0286**	**0.0274**	**1,502.5885**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse High Rise	5.88106e+006	1,682.9644	0.0774	0.0160	1,689.5507
Enclosed Parking Structure	3.144e+007	8,997.0870	0.4136	0.0856	9,032.2973
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	4.91505e+007	14,065.2389	0.6465	0.1338	14,120.2835
Total		**24,745.2903**	**1.1375**	**0.2354**	**24,842.1314**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse High Rise	4.46961e+006	1,279.0539	0.0588	0.0122	1,284.0595
Enclosed Parking Structure	2.0075e+007	5,744.8118	0.2641	0.0546	5,767.2942
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	3.11004e+007	8,899.9012	0.4091	0.0846	8,934.7311
Total		**15,923.7668**	**0.7320**	**0.1514**	**15,986.0848**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

Use only Natural Gas Hearths

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	40.7354	0.0935	7.9735	4.0000e-004		0.0659	0.0659		0.0656	0.0656	0.0000	329.2978	329.2978	0.0172	5.8000e-003	331.4587
Unmitigated	54.1298	0.1042	9.0636	4.8000e-004		0.0723	0.0723		0.0720	0.0720	0.0000	331.5336	331.5336	0.0207	5.8000e-003	333.7677

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	12.8302					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	40.9881					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0320	0.0000	1.7500e-003	0.0000		0.0221	0.0221		0.0219	0.0219	0.0000	316.6352	316.6352	6.0700e-003	5.8000e-003	318.5622
Landscaping	0.2795	0.1042	9.0618	4.8000e-004		0.0502	0.0502		0.0502	0.0502	0.0000	14.8984	14.8984	0.0146	0.0000	15.2055
Total	**54.1298**	**0.1042**	**9.0636**	**4.8000e-004**		**0.0723**	**0.0723**		**0.0720**	**0.0720**	**0.0000**	**331.5336**	**331.5336**	**0.0207**	**5.8000e-003**	**333.7677**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	2.5660					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	37.9235					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0320	0.0000	1.7500e-003	0.0000		0.0221	0.0221		0.0219	0.0219	0.0000	316.6352	316.6352	6.0700e-003	5.8000e-003	318.5622
Landscaping	0.2139	0.0935	7.9718	4.0000e-004		0.0438	0.0438		0.0438	0.0438	0.0000	12.6626	12.6626	0.0111	0.0000	12.8965
Total	**40.7354**	**0.0935**	**7.9735**	**4.0000e-004**		**0.0659**	**0.0659**		**0.0656**	**0.0656**	**0.0000**	**329.2978**	**329.2978**	**0.0172**	**5.8000e-003**	**331.4587**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Use Reclaimed Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Turf Reduction

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1,963.9148	8.6771	0.2207	2,214.5587
Unmitigated	2,497.5137	10.8483	0.2763	2,810.9853

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 36.8863	117.2733	5.3900e-003	1.1200e-003	117.7322
Condo/Townhouse High Rise	158.468 / 158.468	1,144.5772	5.2140	0.1323	1,295.0944
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	171.079 / 171.079	1,235.6632	5.6289	0.1429	1,398.1587
Total		**2,497.5137**	**10.8483**	**0.2763**	**2,810.9854**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 29.5091	93.8186	4.3100e-003	8.9000e-004	94.1858
Condo/Townhouse High Rise	126.775 / 126.775	899.2661	4.1704	0.1057	1,019.6157
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	136.864 / 136.864	970.8301	4.5023	0.1141	1,100.7572
Total		**1,963.9148**	**8.6771**	**0.2207**	**2,214.5587**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	195.4199	11.5490	0.0000	437.9486
Unmitigated	781.6796	46.1959	0.0000	1,751.7944

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.52	0.1056	6.2400e-003	0.0000	0.2366
Condo/Townhouse High Rise	554.76	112.6113	6.6551	0.0000	252.3691
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	3295.53	668.9628	39.5346	0.0000	1,499.1888
Total		**781.6796**	**46.1960**	**0.0000**	**1,751.7944**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.13	0.0264	1.5600e-003	0.0000	0.0591
Condo/Townhouse High Rise	138.69	28.1528	1.6638	0.0000	63.0923
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	823.883	167.2407	9.8836	0.0000	374.7972
Total		**195.4199**	**11.5490**	**0.0000**	**437.9486**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	106.2000	0.0000	0.0000	106.2000

10.2 Net New Trees

Species Class

	Number of Trees	Total CO2	CH4	N2O	CO2e
		MT			
Miscellaneous	150	106.2000	0.0000	0.0000	106.2000
Total		**106.2000**	**0.0000**	**0.0000**	**106.2000**

Tribal Land Use (Planning Area 1-7)

Salton Sea Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking Structure	12,000.00	Space	108.00	4,800,000.00	0
Other Asphalt Surfaces	25.00	Acre	25.00	1,089,000.00	0
City Park	6.00	Acre	6.00	261,360.00	0
Condo/Townhouse High Rise	1,206.00	Dwelling Unit	18.84	1,206,000.00	2028
Regional Shopping Center	3,138.60	1000sqft	72.05	3,138,600.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.4	**Precipitation Freq (Days)**	20
Climate Zone	10			**Operational Year**	2035
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Population based on 1.95 factor
User Defined recreation - private open space
Other asphalt surfaces - roadways

Construction Phase - Construction assumptions

Off-road Equipment - Construction Assumptions

Off-road Equipment - Construction Assumptions - no cranes

Trips and VMT - SCAQMDs analysis of Construction Worker and Vendor Trip Rates

On-road Fugitive Dust - 100% paved roads

Grading -

Vehicle Trips - Based on trip generation from Traffic Study
City park is private open space

Vechicle Emission Factors -

Vechicle Emission Factors -

Vechicle Emission Factors -

Road Dust - 100% paved roads

Woodstoves - No woodstoves

Construction Off-road Equipment Mitigation - Mitigation Assumption; Tier 4 required by January 2016 SCAQMD Rule 403 and 403.1

Mobile Land Use Mitigation -

Mobile Commute Mitigation - Applicant Assumption

Area Mitigation - Per SCAQMD Rule 1113 and Specific Plan

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Water And Wastewater - Calculated

Sequestration -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	50

tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	50
tblCommuteMitigation	EmployeeVanpoolPercentModeShare	2	5
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	80
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	330.00	2,133.00
tblConstructionPhase	NumDays	4,650.00	2,600.00
tblConstructionPhase	PhaseEndDate	2/20/2041	12/31/2035
tblConstructionPhase	PhaseStartDate	12/18/2032	10/28/2027
tblFireplaces	FireplaceWoodMass	457.60	0.00
tblFireplaces	NumberGas	1,206.00	402.00
tblLandUse	Population	3,895.00	2,028.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00

tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblProjectCharacteristics	OperationalYear	2014	2035
tblRoadDust	RoadPercentPave	50	100
tblSequestration	NumberOfNewTrees	0.00	150.00
tblTripsAndVMT	VendorTripNumber	1,677.00	129.00
tblTripsAndVMT	WorkerTripNumber	4,506.00	868.00
tblTripsAndVMT	WorkerTripNumber	901.00	825.00
tblVehicleTrips	ST_TR	7.16	5.08
tblVehicleTrips	ST_TR	49.97	23.49
tblVehicleTrips	SU_TR	6.07	4.31
tblVehicleTrips	SU_TR	25.24	11.86
tblVehicleTrips	WD_TR	6.59	4.65
tblVehicleTrips	WD_TR	42.94	20.33
tblWater	IndoorWaterUseRate	78,575,754.90	158,468,400.00
tblWater	IndoorWaterUseRate	232,484,015.93	171,079,397.30
tblWater	OutdoorWaterUseRate	7,148,888.10	36,886,345.00
tblWater	OutdoorWaterUseRate	49,536,888.96	158,468,400.00
tblWater	OutdoorWaterUseRate	142,490,203.31	171,079,397.30
tblWoodstoves	NumberCatalytic	60.30	0.00
tblWoodstoves	NumberNoncatalytic	60.30	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	4.6689	17.8754	59.3689	0.1273	7.8876	0.7133	8.6009	2.1035	0.6712	2.7747	0.0000	9,626.4775	9,626.4775	0.7622	0.0000	9,642.4843
2024	4.4815	17.1067	58.4088	0.1284	7.8875	0.6387	8.5261	2.1034	0.6006	2.7040	0.0000	9,632.2721	9,632.2721	0.7592	0.0000	9,648.2156
2025	4.3005	16.3265	57.3480	0.1284	7.8874	0.5634	8.4507	2.1034	0.5296	2.6330	0.0000	9,575.4389	9,575.4389	0.7507	0.0000	9,591.2030
2026	4.2340	16.2356	56.5635	0.1284	7.8874	0.5627	8.4500	2.1034	0.5289	2.6323	0.0000	9,527.7847	9,527.7847	0.7472	0.0000	9,543.4754
2027	126.9703	20.0177	87.5974	0.2126	14.7899	0.6616	15.4515	3.9342	0.6244	4.5586	0.0000	14,965.9088	14,965.9088	1.0343	0.0000	14,987.6293
2028	126.8779	19.9137	86.5951	0.2126	14.7899	0.6622	15.4520	3.9342	0.6250	4.5592	0.0000	14,898.7246	14,898.7246	1.0282	0.0000	14,920.3159
2029	126.7876	19.8165	85.6079	0.2126	14.7899	0.6628	15.4526	3.9342	0.6255	4.5597	0.0000	14,841.8401	14,841.8401	1.0221	0.0000	14,863.3049
2030	126.6497	16.9035	85.2037	0.2155	14.7898	0.3456	15.1354	3.9342	0.3302	4.2644	0.0000	15,036.5884	15,036.5884	0.6656	0.0000	15,050.5649
2031	126.6137	16.8733	85.4617	0.2182	14.7902	0.3463	15.1364	3.9343	0.3309	4.2652	0.0000	15,167.8776	15,167.8776	0.6779	0.0000	15,182.1139
2032	126.5490	16.8125	84.9000	0.2182	14.7905	0.3467	15.1372	3.9345	0.3313	4.2658	0.0000	15,137.3991	15,137.3991	0.6741	0.0000	15,151.5552
2033	122.5424	3.3652	29.9123	0.0856	6.9025	0.0700	6.9725	1.8309	0.0664	1.8972	0.0000	5,426.5814	5,426.5814	0.2797	0.0000	5,432.4541
2034	122.5113	3.3392	29.6265	0.0856	6.9025	0.0700	6.9725	1.8309	0.0664	1.8973	0.0000	5,416.0400	5,416.0400	0.2776	0.0000	5,421.8701
2035	122.4713	3.2194	29.3775	0.0856	6.9025	0.0596	6.9622	1.8309	0.0561	1.8869	0.0000	5,407.4906	5,407.4906	0.2749	0.0000	5,413.2624
Total	**1,145.6580**	**187.8052**	**835.9710**	**2.0589**	**140.9975**	**5.7026**	**146.7001**	**37.5118**	**5.3864**	**42.8982**	**0.0000**	**144,660.4238**	**144,660.4238**	**8.9536**	**0.0000**	**144,848.4490**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	3.8545	16.4077	59.9158	0.1273	2.4698	0.2293	2.6991	0.7736	0.2174	0.9910	0.0000	9,626.4775	9,626.4775	0.7622	0.0000	9,642.4843
2024	3.7510	16.3077	58.9807	0.1284	2.4697	0.2293	2.6989	0.7736	0.2174	0.9910	0.0000	9,632.2721	9,632.2721	0.7592	0.0000	9,648.2156
2025	3.6576	16.2073	57.9686	0.1284	2.4696	0.2300	2.6995	0.7736	0.2181	0.9916	0.0000	9,575.4389	9,575.4389	0.7507	0.0000	9,591.2030
2026	3.5911	16.1164	57.1841	0.1284	2.4696	0.2293	2.6988	0.7736	0.2174	0.9910	0.0000	9,527.7847	9,527.7847	0.7472	0.0000	9,543.4753
2027	126.2110	19.8129	88.2412	0.2126	4.5728	0.2806	4.8535	1.4264	0.2653	1.6917	0.0000	14,965.9088	14,965.9088	1.0343	0.0000	14,987.6293
2028	126.1186	19.7088	87.2389	0.2126	4.5728	0.2812	4.8540	1.4264	0.2659	1.6923	0.0000	14,898.7246	14,898.7246	1.0282	0.0000	14,920.3159
2029	126.0283	19.6116	86.2517	0.2126	4.5728	0.2818	4.8546	1.4264	0.2664	1.6928	0.0000	14,841.8401	14,841.8401	1.0221	0.0000	14,863.3049
2030	125.9466	19.5243	85.4530	0.2155	4.5727	0.2823	4.8550	1.4264	0.2669	1.6932	0.0000	15,036.5884	15,036.5884	0.6656	0.0000	15,050.5649
2031	125.9106	19.4941	85.7111	0.2182	4.5731	0.2829	4.8560	1.4265	0.2675	1.6940	0.0000	15,167.8776	15,167.8776	0.6779	0.0000	15,182.1139
2032	125.8459	19.4333	85.1493	0.2182	4.5734	0.2834	4.8568	1.4266	0.2679	1.6946	0.0000	15,137.3991	15,137.3991	0.6741	0.0000	15,151.5552
2033	122.4661	3.5687	29.9469	0.0856	2.1033	0.0536	2.1569	0.6529	0.0500	0.7029	0.0000	5,426.5814	5,426.5814	0.2797	0.0000	5,432.4541
2034	122.4350	3.5427	29.6611	0.0856	2.1033	0.0537	2.1569	0.6529	0.0501	0.7029	0.0000	5,416.0400	5,416.0400	0.2776	0.0000	5,421.8701
2035	122.4079	3.5215	29.4156	0.0856	2.1033	0.0537	2.1570	0.6529	0.0501	0.7030	0.0000	5,407.4906	5,407.4906	0.2749	0.0000	5,413.2624
Total	**1,138.2243**	**193.2571**	**841.1181**	**2.0589**	**43.6261**	**2.7710**	**46.3971**	**13.6115**	**2.6205**	**16.2320**	**0.0000**	**144,660.4238**	**144,660.4238**	**8.9536**	**0.0000**	**144,848.4490**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.65	-2.90	-0.62	0.00	69.06	51.41	68.37	63.71	51.35	62.16	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	298.7803	1.1577	100.7294	5.3700e-003		1.0964	1.0964		1.0907	1.0907	0.0000	8,695.4152	8,695.4152	0.3423	0.1561	8,750.9845
Energy	0.9494	8.2301	4.3128	0.0518		0.6559	0.6559		0.6559	0.6559		10,356.7514	10,356.7514	0.1985	0.1899	10,419.7809
Mobile	204.0384	297.0391	1,810.2504	3.7676	236.3399	6.8196	243.1595	63.0532	6.2897	69.3429		270,395.6926	270,395.6926	9.7223		270,599.8602
Total	**503.7681**	**306.4269**	**1,915.2926**	**3.8247**	**236.3399**	**8.5719**	**244.9118**	**63.0532**	**8.0363**	**71.0895**	**0.0000**	**289,447.8591**	**289,447.8591**	**10.2630**	**0.3459**	**289,770.6256**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	225.0172	1.0390	88.6177	4.4300e-003		1.0255	1.0255		1.0198	1.0198	0.0000	8,668.0312	8,668.0312	0.2996	0.1561	8,722.7050
Energy	0.8269	7.1683	3.7551	0.0451		0.5713	0.5713		0.5713	0.5713		9,020.8287	9,020.8287	0.1729	0.1654	9,075.7279
Mobile	185.8733	201.8955	1,339.7894	1.8590	108.1196	3.6250	111.7446	28.8453	3.3457	32.1909		133,382.7488	133,382.7488	5.3325		133,494.7316
Total	**411.7174**	**210.1028**	**1,432.1623**	**1.9085**	**108.1196**	**5.2218**	**113.3414**	**28.8453**	**4.9368**	**33.7820**	**0.0000**	**151,071.6086**	**151,071.6086**	**5.8050**	**0.3215**	**151,293.1645**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	18.27	31.43	25.22	50.10	54.25	39.08	53.72	54.25	38.57	52.48	0.00	47.81	47.81	43.44	7.08	47.79

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	1/2/2023	12/17/2032	5	2600	
2	Architectural Coating	Architectural Coating	10/28/2027	12/31/2035	5	2133	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 2,442,150; Residential Outdoor: 814,050; Non-Residential Indoor: 14,166,540; Non-Residential Outdoor: 4,722,180 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Building Construction	8	868.00	129.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	825.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2653	11.0463	14.6389	0.0219		0.5603	0.5603		0.5302	0.5302		2,066.2431	2,066.2431	0.4497		2,075.6869
Total	**1.2653**	**11.0463**	**14.6389**	**0.0219**		**0.5603**	**0.5603**		**0.5302**	**0.5302**		**2,066.2431**	**2,066.2431**	**0.4497**		**2,075.6869**

3.2 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6912	3.7504	10.5867	0.0209	0.6253	0.1065	0.7318	0.1772	0.0980	0.2751		1,946.7810	1,946.7810	0.0118		1,947.0288
Worker	2.7125	3.0787	34.1433	0.0846	7.2623	0.0465	7.3088	1.9263	0.0431	1.9694		5,613.4534	5,613.4534	0.3007		5,619.7687
Total	**3.4037**	**6.8291**	**44.7300**	**0.1054**	**7.8876**	**0.1530**	**8.0405**	**2.1035**	**0.1411**	**2.2445**		**7,560.2344**	**7,560.2344**	**0.3125**		**7,566.7974**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4508	9.5786	15.1859	0.0219		0.0763	0.0763		0.0763	0.0763	0.0000	2,066.2431	2,066.2431	0.4497		2,075.6869
Total	**0.4508**	**9.5786**	**15.1859**	**0.0219**		**0.0763**	**0.0763**		**0.0763**	**0.0763**	**0.0000**	**2,066.2431**	**2,066.2431**	**0.4497**		**2,075.6869**

3.2 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6912	3.7504	10.5867	0.0209	0.2569	0.1065	0.3634	0.0868	0.0980	0.1847		1,946.7810	1,946.7810	0.0118		1,947.0288
Worker	2.7125	3.0787	34.1433	0.0846	2.2129	0.0465	2.2594	0.6869	0.0431	0.7300		5,613.4534	5,613.4534	0.3007		5,619.7687
Total	**3.4037**	**6.8291**	**44.7300**	**0.1054**	**2.4698**	**0.1530**	**2.6227**	**0.7736**	**0.1411**	**0.9147**		**7,560.2344**	**7,560.2344**	**0.3125**		**7,566.7974**

3.2 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1813	10.3775	14.6139	0.0219		0.4857	0.4857		0.4595	0.4595		2,066.7425	2,066.7425	0.4462		2,076.1129
Total	**1.1813**	**10.3775**	**14.6139**	**0.0219**		**0.4857**	**0.4857**		**0.4595**	**0.4595**		**2,066.7425**	**2,066.7425**	**0.4462**		**2,076.1129**

3.2 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6791	3.7294	10.3922	0.0209	0.6252	0.1050	0.7302	0.1771	0.0966	0.2737		1,952.1171	1,952.1171	0.0120		1,952.3696
Worker	2.6211	2.9997	33.4027	0.0856	7.2623	0.0479	7.3102	1.9263	0.0445	1.9708		5,613.4125	5,613.4125	0.3010		5,619.7331
Total	**3.3002**	**6.7291**	**43.7949**	**0.1065**	**7.8875**	**0.1529**	**8.0404**	**2.1034**	**0.1411**	**2.2445**		**7,565.5296**	**7,565.5296**	**0.3130**		**7,572.1027**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4508	9.5786	15.1859	0.0219		0.0763	0.0763		0.0763	0.0763	0.0000	2,066.7425	2,066.7425	0.4462		2,076.1129
Total	**0.4508**	**9.5786**	**15.1859**	**0.0219**		**0.0763**	**0.0763**		**0.0763**	**0.0763**	**0.0000**	**2,066.7425**	**2,066.7425**	**0.4462**		**2,076.1129**

3.2 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6791	3.7294	10.3922	0.0209	0.2568	0.1050	0.3618	0.0867	0.0966	0.1833		1,952.1171	1,952.1171	0.0120		1,952.3696
Worker	2.6211	2.9997	33.4027	0.0856	2.2129	0.0479	2.2608	0.6869	0.0445	0.7313		5,613.4125	5,613.4125	0.3010		5,619.7331
Total	**3.3002**	**6.7291**	**43.7949**	**0.1065**	**2.4697**	**0.1529**	**2.6226**	**0.7736**	**0.1411**	**0.9147**		**7,565.5296**	**7,565.5296**	**0.3130**		**7,572.1027**

3.2 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0937	9.6977	14.5653	0.0219		0.4097	0.4097		0.3879	0.3879		2,067.5014	2,067.5014	0.4428		2,076.8003
Total	**1.0937**	**9.6977**	**14.5653**	**0.0219**		**0.4097**	**0.4097**		**0.3879**	**0.3879**		**2,067.5014**	**2,067.5014**	**0.4428**		**2,076.8003**

3.2 Building Construction - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6662	3.7014	10.2824	0.0209	0.6251	0.1053	0.7304	0.1771	0.0969	0.2740		1,951.5581	1,951.5581	0.0120		1,951.8111
Worker	2.5406	2.9273	32.5004	0.0856	7.2623	0.0483	7.3106	1.9263	0.0448	1.9711		5,556.3794	5,556.3794	0.2958		5,562.5916
Total	**3.2068**	**6.6287**	**42.7827**	**0.1065**	**7.8874**	**0.1536**	**8.0410**	**2.1034**	**0.1417**	**2.2451**		**7,507.9375**	**7,507.9375**	**0.3079**		**7,514.4027**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4508	9.5786	15.1859	0.0219		0.0763	0.0763		0.0763	0.0763	0.0000	2,067.5014	2,067.5014	0.4428		2,076.8003
Total	**0.4508**	**9.5786**	**15.1859**	**0.0219**		**0.0763**	**0.0763**		**0.0763**	**0.0763**	**0.0000**	**2,067.5014**	**2,067.5014**	**0.4428**		**2,076.8003**

3.2 Building Construction - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6662	3.7014	10.2824	0.0209	0.2567	0.1053	0.3620	0.0867	0.0969	0.1836		1,951.5581	1,951.5581	0.0120		1,951.8111
Worker	2.5406	2.9273	32.5004	0.0856	2.2129	0.0483	2.2612	0.6869	0.0448	0.7317		5,556.3794	5,556.3794	0.2958		5,562.5916
Total	**3.2068**	**6.6287**	**42.7827**	**0.1065**	**2.4696**	**0.1536**	**2.6232**	**0.7736**	**0.1417**	**0.9153**		**7,507.9375**	**7,507.9375**	**0.3079**		**7,514.4027**

3.2 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0937	9.6977	14.5653	0.0219		0.4097	0.4097		0.3879	0.3879		2,067.5014	2,067.5014	0.4428		2,076.8003
Total	**1.0937**	**9.6977**	**14.5653**	**0.0219**		**0.4097**	**0.4097**		**0.3879**	**0.3879**		**2,067.5014**	**2,067.5014**	**0.4428**		**2,076.8003**

3.2 Building Construction - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6551	3.6555	10.1477	0.0209	0.6251	0.1041	0.7292	0.1771	0.0958	0.2729		1,951.4107	1,951.4107	0.0120		1,951.6618
Worker	2.4852	2.8824	31.8506	0.0856	7.2623	0.0488	7.3111	1.9263	0.0453	1.9716		5,508.8726	5,508.8726	0.2924		5,515.0133
Total	**3.1403**	**6.5379**	**41.9982**	**0.1065**	**7.8874**	**0.1529**	**8.0403**	**2.1034**	**0.1411**	**2.2445**		**7,460.2833**	**7,460.2833**	**0.3044**		**7,466.6751**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4508	9.5786	15.1859	0.0219		0.0763	0.0763		0.0763	0.0763	0.0000	2,067.5014	2,067.5014	0.4428		2,076.8003
Total	**0.4508**	**9.5786**	**15.1859**	**0.0219**		**0.0763**	**0.0763**		**0.0763**	**0.0763**	**0.0000**	**2,067.5014**	**2,067.5014**	**0.4428**		**2,076.8003**

3.2 Building Construction - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6551	3.6555	10.1477	0.0209	0.2567	0.1041	0.3608	0.0867	0.0958	0.1825		1,951.4107	1,951.4107	0.0120		1,951.6618
Worker	2.4852	2.8824	31.8506	0.0856	2.2129	0.0488	2.2617	0.6869	0.0453	0.7322		5,508.8726	5,508.8726	0.2924		5,515.0133
Total	**3.1403**	**6.5379**	**41.9982**	**0.1065**	**2.4696**	**0.1529**	**2.6225**	**0.7736**	**0.1411**	**0.9146**		**7,460.2833**	**7,460.2833**	**0.3044**		**7,466.6751**

3.2 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0937	9.6977	14.5653	0.0219		0.4097	0.4097		0.3879	0.3879		2,067.5014	2,067.5014	0.4428		2,076.8003
Total	**1.0937**	**9.6977**	**14.5653**	**0.0219**		**0.4097**	**0.4097**		**0.3879**	**0.3879**		**2,067.5014**	**2,067.5014**	**0.4428**		**2,076.8003**

3.2 Building Construction - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6496	3.6330	10.0546	0.0209	0.6251	0.1043	0.7294	0.1771	0.0960	0.2731		1,951.4048	1,951.4048	0.0120		1,951.6561
Worker	2.4374	2.8411	31.3610	0.0856	7.2623	0.0492	7.3115	1.9263	0.0457	1.9720		5,468.2229	5,468.2229	0.2893		5,474.2973
Total	**3.0870**	**6.4741**	**41.4156**	**0.1064**	**7.8874**	**0.1535**	**8.0409**	**2.1034**	**0.1416**	**2.2450**		**7,419.6277**	**7,419.6277**	**0.3012**		**7,425.9534**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4508	9.5786	15.1859	0.0219		0.0763	0.0763		0.0763	0.0763	0.0000	2,067.5014	2,067.5014	0.4428		2,076.8003
Total	**0.4508**	**9.5786**	**15.1859**	**0.0219**		**0.0763**	**0.0763**		**0.0763**	**0.0763**	**0.0000**	**2,067.5014**	**2,067.5014**	**0.4428**		**2,076.8003**

3.2 Building Construction - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6496	3.6330	10.0546	0.0209	0.2567	0.1043	0.3610	0.0867	0.0960	0.1826		1,951.4048	1,951.4048	0.0120		1,951.6561
Worker	2.4374	2.8411	31.3610	0.0856	2.2129	0.0492	2.2621	0.6869	0.0457	0.7326		5,468.2229	5,468.2229	0.2893		5,474.2973
Total	**3.0870**	**6.4741**	**41.4156**	**0.1064**	**2.4696**	**0.1535**	**2.6231**	**0.7736**	**0.1416**	**0.9152**		**7,419.6277**	**7,419.6277**	**0.3012**		**7,425.9534**

3.2 Building Construction - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0937	9.6977	14.5653	0.0219		0.4097	0.4097		0.3879	0.3879		2,067.5014	2,067.5014	0.4428		2,076.8003
Total	**1.0937**	**9.6977**	**14.5653**	**0.0219**		**0.4097**	**0.4097**		**0.3879**	**0.3879**		**2,067.5014**	**2,067.5014**	**0.4428**		**2,076.8003**

3.2 Building Construction - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6452	3.6126	10.0080	0.0209	0.6251	0.1041	0.7292	0.1771	0.0958	0.2729		1,951.2718	1,951.2718	0.0120		1,951.5229
Worker	2.3923	2.7982	30.8710	0.0856	7.2623	0.0496	7.3119	1.9263	0.0460	1.9723		5,433.8458	5,433.8458	0.2861		5,439.8541
Total	**3.0375**	**6.4108**	**40.8790**	**0.1064**	**7.8874**	**0.1538**	**8.0411**	**2.1034**	**0.1418**	**2.2452**		**7,385.1176**	**7,385.1176**	**0.2981**		**7,391.3770**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4508	9.5786	15.1859	0.0219		0.0763	0.0763		0.0763	0.0763	0.0000	2,067.5014	2,067.5014	0.4428		2,076.8003
Total	**0.4508**	**9.5786**	**15.1859**	**0.0219**		**0.0763**	**0.0763**		**0.0763**	**0.0763**	**0.0000**	**2,067.5014**	**2,067.5014**	**0.4428**		**2,076.8003**

3.2 Building Construction - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6452	3.6126	10.0080	0.0209	0.2567	0.1041	0.3608	0.0867	0.0958	0.1825		1,951.2718	1,951.2718	0.0120		1,951.5229
Worker	2.3923	2.7982	30.8710	0.0856	2.2129	0.0496	2.2625	0.6869	0.0460	0.7329		5,433.8458	5,433.8458	0.2861		5,439.8541
Total	**3.0375**	**6.4108**	**40.8790**	**0.1064**	**2.4696**	**0.1538**	**2.6233**	**0.7735**	**0.1418**	**0.9154**		**7,385.1176**	**7,385.1176**	**0.2981**		**7,391.3770**

3.2 Building Construction - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0937	9.6977	14.5653	0.0219		0.4097	0.4097		0.3879	0.3879		2,067.5014	2,067.5014	0.4428		2,076.8003
Total	**1.0937**	**9.6977**	**14.5653**	**0.0219**		**0.4097**	**0.4097**		**0.3879**	**0.3879**		**2,067.5014**	**2,067.5014**	**0.4428**		**2,076.8003**

3.2 Building Construction - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6424	3.5962	9.9521	0.0209	0.6250	0.1041	0.7291	0.1771	0.0958	0.2729		1,951.0714	1,951.0714	0.0120		1,951.3224
Worker	2.3474	2.7568	30.3935	0.0856	7.2623	0.0499	7.3122	1.9263	0.0463	1.9726		5,404.7839	5,404.7839	0.2830		5,410.7273
Total	**2.9899**	**6.3530**	**40.3456**	**0.1064**	**7.8873**	**0.1541**	**8.0414**	**2.1034**	**0.1421**	**2.2455**		**7,355.8553**	**7,355.8553**	**0.2950**		**7,362.0498**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4508	9.5786	15.1859	0.0219		0.0763	0.0763		0.0763	0.0763	0.0000	2,067.5014	2,067.5014	0.4428		2,076.8003
Total	**0.4508**	**9.5786**	**15.1859**	**0.0219**		**0.0763**	**0.0763**		**0.0763**	**0.0763**	**0.0000**	**2,067.5014**	**2,067.5014**	**0.4428**		**2,076.8003**

3.2 Building Construction - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6424	3.5962	9.9521	0.0209	0.2566	0.1041	0.3607	0.0867	0.0958	0.1824		1,951.0714	1,951.0714	0.0120		1,951.3224
Worker	2.3474	2.7568	30.3935	0.0856	2.2129	0.0499	2.2628	0.6869	0.0463	0.7332		5,404.7839	5,404.7839	0.2830		5,410.7273
Total	**2.9899**	**6.3530**	**40.3456**	**0.1064**	**2.4695**	**0.1541**	**2.6236**	**0.7735**	**0.1421**	**0.9156**		**7,355.8553**	**7,355.8553**	**0.2950**		**7,362.0498**

3.2 Building Construction - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0776	7.1613	14.9712	0.0248		0.1233	0.1233		0.1233	0.1233		2,310.0315	2,310.0315	0.0956		2,312.0384
Total	**1.0776**	**7.1613**	**14.9712**	**0.0248**		**0.1233**	**0.1233**		**0.1233**	**0.1233**		**2,310.0315**	**2,310.0315**	**0.0956**		**2,312.0384**

3.2 Building Construction - 2030

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6389	3.5814	9.9097	0.0209	0.6250	0.1041	0.7291	0.1771	0.0958	0.2728		1,950.7769	1,950.7769	0.0120		1,951.0280
Worker	2.3074	2.7196	30.0057	0.0856	7.2623	0.0502	7.3125	1.9263	0.0466	1.9728		5,380.4372	5,380.4372	0.2803		5,386.3227
Total	**2.9463**	**6.3010**	**39.9155**	**0.1065**	**7.8873**	**0.1543**	**8.0415**	**2.1033**	**0.1423**	**2.2456**		**7,331.2141**	**7,331.2141**	**0.2922**		**7,337.3506**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4508	9.5786	15.1859	0.0248		0.0763	0.0763		0.0763	0.0763	0.0000	2,310.0315	2,310.0315	0.0956		2,312.0384
Total	**0.4508**	**9.5786**	**15.1859**	**0.0248**		**0.0763**	**0.0763**		**0.0763**	**0.0763**	**0.0000**	**2,310.0315**	**2,310.0315**	**0.0956**		**2,312.0384**

3.2 Building Construction - 2030

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6389	3.5814	9.9097	0.0209	0.2566	0.1041	0.3607	0.0866	0.0958	0.1824		1,950.7769	1,950.7769	0.0120		1,951.0280
Worker	2.3074	2.7196	30.0057	0.0856	2.2129	0.0502	2.2631	0.6869	0.0466	0.7334		5,380.4372	5,380.4372	0.2803		5,386.3227
Total	**2.9463**	**6.3010**	**39.9155**	**0.1065**	**2.4695**	**0.1543**	**2.6237**	**0.7735**	**0.1423**	**0.9158**		**7,331.2141**	**7,331.2141**	**0.2922**		**7,337.3506**

3.2 Building Construction - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0776	7.1613	14.9712	0.0248		0.1233	0.1233		0.1233	0.1233		2,310.0315	2,310.0315	0.0956		2,312.0384
Total	**1.0776**	**7.1613**	**14.9712**	**0.0248**		**0.1233**	**0.1233**		**0.1233**	**0.1233**		**2,310.0315**	**2,310.0315**	**0.0956**		**2,312.0384**

3.2 Building Construction - 2031

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6393	3.5836	9.8492	0.0210	0.6253	0.1012	0.7265	0.1772	0.0931	0.2703		1,959.7212	1,959.7212	0.0122		1,959.9779
Worker	2.2887	2.7030	30.1691	0.0869	7.2623	0.0520	7.3143	1.9263	0.0483	1.9746		5,443.1633	5,443.1633	0.2865		5,449.1791
Total	**2.9280**	**6.2866**	**40.0183**	**0.1079**	**7.8876**	**0.1532**	**8.0408**	**2.1035**	**0.1413**	**2.2448**		**7,402.8846**	**7,402.8846**	**0.2987**		**7,409.1570**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4508	9.5786	15.1859	0.0248		0.0763	0.0763		0.0763	0.0763	0.0000	2,310.0315	2,310.0315	0.0956		2,312.0384
Total	**0.4508**	**9.5786**	**15.1859**	**0.0248**		**0.0763**	**0.0763**		**0.0763**	**0.0763**	**0.0000**	**2,310.0315**	**2,310.0315**	**0.0956**		**2,312.0384**

3.2 Building Construction - 2031

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6393	3.5836	9.8492	0.0210	0.2569	0.1012	0.3581	0.0868	0.0931	0.1798		1,959.7212	1,959.7212	0.0122		1,959.9779
Worker	2.2887	2.7030	30.1691	0.0869	2.2129	0.0520	2.2649	0.6869	0.0483	0.7352		5,443.1633	5,443.1633	0.2865		5,449.1791
Total	**2.9280**	**6.2866**	**40.0183**	**0.1079**	**2.4698**	**0.1532**	**2.6230**	**0.7737**	**0.1413**	**0.9150**		**7,402.8846**	**7,402.8846**	**0.2987**		**7,409.1570**

3.2 Building Construction - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0776	7.1613	14.9712	0.0248		0.1233	0.1233		0.1233	0.1233		2,310.0315	2,310.0315	0.0956		2,312.0384
Total	**1.0776**	**7.1613**	**14.9712**	**0.0248**		**0.1233**	**0.1233**		**0.1233**	**0.1233**		**2,310.0315**	**2,310.0315**	**0.0956**		**2,312.0384**

3.2 Building Construction - 2032

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6392	3.5789	9.8290	0.0210	0.6257	0.1014	0.7270	0.1773	0.0933	0.2706		1,961.1754	1,961.1754	0.0122		1,961.4323
Worker	2.2556	2.6742	29.8914	0.0869	7.2623	0.0522	7.3145	1.9263	0.0484	1.9747		5,426.7915	5,426.7915	0.2845		5,432.7660
Total	**2.8948**	**6.2531**	**39.7204**	**0.1079**	**7.8880**	**0.1535**	**8.0415**	**2.1036**	**0.1417**	**2.2453**		**7,387.9668**	**7,387.9668**	**0.2967**		**7,394.1983**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4508	9.5786	15.1859	0.0248		0.0763	0.0763		0.0763	0.0763	0.0000	2,310.0315	2,310.0315	0.0956		2,312.0384
Total	**0.4508**	**9.5786**	**15.1859**	**0.0248**		**0.0763**	**0.0763**		**0.0763**	**0.0763**	**0.0000**	**2,310.0315**	**2,310.0315**	**0.0956**		**2,312.0384**

3.2 Building Construction - 2032

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6392	3.5789	9.8290	0.0210	0.2573	0.1014	0.3586	0.0869	0.0933	0.1802		1,961.1754	1,961.1754	0.0122		1,961.4323
Worker	2.2556	2.6742	29.8914	0.0869	2.2129	0.0522	2.2651	0.6869	0.0484	0.7353		5,426.7915	5,426.7915	0.2845		5,432.7660
Total	**2.8948**	**6.2531**	**39.7204**	**0.1079**	**2.4702**	**0.1535**	**2.6237**	**0.7738**	**0.1417**	**0.9154**		**7,387.9668**	**7,387.9668**	**0.2967**		**7,394.1983**

3.3 Architectural Coating - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	120.3020					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.7705
Total	**120.4729**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.7705**

3.3 Architectural Coating - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.3167	2.7004	29.8074	0.0813	6.9025	0.0468	6.9493	1.8309	0.0434	1.8743		5,197.3317	5,197.3317	0.2749		5,203.1052
Total	**2.3167**	**2.7004**	**29.8074**	**0.0813**	**6.9025**	**0.0468**	**6.9493**	**1.8309**	**0.0434**	**1.8743**		**5,197.3317**	**5,197.3317**	**0.2749**		**5,203.1052**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	120.3020					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0545	1.0598	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0154		281.7705
Total	**120.3565**	**1.0598**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.7705**

3.3 Architectural Coating - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.3167	2.7004	29.8074	0.0813	2.1033	0.0468	2.1501	0.6529	0.0434	0.6963		5,197.3317	5,197.3317	0.2749		5,203.1052
Total	**2.3167**	**2.7004**	**29.8074**	**0.0813**	**2.1033**	**0.0468**	**2.1501**	**0.6529**	**0.0434**	**0.6963**		**5,197.3317**	**5,197.3317**	**0.2749**		**5,203.1052**

3.3 Architectural Coating - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	120.3020					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.7705
Total	**120.4729**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.7705**

3.3 Architectural Coating - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.2738	2.6596	29.3417	0.0813	6.9025	0.0472	6.9497	1.8309	0.0438	1.8746		5,164.6576	5,164.6576	0.2719		5,170.3682
Total	**2.2738**	**2.6596**	**29.3417**	**0.0813**	**6.9025**	**0.0472**	**6.9497**	**1.8309**	**0.0438**	**1.8746**		**5,164.6576**	**5,164.6576**	**0.2719**		**5,170.3682**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	120.3020					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0545	1.0598	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0154		281.7705
Total	**120.3565**	**1.0598**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.7705**

3.3 Architectural Coating - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.2738	2.6596	29.3417	0.0813	2.1033	0.0472	2.1504	0.6529	0.0438	0.6966		5,164.6576	5,164.6576	0.2719		5,170.3682
Total	**2.2738**	**2.6596**	**29.3417**	**0.0813**	**2.1033**	**0.0472**	**2.1504**	**0.6529**	**0.0438**	**0.6966**		**5,164.6576**	**5,164.6576**	**0.2719**		**5,170.3682**

3.3 Architectural Coating - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	120.3020					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.7705
Total	**120.4729**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.7705**

3.3 Architectural Coating - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.2312	2.6202	28.8878	0.0813	6.9025	0.0475	6.9500	1.8309	0.0440	1.8749		5,137.0354	5,137.0354	0.2690		5,142.6844
Total	**2.2312**	**2.6202**	**28.8878**	**0.0813**	**6.9025**	**0.0475**	**6.9500**	**1.8309**	**0.0440**	**1.8749**		**5,137.0354**	**5,137.0354**	**0.2690**		**5,142.6844**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	120.3020					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0545	1.0598	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0154		281.7705
Total	**120.3565**	**1.0598**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.7705**

3.3 Architectural Coating - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.2312	2.6202	28.8878	0.0813	2.1033	0.0475	2.1507	0.6529	0.0440	0.6969		5,137.0354	5,137.0354	0.2690		5,142.6844
Total	**2.2312**	**2.6202**	**28.8878**	**0.0813**	**2.1033**	**0.0475**	**2.1507**	**0.6529**	**0.0440**	**0.6969**		**5,137.0354**	**5,137.0354**	**0.2690**		**5,142.6844**

3.3 Architectural Coating - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	120.3020					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.6873
Total	**120.4328**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.6873**

3.3 Architectural Coating - 2030

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.1931	2.5849	28.5193	0.0813	6.9025	0.0477	6.9502	1.8309	0.0443	1.8751		5,113.8948	5,113.8948	0.2664		5,119.4887
Total	**2.1931**	**2.5849**	**28.5193**	**0.0813**	**6.9025**	**0.0477**	**6.9502**	**1.8309**	**0.0443**	**1.8751**		**5,113.8948**	**5,113.8948**	**0.2664**		**5,119.4887**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	120.3020					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0545	1.0598	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0114		281.6873
Total	**120.3565**	**1.0598**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0114**		**281.6873**

3.3 Architectural Coating - 2030

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.1931	2.5849	28.5193	0.0813	2.1033	0.0477	2.1510	0.6529	0.0443	0.6971		5,113.8948	5,113.8948	0.2664		5,119.4887
Total	**2.1931**	**2.5849**	**28.5193**	**0.0813**	**2.1033**	**0.0477**	**2.1510**	**0.6529**	**0.0443**	**0.6971**		**5,113.8948**	**5,113.8948**	**0.2664**		**5,119.4887**

3.3 Architectural Coating - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	120.3020					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.6873
Total	**120.4328**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.6873**

3.3 Architectural Coating - 2031

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.1753	2.5691	28.6745	0.0826	6.9025	0.0495	6.9520	1.8309	0.0459	1.8767		5,173.5136	5,173.5136	0.2723		5,179.2313
Total	**2.1753**	**2.5691**	**28.6745**	**0.0826**	**6.9025**	**0.0495**	**6.9520**	**1.8309**	**0.0459**	**1.8767**		**5,173.5136**	**5,173.5136**	**0.2723**		**5,179.2313**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	120.3020					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0545	1.0598	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0114		281.6873
Total	**120.3565**	**1.0598**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0114**		**281.6873**

3.3 Architectural Coating - 2031

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.1753	2.5691	28.6745	0.0826	2.1033	0.0495	2.1527	0.6529	0.0459	0.6987		5,173.5136	5,173.5136	0.2723		5,179.2313
Total	**2.1753**	**2.5691**	**28.6745**	**0.0826**	**2.1033**	**0.0495**	**2.1527**	**0.6529**	**0.0459**	**0.6987**		**5,173.5136**	**5,173.5136**	**0.2723**		**5,179.2313**

3.3 Architectural Coating - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	120.3020					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.6873
Total	**120.4328**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.6873**

3.3 Architectural Coating - 2032

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.1439	2.5418	28.4106	0.0826	6.9025	0.0496	6.9521	1.8309	0.0460	1.8769		5,157.9527	5,157.9527	0.2704		5,163.6313
Total	**2.1439**	**2.5418**	**28.4106**	**0.0826**	**6.9025**	**0.0496**	**6.9521**	**1.8309**	**0.0460**	**1.8769**		**5,157.9527**	**5,157.9527**	**0.2704**		**5,163.6313**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	120.3020					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0545	1.0598	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0114		281.6873
Total	**120.3565**	**1.0598**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0114**		**281.6873**

3.3 Architectural Coating - 2032

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.1439	2.5418	28.4106	0.0826	2.1033	0.0496	2.1528	0.6529	0.0460	0.6989		5,157.9527	5,157.9527	0.2704		5,163.6313
Total	**2.1439**	**2.5418**	**28.4106**	**0.0826**	**2.1033**	**0.0496**	**2.1528**	**0.6529**	**0.0460**	**0.6989**		**5,157.9527**	**5,157.9527**	**0.2704**		**5,163.6313**

3.3 Architectural Coating - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	120.3020					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.6873
Total	**120.4328**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.6873**

3.3 Architectural Coating - 2033

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.1096	2.5089	28.1145	0.0826	6.9025	0.0497	6.9522	1.8309	0.0461	1.8769		5,145.1333	5,145.1333	0.2683		5,150.7668
Total	**2.1096**	**2.5089**	**28.1145**	**0.0826**	**6.9025**	**0.0497**	**6.9522**	**1.8309**	**0.0461**	**1.8769**		**5,145.1333**	**5,145.1333**	**0.2683**		**5,150.7668**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	120.3020					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0545	1.0598	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0114		281.6873
Total	**120.3565**	**1.0598**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0114**		**281.6873**

3.3 Architectural Coating - 2033

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.1096	2.5089	28.1145	0.0826	2.1033	0.0497	2.1529	0.6529	0.0461	0.6989		5,145.1333	5,145.1333	0.2683		5,150.7668
Total	**2.1096**	**2.5089**	**28.1145**	**0.0826**	**2.1033**	**0.0497**	**2.1529**	**0.6529**	**0.0461**	**0.6989**		**5,145.1333**	**5,145.1333**	**0.2683**		**5,150.7668**

3.3 Architectural Coating - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	120.3020					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.6873
Total	**120.4328**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.6873**

3.3 Architectural Coating - 2034

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.0785	2.4829	27.8287	0.0826	6.9025	0.0497	6.9522	1.8309	0.0461	1.8770		5,134.5920	5,134.5920	0.2662		5,140.1828
Total	**2.0785**	**2.4829**	**27.8287**	**0.0826**	**6.9025**	**0.0497**	**6.9522**	**1.8309**	**0.0461**	**1.8770**		**5,134.5920**	**5,134.5920**	**0.2662**		**5,140.1828**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	120.3020					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0545	1.0598	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0114		281.6873
Total	**120.3565**	**1.0598**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0114**		**281.6873**

3.3 Architectural Coating - 2034

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.0785	2.4829	27.8287	0.0826	2.1033	0.0497	2.1530	0.6529	0.0461	0.6990		5,134.5920	5,134.5920	0.2662		5,140.1828
Total	**2.0785**	**2.4829**	**27.8287**	**0.0826**	**2.1033**	**0.0497**	**2.1530**	**0.6529**	**0.0461**	**0.6990**		**5,134.5920**	**5,134.5920**	**0.2662**		**5,140.1828**

3.3 Architectural Coating - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	120.3020					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1179	0.7577	1.7943	2.9700e-003		9.9000e-003	9.9000e-003		9.9000e-003	9.9000e-003		281.4481	281.4481	0.0104		281.6665
Total	**120.4199**	**0.7577**	**1.7943**	**2.9700e-003**		**9.9000e-003**	**9.9000e-003**		**9.9000e-003**	**9.9000e-003**		**281.4481**	**281.4481**	**0.0104**		**281.6665**

3.3 Architectural Coating - 2035

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.0514	2.4617	27.5832	0.0826	6.9025	0.0497	6.9523	1.8309	0.0462	1.8770		5,126.0425	5,126.0425	0.2645		5,131.5960
Total	**2.0514**	**2.4617**	**27.5832**	**0.0826**	**6.9025**	**0.0497**	**6.9523**	**1.8309**	**0.0462**	**1.8770**		**5,126.0425**	**5,126.0425**	**0.2645**		**5,131.5960**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	120.3020					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0545	1.0598	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0104		281.6665
Total	**120.3565**	**1.0598**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0104**		**281.6665**

3.3 Architectural Coating - 2035

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.0514	2.4617	27.5832	0.0826	2.1033	0.0497	2.1530	0.6529	0.0462	0.6990		5,126.0425	5,126.0425	0.2645		5,131.5960
Total	**2.0514**	**2.4617**	**27.5832**	**0.0826**	**2.1033**	**0.0497**	**2.1530**	**0.6529**	**0.0462**	**0.6990**		**5,126.0425**	**5,126.0425**	**0.2645**		**5,131.5960**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Increase Diversity

Improve Walkability Design

Improve Destination Accessibility

Increase Transit Accessibility

Improve Pedestrian Network

Provide Traffic Calming Measures

Implement NEV Network

Limit Parking Supply

Expand Transit Network

Increase Transit Frequency

Implement Trip Reduction Program

Market Commute Trip Reduction Option

Employee Vanpool/Shuttle

Provide Riade Sharing Program

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	185.8733	201.8955	1,339.7894	1.8590	108.1196	3.6250	111.7446	28.8453	3.3457	32.1909		133,382.7488	133,382.7488	5.3325		133,494.7316
Unmitigated	204.0384	297.0391	1,810.2504	3.7676	236.3399	6.8196	243.1595	63.0532	6.2897	69.3429		270,395.6926	270,395.6926	9.7223		270,599.8602

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	9.54	9.54	9.54	18,189	8,206
Condo/Townhouse High Rise	5,607.90	6,126.48	5197.86	12,579,115	5,979,322
Enclosed Parking Structure	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Regional Shopping Center	63,807.74	73,725.71	37223.80	81,354,957	37,014,013
Total	69,425.18	79,861.73	42,431.20	93,952,261	43,001,542

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	12.50	4.20	5.40	33.00	48.00	19.00	66	28	6
Condo/Townhouse High Rise	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3
Enclosed Parking Structure	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Other Asphalt Surfaces	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	54	35	11

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.465210	0.067391	0.177305	0.167396	0.031659	0.004952	0.009103	0.067971	0.001188	0.001302	0.002807	0.000452	0.003265

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

Percent of Electricity Use Generated with Renewable Energy

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.8269	7.1683	3.7551	0.0451		0.5713	0.5713		0.5713	0.5713		9,020.8287	9,020.8287	0.1729	0.1654	9,075.7279
NaturalGas Unmitigated	0.9494	8.2301	4.3128	0.0518		0.6559	0.6559		0.6559	0.6559		10,356.7514	10,356.7514	0.1985	0.1899	10,419.7809

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse High Rise	68082.9	0.7342	6.2743	2.6699	0.0401		0.5073	0.5073		0.5073	0.5073		8,009.7564	8,009.7564	0.1535	0.1469	8,058.5024
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	19949.5	0.2151	1.9558	1.6429	0.0117		0.1486	0.1486		0.1486	0.1486		2,346.9950	2,346.9950	0.0450	0.0430	2,361.2784
Total		**0.9494**	**8.2301**	**4.3128**	**0.0518**		**0.6559**	**0.6559**		**0.6559**	**0.6559**		**10,356.7514**	**10,356.7514**	**0.1985**	**0.1899**	**10,419.7809**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse High Rise	59.3331	0.6399	5.4680	2.3268	0.0349		0.4421	0.4421		0.4421	0.4421		6,980.3593	6,980.3593	0.1338	0.1280	7,022.8406
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	17.344	0.1870	1.7004	1.4283	0.0102		0.1292	0.1292		0.1292	0.1292		2,040.4694	2,040.4694	0.0391	0.0374	2,052.8873
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.8269**	**7.1683**	**3.7551**	**0.0451**		**0.5713**	**0.5713**		**0.5713**	**0.5713**		**9,020.8287**	**9,020.8287**	**0.1729**	**0.1654**	**9,075.7279**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

Use only Natural Gas Hearths

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	225.0172	1.0390	88.6177	4.4300e-003		1.0255	1.0255		1.0198	1.0198	0.0000	8,668.0312	8,668.0312	0.2996	0.1561	8,722.7050
Unmitigated	298.7803	1.1577	100.7294	5.3700e-003		1.0964	1.0964		1.0907	1.0907	0.0000	8,695.4152	8,695.4152	0.3423	0.1561	8,750.9845

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	70.3025					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	224.5921					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.7804	4.0000e-005	0.0426	0.0000		0.5392	0.5392		0.5335	0.5335	0.0000	8,512.9412	8,512.9412	0.1632	0.1561	8,564.7495
Landscaping	3.1053	1.1577	100.6868	5.3700e-003		0.5572	0.5572		0.5572	0.5572		182.4740	182.4740	0.1791		186.2350
Total	**298.7803**	**1.1577**	**100.7294**	**5.3700e-003**		**1.0964**	**1.0964**		**1.0907**	**1.0907**	**0.0000**	**8,695.4152**	**8,695.4152**	**0.3423**	**0.1561**	**8,750.9845**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	14.0605					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	207.8002					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.7804	4.0000e-005	0.0426	0.0000		0.5392	0.5392		0.5335	0.5335	0.0000	8,512.9412	8,512.9412	0.1632	0.1561	8,564.7495
Landscaping	2.3761	1.0390	88.5752	4.4300e-003		0.4863	0.4863		0.4863	0.4863		155.0900	155.0900	0.1365		157.9555
Total	**225.0172**	**1.0390**	**88.6177**	**4.4300e-003**		**1.0255**	**1.0255**		**1.0198**	**1.0198**	**0.0000**	**8,668.0312**	**8,668.0312**	**0.2996**	**0.1561**	**8,722.7050**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Use Reclaimed Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Turf Reduction

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Tribal Land Use (Planning Area 1-7)

Salton Sea Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking Structure	12,000.00	Space	108.00	4,800,000.00	0
Other Asphalt Surfaces	25.00	Acre	25.00	1,089,000.00	0
City Park	6.00	Acre	6.00	261,360.00	0
Condo/Townhouse High Rise	1,206.00	Dwelling Unit	18.84	1,206,000.00	2028
Regional Shopping Center	3,138.60	1000sqft	72.05	3,138,600.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.4	**Precipitation Freq (Days)**	20
Climate Zone	10			**Operational Year**	2035
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Population based on 1.95 factor
User Defined recreation - private open space
Other asphalt surfaces - roadways

Construction Phase - Construction assumptions

Off-road Equipment - Construction Assumptions

Off-road Equipment - Construction Assumptions - no cranes

Trips and VMT - SCAQMDs analysis of Construction Worker and Vendor Trip Rates

On-road Fugitive Dust - 100% paved roads

Grading -

Vehicle Trips - Based on trip generation from Traffic Study
City park is private open space

Vechicle Emission Factors -

Vechicle Emission Factors -

Vechicle Emission Factors -

Road Dust - 100% paved roads

Woodstoves - No woodstoves

Construction Off-road Equipment Mitigation - Mitigation Assumption; Tier 4 required by January 2016 SCAQMD Rule 403 and 403.1

Mobile Land Use Mitigation -

Mobile Commute Mitigation - Applicant Assumption

Area Mitigation - Per SCAQMD Rule 1113 and Specific Plan

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Water And Wastewater - Calculated

Sequestration -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	50

tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	50
tblCommuteMitigation	EmployeeVanpoolPercentModeShare	2	5
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	80
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	330.00	2,133.00
tblConstructionPhase	NumDays	4,650.00	2,600.00
tblConstructionPhase	PhaseEndDate	2/20/2041	12/31/2035
tblConstructionPhase	PhaseStartDate	12/18/2032	10/28/2027
tblFireplaces	FireplaceWoodMass	457.60	0.00
tblFireplaces	NumberGas	1,206.00	402.00
tblLandUse	Population	3,895.00	2,028.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00

tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblProjectCharacteristics	OperationalYear	2014	2035
tblRoadDust	RoadPercentPave	50	100
tblSequestration	NumberOfNewTrees	0.00	150.00
tblTripsAndVMT	VendorTripNumber	1,677.00	129.00
tblTripsAndVMT	WorkerTripNumber	4,506.00	868.00
tblTripsAndVMT	WorkerTripNumber	901.00	825.00
tblVehicleTrips	ST_TR	7.16	5.08
tblVehicleTrips	ST_TR	49.97	23.49
tblVehicleTrips	SU_TR	6.07	4.31
tblVehicleTrips	SU_TR	25.24	11.86
tblVehicleTrips	WD_TR	6.59	4.65
tblVehicleTrips	WD_TR	42.94	20.33
tblWater	IndoorWaterUseRate	78,575,754.90	158,468,400.00
tblWater	IndoorWaterUseRate	232,484,015.93	171,079,397.30
tblWater	OutdoorWaterUseRate	7,148,888.10	36,886,345.00
tblWater	OutdoorWaterUseRate	49,536,888.96	158,468,400.00
tblWater	OutdoorWaterUseRate	142,490,203.31	171,079,397.30
tblWoodstoves	NumberCatalytic	60.30	0.00
tblWoodstoves	NumberNoncatalytic	60.30	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	4.0849	18.3712	57.1021	0.1209	7.8876	0.7142	8.6017	2.1035	0.6721	2.7755	0.0000	9,194.3008	9,194.3008	0.7630	0.0000	9,210.3226
2024	3.9273	17.5895	56.1448	0.1219	7.8875	0.6396	8.5270	2.1034	0.6014	2.7048	0.0000	9,200.0882	9,200.0882	0.7599	0.0000	9,216.0468
2025	3.7705	16.7981	55.1872	0.1218	7.8874	0.5643	8.4516	2.1034	0.5304	2.6338	0.0000	9,147.1672	9,147.1672	0.7514	0.0000	9,162.9464
2026	3.7208	16.6979	54.4443	0.1218	7.8874	0.5636	8.4509	2.1034	0.5298	2.6331	0.0000	9,102.8924	9,102.8924	0.7479	0.0000	9,118.5982
2027	125.9381	20.7479	80.0546	0.2001	14.7899	0.6625	15.4524	3.9342	0.6252	4.5595	0.0000	14,163.7238	14,163.7238	1.0350	0.0000	14,185.4593
2028	125.8736	20.6328	79.1854	0.2001	14.7899	0.6630	15.4529	3.9342	0.6258	4.5600	0.0000	14,101.0692	14,101.0692	1.0289	0.0000	14,122.6756
2029	125.8117	20.5252	78.3276	0.2001	14.7899	0.6636	15.4535	3.9342	0.6263	4.5605	0.0000	14,047.8443	14,047.8443	1.0229	0.0000	14,069.3242
2030	125.7003	17.6030	78.0270	0.2029	14.7898	0.3465	15.1363	3.9342	0.3310	4.2652	0.0000	14,245.5912	14,245.5912	0.6663	0.0000	14,259.5829
2031	125.6821	17.5684	78.1332	0.2054	14.7902	0.3472	15.1373	3.9343	0.3317	4.2660	0.0000	14,366.8831	14,366.8831	0.6786	0.0000	14,381.1344
2032	125.6402	17.5009	77.6459	0.2054	14.7905	0.3476	15.1381	3.9345	0.3321	4.2666	0.0000	14,338.6268	14,338.6268	0.6748	0.0000	14,352.7981
2033	122.0821	3.6188	24.6772	0.0794	6.9025	0.0700	6.9725	1.8309	0.0664	1.8972	0.0000	5,049.0061	5,049.0061	0.2797	0.0000	5,054.8787
2034	122.0611	3.5900	24.4365	0.0795	6.9025	0.0700	6.9725	1.8309	0.0664	1.8973	0.0000	5,039.1901	5,039.1901	0.2776	0.0000	5,045.0201
2035	122.0296	3.4680	24.2269	0.0795	6.9025	0.0596	6.9622	1.8309	0.0561	1.8869	0.0000	5,031.2502	5,031.2502	0.2749	0.0000	5,037.0221
Total	**1,136.3220**	**194.7118**	**767.5925**	**1.9388**	**140.9975**	**5.7115**	**146.7090**	**37.5118**	**5.3945**	**42.9064**	**0.0000**	**137,027.6333**	**137,027.6333**	**8.9608**	**0.0000**	**137,215.8094**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	3.2704	16.9035	57.6490	0.1209	2.4698	0.2302	2.7000	0.7736	0.2182	0.9919	0.0000	9,194.3008	9,194.3008	0.7630	0.0000	9,210.3226
2024	3.1967	16.7905	56.7167	0.1219	2.4697	0.2301	2.6998	0.7736	0.2182	0.9918	0.0000	9,200.0882	9,200.0882	0.7599	0.0000	9,216.0468
2025	3.1276	16.6789	55.8078	0.1218	2.4696	0.2309	2.7004	0.7736	0.2189	0.9924	0.0000	9,147.1672	9,147.1672	0.7514	0.0000	9,162.9464
2026	3.0779	16.5787	55.0649	0.1218	2.4696	0.2301	2.6997	0.7736	0.2182	0.9918	0.0000	9,102.8924	9,102.8924	0.7479	0.0000	9,118.5982
2027	125.1788	20.5431	80.6984	0.2001	4.5728	0.2815	4.8543	1.4264	0.2662	1.6926	0.0000	14,163.7237	14,163.7237	1.0350	0.0000	14,185.4593
2028	125.1143	20.4280	79.8293	0.2001	4.5728	0.2821	4.8549	1.4264	0.2667	1.6931	0.0000	14,101.0692	14,101.0692	1.0289	0.0000	14,122.6756
2029	125.0524	20.3203	78.9714	0.2001	4.5728	0.2827	4.8555	1.4264	0.2673	1.6936	0.0000	14,047.8443	14,047.8443	1.0229	0.0000	14,069.3242
2030	124.9972	20.2238	78.2763	0.2029	4.5727	0.2831	4.8559	1.4264	0.2677	1.6940	0.0000	14,245.5912	14,245.5912	0.6663	0.0000	14,259.5829
2031	124.9791	20.1892	78.3825	0.2054	4.5731	0.2838	4.8569	1.4265	0.2683	1.6948	0.0000	14,366.8831	14,366.8831	0.6786	0.0000	14,381.1344
2032	124.9372	20.1217	77.8952	0.2054	4.5734	0.2843	4.8577	1.4266	0.2687	1.6954	0.0000	14,338.6268	14,338.6268	0.6748	0.0000	14,352.7981
2033	122.0059	3.8223	24.7119	0.0794	2.1033	0.0536	2.1569	0.6529	0.0500	0.7029	0.0000	5,049.0061	5,049.0061	0.2797	0.0000	5,054.8787
2034	121.9848	3.7936	24.4712	0.0795	2.1033	0.0537	2.1569	0.6529	0.0501	0.7029	0.0000	5,039.1901	5,039.1901	0.2776	0.0000	5,045.0201
2035	121.9662	3.7701	24.2651	0.0795	2.1033	0.0537	2.1570	0.6529	0.0501	0.7030	0.0000	5,031.2502	5,031.2502	0.2749	0.0000	5,037.0221
Total	**1,128.8883**	**200.1637**	**772.7396**	**1.9388**	**43.6261**	**2.7798**	**46.4059**	**13.6115**	**2.6286**	**16.2402**	**0.0000**	**137,027.6333**	**137,027.6333**	**8.9608**	**0.0000**	**137,215.8094**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.65	-2.80	-0.67	0.00	69.06	51.33	68.37	63.71	51.27	62.15	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	298.7803	1.1577	100.7294	5.3700e-003		1.0964	1.0964		1.0907	1.0907	0.0000	8,695.4152	8,695.4152	0.3423	0.1561	8,750.9845
Energy	0.9494	8.2301	4.3128	0.0518		0.6559	0.6559		0.6559	0.6559		10,356.7514	10,356.7514	0.1985	0.1899	10,419.7809
Mobile	168.5049	316.2844	1,958.0151	3.5665	236.3399	6.8652	243.2051	63.0532	6.3316	69.3849		257,076.8930	257,076.8930	9.7719		257,282.1026
Total	**468.2347**	**325.6723**	**2,063.0573**	**3.6236**	**236.3399**	**8.6175**	**244.9574**	**63.0532**	**8.0783**	**71.1315**	**0.0000**	**276,129.0595**	**276,129.0595**	**10.3126**	**0.3459**	**276,452.8680**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	225.0172	1.0390	88.6177	4.4300e-003		1.0255	1.0255		1.0198	1.0198	0.0000	8,668.0312	8,668.0312	0.2996	0.1561	8,722.7050
Energy	0.8269	7.1683	3.7551	0.0451		0.5713	0.5713		0.5713	0.5713		9,020.8287	9,020.8287	0.1729	0.1654	9,075.7279
Mobile	152.3371	211.5471	1,586.9421	1.7637	108.1196	3.6707	111.7903	28.8453	3.3876	32.2329		126,722.6127	126,722.6127	5.3821		126,835.6376
Total	**378.1812**	**219.7544**	**1,679.3150**	**1.8132**	**108.1196**	**5.2675**	**113.3871**	**28.8453**	**4.9787**	**33.8240**	**0.0000**	**144,411.4726**	**144,411.4726**	**5.8546**	**0.3215**	**144,634.0705**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	19.23	32.52	18.60	49.96	54.25	38.88	53.71	54.25	38.37	52.45	0.00	47.70	47.70	43.23	7.08	47.68

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	1/2/2023	12/17/2032	5	2600	
2	Architectural Coating	Architectural Coating	10/28/2027	12/31/2035	5	2133	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 2,442,150; Residential Outdoor: 814,050; Non-Residential Indoor: 14,166,540; Non-Residential Outdoor: 4,722,180 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Building Construction	8	868.00	129.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	825.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2653	11.0463	14.6389	0.0219		0.5603	0.5603		0.5302	0.5302		2,066.2431	2,066.2431	0.4497		2,075.6869
Total	**1.2653**	**11.0463**	**14.6389**	**0.0219**		**0.5603**	**0.5603**		**0.5302**	**0.5302**		**2,066.2431**	**2,066.2431**	**0.4497**		**2,075.6869**

3.2 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7630	3.9299	14.4678	0.0207	0.6253	0.1074	0.7327	0.1772	0.0988	0.2760		1,924.6536	1,924.6536	0.0125		1,924.9164
Worker	2.0566	3.3950	27.9954	0.0783	7.2623	0.0465	7.3088	1.9263	0.0431	1.9694		5,203.4041	5,203.4041	0.3007		5,209.7194
Total	**2.8196**	**7.3249**	**42.4632**	**0.0990**	**7.8876**	**0.1538**	**8.0414**	**2.1035**	**0.1419**	**2.2454**		**7,128.0577**	**7,128.0577**	**0.3132**		**7,134.6358**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4508	9.5786	15.1859	0.0219		0.0763	0.0763		0.0763	0.0763	0.0000	2,066.2431	2,066.2431	0.4497		2,075.6869
Total	**0.4508**	**9.5786**	**15.1859**	**0.0219**		**0.0763**	**0.0763**		**0.0763**	**0.0763**	**0.0000**	**2,066.2431**	**2,066.2431**	**0.4497**		**2,075.6869**

3.2 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7630	3.9299	14.4678	0.0207	0.2569	0.1074	0.3643	0.0868	0.0988	0.1855		1,924.6536	1,924.6536	0.0125		1,924.9164
Worker	2.0566	3.3950	27.9954	0.0783	2.2129	0.0465	2.2594	0.6869	0.0431	0.7300		5,203.4041	5,203.4041	0.3007		5,209.7194
Total	**2.8196**	**7.3249**	**42.4632**	**0.0990**	**2.4698**	**0.1538**	**2.6236**	**0.7736**	**0.1419**	**0.9155**		**7,128.0577**	**7,128.0577**	**0.3132**		**7,134.6358**

3.2 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1813	10.3775	14.6139	0.0219		0.4857	0.4857		0.4595	0.4595		2,066.7425	2,066.7425	0.4462		2,076.1129
Total	**1.1813**	**10.3775**	**14.6139**	**0.0219**		**0.4857**	**0.4857**		**0.4595**	**0.4595**		**2,066.7425**	**2,066.7425**	**0.4462**		**2,076.1129**

3.2 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7472	3.9060	14.1801	0.0207	0.6252	0.1059	0.7311	0.1771	0.0974	0.2746		1,929.9883	1,929.9883	0.0127		1,930.2559
Worker	1.9987	3.3059	27.3507	0.0792	7.2623	0.0479	7.3102	1.9263	0.0445	1.9708		5,203.3575	5,203.3575	0.3010		5,209.6780
Total	**2.7460**	**7.2119**	**41.5308**	**0.1000**	**7.8875**	**0.1538**	**8.0413**	**2.1034**	**0.1419**	**2.2453**		**7,133.3458**	**7,133.3458**	**0.3137**		**7,139.9339**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4508	9.5786	15.1859	0.0219		0.0763	0.0763		0.0763	0.0763	0.0000	2,066.7425	2,066.7425	0.4462		2,076.1129
Total	**0.4508**	**9.5786**	**15.1859**	**0.0219**		**0.0763**	**0.0763**		**0.0763**	**0.0763**	**0.0000**	**2,066.7425**	**2,066.7425**	**0.4462**		**2,076.1129**

3.2 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7472	3.9060	14.1801	0.0207	0.2568	0.1059	0.3627	0.0867	0.0974	0.1841		1,929.9883	1,929.9883	0.0127		1,930.2559
Worker	1.9987	3.3059	27.3507	0.0792	2.2129	0.0479	2.2608	0.6869	0.0445	0.7313		5,203.3575	5,203.3575	0.3010		5,209.6780
Total	**2.7460**	**7.2119**	**41.5308**	**0.1000**	**2.4697**	**0.1538**	**2.6235**	**0.7736**	**0.1419**	**0.9155**		**7,133.3458**	**7,133.3458**	**0.3137**		**7,139.9339**

3.2 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0937	9.6977	14.5653	0.0219		0.4097	0.4097		0.3879	0.3879		2,067.5014	2,067.5014	0.4428		2,076.8003
Total	**1.0937**	**9.6977**	**14.5653**	**0.0219**		**0.4097**	**0.4097**		**0.3879**	**0.3879**		**2,067.5014**	**2,067.5014**	**0.4428**		**2,076.8003**

3.2 Building Construction - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7322	3.8749	14.0279	0.0207	0.6251	0.1062	0.7313	0.1771	0.0977	0.2748		1,929.4283	1,929.4283	0.0128		1,929.6963
Worker	1.9446	3.2255	26.5940	0.0792	7.2623	0.0483	7.3106	1.9263	0.0448	1.9711		5,150.2375	5,150.2375	0.2958		5,156.4497
Total	**2.6768**	**7.1004**	**40.6219**	**0.0999**	**7.8874**	**0.1545**	**8.0419**	**2.1034**	**0.1425**	**2.2459**		**7,079.6658**	**7,079.6658**	**0.3086**		**7,086.1461**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4508	9.5786	15.1859	0.0219		0.0763	0.0763		0.0763	0.0763	0.0000	2,067.5014	2,067.5014	0.4428		2,076.8003
Total	**0.4508**	**9.5786**	**15.1859**	**0.0219**		**0.0763**	**0.0763**		**0.0763**	**0.0763**	**0.0000**	**2,067.5014**	**2,067.5014**	**0.4428**		**2,076.8003**

3.2 Building Construction - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7322	3.8749	14.0279	0.0207	0.2567	0.1062	0.3629	0.0867	0.0977	0.1844		1,929.4283	1,929.4283	0.0128		1,929.6963
Worker	1.9446	3.2255	26.5940	0.0792	2.2129	0.0483	2.2612	0.6869	0.0448	0.7317		5,150.2375	5,150.2375	0.2958		5,156.4497
Total	**2.6768**	**7.1004**	**40.6219**	**0.0999**	**2.4696**	**0.1545**	**2.6241**	**0.7736**	**0.1425**	**0.9161**		**7,079.6658**	**7,079.6658**	**0.3086**		**7,086.1461**

3.2 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0937	9.6977	14.5653	0.0219		0.4097	0.4097		0.3879	0.3879		2,067.5014	2,067.5014	0.4428		2,076.8003
Total	**1.0937**	**9.6977**	**14.5653**	**0.0219**		**0.4097**	**0.4097**		**0.3879**	**0.3879**		**2,067.5014**	**2,067.5014**	**0.4428**		**2,076.8003**

3.2 Building Construction - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7186	3.8245	13.8334	0.0207	0.6251	0.1050	0.7301	0.1771	0.0966	0.2737		1,929.2798	1,929.2798	0.0127		1,929.5460
Worker	1.9085	3.1757	26.0456	0.0792	7.2623	0.0488	7.3111	1.9263	0.0453	1.9716		5,106.1112	5,106.1112	0.2924		5,112.2519
Total	**2.6271**	**7.0002**	**39.8790**	**0.0999**	**7.8874**	**0.1538**	**8.0412**	**2.1034**	**0.1419**	**2.2453**		**7,035.3910**	**7,035.3910**	**0.3051**		**7,041.7979**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4508	9.5786	15.1859	0.0219		0.0763	0.0763		0.0763	0.0763	0.0000	2,067.5014	2,067.5014	0.4428		2,076.8003
Total	**0.4508**	**9.5786**	**15.1859**	**0.0219**		**0.0763**	**0.0763**		**0.0763**	**0.0763**	**0.0000**	**2,067.5014**	**2,067.5014**	**0.4428**		**2,076.8003**

3.2 Building Construction - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7186	3.8245	13.8334	0.0207	0.2567	0.1050	0.3617	0.0867	0.0966	0.1833		1,929.2798	1,929.2798	0.0127		1,929.5460
Worker	1.9085	3.1757	26.0456	0.0792	2.2129	0.0488	2.2617	0.6869	0.0453	0.7322		5,106.1112	5,106.1112	0.2924		5,112.2519
Total	**2.6271**	**7.0002**	**39.8790**	**0.0999**	**2.4696**	**0.1538**	**2.6234**	**0.7736**	**0.1419**	**0.9154**		**7,035.3910**	**7,035.3910**	**0.3051**		**7,041.7979**

3.2 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0937	9.6977	14.5653	0.0219		0.4097	0.4097		0.3879	0.3879		2,067.5014	2,067.5014	0.4428		2,076.8003
Total	**1.0937**	**9.6977**	**14.5653**	**0.0219**		**0.4097**	**0.4097**		**0.3879**	**0.3879**		**2,067.5014**	**2,067.5014**	**0.4428**		**2,076.8003**

3.2 Building Construction - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7109	3.7996	13.6917	0.0207	0.6251	0.1052	0.7303	0.1771	0.0968	0.2739		1,929.2729	1,929.2729	0.0127		1,929.5393
Worker	1.8768	3.1301	25.6291	0.0792	7.2623	0.0492	7.3115	1.9263	0.0457	1.9720		5,068.2901	5,068.2901	0.2893		5,074.3645
Total	**2.5877**	**6.9297**	**39.3207**	**0.0999**	**7.8874**	**0.1544**	**8.0418**	**2.1034**	**0.1425**	**2.2458**		**6,997.5631**	**6,997.5631**	**0.3020**		**7,003.9039**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4508	9.5786	15.1859	0.0219		0.0763	0.0763		0.0763	0.0763	0.0000	2,067.5014	2,067.5014	0.4428		2,076.8003
Total	**0.4508**	**9.5786**	**15.1859**	**0.0219**		**0.0763**	**0.0763**		**0.0763**	**0.0763**	**0.0000**	**2,067.5014**	**2,067.5014**	**0.4428**		**2,076.8003**

3.2 Building Construction - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7109	3.7996	13.6917	0.0207	0.2567	0.1052	0.3619	0.0867	0.0968	0.1834		1,929.2729	1,929.2729	0.0127		1,929.5393
Worker	1.8768	3.1301	25.6291	0.0792	2.2129	0.0492	2.2621	0.6869	0.0457	0.7326		5,068.2901	5,068.2901	0.2893		5,074.3645
Total	**2.5877**	**6.9297**	**39.3207**	**0.0999**	**2.4696**	**0.1544**	**2.6240**	**0.7736**	**0.1425**	**0.9160**		**6,997.5631**	**6,997.5631**	**0.3020**		**7,003.9039**

3.2 Building Construction - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0937	9.6977	14.5653	0.0219		0.4097	0.4097		0.3879	0.3879		2,067.5014	2,067.5014	0.4428		2,076.8003
Total	**1.0937**	**9.6977**	**14.5653**	**0.0219**		**0.4097**	**0.4097**		**0.3879**	**0.3879**		**2,067.5014**	**2,067.5014**	**0.4428**		**2,076.8003**

3.2 Building Construction - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7058	3.7771	13.6334	0.0207	0.6251	0.1050	0.7301	0.1771	0.0966	0.2737		1,929.1391	1,929.1391	0.0127		1,929.4053
Worker	1.8463	3.0826	25.2134	0.0792	7.2623	0.0496	7.3119	1.9263	0.0460	1.9723		5,036.2358	5,036.2358	0.2861		5,042.2441
Total	**2.5521**	**6.8597**	**38.8467**	**0.0999**	**7.8874**	**0.1546**	**8.0420**	**2.1034**	**0.1426**	**2.2460**		**6,965.3749**	**6,965.3749**	**0.2988**		**6,971.6494**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4508	9.5786	15.1859	0.0219		0.0763	0.0763		0.0763	0.0763	0.0000	2,067.5014	2,067.5014	0.4428		2,076.8003
Total	**0.4508**	**9.5786**	**15.1859**	**0.0219**		**0.0763**	**0.0763**		**0.0763**	**0.0763**	**0.0000**	**2,067.5014**	**2,067.5014**	**0.4428**		**2,076.8003**

3.2 Building Construction - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7058	3.7771	13.6334	0.0207	0.2567	0.1050	0.3617	0.0867	0.0966	0.1833		1,929.1391	1,929.1391	0.0127		1,929.4053
Worker	1.8463	3.0826	25.2134	0.0792	2.2129	0.0496	2.2625	0.6869	0.0460	0.7329		5,036.2358	5,036.2358	0.2861		5,042.2441
Total	**2.5521**	**6.8597**	**38.8467**	**0.0999**	**2.4696**	**0.1546**	**2.6242**	**0.7735**	**0.1426**	**0.9162**		**6,965.3749**	**6,965.3749**	**0.2988**		**6,971.6494**

3.2 Building Construction - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0937	9.6977	14.5653	0.0219		0.4097	0.4097		0.3879	0.3879		2,067.5014	2,067.5014	0.4428		2,076.8003
Total	**1.0937**	**9.6977**	**14.5653**	**0.0219**		**0.4097**	**0.4097**		**0.3879**	**0.3879**		**2,067.5014**	**2,067.5014**	**0.4428**		**2,076.8003**

3.2 Building Construction - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7024	3.7590	13.5627	0.0207	0.6250	0.1050	0.7300	0.1771	0.0966	0.2737		1,928.9381	1,928.9381	0.0127		1,929.2042
Worker	1.8163	3.0367	24.8098	0.0792	7.2623	0.0499	7.3122	1.9263	0.0463	1.9726		5,009.0505	5,009.0505	0.2830		5,014.9939
Total	**2.5188**	**6.7957**	**38.3725**	**0.0999**	**7.8873**	**0.1549**	**8.0423**	**2.1034**	**0.1429**	**2.2463**		**6,937.9886**	**6,937.9886**	**0.2957**		**6,944.1982**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4508	9.5786	15.1859	0.0219		0.0763	0.0763		0.0763	0.0763	0.0000	2,067.5014	2,067.5014	0.4428		2,076.8003
Total	**0.4508**	**9.5786**	**15.1859**	**0.0219**		**0.0763**	**0.0763**		**0.0763**	**0.0763**	**0.0000**	**2,067.5014**	**2,067.5014**	**0.4428**		**2,076.8003**

3.2 Building Construction - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7024	3.7590	13.5627	0.0207	0.2566	0.1050	0.3616	0.0867	0.0966	0.1832		1,928.9381	1,928.9381	0.0127		1,929.2042
Worker	1.8163	3.0367	24.8098	0.0792	2.2129	0.0499	2.2628	0.6869	0.0463	0.7332		5,009.0505	5,009.0505	0.2830		5,014.9939
Total	**2.5188**	**6.7957**	**38.3725**	**0.0999**	**2.4695**	**0.1549**	**2.6245**	**0.7735**	**0.1429**	**0.9165**		**6,937.9886**	**6,937.9886**	**0.2957**		**6,944.1982**

3.2 Building Construction - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0776	7.1613	14.9712	0.0248		0.1233	0.1233		0.1233	0.1233		2,310.0315	2,310.0315	0.0956		2,312.0384
Total	**1.0776**	**7.1613**	**14.9712**	**0.0248**		**0.1233**	**0.1233**		**0.1233**	**0.1233**		**2,310.0315**	**2,310.0315**	**0.0956**		**2,312.0384**

3.2 Building Construction - 2030

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6983	3.7427	13.5100	0.0207	0.6250	0.1050	0.7299	0.1771	0.0966	0.2736		1,928.6431	1,928.6431	0.0127		1,928.9093
Worker	1.7901	2.9956	24.4804	0.0792	7.2623	0.0502	7.3125	1.9263	0.0466	1.9728		4,986.2414	4,986.2414	0.2803		4,992.1269
Total	**2.4885**	**6.7382**	**37.9904**	**0.0999**	**7.8873**	**0.1551**	**8.0424**	**2.1033**	**0.1431**	**2.2465**		**6,914.8845**	**6,914.8845**	**0.2929**		**6,921.0362**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4508	9.5786	15.1859	0.0248		0.0763	0.0763		0.0763	0.0763	0.0000	2,310.0315	2,310.0315	0.0956		2,312.0384
Total	**0.4508**	**9.5786**	**15.1859**	**0.0248**		**0.0763**	**0.0763**		**0.0763**	**0.0763**	**0.0000**	**2,310.0315**	**2,310.0315**	**0.0956**		**2,312.0384**

3.2 Building Construction - 2030

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6983	3.7427	13.5100	0.0207	0.2566	0.1050	0.3615	0.0866	0.0966	0.1832		1,928.6431	1,928.6431	0.0127		1,928.9093
Worker	1.7901	2.9956	24.4804	0.0792	2.2129	0.0502	2.2631	0.6869	0.0466	0.7334		4,986.2414	4,986.2414	0.2803		4,992.1269
Total	**2.4885**	**6.7382**	**37.9904**	**0.0999**	**2.4695**	**0.1551**	**2.6246**	**0.7735**	**0.1431**	**0.9166**		**6,914.8845**	**6,914.8845**	**0.2929**		**6,921.0362**

3.2 Building Construction - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0776	7.1613	14.9712	0.0248		0.1233	0.1233		0.1233	0.1233		2,310.0315	2,310.0315	0.0956		2,312.0384
Total	**1.0776**	**7.1613**	**14.9712**	**0.0248**		**0.1233**	**0.1233**		**0.1233**	**0.1233**		**2,310.0315**	**2,310.0315**	**0.0956**		**2,312.0384**

3.2 Building Construction - 2031

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6981	3.7447	13.4340	0.0208	0.6253	0.1020	0.7274	0.1772	0.0939	0.2711		1,937.5870	1,937.5870	0.0129		1,937.8587
Worker	1.7810	2.9768	24.5738	0.0804	7.2623	0.0520	7.3143	1.9263	0.0483	1.9746		5,043.8422	5,043.8422	0.2865		5,049.8579
Total	**2.4790**	**6.7215**	**38.0078**	**0.1012**	**7.8876**	**0.1541**	**8.0417**	**2.1035**	**0.1422**	**2.2456**		**6,981.4291**	**6,981.4291**	**0.2994**		**6,987.7166**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4508	9.5786	15.1859	0.0248		0.0763	0.0763		0.0763	0.0763	0.0000	2,310.0315	2,310.0315	0.0956		2,312.0384
Total	**0.4508**	**9.5786**	**15.1859**	**0.0248**		**0.0763**	**0.0763**		**0.0763**	**0.0763**	**0.0000**	**2,310.0315**	**2,310.0315**	**0.0956**		**2,312.0384**

3.2 Building Construction - 2031

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6981	3.7447	13.4340	0.0208	0.2569	0.1020	0.3590	0.0868	0.0939	0.1806		1,937.5870	1,937.5870	0.0129		1,937.8587
Worker	1.7810	2.9768	24.5738	0.0804	2.2129	0.0520	2.2649	0.6869	0.0483	0.7352		5,043.8422	5,043.8422	0.2865		5,049.8579
Total	**2.4790**	**6.7215**	**38.0078**	**0.1012**	**2.4698**	**0.1541**	**2.6239**	**0.7737**	**0.1422**	**0.9158**		**6,981.4291**	**6,981.4291**	**0.2994**		**6,987.7166**

3.2 Building Construction - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0776	7.1613	14.9712	0.0248		0.1233	0.1233		0.1233	0.1233		2,310.0315	2,310.0315	0.0956		2,312.0384
Total	**1.0776**	**7.1613**	**14.9712**	**0.0248**		**0.1233**	**0.1233**		**0.1233**	**0.1233**		**2,310.0315**	**2,310.0315**	**0.0956**		**2,312.0384**

3.2 Building Construction - 2032

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6976	3.7394	13.4099	0.0208	0.6257	0.1022	0.7279	0.1773	0.0941	0.2714		1,939.0407	1,939.0407	0.0130		1,939.3128
Worker	1.7597	2.9449	24.3363	0.0805	7.2623	0.0522	7.3145	1.9263	0.0484	1.9747		5,028.6099	5,028.6099	0.2845		5,034.5844
Total	**2.4573**	**6.6843**	**37.7462**	**0.1013**	**7.8880**	**0.1544**	**8.0424**	**2.1036**	**0.1425**	**2.2461**		**6,967.6506**	**6,967.6506**	**0.2975**		**6,973.8972**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4508	9.5786	15.1859	0.0248		0.0763	0.0763		0.0763	0.0763	0.0000	2,310.0315	2,310.0315	0.0956		2,312.0384
Total	**0.4508**	**9.5786**	**15.1859**	**0.0248**		**0.0763**	**0.0763**		**0.0763**	**0.0763**	**0.0000**	**2,310.0315**	**2,310.0315**	**0.0956**		**2,312.0384**

3.2 Building Construction - 2032

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6976	3.7394	13.4099	0.0208	0.2573	0.1022	0.3595	0.0869	0.0941	0.1810		1,939.0407	1,939.0407	0.0130		1,939.3128
Worker	1.7597	2.9449	24.3363	0.0805	2.2129	0.0522	2.2651	0.6869	0.0484	0.7353		5,028.6099	5,028.6099	0.2845		5,034.5844
Total	**2.4573**	**6.6843**	**37.7462**	**0.1013**	**2.4702**	**0.1544**	**2.6246**	**0.7738**	**0.1425**	**0.9162**		**6,967.6506**	**6,967.6506**	**0.2975**		**6,973.8972**

3.3 Architectural Coating - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	120.3020					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.7705
Total	**120.4729**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.7705**

3.3 Architectural Coating - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	1.7838	2.9750	24.3594	0.0753	6.9025	0.0468	6.9493	1.8309	0.0434	1.8743		4,817.2113	4,817.2113	0.2749		4,822.9847
Total	**1.7838**	**2.9750**	**24.3594**	**0.0753**	**6.9025**	**0.0468**	**6.9493**	**1.8309**	**0.0434**	**1.8743**		**4,817.2113**	**4,817.2113**	**0.2749**		**4,822.9847**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	120.3020					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0545	1.0598	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0154		281.7705
Total	**120.3565**	**1.0598**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.7705**

3.3 Architectural Coating - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	1.7838	2.9750	24.3594	0.0753	2.1033	0.0468	2.1501	0.6529	0.0434	0.6963		4,817.2113	4,817.2113	0.2749		4,822.9847
Total	**1.7838**	**2.9750**	**24.3594**	**0.0753**	**2.1033**	**0.0468**	**2.1501**	**0.6529**	**0.0434**	**0.6963**		**4,817.2113**	**4,817.2113**	**0.2749**		**4,822.9847**

3.3 Architectural Coating - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	120.3020					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.7705
Total	**120.4729**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.7705**

3.3 Architectural Coating - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	1.7548	2.9299	23.9643	0.0753	6.9025	0.0472	6.9497	1.8309	0.0438	1.8746		4,786.7448	4,786.7448	0.2719		4,792.4555
Total	**1.7548**	**2.9299**	**23.9643**	**0.0753**	**6.9025**	**0.0472**	**6.9497**	**1.8309**	**0.0438**	**1.8746**		**4,786.7448**	**4,786.7448**	**0.2719**		**4,792.4555**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	120.3020					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0545	1.0598	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0154		281.7705
Total	**120.3565**	**1.0598**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.7705**

3.3 Architectural Coating - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	1.7548	2.9299	23.9643	0.0753	2.1033	0.0472	2.1504	0.6529	0.0438	0.6966		4,786.7448	4,786.7448	0.2719		4,792.4555
Total	**1.7548**	**2.9299**	**23.9643**	**0.0753**	**2.1033**	**0.0472**	**2.1504**	**0.6529**	**0.0438**	**0.6966**		**4,786.7448**	**4,786.7448**	**0.2719**		**4,792.4555**

3.3 Architectural Coating - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	120.3020					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.7705
Total	**120.4729**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.7705**

3.3 Architectural Coating - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	1.7263	2.8863	23.5807	0.0753	6.9025	0.0475	6.9500	1.8309	0.0440	1.8749		4,760.9063	4,760.9063	0.2690		4,766.5553
Total	**1.7263**	**2.8863**	**23.5807**	**0.0753**	**6.9025**	**0.0475**	**6.9500**	**1.8309**	**0.0440**	**1.8749**		**4,760.9063**	**4,760.9063**	**0.2690**		**4,766.5553**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	120.3020					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0545	1.0598	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0154		281.7705
Total	**120.3565**	**1.0598**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.7705**

3.3 Architectural Coating - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	1.7263	2.8863	23.5807	0.0753	2.1033	0.0475	2.1507	0.6529	0.0440	0.6969		4,760.9063	4,760.9063	0.2690		4,766.5553
Total	**1.7263**	**2.8863**	**23.5807**	**0.0753**	**2.1033**	**0.0475**	**2.1507**	**0.6529**	**0.0440**	**0.6969**		**4,760.9063**	**4,760.9063**	**0.2690**		**4,766.5553**

3.3 Architectural Coating - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	120.3020					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.6873
Total	**120.4328**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.6873**

3.3 Architectural Coating - 2030

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	1.7015	2.8472	23.2676	0.0753	6.9025	0.0477	6.9502	1.8309	0.0443	1.8751		4,739.2272	4,739.2272	0.2664		4,744.8211
Total	**1.7015**	**2.8472**	**23.2676**	**0.0753**	**6.9025**	**0.0477**	**6.9502**	**1.8309**	**0.0443**	**1.8751**		**4,739.2272**	**4,739.2272**	**0.2664**		**4,744.8211**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	120.3020					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0545	1.0598	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0114		281.6873
Total	**120.3565**	**1.0598**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0114**		**281.6873**

3.3 Architectural Coating - 2030

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	1.7015	2.8472	23.2676	0.0753	2.1033	0.0477	2.1510	0.6529	0.0443	0.6971		4,739.2272	4,739.2272	0.2664		4,744.8211
Total	**1.7015**	**2.8472**	**23.2676**	**0.0753**	**2.1033**	**0.0477**	**2.1510**	**0.6529**	**0.0443**	**0.6971**		**4,739.2272**	**4,739.2272**	**0.2664**		**4,744.8211**

3.3 Architectural Coating - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	120.3020					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.6873
Total	**120.4328**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.6873**

3.3 Architectural Coating - 2031

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	1.6928	2.8293	23.3565	0.0765	6.9025	0.0495	6.9520	1.8309	0.0459	1.8767		4,793.9744	4,793.9744	0.2723		4,799.6922
Total	**1.6928**	**2.8293**	**23.3565**	**0.0765**	**6.9025**	**0.0495**	**6.9520**	**1.8309**	**0.0459**	**1.8767**		**4,793.9744**	**4,793.9744**	**0.2723**		**4,799.6922**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	120.3020					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0545	1.0598	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0114		281.6873
Total	**120.3565**	**1.0598**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0114**		**281.6873**

3.3 Architectural Coating - 2031

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	1.6928	2.8293	23.3565	0.0765	2.1033	0.0495	2.1527	0.6529	0.0459	0.6987		4,793.9744	4,793.9744	0.2723		4,799.6922
Total	**1.6928**	**2.8293**	**23.3565**	**0.0765**	**2.1033**	**0.0495**	**2.1527**	**0.6529**	**0.0459**	**0.6987**		**4,793.9744**	**4,793.9744**	**0.2723**		**4,799.6922**

3.3 Architectural Coating - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	120.3020					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.6873
Total	**120.4328**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.6873**

3.3 Architectural Coating - 2032

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	1.6726	2.7990	23.1307	0.0765	6.9025	0.0496	6.9521	1.8309	0.0460	1.8769		4,779.4967	4,779.4967	0.2704		4,785.1753
Total	**1.6726**	**2.7990**	**23.1307**	**0.0765**	**6.9025**	**0.0496**	**6.9521**	**1.8309**	**0.0460**	**1.8769**		**4,779.4967**	**4,779.4967**	**0.2704**		**4,785.1753**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	120.3020					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0545	1.0598	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0114		281.6873
Total	**120.3565**	**1.0598**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0114**		**281.6873**

3.3 Architectural Coating - 2032

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	1.6726	2.7990	23.1307	0.0765	2.1033	0.0496	2.1528	0.6529	0.0460	0.6989		4,779.4967	4,779.4967	0.2704		4,785.1753
Total	**1.6726**	**2.7990**	**23.1307**	**0.0765**	**2.1033**	**0.0496**	**2.1528**	**0.6529**	**0.0460**	**0.6989**		**4,779.4967**	**4,779.4967**	**0.2704**		**4,785.1753**

3.3 Architectural Coating - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	120.3020					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.6873
Total	**120.4328**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.6873**

3.3 Architectural Coating - 2033

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	1.6494	2.7625	22.8795	0.0765	6.9025	0.0497	6.9522	1.8309	0.0461	1.8769		4,767.5580	4,767.5580	0.2683		4,773.1915
Total	**1.6494**	**2.7625**	**22.8795**	**0.0765**	**6.9025**	**0.0497**	**6.9522**	**1.8309**	**0.0461**	**1.8769**		**4,767.5580**	**4,767.5580**	**0.2683**		**4,773.1915**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	120.3020					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0545	1.0598	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0114		281.6873
Total	**120.3565**	**1.0598**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0114**		**281.6873**

3.3 Architectural Coating - 2033

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	1.6494	2.7625	22.8795	0.0765	2.1033	0.0497	2.1529	0.6529	0.0461	0.6989		4,767.5580	4,767.5580	0.2683		4,773.1915
Total	**1.6494**	**2.7625**	**22.8795**	**0.0765**	**2.1033**	**0.0497**	**2.1529**	**0.6529**	**0.0461**	**0.6989**		**4,767.5580**	**4,767.5580**	**0.2683**		**4,773.1915**

3.3 Architectural Coating - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	120.3020					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.6873
Total	**120.4328**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.6873**

3.3 Architectural Coating - 2034

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	1.6283	2.7337	22.6388	0.0765	6.9025	0.0497	6.9522	1.8309	0.0461	1.8770		4,757.7420	4,757.7420	0.2662		4,763.3328
Total	**1.6283**	**2.7337**	**22.6388**	**0.0765**	**6.9025**	**0.0497**	**6.9522**	**1.8309**	**0.0461**	**1.8770**		**4,757.7420**	**4,757.7420**	**0.2662**		**4,763.3328**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	120.3020					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0545	1.0598	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0114		281.6873
Total	**120.3565**	**1.0598**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0114**		**281.6873**

3.3 Architectural Coating - 2034

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	1.6283	2.7337	22.6388	0.0765	2.1033	0.0497	2.1530	0.6529	0.0461	0.6990		4,757.7420	4,757.7420	0.2662		4,763.3328
Total	**1.6283**	**2.7337**	**22.6388**	**0.0765**	**2.1033**	**0.0497**	**2.1530**	**0.6529**	**0.0461**	**0.6990**		**4,757.7420**	**4,757.7420**	**0.2662**		**4,763.3328**

3.3 Architectural Coating - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	120.3020					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1179	0.7577	1.7943	2.9700e-003		9.9000e-003	9.9000e-003		9.9000e-003	9.9000e-003		281.4481	281.4481	0.0104		281.6665
Total	**120.4199**	**0.7577**	**1.7943**	**2.9700e-003**		**9.9000e-003**	**9.9000e-003**		**9.9000e-003**	**9.9000e-003**		**281.4481**	**281.4481**	**0.0104**		**281.6665**

3.3 Architectural Coating - 2035

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	1.6097	2.7103	22.4327	0.0765	6.9025	0.0497	6.9523	1.8309	0.0462	1.8770		4,749.8022	4,749.8022	0.2645		4,755.3556
Total	**1.6097**	**2.7103**	**22.4327**	**0.0765**	**6.9025**	**0.0497**	**6.9523**	**1.8309**	**0.0462**	**1.8770**		**4,749.8022**	**4,749.8022**	**0.2645**		**4,755.3556**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	120.3020					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0545	1.0598	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0104		281.6665
Total	**120.3565**	**1.0598**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0104**		**281.6665**

3.3 Architectural Coating - 2035

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	1.6097	2.7103	22.4327	0.0765	2.1033	0.0497	2.1530	0.6529	0.0462	0.6990		4,749.8022	4,749.8022	0.2645		4,755.3556
Total	**1.6097**	**2.7103**	**22.4327**	**0.0765**	**2.1033**	**0.0497**	**2.1530**	**0.6529**	**0.0462**	**0.6990**		**4,749.8022**	**4,749.8022**	**0.2645**		**4,755.3556**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Increase Diversity

Improve Walkability Design

Improve Destination Accessibility

Increase Transit Accessibility

Improve Pedestrian Network

Provide Traffic Calming Measures

Implement NEV Network

Limit Parking Supply

Expand Transit Network

Increase Transit Frequency

Implement Trip Reduction Program

Market Commute Trip Reduction Option

Employee Vanpool/Shuttle

Provide Riade Sharing Program

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	152.3371	211.5471	1,586.9421	1.7637	108.1196	3.6707	111.7903	28.8453	3.3876	32.2329		126,722.6127	126,722.6127	5.3821		126,835.6376
Unmitigated	168.5049	316.2844	1,958.0151	3.5665	236.3399	6.8652	243.2051	63.0532	6.3316	69.3849		257,076.8930	257,076.8930	9.7719		257,282.1026

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	9.54	9.54	9.54	18,189	8,206
Condo/Townhouse High Rise	5,607.90	6,126.48	5197.86	12,579,115	5,979,322
Enclosed Parking Structure	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Regional Shopping Center	63,807.74	73,725.71	37223.80	81,354,957	37,014,013
Total	69,425.18	79,861.73	42,431.20	93,952,261	43,001,542

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	12.50	4.20	5.40	33.00	48.00	19.00	66	28	6
Condo/Townhouse High Rise	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3
Enclosed Parking Structure	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Other Asphalt Surfaces	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	54	35	11

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.465210	0.067391	0.177305	0.167396	0.031659	0.004952	0.009103	0.067971	0.001188	0.001302	0.002807	0.000452	0.003265

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

Percent of Electricity Use Generated with Renewable Energy

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.8269	7.1683	3.7551	0.0451		0.5713	0.5713		0.5713	0.5713		9,020.8287	9,020.8287	0.1729	0.1654	9,075.7279
NaturalGas Unmitigated	0.9494	8.2301	4.3128	0.0518		0.6559	0.6559		0.6559	0.6559		10,356.7514	10,356.7514	0.1985	0.1899	10,419.7809

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse High Rise	68082.9	0.7342	6.2743	2.6699	0.0401		0.5073	0.5073		0.5073	0.5073		8,009.7564	8,009.7564	0.1535	0.1469	8,058.5024
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	19949.5	0.2151	1.9558	1.6429	0.0117		0.1486	0.1486		0.1486	0.1486		2,346.9950	2,346.9950	0.0450	0.0430	2,361.2784
Total		**0.9494**	**8.2301**	**4.3128**	**0.0518**		**0.6559**	**0.6559**		**0.6559**	**0.6559**		**10,356.7514**	**10,356.7514**	**0.1985**	**0.1899**	**10,419.7809**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse High Rise	59.3331	0.6399	5.4680	2.3268	0.0349		0.4421	0.4421		0.4421	0.4421		6,980.3593	6,980.3593	0.1338	0.1280	7,022.8406
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	17.344	0.1870	1.7004	1.4283	0.0102		0.1292	0.1292		0.1292	0.1292		2,040.4694	2,040.4694	0.0391	0.0374	2,052.8873
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.8269**	**7.1683**	**3.7551**	**0.0451**		**0.5713**	**0.5713**		**0.5713**	**0.5713**		**9,020.8287**	**9,020.8287**	**0.1729**	**0.1654**	**9,075.7279**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

Use only Natural Gas Hearths

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	225.0172	1.0390	88.6177	4.4300e-003		1.0255	1.0255		1.0198	1.0198	0.0000	8,668.0312	8,668.0312	0.2996	0.1561	8,722.7050
Unmitigated	298.7803	1.1577	100.7294	5.3700e-003		1.0964	1.0964		1.0907	1.0907	0.0000	8,695.4152	8,695.4152	0.3423	0.1561	8,750.9845

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	70.3025					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	224.5921					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.7804	4.0000e-005	0.0426	0.0000		0.5392	0.5392		0.5335	0.5335	0.0000	8,512.9412	8,512.9412	0.1632	0.1561	8,564.7495
Landscaping	3.1053	1.1577	100.6868	5.3700e-003		0.5572	0.5572		0.5572	0.5572		182.4740	182.4740	0.1791		186.2350
Total	**298.7803**	**1.1577**	**100.7294**	**5.3700e-003**		**1.0964**	**1.0964**		**1.0907**	**1.0907**	**0.0000**	**8,695.4152**	**8,695.4152**	**0.3423**	**0.1561**	**8,750.9845**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	14.0605					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	207.8002					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.7804	4.0000e-005	0.0426	0.0000		0.5392	0.5392		0.5335	0.5335	0.0000	8,512.9412	8,512.9412	0.1632	0.1561	8,564.7495
Landscaping	2.3761	1.0390	88.5752	4.4300e-003		0.4863	0.4863		0.4863	0.4863		155.0900	155.0900	0.1365		157.9555
Total	**225.0172**	**1.0390**	**88.6177**	**4.4300e-003**		**1.0255**	**1.0255**		**1.0198**	**1.0198**	**0.0000**	**8,668.0312**	**8,668.0312**	**0.2996**	**0.1561**	**8,722.7050**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Use Reclaimed Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Turf Reduction

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Planning Area 1-8

Salton Sea Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking Structure	12,000.00	Space	108.00	4,800,000.00	0
Other Asphalt Surfaces	25.00	Acre	25.00	1,089,000.00	0
Other Asphalt Surfaces	25.00	Acre	25.00	1,089,000.00	0
Parking Lot	425.00	Space	3.82	170,000.00	0
City Park	7.00	Acre	7.00	304,920.00	0
City Park	6.00	Acre	6.00	261,360.00	0
User Defined Recreational	78.00	User Defined Unit	78.00	0.00	0
User Defined Recreational	0.00	User Defined Unit	0.00	23,000.00	0
Condo/Townhouse	1,206.00	Dwelling Unit	18.84	1,206,000.00	2028
Single Family Housing	1,200.00	Dwelling Unit	234.00	2,160,000.00	2340
Regional Shopping Center	3,138.60	1000sqft	72.05	3,138,600.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.4	**Precipitation Freq (Days)**	20
Climate Zone	10			**Operational Year**	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Private Park 7 acres
25 acres of road
Includes all land uses from Planning Area 1-8

Construction Phase - Construction Assumptions. Assuming Planning Area 1-8 is built at the same time

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Construction assumptions

Off-road Equipment - Defaults

Trips and VMT - SCAQMDs analysis of Construction Worker and Vendor Trip Rates

On-road Fugitive Dust - 100% paved roads

Grading - Based on previous data

Architectural Coating -

Vehicle Trips - Private City Park/Open Space

Vechicle Emission Factors -

Vechicle Emission Factors -

Vechicle Emission Factors -

Road Dust - 100% paved road

Woodstoves - No woodmass

Area Coating -

Energy Use -

Water And Wastewater - Calculated Rates

Land Use Change -

Sequestration -

Construction Off-road Equipment Mitigation - January 1, 2015, required Tier 3 equipment

Mobile Land Use Mitigation - 0.04 low penetration NEV network

Mobile Commute Mitigation - Based by Applicant

Area Mitigation - SCAQMD Rule 1113

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Operational Off-Road Equipment - no default

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	50
tblCommuteMitigation	EmployeeVanpoolPercentModeShare	2	5
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	80
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	12.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim

tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	660.00	1,385.00
tblConstructionPhase	NumDays	9,300.00	1,044.00
tblConstructionPhase	NumDays	930.00	180.00
tblConstructionPhase	NumDays	660.00	120.00
tblConstructionPhase	NumDays	360.00	20.00
tblConstructionPhase	PhaseEndDate	3/15/2022	7/22/2022
tblConstructionPhase	PhaseEndDate	11/20/2020	11/22/2016
tblConstructionPhase	PhaseEndDate	1/6/2023	5/7/2021
tblConstructionPhase	PhaseEndDate	1/20/2017	11/21/2016
tblConstructionPhase	PhaseStartDate	11/23/2016	4/1/2017
tblConstructionPhase	PhaseStartDate	7/23/2022	11/23/2020
tblConstructionPhase	PhaseStartDate	8/6/2016	6/7/2016
tblFireplaces	FireplaceWoodMass	457.60	0.00
tblFireplaces	FireplaceWoodMass	457.60	0.00
tblFireplaces	NumberGas	1,206.00	402.00
tblFireplaces	NumberGas	1,020.00	400.00

tblFireplaces	NumberNoFireplace	60.00	0.00
tblFireplaces	NumberWood	120.00	0.00
tblLandUse	LandUseSquareFeet	0.00	23,000.00
tblLandUse	LotAcreage	0.00	78.00
tblLandUse	LotAcreage	75.38	18.84
tblLandUse	LotAcreage	389.61	234.00
tblLandUse	Population	3,895.00	2,028.00
tblLandUse	Population	3,876.00	2,340.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblProjectCharacteristics	OperationalYear	2014	2022
tblRoadDust	RoadPercentPave	50	100

tblSequestration	NumberOfNewTrees	0.00	300.00
tblTripsAndVMT	VendorTripNumber	2,040.00	258.00
tblTripsAndVMT	WorkerTripNumber	5,554.00	1,300.00
tblTripsAndVMT	WorkerTripNumber	1,111.00	915.00
tblVehicleTrips	ST_TR	7.16	5.08
tblVehicleTrips	ST_TR	49.97	23.49
tblVehicleTrips	ST_TR	10.08	6.14
tblVehicleTrips	SU_TR	6.07	4.31
tblVehicleTrips	SU_TR	25.24	11.86
tblVehicleTrips	SU_TR	8.77	5.35
tblVehicleTrips	WD_TR	6.59	4.65
tblVehicleTrips	WD_TR	42.94	20.33
tblVehicleTrips	WD_TR	9.57	3.73
tblWater	IndoorWaterUseRate	78,575,754.90	158,468,400.00
tblWater	IndoorWaterUseRate	232,484,015.93	171,079,397.30
tblWater	IndoorWaterUseRate	78,184,830.75	157,680,000.00
tblWater	OutdoorWaterUseRate	15,489,257.55	36,886,345.00
tblWater	OutdoorWaterUseRate	49,536,888.96	158,468,400.00
tblWater	OutdoorWaterUseRate	142,490,203.31	171,079,397.60
tblWater	OutdoorWaterUseRate	49,290,436.77	157,680,000.00
tblWoodstoves	NumberCatalytic	60.30	0.00
tblWoodstoves	NumberCatalytic	60.00	0.00
tblWoodstoves	NumberNoncatalytic	60.30	0.00
tblWoodstoves	NumberNoncatalytic	60.00	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2015	0.1359	1.5202	1.0632	1.1700e-003	0.9647	0.0765	1.0413	0.4239	0.0704	0.4943	0.0000	110.9949	110.9949	0.0324	0.0000	111.6756
2016	0.7911	8.2909	5.5472	8.0300e-003	0.8109	0.4149	1.2258	0.3317	0.3850	0.7167	0.0000	742.0427	742.0427	0.2065	0.0000	746.3797
2017	25.2613	0.6990	4.7963	8.8200e-003	0.7375	0.0216	0.7592	0.1958	0.0213	0.2171	0.0000	628.8330	628.8330	0.0389	0.0000	629.6488
2018	33.7625	0.8579	5.8594	0.0118	0.9872	0.0259	1.0130	0.2621	0.0254	0.2875	0.0000	810.4646	810.4646	0.0484	0.0000	811.4809
2019	33.7245	0.7902	5.4382	0.0118	0.9872	0.0231	1.0102	0.2621	0.0226	0.2847	0.0000	781.2872	781.2872	0.0456	0.0000	782.2441
2020	33.8620	0.9392	5.3354	0.0122	0.9927	0.0316	1.0243	0.2636	0.0302	0.2938	0.0000	783.5291	783.5291	0.0528	0.0000	784.6369
2021	33.7858	1.2675	5.5457	0.0129	0.9928	0.0489	1.0417	0.2636	0.0460	0.3096	0.0000	833.5689	833.5689	0.0709	0.0000	835.0587
2022	18.6984	0.3630	2.5816	6.5600e-003	0.5484	9.4600e-003	0.5579	0.1456	9.2100e-003	0.1548	0.0000	405.5321	405.5321	0.0226	0.0000	406.0063
Total	**180.0214**	**14.7280**	**36.1669**	**0.0732**	**7.0214**	**0.6520**	**7.6734**	**2.1483**	**0.6102**	**2.7585**	**0.0000**	**5,096.2526**	**5,096.2526**	**0.5180**	**0.0000**	**5,107.1310**

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2015	0.0208	0.3701	0.7161	1.1700e-003	0.3596	1.8700e-003	0.3615	0.1576	1.8700e-003	0.1595	0.0000	110.9947	110.9947	0.0324	0.0000	111.6755
2016	0.1440	2.5707	4.8732	8.0300e-003	0.3195	0.0153	0.3348	0.1280	0.0153	0.1433	0.0000	742.0418	742.0418	0.2065	0.0000	746.3789
2017	25.2342	0.5893	4.7928	8.8200e-003	0.7375	5.1300e-003	0.7427	0.1958	4.7600e-003	0.2006	0.0000	628.8329	628.8329	0.0389	0.0000	629.6488
2018	33.7306	0.7345	5.8566	0.0118	0.9872	6.7600e-003	0.9939	0.2621	6.2900e-003	0.2684	0.0000	810.4646	810.4646	0.0484	0.0000	811.4809
2019	33.6969	0.6890	5.4370	0.0118	0.9872	6.7700e-003	0.9939	0.2621	6.3100e-003	0.2684	0.0000	781.2872	781.2872	0.0456	0.0000	782.2440
2020	33.8229	0.8001	5.3729	0.0122	0.9927	7.3500e-003	1.0001	0.2636	6.8900e-003	0.2704	0.0000	783.5290	783.5290	0.0528	0.0000	784.6368
2021	33.7232	1.0775	5.6648	0.0129	0.9928	8.5600e-003	1.0014	0.2636	8.1000e-003	0.2717	0.0000	833.5688	833.5688	0.0709	0.0000	835.0585
2022	18.6876	0.3378	2.5830	6.5600e-003	0.5484	3.8200e-003	0.5522	0.1456	3.5700e-003	0.1492	0.0000	405.5321	405.5321	0.0226	0.0000	406.0063
Total	**179.0602**	**7.1688**	**35.2963**	**0.0732**	**5.9249**	**0.0556**	**5.9805**	**1.6783**	**0.0531**	**1.7313**	**0.0000**	**5,096.2512**	**5,096.2512**	**0.5180**	**0.0000**	**5,107.1296**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.53**	**51.33**	**2.41**	**0.00**	**15.62**	**91.48**	**22.06**	**21.88**	**91.30**	**37.24**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Energy	0.3918	3.3691	1.5816	0.0214		0.2707	0.2707		0.2707	0.2707	0.0000	31,302.2854	31,302.2854	1.3350	0.3319	31,433.2095
Mobile	34.6063	68.1262	351.8649	0.6303	40.3319	1.2461	41.5779	10.7761	1.1485	11.9245	0.0000	43,472.3459	43,472.3459	1.6771	0.0000	43,507.5647
Waste						0.0000	0.0000		0.0000	0.0000	976.5510	0.0000	976.5510	57.7125	0.0000	2,188.5136
Water						0.0000	0.0000		0.0000	0.0000	154.5749	3,481.8215	3,636.3964	16.0364	0.4080	4,099.6365
Area	73.9159	0.2076	18.0321	9.5000e-004		0.1434	0.1434		0.1430	0.1430	0.0000	661.1577	661.1577	0.0410	0.0116	665.6088
Total	**108.9139**	**71.7029**	**371.4786**	**0.6527**	**40.3319**	**1.6602**	**41.9920**	**10.7761**	**1.5621**	**12.3381**	**1,131.1259**	**78,917.6104**	**80,048.7363**	**76.8019**	**0.7515**	**81,894.5331**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Energy	0.3424	2.9446	1.3817	0.0187		0.2366	0.2366		0.2366	0.2366	0.0000	21,341.3684	21,341.3684	0.8902	0.2329	21,432.2494
Mobile	30.8937	42.3960	260.1123	0.2883	16.9002	0.5976	17.4978	4.5155	0.5511	5.0666	0.0000	19,841.6061	19,841.6061	0.8835	0.0000	19,860.1593
Waste						0.0000	0.0000		0.0000	0.0000	244.1377	0.0000	244.1377	14.4281	0.0000	547.1284
Water						0.0000	0.0000		0.0000	0.0000	123.6599	2,735.0470	2,858.7069	12.8268	0.3259	3,229.1016
Area	55.4863	0.1860	15.8767	7.9000e-004		0.1308	0.1308		0.1303	0.1303	0.0000	656.7565	656.7565	0.0341	0.0116	661.0636
Total	**86.7224**	**45.5266**	**277.3706**	**0.3077**	**16.9002**	**0.9649**	**17.8652**	**4.5155**	**0.9180**	**5.4335**	**367.7977**	**44,574.7780**	**44,942.5756**	**29.0627**	**0.5704**	**45,729.7023**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**20.38**	**36.51**	**25.33**	**52.85**	**58.10**	**41.88**	**57.46**	**58.10**	**41.23**	**55.96**	**67.48**	**43.52**	**43.86**	**62.16**	**24.10**	**44.16**

2.3 Vegetation

Vegetation

	CO2e
Category	MT
New Trees	212.4000
Total	**212.4000**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/1/2015	11/27/2015	5	20	
2	Grading	Grading	11/28/2015	8/5/2016	5	180	
3	Utilities	Trenching	6/7/2016	11/21/2016	5	120	
4	Building Construction	Building Construction	11/22/2016	11/22/2016	5	1044	
5	Architectural Coating	Architectural Coating	4/1/2017	7/22/2022	5	1385	
6	Paving	Paving	11/23/2020	5/7/2021	5	120	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 450

Acres of Paving: 0

Residential Indoor: 6,816,150; Residential Outdoor: 2,272,050; Non-Residential Indoor: 16,066,470; Non-Residential Outdoor: 5,355,490 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Utilities	Air Compressors	1	6.00	78	0.48
Utilities	Forklifts	1	4.00	89	0.20
Utilities	Generator Sets	1	8.00	84	0.74
Utilities	Off-Highway Trucks	2	8.00	400	0.38
Utilities	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Utilities	Welders	1	8.00	46	0.45
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Utilities	9	23.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	1,300.00	258.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	915.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

3.2 Site Preparation - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0526	0.5689	0.4263	3.9000e-004		0.0309	0.0309		0.0284	0.0284	0.0000	37.3011	37.3011	0.0111	0.0000	37.5350
Total	**0.0526**	**0.5689**	**0.4263**	**3.9000e-004**	**0.1807**	**0.0309**	**0.2115**	**0.0993**	**0.0284**	**0.1277**	**0.0000**	**37.3011**	**37.3011**	**0.0111**	**0.0000**	**37.5350**

3.2 Site Preparation - 2015

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.5000e-004	1.1900e-003	0.0115	2.0000e-005	1.4900e-003	1.0000e-005	1.5000e-003	4.0000e-004	1.0000e-005	4.0000e-004	0.0000	1.3213	1.3213	9.0000e-005	0.0000	1.3231
Total	**8.5000e-004**	**1.1900e-003**	**0.0115**	**2.0000e-005**	**1.4900e-003**	**1.0000e-005**	**1.5000e-003**	**4.0000e-004**	**1.0000e-005**	**4.0000e-004**	**0.0000**	**1.3213**	**1.3213**	**9.0000e-005**	**0.0000**	**1.3231**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0669	0.0000	0.0669	0.0368	0.0000	0.0368	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.1000e-003	0.1238	0.2340	3.9000e-004		6.3000e-004	6.3000e-004		6.3000e-004	6.3000e-004	0.0000	37.3011	37.3011	0.0111	0.0000	37.5349
Total	**7.1000e-003**	**0.1238**	**0.2340**	**3.9000e-004**	**0.0669**	**6.3000e-004**	**0.0676**	**0.0368**	**6.3000e-004**	**0.0374**	**0.0000**	**37.3011**	**37.3011**	**0.0111**	**0.0000**	**37.5349**

3.2 Site Preparation - 2015

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.5000e-004	1.1900e-003	0.0115	2.0000e-005	1.4900e-003	1.0000e-005	1.5000e-003	4.0000e-004	1.0000e-005	4.0000e-004	0.0000	1.3213	1.3213	9.0000e-005	0.0000	1.3231
Total	**8.5000e-004**	**1.1900e-003**	**0.0115**	**2.0000e-005**	**1.4900e-003**	**1.0000e-005**	**1.5000e-003**	**4.0000e-004**	**1.0000e-005**	**4.0000e-004**	**0.0000**	**1.3213**	**1.3213**	**9.0000e-005**	**0.0000**	**1.3231**

3.3 Grading - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.7806	0.0000	0.7806	0.3237	0.0000	0.3237	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0813	0.9486	0.6101	7.4000e-004		0.0456	0.0456		0.0420	0.0420	0.0000	70.6107	70.6107	0.0211	0.0000	71.0533
Total	**0.0813**	**0.9486**	**0.6101**	**7.4000e-004**	**0.7806**	**0.0456**	**0.8262**	**0.3237**	**0.0420**	**0.3657**	**0.0000**	**70.6107**	**70.6107**	**0.0211**	**0.0000**	**71.0533**

3.3 Grading - 2015

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1400e-003	1.5900e-003	0.0153	2.0000e-005	1.9800e-003	1.0000e-005	2.0000e-003	5.3000e-004	1.0000e-005	5.4000e-004	0.0000	1.7618	1.7618	1.1000e-004	0.0000	1.7642
Total	**1.1400e-003**	**1.5900e-003**	**0.0153**	**2.0000e-005**	**1.9800e-003**	**1.0000e-005**	**2.0000e-003**	**5.3000e-004**	**1.0000e-005**	**5.4000e-004**	**0.0000**	**1.7618**	**1.7618**	**1.1000e-004**	**0.0000**	**1.7642**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2892	0.0000	0.2892	0.1199	0.0000	0.1199	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0117	0.2435	0.4553	7.4000e-004		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003	0.0000	70.6106	70.6106	0.0211	0.0000	71.0533
Total	**0.0117**	**0.2435**	**0.4553**	**7.4000e-004**	**0.2892**	**1.2100e-003**	**0.2904**	**0.1199**	**1.2100e-003**	**0.1211**	**0.0000**	**70.6106**	**70.6106**	**0.0211**	**0.0000**	**71.0533**

3.3 Grading - 2015

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1400e-003	1.5900e-003	0.0153	2.0000e-005	1.9800e-003	1.0000e-005	2.0000e-003	5.3000e-004	1.0000e-005	5.4000e-004	0.0000	1.7618	1.7618	1.1000e-004	0.0000	1.7642
Total	**1.1400e-003**	**1.5900e-003**	**0.0153**	**2.0000e-005**	**1.9800e-003**	**1.0000e-005**	**2.0000e-003**	**5.3000e-004**	**1.0000e-005**	**5.4000e-004**	**0.0000**	**1.7618**	**1.7618**	**1.1000e-004**	**0.0000**	**1.7642**

3.3 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.7806	0.0000	0.7806	0.3237	0.0000	0.3237	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5054	5.8355	3.8327	4.8100e-003		0.2796	0.2796		0.2572	0.2572	0.0000	453.9267	453.9267	0.1369	0.0000	456.8020
Total	**0.5054**	**5.8355**	**3.8327**	**4.8100e-003**	**0.7806**	**0.2796**	**1.0602**	**0.3237**	**0.2572**	**0.5809**	**0.0000**	**453.9267**	**453.9267**	**0.1369**	**0.0000**	**456.8020**

3.3 Grading - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.6300e-003	9.3400e-003	0.0893	1.5000e-004	0.0129	9.0000e-005	0.0130	3.4200e-003	8.0000e-005	3.5000e-003	0.0000	11.0109	11.0109	6.8000e-004	0.0000	11.0252
Total	**6.6300e-003**	**9.3400e-003**	**0.0893**	**1.5000e-004**	**0.0129**	**9.0000e-005**	**0.0130**	**3.4200e-003**	**8.0000e-005**	**3.5000e-003**	**0.0000**	**11.0109**	**11.0109**	**6.8000e-004**	**0.0000**	**11.0252**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2892	0.0000	0.2892	0.1199	0.0000	0.1199	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0763	1.5825	2.9596	4.8100e-003		7.8700e-003	7.8700e-003		7.8700e-003	7.8700e-003	0.0000	453.9261	453.9261	0.1369	0.0000	456.8015
Total	**0.0763**	**1.5825**	**2.9596**	**4.8100e-003**	**0.2892**	**7.8700e-003**	**0.2971**	**0.1199**	**7.8700e-003**	**0.1278**	**0.0000**	**453.9261**	**453.9261**	**0.1369**	**0.0000**	**456.8015**

3.3 Grading - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.6300e-003	9.3400e-003	0.0893	1.5000e-004	0.0129	9.0000e-005	0.0130	3.4200e-003	8.0000e-005	3.5000e-003	0.0000	11.0109	11.0109	6.8000e-004	0.0000	11.0252
Total	**6.6300e-003**	**9.3400e-003**	**0.0893**	**1.5000e-004**	**0.0129**	**9.0000e-005**	**0.0130**	**3.4200e-003**	**8.0000e-005**	**3.5000e-003**	**0.0000**	**11.0109**	**11.0109**	**6.8000e-004**	**0.0000**	**11.0252**

3.4 Utilities - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2677	2.4140	1.4838	2.8400e-003		0.1342	0.1342		0.1267	0.1267	0.0000	259.8901	259.8901	0.0678	0.0000	261.3136
Total	**0.2677**	**2.4140**	**1.4838**	**2.8400e-003**		**0.1342**	**0.1342**		**0.1267**	**0.1267**	**0.0000**	**259.8901**	**259.8901**	**0.0678**	**0.0000**	**261.3136**

3.4 Utilities - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.8600e-003	8.2600e-003	0.0790	1.3000e-004	0.0114	8.0000e-005	0.0115	3.0300e-003	7.0000e-005	3.1000e-003	0.0000	9.7404	9.7404	6.1000e-004	0.0000	9.7531
Total	**5.8600e-003**	**8.2600e-003**	**0.0790**	**1.3000e-004**	**0.0114**	**8.0000e-005**	**0.0115**	**3.0300e-003**	**7.0000e-005**	**3.1000e-003**	**0.0000**	**9.7404**	**9.7404**	**6.1000e-004**	**0.0000**	**9.7531**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0509	0.9525	1.6833	2.8400e-003		7.0100e-003	7.0100e-003		7.0100e-003	7.0100e-003	0.0000	259.8898	259.8898	0.0678	0.0000	261.3133
Total	**0.0509**	**0.9525**	**1.6833**	**2.8400e-003**		**7.0100e-003**	**7.0100e-003**		**7.0100e-003**	**7.0100e-003**	**0.0000**	**259.8898**	**259.8898**	**0.0678**	**0.0000**	**261.3133**

3.4 Utilities - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.8600e-003	8.2600e-003	0.0790	1.3000e-004	0.0114	8.0000e-005	0.0115	3.0300e-003	7.0000e-005	3.1000e-003	0.0000	9.7404	9.7404	6.1000e-004	0.0000	9.7531
Total	**5.8600e-003**	**8.2600e-003**	**0.0790**	**1.3000e-004**	**0.0114**	**8.0000e-005**	**0.0115**	**3.0300e-003**	**7.0000e-005**	**3.1000e-003**	**0.0000**	**9.7404**	**9.7404**	**6.1000e-004**	**0.0000**	**9.7531**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.3900e-003	0.0105	7.9500e-003	1.0000e-005		8.1000e-004	8.1000e-004		7.7000e-004	7.7000e-004	0.0000	0.9781	0.9781	2.3000e-004	0.0000	0.9829
Total	**1.3900e-003**	**0.0105**	**7.9500e-003**	**1.0000e-005**		**8.1000e-004**	**8.1000e-004**		**7.7000e-004**	**7.7000e-004**	**0.0000**	**0.9781**	**0.9781**	**2.3000e-004**	**0.0000**	**0.9829**

3.5 Building Construction - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3500e-003	9.4100e-003	0.0173	2.0000e-005	6.2000e-004	1.9000e-004	8.1000e-004	1.8000e-004	1.7000e-004	3.5000e-004	0.0000	1.9088	1.9088	1.0000e-005	0.0000	1.9090
Worker	2.7600e-003	3.8900e-003	0.0372	6.0000e-005	5.3700e-003	4.0000e-005	5.4100e-003	1.4300e-003	3.0000e-005	1.4600e-003	0.0000	4.5879	4.5879	2.9000e-004	0.0000	4.5938
Total	**4.1100e-003**	**0.0133**	**0.0545**	**8.0000e-005**	**5.9900e-003**	**2.3000e-004**	**6.2200e-003**	**1.6100e-003**	**2.0000e-004**	**1.8100e-003**	**0.0000**	**6.4966**	**6.4966**	**3.0000e-004**	**0.0000**	**6.5029**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.3000e-004	4.7900e-003	7.5900e-003	1.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.9781	0.9781	2.3000e-004	0.0000	0.9829
Total	**2.3000e-004**	**4.7900e-003**	**7.5900e-003**	**1.0000e-005**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.9781**	**0.9781**	**2.3000e-004**	**0.0000**	**0.9829**

3.5 Building Construction - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3500e-003	9.4100e-003	0.0173	2.0000e-005	6.2000e-004	1.9000e-004	8.1000e-004	1.8000e-004	1.7000e-004	3.5000e-004	0.0000	1.9088	1.9088	1.0000e-005	0.0000	1.9090
Worker	2.7600e-003	3.8900e-003	0.0372	6.0000e-005	5.3700e-003	4.0000e-005	5.4100e-003	1.4300e-003	3.0000e-005	1.4600e-003	0.0000	4.5879	4.5879	2.9000e-004	0.0000	4.5938
Total	**4.1100e-003**	**0.0133**	**0.0545**	**8.0000e-005**	**5.9900e-003**	**2.3000e-004**	**6.2200e-003**	**1.6100e-003**	**2.0000e-004**	**1.8100e-003**	**0.0000**	**6.4966**	**6.4966**	**3.0000e-004**	**0.0000**	**6.5029**

3.6 Architectural Coating - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	24.8880					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0324	0.2130	0.1821	2.9000e-004		0.0169	0.0169		0.0169	0.0169	0.0000	24.8942	24.8942	2.6300e-003	0.0000	24.9494
Total	**24.9204**	**0.2130**	**0.1821**	**2.9000e-004**		**0.0169**	**0.0169**		**0.0169**	**0.0169**	**0.0000**	**24.8942**	**24.8942**	**2.6300e-003**	**0.0000**	**24.9494**

3.6 Architectural Coating - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.3410	0.4860	4.6141	8.5300e-003	0.7375	4.7400e-003	0.7423	0.1958	4.3700e-003	0.2002	0.0000	603.9388	603.9388	0.0362	0.0000	604.6994
Total	**0.3410**	**0.4860**	**4.6141**	**8.5300e-003**	**0.7375**	**4.7400e-003**	**0.7423**	**0.1958**	**4.3700e-003**	**0.2002**	**0.0000**	**603.9388**	**603.9388**	**0.0362**	**0.0000**	**604.6994**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	24.8880					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.3100e-003	0.1033	0.1787	2.9000e-004		3.9000e-004	3.9000e-004		3.9000e-004	3.9000e-004	0.0000	24.8942	24.8942	2.6300e-003	0.0000	24.9494
Total	**24.8933**	**0.1033**	**0.1787**	**2.9000e-004**		**3.9000e-004**	**3.9000e-004**		**3.9000e-004**	**3.9000e-004**	**0.0000**	**24.8942**	**24.8942**	**2.6300e-003**	**0.0000**	**24.9494**

3.6 Architectural Coating - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.3410	0.4860	4.6141	8.5300e-003	0.7375	4.7400e-003	0.7423	0.1958	4.3700e-003	0.2002	0.0000	603.9388	603.9388	0.0362	0.0000	604.6994
Total	**0.3410**	**0.4860**	**4.6141**	**8.5300e-003**	**0.7375**	**4.7400e-003**	**0.7423**	**0.1958**	**4.3700e-003**	**0.2002**	**0.0000**	**603.9388**	**603.9388**	**0.0362**	**0.0000**	**604.6994**

3.6 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	33.3116					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0390	0.2618	0.2420	3.9000e-004		0.0197	0.0197		0.0197	0.0197	0.0000	33.3200	33.3200	3.1700e-003	0.0000	33.3865
Total	**33.3505**	**0.2618**	**0.2420**	**3.9000e-004**		**0.0197**	**0.0197**		**0.0197**	**0.0197**	**0.0000**	**33.3200**	**33.3200**	**3.1700e-003**	**0.0000**	**33.3865**

3.6 Architectural Coating - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.4120	0.5962	5.6175	0.0114	0.9872	6.2400e-003	0.9934	0.2621	5.7800e-003	0.2679	0.0000	777.1446	777.1446	0.0452	0.0000	778.0944
Total	**0.4120**	**0.5962**	**5.6175**	**0.0114**	**0.9872**	**6.2400e-003**	**0.9934**	**0.2621**	**5.7800e-003**	**0.2679**	**0.0000**	**777.1446**	**777.1446**	**0.0452**	**0.0000**	**778.0944**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	33.3116					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.1100e-003	0.1383	0.2391	3.9000e-004		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	33.3200	33.3200	3.1700e-003	0.0000	33.3865
Total	**33.3187**	**0.1383**	**0.2391**	**3.9000e-004**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**33.3200**	**33.3200**	**3.1700e-003**	**0.0000**	**33.3865**

3.6 Architectural Coating - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.4120	0.5962	5.6175	0.0114	0.9872	6.2400e-003	0.9934	0.2621	5.7800e-003	0.2679	0.0000	777.1446	777.1446	0.0452	0.0000	778.0944
Total	**0.4120**	**0.5962**	**5.6175**	**0.0114**	**0.9872**	**6.2400e-003**	**0.9934**	**0.2621**	**5.7800e-003**	**0.2679**	**0.0000**	**777.1446**	**777.1446**	**0.0452**	**0.0000**	**778.0944**

3.6 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	33.3116					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0348	0.2395	0.2403	3.9000e-004		0.0168	0.0168		0.0168	0.0168	0.0000	33.3200	33.3200	2.8100e-003	0.0000	33.3791
Total	**33.3463**	**0.2395**	**0.2403**	**3.9000e-004**		**0.0168**	**0.0168**		**0.0168**	**0.0168**	**0.0000**	**33.3200**	**33.3200**	**2.8100e-003**	**0.0000**	**33.3791**

3.6 Architectural Coating - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.3782	0.5507	5.1979	0.0114	0.9872	6.2500e-003	0.9934	0.2621	5.7900e-003	0.2679	0.0000	747.9673	747.9673	0.0428	0.0000	748.8650
Total	**0.3782**	**0.5507**	**5.1979**	**0.0114**	**0.9872**	**6.2500e-003**	**0.9934**	**0.2621**	**5.7900e-003**	**0.2679**	**0.0000**	**747.9673**	**747.9673**	**0.0428**	**0.0000**	**748.8650**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	33.3116					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.1100e-003	0.1383	0.2391	3.9000e-004		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	33.3199	33.3199	2.8100e-003	0.0000	33.3790
Total	**33.3187**	**0.1383**	**0.2391**	**3.9000e-004**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**33.3199**	**33.3199**	**2.8100e-003**	**0.0000**	**33.3790**

3.6 Architectural Coating - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.3782	0.5507	5.1979	0.0114	0.9872	6.2500e-003	0.9934	0.2621	5.7900e-003	0.2679	0.0000	747.9673	747.9673	0.0428	0.0000	748.8650
Total	**0.3782**	**0.5507**	**5.1979**	**0.0114**	**0.9872**	**6.2500e-003**	**0.9934**	**0.2621**	**5.7900e-003**	**0.2679**	**0.0000**	**747.9673**	**747.9673**	**0.0428**	**0.0000**	**748.8650**

3.6 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	33.4392					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0317	0.2206	0.2399	3.9000e-004		0.0145	0.0145		0.0145	0.0145	0.0000	33.4476	33.4476	2.5900e-003	0.0000	33.5020
Total	**33.4709**	**0.2206**	**0.2399**	**3.9000e-004**		**0.0145**	**0.0145**		**0.0145**	**0.0145**	**0.0000**	**33.4476**	**33.4476**	**2.5900e-003**	**0.0000**	**33.5020**

3.6 Architectural Coating - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.3541	0.5178	4.8785	0.0114	0.9909	6.2900e-003	0.9972	0.2631	5.8300e-003	0.2689	0.0000	720.3514	720.3514	0.0409	0.0000	721.2102
Total	**0.3541**	**0.5178**	**4.8785**	**0.0114**	**0.9909**	**6.2900e-003**	**0.9972**	**0.2631**	**5.8300e-003**	**0.2689**	**0.0000**	**720.3514**	**720.3514**	**0.0409**	**0.0000**	**721.2102**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	33.4392					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.1400e-003	0.1388	0.2401	3.9000e-004		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	33.4476	33.4476	2.5900e-003	0.0000	33.5020
Total	**33.4463**	**0.1388**	**0.2401**	**3.9000e-004**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**33.4476**	**33.4476**	**2.5900e-003**	**0.0000**	**33.5020**

3.6 Architectural Coating - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.3541	0.5178	4.8785	0.0114	0.9909	6.2900e-003	0.9972	0.2631	5.8300e-003	0.2689	0.0000	720.3514	720.3514	0.0409	0.0000	721.2102
Total	**0.3541**	**0.5178**	**4.8785**	**0.0114**	**0.9909**	**6.2900e-003**	**0.9972**	**0.2631**	**5.8300e-003**	**0.2689**	**0.0000**	**720.3514**	**720.3514**	**0.0409**	**0.0000**	**721.2102**

3.6 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	33.3116					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0286	0.1993	0.2372	3.9000e-004		0.0123	0.0123		0.0123	0.0123	0.0000	33.3200	33.3200	2.2900e-003	0.0000	33.3680
Total	**33.3401**	**0.1993**	**0.2372**	**3.9000e-004**		**0.0123**	**0.0123**		**0.0123**	**0.0123**	**0.0000**	**33.3200**	**33.3200**	**2.2900e-003**	**0.0000**	**33.3680**

3.6 Architectural Coating - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.3343	0.4893	4.6290	0.0114	0.9872	6.3400e-003	0.9935	0.2621	5.8800e-003	0.2680	0.0000	707.0392	707.0392	0.0396	0.0000	707.8705
Total	**0.3343**	**0.4893**	**4.6290**	**0.0114**	**0.9872**	**6.3400e-003**	**0.9935**	**0.2621**	**5.8800e-003**	**0.2680**	**0.0000**	**707.0392**	**707.0392**	**0.0396**	**0.0000**	**707.8705**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	33.3116					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.1100e-003	0.1383	0.2391	3.9000e-004		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	33.3199	33.3199	2.2900e-003	0.0000	33.3679
Total	**33.3187**	**0.1383**	**0.2391**	**3.9000e-004**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**33.3199**	**33.3199**	**2.2900e-003**	**0.0000**	**33.3679**

3.6 Architectural Coating - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.3343	0.4893	4.6290	0.0114	0.9872	6.3400e-003	0.9935	0.2621	5.8800e-003	0.2680	0.0000	707.0392	707.0392	0.0396	0.0000	707.8705
Total	**0.3343**	**0.4893**	**4.6290**	**0.0114**	**0.9872**	**6.3400e-003**	**0.9935**	**0.2621**	**5.8800e-003**	**0.2680**	**0.0000**	**707.0392**	**707.0392**	**0.0396**	**0.0000**	**707.8705**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	18.5064					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0148	0.1021	0.1315	2.2000e-004		5.9200e-003	5.9200e-003		5.9200e-003	5.9200e-003	0.0000	18.5111	18.5111	1.2100e-003	0.0000	18.5364
Total	**18.5213**	**0.1021**	**0.1315**	**2.2000e-004**		**5.9200e-003**	**5.9200e-003**		**5.9200e-003**	**5.9200e-003**	**0.0000**	**18.5111**	**18.5111**	**1.2100e-003**	**0.0000**	**18.5364**

3.6 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1772	0.2609	2.4501	6.3400e-003	0.5484	3.5400e-003	0.5520	0.1456	3.2800e-003	0.1489	0.0000	387.0210	387.0210	0.0214	0.0000	387.4699
Total	**0.1772**	**0.2609**	**2.4501**	**6.3400e-003**	**0.5484**	**3.5400e-003**	**0.5520**	**0.1456**	**3.2800e-003**	**0.1489**	**0.0000**	**387.0210**	**387.0210**	**0.0214**	**0.0000**	**387.4699**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	18.5064					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.9500e-003	0.0768	0.1329	2.2000e-004		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004	0.0000	18.5111	18.5111	1.2100e-003	0.0000	18.5364
Total	**18.5104**	**0.0768**	**0.1329**	**2.2000e-004**		**2.9000e-004**	**2.9000e-004**		**2.9000e-004**	**2.9000e-004**	**0.0000**	**18.5111**	**18.5111**	**1.2100e-003**	**0.0000**	**18.5364**

3.6 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1772	0.2609	2.4501	6.3400e-003	0.5484	3.5400e-003	0.5520	0.1456	3.2800e-003	0.1489	0.0000	387.0210	387.0210	0.0214	0.0000	387.4699
Total	**0.1772**	**0.2609**	**2.4501**	**6.3400e-003**	**0.5484**	**3.5400e-003**	**0.5520**	**0.1456**	**3.2800e-003**	**0.1489**	**0.0000**	**387.0210**	**387.0210**	**0.0214**	**0.0000**	**387.4699**

3.7 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0193	0.1999	0.2081	3.2000e-004		0.0107	0.0107		9.8600e-003	9.8600e-003	0.0000	28.4230	28.4230	9.1900e-003	0.0000	28.6160
Paving	0.0170					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0363**	**0.1999**	**0.2081**	**3.2000e-004**		**0.0107**	**0.0107**		**9.8600e-003**	**9.8600e-003**	**0.0000**	**28.4230**	**28.4230**	**9.1900e-003**	**0.0000**	**28.6160**

3.7 Paving - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.4000e-004	9.4000e-004	8.8500e-003	2.0000e-005	1.8000e-003	1.0000e-005	1.8100e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.3071	1.3071	7.0000e-005	0.0000	1.3087
Total	**6.4000e-004**	**9.4000e-004**	**8.8500e-003**	**2.0000e-005**	**1.8000e-003**	**1.0000e-005**	**1.8100e-003**	**4.8000e-004**	**1.0000e-005**	**4.9000e-004**	**0.0000**	**1.3071**	**1.3071**	**7.0000e-005**	**0.0000**	**1.3087**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.7600e-003	0.1425	0.2455	3.2000e-004		5.3000e-004	5.3000e-004		5.3000e-004	5.3000e-004	0.0000	28.4230	28.4230	9.1900e-003	0.0000	28.6160
Paving	0.0170					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0218**	**0.1425**	**0.2455**	**3.2000e-004**		**5.3000e-004**	**5.3000e-004**		**5.3000e-004**	**5.3000e-004**	**0.0000**	**28.4230**	**28.4230**	**9.1900e-003**	**0.0000**	**28.6160**

3.7 Paving - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.4000e-004	9.4000e-004	8.8500e-003	2.0000e-005	1.8000e-003	1.0000e-005	1.8100e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.3071	1.3071	7.0000e-005	0.0000	1.3087
Total	**6.4000e-004**	**9.4000e-004**	**8.8500e-003**	**2.0000e-005**	**1.8000e-003**	**1.0000e-005**	**1.8100e-003**	**4.8000e-004**	**1.0000e-005**	**4.9000e-004**	**0.0000**	**1.3071**	**1.3071**	**7.0000e-005**	**0.0000**	**1.3087**

3.7 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0560	0.5761	0.6531	1.0200e-003		0.0303	0.0303		0.0278	0.0278	0.0000	89.1686	89.1686	0.0288	0.0000	89.7742
Paving	0.0535					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1095**	**0.5761**	**0.6531**	**1.0200e-003**		**0.0303**	**0.0303**		**0.0278**	**0.0278**	**0.0000**	**89.1686**	**89.1686**	**0.0288**	**0.0000**	**89.7742**

3.7 Paving - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9100e-003	2.8000e-003	0.0265	7.0000e-005	5.6400e-003	4.0000e-005	5.6800e-003	1.5000e-003	3.0000e-005	1.5300e-003	0.0000	4.0412	4.0412	2.3000e-004	0.0000	4.0460
Total	**1.9100e-003**	**2.8000e-003**	**0.0265**	**7.0000e-005**	**5.6400e-003**	**4.0000e-005**	**5.6800e-003**	**1.5000e-003**	**3.0000e-005**	**1.5300e-003**	**0.0000**	**4.0412**	**4.0412**	**2.3000e-004**	**0.0000**	**4.0460**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0149	0.4471	0.7702	1.0200e-003		1.6700e-003	1.6700e-003		1.6700e-003	1.6700e-003	0.0000	89.1685	89.1685	0.0288	0.0000	89.7741
Paving	0.0535					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0684**	**0.4471**	**0.7702**	**1.0200e-003**		**1.6700e-003**	**1.6700e-003**		**1.6700e-003**	**1.6700e-003**	**0.0000**	**89.1685**	**89.1685**	**0.0288**	**0.0000**	**89.7741**

3.7 Paving - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9100e-003	2.8000e-003	0.0265	7.0000e-005	5.6400e-003	4.0000e-005	5.6800e-003	1.5000e-003	3.0000e-005	1.5300e-003	0.0000	4.0412	4.0412	2.3000e-004	0.0000	4.0460
Total	**1.9100e-003**	**2.8000e-003**	**0.0265**	**7.0000e-005**	**5.6400e-003**	**4.0000e-005**	**5.6800e-003**	**1.5000e-003**	**3.0000e-005**	**1.5300e-003**	**0.0000**	**4.0412**	**4.0412**	**2.3000e-004**	**0.0000**	**4.0460**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Increase Diversity

Improve Walkability Design

Improve Destination Accessibility

Increase Transit Accessibility

Improve Pedestrian Network

Provide Traffic Calming Measures

Implement NEV Network

Limit Parking Supply

Expand Transit Network

Increase Transit Frequency

Implement Trip Reduction Program

Market Commute Trip Reduction Option

Employee Vanpool/Shuttle

Provide Riade Sharing Program

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	30.8937	42.3960	260.1123	0.2883	16.9002	0.5976	17.4978	4.5155	0.5511	5.0666	0.0000	19,841.6061	19,841.6061	0.8835	0.0000	19,860.1593
Unmitigated	34.6063	68.1262	351.8649	0.6303	40.3319	1.2461	41.5779	10.7761	1.1485	11.9245	0.0000	43,472.3459	43,472.3459	1.6771	0.0000	43,507.5647

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	11.13	11.13	11.13	21,220	8,728
City Park	9.54	9.54	9.54	18,189	7,481
Condo/Townhouse	5,607.90	6,126.48	5197.86	12,579,115	5,451,195
Enclosed Parking Structure	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Regional Shopping Center	63,807.74	73,725.71	37223.80	81,354,957	33,744,726
Single Family Housing	4,476.00	7,368.00	6420.00	11,557,852	5,008,628
User Defined Recreational	0.00	0.00	0.00		
User Defined Recreational	0.00	0.00	0.00		
Total	73,912.31	87,240.86	48,862.33	105,531,333	44,220,758

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	12.50	4.20	5.40	33.00	48.00	19.00	66	28	6
City Park	12.50	4.20	5.40	33.00	48.00	19.00	66	28	6
Condo/Townhouse	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3
Enclosed Parking Structure	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Other Asphalt Surfaces	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Other Asphalt Surfaces	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Parking Lot	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	54	35	11
Single Family Housing	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3
User Defined Recreational	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
User Defined Recreational	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.469364	0.065576	0.169825	0.159036	0.038089	0.006139	0.011322	0.071493	0.001371	0.001211	0.003602	0.000518	0.002454

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

Percent of Electricity Use Generated with Renewable Energy

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	17,952.7450	17,952.7450	0.8252	0.1707	18,023.0034
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	27,425.2913	27,425.2913	1.2607	0.2608	27,532.6207
NaturalGas Mitigated	0.3424	2.9446	1.3817	0.0187		0.2366	0.2366		0.2366	0.2366	0.0000	3,388.6234	3,388.6234	0.0650	0.0621	3,409.2460
NaturalGas Unmitigated	0.3918	3.3691	1.5816	0.0214		0.2707	0.2707		0.2707	0.2707	0.0000	3,876.9941	3,876.9941	0.0743	0.0711	3,900.5888

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	7.28155e+006	0.0393	0.3569	0.2998	2.1400e-003		0.0271	0.0271		0.0271	0.0271	0.0000	388.5713	388.5713	7.4500e-003	7.1200e-003	390.9361
Single Family Housing	4.05203e+007	0.2185	1.8671	0.7945	0.0119		0.1510	0.1510		0.1510	0.1510	0.0000	2,162.3177	2,162.3177	0.0414	0.0396	2,175.4772
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	2.48503e+007	0.1340	1.1451	0.4873	7.3100e-003		0.0926	0.0926		0.0926	0.0926	0.0000	1,326.1050	1,326.1050	0.0254	0.0243	1,334.1755
Total		**0.3918**	**3.3691**	**1.5816**	**0.0214**		**0.2707**	**0.2707**		**0.2707**	**0.2707**	**0.0000**	**3,876.9941**	**3,876.9941**	**0.0743**	**0.0711**	**3,900.5888**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	6.33056e+006	0.0341	0.3103	0.2607	1.8600e-003		0.0236	0.0236		0.0236	0.0236	0.0000	337.8226	337.8226	6.4700e-003	6.1900e-003	339.8785
Single Family Housing	3.55133e+007	0.1915	1.6364	0.6963	0.0105		0.1323	0.1323		0.1323	0.1323	0.0000	1,895.1241	1,895.1241	0.0363	0.0347	1,906.6575
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	2.16566e+007	0.1168	0.9979	0.4246	6.3700e-003		0.0807	0.0807		0.0807	0.0807	0.0000	1,155.6768	1,155.6768	0.0222	0.0212	1,162.7100
Total		**0.3424**	**2.9446**	**1.3817**	**0.0187**		**0.2366**	**0.2366**		**0.2366**	**0.2366**	**0.0000**	**3,388.6234**	**3,388.6234**	**0.0649**	**0.0621**	**3,409.2460**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	5.88106e+006	1,682.9644	0.0774	0.0160	1,689.5507
Enclosed Parking Structure	3.144e+007	8,997.0870	0.4136	0.0856	9,032.2973
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	149600	42.8106	1.9700e-003	4.1000e-004	42.9781
Regional Shopping Center	4.91505e+007	14,065.2389	0.6465	0.1338	14,120.2835
Single Family Housing	9.21557e+006	2,637.1904	0.1212	0.0251	2,647.5111
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		**27,425.2913**	**1.2607**	**0.2608**	**27,532.6207**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	4.47647e+006	1,281.0182	0.0589	0.0122	1,286.0315
Enclosed Parking Structure	2.0075e+007	5,744.8118	0.2641	0.0546	5,767.2942
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	67320	19.2648	8.9000e-004	1.8000e-004	19.3402
Regional Shopping Center	3.11004e+007	8,899.9012	0.4091	0.0846	8,934.7311
Single Family Housing	7.01601e+006	2,007.7491	0.0923	0.0191	2,015.6065
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		**17,952.7450**	**0.8252**	**0.1707**	**18,023.0034**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

Use only Natural Gas Hearths

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	55.4863	0.1860	15.8767	7.9000e-004		0.1308	0.1308		0.1303	0.1303	0.0000	656.7565	656.7565	0.0341	0.0116	661.0636
Unmitigated	73.9159	0.2076	18.0321	9.5000e-004		0.1434	0.1434		0.1430	0.1430	0.0000	661.1577	661.1577	0.0410	0.0116	665.6088

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	17.6768					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	55.6217					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0638	0.0000	3.4800e-003	0.0000		0.0441	0.0441		0.0436	0.0436	0.0000	631.6952	631.6952	0.0121	0.0116	635.5395
Landscaping	0.5536	0.2076	18.0286	9.5000e-004		0.0993	0.0993		0.0993	0.0993	0.0000	29.4625	29.4625	0.0289	0.0000	30.0693
Total	**73.9159**	**0.2076**	**18.0321**	**9.5000e-004**		**0.1434**	**0.1434**		**0.1430**	**0.1430**	**0.0000**	**661.1577**	**661.1577**	**0.0410**	**0.0116**	**665.6088**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	3.5354					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	51.4630					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0638	0.0000	3.4800e-003	0.0000		0.0441	0.0441		0.0436	0.0436	0.0000	631.6952	631.6952	0.0121	0.0116	635.5395
Landscaping	0.4241	0.1860	15.8732	7.9000e-004		0.0867	0.0867		0.0867	0.0867	0.0000	25.0614	25.0614	0.0220	0.0000	25.5241
Total	**55.4863**	**0.1860**	**15.8767**	**7.9000e-004**		**0.1308**	**0.1308**		**0.1303**	**0.1303**	**0.0000**	**656.7565**	**656.7565**	**0.0341**	**0.0116**	**661.0636**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Use Reclaimed Water

Use Grey Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Turf Reduction

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	2,858.7069	12.8268	0.3259	3,229.1016
Unmitigated	3,636.3964	16.0364	0.4080	4,099.6365

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 36.8863	117.2733	5.3900e-003	1.1200e-003	117.7322
Condo/Townhouse	158.468 / 158.468	1,144.5772	5.2140	0.1323	1,295.0944
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	171.079 / 171.079	1,235.6632	5.6289	0.1429	1,398.1587
Single Family Housing	157.68 / 157.68	1,138.8828	5.1881	0.1317	1,288.6512
User Defined Recreational	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**3,636.3964**	**16.0364**	**0.4080**	**4,099.6365**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 29.5091	93.8186	4.3100e-003	8.9000e-004	94.1858
Condo/Townhouse	126.775 / 126.775	899.2661	4.1704	0.1057	1,019.6157
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	136.864 / 136.864	970.8301	4.5023	0.1141	1,100.7572
Single Family Housing	126.144 / 126.144	894.7921	4.1497	0.1052	1,014.5430
User Defined Recreational	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**2,858.7069**	**12.8268**	**0.3259**	**3,229.1016**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	244.1377	14.4281	0.0000	547.1284
Unmitigated	976.5510	57.7125	0.0000	2,188.5136

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	1.12	0.2274	0.0134	0.0000	0.5095
Condo/Townhouse	554.76	112.6113	6.6551	0.0000	252.3691
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	3295.53	668.9628	39.5346	0.0000	1,499.1888
Single Family Housing	959.4	194.7495	11.5094	0.0000	436.4463
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		**976.5510**	**57.7125**	**0.0000**	**2,188.5136**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.28	0.0568	3.3600e-003	0.0000	0.1274
Condo/Townhouse	138.69	28.1528	1.6638	0.0000	63.0923
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	823.883	167.2407	9.8836	0.0000	374.7972
Single Family Housing	239.85	48.6874	2.8773	0.0000	109.1116
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		**244.1377**	**14.4281**	**0.0000**	**547.1284**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	212.4000	0.0000	0.0000	212.4000

10.2 Net New Trees

Species Class

	Number of Trees	Total CO2	CH4	N2O	CO2e
		MT			
Miscellaneous	300	212.4000	0.0000	0.0000	212.4000
Total		**212.4000**	**0.0000**	**0.0000**	**212.4000**

Planning Area 1-8

Salton Sea Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking Structure	12,000.00	Space	108.00	4,800,000.00	0
Other Asphalt Surfaces	25.00	Acre	25.00	1,089,000.00	0
Other Asphalt Surfaces	25.00	Acre	25.00	1,089,000.00	0
Parking Lot	425.00	Space	3.82	170,000.00	0
City Park	7.00	Acre	7.00	304,920.00	0
City Park	6.00	Acre	6.00	261,360.00	0
User Defined Recreational	78.00	User Defined Unit	78.00	0.00	0
User Defined Recreational	0.00	User Defined Unit	0.00	23,000.00	0
Condo/Townhouse	1,206.00	Dwelling Unit	18.84	1,206,000.00	2028
Single Family Housing	1,200.00	Dwelling Unit	234.00	2,160,000.00	2340
Regional Shopping Center	3,138.60	1000sqft	72.05	3,138,600.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.4	**Precipitation Freq (Days)**	20
Climate Zone	10			**Operational Year**	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Private Park 7 acres
25 acres of road
Includes all land uses from Planning Area 1-8

Construction Phase - Construction Assumptions. Assuming Planning Area 1-8 is built at the same time

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Construction assumptions

Off-road Equipment - Defaults

Trips and VMT - SCAQMDs analysis of Construction Worker and Vendor Trip Rates

On-road Fugitive Dust - 100% paved roads

Grading - Based on previous data

Architectural Coating -

Vehicle Trips - Private City Park/Open Space

Vechicle Emission Factors -

Vechicle Emission Factors -

Vechicle Emission Factors -

Road Dust - 100% paved road

Woodstoves - No woodmass

Area Coating -

Energy Use -

Water And Wastewater - Calculated Rates

Land Use Change -

Sequestration -

Construction Off-road Equipment Mitigation - January 1, 2015, required Tier 3 equipment

Mobile Land Use Mitigation - 0.04 low penetration NEV network

Mobile Commute Mitigation - Based by Applicant

Area Mitigation - SCAQMD Rule 1113

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Operational Off-Road Equipment - no default

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	50
tblCommuteMitigation	EmployeeVanpoolPercentModeShare	2	5
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	80
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	12.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim

tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	660.00	1,385.00
tblConstructionPhase	NumDays	9,300.00	1,044.00
tblConstructionPhase	NumDays	930.00	180.00
tblConstructionPhase	NumDays	660.00	120.00
tblConstructionPhase	NumDays	360.00	20.00
tblConstructionPhase	PhaseEndDate	3/15/2022	7/22/2022
tblConstructionPhase	PhaseEndDate	11/20/2020	11/22/2016
tblConstructionPhase	PhaseEndDate	1/6/2023	5/7/2021
tblConstructionPhase	PhaseEndDate	1/20/2017	11/21/2016
tblConstructionPhase	PhaseStartDate	11/23/2016	4/1/2017
tblConstructionPhase	PhaseStartDate	7/23/2022	11/23/2020
tblConstructionPhase	PhaseStartDate	8/6/2016	6/7/2016
tblFireplaces	FireplaceWoodMass	457.60	0.00
tblFireplaces	FireplaceWoodMass	457.60	0.00
tblFireplaces	NumberGas	1,206.00	402.00
tblFireplaces	NumberGas	1,020.00	400.00

tblFireplaces	NumberNoFireplace	60.00	0.00
tblFireplaces	NumberWood	120.00	0.00
tblLandUse	LandUseSquareFeet	0.00	23,000.00
tblLandUse	LotAcreage	0.00	78.00
tblLandUse	LotAcreage	75.38	18.84
tblLandUse	LotAcreage	389.61	234.00
tblLandUse	Population	3,895.00	2,028.00
tblLandUse	Population	3,876.00	2,340.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblProjectCharacteristics	OperationalYear	2014	2022
tblRoadDust	RoadPercentPave	50	100

tblSequestration	NumberOfNewTrees	0.00	300.00
tblTripsAndVMT	VendorTripNumber	2,040.00	258.00
tblTripsAndVMT	WorkerTripNumber	5,554.00	1,300.00
tblTripsAndVMT	WorkerTripNumber	1,111.00	915.00
tblVehicleTrips	ST_TR	7.16	5.08
tblVehicleTrips	ST_TR	49.97	23.49
tblVehicleTrips	ST_TR	10.08	6.14
tblVehicleTrips	SU_TR	6.07	4.31
tblVehicleTrips	SU_TR	25.24	11.86
tblVehicleTrips	SU_TR	8.77	5.35
tblVehicleTrips	WD_TR	6.59	4.65
tblVehicleTrips	WD_TR	42.94	20.33
tblVehicleTrips	WD_TR	9.57	3.73
tblWater	IndoorWaterUseRate	78,575,754.90	158,468,400.00
tblWater	IndoorWaterUseRate	232,484,015.93	171,079,397.30
tblWater	IndoorWaterUseRate	78,184,830.75	157,680,000.00
tblWater	OutdoorWaterUseRate	15,489,257.55	36,886,345.00
tblWater	OutdoorWaterUseRate	49,536,888.96	158,468,400.00
tblWater	OutdoorWaterUseRate	142,490,203.31	171,079,397.60
tblWater	OutdoorWaterUseRate	49,290,436.77	157,680,000.00
tblWoodstoves	NumberCatalytic	60.30	0.00
tblWoodstoves	NumberCatalytic	60.00	0.00
tblWoodstoves	NumberNoncatalytic	60.30	0.00
tblWoodstoves	NumberNoncatalytic	60.00	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	6.8921	79.1702	52.2694	0.0637	18.2169	3.8033	21.3062	9.9706	3.4991	12.8128	0.0000	6,651.1252	6,651.1252	1.9470	0.0000	6,692.0111
2016	12.2762	115.2879	132.0206	0.1913	12.1297	5.8224	14.8555	3.6919	5.4108	9.1027	0.0000	16,689.8343	16,689.8343	3.2012	0.0000	16,757.0584
2017	259.9222	6.8384	54.8747	0.0923	7.6555	0.2220	7.8775	2.0306	0.2182	2.2488	0.0000	7,239.0459	7,239.0459	0.4392	0.0000	7,248.2693
2018	259.4729	6.2739	50.0266	0.0922	7.6555	0.1984	7.8539	2.0306	0.1948	2.2254	0.0000	6,970.8966	6,970.8966	0.4088	0.0000	6,979.4812
2019	259.1185	5.7794	46.3801	0.0921	7.6555	0.1767	7.8322	2.0306	0.1731	2.2037	0.0000	6,720.2233	6,720.2233	0.3849	0.0000	6,728.3056
2020	261.4033	19.2233	58.4799	0.1159	7.7810	0.8988	8.6798	2.0639	0.8361	2.8999	0.0000	8,721.1958	8,721.1958	1.0704	0.0000	8,743.6738
2021	261.0912	17.7497	56.4233	0.1160	7.7810	0.8087	8.5897	2.0639	0.7519	2.8157	0.0000	8,627.9452	8,627.9452	1.0579	0.0000	8,650.1601
2022	258.4630	4.7719	39.5057	0.0922	7.6555	0.1305	7.7860	2.0306	0.1270	2.1576	0.0000	6,278.3841	6,278.3841	0.3433	0.0000	6,285.5939
Total	**1,578.6395**	**255.0948**	**489.9803**	**0.8555**	**76.5308**	**12.0606**	**84.7808**	**25.9126**	**11.2108**	**36.4666**	**0.0000**	**67,898.6505**	**67,898.6505**	**8.8525**	**0.0000**	**68,084.5533**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	1.0949	20.4121	39.3726	0.0637	6.8442	0.1020	6.9086	3.7193	0.1019	3.7836	0.0000	6,651.1252	6,651.1252	1.9470	0.0000	6,692.0111
2016	9.9508	36.4039	131.3116	0.1913	12.1297	0.5253	12.6550	3.2404	0.4890	3.7294	0.0000	16,689.8343	16,689.8343	3.2012	0.0000	16,757.0584
2017	259.6444	5.7132	54.8390	0.0923	7.6555	0.0526	7.7081	2.0306	0.0488	2.0794	0.0000	7,239.0459	7,239.0459	0.4392	0.0000	7,248.2693
2018	259.2287	5.3280	50.0048	0.0922	7.6555	0.0518	7.7073	2.0306	0.0482	2.0788	0.0000	6,970.8966	6,970.8966	0.4088	0.0000	6,979.4812
2019	258.9066	5.0039	46.3712	0.0921	7.6555	0.0519	7.7074	2.0306	0.0483	2.0789	0.0000	6,720.2233	6,720.2233	0.3849	0.0000	6,728.3056
2020	260.2137	14.6404	61.0562	0.1159	7.7810	0.0893	7.8704	2.0639	0.0858	2.1497	0.0000	8,721.1958	8,721.1958	1.0704	0.0000	8,743.6738
2021	260.0241	14.4476	59.0130	0.1160	7.7810	0.0900	7.8710	2.0639	0.0864	2.1502	0.0000	8,627.9452	8,627.9452	1.0579	0.0000	8,650.1601
2022	258.3129	4.4232	39.5246	0.0922	7.6555	0.0528	7.7083	2.0306	0.0492	2.0798	0.0000	6,278.3841	6,278.3841	0.3433	0.0000	6,285.5939
Total	**1,567.3762**	**106.3724**	**481.4929**	**0.8555**	**65.1581**	**1.0156**	**66.1361**	**19.2097**	**0.9576**	**20.1298**	**0.0000**	**67,898.6505**	**67,898.6505**	**8.8525**	**0.0000**	**68,084.5533**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.71**	**58.30**	**1.73**	**0.00**	**14.86**	**91.58**	**21.99**	**25.87**	**91.46**	**44.80**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	409.3436	2.3065	200.4026	0.0106		2.1793	2.1793		2.1680	2.1680	0.0000	17,344.3834	17,344.3834	0.6794	0.3114	17,455.1739
Energy	2.1466	18.4609	8.6663	0.1171		1.4831	1.4831		1.4831	1.4831		23,417.2845	23,417.2845	0.4488	0.4293	23,559.7982
Mobile	270.6458	432.5080	2,370.0137	4.2609	271.6918	8.2768	279.9687	72.5228	7.6285	80.1512		323,568.8177	323,568.8177	12.2905		323,826.9191
Total	**682.1360**	**453.2754**	**2,579.0827**	**4.3886**	**271.6918**	**11.9392**	**283.6310**	**72.5228**	**11.2795**	**83.8023**	**0.0000**	**364,330.4857**	**364,330.4857**	**13.4188**	**0.7407**	**364,841.8912**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	307.6300	2.0663	176.4538	8.7500e-003		2.0389	2.0389		2.0275	2.0275	0.0000	17,290.4789	17,290.4789	0.5954	0.3114	17,399.5046
Energy	1.8762	16.1349	7.5707	0.1023		1.2963	1.2963		1.2963	1.2963		20,467.4954	20,467.4954	0.3923	0.3752	20,592.0572
Mobile	244.3098	273.7171	1,689.6194	1.9488	113.8841	3.9554	117.8395	30.3991	3.6478	34.0469		147,829.5756	147,829.5756	6.4610		147,965.2564
Total	**553.8160**	**291.9183**	**1,873.6439**	**2.0599**	**113.8841**	**7.2905**	**121.1746**	**30.3991**	**6.9716**	**37.3707**	**0.0000**	**185,587.5499**	**185,587.5499**	**7.4486**	**0.6866**	**185,956.8182**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	18.81	35.60	27.35	53.06	58.08	38.94	57.28	58.08	38.19	55.41	0.00	49.06	49.06	44.49	7.30	49.03

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/1/2015	11/27/2015	5	20	
2	Grading	Grading	11/28/2015	8/5/2016	5	180	
3	Utilities	Trenching	6/7/2016	11/21/2016	5	120	
4	Building Construction	Building Construction	11/22/2016	11/22/2016	5	1044	
5	Architectural Coating	Architectural Coating	4/1/2017	7/22/2022	5	1385	
6	Paving	Paving	11/23/2020	5/7/2021	5	120	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 450

Acres of Paving: 0

Residential Indoor: 6,816,150; Residential Outdoor: 2,272,050; Non-Residential Indoor: 16,066,470; Non-Residential Outdoor: 5,355,490 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Utilities	Air Compressors	1	6.00	78	0.48
Utilities	Forklifts	1	4.00	89	0.20
Utilities	Generator Sets	1	8.00	84	0.74
Utilities	Off-Highway Trucks	2	8.00	400	0.38
Utilities	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Utilities	Welders	1	8.00	46	0.45
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Utilities	9	23.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	1,300.00	258.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	915.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

3.2 Site Preparation - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	5.2609	56.8897	42.6318	0.0391		3.0883	3.0883		2.8412	2.8412		4,111.7444	4,111.7444	1.2275		4,137.5225
Total	**5.2609**	**56.8897**	**42.6318**	**0.0391**	**18.0663**	**3.0883**	**21.1545**	**9.9307**	**2.8412**	**12.7719**		**4,111.7444**	**4,111.7444**	**1.2275**		**4,137.5225**

3.2 Site Preparation - 2015

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1053	0.1112	1.2865	1.7600e-003	0.1506	1.0300e-003	0.1516	0.0400	9.4000e-004	0.0409		148.3937	148.3937	9.4800e-003		148.5928
Total	**0.1053**	**0.1112**	**1.2865**	**1.7600e-003**	**0.1506**	**1.0300e-003**	**0.1516**	**0.0400**	**9.4000e-004**	**0.0409**		**148.3937**	**148.3937**	**9.4800e-003**		**148.5928**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.6936	0.0000	6.6936	3.6793	0.0000	3.6793			0.0000			0.0000
Off-Road	0.7103	12.3804	23.4003	0.0391		0.0634	0.0634		0.0634	0.0634	0.0000	4,111.7444	4,111.7444	1.2275		4,137.5224
Total	**0.7103**	**12.3804**	**23.4003**	**0.0391**	**6.6936**	**0.0634**	**6.7570**	**3.6793**	**0.0634**	**3.7428**	**0.0000**	**4,111.7444**	**4,111.7444**	**1.2275**		**4,137.5224**

3.2 Site Preparation - 2015

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1053	0.1112	1.2865	1.7600e-003	0.1506	1.0300e-003	0.1516	0.0400	9.4000e-004	0.0409		148.3937	148.3937	9.4800e-003		148.5928
Total	**0.1053**	**0.1112**	**1.2865**	**1.7600e-003**	**0.1506**	**1.0300e-003**	**0.1516**	**0.0400**	**9.4000e-004**	**0.0409**		**148.3937**	**148.3937**	**9.4800e-003**		**148.5928**

3.3 Grading - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	6.7751	79.0467	50.8400	0.0618		3.8022	3.8022		3.4980	3.4980		6,486.2433	6,486.2433	1.9364		6,526.9080
Total	**6.7751**	**79.0467**	**50.8400**	**0.0618**	**8.6733**	**3.8022**	**12.4755**	**3.5965**	**3.4980**	**7.0945**		**6,486.2433**	**6,486.2433**	**1.9364**		**6,526.9080**

3.3 Grading - 2015

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1170	0.1236	1.4294	1.9500e-003	0.1673	1.1500e-003	0.1685	0.0444	1.0500e-003	0.0454		164.8819	164.8819	0.0105		165.1031
Total	**0.1170**	**0.1236**	**1.4294**	**1.9500e-003**	**0.1673**	**1.1500e-003**	**0.1685**	**0.0444**	**1.0500e-003**	**0.0454**		**164.8819**	**164.8819**	**0.0105**		**165.1031**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.2135	0.0000	3.2135	1.3325	0.0000	1.3325			0.0000			0.0000
Off-Road	0.9779	20.2885	37.9432	0.0618		0.1009	0.1009		0.1009	0.1009	0.0000	6,486.2433	6,486.2433	1.9364		6,526.9080
Total	**0.9779**	**20.2885**	**37.9432**	**0.0618**	**3.2135**	**0.1009**	**3.3143**	**1.3325**	**0.1009**	**1.4334**	**0.0000**	**6,486.2433**	**6,486.2433**	**1.9364**		**6,526.9080**

3.3 Grading - 2015

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1170	0.1236	1.4294	1.9500e-003	0.1673	1.1500e-003	0.1685	0.0444	1.0500e-003	0.0454		164.8819	164.8819	0.0105		165.1031
Total	**0.1170**	**0.1236**	**1.4294**	**1.9500e-003**	**0.1673**	**1.1500e-003**	**0.1685**	**0.0444**	**1.0500e-003**	**0.0454**		**164.8819**	**164.8819**	**0.0105**		**165.1031**

3.3 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	6.4795	74.8137	49.1374	0.0617		3.5842	3.5842		3.2975	3.2975		6,414.9807	6,414.9807	1.9350		6,455.6154
Total	**6.4795**	**74.8137**	**49.1374**	**0.0617**	**8.6733**	**3.5842**	**12.2576**	**3.5965**	**3.2975**	**6.8940**		**6,414.9807**	**6,414.9807**	**1.9350**		**6,455.6154**

3.3 Grading - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1051	0.1117	1.2832	1.9500e-003	0.1673	1.0900e-003	0.1684	0.0444	1.0100e-003	0.0454		158.5493	158.5493	9.6700e-003		158.7524
Total	**0.1051**	**0.1117**	**1.2832**	**1.9500e-003**	**0.1673**	**1.0900e-003**	**0.1684**	**0.0444**	**1.0100e-003**	**0.0454**		**158.5493**	**158.5493**	**9.6700e-003**		**158.7524**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.2135	0.0000	3.2135	1.3325	0.0000	1.3325			0.0000			0.0000
Off-Road	0.9779	20.2885	37.9432	0.0617		0.1009	0.1009		0.1009	0.1009	0.0000	6,414.9807	6,414.9807	1.9350		6,455.6154
Total	**0.9779**	**20.2885**	**37.9432**	**0.0617**	**3.2135**	**0.1009**	**3.3143**	**1.3325**	**0.1009**	**1.4334**	**0.0000**	**6,414.9807**	**6,414.9807**	**1.9350**		**6,455.6154**

3.3 Grading - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1051	0.1117	1.2832	1.9500e-003	0.1673	1.0900e-003	0.1684	0.0444	1.0100e-003	0.0454		158.5493	158.5493	9.6700e-003		158.7524
Total	**0.1051**	**0.1117**	**1.2832**	**1.9500e-003**	**0.1673**	**1.0900e-003**	**0.1684**	**0.0444**	**1.0100e-003**	**0.0454**		**158.5493**	**158.5493**	**9.6700e-003**		**158.7524**

3.4 Utilities - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.4612	40.2341	24.7293	0.0474		2.2358	2.2358		2.1111	2.1111		4,774.6632	4,774.6632	1.2454		4,800.8161
Total	**4.4612**	**40.2341**	**24.7293**	**0.0474**		**2.2358**	**2.2358**		**2.1111**	**2.1111**		**4,774.6632**	**4,774.6632**	**1.2454**		**4,800.8161**

3.4 Utilities - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1208	0.1284	1.4756	2.2500e-003	0.1924	1.2600e-003	0.1937	0.0510	1.1600e-003	0.0522		182.3317	182.3317	0.0111		182.5652
Total	**0.1208**	**0.1284**	**1.4756**	**2.2500e-003**	**0.1924**	**1.2600e-003**	**0.1937**	**0.0510**	**1.1600e-003**	**0.0522**		**182.3317**	**182.3317**	**0.0111**		**182.5652**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8479	15.8753	28.0546	0.0474		0.1169	0.1169		0.1169	0.1169	0.0000	4,774.6632	4,774.6632	1.2454		4,800.8161
Total	**0.8479**	**15.8753**	**28.0546**	**0.0474**		**0.1169**	**0.1169**		**0.1169**	**0.1169**	**0.0000**	**4,774.6632**	**4,774.6632**	**1.2454**		**4,800.8161**

3.4 Utilities - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1208	0.1284	1.4756	2.2500e-003	0.1924	1.2600e-003	0.1937	0.0510	1.1600e-003	0.0522		182.3317	182.3317	0.0111		182.5652
Total	**0.1208**	**0.1284**	**1.4756**	**2.2500e-003**	**0.1924**	**1.2600e-003**	**0.1937**	**0.0510**	**1.1600e-003**	**0.0522**		**182.3317**	**182.3317**	**0.0111**		**182.5652**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.7762	21.0412	15.8949	0.0219		1.6287	1.6287		1.5368	1.5368		2,156.3310	2,156.3310	0.5073		2,166.9844
Total	**2.7762**	**21.0412**	**15.8949**	**0.0219**		**1.6287**	**1.6287**		**1.5368**	**1.5368**		**2,156.3310**	**2,156.3310**	**0.5073**		**2,166.9844**

3.5 Building Construction - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.6709	17.9146	32.7205	0.0424	1.2530	0.3778	1.6308	0.3554	0.3473	0.7027		4,227.7980	4,227.7980	0.0282		4,228.3893
Worker	6.8291	7.2572	83.4053	0.1270	10.8767	0.0712	10.9479	2.8850	0.0654	2.9503		10,305.7053	10,305.7053	0.6285		10,318.9033
Total	**9.5000**	**25.1717**	**116.1257**	**0.1694**	**12.1298**	**0.4489**	**12.5787**	**3.2404**	**0.4127**	**3.6530**		**14,533.5033**	**14,533.5033**	**0.6566**		**14,547.2925**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4508	9.5786	15.1859	0.0219		0.0763	0.0763		0.0763	0.0763	0.0000	2,156.3310	2,156.3310	0.5073		2,166.9844
Total	**0.4508**	**9.5786**	**15.1859**	**0.0219**		**0.0763**	**0.0763**		**0.0763**	**0.0763**	**0.0000**	**2,156.3310**	**2,156.3310**	**0.5073**		**2,166.9844**

3.5 Building Construction - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.6709	17.9146	32.7205	0.0424	1.2530	0.3778	1.6308	0.3554	0.3473	0.7027		4,227.7980	4,227.7980	0.0282		4,228.3893
Worker	6.8291	7.2572	83.4053	0.1270	10.8767	0.0712	10.9479	2.8850	0.0654	2.9503		10,305.7053	10,305.7053	0.6285		10,318.9033
Total	**9.5000**	**25.1717**	**116.1257**	**0.1694**	**12.1298**	**0.4489**	**12.5787**	**3.2404**	**0.4127**	**3.6530**		**14,533.5033**	**14,533.5033**	**0.6566**		**14,547.2925**

3.6 Architectural Coating - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	255.2610					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733		281.4481	281.4481	0.0297		282.0721
Total	**255.5933**	**2.1850**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**		**281.4481**	**281.4481**	**0.0297**		**282.0721**

3.6 Architectural Coating - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.3289	4.6534	53.0066	0.0893	7.6555	0.0486	7.7042	2.0306	0.0448	2.0754		6,957.5979	6,957.5979	0.4095		6,966.1973
Total	**4.3289**	**4.6534**	**53.0066**	**0.0893**	**7.6555**	**0.0486**	**7.7042**	**2.0306**	**0.0448**	**2.0754**		**6,957.5979**	**6,957.5979**	**0.4095**		**6,966.1973**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	255.2610					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0545	1.0598	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0297		282.0721
Total	**255.3155**	**1.0598**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0297**		**282.0721**

3.6 Architectural Coating - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.3289	4.6534	53.0066	0.0893	7.6555	0.0486	7.7042	2.0306	0.0448	2.0754		6,957.5979	6,957.5979	0.4095		6,966.1973
Total	**4.3289**	**4.6534**	**53.0066**	**0.0893**	**7.6555**	**0.0486**	**7.7042**	**2.0306**	**0.0448**	**2.0754**		**6,957.5979**	**6,957.5979**	**0.4095**		**6,966.1973**

3.6 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	255.2610					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.0102
Total	**255.5596**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**		**281.4485**	**281.4485**	**0.0267**		**282.0102**

3.6 Architectural Coating - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	3.9133	4.2682	48.1724	0.0892	7.6555	0.0479	7.7034	2.0306	0.0443	2.0748		6,689.4481	6,689.4481	0.3820		6,697.4710
Total	**3.9133**	**4.2682**	**48.1724**	**0.0892**	**7.6555**	**0.0479**	**7.7034**	**2.0306**	**0.0443**	**2.0748**		**6,689.4481**	**6,689.4481**	**0.3820**		**6,697.4710**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	255.2610					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0545	1.0598	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4485	281.4485	0.0267		282.0102
Total	**255.3155**	**1.0598**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4485**	**281.4485**	**0.0267**		**282.0102**

3.6 Architectural Coating - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	3.9133	4.2682	48.1724	0.0892	7.6555	0.0479	7.7034	2.0306	0.0443	2.0748		6,689.4481	6,689.4481	0.3820		6,697.4710
Total	**3.9133**	**4.2682**	**48.1724**	**0.0892**	**7.6555**	**0.0479**	**7.7034**	**2.0306**	**0.0443**	**2.0748**		**6,689.4481**	**6,689.4481**	**0.3820**		**6,697.4710**

3.6 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	255.2610					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		281.9473
Total	**255.5274**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**		**281.4481**	**281.4481**	**0.0238**		**281.9473**

3.6 Architectural Coating - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	3.5911	3.9440	44.5388	0.0891	7.6555	0.0479	7.7034	2.0306	0.0444	2.0750		6,438.7753	6,438.7753	0.3611		6,446.3583
Total	**3.5911**	**3.9440**	**44.5388**	**0.0891**	**7.6555**	**0.0479**	**7.7034**	**2.0306**	**0.0444**	**2.0750**		**6,438.7753**	**6,438.7753**	**0.3611**		**6,446.3583**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	255.2610					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0545	1.0598	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0238		281.9473
Total	**255.3155**	**1.0598**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0238**		**281.9473**

3.6 Architectural Coating - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	3.5911	3.9440	44.5388	0.0891	7.6555	0.0479	7.7034	2.0306	0.0444	2.0750		6,438.7753	6,438.7753	0.3611		6,446.3583
Total	**3.5911**	**3.9440**	**44.5388**	**0.0891**	**7.6555**	**0.0479**	**7.7034**	**2.0306**	**0.0444**	**2.0750**		**6,438.7753**	**6,438.7753**	**0.3611**		**6,446.3583**

3.6 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	255.2610					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9057
Total	**255.5032**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**		**281.4481**	**281.4481**	**0.0218**		**281.9057**

3.6 Architectural Coating - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	3.3403	3.6944	41.6139	0.0891	7.6555	0.0480	7.7035	2.0306	0.0445	2.0751		6,177.7166	6,177.7166	0.3441		6,184.9430
Total	**3.3403**	**3.6944**	**41.6139**	**0.0891**	**7.6555**	**0.0480**	**7.7035**	**2.0306**	**0.0445**	**2.0751**		**6,177.7166**	**6,177.7166**	**0.3441**		**6,184.9430**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	255.2610					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0545	1.0598	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0218		281.9057
Total	**255.3155**	**1.0598**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0218**		**281.9057**

3.6 Architectural Coating - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	3.3403	3.6944	41.6139	0.0891	7.6555	0.0480	7.7035	2.0306	0.0445	2.0751		6,177.7166	6,177.7166	0.3441		6,184.9430
Total	**3.3403**	**3.6944**	**41.6139**	**0.0891**	**7.6555**	**0.0480**	**7.7035**	**2.0306**	**0.0445**	**2.0751**		**6,177.7166**	**6,177.7166**	**0.3441**		**6,184.9430**

3.6 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	255.2610					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.8537
Total	**255.4799**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**		**281.4481**	**281.4481**	**0.0193**		**281.8537**

3.6 Architectural Coating - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	3.1538	3.5048	39.6037	0.0892	7.6555	0.0486	7.7041	2.0306	0.0451	2.0757		6,086.4661	6,086.4661	0.3344		6,093.4881
Total	**3.1538**	**3.5048**	**39.6037**	**0.0892**	**7.6555**	**0.0486**	**7.7041**	**2.0306**	**0.0451**	**2.0757**		**6,086.4661**	**6,086.4661**	**0.3344**		**6,093.4881**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	255.2610					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0545	1.0598	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0193		281.8537
Total	**255.3155**	**1.0598**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0193**		**281.8537**

3.6 Architectural Coating - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	3.1538	3.5048	39.6037	0.0892	7.6555	0.0486	7.7041	2.0306	0.0451	2.0757		6,086.4661	6,086.4661	0.3344		6,093.4881
Total	**3.1538**	**3.5048**	**39.6037**	**0.0892**	**7.6555**	**0.0486**	**7.7041**	**2.0306**	**0.0451**	**2.0757**		**6,086.4661**	**6,086.4661**	**0.3344**		**6,093.4881**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	255.2610					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.8329
Total	**255.4655**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.8329**

3.6 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.9975	3.3634	37.6922	0.0892	7.6555	0.0488	7.7043	2.0306	0.0453	2.0758		5,996.9360	5,996.9360	0.3250		6,003.7611
Total	**2.9975**	**3.3634**	**37.6922**	**0.0892**	**7.6555**	**0.0488**	**7.7043**	**2.0306**	**0.0453**	**2.0758**		**5,996.9360**	**5,996.9360**	**0.3250**		**6,003.7611**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	255.2610					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0545	1.0598	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0183		281.8329
Total	**255.3155**	**1.0598**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.8329**

3.6 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.9975	3.3634	37.6922	0.0892	7.6555	0.0488	7.7043	2.0306	0.0453	2.0758		5,996.9360	5,996.9360	0.3250		6,003.7611
Total	**2.9975**	**3.3634**	**37.6922**	**0.0892**	**7.6555**	**0.0488**	**7.7043**	**2.0306**	**0.0453**	**2.0758**		**5,996.9360**	**5,996.9360**	**0.3250**		**6,003.7611**

3.7 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3301	13.7845	14.3523	0.0223		0.7390	0.7390		0.6799	0.6799		2,160.7571	2,160.7571	0.6988		2,175.4326
Paving	1.1751					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.5051**	**13.7845**	**14.3523**	**0.0223**		**0.7390**	**0.7390**		**0.6799**	**0.6799**		**2,160.7571**	**2,160.7571**	**0.6988**		**2,175.4326**

3.7 Paving - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0548	0.0606	0.6822	1.4600e-003	0.1255	7.9000e-004	0.1263	0.0333	7.3000e-004	0.0340		101.2740	101.2740	5.6400e-003		101.3925
Total	**0.0548**	**0.0606**	**0.6822**	**1.4600e-003**	**0.1255**	**7.9000e-004**	**0.1263**	**0.0333**	**7.3000e-004**	**0.0340**		**101.2740**	**101.2740**	**5.6400e-003**		**101.3925**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3281	9.8256	16.9276	0.0223		0.0366	0.0366		0.0366	0.0366	0.0000	2,160.7571	2,160.7571	0.6988		2,175.4326
Paving	1.1751					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.5032**	**9.8256**	**16.9276**	**0.0223**		**0.0366**	**0.0366**		**0.0366**	**0.0366**	**0.0000**	**2,160.7571**	**2,160.7571**	**0.6988**		**2,175.4326**

3.7 Paving - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0548	0.0606	0.6822	1.4600e-003	0.1255	7.9000e-004	0.1263	0.0333	7.3000e-004	0.0340		101.2740	101.2740	5.6400e-003		101.3925
Total	**0.0548**	**0.0606**	**0.6822**	**1.4600e-003**	**0.1255**	**7.9000e-004**	**0.1263**	**0.0333**	**7.3000e-004**	**0.0340**		**101.2740**	**101.2740**	**5.6400e-003**		**101.3925**

3.7 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2308	12.6607	14.3528	0.0223		0.6652	0.6652		0.6120	0.6120		2,160.2530	2,160.2530	0.6987		2,174.9250
Paving	1.1751					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.4059**	**12.6607**	**14.3528**	**0.0223**		**0.6652**	**0.6652**		**0.6120**	**0.6120**		**2,160.2530**	**2,160.2530**	**0.6987**		**2,174.9250**

3.7 Paving - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0517	0.0575	0.6492	1.4600e-003	0.1255	8.0000e-004	0.1263	0.0333	7.4000e-004	0.0340		99.7781	99.7781	5.4800e-003		99.8933
Total	**0.0517**	**0.0575**	**0.6492**	**1.4600e-003**	**0.1255**	**8.0000e-004**	**0.1263**	**0.0333**	**7.4000e-004**	**0.0340**		**99.7781**	**99.7781**	**5.4800e-003**		**99.8933**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3281	9.8256	16.9276	0.0223		0.0366	0.0366		0.0366	0.0366	0.0000	2,160.2530	2,160.2530	0.6987		2,174.9250
Paving	1.1751					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.5032**	**9.8256**	**16.9276**	**0.0223**		**0.0366**	**0.0366**		**0.0366**	**0.0366**	**0.0000**	**2,160.2530**	**2,160.2530**	**0.6987**		**2,174.9250**

3.7 Paving - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0517	0.0575	0.6492	1.4600e-003	0.1255	8.0000e-004	0.1263	0.0333	7.4000e-004	0.0340		99.7781	99.7781	5.4800e-003		99.8933
Total	**0.0517**	**0.0575**	**0.6492**	**1.4600e-003**	**0.1255**	**8.0000e-004**	**0.1263**	**0.0333**	**7.4000e-004**	**0.0340**		**99.7781**	**99.7781**	**5.4800e-003**		**99.8933**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Increase Diversity

Improve Walkability Design

Improve Destination Accessibility

Increase Transit Accessibility

Improve Pedestrian Network

Provide Traffic Calming Measures

Implement NEV Network

Limit Parking Supply

Expand Transit Network

Increase Transit Frequency

Implement Trip Reduction Program

Market Commute Trip Reduction Option

Employee Vanpool/Shuttle

Provide Riade Sharing Program

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	244.3098	273.7171	1,689.6194	1.9488	113.8841	3.9554	117.8395	30.3991	3.6478	34.0469		147,829.5756	147,829.5756	6.4610		147,965.2564
Unmitigated	270.6458	432.5080	2,370.0137	4.2609	271.6918	8.2768	279.9687	72.5228	7.6285	80.1512		323,568.8177	323,568.8177	12.2905		323,826.9191

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	11.13	11.13	11.13	21,220	8,728
City Park	9.54	9.54	9.54	18,189	7,481
Condo/Townhouse	5,607.90	6,126.48	5197.86	12,579,115	5,451,195
Enclosed Parking Structure	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Regional Shopping Center	63,807.74	73,725.71	37223.80	81,354,957	33,744,726
Single Family Housing	4,476.00	7,368.00	6420.00	11,557,852	5,008,628
User Defined Recreational	0.00	0.00	0.00		
User Defined Recreational	0.00	0.00	0.00		
Total	73,912.31	87,240.86	48,862.33	105,531,333	44,220,758

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	12.50	4.20	5.40	33.00	48.00	19.00	66	28	6
City Park	12.50	4.20	5.40	33.00	48.00	19.00	66	28	6
Condo/Townhouse	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3
Enclosed Parking Structure	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Other Asphalt Surfaces	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Other Asphalt Surfaces	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Parking Lot	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	54	35	11
Single Family Housing	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3
User Defined Recreational	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
User Defined Recreational	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.469364	0.065576	0.169825	0.159036	0.038089	0.006139	0.011322	0.071493	0.001371	0.001211	0.003602	0.000518	0.002454

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

Percent of Electricity Use Generated with Renewable Energy

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	1.8762	16.1349	7.5707	0.1023		1.2963	1.2963		1.2963	1.2963		20,467.4954	20,467.4954	0.3923	0.3752	20,592.0572
NaturalGas Unmitigated	2.1466	18.4609	8.6663	0.1171		1.4831	1.4831		1.4831	1.4831		23,417.2845	23,417.2845	0.4488	0.4293	23,559.7982

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	68082.9	0.7342	6.2743	2.6699	0.0401		0.5073	0.5073		0.5073	0.5073		8,009.7564	8,009.7564	0.1535	0.1469	8,058.5024
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	19949.5	0.2151	1.9558	1.6429	0.0117		0.1486	0.1486		0.1486	0.1486		2,346.9950	2,346.9950	0.0450	0.0430	2,361.2784
Single Family Housing	111015	1.1972	10.2308	4.3535	0.0653		0.8272	0.8272		0.8272	0.8272		13,060.5331	13,060.5331	0.2503	0.2394	13,140.0174
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**2.1466**	**18.4609**	**8.6663**	**0.1171**		**1.4831**	**1.4831**		**1.4831**	**1.4831**		**23,417.2845**	**23,417.2845**	**0.4488**	**0.4293**	**23,559.7982**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	17.344	0.1870	1.7004	1.4283	0.0102		0.1292	0.1292		0.1292	0.1292		2,040.4694	2,040.4694	0.0391	0.0374	2,052.8873
Single Family Housing	97.2967	1.0493	8.9666	3.8156	0.0572		0.7250	0.7250		0.7250	0.7250		11,446.6668	11,446.6668	0.2194	0.2099	11,516.3293
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	59.3331	0.6399	5.4680	2.3268	0.0349		0.4421	0.4421		0.4421	0.4421		6,980.3593	6,980.3593	0.1338	0.1280	7,022.8406
Total		**1.8762**	**16.1349**	**7.5707**	**0.1023**		**1.2963**	**1.2963**		**1.2963**	**1.2963**		**20,467.4954**	**20,467.4954**	**0.3923**	**0.3752**	**20,592.0572**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

Use only Natural Gas Hearths

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	307.6300	2.0663	176.4538	8.7500e-003		2.0389	2.0389		2.0275	2.0275	0.0000	17,290.4789	17,290.4789	0.5954	0.3114	17,399.5046
Unmitigated	409.3436	2.3065	200.4026	0.0106		2.1793	2.1793		2.1680	2.1680	0.0000	17,344.3834	17,344.3834	0.6794	0.3114	17,455.1739

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	96.8593					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	304.7762					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.5568	7.0000e-005	0.0849	0.0000		1.0756	1.0756		1.0643	1.0643	0.0000	16,983.5294	16,983.5294	0.3255	0.3114	17,086.8883
Landscaping	6.1513	2.3064	200.3177	0.0106		1.1037	1.1037		1.1037	1.1037		360.8540	360.8540	0.3539		368.2856
Total	**409.3436**	**2.3065**	**200.4026**	**0.0106**		**2.1793**	**2.1793**		**2.1680**	**2.1680**	**0.0000**	**17,344.3834**	**17,344.3834**	**0.6794**	**0.3114**	**17,455.1739**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	19.3719					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	281.9892					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.5568	7.0000e-005	0.0849	0.0000		1.0756	1.0756		1.0643	1.0643	0.0000	16,983.5294	16,983.5294	0.3255	0.3114	17,086.8883
Landscaping	4.7121	2.0663	176.3689	8.7500e-003		0.9632	0.9632		0.9632	0.9632		306.9495	306.9495	0.2699		312.6163
Total	**307.6300**	**2.0663**	**176.4538**	**8.7500e-003**		**2.0389**	**2.0389**		**2.0275**	**2.0275**	**0.0000**	**17,290.4789**	**17,290.4789**	**0.5954**	**0.3114**	**17,399.5046**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Use Reclaimed Water

Use Grey Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Turf Reduction

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Planning Area 1-8

Salton Sea Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking Structure	12,000.00	Space	108.00	4,800,000.00	0
Other Asphalt Surfaces	25.00	Acre	25.00	1,089,000.00	0
Other Asphalt Surfaces	25.00	Acre	25.00	1,089,000.00	0
Parking Lot	425.00	Space	3.82	170,000.00	0
City Park	7.00	Acre	7.00	304,920.00	0
City Park	6.00	Acre	6.00	261,360.00	0
User Defined Recreational	78.00	User Defined Unit	78.00	0.00	0
User Defined Recreational	0.00	User Defined Unit	0.00	23,000.00	0
Condo/Townhouse	1,206.00	Dwelling Unit	18.84	1,206,000.00	2028
Single Family Housing	1,200.00	Dwelling Unit	234.00	2,160,000.00	2340
Regional Shopping Center	3,138.60	1000sqft	72.05	3,138,600.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.4	**Precipitation Freq (Days)**	20
Climate Zone	10			**Operational Year**	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Private Park 7 acres
25 acres of road
Includes all land uses from Planning Area 1-8

Construction Phase - Construction Assumptions. Assuming Planning Area 1-8 is built at the same time

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Construction assumptions

Off-road Equipment - Defaults

Trips and VMT - SCAQMDs analysis of Construction Worker and Vendor Trip Rates

On-road Fugitive Dust - 100% paved roads

Grading - Based on previous data

Architectural Coating -

Vehicle Trips - Private City Park/Open Space

Vechicle Emission Factors -

Vechicle Emission Factors -

Vechicle Emission Factors -

Road Dust - 100% paved road

Woodstoves - No woodmass

Area Coating -

Energy Use -

Water And Wastewater - Calculated Rates

Land Use Change -

Sequestration -

Construction Off-road Equipment Mitigation - January 1, 2015, required Tier 3 equipment

Mobile Land Use Mitigation - 0.04 low penetration NEV network

Mobile Commute Mitigation - Based by Applicant

Area Mitigation - SCAQMD Rule 1113

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Operational Off-Road Equipment - no default

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	50
tblCommuteMitigation	EmployeeVanpoolPercentModeShare	2	5
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	80
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	12.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim

tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	660.00	1,385.00
tblConstructionPhase	NumDays	9,300.00	1,044.00
tblConstructionPhase	NumDays	930.00	180.00
tblConstructionPhase	NumDays	660.00	120.00
tblConstructionPhase	NumDays	360.00	20.00
tblConstructionPhase	PhaseEndDate	3/15/2022	7/22/2022
tblConstructionPhase	PhaseEndDate	11/20/2020	11/22/2016
tblConstructionPhase	PhaseEndDate	1/6/2023	5/7/2021
tblConstructionPhase	PhaseEndDate	1/20/2017	11/21/2016
tblConstructionPhase	PhaseStartDate	11/23/2016	4/1/2017
tblConstructionPhase	PhaseStartDate	7/23/2022	11/23/2020
tblConstructionPhase	PhaseStartDate	8/6/2016	6/7/2016
tblFireplaces	FireplaceWoodMass	457.60	0.00
tblFireplaces	FireplaceWoodMass	457.60	0.00
tblFireplaces	NumberGas	1,206.00	402.00
tblFireplaces	NumberGas	1,020.00	400.00

tblFireplaces	NumberNoFireplace	60.00	0.00
tblFireplaces	NumberWood	120.00	0.00
tblLandUse	LandUseSquareFeet	0.00	23,000.00
tblLandUse	LotAcreage	0.00	78.00
tblLandUse	LotAcreage	75.38	18.84
tblLandUse	LotAcreage	389.61	234.00
tblLandUse	Population	3,895.00	2,028.00
tblLandUse	Population	3,876.00	2,340.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblProjectCharacteristics	OperationalYear	2014	2022
tblRoadDust	RoadPercentPave	50	100

tblSequestration	NumberOfNewTrees	0.00	300.00
tblTripsAndVMT	VendorTripNumber	2,040.00	258.00
tblTripsAndVMT	WorkerTripNumber	5,554.00	1,300.00
tblTripsAndVMT	WorkerTripNumber	1,111.00	915.00
tblVehicleTrips	ST_TR	7.16	5.08
tblVehicleTrips	ST_TR	49.97	23.49
tblVehicleTrips	ST_TR	10.08	6.14
tblVehicleTrips	SU_TR	6.07	4.31
tblVehicleTrips	SU_TR	25.24	11.86
tblVehicleTrips	SU_TR	8.77	5.35
tblVehicleTrips	WD_TR	6.59	4.65
tblVehicleTrips	WD_TR	42.94	20.33
tblVehicleTrips	WD_TR	9.57	3.73
tblWater	IndoorWaterUseRate	78,575,754.90	158,468,400.00
tblWater	IndoorWaterUseRate	232,484,015.93	171,079,397.30
tblWater	IndoorWaterUseRate	78,184,830.75	157,680,000.00
tblWater	OutdoorWaterUseRate	15,489,257.55	36,886,345.00
tblWater	OutdoorWaterUseRate	49,536,888.96	158,468,400.00
tblWater	OutdoorWaterUseRate	142,490,203.31	171,079,397.60
tblWater	OutdoorWaterUseRate	49,290,436.77	157,680,000.00
tblWoodstoves	NumberCatalytic	60.30	0.00
tblWoodstoves	NumberCatalytic	60.00	0.00
tblWoodstoves	NumberNoncatalytic	60.30	0.00
tblWoodstoves	NumberNoncatalytic	60.00	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	6.8632	79.1841	52.0233	0.0636	18.2169	3.8033	21.3062	9.9706	3.4991	12.8128	0.0000	6,639.2095	6,639.2095	1.9470	0.0000	6,680.0954
2016	11.1100	115.3144	125.3053	0.1815	12.1297	5.8224	14.8555	3.6919	5.4108	9.1027	0.0000	15,896.4449	15,896.4449	3.2012	0.0000	15,963.6690
2017	258.8266	7.3447	45.6007	0.0856	7.6555	0.2220	7.8775	2.0306	0.2182	2.2488	0.0000	6,733.9750	6,733.9750	0.4392	0.0000	6,743.1984
2018	258.4705	6.7306	41.5249	0.0856	7.6555	0.1984	7.8539	2.0306	0.1948	2.2254	0.0000	6,484.4711	6,484.4711	0.4088	0.0000	6,493.0556
2019	258.1971	6.1964	38.4533	0.0855	7.6555	0.1767	7.8322	2.0306	0.1731	2.2037	0.0000	6,251.1772	6,251.1772	0.3849	0.0000	6,259.2594
2020	260.5407	19.6176	50.9187	0.1091	7.7810	0.8988	8.6798	2.0639	0.8361	2.8999	0.0000	8,263.0532	8,263.0532	1.0704	0.0000	8,285.5311
2021	260.2885	18.1206	49.1876	0.1092	7.7810	0.8087	8.5897	2.0639	0.7519	2.8157	0.0000	8,176.6256	8,176.6256	1.0579	0.0000	8,198.8404
2022	257.7250	5.1198	32.7204	0.0855	7.6555	0.1305	7.7860	2.0306	0.1270	2.1576	0.0000	5,840.6405	5,840.6405	0.3433	0.0000	5,847.8503
Total	**1,572.0215**	**257.6282**	**435.7342**	**0.8056**	**76.5308**	**12.0606**	**84.7808**	**25.9126**	**11.2108**	**36.4666**	**0.0000**	**64,285.5968**	**64,285.5968**	**8.8525**	**0.0000**	**64,471.4995**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	1.0660	20.4260	39.1266	0.0636	6.8442	0.1020	6.9086	3.7193	0.1019	3.7836	0.0000	6,639.2095	6,639.2095	1.9470	0.0000	6,680.0954
2016	8.5398	36.6284	124.5963	0.1815	12.1297	0.5307	12.6604	3.2404	0.4940	3.7343	0.0000	15,896.4449	15,896.4449	3.2012	0.0000	15,963.6690
2017	258.5488	6.2195	45.5650	0.0856	7.6555	0.0526	7.7081	2.0306	0.0488	2.0794	0.0000	6,733.9750	6,733.9750	0.4392	0.0000	6,743.1984
2018	258.2263	5.7846	41.5031	0.0856	7.6555	0.0518	7.7073	2.0306	0.0482	2.0788	0.0000	6,484.4711	6,484.4711	0.4088	0.0000	6,493.0556
2019	257.9851	5.4209	38.4444	0.0855	7.6555	0.0519	7.7074	2.0306	0.0483	2.0789	0.0000	6,251.1772	6,251.1772	0.3849	0.0000	6,259.2594
2020	259.3510	15.0347	53.4950	0.1091	7.7810	0.0893	7.8704	2.0639	0.0858	2.1497	0.0000	8,263.0532	8,263.0532	1.0704	0.0000	8,285.5311
2021	259.2214	14.8185	51.7773	0.1092	7.7810	0.0900	7.8710	2.0639	0.0864	2.1502	0.0000	8,176.6256	8,176.6256	1.0579	0.0000	8,198.8404
2022	257.5749	4.7711	32.7392	0.0855	7.6555	0.0528	7.7083	2.0306	0.0492	2.0798	0.0000	5,840.6405	5,840.6405	0.3433	0.0000	5,847.8503
Total	**1,560.5133**	**109.1037**	**427.2469**	**0.8056**	**65.1581**	**1.0210**	**66.1415**	**19.2097**	**0.9626**	**20.1348**	**0.0000**	**64,285.5967**	**64,285.5967**	**8.8525**	**0.0000**	**64,471.4995**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.73**	**57.65**	**1.95**	**0.00**	**14.86**	**91.53**	**21.99**	**25.87**	**91.41**	**44.79**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	409.3436	2.3065	200.4026	0.0106		2.1793	2.1793		2.1680	2.1680	0.0000	17,344.3834	17,344.3834	0.6794	0.3114	17,455.1739
Energy	2.1466	18.4609	8.6663	0.1171		1.4831	1.4831		1.4831	1.4831		23,417.2845	23,417.2845	0.4488	0.4293	23,559.7982
Mobile	222.8260	462.9691	2,553.7704	4.0407	271.6918	8.3386	280.0304	72.5228	7.6852	80.2080		307,900.1807	307,900.1807	12.3482		308,159.4917
Total	**634.3162**	**483.7365**	**2,762.8393**	**4.1684**	**271.6918**	**12.0009**	**283.6927**	**72.5228**	**11.3363**	**83.8590**	**0.0000**	**348,661.8486**	**348,661.8486**	**13.4764**	**0.7407**	**349,174.4639**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	307.6300	2.0663	176.4538	8.7500e-003		2.0389	2.0389		2.0275	2.0275	0.0000	17,290.4789	17,290.4789	0.5954	0.3114	17,399.5046
Energy	1.8762	16.1349	7.5707	0.1023		1.2963	1.2963		1.2963	1.2963		20,467.4954	20,467.4954	0.3923	0.3752	20,592.0572
Mobile	199.5254	287.9884	2,013.5938	1.8527	113.8841	4.0171	117.9012	30.3991	3.7045	34.1037		140,547.6938	140,547.6938	6.5186		140,684.5843
Total	**509.0316**	**306.1896**	**2,197.6183**	**1.9638**	**113.8841**	**7.3522**	**121.2363**	**30.3991**	**7.0284**	**37.4275**	**0.0000**	**178,305.6681**	**178,305.6681**	**7.5063**	**0.6866**	**178,676.1461**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**19.75**	**36.70**	**20.46**	**52.89**	**58.08**	**38.74**	**57.26**	**58.08**	**38.00**	**55.37**	**0.00**	**48.86**	**48.86**	**44.30**	**7.30**	**48.83**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/1/2015	11/27/2015	5	20	
2	Grading	Grading	11/28/2015	8/5/2016	5	180	
3	Utilities	Trenching	6/7/2016	11/21/2016	5	120	
4	Building Construction	Building Construction	11/22/2016	11/22/2016	5	1044	
5	Architectural Coating	Architectural Coating	4/1/2017	7/22/2022	5	1385	
6	Paving	Paving	11/23/2020	5/7/2021	5	120	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 450

Acres of Paving: 0

Residential Indoor: 6,816,150; Residential Outdoor: 2,272,050; Non-Residential Indoor: 16,066,470; Non-Residential Outdoor: 5,355,490 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Utilities	Air Compressors	1	6.00	78	0.48
Utilities	Forklifts	1	4.00	89	0.20
Utilities	Generator Sets	1	8.00	84	0.74
Utilities	Off-Highway Trucks	2	8.00	400	0.38
Utilities	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Utilities	Welders	1	8.00	46	0.45
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Utilities	9	23.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	1,300.00	258.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	915.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

3.2 Site Preparation - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	5.2609	56.8897	42.6318	0.0391		3.0883	3.0883		2.8412	2.8412		4,111.7444	4,111.7444	1.2275		4,137.5225
Total	**5.2609**	**56.8897**	**42.6318**	**0.0391**	**18.0663**	**3.0883**	**21.1545**	**9.9307**	**2.8412**	**12.7719**		**4,111.7444**	**4,111.7444**	**1.2275**		**4,137.5225**

3.2 Site Preparation - 2015

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0792	0.1237	1.0650	1.6300e-003	0.1506	1.0300e-003	0.1516	0.0400	9.4000e-004	0.0409		137.6696	137.6696	9.4800e-003		137.8687
Total	**0.0792**	**0.1237**	**1.0650**	**1.6300e-003**	**0.1506**	**1.0300e-003**	**0.1516**	**0.0400**	**9.4000e-004**	**0.0409**		**137.6696**	**137.6696**	**9.4800e-003**		**137.8687**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.6936	0.0000	6.6936	3.6793	0.0000	3.6793			0.0000			0.0000
Off-Road	0.7103	12.3804	23.4003	0.0391		0.0634	0.0634		0.0634	0.0634	0.0000	4,111.7444	4,111.7444	1.2275		4,137.5224
Total	**0.7103**	**12.3804**	**23.4003**	**0.0391**	**6.6936**	**0.0634**	**6.7570**	**3.6793**	**0.0634**	**3.7428**	**0.0000**	**4,111.7444**	**4,111.7444**	**1.2275**		**4,137.5224**

3.2 Site Preparation - 2015

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0792	0.1237	1.0650	1.6300e-003	0.1506	1.0300e-003	0.1516	0.0400	9.4000e-004	0.0409		137.6696	137.6696	9.4800e-003		137.8687
Total	**0.0792**	**0.1237**	**1.0650**	**1.6300e-003**	**0.1506**	**1.0300e-003**	**0.1516**	**0.0400**	**9.4000e-004**	**0.0409**		**137.6696**	**137.6696**	**9.4800e-003**		**137.8687**

3.3 Grading - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	6.7751	79.0467	50.8400	0.0618		3.8022	3.8022		3.4980	3.4980		6,486.2433	6,486.2433	1.9364		6,526.9080
Total	**6.7751**	**79.0467**	**50.8400**	**0.0618**	**8.6733**	**3.8022**	**12.4755**	**3.5965**	**3.4980**	**7.0945**		**6,486.2433**	**6,486.2433**	**1.9364**		**6,526.9080**

3.3 Grading - 2015

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0881	0.1374	1.1833	1.8100e-003	0.1673	1.1500e-003	0.1685	0.0444	1.0500e-003	0.0454		152.9662	152.9662	0.0105		153.1874
Total	**0.0881**	**0.1374**	**1.1833**	**1.8100e-003**	**0.1673**	**1.1500e-003**	**0.1685**	**0.0444**	**1.0500e-003**	**0.0454**		**152.9662**	**152.9662**	**0.0105**		**153.1874**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.2135	0.0000	3.2135	1.3325	0.0000	1.3325			0.0000			0.0000
Off-Road	0.9779	20.2885	37.9432	0.0618		0.1009	0.1009		0.1009	0.1009	0.0000	6,486.2433	6,486.2433	1.9364		6,526.9080
Total	**0.9779**	**20.2885**	**37.9432**	**0.0618**	**3.2135**	**0.1009**	**3.3143**	**1.3325**	**0.1009**	**1.4334**	**0.0000**	**6,486.2433**	**6,486.2433**	**1.9364**		**6,526.9080**

3.3 Grading - 2015

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0881	0.1374	1.1833	1.8100e-003	0.1673	1.1500e-003	0.1685	0.0444	1.0500e-003	0.0454		152.9662	152.9662	0.0105		153.1874
Total	**0.0881**	**0.1374**	**1.1833**	**1.8100e-003**	**0.1673**	**1.1500e-003**	**0.1685**	**0.0444**	**1.0500e-003**	**0.0454**		**152.9662**	**152.9662**	**0.0105**		**153.1874**

3.3 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	6.4795	74.8137	49.1374	0.0617		3.5842	3.5842		3.2975	3.2975		6,414.9807	6,414.9807	1.9350		6,455.6154
Total	**6.4795**	**74.8137**	**49.1374**	**0.0617**	**8.6733**	**3.5842**	**12.2576**	**3.5965**	**3.2975**	**6.8940**		**6,414.9807**	**6,414.9807**	**1.9350**		**6,455.6154**

3.3 Grading - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0788	0.1240	1.0606	1.8100e-003	0.1673	1.0900e-003	0.1684	0.0444	1.0100e-003	0.0454		147.0651	147.0651	9.6700e-003		147.2681
Total	**0.0788**	**0.1240**	**1.0606**	**1.8100e-003**	**0.1673**	**1.0900e-003**	**0.1684**	**0.0444**	**1.0100e-003**	**0.0454**		**147.0651**	**147.0651**	**9.6700e-003**		**147.2681**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.2135	0.0000	3.2135	1.3325	0.0000	1.3325			0.0000			0.0000
Off-Road	0.9779	20.2885	37.9432	0.0617		0.1009	0.1009		0.1009	0.1009	0.0000	6,414.9807	6,414.9807	1.9350		6,455.6154
Total	**0.9779**	**20.2885**	**37.9432**	**0.0617**	**3.2135**	**0.1009**	**3.3143**	**1.3325**	**0.1009**	**1.4334**	**0.0000**	**6,414.9807**	**6,414.9807**	**1.9350**		**6,455.6154**

3.3 Grading - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0788	0.1240	1.0606	1.8100e-003	0.1673	1.0900e-003	0.1684	0.0444	1.0100e-003	0.0454		147.0651	147.0651	9.6700e-003		147.2681
Total	**0.0788**	**0.1240**	**1.0606**	**1.8100e-003**	**0.1673**	**1.0900e-003**	**0.1684**	**0.0444**	**1.0100e-003**	**0.0454**		**147.0651**	**147.0651**	**9.6700e-003**		**147.2681**

3.4 Utilities - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.4612	40.2341	24.7293	0.0474		2.2358	2.2358		2.1111	2.1111		4,774.6632	4,774.6632	1.2454		4,800.8161
Total	**4.4612**	**40.2341**	**24.7293**	**0.0474**		**2.2358**	**2.2358**		**2.1111**	**2.1111**		**4,774.6632**	**4,774.6632**	**1.2454**		**4,800.8161**

3.4 Utilities - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0906	0.1426	1.2196	2.0800e-003	0.1924	1.2600e-003	0.1937	0.0510	1.1600e-003	0.0522		169.1248	169.1248	0.0111		169.3583
Total	**0.0906**	**0.1426**	**1.2196**	**2.0800e-003**	**0.1924**	**1.2600e-003**	**0.1937**	**0.0510**	**1.1600e-003**	**0.0522**		**169.1248**	**169.1248**	**0.0111**		**169.3583**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8479	15.8753	28.0546	0.0474		0.1169	0.1169		0.1169	0.1169	0.0000	4,774.6632	4,774.6632	1.2454		4,800.8161
Total	**0.8479**	**15.8753**	**28.0546**	**0.0474**		**0.1169**	**0.1169**		**0.1169**	**0.1169**	**0.0000**	**4,774.6632**	**4,774.6632**	**1.2454**		**4,800.8161**

3.4 Utilities - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0906	0.1426	1.2196	2.0800e-003	0.1924	1.2600e-003	0.1937	0.0510	1.1600e-003	0.0522		169.1248	169.1248	0.0111		169.3583
Total	**0.0906**	**0.1426**	**1.2196**	**2.0800e-003**	**0.1924**	**1.2600e-003**	**0.1937**	**0.0510**	**1.1600e-003**	**0.0522**		**169.1248**	**169.1248**	**0.0111**		**169.3583**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.7762	21.0412	15.8949	0.0219		1.6287	1.6287		1.5368	1.5368		2,156.3310	2,156.3310	0.5073		2,166.9844
Total	**2.7762**	**21.0412**	**15.8949**	**0.0219**		**1.6287**	**1.6287**		**1.5368**	**1.5368**		**2,156.3310**	**2,156.3310**	**0.5073**		**2,166.9844**

3.5 Building Construction - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.9676	18.9901	40.4748	0.0421	1.2530	0.3832	1.6362	0.3554	0.3523	0.7077		4,180.8837	4,180.8837	0.0295		4,181.5022
Worker	5.1214	8.0597	68.9357	0.1175	10.8767	0.0712	10.9479	2.8850	0.0654	2.9503		9,559.2302	9,559.2302	0.6285		9,572.4282
Total	**8.0890**	**27.0498**	**109.4104**	**0.1596**	**12.1298**	**0.4543**	**12.5841**	**3.2404**	**0.4176**	**3.6580**		**13,740.1139**	**13,740.1139**	**0.6579**		**13,753.9304**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4508	9.5786	15.1859	0.0219		0.0763	0.0763		0.0763	0.0763	0.0000	2,156.3310	2,156.3310	0.5073		2,166.9844
Total	**0.4508**	**9.5786**	**15.1859**	**0.0219**		**0.0763**	**0.0763**		**0.0763**	**0.0763**	**0.0000**	**2,156.3310**	**2,156.3310**	**0.5073**		**2,166.9844**

3.5 Building Construction - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.9676	18.9901	40.4748	0.0421	1.2530	0.3832	1.6362	0.3554	0.3523	0.7077		4,180.8837	4,180.8837	0.0295		4,181.5022
Worker	5.1214	8.0597	68.9357	0.1175	10.8767	0.0712	10.9479	2.8850	0.0654	2.9503		9,559.2302	9,559.2302	0.6285		9,572.4282
Total	**8.0890**	**27.0498**	**109.4104**	**0.1596**	**12.1298**	**0.4543**	**12.5841**	**3.2404**	**0.4176**	**3.6580**		**13,740.1139**	**13,740.1139**	**0.6579**		**13,753.9304**

3.6 Architectural Coating - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	255.2610					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733		281.4481	281.4481	0.0297		282.0721
Total	**255.5933**	**2.1850**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**		**281.4481**	**281.4481**	**0.0297**		**282.0721**

3.6 Architectural Coating - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	3.2333	5.1597	43.7326	0.0827	7.6555	0.0486	7.7042	2.0306	0.0448	2.0754		6,452.5269	6,452.5269	0.4095		6,461.1263
Total	**3.2333**	**5.1597**	**43.7326**	**0.0827**	**7.6555**	**0.0486**	**7.7042**	**2.0306**	**0.0448**	**2.0754**		**6,452.5269**	**6,452.5269**	**0.4095**		**6,461.1263**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	255.2610					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0545	1.0598	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0297		282.0721
Total	**255.3155**	**1.0598**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0297**		**282.0721**

3.6 Architectural Coating - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	3.2333	5.1597	43.7326	0.0827	7.6555	0.0486	7.7042	2.0306	0.0448	2.0754		6,452.5269	6,452.5269	0.4095		6,461.1263
Total	**3.2333**	**5.1597**	**43.7326**	**0.0827**	**7.6555**	**0.0486**	**7.7042**	**2.0306**	**0.0448**	**2.0754**		**6,452.5269**	**6,452.5269**	**0.4095**		**6,461.1263**

3.6 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	255.2610					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.0102
Total	**255.5596**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**		**281.4485**	**281.4485**	**0.0267**		**282.0102**

3.6 Architectural Coating - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.9109	4.7248	39.6707	0.0826	7.6555	0.0479	7.7034	2.0306	0.0443	2.0748		6,203.0226	6,203.0226	0.3820		6,211.0455
Total	**2.9109**	**4.7248**	**39.6707**	**0.0826**	**7.6555**	**0.0479**	**7.7034**	**2.0306**	**0.0443**	**2.0748**		**6,203.0226**	**6,203.0226**	**0.3820**		**6,211.0455**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	255.2610					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0545	1.0598	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4485	281.4485	0.0267		282.0102
Total	**255.3155**	**1.0598**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4485**	**281.4485**	**0.0267**		**282.0102**

3.6 Architectural Coating - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.9109	4.7248	39.6707	0.0826	7.6555	0.0479	7.7034	2.0306	0.0443	2.0748		6,203.0226	6,203.0226	0.3820		6,211.0455
Total	**2.9109**	**4.7248**	**39.6707**	**0.0826**	**7.6555**	**0.0479**	**7.7034**	**2.0306**	**0.0443**	**2.0748**		**6,203.0226**	**6,203.0226**	**0.3820**		**6,211.0455**

3.6 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	255.2610					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		281.9473
Total	**255.5274**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**		**281.4481**	**281.4481**	**0.0238**		**281.9473**

3.6 Architectural Coating - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.6696	4.3611	36.6120	0.0825	7.6555	0.0479	7.7034	2.0306	0.0444	2.0750		5,969.7291	5,969.7291	0.3611		5,977.3121
Total	**2.6696**	**4.3611**	**36.6120**	**0.0825**	**7.6555**	**0.0479**	**7.7034**	**2.0306**	**0.0444**	**2.0750**		**5,969.7291**	**5,969.7291**	**0.3611**		**5,977.3121**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	255.2610					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0545	1.0598	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0238		281.9473
Total	**255.3155**	**1.0598**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0238**		**281.9473**

3.6 Architectural Coating - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.6696	4.3611	36.6120	0.0825	7.6555	0.0479	7.7034	2.0306	0.0444	2.0750		5,969.7291	5,969.7291	0.3611		5,977.3121
Total	**2.6696**	**4.3611**	**36.6120**	**0.0825**	**7.6555**	**0.0479**	**7.7034**	**2.0306**	**0.0444**	**2.0750**		**5,969.7291**	**5,969.7291**	**0.3611**		**5,977.3121**

3.6 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	255.2610					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9057
Total	**255.5032**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**		**281.4481**	**281.4481**	**0.0218**		**281.9057**

3.6 Architectural Coating - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.4915	4.0824	34.1747	0.0825	7.6555	0.0480	7.7035	2.0306	0.0445	2.0751		5,726.9634	5,726.9634	0.3441		5,734.1897
Total	**2.4915**	**4.0824**	**34.1747**	**0.0825**	**7.6555**	**0.0480**	**7.7035**	**2.0306**	**0.0445**	**2.0751**		**5,726.9634**	**5,726.9634**	**0.3441**		**5,734.1897**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	255.2610					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0545	1.0598	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0218		281.9057
Total	**255.3155**	**1.0598**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0218**		**281.9057**

3.6 Architectural Coating - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.4915	4.0824	34.1747	0.0825	7.6555	0.0480	7.7035	2.0306	0.0445	2.0751		5,726.9634	5,726.9634	0.3441		5,734.1897
Total	**2.4915**	**4.0824**	**34.1747**	**0.0825**	**7.6555**	**0.0480**	**7.7035**	**2.0306**	**0.0445**	**2.0751**		**5,726.9634**	**5,726.9634**	**0.3441**		**5,734.1897**

3.6 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	255.2610					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.8537
Total	**255.4799**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**		**281.4481**	**281.4481**	**0.0193**		**281.8537**

3.6 Architectural Coating - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.3640	3.8697	32.4848	0.0826	7.6555	0.0486	7.7041	2.0306	0.0451	2.0757		5,642.4257	5,642.4257	0.3344		5,649.4478
Total	**2.3640**	**3.8697**	**32.4848**	**0.0826**	**7.6555**	**0.0486**	**7.7041**	**2.0306**	**0.0451**	**2.0757**		**5,642.4257**	**5,642.4257**	**0.3344**		**5,649.4478**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	255.2610					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0545	1.0598	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0193		281.8537
Total	**255.3155**	**1.0598**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0193**		**281.8537**

3.6 Architectural Coating - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.3640	3.8697	32.4848	0.0826	7.6555	0.0486	7.7041	2.0306	0.0451	2.0757		5,642.4257	5,642.4257	0.3344		5,649.4478
Total	**2.3640**	**3.8697**	**32.4848**	**0.0826**	**7.6555**	**0.0486**	**7.7041**	**2.0306**	**0.0451**	**2.0757**		**5,642.4257**	**5,642.4257**	**0.3344**		**5,649.4478**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	255.2610					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.8329
Total	**255.4655**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.8329**

3.6 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.2595	3.7113	30.9068	0.0826	7.6555	0.0488	7.7043	2.0306	0.0453	2.0758		5,559.1924	5,559.1924	0.3250		5,566.0175
Total	**2.2595**	**3.7113**	**30.9068**	**0.0826**	**7.6555**	**0.0488**	**7.7043**	**2.0306**	**0.0453**	**2.0758**		**5,559.1924**	**5,559.1924**	**0.3250**		**5,566.0175**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	255.2610					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0545	1.0598	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0183		281.8329
Total	**255.3155**	**1.0598**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.8329**

3.6 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	2.2595	3.7113	30.9068	0.0826	7.6555	0.0488	7.7043	2.0306	0.0453	2.0758		5,559.1924	5,559.1924	0.3250		5,566.0175
Total	**2.2595**	**3.7113**	**30.9068**	**0.0826**	**7.6555**	**0.0488**	**7.7043**	**2.0306**	**0.0453**	**2.0758**		**5,559.1924**	**5,559.1924**	**0.3250**		**5,566.0175**

3.7 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3301	13.7845	14.3523	0.0223		0.7390	0.7390		0.6799	0.6799		2,160.7571	2,160.7571	0.6988		2,175.4326
Paving	1.1751					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.5051**	**13.7845**	**14.3523**	**0.0223**		**0.7390**	**0.7390**		**0.6799**	**0.6799**		**2,160.7571**	**2,160.7571**	**0.6988**		**2,175.4326**

3.7 Paving - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0408	0.0669	0.5602	1.3500e-003	0.1255	7.9000e-004	0.1263	0.0333	7.3000e-004	0.0340		93.8847	93.8847	5.6400e-003		94.0031
Total	**0.0408**	**0.0669**	**0.5602**	**1.3500e-003**	**0.1255**	**7.9000e-004**	**0.1263**	**0.0333**	**7.3000e-004**	**0.0340**		**93.8847**	**93.8847**	**5.6400e-003**		**94.0031**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3281	9.8256	16.9276	0.0223		0.0366	0.0366		0.0366	0.0366	0.0000	2,160.7571	2,160.7571	0.6988		2,175.4326
Paving	1.1751					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.5032**	**9.8256**	**16.9276**	**0.0223**		**0.0366**	**0.0366**		**0.0366**	**0.0366**	**0.0000**	**2,160.7571**	**2,160.7571**	**0.6988**		**2,175.4326**

3.7 Paving - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0408	0.0669	0.5602	1.3500e-003	0.1255	7.9000e-004	0.1263	0.0333	7.3000e-004	0.0340		93.8847	93.8847	5.6400e-003		94.0031
Total	**0.0408**	**0.0669**	**0.5602**	**1.3500e-003**	**0.1255**	**7.9000e-004**	**0.1263**	**0.0333**	**7.3000e-004**	**0.0340**		**93.8847**	**93.8847**	**5.6400e-003**		**94.0031**

3.7 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2308	12.6607	14.3528	0.0223		0.6652	0.6652		0.6120	0.6120		2,160.2530	2,160.2530	0.6987		2,174.9250
Paving	1.1751					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.4059**	**12.6607**	**14.3528**	**0.0223**		**0.6652**	**0.6652**		**0.6120**	**0.6120**		**2,160.2530**	**2,160.2530**	**0.6987**		**2,174.9250**

3.7 Paving - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0388	0.0634	0.5325	1.3500e-003	0.1255	8.0000e-004	0.1263	0.0333	7.4000e-004	0.0340		92.4988	92.4988	5.4800e-003		92.6139
Total	**0.0388**	**0.0634**	**0.5325**	**1.3500e-003**	**0.1255**	**8.0000e-004**	**0.1263**	**0.0333**	**7.4000e-004**	**0.0340**		**92.4988**	**92.4988**	**5.4800e-003**		**92.6139**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3281	9.8256	16.9276	0.0223		0.0366	0.0366		0.0366	0.0366	0.0000	2,160.2530	2,160.2530	0.6987		2,174.9250
Paving	1.1751					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.5032**	**9.8256**	**16.9276**	**0.0223**		**0.0366**	**0.0366**		**0.0366**	**0.0366**	**0.0000**	**2,160.2530**	**2,160.2530**	**0.6987**		**2,174.9250**

3.7 Paving - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0388	0.0634	0.5325	1.3500e-003	0.1255	8.0000e-004	0.1263	0.0333	7.4000e-004	0.0340		92.4988	92.4988	5.4800e-003		92.6139
Total	**0.0388**	**0.0634**	**0.5325**	**1.3500e-003**	**0.1255**	**8.0000e-004**	**0.1263**	**0.0333**	**7.4000e-004**	**0.0340**		**92.4988**	**92.4988**	**5.4800e-003**		**92.6139**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Increase Diversity

Improve Walkability Design

Improve Destination Accessibility

Increase Transit Accessibility

Improve Pedestrian Network

Provide Traffic Calming Measures

Implement NEV Network

Limit Parking Supply

Expand Transit Network

Increase Transit Frequency

Implement Trip Reduction Program

Market Commute Trip Reduction Option

Employee Vanpool/Shuttle

Provide Riade Sharing Program

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	199.5254	287.9884	2,013.5938	1.8527	113.8841	4.0171	117.9012	30.3991	3.7045	34.1037		140,547.6938	140,547.6938	6.5186		140,684.5843
Unmitigated	222.8260	462.9691	2,553.7704	4.0407	271.6918	8.3386	280.0304	72.5228	7.6852	80.2080		307,900.1807	307,900.1807	12.3482		308,159.4917

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	11.13	11.13	11.13	21,220	8,728
City Park	9.54	9.54	9.54	18,189	7,481
Condo/Townhouse	5,607.90	6,126.48	5197.86	12,579,115	5,451,195
Enclosed Parking Structure	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Regional Shopping Center	63,807.74	73,725.71	37223.80	81,354,957	33,744,726
Single Family Housing	4,476.00	7,368.00	6420.00	11,557,852	5,008,628
User Defined Recreational	0.00	0.00	0.00		
User Defined Recreational	0.00	0.00	0.00		
Total	73,912.31	87,240.86	48,862.33	105,531,333	44,220,758

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	12.50	4.20	5.40	33.00	48.00	19.00	66	28	6
City Park	12.50	4.20	5.40	33.00	48.00	19.00	66	28	6
Condo/Townhouse	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3
Enclosed Parking Structure	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Other Asphalt Surfaces	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Other Asphalt Surfaces	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Parking Lot	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	54	35	11
Single Family Housing	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3
User Defined Recreational	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
User Defined Recreational	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.469364	0.065576	0.169825	0.159036	0.038089	0.006139	0.011322	0.071493	0.001371	0.001211	0.003602	0.000518	0.002454

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

Percent of Electricity Use Generated with Renewable Energy

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	1.8762	16.1349	7.5707	0.1023		1.2963	1.2963		1.2963	1.2963		20,467.4954	20,467.4954	0.3923	0.3752	20,592.0572
NaturalGas Unmitigated	2.1466	18.4609	8.6663	0.1171		1.4831	1.4831		1.4831	1.4831		23,417.2845	23,417.2845	0.4488	0.4293	23,559.7982

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	68082.9	0.7342	6.2743	2.6699	0.0401		0.5073	0.5073		0.5073	0.5073		8,009.7564	8,009.7564	0.1535	0.1469	8,058.5024
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	19949.5	0.2151	1.9558	1.6429	0.0117		0.1486	0.1486		0.1486	0.1486		2,346.9950	2,346.9950	0.0450	0.0430	2,361.2784
Single Family Housing	111015	1.1972	10.2308	4.3535	0.0653		0.8272	0.8272		0.8272	0.8272		13,060.5331	13,060.5331	0.2503	0.2394	13,140.0174
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**2.1466**	**18.4609**	**8.6663**	**0.1171**		**1.4831**	**1.4831**		**1.4831**	**1.4831**		**23,417.2845**	**23,417.2845**	**0.4488**	**0.4293**	**23,559.7982**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	17.344	0.1870	1.7004	1.4283	0.0102		0.1292	0.1292		0.1292	0.1292		2,040.4694	2,040.4694	0.0391	0.0374	2,052.8873
Single Family Housing	97.2967	1.0493	8.9666	3.8156	0.0572		0.7250	0.7250		0.7250	0.7250		11,446.6668	11,446.6668	0.2194	0.2099	11,516.3293
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	59.3331	0.6399	5.4680	2.3268	0.0349		0.4421	0.4421		0.4421	0.4421		6,980.3593	6,980.3593	0.1338	0.1280	7,022.8406
Total		**1.8762**	**16.1349**	**7.5707**	**0.1023**		**1.2963**	**1.2963**		**1.2963**	**1.2963**		**20,467.4954**	**20,467.4954**	**0.3923**	**0.3752**	**20,592.0572**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

Use only Natural Gas Hearths

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	307.6300	2.0663	176.4538	8.7500e-003		2.0389	2.0389		2.0275	2.0275	0.0000	17,290.4789	17,290.4789	0.5954	0.3114	17,399.5046
Unmitigated	409.3436	2.3065	200.4026	0.0106		2.1793	2.1793		2.1680	2.1680	0.0000	17,344.3834	17,344.3834	0.6794	0.3114	17,455.1739

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	96.8593					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	304.7762					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.5568	7.0000e-005	0.0849	0.0000		1.0756	1.0756		1.0643	1.0643	0.0000	16,983.5294	16,983.5294	0.3255	0.3114	17,086.8883
Landscaping	6.1513	2.3064	200.3177	0.0106		1.1037	1.1037		1.1037	1.1037		360.8540	360.8540	0.3539		368.2856
Total	**409.3436**	**2.3065**	**200.4026**	**0.0106**		**2.1793**	**2.1793**		**2.1680**	**2.1680**	**0.0000**	**17,344.3834**	**17,344.3834**	**0.6794**	**0.3114**	**17,455.1739**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	19.3719					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	281.9892					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.5568	7.0000e-005	0.0849	0.0000		1.0756	1.0756		1.0643	1.0643	0.0000	16,983.5294	16,983.5294	0.3255	0.3114	17,086.8883
Landscaping	4.7121	2.0663	176.3689	8.7500e-003		0.9632	0.9632		0.9632	0.9632		306.9495	306.9495	0.2699		312.6163
Total	**307.6300**	**2.0663**	**176.4538**	**8.7500e-003**		**2.0389**	**2.0389**		**2.0275**	**2.0275**	**0.0000**	**17,290.4789**	**17,290.4789**	**0.5954**	**0.3114**	**17,399.5046**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Use Reclaimed Water

Use Grey Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Turf Reduction

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

July 14, 2014

Meridian Consultants
860 Hampshire Road, Suite P
Westlake Village, California 91361
Attn: Chris Hampson

Re: Section 24 Specific Plan – Supplemental Localized Significance Threshold Analysis

Mr. Hampson:

Per your request, Air Quality Dynamics has prepared a supplemental Localized Significance Threshold (LST) analysis to identify the downwind concentration of fine particulates ($PM_{2.5}$) associated with the buildout of the proposed project. This was done as use of the South Coast Air Quality Management District's (SCAQMD) LST screening procedure showed that the predicted mass daily rate for the combined project (Active Adult Community/Tribal Planning Areas) exceeded the allowable emission budget of 3 pounds per day.

The SCAQMD offers an additional assessment methodology should a calculated emission budget be exceeded whereby air dispersion modeling is performed to demonstrate that pollutant concentrations are below localized significant levels.

As such, dispersion modeling was used in the preparation of this analysis and incorporated all relevant and appropriate procedures presented by the U.S. Environmental Protection Agency, California Environmental Protection Agency and South Coast Air Quality Management District (SCAQMD). The methodologies and assumptions offered under this regulatory guidance were used to ensure the effective quantification of particulate exposures associated with the generation of $PM_{2.5}$ emissions from identified area and energy source activity.

The following summarizes the protocol used to evaluate $PM_{2.5}$ exposures and presents the results of the supplemental LST analysis.

Estimation of $PM_{2.5}$ Concentrations

In order to assess the impact of $PM_{2.5}$ emissions on the adjoining residents, air quality modeling utilizing the Industrial Source Complex-Short Term (ISCST3) model was performed. The model is a steady state Gaussian plume model used by the SCAQMD to develop the LST Methodology.

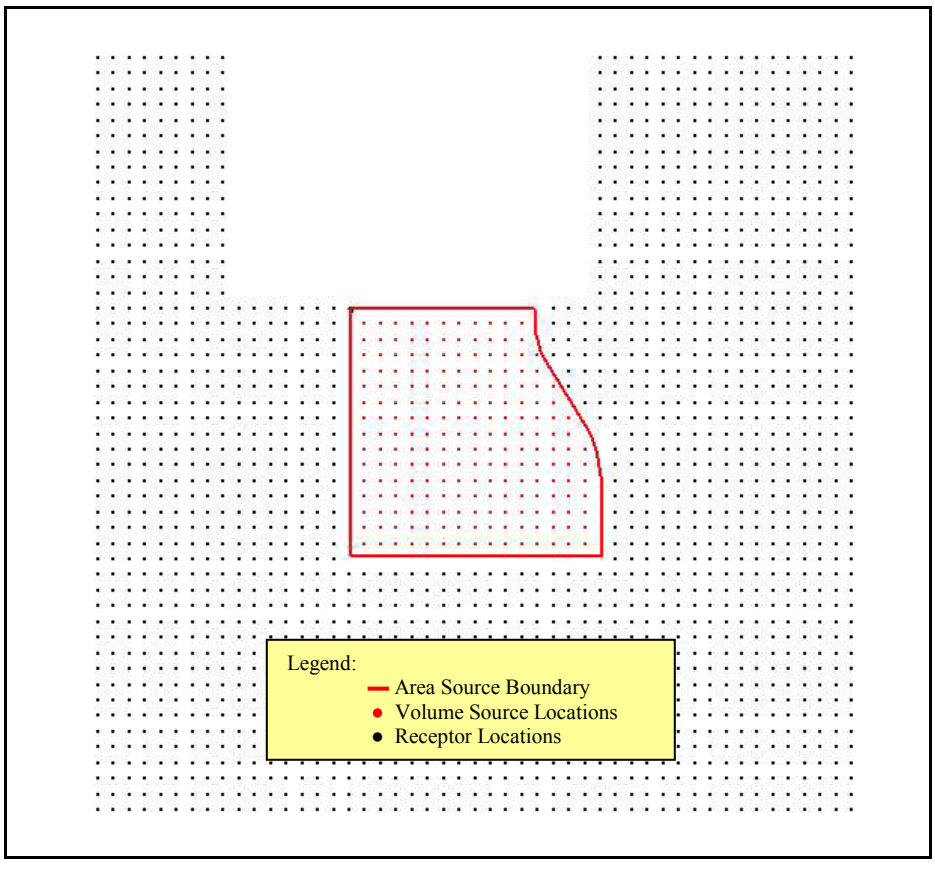
Source treatment for hearth and energy consumption were treated as side-by-side elevated volume sources uniformly spaced at 100 meters with release heights of 4.57 meters and initial vertical dimensions of 2.13 meters to account for the buoyancy associated with the combustion

of natural gas and elevated flue sources from a representative single family home. Fugitive dust emissions associated with landscape activities were treated as a ground-based source with a one meter vertical dimension and source area incorporating project site acreage and configuration. Attachment B presents the emission calculation worksheet for the identified sources.

Air dispersion models require additional input parameters including pollutant emission data and local meteorology. Due to the their sensitivity to individual meteorological parameters such as wind speed and direction, the U.S. EPA recommends that meteorological data used as input into dispersion models be selected on the basis of relative spatial and temporal conditions that exist in the area of concern. In response to this recommendation, meteorological data from the SCAQMD Palm Springs monitoring station (Source Receptor Area 30) was used to represent local weather conditions and prevailing winds.

To accommodate a Cartesian grid format, direction dependent calculations were obtained by identifying the universal transverse mercator (UTM) coordinates for each source location. Off-site receptors were uniformly placed to provide dense coverage throughout the adjoining community. A flagpole receptor height of two meters was also assumed and assigned to each receptor location. A graphical representation of the source-receptor grid network is presented in Figure 1. A complete listing of model input/output files are provided in electronic format in Attachment C

Figure 1
Source-Receptor Grid Network



Pollutant Impact Analysis

Pollutant emissions are considered to have a significant effect on the environment if they result in concentrations that create either a violation of an ambient air quality standard, contribute to an existing air quality violation or expose sensitive receptors to substantive pollutant concentrations. Should ambient air quality already exceed existing standards, the SCAQMD has established significance criteria for selected compounds to account for the continued degradation of local air quality.

For fine particulates, background concentrations representative of the project area exceed the California Ambient Air Quality Standard (CAAQS). As a result, a significant impact is achieved when operational emissions produce a measurable change over existing background levels. Although background concentrations exceed the CAAQS annual averaging time for fine particulates, no measurable change criteria currently exists. As a result, the SCAQMD has established a significance threshold of 2.5 micrograms per cubic meter ($\mu g/m^3$) for the 24-hour averaging time to assess $PM_{2.5}$ impacts.

Results

Results of the modeling exercise predicted a maximum 24-hour average concentration of 0.16061 $\mu g/m^3$ for the maximum exposed receptor. This value is well below the identified significance threshold of 2.5 $\mu g/m^3$.

I can be reached at (818) 703-3294 should you have any questions or require additional information.

Sincerely,

Bill Piazza

Attachment A: List of References
Attachment B: Emission Calculation Worksheet
Attachment C: Dispersion Model Input/Output Files

Attachment A
List of References

1. California Air Pollution Control Officers Association (CAPCOA), 1987. *Toxic Air Pollutant Source Assessment Manual for California Air Pollution Control Districts and Applicants for Air Pollution Control District Permits*, prepared by Interagency Workshop Group, (Revised) December 1989.

2. California Air Resources Board, 1997. *Methods for Assessing Area Source Emissions in California: Volume III* (Revised).

3. California Code of Regulations, Title 17, Section 70200.

4. United States Environmental Protection Agency, 1986. *Guideline on Air Quality Models* (Revised). EPA-450/2-78-027R.

5. United States Environmental Protection Agency, Office of Air Quality Planning and Standards, 1995. *User's Guide for the Industrial Source Complex (ISC3) Dispersion Models*, Volumes I and II. EPA-454/B-95-003a and b.

6. South Coast Air Quality Management District, 2014. Historical Data by Year. Website: http://www.aqmd.gov/home/library/air-quality-data-studies/historical-data-by-year.

7. South Coast Air Quality Management District, 2014. Air Quality Significance Thresholds. Website: http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2

8. South Coast Air Quality Management District, 2008. *Final Localized Significance Threshold Methodology.*

9. South Coast Air Quality Management District, 2006. *Final – Methodology to Calculate Particulate Matter (PM) 2.5 and PM 2.5 Significance Thresholds.*

10. South Coast Air Quality Management District, 2005. *Sample Construction Scenarios for Projects Less than Five Acres in Size.*

11. South Coast Air Quality Management District, 1981. Meteorological Data Set for Palm Springs, California.

Attachment B

Emission Calculation Worksheet

Emission Rate Summary Worksheet
Combined Planning Areas

PM2.5	Phase	Fugitive mass	Combustion mass	Fugitive g/s/m2	Combustion g/s/source
	Operation	0.9632	2.3606	2.2391E-09	6.0453E-05

Fugitive Source Area	2258316	m2
Combustion Sources	205	

Attachment C

Dispersion Model Input/Output Files
(Electronic Format)

NO ECHO

BEE-Line ISCST3 "BEEST" Version 9.00

Input File - F:\rancho mirage\model\SECTION_24_PM2.5.DTA

Output File - F:\rancho mirage\model\SECTION_24_PM2.5.LST

Met File - F:\rancho mirage\met data\iscst3-palm-springs.asc

```
**********************************
*** SETUP Finishes Successfully ***
**********************************

♀ *** ISCST3 - VERSION 02035 ***    *** Section 24 Specific Plan
                        ***        07/10/14
                                   *** Particulates (PM2.5)
                       ***        16:14:44
**MODELOPTs:
                                  PAGE   1
CONC                    URBAN FLAT  FLGPOL                             NOCALM
                     NOCMPL

                                           ***     MODEL SETUP OPTIONS SUMMARY
***
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - -

**Simple Terrain Model is Selected

**Model Is Setup For Calculation of Average CONCentration Values.

  --  SCAVENGING/DEPOSITION LOGIC --
**Model Uses NO DRY DEPLETION.  DDPLETE =  F
**Model Uses NO WET DEPLETION.  WDPLETE =  F
**NO WET SCAVENGING Data Provided.
**NO GAS DRY DEPOSITION Data Provided.
**Model Does NOT Use GRIDDED TERRAIN Data for Depletion Calculations

**Model Uses URBAN Dispersion.

**Model Uses User-Specified Options:
           1. Final Plume Rise.
           2. Stack-tip Downwash.
           3. Buoyancy-induced Dispersion.
           4. Not Use Calms Processing Routine.
           5. Not Use Missing Data Processing Routine.
           6. Default Wind Profile Exponents.
           7. Default Vertical Potential Temperature Gradients.

**Model Assumes Receptors on FLAT Terrain.

**Model Accepts FLAGPOLE Receptor Heights.
```

**Model Calculates 1 Short Term Average(s) of: 24-HR

**This Run Includes: 206 Source(s); 1 Source Group(s); and 1769 Receptor(s)

**The Model Assumes A Pollutant Type of: OTHER

**Model Set To Continue RUNning After the Setup Testing.

**Output Options Selected:
Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)

**Misc. Inputs: Anem. Hgt. (m) = 10.00 ; Decay Coef. = 0.000 ; Rot. Angle = 0.0
Emission Units = GRAMS/SEC ; Emission Rate Unit Factor = 0.10000E+07
Output Units = MICROGRAMS/M**3

**Approximate Storage Requirements of Model = 1.5 MB of RAM.

**Input Runstream File: SECTION_24_PM2.5.DTA

**Output Print File: SECTION_24_PM2.5.LST

♀ *** ISCST3 - VERSION 02035 *** *** Section 24 Specific Plan *** 07/10/14
*** Particulates (PM2.5) *** 16:14:44
**MODELOPTs:
PAGE 2
CONC URBAN FLAT FLGPOL NOCALM NOCMPL

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
C1	0	0.60453E-04	553458.0	3740425.0	0.0	4.57	46.51	2.13	
C2	0	0.60453E-04	553558.0	3740425.0	0.0	4.57	46.51	2.13	
C3	0	0.60453E-04	553658.0	3740425.0	0.0	4.57	46.51	2.13	
C4	0	0.60453E-04	553758.0	3740425.0	0.0	4.57	46.51	2.13	
C5	0	0.60453E-04	553858.0	3740425.0	0.0	4.57	46.51	2.13	
C6	0	0.60453E-04	553958.0	3740425.0	0.0	4.57	46.51	2.13	
C7	0	0.60453E-04	554058.0	3740425.0	0.0	4.57	46.51	2.13	

C8	0	0.60453E-04	554158.0	3740425.0	0.0	4.57	46.51
2.13							
C9	0	0.60453E-04	554258.0	3740425.0	0.0	4.57	46.51
2.13							
C10	0	0.60453E-04	554358.0	3740425.0	0.0	4.57	46.51
2.13							
C11	0	0.60453E-04	554458.0	3740425.0	0.0	4.57	46.51
2.13							
C12	0	0.60453E-04	554558.0	3740425.0	0.0	4.57	46.51
2.13							
C13	0	0.60453E-04	554658.0	3740425.0	0.0	4.57	46.51
2.13							
C14	0	0.60453E-04	554758.0	3740425.0	0.0	4.57	46.51
2.13							
C15	0	0.60453E-04	554858.0	3740425.0	0.0	4.57	46.51
2.13							
C16	0	0.60453E-04	553458.0	3740525.0	0.0	4.57	46.51
2.13							
C17	0	0.60453E-04	553558.0	3740525.0	0.0	4.57	46.51
2.13							
C18	0	0.60453E-04	553658.0	3740525.0	0.0	4.57	46.51
2.13							
C19	0	0.60453E-04	553758.0	3740525.0	0.0	4.57	46.51
2.13							
C20	0	0.60453E-04	553858.0	3740525.0	0.0	4.57	46.51
2.13							
C21	0	0.60453E-04	553958.0	3740525.0	0.0	4.57	46.51
2.13							
C22	0	0.60453E-04	554058.0	3740525.0	0.0	4.57	46.51
2.13							
C23	0	0.60453E-04	554158.0	3740525.0	0.0	4.57	46.51
2.13							
C24	0	0.60453E-04	554258.0	3740525.0	0.0	4.57	46.51
2.13							
C25	0	0.60453E-04	554358.0	3740525.0	0.0	4.57	46.51
2.13							
C26	0	0.60453E-04	554458.0	3740525.0	0.0	4.57	46.51
2.13							
C27	0	0.60453E-04	554558.0	3740525.0	0.0	4.57	46.51
2.13							
C28	0	0.60453E-04	554658.0	3740525.0	0.0	4.57	46.51
2.13							
C29	0	0.60453E-04	554758.0	3740525.0	0.0	4.57	46.51
2.13							
C30	0	0.60453E-04	554858.0	3740525.0	0.0	4.57	46.51
2.13							
C31	0	0.60453E-04	553458.0	3740625.0	0.0	4.57	46.51
2.13							
C32	0	0.60453E-04	553558.0	3740625.0	0.0	4.57	46.51
2.13							
C33	0	0.60453E-04	553658.0	3740625.0	0.0	4.57	46.51
2.13							
C34	0	0.60453E-04	553758.0	3740625.0	0.0	4.57	46.51
2.13							
C35	0	0.60453E-04	553858.0	3740625.0	0.0	4.57	46.51
2.13							
C36	0	0.60453E-04	553958.0	3740625.0	0.0	4.57	46.51
2.13							
C37	0	0.60453E-04	554058.0	3740625.0	0.0	4.57	46.51
2.13							
C38	0	0.60453E-04	554158.0	3740625.0	0.0	4.57	46.51
2.13							
C39	0	0.60453E-04	554258.0	3740625.0	0.0	4.57	46.51

2.13
C40 0 0.60453E-04 554358.0 3740625.0 0.0 4.57 46.51
2.13
♀ *** ISCST3 - VERSION 02035 *** *** Section 24 Specific Plan
*** 07/10/14
*** Particulates (PM2.5)
*** 16:14:44
**MODELOPTs:

CONC URBAN FLAT FLGPOL NOCALM
NOCMPL

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
C41	0	0.60453E-04	554458.0	3740625.0	0.0	4.57	46.51	2.13	
C42	0	0.60453E-04	554558.0	3740625.0	0.0	4.57	46.51	2.13	
C43	0	0.60453E-04	554658.0	3740625.0	0.0	4.57	46.51	2.13	
C44	0	0.60453E-04	554758.0	3740625.0	0.0	4.57	46.51	2.13	
C45	0	0.60453E-04	554858.0	3740625.0	0.0	4.57	46.51	2.13	
C46	0	0.60453E-04	553458.0	3740725.0	0.0	4.57	46.51	2.13	
C47	0	0.60453E-04	553558.0	3740725.0	0.0	4.57	46.51	2.13	
C48	0	0.60453E-04	553658.0	3740725.0	0.0	4.57	46.51	2.13	
C49	0	0.60453E-04	553758.0	3740725.0	0.0	4.57	46.51	2.13	
C50	0	0.60453E-04	553858.0	3740725.0	0.0	4.57	46.51	2.13	
C51	0	0.60453E-04	553958.0	3740725.0	0.0	4.57	46.51	2.13	
C52	0	0.60453E-04	554058.0	3740725.0	0.0	4.57	46.51	2.13	
C53	0	0.60453E-04	554158.0	3740725.0	0.0	4.57	46.51	2.13	
C54	0	0.60453E-04	554258.0	3740725.0	0.0	4.57	46.51	2.13	
C55	0	0.60453E-04	554358.0	3740725.0	0.0	4.57	46.51	2.13	
C56	0	0.60453E-04	554458.0	3740725.0	0.0	4.57	46.51	2.13	
C57	0	0.60453E-04	554558.0	3740725.0	0.0	4.57	46.51	2.13	
C58	0	0.60453E-04	554658.0	3740725.0	0.0	4.57	46.51	2.13	
C59	0	0.60453E-04	554758.0	3740725.0	0.0	4.57	46.51	2.13	

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  C60           0   0.60453E-04  554858.0 3740725.0     0.0     4.57    46.51
2.13
  C61           0   0.60453E-04  553458.0 3740825.0     0.0     4.57    46.51
2.13
  C62           0   0.60453E-04  553558.0 3740825.0     0.0     4.57    46.51
2.13
  C63           0   0.60453E-04  553658.0 3740825.0     0.0     4.57    46.51
2.13
  C64           0   0.60453E-04  553758.0 3740825.0     0.0     4.57    46.51
2.13
  C65           0   0.60453E-04  553858.0 3740825.0     0.0     4.57    46.51
2.13
  C66           0   0.60453E-04  553958.0 3740825.0     0.0     4.57    46.51
2.13
  C67           0   0.60453E-04  554058.0 3740825.0     0.0     4.57    46.51
2.13
  C68           0   0.60453E-04  554158.0 3740825.0     0.0     4.57    46.51
2.13
  C69           0   0.60453E-04  554258.0 3740825.0     0.0     4.57    46.51
2.13
  C70           0   0.60453E-04  554358.0 3740825.0     0.0     4.57    46.51
2.13
  C71           0   0.60453E-04  554458.0 3740825.0     0.0     4.57    46.51
2.13
  C72           0   0.60453E-04  554558.0 3740825.0     0.0     4.57    46.51
2.13
  C73           0   0.60453E-04  554658.0 3740825.0     0.0     4.57    46.51
2.13
  C74           0   0.60453E-04  554758.0 3740825.0     0.0     4.57    46.51
2.13
  C75           0   0.60453E-04  554858.0 3740825.0     0.0     4.57    46.51
2.13
  C76           0   0.60453E-04  553458.0 3740925.0     0.0     4.57    46.51
2.13
  C77           0   0.60453E-04  553558.0 3740925.0     0.0     4.57    46.51
2.13
  C78           0   0.60453E-04  553658.0 3740925.0     0.0     4.57    46.51
2.13
  C79           0   0.60453E-04  553758.0 3740925.0     0.0     4.57    46.51
2.13
  C80           0   0.60453E-04  553858.0 3740925.0     0.0     4.57    46.51
2.13
♀ *** ISCST3 - VERSION 02035 ***    *** Section 24 Specific Plan
                        ***        07/10/14
                                   *** Particulates (PM2.5)
                       ***        16:14:44
**MODELOPTs:
                                  PAGE   4
CONC                    URBAN FLAT  FLGPOL                             NOCALM
                     NOCMPL


                                                     *** VOLUME SOURCE DATA ***

             NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   EMISSION RATE
   SOURCE     PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY        SZ
     SCALAR VARY
     ID       CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)        BY
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -
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C81	0	0.60453E-04	553958.0	3740925.0	0.0	4.57	46.51
2.13							
C82	0	0.60453E-04	554058.0	3740925.0	0.0	4.57	46.51
2.13							
C83	0	0.60453E-04	554158.0	3740925.0	0.0	4.57	46.51
2.13							
C84	0	0.60453E-04	554258.0	3740925.0	0.0	4.57	46.51
2.13							
C85	0	0.60453E-04	554358.0	3740925.0	0.0	4.57	46.51
2.13							
C86	0	0.60453E-04	554458.0	3740925.0	0.0	4.57	46.51
2.13							
C87	0	0.60453E-04	554558.0	3740925.0	0.0	4.57	46.51
2.13							
C88	0	0.60453E-04	554658.0	3740925.0	0.0	4.57	46.51
2.13							
C89	0	0.60453E-04	554758.0	3740925.0	0.0	4.57	46.51
2.13							
C90	0	0.60453E-04	554858.0	3740925.0	0.0	4.57	46.51
2.13							
C91	0	0.60453E-04	553458.0	3741025.0	0.0	4.57	46.51
2.13							
C92	0	0.60453E-04	553558.0	3741025.0	0.0	4.57	46.51
2.13							
C93	0	0.60453E-04	553658.0	3741025.0	0.0	4.57	46.51
2.13							
C94	0	0.60453E-04	553758.0	3741025.0	0.0	4.57	46.51
2.13							
C95	0	0.60453E-04	553858.0	3741025.0	0.0	4.57	46.51
2.13							
C96	0	0.60453E-04	553958.0	3741025.0	0.0	4.57	46.51
2.13							
C97	0	0.60453E-04	554058.0	3741025.0	0.0	4.57	46.51
2.13							
C98	0	0.60453E-04	554158.0	3741025.0	0.0	4.57	46.51
2.13							
C99	0	0.60453E-04	554258.0	3741025.0	0.0	4.57	46.51
2.13							
C100	0	0.60453E-04	554358.0	3741025.0	0.0	4.57	46.51
2.13							
C101	0	0.60453E-04	554458.0	3741025.0	0.0	4.57	46.51
2.13							
C102	0	0.60453E-04	554558.0	3741025.0	0.0	4.57	46.51
2.13							
C103	0	0.60453E-04	554658.0	3741025.0	0.0	4.57	46.51
2.13							
C104	0	0.60453E-04	554758.0	3741025.0	0.0	4.57	46.51
2.13							
C105	0	0.60453E-04	554858.0	3741025.0	0.0	4.57	46.51
2.13							
C106	0	0.60453E-04	553458.0	3741125.0	0.0	4.57	46.51
2.13							
C107	0	0.60453E-04	553558.0	3741125.0	0.0	4.57	46.51
2.13							
C108	0	0.60453E-04	553658.0	3741125.0	0.0	4.57	46.51
2.13							
C109	0	0.60453E-04	553758.0	3741125.0	0.0	4.57	46.51
2.13							
C110	0	0.60453E-04	553858.0	3741125.0	0.0	4.57	46.51
2.13							
C111	0	0.60453E-04	553958.0	3741125.0	0.0	4.57	46.51
2.13							

C112	0	0.60453E-04	554058.0	3741125.0	0.0	4.57	46.51	2.13
C113	0	0.60453E-04	554158.0	3741125.0	0.0	4.57	46.51	2.13
C114	0	0.60453E-04	554258.0	3741125.0	0.0	4.57	46.51	2.13
C115	0	0.60453E-04	554358.0	3741125.0	0.0	4.57	46.51	2.13
C116	0	0.60453E-04	554458.0	3741125.0	0.0	4.57	46.51	2.13
C117	0	0.60453E-04	554558.0	3741125.0	0.0	4.57	46.51	2.13
C118	0	0.60453E-04	554658.0	3741125.0	0.0	4.57	46.51	2.13
C119	0	0.60453E-04	554758.0	3741125.0	0.0	4.57	46.51	2.13
C120	0	0.60453E-04	553458.0	3741225.0	0.0	4.57	46.51	2.13

**MODELOPTs:

CONC URBAN FLAT FLGPOL NOCALM NOCMPL

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
C121	0	0.60453E-04	553558.0	3741225.0	0.0	4.57	46.51	2.13	
C122	0	0.60453E-04	553658.0	3741225.0	0.0	4.57	46.51	2.13	
C123	0	0.60453E-04	553758.0	3741225.0	0.0	4.57	46.51	2.13	
C124	0	0.60453E-04	553858.0	3741225.0	0.0	4.57	46.51	2.13	
C125	0	0.60453E-04	553958.0	3741225.0	0.0	4.57	46.51	2.13	
C126	0	0.60453E-04	554058.0	3741225.0	0.0	4.57	46.51	2.13	
C127	0	0.60453E-04	554158.0	3741225.0	0.0	4.57	46.51	2.13	
C128	0	0.60453E-04	554258.0	3741225.0	0.0	4.57	46.51	2.13	
C129	0	0.60453E-04	554358.0	3741225.0	0.0	4.57	46.51	2.13	
C130	0	0.60453E-04	554458.0	3741225.0	0.0	4.57	46.51	2.13	
C131	0	0.60453E-04	554558.0	3741225.0	0.0	4.57	46.51	2.13	
C132	0	0.60453E-04	554658.0	3741225.0	0.0	4.57	46.51		

```
2.13
  C133          0   0.60453E-04  554758.0 3741225.0     0.0     4.57    46.51
2.13
  C134          0   0.60453E-04  553458.0 3741325.0     0.0     4.57    46.51
2.13
  C135          0   0.60453E-04  553558.0 3741325.0     0.0     4.57    46.51
2.13
  C136          0   0.60453E-04  553658.0 3741325.0     0.0     4.57    46.51
2.13
  C137          0   0.60453E-04  553758.0 3741325.0     0.0     4.57    46.51
2.13
  C138          0   0.60453E-04  553858.0 3741325.0     0.0     4.57    46.51
2.13
  C139          0   0.60453E-04  553958.0 3741325.0     0.0     4.57    46.51
2.13
  C140          0   0.60453E-04  554058.0 3741325.0     0.0     4.57    46.51
2.13
  C141          0   0.60453E-04  554158.0 3741325.0     0.0     4.57    46.51
2.13
  C142          0   0.60453E-04  554258.0 3741325.0     0.0     4.57    46.51
2.13
  C143          0   0.60453E-04  554358.0 3741325.0     0.0     4.57    46.51
2.13
  C144          0   0.60453E-04  554458.0 3741325.0     0.0     4.57    46.51
2.13
  C145          0   0.60453E-04  554558.0 3741325.0     0.0     4.57    46.51
2.13
  C146          0   0.60453E-04  554658.0 3741325.0     0.0     4.57    46.51
2.13
  C147          0   0.60453E-04  553458.0 3741425.0     0.0     4.57    46.51
2.13
  C148          0   0.60453E-04  553558.0 3741425.0     0.0     4.57    46.51
2.13
  C149          0   0.60453E-04  553658.0 3741425.0     0.0     4.57    46.51
2.13
  C150          0   0.60453E-04  553758.0 3741425.0     0.0     4.57    46.51
2.13
  C151          0   0.60453E-04  553858.0 3741425.0     0.0     4.57    46.51
2.13
  C152          0   0.60453E-04  553958.0 3741425.0     0.0     4.57    46.51
2.13
  C153          0   0.60453E-04  554058.0 3741425.0     0.0     4.57    46.51
2.13
  C154          0   0.60453E-04  554158.0 3741425.0     0.0     4.57    46.51
2.13
  C155          0   0.60453E-04  554258.0 3741425.0     0.0     4.57    46.51
2.13
  C156          0   0.60453E-04  554358.0 3741425.0     0.0     4.57    46.51
2.13
  C157          0   0.60453E-04  554458.0 3741425.0     0.0     4.57    46.51
2.13
  C158          0   0.60453E-04  554558.0 3741425.0     0.0     4.57    46.51
2.13
  C159          0   0.60453E-04  554658.0 3741425.0     0.0     4.57    46.51
2.13
  C160          0   0.60453E-04  553458.0 3741525.0     0.0     4.57    46.51
2.13
♀ *** ISCST3 - VERSION 02035 ***    *** Section 24 Specific Plan
                        ***          07/10/14
                                     *** Particulates (PM2.5)
                       ***           16:14:44
**MODELOPTs:
```

CONC URBAN FLAT FLGPOL NOCALM
NOCMPL

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
C161	0	0.60453E-04	553558.0	3741525.0	0.0	4.57	46.51	2.13	
C162	0	0.60453E-04	553658.0	3741525.0	0.0	4.57	46.51	2.13	
C163	0	0.60453E-04	553758.0	3741525.0	0.0	4.57	46.51	2.13	
C164	0	0.60453E-04	553858.0	3741525.0	0.0	4.57	46.51	2.13	
C165	0	0.60453E-04	553958.0	3741525.0	0.0	4.57	46.51	2.13	
C166	0	0.60453E-04	554058.0	3741525.0	0.0	4.57	46.51	2.13	
C167	0	0.60453E-04	554158.0	3741525.0	0.0	4.57	46.51	2.13	
C168	0	0.60453E-04	554258.0	3741525.0	0.0	4.57	46.51	2.13	
C169	0	0.60453E-04	554358.0	3741525.0	0.0	4.57	46.51	2.13	
C170	0	0.60453E-04	554458.0	3741525.0	0.0	4.57	46.51	2.13	
C171	0	0.60453E-04	554558.0	3741525.0	0.0	4.57	46.51	2.13	
C172	0	0.60453E-04	553458.0	3741625.0	0.0	4.57	46.51	2.13	
C173	0	0.60453E-04	553558.0	3741625.0	0.0	4.57	46.51	2.13	
C174	0	0.60453E-04	553658.0	3741625.0	0.0	4.57	46.51	2.13	
C175	0	0.60453E-04	553758.0	3741625.0	0.0	4.57	46.51	2.13	
C176	0	0.60453E-04	553858.0	3741625.0	0.0	4.57	46.51	2.13	
C177	0	0.60453E-04	553958.0	3741625.0	0.0	4.57	46.51	2.13	
C178	0	0.60453E-04	554058.0	3741625.0	0.0	4.57	46.51	2.13	
C179	0	0.60453E-04	554158.0	3741625.0	0.0	4.57	46.51	2.13	
C180	0	0.60453E-04	554258.0	3741625.0	0.0	4.57	46.51	2.13	
C181	0	0.60453E-04	554358.0	3741625.0	0.0	4.57	46.51	2.13	
C182	0	0.60453E-04	554458.0	3741625.0	0.0	4.57	46.51	2.13	
C183	0	0.60453E-04	554557.0	3741625.0	0.0	4.57	46.51	2.13	
C184	0	0.60453E-04	553458.0	3741725.0	0.0	4.57	46.51		

2.13							
C185	0	0.60453E-04	553558.0	3741725.0	0.0	4.57	46.51
2.13							
C186	0	0.60453E-04	553658.0	3741725.0	0.0	4.57	46.51
2.13							
C187	0	0.60453E-04	553758.0	3741725.0	0.0	4.57	46.51
2.13							
C188	0	0.60453E-04	553858.0	3741725.0	0.0	4.57	46.51
2.13							
C189	0	0.60453E-04	553958.0	3741725.0	0.0	4.57	46.51
2.13							
C190	0	0.60453E-04	554058.0	3741725.0	0.0	4.57	46.51
2.13							
C191	0	0.60453E-04	554158.0	3741725.0	0.0	4.57	46.51
2.13							
C192	0	0.60453E-04	554258.0	3741725.0	0.0	4.57	46.51
2.13							
C193	0	0.60453E-04	554358.0	3741725.0	0.0	4.57	46.51
2.13							
C194	0	0.60453E-04	554458.0	3741725.0	0.0	4.57	46.51
2.13							
C195	0	0.60453E-04	553458.0	3741825.0	0.0	4.57	46.51
2.13							
C196	0	0.60453E-04	553558.0	3741825.0	0.0	4.57	46.51
2.13							
C197	0	0.60453E-04	553658.0	3741825.0	0.0	4.57	46.51
2.13							
C198	0	0.60453E-04	553758.0	3741825.0	0.0	4.57	46.51
2.13							
C199	0	0.60453E-04	553858.0	3741825.0	0.0	4.57	46.51
2.13							
C200	0	0.60453E-04	553958.0	3741825.0	0.0	4.57	46.51
2.13							

♀ *** ISCST3 - VERSION 02035 *** *** Section 24 Specific Plan
*** 07/10/14
*** Particulates (PM2.5)
*** 16:14:44

**MODELOPTs:

CONC URBAN FLAT FLGPOL NOCALM
NOCMPL

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
C201	0	0.60453E-04	554058.0	3741825.0	0.0	4.57	46.51	2.13	
C202	0	0.60453E-04	554158.0	3741825.0	0.0	4.57	46.51	2.13	
C203	0	0.60453E-04	554258.0	3741825.0	0.0	4.57	46.51	2.13	
C204	0	0.60453E-04	554358.0	3741825.0	0.0	4.57	46.51	2.13	

C205 0 0.60453E-04 554458.0 3741825.0 0.0 4.57 46.51
2.13
♀ *** ISCST3 - VERSION 02035 *** *** Section 24 Specific Plan
*** 07/10/14
*** Particulates (PM2.5)
*** 16:14:44
**MODELOPTs:

CONC URBAN FLAT FLGPOL NOCALM
NOCMPL

*** AREAPOLY SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC /METER**2)	LOCATION OF AREA X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	NUMBER OF VERTS.	INIT. SZ SCALAR VARY BY
L_SCAPE	0	0.22391E-08	553372.3	3741911.8	0.0	0.00	11	1.00

♀ *** ISCST3 - VERSION 02035 *** *** Section 24 Specific Plan
*** 07/10/14
*** Particulates (PM2.5)
*** 16:14:44
**MODELOPTs:

CONC URBAN FLAT FLGPOL NOCALM
NOCMPL

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID	SOURCE IDs
ALL	L_SCAPE , C1 , C2 , C3 , C4 , C5 , C6 , C7 , C8 , C9 , C10 , C11 , C12 , C13 , C14 , C15 , C16 , C17 , C18 , C19 , C20 , C21 , C22 , C23 , C24 , C25 , C26 , C27 , C28 , C29 , C30 , C31 , C32 , C33 , C34 , C35 , C36 , C37 , C38 , C39 , C40 , C41 , C42 , C43 , C44 , C45 , C46 , C47 , C48 , C49 , C50 , C51 , C52 , C53 , C54 , C55 , C56 , C57 , C58 , C59 , C60 , C61 , C62 , C63 , C64 , C65 , C66 , C67 , C68 , C69 , C70 , C71 , C72 , C73 , C74 , C75 , C76 , C77 , C78 , C79 , C80 , C81 , C82 , C83 ,

C84 , C85 , C86 , C87 , C88 , C89 , C90 , C91
, C92 , C93 , C94 , C95 ,

C96 , C97 , C98 , C99 , C100 , C101 , C102 ,
C103 , C104 , C105 , C106 , C107 ,

C108 , C109 , C110 , C111 , C112 , C113 , C114 ,
C115 , C116 , C117 , C118 , C119 ,

C120 , C121 , C122 , C123 , C124 , C125 , C126 ,
C127 , C128 , C129 , C130 , C131 ,

C132 , C133 , C134 , C135 , C136 , C137 , C138 ,
C139 , C140 , C141 , C142 , C143 ,

C144 , C145 , C146 , C147 , C148 , C149 , C150 ,
C151 , C152 , C153 , C154 , C155 ,

C156 , C157 , C158 , C159 , C160 , C161 , C162 ,
C163 , C164 , C165 , C166 , C167 ,

C168 , C169 , C170 , C171 , C172 , C173 , C174 ,
C175 , C176 , C177 , C178 , C179 ,

C180 , C181 , C182 , C183 , C184 , C185 , C186 ,
C187 , C188 , C189 , C190 , C191 ,

C192 , C193 , C194 , C195 , C196 , C197 , C198 ,
C199 , C200 , C201 , C202 , C203 ,

C204 , C205 ,
♀ *** ISCST3 - VERSION 02035 *** *** Section 24 Specific Plan
*** 07/10/14
*** Particulates (PM2.5)
*** 16:14:44
**MODELOPTs:
PAGE 10
CONC URBAN FLAT FLGPOL NOCALM
NOCMPL

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZFLAG)
(METERS)

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♀ *** ISCST3 - VERSION 02035 *** *** Section 24 Specific Plan ***
07/10/14
*** Particulates (PM2.5)
*** 16:14:44
**MODELOPTs:

CONC URBAN FLAT FLGPOL NOCALM NOCMPL

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZFLAG)
(METERS)

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♀ *** ISCST3 - VERSION 02035 *** *** Section 24 Specific Plan
*** 07/10/14
*** Particulates (PM2.5)
*** 16:14:44

**MODELOPTs:

CONC URBAN FLAT FLGPOL NOCALM
NOCMPL

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZFLAG)

(METERS)

(555058.0, 3739025.0, 0.0, 2.0); (555158.0, 3739025.0, 0.0, 2.0);
(555258.0, 3739025.0, 0.0, 2.0); (555358.0, 3739025.0, 0.0, 2.0);
(555458.0, 3739025.0, 0.0, 2.0); (555558.0, 3739025.0, 0.0, 2.0);
(555658.0, 3739025.0, 0.0, 2.0); (555758.0, 3739025.0, 0.0, 2.0);
(555858.0, 3739025.0, 0.0, 2.0); (555958.0, 3739025.0, 0.0, 2.0);
(556058.0, 3739025.0, 0.0, 2.0); (556158.0, 3739025.0, 0.0, 2.0);
(556258.0, 3739025.0, 0.0, 2.0); (556358.0, 3739025.0, 0.0, 2.0);
(556458.0, 3739025.0, 0.0, 2.0); (556558.0, 3739025.0, 0.0, 2.0);
(551758.0, 3739125.0, 0.0, 2.0); (551858.0, 3739125.0, 0.0, 2.0);
(551958.0, 3739125.0, 0.0, 2.0); (552058.0, 3739125.0, 0.0, 2.0);
(552158.0, 3739125.0, 0.0, 2.0); (552258.0, 3739125.0, 0.0, 2.0);
(552358.0, 3739125.0, 0.0, 2.0); (552458.0, 3739125.0, 0.0, 2.0);
(552558.0, 3739125.0, 0.0, 2.0); (552658.0, 3739125.0, 0.0, 2.0);
(552758.0, 3739125.0, 0.0, 2.0); (552858.0, 3739125.0, 0.0, 2.0);
(552958.0, 3739125.0, 0.0, 2.0); (553058.0, 3739125.0, 0.0, 2.0);
(553158.0, 3739125.0, 0.0, 2.0); (553258.0, 3739125.0, 0.0, 2.0);
(553358.0, 3739125.0, 0.0, 2.0); (553458.0, 3739125.0, 0.0, 2.0);
(553558.0, 3739125.0, 0.0, 2.0); (553658.0, 3739125.0, 0.0, 2.0);
(553758.0, 3739125.0, 0.0, 2.0); (553858.0, 3739125.0, 0.0, 2.0);
(553958.0, 3739125.0, 0.0, 2.0); (554058.0, 3739125.0, 0.0, 2.0);
(554158.0, 3739125.0, 0.0, 2.0); (554258.0, 3739125.0, 0.0, 2.0);
(554358.0, 3739125.0, 0.0, 2.0); (554458.0, 3739125.0, 0.0, 2.0);
(554558.0, 3739125.0, 0.0, 2.0); (554658.0, 3739125.0, 0.0, 2.0);
(554758.0, 3739125.0, 0.0, 2.0); (554858.0, 3739125.0, 0.0, 2.0);
(554958.0, 3739125.0, 0.0, 2.0); (555058.0, 3739125.0, 0.0, 2.0);
(555158.0, 3739125.0, 0.0, 2.0); (555258.0, 3739125.0, 0.0, 2.0);
(555358.0, 3739125.0, 0.0, 2.0); (555458.0, 3739125.0, 0.0, 2.0);
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(555758.0, 3739125.0, 0.0, 2.0); (555858.0, 3739125.0, 0.0, 2.0);
(555958.0, 3739125.0, 0.0, 2.0); (556058.0, 3739125.0, 0.0, 2.0);
(556158.0, 3739125.0, 0.0, 2.0); (556258.0, 3739125.0,

0.0, 2.0);
(556358.0, 3739125.0, 0.0, 2.0); (556458.0, 3739125.0, 0.0, 2.0);
(556558.0, 3739125.0, 0.0, 2.0); (551758.0, 3739225.0, 0.0, 2.0);
(551858.0, 3739225.0, 0.0, 2.0); (551958.0, 3739225.0, 0.0, 2.0);
(552058.0, 3739225.0, 0.0, 2.0); (552158.0, 3739225.0, 0.0, 2.0);
(552258.0, 3739225.0, 0.0, 2.0); (552358.0, 3739225.0, 0.0, 2.0);
(552458.0, 3739225.0, 0.0, 2.0); (552558.0, 3739225.0, 0.0, 2.0);
(552658.0, 3739225.0, 0.0, 2.0); (552758.0, 3739225.0, 0.0, 2.0);
(552858.0, 3739225.0, 0.0, 2.0); (552958.0, 3739225.0, 0.0, 2.0);
(553058.0, 3739225.0, 0.0, 2.0); (553158.0, 3739225.0, 0.0, 2.0);
(553258.0, 3739225.0, 0.0, 2.0); (553358.0, 3739225.0, 0.0, 2.0);
(553458.0, 3739225.0, 0.0, 2.0); (553558.0, 3739225.0, 0.0, 2.0);
(553658.0, 3739225.0, 0.0, 2.0); (553758.0, 3739225.0, 0.0, 2.0);
(553858.0, 3739225.0, 0.0, 2.0); (553958.0, 3739225.0, 0.0, 2.0);
(554058.0, 3739225.0, 0.0, 2.0); (554158.0, 3739225.0, 0.0, 2.0);

♀ *** ISCST3 - VERSION 02035 *** *** Section 24 Specific Plan ***
07/10/14
*** Particulates (PM2.5)
*** 16:14:44

**MODELOPTs:

CONC URBAN FLAT FLGPOL NOCALM NOCMPL

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZFLAG)
(METERS)

(554258.0, 3739225.0, 0.0, 2.0); (554358.0, 3739225.0, 0.0, 2.0);
(554458.0, 3739225.0, 0.0, 2.0); (554558.0, 3739225.0, 0.0, 2.0);
(554658.0, 3739225.0, 0.0, 2.0); (554758.0, 3739225.0, 0.0, 2.0);
(554858.0, 3739225.0, 0.0, 2.0); (554958.0, 3739225.0, 0.0, 2.0);
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(555458.0, 3739225.0, 0.0, 2.0); (555558.0, 3739225.0, 0.0, 2.0);
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(556058.0, 3739225.0, 0.0, 2.0); (556158.0, 3739225.0, 0.0, 2.0);

(556258.0, 3739225.0, 0.0, 2.0); (556358.0, 3739225.0, 0.0, 2.0);
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(551958.0, 3739325.0, 0.0, 2.0); (552058.0, 3739325.0, 0.0, 2.0);
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(552358.0, 3739325.0, 0.0, 2.0); (552458.0, 3739325.0, 0.0, 2.0);
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(552758.0, 3739325.0, 0.0, 2.0); (552858.0, 3739325.0, 0.0, 2.0);
(552958.0, 3739325.0, 0.0, 2.0); (553058.0, 3739325.0, 0.0, 2.0);
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(553358.0, 3739325.0, 0.0, 2.0); (553458.0, 3739325.0, 0.0, 2.0);
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(553758.0, 3739325.0, 0.0, 2.0); (553858.0, 3739325.0, 0.0, 2.0);
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(552658.0, 3739425.0, 0.0, 2.0); (552758.0, 3739425.0,

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(553258.0, 3739425.0, 0.0, 2.0); (553358.0, 3739425.0, 0.0, 2.0);

**MODELOPTs:

CONC URBAN FLAT FLGPOL NOCALM
NOCMPL

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZFLAG)
(METERS)

(553458.0, 3739425.0, 0.0, 2.0); (553558.0, 3739425.0, 0.0, 2.0);
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(553858.0, 3739425.0, 0.0, 2.0); (553958.0, 3739425.0, 0.0, 2.0);
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(551758.0, 3739525.0, 0.0, 2.0); (551858.0, 3739525.0, 0.0, 2.0);
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(555558.0, 3739525.0, 0.0, 2.0); (555658.0, 3739525.0, 0.0, 2.0);
(555758.0, 3739525.0, 0.0, 2.0); (555858.0, 3739525.0, 0.0, 2.0);
(555958.0, 3739525.0, 0.0, 2.0); (556058.0, 3739525.0, 0.0, 2.0);
(556158.0, 3739525.0, 0.0, 2.0); (556258.0, 3739525.0, 0.0, 2.0);
(556358.0, 3739525.0, 0.0, 2.0); (556458.0, 3739525.0, 0.0, 2.0);
(556558.0, 3739525.0, 0.0, 2.0); (551758.0, 3739625.0, 0.0, 2.0);
(551858.0, 3739625.0, 0.0, 2.0); (551958.0, 3739625.0, 0.0, 2.0);
(552058.0, 3739625.0, 0.0, 2.0); (552158.0, 3739625.0, 0.0, 2.0);
(552258.0, 3739625.0, 0.0, 2.0); (552358.0, 3739625.0, 0.0, 2.0);
(552458.0, 3739625.0, 0.0, 2.0); (552558.0, 3739625.0, 0.0, 2.0);
♀ *** ISCST3 - VERSION 02035 *** *** Section 24 Specific Plan
*** 07/10/14
*** Particulates (PM2.5)
*** 16:14:44
**MODELOPTs:

CONC URBAN FLAT FLGPOL NOCALM
NOCMPL

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZFLAG)
(METERS)

(552658.0, 3739625.0, 0.0, 2.0); (552758.0, 3739625.0,

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 ( 552858.0, 3739625.0,       0.0,       2.0);          ( 552958.0, 3739625.0,
0.0,       2.0);
 ( 553058.0, 3739625.0,       0.0,       2.0);          ( 553158.0, 3739625.0,
0.0,       2.0);
 ( 553258.0, 3739625.0,       0.0,       2.0);          ( 553358.0, 3739625.0,
0.0,       2.0);
 ( 553458.0, 3739625.0,       0.0,       2.0);          ( 553558.0, 3739625.0,
0.0,       2.0);
 ( 553658.0, 3739625.0,       0.0,       2.0);          ( 553758.0, 3739625.0,
0.0,       2.0);
 ( 553858.0, 3739625.0,       0.0,       2.0);          ( 553958.0, 3739625.0,
0.0,       2.0);
 ( 554058.0, 3739625.0,       0.0,       2.0);          ( 554158.0, 3739625.0,
0.0,       2.0);
 ( 554258.0, 3739625.0,       0.0,       2.0);          ( 554358.0, 3739625.0,
0.0,       2.0);
 ( 554458.0, 3739625.0,       0.0,       2.0);          ( 554558.0, 3739625.0,
0.0,       2.0);
 ( 554658.0, 3739625.0,       0.0,       2.0);          ( 554758.0, 3739625.0,
0.0,       2.0);
 ( 554858.0, 3739625.0,       0.0,       2.0);          ( 554958.0, 3739625.0,
0.0,       2.0);
 ( 555058.0, 3739625.0,       0.0,       2.0);          ( 555158.0, 3739625.0,
0.0,       2.0);
 ( 555258.0, 3739625.0,       0.0,       2.0);          ( 555358.0, 3739625.0,
0.0,       2.0);
 ( 555458.0, 3739625.0,       0.0,       2.0);          ( 555558.0, 3739625.0,
0.0,       2.0);
 ( 555658.0, 3739625.0,       0.0,       2.0);          ( 555758.0, 3739625.0,
0.0,       2.0);
 ( 555858.0, 3739625.0,       0.0,       2.0);          ( 555958.0, 3739625.0,
0.0,       2.0);
 ( 556058.0, 3739625.0,       0.0,       2.0);          ( 556158.0, 3739625.0,
0.0,       2.0);
 ( 556258.0, 3739625.0,       0.0,       2.0);          ( 556358.0, 3739625.0,
0.0,       2.0);
 ( 556458.0, 3739625.0,       0.0,       2.0);          ( 556558.0, 3739625.0,
0.0,       2.0);
 ( 551758.0, 3739725.0,       0.0,       2.0);          ( 551858.0, 3739725.0,
0.0,       2.0);
 ( 551958.0, 3739725.0,       0.0,       2.0);          ( 552058.0, 3739725.0,
0.0,       2.0);
 ( 552158.0, 3739725.0,       0.0,       2.0);          ( 552258.0, 3739725.0,
0.0,       2.0);
 ( 552358.0, 3739725.0,       0.0,       2.0);          ( 552458.0, 3739725.0,
0.0,       2.0);
 ( 552558.0, 3739725.0,       0.0,       2.0);          ( 552658.0, 3739725.0,
0.0,       2.0);
 ( 552758.0, 3739725.0,       0.0,       2.0);          ( 552858.0, 3739725.0,
0.0,       2.0);
 ( 552958.0, 3739725.0,       0.0,       2.0);          ( 553058.0, 3739725.0,
0.0,       2.0);
 ( 553158.0, 3739725.0,       0.0,       2.0);          ( 553258.0, 3739725.0,
0.0,       2.0);
 ( 553358.0, 3739725.0,       0.0,       2.0);          ( 553458.0, 3739725.0,
0.0,       2.0);
 ( 553558.0, 3739725.0,       0.0,       2.0);          ( 553658.0, 3739725.0,
0.0,       2.0);
 ( 553758.0, 3739725.0,       0.0,       2.0);          ( 553858.0, 3739725.0,
0.0,       2.0);
 ( 553958.0, 3739725.0,       0.0,       2.0);          ( 554058.0, 3739725.0,
0.0,       2.0);
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♀ *** ISCST3 - VERSION 02035 *** *** Section 24 Specific Plan *** 07/10/14
*** Particulates (PM2.5) ***
16:14:44

**MODELOPTs:

CONC URBAN FLAT FLGPOL NOCALM NOCMPL

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZFLAG)
(METERS)

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 ( 554858.0, 3739825.0,       0.0,       2.0);          ( 554958.0, 3739825.0,
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0.0,       2.0);
 ( 553158.0, 3739925.0,       0.0,       2.0);          ( 553258.0, 3739925.0,
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♀ *** ISCST3 - VERSION 02035 *** *** Section 24 Specific Plan *** 07/10/14
*** Particulates (PM2.5) ***
16:14:44
**MODELOPTs:

CONC URBAN FLAT FLGPOL NOCALM NOCMPL

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZFLAG)
(METERS)

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♀ *** ISCST3 - VERSION 02035 *** *** Section 24 Specific Plan
*** 07/10/14
*** Particulates (PM2.5)
*** 16:14:44

**MODELOPTs:

PAGE 18

CONC URBAN FLAT FLGPOL NOCALM
NOCMPL

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZFLAG)
(METERS)

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♀ *** ISCST3 - VERSION 02035 *** *** Section 24 Specific Plan
*** 07/10/14
*** Particulates (PM2.5)
*** 16:14:44

**MODELOPTs:

CONC URBAN FLAT FLGPOL NOCALM
NOCMPL

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZFLAG)
(METERS)

(556058.0, 3740325.0, 0.0, 2.0); (556158.0, 3740325.0, 0.0, 2.0);
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(551758.0, 3740625.0, 0.0, 2.0); (551858.0, 3740625.0, 0.0, 2.0);
(551958.0, 3740625.0, 0.0, 2.0); (552058.0, 3740625.0, 0.0, 2.0);
(552158.0, 3740625.0, 0.0, 2.0); (552258.0, 3740625.0, 0.0, 2.0);
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(552558.0, 3740625.0, 0.0, 2.0); (552658.0, 3740625.0, 0.0, 2.0);
(552758.0, 3740625.0, 0.0, 2.0); (552858.0, 3740625.0, 0.0, 2.0);
(552958.0, 3740625.0, 0.0, 2.0); (553058.0, 3740625.0, 0.0, 2.0);
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(555258.0, 3740625.0, 0.0, 2.0); (555358.0, 3740625.0, 0.0, 2.0);

0.0, 2.0);

**MODELOPTs:

CONC URBAN FLAT FLGPOL NOCALM
NOCMPL

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZFLAG)
(METERS)

(555458.0, 3740625.0, 0.0, 2.0); (555558.0, 3740625.0, 0.0, 2.0);
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(556058.0, 3740625.0, 0.0, 2.0); (556158.0, 3740625.0, 0.0, 2.0);
(556258.0, 3740625.0, 0.0, 2.0); (556358.0, 3740625.0, 0.0, 2.0);
(556458.0, 3740625.0, 0.0, 2.0); (556558.0, 3740625.0, 0.0, 2.0);
(551758.0, 3740725.0, 0.0, 2.0); (551858.0, 3740725.0, 0.0, 2.0);
(551958.0, 3740725.0, 0.0, 2.0); (552058.0, 3740725.0, 0.0, 2.0);
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(552358.0, 3740725.0, 0.0, 2.0); (552458.0, 3740725.0, 0.0, 2.0);
(552558.0, 3740725.0, 0.0, 2.0); (552658.0, 3740725.0, 0.0, 2.0);
(552758.0, 3740725.0, 0.0, 2.0); (552858.0, 3740725.0, 0.0, 2.0);
(552958.0, 3740725.0, 0.0, 2.0); (553058.0, 3740725.0, 0.0, 2.0);
(553158.0, 3740725.0, 0.0, 2.0); (553258.0, 3740725.0, 0.0, 2.0);
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(555258.0, 3740725.0, 0.0, 2.0); (555358.0, 3740725.0, 0.0, 2.0);
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(555658.0, 3740725.0, 0.0, 2.0); (555758.0, 3740725.0, 0.0, 2.0);
(555858.0, 3740725.0, 0.0, 2.0); (555958.0, 3740725.0, 0.0, 2.0);
(556058.0, 3740725.0, 0.0, 2.0); (556158.0, 3740725.0, 0.0, 2.0);
(556258.0, 3740725.0, 0.0, 2.0); (556358.0, 3740725.0, 0.0, 2.0);
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(551758.0, 3740825.0, 0.0, 2.0); (551858.0, 3740825.0, 0.0, 2.0);
(551958.0, 3740825.0, 0.0, 2.0); (552058.0, 3740825.0, 0.0, 2.0);

(552158.0, 3740825.0, 0.0, 2.0); (552258.0, 3740825.0, 0.0, 2.0);
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(552758.0, 3740825.0, 0.0, 2.0); (552858.0, 3740825.0, 0.0, 2.0);
(552958.0, 3740825.0, 0.0, 2.0); (553058.0, 3740825.0, 0.0, 2.0);
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(555258.0, 3740825.0, 0.0, 2.0); (555358.0, 3740825.0, 0.0, 2.0);
(555458.0, 3740825.0, 0.0, 2.0); (555558.0, 3740825.0, 0.0, 2.0);
(555658.0, 3740825.0, 0.0, 2.0); (555758.0, 3740825.0, 0.0, 2.0);
(555858.0, 3740825.0, 0.0, 2.0); (555958.0, 3740825.0, 0.0, 2.0);
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(556258.0, 3740825.0, 0.0, 2.0); (556358.0, 3740825.0, 0.0, 2.0);
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(551758.0, 3740925.0, 0.0, 2.0); (551858.0, 3740925.0, 0.0, 2.0);
(551958.0, 3740925.0, 0.0, 2.0); (552058.0, 3740925.0, 0.0, 2.0);
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(552358.0, 3740925.0, 0.0, 2.0); (552458.0, 3740925.0, 0.0, 2.0);
(552558.0, 3740925.0, 0.0, 2.0); (552658.0, 3740925.0, 0.0, 2.0);
(552758.0, 3740925.0, 0.0, 2.0); (552858.0, 3740925.0, 0.0, 2.0);
(552958.0, 3740925.0, 0.0, 2.0); (553058.0, 3740925.0, 0.0, 2.0);

♀ *** ISCST3 - VERSION 02035 *** *** Section 24 Specific Plan
*** 07/10/14
*** Particulates (PM2.5)
*** 16:14:44

**MODELOPTs:

CONC URBAN FLAT FLGPOL NOCALM
NOCMPL

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZFLAG)
(METERS)

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(555258.0, 3740925.0, 0.0, 2.0); (555358.0, 3740925.0, 0.0, 2.0);
(555458.0, 3740925.0, 0.0, 2.0); (555558.0, 3740925.0,

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 ( 555658.0, 3740925.0,       0.0,       2.0);          ( 555758.0, 3740925.0,
0.0,       2.0);
 ( 555858.0, 3740925.0,       0.0,       2.0);          ( 555958.0, 3740925.0,
0.0,       2.0);
 ( 556058.0, 3740925.0,       0.0,       2.0);          ( 556158.0, 3740925.0,
0.0,       2.0);
 ( 556258.0, 3740925.0,       0.0,       2.0);          ( 556358.0, 3740925.0,
0.0,       2.0);
 ( 556458.0, 3740925.0,       0.0,       2.0);          ( 556558.0, 3740925.0,
0.0,       2.0);
 ( 551758.0, 3741025.0,       0.0,       2.0);          ( 551858.0, 3741025.0,
0.0,       2.0);
 ( 551958.0, 3741025.0,       0.0,       2.0);          ( 552058.0, 3741025.0,
0.0,       2.0);
 ( 552158.0, 3741025.0,       0.0,       2.0);          ( 552258.0, 3741025.0,
0.0,       2.0);
 ( 552358.0, 3741025.0,       0.0,       2.0);          ( 552458.0, 3741025.0,
0.0,       2.0);
 ( 552558.0, 3741025.0,       0.0,       2.0);          ( 552658.0, 3741025.0,
0.0,       2.0);
 ( 552758.0, 3741025.0,       0.0,       2.0);          ( 552858.0, 3741025.0,
0.0,       2.0);
 ( 552958.0, 3741025.0,       0.0,       2.0);          ( 553058.0, 3741025.0,
0.0,       2.0);
 ( 553158.0, 3741025.0,       0.0,       2.0);          ( 553258.0, 3741025.0,
0.0,       2.0);
 ( 555058.0, 3741025.0,       0.0,       2.0);          ( 555158.0, 3741025.0,
0.0,       2.0);
 ( 555258.0, 3741025.0,       0.0,       2.0);          ( 555358.0, 3741025.0,
0.0,       2.0);
 ( 555458.0, 3741025.0,       0.0,       2.0);          ( 555558.0, 3741025.0,
0.0,       2.0);
 ( 555658.0, 3741025.0,       0.0,       2.0);          ( 555758.0, 3741025.0,
0.0,       2.0);
 ( 555858.0, 3741025.0,       0.0,       2.0);          ( 555958.0, 3741025.0,
0.0,       2.0);
 ( 556058.0, 3741025.0,       0.0,       2.0);          ( 556158.0, 3741025.0,
0.0,       2.0);
 ( 556258.0, 3741025.0,       0.0,       2.0);          ( 556358.0, 3741025.0,
0.0,       2.0);
 ( 556458.0, 3741025.0,       0.0,       2.0);          ( 556558.0, 3741025.0,
0.0,       2.0);
 ( 551758.0, 3741125.0,       0.0,       2.0);          ( 551858.0, 3741125.0,
0.0,       2.0);
 ( 551958.0, 3741125.0,       0.0,       2.0);          ( 552058.0, 3741125.0,
0.0,       2.0);
 ( 552158.0, 3741125.0,       0.0,       2.0);          ( 552258.0, 3741125.0,
0.0,       2.0);
 ( 552358.0, 3741125.0,       0.0,       2.0);          ( 552458.0, 3741125.0,
0.0,       2.0);
 ( 552558.0, 3741125.0,       0.0,       2.0);          ( 552658.0, 3741125.0,
0.0,       2.0);
 ( 552758.0, 3741125.0,       0.0,       2.0);          ( 552858.0, 3741125.0,
0.0,       2.0);
 ( 552958.0, 3741125.0,       0.0,       2.0);          ( 553058.0, 3741125.0,
0.0,       2.0);
 ( 553158.0, 3741125.0,       0.0,       2.0);          ( 553258.0, 3741125.0,
0.0,       2.0);
 ( 555058.0, 3741125.0,       0.0,       2.0);          ( 555158.0, 3741125.0,
0.0,       2.0);
 ( 555258.0, 3741125.0,       0.0,       2.0);          ( 555358.0, 3741125.0,
0.0,       2.0);
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(551958.0, 3741225.0, 0.0, 2.0); (552058.0, 3741225.0, 0.0, 2.0);
(552158.0, 3741225.0, 0.0, 2.0); (552258.0, 3741225.0, 0.0, 2.0);
(552358.0, 3741225.0, 0.0, 2.0); (552458.0, 3741225.0, 0.0, 2.0);
♀ *** ISCST3 - VERSION 02035 *** *** Section 24 Specific Plan
*** 07/10/14
*** Particulates (PM2.5)
*** 16:14:44
**MODELOPTs:

CONC URBAN FLAT FLGPOL NOCALM
NOCMPL

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZFLAG)
(METERS)

(552558.0, 3741225.0, 0.0, 2.0); (552658.0, 3741225.0, 0.0, 2.0);
(552758.0, 3741225.0, 0.0, 2.0); (552858.0, 3741225.0, 0.0, 2.0);
(552958.0, 3741225.0, 0.0, 2.0); (553058.0, 3741225.0, 0.0, 2.0);
(553158.0, 3741225.0, 0.0, 2.0); (553258.0, 3741225.0, 0.0, 2.0);
(554958.0, 3741225.0, 0.0, 2.0); (555058.0, 3741225.0, 0.0, 2.0);
(555158.0, 3741225.0, 0.0, 2.0); (555258.0, 3741225.0, 0.0, 2.0);
(555358.0, 3741225.0, 0.0, 2.0); (555458.0, 3741225.0, 0.0, 2.0);
(555558.0, 3741225.0, 0.0, 2.0); (555658.0, 3741225.0, 0.0, 2.0);
(555758.0, 3741225.0, 0.0, 2.0); (555858.0, 3741225.0, 0.0, 2.0);
(555958.0, 3741225.0, 0.0, 2.0); (556058.0, 3741225.0, 0.0, 2.0);
(556158.0, 3741225.0, 0.0, 2.0); (556258.0, 3741225.0, 0.0, 2.0);
(556358.0, 3741225.0, 0.0, 2.0); (556458.0, 3741225.0, 0.0, 2.0);
(556558.0, 3741225.0, 0.0, 2.0); (551758.0, 3741325.0, 0.0, 2.0);
(551858.0, 3741325.0, 0.0, 2.0); (551958.0, 3741325.0, 0.0, 2.0);
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    0.0,       2.0);
     ( 552658.0, 3741325.0,       0.0,       2.0);          ( 552758.0, 3741325.0,
    0.0,       2.0);
     ( 552858.0, 3741325.0,       0.0,       2.0);          ( 552958.0, 3741325.0,
    0.0,       2.0);
     ( 553058.0, 3741325.0,       0.0,       2.0);          ( 553158.0, 3741325.0,
    0.0,       2.0);
     ( 553258.0, 3741325.0,       0.0,       2.0);          ( 554858.0, 3741325.0,
    0.0,       2.0);
     ( 554958.0, 3741325.0,       0.0,       2.0);          ( 555058.0, 3741325.0,
    0.0,       2.0);
     ( 555158.0, 3741325.0,       0.0,       2.0);          ( 555258.0, 3741325.0,
    0.0,       2.0);
     ( 555358.0, 3741325.0,       0.0,       2.0);          ( 555458.0, 3741325.0,
    0.0,       2.0);
     ( 555558.0, 3741325.0,       0.0,       2.0);          ( 555658.0, 3741325.0,
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     ( 555758.0, 3741325.0,       0.0,       2.0);          ( 555858.0, 3741325.0,
    0.0,       2.0);
     ( 555958.0, 3741325.0,       0.0,       2.0);          ( 556058.0, 3741325.0,
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     ( 556158.0, 3741325.0,       0.0,       2.0);          ( 556258.0, 3741325.0,
    0.0,       2.0);
     ( 556358.0, 3741325.0,       0.0,       2.0);          ( 556458.0, 3741325.0,
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     ( 556558.0, 3741325.0,       0.0,       2.0);          ( 551758.0, 3741425.0,
    0.0,       2.0);
     ( 551858.0, 3741425.0,       0.0,       2.0);          ( 551958.0, 3741425.0,
    0.0,       2.0);
     ( 552058.0, 3741425.0,       0.0,       2.0);          ( 552158.0, 3741425.0,
    0.0,       2.0);
     ( 552258.0, 3741425.0,       0.0,       2.0);          ( 552358.0, 3741425.0,
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     ( 552458.0, 3741425.0,       0.0,       2.0);          ( 552558.0, 3741425.0,
    0.0,       2.0);
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     ( 552858.0, 3741425.0,       0.0,       2.0);          ( 552958.0, 3741425.0,
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     ( 553058.0, 3741425.0,       0.0,       2.0);          ( 553158.0, 3741425.0,
    0.0,       2.0);
     ( 553258.0, 3741425.0,       0.0,       2.0);          ( 554758.0, 3741425.0,
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     ( 554858.0, 3741425.0,       0.0,       2.0);          ( 554958.0, 3741425.0,
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     ( 555258.0, 3741425.0,       0.0,       2.0);          ( 555358.0, 3741425.0,
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     ( 555458.0, 3741425.0,       0.0,       2.0);          ( 555558.0, 3741425.0,
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     ( 555658.0, 3741425.0,       0.0,       2.0);          ( 555758.0, 3741425.0,
    0.0,       2.0);
     ( 555858.0, 3741425.0,       0.0,       2.0);          ( 555958.0, 3741425.0,
    0.0,       2.0);
     ( 556058.0, 3741425.0,       0.0,       2.0);          ( 556158.0, 3741425.0,
    0.0,       2.0);
```

CONC URBAN FLAT FLGPOL NOCALM
NOCMPL

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZFLAG)
(METERS)

(556258.0, 3741425.0, 0.0, 2.0); (556358.0, 3741425.0, 0.0, 2.0);
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(551758.0, 3741525.0, 0.0, 2.0); (551858.0, 3741525.0, 0.0, 2.0);
(551958.0, 3741525.0, 0.0, 2.0); (552058.0, 3741525.0, 0.0, 2.0);
(552158.0, 3741525.0, 0.0, 2.0); (552258.0, 3741525.0, 0.0, 2.0);
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(552758.0, 3741525.0, 0.0, 2.0); (552858.0, 3741525.0, 0.0, 2.0);
(552958.0, 3741525.0, 0.0, 2.0); (553058.0, 3741525.0, 0.0, 2.0);
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    ( 553258.0, 3741625.0,       0.0,       2.0);          ( 554658.0, 3741625.0,
   0.0,       2.0);
    ( 554758.0, 3741625.0,       0.0,       2.0);          ( 554858.0, 3741625.0,
   0.0,       2.0);
    ( 554958.0, 3741625.0,       0.0,       2.0);          ( 555058.0, 3741625.0,
   0.0,       2.0);
    ( 555158.0, 3741625.0,       0.0,       2.0);          ( 555258.0, 3741625.0,
   0.0,       2.0);
    ( 555358.0, 3741625.0,       0.0,       2.0);          ( 555458.0, 3741625.0,
   0.0,       2.0);
    ( 555558.0, 3741625.0,       0.0,       2.0);          ( 555658.0, 3741625.0,
   0.0,       2.0);
    ( 555758.0, 3741625.0,       0.0,       2.0);          ( 555858.0, 3741625.0,
   0.0,       2.0);
    ( 555958.0, 3741625.0,       0.0,       2.0);          ( 556058.0, 3741625.0,
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    ( 556158.0, 3741625.0,       0.0,       2.0);          ( 556258.0, 3741625.0,
   0.0,       2.0);
    ( 556358.0, 3741625.0,       0.0,       2.0);          ( 556458.0, 3741625.0,
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    ( 556558.0, 3741625.0,       0.0,       2.0);          ( 551758.0, 3741725.0,
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    ( 551858.0, 3741725.0,       0.0,       2.0);          ( 551958.0, 3741725.0,
   0.0,       2.0);
    ( 552058.0, 3741725.0,       0.0,       2.0);          ( 552158.0, 3741725.0,
   0.0,       2.0);
    ( 552258.0, 3741725.0,       0.0,       2.0);          ( 552358.0, 3741725.0,
   0.0,       2.0);
    ( 552458.0, 3741725.0,       0.0,       2.0);          ( 552558.0, 3741725.0,
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    ( 552658.0, 3741725.0,       0.0,       2.0);          ( 552758.0, 3741725.0,
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    ( 552858.0, 3741725.0,       0.0,       2.0);          ( 552958.0, 3741725.0,
   0.0,       2.0);
    ( 553058.0, 3741725.0,       0.0,       2.0);          ( 553158.0, 3741725.0,
   0.0,       2.0);
♀ *** ISCST3 - VERSION 02035 ***    *** Section 24 Specific Plan
                        ***        07/10/14
                                   *** Particulates (PM2.5)
                       ***        16:14:44
**MODELOPTs:
                                  PAGE  24
CONC                    URBAN FLAT  FLGPOL                            NOCALM
                     NOCMPL


                                            *** DISCRETE CARTESIAN RECEPTORS ***
                                              (X-COORD, Y-COORD, ZELEV, ZFLAG)
                                                        (METERS)

    ( 553258.0, 3741725.0,       0.0,       2.0);          ( 554658.0, 3741725.0,
   0.0,       2.0);
    ( 554758.0, 3741725.0,       0.0,       2.0);          ( 554858.0, 3741725.0,
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    ( 554958.0, 3741725.0,       0.0,       2.0);          ( 555058.0, 3741725.0,
   0.0,       2.0);
    ( 555158.0, 3741725.0,       0.0,       2.0);          ( 555258.0, 3741725.0,
   0.0,       2.0);
    ( 555358.0, 3741725.0,       0.0,       2.0);          ( 555458.0, 3741725.0,
   0.0,       2.0);
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(555958.0, 3741725.0, 0.0, 2.0); (556058.0, 3741725.0, 0.0, 2.0);
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(552458.0, 3741825.0, 0.0, 2.0); (552558.0, 3741825.0, 0.0, 2.0);
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(553058.0, 3741825.0, 0.0, 2.0); (553158.0, 3741825.0, 0.0, 2.0);
(553258.0, 3741825.0, 0.0, 2.0); (554658.0, 3741825.0, 0.0, 2.0);
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(555358.0, 3741825.0, 0.0, 2.0); (555458.0, 3741825.0, 0.0, 2.0);
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(555758.0, 3741825.0, 0.0, 2.0); (555858.0, 3741825.0, 0.0, 2.0);
(555958.0, 3741825.0, 0.0, 2.0); (556058.0, 3741825.0, 0.0, 2.0);
(556158.0, 3741825.0, 0.0, 2.0); (556258.0, 3741825.0, 0.0, 2.0);
(556358.0, 3741825.0, 0.0, 2.0); (556458.0, 3741825.0, 0.0, 2.0);
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(551858.0, 3741925.0, 0.0, 2.0); (551958.0, 3741925.0, 0.0, 2.0);
(552058.0, 3741925.0, 0.0, 2.0); (552158.0, 3741925.0, 0.0, 2.0);
(552258.0, 3741925.0, 0.0, 2.0); (552358.0, 3741925.0, 0.0, 2.0);
(552458.0, 3741925.0, 0.0, 2.0); (552558.0, 3741925.0, 0.0, 2.0);
(552658.0, 3741925.0, 0.0, 2.0); (552758.0, 3741925.0, 0.0, 2.0);
(552858.0, 3741925.0, 0.0, 2.0); (552958.0, 3741925.0, 0.0, 2.0);
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(553258.0, 3741925.0, 0.0, 2.0); (554658.0, 3741925.0,

0.0, 2.0);
(554758.0, 3741925.0, 0.0, 2.0); (554858.0, 3741925.0, 0.0, 2.0);
(554958.0, 3741925.0, 0.0, 2.0); (555058.0, 3741925.0, 0.0, 2.0);
(555158.0, 3741925.0, 0.0, 2.0); (555258.0, 3741925.0, 0.0, 2.0);
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(555758.0, 3741925.0, 0.0, 2.0); (555858.0, 3741925.0, 0.0, 2.0);
(555958.0, 3741925.0, 0.0, 2.0); (556058.0, 3741925.0, 0.0, 2.0);
(556158.0, 3741925.0, 0.0, 2.0); (556258.0, 3741925.0, 0.0, 2.0);

♀ *** ISCST3 - VERSION 02035 *** *** Section 24 Specific Plan
*** 07/10/14
*** Particulates (PM2.5)
*** 16:14:44

**MODELOPTs:

CONC URBAN FLAT FLGPOL NOCALM
NOCMPL

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZFLAG)
(METERS)

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(551858.0, 3742025.0, 0.0, 2.0); (551958.0, 3742025.0, 0.0, 2.0);
(552058.0, 3742025.0, 0.0, 2.0); (552158.0, 3742025.0, 0.0, 2.0);
(552258.0, 3742025.0, 0.0, 2.0); (552358.0, 3742025.0, 0.0, 2.0);
(552458.0, 3742025.0, 0.0, 2.0); (552558.0, 3742025.0, 0.0, 2.0);
(554958.0, 3742025.0, 0.0, 2.0); (555058.0, 3742025.0, 0.0, 2.0);
(555158.0, 3742025.0, 0.0, 2.0); (555258.0, 3742025.0, 0.0, 2.0);
(555358.0, 3742025.0, 0.0, 2.0); (555458.0, 3742025.0, 0.0, 2.0);
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(555758.0, 3742025.0, 0.0, 2.0); (555858.0, 3742025.0, 0.0, 2.0);
(555958.0, 3742025.0, 0.0, 2.0); (556058.0, 3742025.0, 0.0, 2.0);
(556158.0, 3742025.0, 0.0, 2.0); (556258.0, 3742025.0, 0.0, 2.0);
(556358.0, 3742025.0, 0.0, 2.0); (556458.0, 3742025.0, 0.0, 2.0);
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(551858.0, 3742125.0, 0.0, 2.0); (551958.0, 3742125.0, 0.0, 2.0);

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   ( 552258.0, 3742125.0,       0.0,       2.0);          ( 552358.0, 3742125.0,
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   ( 552458.0, 3742125.0,       0.0,       2.0);          ( 552558.0, 3742125.0,
  0.0,       2.0);
   ( 554958.0, 3742125.0,       0.0,       2.0);          ( 555058.0, 3742125.0,
  0.0,       2.0);
   ( 555158.0, 3742125.0,       0.0,       2.0);          ( 555258.0, 3742125.0,
  0.0,       2.0);
   ( 555358.0, 3742125.0,       0.0,       2.0);          ( 555458.0, 3742125.0,
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   ( 555558.0, 3742125.0,       0.0,       2.0);          ( 555658.0, 3742125.0,
  0.0,       2.0);
   ( 555758.0, 3742125.0,       0.0,       2.0);          ( 555858.0, 3742125.0,
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   ( 555958.0, 3742125.0,       0.0,       2.0);          ( 556058.0, 3742125.0,
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   ( 556358.0, 3742125.0,       0.0,       2.0);          ( 556458.0, 3742125.0,
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   ( 551858.0, 3742225.0,       0.0,       2.0);          ( 551958.0, 3742225.0,
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   ( 552258.0, 3742225.0,       0.0,       2.0);          ( 552358.0, 3742225.0,
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   ( 552458.0, 3742225.0,       0.0,       2.0);          ( 552558.0, 3742225.0,
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   ( 554958.0, 3742225.0,       0.0,       2.0);          ( 555058.0, 3742225.0,
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   ( 555158.0, 3742225.0,       0.0,       2.0);          ( 555258.0, 3742225.0,
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   ( 555358.0, 3742225.0,       0.0,       2.0);          ( 555458.0, 3742225.0,
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   ( 555758.0, 3742225.0,       0.0,       2.0);          ( 555858.0, 3742225.0,
  0.0,       2.0);
   ( 555958.0, 3742225.0,       0.0,       2.0);          ( 556058.0, 3742225.0,
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   ( 556358.0, 3742225.0,       0.0,       2.0);          ( 556458.0, 3742225.0,
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   ( 556558.0, 3742225.0,       0.0,       2.0);          ( 551758.0, 3742325.0,
  0.0,       2.0);
   ( 551858.0, 3742325.0,       0.0,       2.0);          ( 551958.0, 3742325.0,
  0.0,       2.0);
   ( 552058.0, 3742325.0,       0.0,       2.0);          ( 552158.0, 3742325.0,
  0.0,       2.0);
   ( 552258.0, 3742325.0,       0.0,       2.0);          ( 552358.0, 3742325.0,
  0.0,       2.0);
   ( 552458.0, 3742325.0,       0.0,       2.0);          ( 552558.0, 3742325.0,
  0.0,       2.0);
♀ *** ISCST3 - VERSION 02035 ***    *** Section 24 Specific Plan
                          ***       07/10/14
                                    *** Particulates (PM2.5)
                         ***        16:14:44
**MODELOPTs:
```

CONC URBAN FLAT FLGPOL NOCALM
NOCMPL

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZFLAG)
(METERS)

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(555358.0, 3742325.0, 0.0, 2.0); (555458.0, 3742325.0, 0.0, 2.0);
(555558.0, 3742325.0, 0.0, 2.0); (555658.0, 3742325.0, 0.0, 2.0);
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(555958.0, 3742325.0, 0.0, 2.0); (556058.0, 3742325.0, 0.0, 2.0);
(556158.0, 3742325.0, 0.0, 2.0); (556258.0, 3742325.0, 0.0, 2.0);
(556358.0, 3742325.0, 0.0, 2.0); (556458.0, 3742325.0, 0.0, 2.0);
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(551858.0, 3742425.0, 0.0, 2.0); (551958.0, 3742425.0, 0.0, 2.0);
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(556358.0, 3742425.0, 0.0, 2.0); (556458.0, 3742425.0, 0.0, 2.0);
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(552058.0, 3742525.0, 0.0, 2.0); (552158.0, 3742525.0, 0.0, 2.0);
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(555358.0, 3742525.0, 0.0, 2.0); (555458.0, 3742525.0, 0.0, 2.0);
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(556358.0, 3742525.0, 0.0, 2.0); (556458.0, 3742525.0, 0.0, 2.0);
(556558.0, 3742525.0, 0.0, 2.0); (551758.0, 3742625.0, 0.0, 2.0);
(551858.0, 3742625.0, 0.0, 2.0); (551958.0, 3742625.0, 0.0, 2.0);
(552058.0, 3742625.0, 0.0, 2.0); (552158.0, 3742625.0, 0.0, 2.0);
(552258.0, 3742625.0, 0.0, 2.0); (552358.0, 3742625.0, 0.0, 2.0);
(552458.0, 3742625.0, 0.0, 2.0); (552558.0, 3742625.0, 0.0, 2.0);
(554958.0, 3742625.0, 0.0, 2.0); (555058.0, 3742625.0, 0.0, 2.0);
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(555358.0, 3742625.0, 0.0, 2.0); (555458.0, 3742625.0, 0.0, 2.0);
(555558.0, 3742625.0, 0.0, 2.0); (555658.0, 3742625.0, 0.0, 2.0);
(555758.0, 3742625.0, 0.0, 2.0); (555858.0, 3742625.0, 0.0, 2.0);
(555958.0, 3742625.0, 0.0, 2.0); (556058.0, 3742625.0, 0.0, 2.0);

♀ *** ISCST3 - VERSION 02035 *** *** Section 24 Specific Plan
*** 07/10/14
*** Particulates (PM2.5)
*** 16:14:44

**MODELOPTs:

CONC URBAN FLAT FLGPOL NOCALM
NOCMPL

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZFLAG)
(METERS)

(556158.0, 3742625.0, 0.0, 2.0); (556258.0, 3742625.0, 0.0, 2.0);
(556358.0, 3742625.0, 0.0, 2.0); (556458.0, 3742625.0, 0.0, 2.0);
(556558.0, 3742625.0, 0.0, 2.0); (551758.0, 3742725.0, 0.0, 2.0);
(551858.0, 3742725.0, 0.0, 2.0); (551958.0, 3742725.0, 0.0, 2.0);
(552058.0, 3742725.0, 0.0, 2.0); (552158.0, 3742725.0, 0.0, 2.0);
(552258.0, 3742725.0, 0.0, 2.0); (552358.0, 3742725.0, 0.0, 2.0);
(552458.0, 3742725.0, 0.0, 2.0); (552558.0, 3742725.0,

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 ( 554958.0, 3742725.0,       0.0,       2.0);          ( 555058.0, 3742725.0,
0.0,       2.0);
 ( 555158.0, 3742725.0,       0.0,       2.0);          ( 555258.0, 3742725.0,
0.0,       2.0);
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♀ *** ISCST3 - VERSION 02035 *** *** Section 24 Specific Plan
*** 07/10/14
*** Particulates (PM2.5)
*** 16:14:44
**MODELOPTs:

CONC URBAN FLAT FLGPOL NOCALM
NOCMPL

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZFLAG)
(METERS)

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♀ *** ISCST3 - VERSION 02035 ***    *** Section 24 Specific Plan
                          ***       07/10/14
                                    *** Particulates (PM2.5)
                          ***       16:14:44
**MODELOPTs:
                                    PAGE  29
CONC                     URBAN FLAT  FLGPOL                              NOCALM
                    NOCMPL
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*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZFLAG)
(METERS)

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♀ *** ISCST3 - VERSION 02035 *** *** Section 24 Specific Plan *** 07/10/14
*** Particulates (PM2.5) *** 16:14:44
**MODELOPTs: PAGE 30
CONC URBAN FLAT FLGPOL NOCALM NOCMPL

* SOURCE-RECEPTOR COMBINATIONS FOR WHICH CALCULATIONS MAY NOT BE PERFORMED *
LESS THAN 1.0 METER OR 3*ZLB IN DISTANCE, OR WITHIN OPEN PIT SOURCE

SOURCE ID	- - RECEPTOR LOCATION - - XR (METERS)	YR (METERS)	DISTANCE (METERS)
C159	554758.0	3741425.0	0.00

♀ *** ISCST3 - VERSION 02035 *** *** Section 24 Specific Plan *** 07/10/14
*** Particulates (PM2.5) *** 16:14:44
**MODELOPTs: PAGE 31
CONC URBAN FLAT FLGPOL NOCALM NOCMPL

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

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NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED

SECTION_24_PM2.5

CATEGORIES ***

(METERS/SEC)

1.54, 3.09, 5.14, 8.23,

10.80,

*** WIND PROFILE EXPONENTS ***

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	6
A	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
B	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
C	.20000E+00	.20000E+00	.20000E+00	.20000E+00	.20000E+00	.20000E+00
D	.25000E+00	.25000E+00	.25000E+00	.25000E+00	.25000E+00	.25000E+00
E	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00
F	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00

*** VERTICAL POTENTIAL TEMPERATURE GRADIENTS ***

(DEGREES KELVIN PER METER)

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	6
A	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
B	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
C	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
D	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
E	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01
F	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01

♀ *** ISCST3 - VERSION 02035 *** *** Section 24 Specific Plan ***
07/10/14
*** Particulates (PM2.5)
***
16:14:44

**MODELOPTs:

PAGE 32

CONC URBAN FLAT FLGPOL NOCALM NOCMPL

*** THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

FILE: iscst3-palm-springs.asc

FORMAT: (4I2,2F9.4,F6.1,I2,2F7.1,f9.4,f10.1,f8.4,i4,f7.2)

SECTION_24_PM2.5

SURFACE STATION NO.: 54145 NAME: UNKNOWN YEAR: 1981

UPPER AIR STATION NO.: 99999 NAME: , YEAR: 1981

YR	MN	DY	HR	FLOW VECTOR	SPEED (M/S)	TEMP (K)	STAB CLASS	MIXING HEIGHT (M) RURAL	MIXING HEIGHT (M) URBAN	USTAR (M/S)	M-O LENGTH (M)	Z-0 (M)	IPCODE	PRATE (mm/HR)
81	01	01	01	134.8	1.79	284.3	6	522.6	170.0	0.0000	0.0	0.0000	0	0.00
81	01	01	02	147.4	1.00	284.3	7	507.0	170.0	0.0000	0.0	0.0000	0	0.00
81	01	01	03	152.5	1.34	283.1	7	491.4	170.0	0.0000	0.0	0.0000	0	0.00
81	01	01	04	143.5	1.34	283.1	7	475.8	170.0	0.0000	0.0	0.0000	0	0.00
81	01	01	05	129.0	0.00	282.6	7	460.3	170.0	0.0000	0.0	0.0000	0	0.00
81	01	01	06	139.5	1.34	283.1	7	444.7	170.0	0.0000	0.0	0.0000	0	0.00
81	01	01	07	139.5	1.79	285.4	6	1.4	170.7	0.0000	0.0	0.0000	0	0.00
81	01	01	08	134.6	0.00	287.6	5	47.0	192.0	0.0000	0.0	0.0000	0	0.00
81	01	01	09	164.0	1.00	289.8	4	92.5	213.3	0.0000	0.0	0.0000	0	0.00
81	01	01	10	144.1	1.34	291.5	3	138.0	234.7	0.0000	0.0	0.0000	0	0.00
81	01	01	11	336.6	1.00	294.3	2	183.5	256.0	0.0000	0.0	0.0000	0	0.00
81	01	01	12	260.6	1.00	297.6	2	229.0	277.3	0.0000	0.0	0.0000	0	0.00
81	01	01	13	334.7	1.34	298.7	2	274.5	298.7	0.0000	0.0	0.0000	0	0.00
81	01	01	14	304.2	2.24	299.8	3	320.0	320.0	0.0000	0.0	0.0000	0	0.00
81	01	01	15	314.8	2.24	299.3	3	320.0	320.0	0.0000	0.0	0.0000	0	0.00
81	01	01	16	323.2	0.00	298.7	3	320.0	320.0	0.0000	0.0	0.0000	0	0.00
81	01	01	17	65.1	1.00	295.4	4	325.6	325.6	0.0000	0.0	0.0000	0	0.00
81	01	01	18	120.1	1.00	291.5	5	357.2	310.3	0.0000	0.0	0.0000	0	0.00
81	01	01	19	133.0	1.34	289.8	6	388.8	302.1	0.0000	0.0	0.0000	0	0.00
81	01	01	20	145.7	1.79	287.0	6	420.4	293.9	0.0000	0.0	0.0000	0	0.00
81	01	01	21	133.6	0.00	286.5	7	452.0	285.7	0.0000	0.0	0.0000	0	0.00
81	01	01	22	159.5	1.34	287.0	7	483.5	277.4	0.0000	0.0	0.0000	0	0.00
81	01	01	23	135.7	1.79	285.9	6	515.1	269.2	0.0000	0.0	0.0000	0	0.00
81	01	01	24	157.2	1.79	285.4	6	546.7	261.0	0.0000	0.0	0.0000	0	0.00

*** NOTES: STABILITY CLASS 1=A, 2=B, 3=C, 4=D, 5=E AND 6=F.
FLOW VECTOR IS DIRECTION TOWARD WHICH WIND IS BLOWING.
♀ *** ISCST3 - VERSION 02035 *** *** Section 24 Specific Plan
*** 07/10/14
*** Particulates (PM2.5)
*** 16:14:44
**MODELOPTs:

CONC URBAN FLAT FLGPOL NOCALM
NOCMPL

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L_SCAPE , C1 , C2 , C3 , C4 , C5 , C6 , C7 , C8 , C9 , C10 , C11 , C12 , C13 , C14 , C15 , C16 , C17 , C18 , C19 , C20 , C21 , C22 , C23 , C24 , C25 , C26 , C27 , C28 , C29 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
551758.00	3738725.00	0.00845	(81113024)	551858.00	3738725.00	0.00915	(81113024)
551958.00	3738725.00	0.00981	(81113024)	552058.00	3738725.00	0.01040	(81113024)
552158.00	3738725.00	0.01090	(81113024)	552258.00	3738725.00	0.01126	(81113024)
552358.00	3738725.00	0.01145	(81113024)	552458.00	3738725.00	0.01168	(81110224)
552558.00	3738725.00	0.01263	(81110224)	552658.00	3738725.00	0.01330	(81110224)
552758.00	3738725.00	0.01373	(81110224)	552858.00	3738725.00	0.01403	(81110224)
552958.00	3738725.00	0.01433	(81110224)	553058.00	3738725.00	0.01467	(81110224)
553158.00	3738725.00	0.01501	(81110224)	553258.00	3738725.00	0.01528	(81110224)
553358.00	3738725.00	0.01549	(81110224)	553458.00	3738725.00	0.01605	(81021624)
553558.00	3738725.00	0.01696	(81021624)	553658.00	3738725.00	0.01798	(81021624)
553758.00	3738725.00	0.01925	(81021624)	553858.00	3738725.00	0.02077	(81021624)
553958.00	3738725.00	0.02285	(81112224)	554058.00	3738725.00	0.02482	(81112224)
554158.00	3738725.00	0.02626	(81112224)	554258.00	3738725.00	0.02735	(81021624)
554358.00	3738725.00	0.02833	(81021624)	554458.00	3738725.00	0.02940	(81011324)
554558.00	3738725.00	0.03077	(81011324)	554658.00	3738725.00	0.03203	(81011324)
554758.00	3738725.00	0.03316	(81011324)	554858.00	3738725.00	0.03429	(81111024)
554958.00	3738725.00	0.03533	(81111024)	555058.00			

3738725.00 0.03607 (81120924)
555158.00 3738725.00 0.03728 (81111624) 555258.00
3738725.00 0.03767 (81111624)
555358.00 3738725.00 0.03704 (81111624) 555458.00
3738725.00 0.03872 (81011424)
555558.00 3738725.00 0.04061 (81011424) 555658.00
3738725.00 0.04176 (81011424)
555758.00 3738725.00 0.04202 (81011424) 555858.00
3738725.00 0.04144 (81011424)
555958.00 3738725.00 0.04021 (81011424) 556058.00
3738725.00 0.03859 (81011424)
556158.00 3738725.00 0.03679 (81011424) 556258.00
3738725.00 0.03599 (81121824)
556358.00 3738725.00 0.03602 (81121824) 556458.00
3738725.00 0.03555 (81121824)
556558.00 3738725.00 0.03457 (81121824) 551758.00
3738825.00 0.00818 (81113024)
551858.00 3738825.00 0.00895 (81113024) 551958.00
3738825.00 0.00970 (81113024)
552058.00 3738825.00 0.01040 (81113024) 552158.00
3738825.00 0.01102 (81113024)
552258.00 3738825.00 0.01152 (81113024) 552358.00
3738825.00 0.01186 (81113024)
552458.00 3738825.00 0.01201 (81113024) 552558.00
3738825.00 0.01261 (81110224)
552658.00 3738825.00 0.01350 (81110224) 552758.00
3738825.00 0.01410 (81110224)
552858.00 3738825.00 0.01452 (81110224) 552958.00
3738825.00 0.01490 (81110224)
553058.00 3738825.00 0.01532 (81110224) 553158.00
3738825.00 0.01575 (81110224)
553258.00 3738825.00 0.01613 (81110224) 553358.00
3738825.00 0.01645 (81110224)
553458.00 3738825.00 0.01674 (81021624) 553558.00
3738825.00 0.01779 (81021624)
553658.00 3738825.00 0.01900 (81021624) 553758.00
3738825.00 0.02050 (81021624)
553858.00 3738825.00 0.02228 (81021624) 553958.00
3738825.00 0.02422 (81021624)
554058.00 3738825.00 0.02615 (81021624) 554158.00
3738825.00 0.02789 (81021624)
554258.00 3738825.00 0.02931 (81021624) 554358.00
3738825.00 0.03027 (81021624)
554458.00 3738825.00 0.03114 (81011324) 554558.00
3738825.00 0.03270 (81011324)
554658.00 3738825.00 0.03416 (81011324) 554758.00
3738825.00 0.03545 (81011324)

♀ *** ISCST3 - VERSION 02035 *** *** Section 24 Specific Plan
*** 07/10/14
*** Particulates (PM2.5)
*** 16:14:44

**MODELOPTs:

CONC URBAN FLAT FLGPOL NOCALM
NOCMPL

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L_SCAPE , C1 , C2 , C3 , C4 , C5 , C6 , C7 , C8 , C9 , C10 , C11 , C12 , C13 , C14 , C15 , C16 , C17 , C18 , C19 , C20 , C21 , C22 , C23 , C24 , C25 , C26

, C27 , C28 , C29 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
554858.00	3738825.00	0.03650	(81111024)	554958.00	3738825.00	0.03754	(81111024)
555058.00	3738825.00	0.03864	(81111624)	555158.00	3738825.00	0.03976	(81111624)
555258.00	3738825.00	0.03980	(81111624)	555358.00	3738825.00	0.03981	(81011424)
555458.00	3738825.00	0.04213	(81011424)	555558.00	3738825.00	0.04377	(81011424)
555658.00	3738825.00	0.04450	(81011424)	555758.00	3738825.00	0.04425	(81011424)
555858.00	3738825.00	0.04315	(81011424)	555958.00	3738825.00	0.04147	(81011424)
556058.00	3738825.00	0.03948	(81011424)	556158.00	3738825.00	0.03780	(81121824)
556258.00	3738825.00	0.03783	(81121824)	556358.00	3738825.00	0.03733	(81121824)
556458.00	3738825.00	0.03630	(81121824)	556558.00	3738825.00	0.03479	(81121824)
551758.00	3738925.00	0.00783	(81113024)	551858.00	3738925.00	0.00866	(81113024)
551958.00	3738925.00	0.00949	(81113024)	552058.00	3738925.00	0.01030	(81113024)
552158.00	3738925.00	0.01105	(81113024)	552258.00	3738925.00	0.01169	(81113024)
552358.00	3738925.00	0.01220	(81113024)	552458.00	3738925.00	0.01251	(81113024)
552558.00	3738925.00	0.01260	(81113024)	552658.00	3738925.00	0.01359	(81110224)
552758.00	3738925.00	0.01441	(81110224)	552858.00	3738925.00	0.01499	(81110224)
552958.00	3738925.00	0.01547	(81110224)	553058.00	3738925.00	0.01597	(81110224)
553158.00	3738925.00	0.01651	(81110224)	553258.00	3738925.00	0.01701	(81110224)
553358.00	3738925.00	0.01745	(81110224)	553458.00	3738925.00	0.01778	(81110224)
553558.00	3738925.00	0.01869	(81021624)	553658.00	3738925.00	0.02012	(81021624)
553758.00	3738925.00	0.02190	(81021624)	553858.00	3738925.00	0.02398	(81021624)
553958.00	3738925.00	0.02618	(81021624)	554058.00	3738925.00	0.02827	(81021624)
554158.00	3738925.00	0.03006	(81021624)	554258.00	3738925.00	0.03146	(81021624)
554358.00	3738925.00	0.03238	(81021624)	554458.00	3738925.00	0.03317	(81011324)
554558.00	3738925.00	0.03496	(81011324)	554658.00	3738925.00	0.03662	(81011324)
554758.00	3738925.00	0.03805	(81011324)	554858.00	3738925.00	0.03910	(81011324)
554958.00	3738925.00	0.03994	(81111024)	555058.00			

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3738925.00        0.04147  (81111624)
       555158.00   3738925.00        0.04232  (81111624)                555258.00
3738925.00        0.04196  (81111624)
       555358.00   3738925.00        0.04358  (81011424)                555458.00
3738925.00        0.04571  (81011424)
       555558.00   3738925.00        0.04698  (81011424)                555658.00
3738925.00        0.04717  (81011424)
       555758.00   3738925.00        0.04632  (81011424)                555858.00
3738925.00        0.04465  (81011424)
       555958.00   3738925.00        0.04250  (81011424)                556058.00
3738925.00        0.04013  (81011424)
       556158.00   3738925.00        0.03981  (81121824)                556258.00
3738925.00        0.03929  (81121824)
       556358.00   3738925.00        0.03819  (81121824)                556458.00
3738925.00        0.03657  (81121824)
       556558.00   3738925.00        0.03452  (81121824)                551758.00
3739025.00        0.00741  (81113024)
       551858.00   3739025.00        0.00828  (81113024)                551958.00
3739025.00        0.00919  (81113024)
       552058.00   3739025.00        0.01010  (81113024)                552158.00
3739025.00        0.01097  (81113024)
       552258.00   3739025.00        0.01176  (81113024)                552358.00
3739025.00        0.01243  (81113024)
       552458.00   3739025.00        0.01292  (81113024)                552558.00
3739025.00        0.01320  (81113024)
       552658.00   3739025.00        0.01357  (81110224)                552758.00
3739025.00        0.01465  (81110224)
       552858.00   3739025.00        0.01542  (81110224)                552958.00
3739025.00        0.01604  (81110224)
♀ *** ISCST3 - VERSION 02035 ***    *** Section 24 Specific Plan
                          ***        07/10/14
                                     *** Particulates (PM2.5)
                       ***          16:14:44
**MODELOPTs:
                                    PAGE  35
CONC                    URBAN FLAT  FLGPOL                                NOCALM
                      NOCMPL

                                *** THE   1ST HIGHEST 24-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL       ***
                                   INCLUDING SOURCE(S):      L_SCAPE , C1      , C2
  , C3      , C4      , C5      , C6      ,
        C7      , C8      , C9      , C10     , C11     , C12     , C13     , C14
  , C15     , C16     , C17     , C18     ,
        C19     , C20     , C21     , C22     , C23     , C24     , C25     , C26
  , C27     , C28     , C29     ,  . . .  ,

                                              *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                           ** CONC OF OTHER    IN MICROGRAMS/M**3
                  **

     X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -
       553058.00   3739025.00        0.01664  (81110224)                553158.00
3739025.00        0.01729  (81110224)
       553258.00   3739025.00        0.01792  (81110224)                553358.00
3739025.00        0.01849  (81110224)
       553458.00   3739025.00        0.01895  (81110224)                553558.00
3739025.00        0.01967  (81021624)
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       553658.00   3739025.00        0.02135  (81021624)              553758.00
3739025.00         0.02346  (81021624)
       553858.00   3739025.00        0.02589  (81021624)              553958.00
3739025.00         0.02838  (81021624)
       554058.00   3739025.00        0.03064  (81021624)              554158.00
3739025.00         0.03248  (81021624)
       554258.00   3739025.00        0.03383  (81021624)              554358.00
3739025.00         0.03467  (81021624)
       554458.00   3739025.00        0.03556  (81011324)              554558.00
3739025.00         0.03759  (81011324)
       554658.00   3739025.00        0.03942  (81011324)              554758.00
3739025.00         0.04095  (81011324)
       554858.00   3739025.00        0.04201  (81011324)              554958.00
3739025.00         0.04285  (81111624)
       555058.00   3739025.00        0.04447  (81111624)              555158.00
3739025.00         0.04497  (81111624)
       555258.00   3739025.00        0.04501  (81011424)              555358.00
3739025.00         0.04760  (81011424)
       555458.00   3739025.00        0.04942  (81011424)              555558.00
3739025.00         0.05017  (81011424)
       555658.00   3739025.00        0.04969  (81011424)              555758.00
3739025.00         0.04816  (81011424)
       555858.00   3739025.00        0.04589  (81011424)              555958.00
3739025.00         0.04326  (81011424)
       556058.00   3739025.00        0.04201  (81121824)              556158.00
3739025.00         0.04144  (81121824)
       556258.00   3739025.00        0.04026  (81121824)              556358.00
3739025.00         0.03852  (81121824)
       556458.00   3739025.00        0.03630  (81121824)              556558.00
3739025.00         0.03374  (81121824)
       551758.00   3739125.00        0.00692  (81113024)              551858.00
3739125.00         0.00783  (81113024)
       551958.00   3739125.00        0.00879  (81113024)              552058.00
3739125.00         0.00979  (81113024)
       552158.00   3739125.00        0.01077  (81113024)              552258.00
3739125.00         0.01171  (81113024)
       552358.00   3739125.00        0.01254  (81113024)              552458.00
3739125.00         0.01323  (81113024)
       552558.00   3739125.00        0.01371  (81113024)              552658.00
3739125.00         0.01394  (81113024)
       552758.00   3739125.00        0.01476  (81110224)              552858.00
3739125.00         0.01580  (81110224)
       552958.00   3739125.00        0.01659  (81110224)              553058.00
3739125.00         0.01732  (81110224)
       553158.00   3739125.00        0.01809  (81110224)              553258.00
3739125.00         0.01887  (81110224)
       553358.00   3739125.00        0.01959  (81110224)              553458.00
3739125.00         0.02019  (81110224)
       553558.00   3739125.00        0.02076  (81021624)              553658.00
3739125.00         0.02274  (81021624)
       553758.00   3739125.00        0.02522  (81021624)              553858.00
3739125.00         0.02804  (81021624)
       553958.00   3739125.00        0.03085  (81021624)              554058.00
3739125.00         0.03328  (81021624)
       554158.00   3739125.00        0.03516  (81021624)              554258.00
3739125.00         0.03645  (81021624)
       554358.00   3739125.00        0.03719  (81021624)              554458.00
3739125.00         0.03837  (81011324)
       554558.00   3739125.00        0.04060  (81011324)              554658.00
3739125.00         0.04258  (81011324)
       554758.00   3739125.00        0.04418  (81011324)              554858.00
3739125.00         0.04521  (81011324)
       554958.00   3739125.00        0.04624  (81111624)              555058.00
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3739125.00 0.04761 (81111624)
555158.00 3739125.00 0.04769 (81111624) 555258.00
3739125.00 0.04947 (81011424)
555358.00 3739125.00 0.05182 (81011424) 555458.00
3739125.00 0.05318 (81011424)
555558.00 3739125.00 0.05324 (81011424) 555658.00
3739125.00 0.05198 (81011424)
555758.00 3739125.00 0.04970 (81011424) 555858.00
3739125.00 0.04682 (81011424)
555958.00 3739125.00 0.04448 (81121824) 556058.00
3739125.00 0.04382 (81121824)
♀ *** ISCST3 - VERSION 02035 *** *** Section 24 Specific Plan
*** 07/10/14
*** Particulates (PM2.5)
*** 16:14:44
**MODELOPTs:
PAGE 36
CONC URBAN FLAT FLGPOL NOCALM
NOCMPL

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L_SCAPE , C1 , C2
, C3 , C4 , C5 , C6 ,
C7 , C8 , C9 , C10 , C11 , C12 , C13 , C14
, C15 , C16 , C17 , C18 ,
C19 , C20 , C21 , C22 , C23 , C24 , C25 , C26
, C27 , C28 , C29 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS
***

** CONC OF OTHER IN MICROGRAMS/M**3
**

X-COORD (M) Y-COORD (M) CONC (YYMMDDHH) X-COORD (M)
Y-COORD (M) CONC (YYMMDDHH)
- -
556158.00 3739125.00 0.04255 (81121824) 556258.00
3739125.00 0.04067 (81121824)
556358.00 3739125.00 0.03828 (81121824) 556458.00
3739125.00 0.03550 (81121824)
556558.00 3739125.00 0.03374 (81101624) 551758.00
3739225.00 0.00639 (81113024)
551858.00 3739225.00 0.00731 (81113024) 551958.00
3739225.00 0.00830 (81113024)
552058.00 3739225.00 0.00936 (81113024) 552158.00
3739225.00 0.01045 (81113024)
552258.00 3739225.00 0.01152 (81113024) 552358.00
3739225.00 0.01253 (81113024)
552458.00 3739225.00 0.01341 (81113024) 552558.00
3739225.00 0.01411 (81113024)
552658.00 3739225.00 0.01457 (81113024) 552758.00
3739225.00 0.01475 (81113024)
552858.00 3739225.00 0.01608 (81110224) 552958.00
3739225.00 0.01711 (81110224)
553058.00 3739225.00 0.01800 (81110224) 553158.00
3739225.00 0.01892 (81110224)
553258.00 3739225.00 0.01986 (81110224) 553358.00
3739225.00 0.02076 (81110224)
553458.00 3739225.00 0.02151 (81110224) 553558.00
3739225.00 0.02199 (81021624)

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       553658.00   3739225.00         0.02433  (81021624)                553758.00
3739225.00         0.02725  (81021624)
       553858.00   3739225.00         0.03049  (81021624)                553958.00
3739225.00         0.03361  (81021624)
       554058.00   3739225.00         0.03623  (81021624)                554158.00
3739225.00         0.03815  (81021624)
       554258.00   3739225.00         0.03938  (81021624)                554358.00
3739225.00         0.04003  (81021624)
       554458.00   3739225.00         0.04163  (81011324)                554558.00
3739225.00         0.04404  (81011324)
       554658.00   3739225.00         0.04612  (81011324)                554758.00
3739225.00         0.04775  (81011324)
       554858.00   3739225.00         0.04870  (81011324)                554958.00
3739225.00         0.04986  (81111624)
       555058.00   3739225.00         0.05090  (81111624)                555158.00
3739225.00         0.05138  (81011424)
       555258.00   3739225.00         0.05420  (81011424)                555358.00
3739225.00         0.05618  (81011424)
       555458.00   3739225.00         0.05689  (81011424)                555558.00
3739225.00         0.05609  (81011424)
       555658.00   3739225.00         0.05393  (81011424)                555758.00
3739225.00         0.05087  (81011424)
       555858.00   3739225.00         0.04736  (81011424)                555958.00
3739225.00         0.04651  (81121824)
       556058.00   3739225.00         0.04511  (81121824)                556158.00
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       556258.00   3739225.00         0.04046  (81121824)                556358.00
3739225.00         0.03745  (81121824)
       556458.00   3739225.00         0.03582  (81101624)                556558.00
3739225.00         0.03519  (81101624)
       551758.00   3739325.00         0.00583  (81113024)                551858.00
3739325.00         0.00674  (81113024)
       551958.00   3739325.00         0.00774  (81113024)                552058.00
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       552158.00   3739325.00         0.01000  (81113024)                552258.00
3739325.00         0.01119  (81113024)
       552358.00   3739325.00         0.01236  (81113024)                552458.00
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       552558.00   3739325.00         0.01437  (81113024)                552658.00
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       552758.00   3739325.00         0.01552  (81113024)                552858.00
3739325.00         0.01623  (81110224)
       552958.00   3739325.00         0.01757  (81110224)                553058.00
3739325.00         0.01868  (81110224)
       553158.00   3739325.00         0.01977  (81110224)                553258.00
3739325.00         0.02090  (81110224)
       553358.00   3739325.00         0.02200  (81110224)                553458.00
3739325.00         0.02294  (81110224)
       553558.00   3739325.00         0.02342  (81110224)                553658.00
3739325.00         0.02616  (81021624)
       553758.00   3739325.00         0.02959  (81021624)                553858.00
3739325.00         0.03328  (81021624)
       553958.00   3739325.00         0.03672  (81021624)                554058.00
3739325.00         0.03950  (81021624)
       554158.00   3739325.00         0.04148  (81021624)                554258.00
3739325.00         0.04267  (81021624)
♀ *** ISCST3 - VERSION 02035 ***    *** Section 24 Specific Plan
                        ***          07/10/14
                                     *** Particulates (PM2.5)
                       ***          16:14:44
**MODELOPTs:
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CONC                    URBAN FLAT  FLGPOL                                NOCALM
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NOCMPL

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L_SCAPE , C1 , C2 , C3 , C4 , C5 , C6 , C7 , C8 , C9 , C10 , C11 , C12 , C13 , C14 , C15 , C16 , C17 , C18 , C19 , C20 , C21 , C22 , C23 , C24 , C25 , C26 , C27 , C28 , C29 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
554358.00	3739325.00	0.04325	(81021624)	554458.00	3739325.00	0.04539	(81011324)
554558.00	3739325.00	0.04793	(81011324)	554658.00	3739325.00	0.05007	(81011324)
554758.00	3739325.00	0.05168	(81011324)	554858.00	3739325.00	0.05251	(81011324)
554958.00	3739325.00	0.05414	(81121524)	555058.00	3739325.00	0.05457	(81121524)
555158.00	3739325.00	0.05664	(81011424)	555258.00	3739325.00	0.05917	(81011424)
555358.00	3739325.00	0.06060	(81011424)	555458.00	3739325.00	0.06044	(81011424)
555558.00	3739325.00	0.05861	(81011424)	555658.00	3739325.00	0.05547	(81011424)
555758.00	3739325.00	0.05159	(81011424)	555858.00	3739325.00	0.04957	(81121824)
555958.00	3739325.00	0.04799	(81121824)	556058.00	3739325.00	0.04575	(81121824)
556158.00	3739325.00	0.04291	(81121824)	556258.00	3739325.00	0.03961	(81121824)
556358.00	3739325.00	0.03810	(81101624)	556458.00	3739325.00	0.03726	(81101624)
556558.00	3739325.00	0.03607	(81101624)	551758.00	3739425.00	0.00525	(81113024)
551858.00	3739425.00	0.00613	(81113024)	551958.00	3739425.00	0.00713	(81113024)
552058.00	3739425.00	0.00823	(81113024)	552158.00	3739425.00	0.00944	(81113024)
552258.00	3739425.00	0.01072	(81113024)	552358.00	3739425.00	0.01203	(81113024)
552458.00	3739425.00	0.01331	(81113024)	552558.00	3739425.00	0.01448	(81113024)
552658.00	3739425.00	0.01546	(81113024)	552758.00	3739425.00	0.01618	(81113024)
552858.00	3739425.00	0.01660	(81113024)	552958.00	3739425.00	0.01793	(81110224)
553058.00	3739425.00	0.01934	(81110224)	553158.00	3739425.00	0.02065	(81110224)
553258.00	3739425.00	0.02201	(81110224)	553358.00	3739425.00	0.02335	(81110224)
553458.00	3739425.00	0.02450	(81110224)	553558.00	3739425.00	0.02509	(81110224)

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       553658.00   3739425.00        0.02832  (81021624)                553758.00
3739425.00         0.03233  (81021624)
       553858.00   3739425.00        0.03649  (81021624)                553958.00
3739425.00         0.04021  (81021624)
       554058.00   3739425.00        0.04316  (81021624)                554158.00
3739425.00         0.04522  (81021624)
       554258.00   3739425.00        0.04644  (81021624)                554358.00
3739425.00         0.04699  (81021624)
       554458.00   3739425.00        0.04968  (81011324)                554558.00
3739425.00         0.05231  (81011324)
       554658.00   3739425.00        0.05447  (81011324)                554758.00
3739425.00         0.05603  (81011324)
       554858.00   3739425.00        0.05772  (81121524)                554958.00
3739425.00         0.05919  (81121524)
       555058.00   3739425.00        0.05992  (81121824)                555158.00
3739425.00         0.06224  (81011424)
       555258.00   3739425.00        0.06434  (81011424)                555358.00
3739425.00         0.06498  (81011424)
       555458.00   3739425.00        0.06370  (81011424)                555558.00
3739425.00         0.06067  (81011424)
       555658.00   3739425.00        0.05648  (81011424)                555758.00
3739425.00         0.05314  (81121824)
       555858.00   3739425.00        0.05130  (81121824)                555958.00
3739425.00         0.04879  (81121824)
       556058.00   3739425.00        0.04566  (81121824)                556158.00
3739425.00         0.04204  (81121824)
       556258.00   3739425.00        0.04058  (81101624)                556358.00
3739425.00         0.03948  (81101624)
       556458.00   3739425.00        0.03803  (81101624)                556558.00
3739425.00         0.03630  (81101624)
       551758.00   3739525.00        0.00575  (81011124)                551858.00
3739525.00         0.00551  (81113024)
       551958.00   3739525.00        0.00648  (81113024)                552058.00
3739525.00         0.00757  (81113024)
       552158.00   3739525.00        0.00879  (81113024)                552258.00
3739525.00         0.01012  (81113024)
       552358.00   3739525.00        0.01154  (81113024)                552458.00
3739525.00         0.01298  (81113024)
♀ *** ISCST3 - VERSION 02035 ***    *** Section 24 Specific Plan
                        ***          07/10/14
                                     *** Particulates (PM2.5)
                       ***          16:14:44
**MODELOPTs:
                                    PAGE  38
CONC                     URBAN FLAT  FLGPOL                                NOCALM
                       NOCMPL

                                *** THE   1ST HIGHEST 24-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL       ***
                                    INCLUDING SOURCE(S):      L_SCAPE , C1      , C2
  , C3      , C4      , C5      , C6      ,
        C7      , C8      , C9      , C10     , C11     , C12     , C13     , C14
  , C15     , C16     , C17     , C18     ,
        C19     , C20     , C21     , C22     , C23     , C24     , C25     , C26
  , C27     , C28     , C29     ,  . . .  ,

                                                *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                             ** CONC OF OTHER    IN MICROGRAMS/M**3
                    **

     X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
```

Y-COORD (M)	CONC	(YYMMDDHH)		
552558.00	3739525.00	0.01438	(81113024)	552658.00
3739525.00	0.01565	(81113024)		
552758.00	3739525.00	0.01670	(81113024)	552858.00
3739525.00	0.01745	(81113024)		
552958.00	3739525.00	0.01813	(81110224)	553058.00
3739525.00	0.01995	(81110224)		
553158.00	3739525.00	0.02155	(81110224)	553258.00
3739525.00	0.02318	(81110224)		
553358.00	3739525.00	0.02482	(81110224)	553458.00
3739525.00	0.02622	(81110224)		
553558.00	3739525.00	0.02694	(81110224)	553658.00
3739525.00	0.03092	(81021624)		
553758.00	3739525.00	0.03558	(81021624)	553858.00
3739525.00	0.04019	(81021624)		
553958.00	3739525.00	0.04418	(81021624)	554058.00
3739525.00	0.04729	(81021624)		
554158.00	3739525.00	0.04948	(81021624)	554258.00
3739525.00	0.05079	(81021624)		
554358.00	3739525.00	0.05145	(81011324)	554458.00
3739525.00	0.05456	(81011324)		
554558.00	3739525.00	0.05723	(81011324)	554658.00
3739525.00	0.05940	(81011324)		
554758.00	3739525.00	0.06126	(81121524)	554858.00
3739525.00	0.06357	(81121524)		
554958.00	3739525.00	0.06471	(81121524)	555058.00
3739525.00	0.06676	(81121824)		
555158.00	3739525.00	0.06818	(81121824)	555258.00
3739525.00	0.06965	(81011424)		
555358.00	3739525.00	0.06919	(81011424)	555458.00
3739525.00	0.06652	(81011424)		
555558.00	3739525.00	0.06214	(81011424)	555658.00
3739525.00	0.05741	(81121824)		
555758.00	3739525.00	0.05514	(81121824)	555858.00
3739525.00	0.05228	(81121824)		
555958.00	3739525.00	0.04879	(81121824)	556058.00
3739525.00	0.04478	(81121824)		
556158.00	3739525.00	0.04328	(81101624)	556258.00
3739525.00	0.04187	(81101624)		
556358.00	3739525.00	0.04011	(81101624)	556458.00
3739525.00	0.03807	(81101624)		
556558.00	3739525.00	0.03580	(81101624)	551758.00
3739625.00	0.00672	(81011124)		
551858.00	3739625.00	0.00656	(81011124)	551958.00
3739625.00	0.00634	(81011124)		
552058.00	3739625.00	0.00687	(81113024)	552158.00
3739625.00	0.00808	(81113024)		
552258.00	3739625.00	0.00943	(81113024)	552358.00
3739625.00	0.01090	(81113024)		
552458.00	3739625.00	0.01247	(81113024)	552558.00
3739625.00	0.01407	(81113024)		
552658.00	3739625.00	0.01562	(81113024)	552758.00
3739625.00	0.01701	(81113024)		
552858.00	3739625.00	0.01816	(81113024)	552958.00
3739625.00	0.01895	(81113024)		
553058.00	3739625.00	0.02046	(81110224)	553158.00
3739625.00	0.02246	(81110224)		
553258.00	3739625.00	0.02443	(81110224)	553358.00
3739625.00	0.02643	(81110224)		
553458.00	3739625.00	0.02815	(81110224)	553558.00
3739625.00	0.02926	(81021624)		

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       553658.00   3739625.00        0.03410  (81021624)               553758.00
3739625.00        0.03948  (81021624)
       553858.00   3739625.00        0.04452  (81021624)               553958.00
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       554058.00   3739625.00        0.05206  (81021624)               554158.00
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       554258.00   3739625.00        0.05584  (81021624)               554358.00
3739625.00        0.05696  (81011324)
       554458.00   3739625.00        0.06012  (81011324)               554558.00
3739625.00        0.06282  (81011324)
       554658.00   3739625.00        0.06501  (81121524)               554758.00
3739625.00        0.06798  (81121524)
       554858.00   3739625.00        0.07007  (81121524)               554958.00
3739625.00        0.07150  (81121824)
       555058.00   3739625.00        0.07423  (81121824)               555158.00
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       555258.00   3739625.00        0.07501  (81011424)               555358.00
3739625.00        0.07304  (81011424)
       555458.00   3739625.00        0.06870  (81011424)               555558.00
3739625.00        0.06284  (81011424)
♀ *** ISCST3 - VERSION 02035 ***    *** Section 24 Specific Plan
                        ***          07/10/14
                                     *** Particulates (PM2.5)
                      ***           16:14:44
**MODELOPTs:
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```
CONC                    URBAN FLAT  FLGPOL                                NOCALM
                     NOCMPL

                              *** THE   1ST HIGHEST 24-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                   INCLUDING SOURCE(S):      L_SCAPE , C1      , C2
  , C3      , C4      , C5      , C6      ,
        C7      , C8      , C9      , C10     , C11     , C12     , C13     , C14
  , C15     , C16     , C17     , C18     ,
        C19     , C20     , C21     , C22     , C23     , C24     , C25     , C26
  , C27     , C28     , C29     ,  . . .  ,

                                                *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                             ** CONC OF OTHER    IN MICROGRAMS/M**3
                  **

     X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
       555658.00   3739625.00        0.05972  (81121824)               555758.00
3739625.00        0.05634  (81121824)
       555858.00   3739625.00        0.05236  (81121824)               555958.00
3739625.00        0.04789  (81121824)
       556058.00   3739625.00        0.04624  (81101624)               556158.00
3739625.00        0.04445  (81101624)
       556258.00   3739625.00        0.04231  (81101624)               556358.00
3739625.00        0.03990  (81101624)
       556458.00   3739625.00        0.03728  (81101624)               556558.00
3739625.00        0.03454  (81101624)
       551758.00   3739725.00        0.00756  (81011124)               551858.00
3739725.00        0.00752  (81011124)
       551958.00   3739725.00        0.00742  (81011124)               552058.00
3739725.00        0.00727  (81011124)
       552158.00   3739725.00        0.00733  (81113024)               552258.00
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♀ *** ISCST3 - VERSION 02035 *** *** Section 24 Specific Plan
*** 07/10/14
*** Particulates (PM2.5)
*** 16:14:44
**MODELOPTs:

CONC URBAN FLAT FLGPOL NOCALM
NOCMPL

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L_SCAPE , C1 , C2 , C3 , C4 , C5 , C6 , C7 , C8 , C9 , C10 , C11 , C12 , C13 , C14 , C15 , C16 , C17 , C18 , C19 , C20 , C21 , C22 , C23 , C24 , C25 , C26 , C27 , C28 , C29 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
553858.00	3739825.00	0.05590	(81021624)	553958.00	3739825.00	0.06074	(81021624)
554058.00	3739825.00	0.06447	(81021624)	554158.00	3739825.00	0.06705	(81021624)
554258.00	3739825.00	0.06851	(81021624)	554358.00	3739825.00	0.07093	(81011324)
554458.00	3739825.00	0.07438	(81121524)	554558.00	3739825.00	0.07833	(81121524)
554658.00	3739825.00	0.08167	(81121524)	554758.00	3739825.00	0.08425	(81121524)
554858.00	3739825.00	0.08695	(81121824)	554958.00	3739825.00	0.09035	(81121824)
555058.00	3739825.00	0.09163	(81121824)	555158.00	3739825.00	0.08922	(81121824)
555258.00	3739825.00	0.08506	(81011424)	555358.00	3739825.00	0.07855	(81011424)
555458.00	3739825.00	0.07240	(81121824)	555558.00	3739825.00	0.06728	(81011024)
555658.00	3739825.00	0.06228	(81011024)	555758.00	3739825.00	0.05674	(81011024)
555858.00	3739825.00	0.05307	(81101624)	555958.00	3739825.00	0.05019	(81101624)
556058.00	3739825.00	0.04705	(81101624)	556158.00	3739825.00	0.04370	(81101624)
556258.00	3739825.00	0.04022	(81101624)	556358.00	3739825.00	0.03671	(81101624)
556458.00	3739825.00	0.03324	(81101624)	556558.00	3739825.00	0.03085	(81011824)
551758.00	3739925.00	0.00857	(81011124)	551858.00	3739925.00	0.00877	(81011124)
551958.00	3739925.00	0.00895	(81011124)	552058.00	3739925.00	0.00911	(81011124)
552158.00	3739925.00	0.00923	(81011124)	552258.00			

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3739925.00        0.00929  (81011124)
       552358.00   3739925.00        0.00930  (81011124)                552458.00
3739925.00        0.01014  (81113024)
       552558.00   3739925.00        0.01199  (81113024)                552658.00
3739925.00        0.01402  (81113024)
       552758.00   3739925.00        0.01623  (81113024)                552858.00
3739925.00        0.01857  (81113024)
       552958.00   3739925.00        0.02097  (81113024)                553058.00
3739925.00        0.02323  (81113024)
       553158.00   3739925.00        0.02505  (81113024)                553258.00
3739925.00        0.02870  (81110224)
       553358.00   3739925.00        0.03264  (81110224)                553458.00
3739925.00        0.03596  (81110224)
       553558.00   3739925.00        0.04096  (81021624)                553658.00
3739925.00        0.04962  (81021624)
       553758.00   3739925.00        0.05736  (81021624)                553858.00
3739925.00        0.06380  (81021624)
       553958.00   3739925.00        0.06892  (81021624)                554058.00
3739925.00        0.07272  (81021624)
       554158.00   3739925.00        0.07526  (81021624)                554258.00
3739925.00        0.07725  (81122524)
       554358.00   3739925.00        0.08071  (81121524)                554458.00
3739925.00        0.08521  (81121524)
       554558.00   3739925.00        0.08906  (81121524)                554658.00
3739925.00        0.09224  (81121524)
       554758.00   3739925.00        0.09506  (81121824)                554858.00
3739925.00        0.09914  (81121824)
       554958.00   3739925.00        0.10205  (81121824)                555058.00
3739925.00        0.10197  (81121824)
       555158.00   3739925.00        0.09708  (81121824)                555258.00
3739925.00        0.08953  (81121824)
       555358.00   3739925.00        0.08170  (81121824)                555458.00
3739925.00        0.07489  (81011024)
       555558.00   3739925.00        0.06907  (81011024)                555658.00
3739925.00        0.06265  (81011024)
       555758.00   3739925.00        0.05702  (81101624)                555858.00
3739925.00        0.05338  (81101624)
       555958.00   3739925.00        0.04958  (81101624)                556058.00
3739925.00        0.04566  (81101624)
       556158.00   3739925.00        0.04168  (81101624)                556258.00
3739925.00        0.03796  (81011824)
       556358.00   3739925.00        0.03588  (81011824)                556458.00
3739925.00        0.03398  (81011824)
       556558.00   3739925.00        0.03230  (81011824)                551758.00
3740025.00        0.00870  (81011124)
       551858.00   3740025.00        0.00898  (81011124)                551958.00
3740025.00        0.00926  (81011124)
♀ *** ISCST3 - VERSION 02035 ***    *** Section 24 Specific Plan
                          ***        07/10/14
                                     *** Particulates (PM2.5)
                        ***         16:14:44
**MODELOPTs:
                                    PAGE  41
CONC                    URBAN FLAT  FLGPOL                                NOCALM
                      NOCMPL

                                *** THE   1ST HIGHEST 24-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL       ***
                                    INCLUDING SOURCE(S):      L_SCAPE , C1      , C2
  , C3      , C4      , C5      , C6      ,
        C7      , C8      , C9      , C10     , C11     , C12     , C13     , C14
  , C15     , C16     , C17     , C18     ,
        C19     , C20     , C21     , C22     , C23     , C24     , C25     , C26
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, C27 , C28 , C29 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
552058.00	3740025.00	0.00955	(81011124)	552158.00	3740025.00	0.00982	(81011124)
552258.00	3740025.00	0.01008	(81011124)	552358.00	3740025.00	0.01031	(81011124)
552458.00	3740025.00	0.01049	(81011124)	552558.00	3740025.00	0.01106	(81113024)
552658.00	3740025.00	0.01314	(81113024)	552758.00	3740025.00	0.01544	(81113024)
552858.00	3740025.00	0.01798	(81113024)	552958.00	3740025.00	0.02080	(81113024)
553058.00	3740025.00	0.02385	(81113024)	553158.00	3740025.00	0.02680	(81113024)
553258.00	3740025.00	0.03022	(81110224)	553358.00	3740025.00	0.03549	(81110224)
553458.00	3740025.00	0.03977	(81110224)	553558.00	3740025.00	0.04806	(81021624)
553658.00	3740025.00	0.05845	(81021624)	553758.00	3740025.00	0.06717	(81021624)
553858.00	3740025.00	0.07410	(81021624)	553958.00	3740025.00	0.07933	(81021624)
554058.00	3740025.00	0.08377	(81030124)	554158.00	3740025.00	0.08715	(81030124)
554258.00	3740025.00	0.08965	(81030124)	554358.00	3740025.00	0.09415	(81121524)
554458.00	3740025.00	0.09861	(81121524)	554558.00	3740025.00	0.10239	(81121524)
554658.00	3740025.00	0.10581	(81121824)	554758.00	3740025.00	0.11023	(81121824)
554858.00	3740025.00	0.11399	(81121824)	554958.00	3740025.00	0.11607	(81121824)
555058.00	3740025.00	0.11372	(81121824)	555158.00	3740025.00	0.10517	(81121824)
555258.00	3740025.00	0.09442	(81121824)	555358.00	3740025.00	0.08421	(81011024)
555458.00	3740025.00	0.07718	(81011024)	555558.00	3740025.00	0.06957	(81011024)
555658.00	3740025.00	0.06181	(81011024)	555758.00	3740025.00	0.05679	(81101624)
555858.00	3740025.00	0.05222	(81101624)	555958.00	3740025.00	0.04781	(81011824)
556058.00	3740025.00	0.04494	(81011824)	556158.00	3740025.00	0.04215	(81011824)
556258.00	3740025.00	0.03956	(81011824)	556358.00	3740025.00	0.03723	(81011824)
556458.00	3740025.00	0.03517	(81011824)	556558.00	3740025.00	0.03336	(81011824)
551758.00	3740125.00	0.00866	(81011124)	551858.00	3740125.00	0.00899	(81011124)
551958.00	3740125.00	0.00933	(81011124)	552058.00	3740125.00	0.00969	(81011124)
552158.00	3740125.00	0.01006	(81011124)	552258.00			

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3740125.00        0.01045  (81011124)
       552358.00   3740125.00        0.01085  (81011124)                552458.00
3740125.00        0.01126  (81011124)
       552558.00   3740125.00        0.01166  (81011124)                552658.00
3740125.00        0.01216  (81113024)
       552758.00   3740125.00        0.01451  (81113024)                552858.00
3740125.00        0.01714  (81113024)
       552958.00   3740125.00        0.02016  (81113024)                553058.00
3740125.00        0.02375  (81113024)
       553158.00   3740125.00        0.02797  (81113024)                553258.00
3740125.00        0.03211  (81113024)
       553358.00   3740125.00        0.03904  (81110224)                553458.00
3740125.00        0.04487  (81110224)
       553558.00   3740125.00        0.05876  (81021624)                553658.00
3740125.00        0.07128  (81021624)
       553758.00   3740125.00        0.08089  (81021624)                553858.00
3740125.00        0.08965  (81030124)
       553958.00   3740125.00        0.09610  (81030124)                554058.00
3740125.00        0.10080  (81030124)
       554158.00   3740125.00        0.10425  (81030124)                554258.00
3740125.00        0.10676  (81121524)
       554358.00   3740125.00        0.11196  (81121524)                554458.00
3740125.00        0.11642  (81121524)
       554558.00   3740125.00        0.12093  (81121824)                554658.00
3740125.00        0.12576  (81121824)
       554758.00   3740125.00        0.12988  (81121824)                554858.00
3740125.00        0.13309  (81121824)
       554958.00   3740125.00        0.13365  (81121824)                555058.00
3740125.00        0.12696  (81121824)
♀ *** ISCST3 - VERSION 02035 ***    *** Section 24 Specific Plan
                         ***         07/10/14
                                     *** Particulates (PM2.5)
                      ***           16:14:44
**MODELOPTs:
                                    PAGE  42
CONC                    URBAN FLAT  FLGPOL                                NOCALM
                     NOCMPL

                                *** THE   1ST HIGHEST 24-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL       ***
                                   INCLUDING SOURCE(S):      L_SCAPE , C1      , C2
  , C3      , C4      , C5      , C6      ,
        C7      , C8      , C9      , C10     , C11     , C12     , C13     , C14
  , C15     , C16     , C17     , C18     ,
        C19     , C20     , C21     , C22     , C23     , C24     , C25     , C26
  , C27     , C28     , C29     ,  . . .  ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                          ** CONC OF OTHER    IN MICROGRAMS/M**3
                  **

     X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -
       555158.00   3740125.00        0.11263  (81121824)                555258.00
3740125.00        0.09674  (81121824)
       555358.00   3740125.00        0.08706  (81011024)                555458.00
3740125.00        0.07769  (81011024)
       555558.00   3740125.00        0.06832  (81011024)                555658.00
3740125.00        0.06100  (81011824)
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       555758.00   3740125.00        0.05744  (81011824)              555858.00
3740125.00         0.05369  (81011824)
       555958.00   3740125.00        0.04996  (81011824)              556058.00
3740125.00         0.04643  (81011824)
       556158.00   3740125.00        0.04321  (81011824)              556258.00
3740125.00         0.04035  (81011824)
       556358.00   3740125.00        0.03785  (81011824)              556458.00
3740125.00         0.03568  (81011824)
       556558.00   3740125.00        0.03377  (81011824)              551758.00
3740225.00         0.00858  (81011124)
       551858.00   3740225.00        0.00894  (81011124)              551958.00
3740225.00         0.00931  (81011124)
       552058.00   3740225.00        0.00971  (81011124)              552158.00
3740225.00         0.01013  (81011124)
       552258.00   3740225.00        0.01058  (81011124)              552358.00
3740225.00         0.01107  (81011124)
       552458.00   3740225.00        0.01159  (81011124)              552558.00
3740225.00         0.01217  (81011124)
       552658.00   3740225.00        0.01279  (81011124)              552758.00
3740225.00         0.01348  (81113024)
       552858.00   3740225.00        0.01617  (81113024)              552958.00
3740225.00         0.01929  (81113024)
       553058.00   3740225.00        0.02308  (81113024)              553158.00
3740225.00         0.02803  (81113024)
       553258.00   3740225.00        0.03466  (81113024)              553358.00
3740225.00         0.04366  (81110224)
       553458.00   3740225.00        0.05665  (81021624)              553558.00
3740225.00         0.07714  (81021624)
       553658.00   3740225.00        0.09293  (81030124)              553758.00
3740225.00         0.10613  (81030124)
       553858.00   3740225.00        0.11538  (81030124)              553958.00
3740225.00         0.12193  (81030124)
       554058.00   3740225.00        0.12666  (81030124)              554158.00
3740225.00         0.13008  (81030124)
       554258.00   3740225.00        0.13324  (81121524)              554358.00
3740225.00         0.13851  (81121824)
       554458.00   3740225.00        0.14456  (81121824)              554558.00
3740225.00         0.14990  (81121824)
       554658.00   3740225.00        0.15451  (81121824)              554758.00
3740225.00         0.15824  (81121824)
       554858.00   3740225.00        0.16061  (81121824)              554958.00
3740225.00         0.15768  (81121824)
       555058.00   3740225.00        0.14090  (81121824)              555158.00
3740225.00         0.11600  (81121824)
       555258.00   3740225.00        0.09939  (81011024)              555358.00
3740225.00         0.08718  (81011024)
       555458.00   3740225.00        0.07624  (81021324)              555558.00
3740225.00         0.06969  (81011824)
       555658.00   3740225.00        0.06464  (81011824)              555758.00
3740225.00         0.05963  (81011824)
       555858.00   3740225.00        0.05484  (81011824)              555958.00
3740225.00         0.05043  (81011824)
       556058.00   3740225.00        0.04651  (81011824)              556158.00
3740225.00         0.04308  (81011824)
       556258.00   3740225.00        0.04012  (81011824)              556358.00
3740225.00         0.03757  (81011824)
       556458.00   3740225.00        0.03535  (81011824)              556558.00
3740225.00         0.03339  (81011824)
       551758.00   3740325.00        0.00859  (81011124)              551858.00
3740325.00         0.00899  (81011124)
       551958.00   3740325.00        0.00941  (81011124)              552058.00
3740325.00         0.00985  (81011124)
       552158.00   3740325.00        0.01032  (81011124)              552258.00
```

3740325.00 0.01082 (81011124)
552358.00 3740325.00 0.01136 (81011124) 552458.00
3740325.00 0.01197 (81011124)
552558.00 3740325.00 0.01264 (81011124) 552658.00
3740325.00 0.01340 (81011124)
552758.00 3740325.00 0.01427 (81011124) 552858.00
3740325.00 0.01528 (81011124)
552958.00 3740325.00 0.01829 (81113024) 553058.00
3740325.00 0.02216 (81113024)
553158.00 3740325.00 0.02734 (81113024) 553258.00
3740325.00 0.03516 (81113024)

♀ *** ISCST3 - VERSION 02035 *** *** Section 24 Specific Plan
*** 07/10/14
*** Particulates (PM2.5)
*** 16:14:44

**MODELOPTs:

CONC URBAN FLAT FLGPOL NOCALM
NOCMPL

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L_SCAPE , C1 , C2 , C3 , C4 , C5 , C6 , C7 , C8 , C9 , C10 , C11 , C12 , C13 , C14 , C15 , C16 , C17 , C18 , C19 , C20 , C21 , C22 , C23 , C24 , C25 , C26 , C27 , C28 , C29 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
555058.00	3740325.00	0.14741	(81121824)	555158.00	3740325.00	0.11664	(81021324)
555258.00	3740325.00	0.09935	(81021324)	555358.00	3740325.00	0.08566	(81011824)
555458.00	3740325.00	0.07824	(81011824)	555558.00	3740325.00	0.07140	(81011824)
555658.00	3740325.00	0.06499	(81011824)	555758.00	3740325.00	0.05909	(81011824)
555858.00	3740325.00	0.05380	(81011824)	555958.00	3740325.00	0.04919	(81011824)
556058.00	3740325.00	0.04523	(81011824)	556158.00	3740325.00	0.04184	(81011824)
556258.00	3740325.00	0.03895	(81011824)	556358.00	3740325.00	0.03645	(81011824)
556458.00	3740325.00	0.03425	(81011824)	556558.00	3740325.00	0.03230	(81011824)
551758.00	3740425.00	0.00881	(81011124)	551858.00	3740425.00	0.00928	(81011124)
551958.00	3740425.00	0.00978	(81011124)	552058.00	3740425.00	0.01030	(81011124)
552158.00	3740425.00	0.01085	(81011124)	552258.00	3740425.00	0.01145	(81011124)
552358.00	3740425.00	0.01210	(81011124)	552458.00	3740425.00	0.01284	(81011124)

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       552558.00   3740425.00         0.01367  (81011124)                552658.00
3740425.00         0.01464  (81011124)
       552758.00   3740425.00         0.01579  (81011124)                552858.00
3740425.00         0.01720  (81011124)
       552958.00   3740425.00         0.01900  (81011124)                553058.00
3740425.00         0.02148  (81011124)
       553158.00   3740425.00         0.02651  (81113024)                553258.00
3740425.00         0.03483  (81113024)
       555058.00   3740425.00         0.14420  (81121824)                555158.00
3740425.00         0.11523  (81021324)
       555258.00   3740425.00         0.09649  (81021324)                555358.00
3740425.00         0.08604  (81011824)
       555458.00   3740425.00         0.07744  (81011824)                555558.00
3740425.00         0.06967  (81011824)
       555658.00   3740425.00         0.06269  (81011824)                555758.00
3740425.00         0.05657  (81011824)
       555858.00   3740425.00         0.05132  (81011824)                555958.00
3740425.00         0.04686  (81011824)
       556058.00   3740425.00         0.04309  (81011824)                556158.00
3740425.00         0.03989  (81011824)
       556258.00   3740425.00         0.03713  (81011824)                556358.00
3740425.00         0.03473  (81011824)
       556458.00   3740425.00         0.03260  (81011824)                556558.00
3740425.00         0.03067  (81011824)
       551758.00   3740525.00         0.00921  (81011124)                551858.00
3740525.00         0.00979  (81011124)
       551958.00   3740525.00         0.01039  (81011124)                552058.00
3740525.00         0.01103  (81011124)
       552158.00   3740525.00         0.01171  (81011124)                552258.00
3740525.00         0.01245  (81011124)
       552358.00   3740525.00         0.01327  (81011124)                552458.00
3740525.00         0.01420  (81011124)
       552558.00   3740525.00         0.01528  (81011124)                552658.00
3740525.00         0.01658  (81011124)
       552758.00   3740525.00         0.01818  (81011124)                552858.00
3740525.00         0.02028  (81011124)
       552958.00   3740525.00         0.02316  (81011124)                553058.00
3740525.00         0.02736  (81011124)
       553158.00   3740525.00         0.03380  (81011124)                553258.00
3740525.00         0.04467  (81011124)
       555058.00   3740525.00         0.13943  (81021324)                555158.00
3740525.00         0.11099  (81021324)
       555258.00   3740525.00         0.09441  (81011824)                555358.00
3740525.00         0.08369  (81011824)
       555458.00   3740525.00         0.07434  (81011824)                555558.00
3740525.00         0.06614  (81011824)
       555658.00   3740525.00         0.05911  (81011824)                555758.00
3740525.00         0.05318  (81011824)
       555858.00   3740525.00         0.04821  (81011824)                555958.00
3740525.00         0.04404  (81011824)
       556058.00   3740525.00         0.04053  (81011824)                556158.00
3740525.00         0.03816  (81121224)
       556258.00   3740525.00         0.03628  (81121224)                556358.00
3740525.00         0.03458  (81121224)
       556458.00   3740525.00         0.03302  (81121224)                556558.00
3740525.00         0.03158  (81121224)
♀ *** ISCST3 - VERSION 02035 ***    *** Section 24 Specific Plan
                        ***          07/10/14
                                     *** Particulates (PM2.5)
                       ***          16:14:44
**MODELOPTs:
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CONC                    URBAN FLAT  FLGPOL                                NOCALM
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SECTION_24_PM2.5

NOCMPL

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): L_SCAPE , C1 , C2 , C3 , C4 , C5 , C6 , C7 , C8 , C9 , C10 , C11 , C12 , C13 , C14 , C15 , C16 , C17 , C18 , C19 , C20 , C21 , C22 , C23 , C24 , C25 , C26 , C27 , C28 , C29 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
551758.00	3740625.00	0.00966	(81011124)	551858.00	3740625.00	0.01035	(81011124)
551958.00	3740625.00	0.01107	(81011124)	552058.00	3740625.00	0.01184	(81011124)
552158.00	3740625.00	0.01268	(81011124)	552258.00	3740625.00	0.01360	(81011124)
552358.00	3740625.00	0.01464	(81011124)	552458.00	3740625.00	0.01585	(81011124)
552558.00	3740625.00	0.01731	(81011124)	552658.00	3740625.00	0.01911	(81011124)
552758.00	3740625.00	0.02141	(81011124)	552858.00	3740625.00	0.02442	(81011124)
552958.00	3740625.00	0.02840	(81011124)	553058.00	3740625.00	0.03378	(81011124)
553158.00	3740625.00	0.04151	(81011124)	553258.00	3740625.00	0.05348	(81011124)
555058.00	3740625.00	0.13524	(81011024)	555158.00	3740625.00	0.10585	(81011824)
555258.00	3740625.00	0.09143	(81011824)	555358.00	3740625.00	0.07980	(81011824)
555458.00	3740625.00	0.06998	(81011824)	555558.00	3740625.00	0.06180	(81011824)
555658.00	3740625.00	0.05575	(81121224)	555758.00	3740625.00	0.05195	(81121224)
555858.00	3740625.00	0.04865	(81121224)	555958.00	3740625.00	0.04574	(81121224)
556058.00	3740625.00	0.04315	(81121224)	556158.00	3740625.00	0.04082	(81121224)
556258.00	3740625.00	0.03870	(81121224)	556358.00	3740625.00	0.03677	(81121224)
556458.00	3740625.00	0.03500	(81121224)	556558.00	3740625.00	0.03337	(81121224)
551758.00	3740725.00	0.01001	(81011124)	551858.00	3740725.00	0.01082	(81011124)
551958.00	3740725.00	0.01169	(81011124)	552058.00	3740725.00	0.01263	(81011124)
552158.00	3740725.00	0.01368	(81011124)	552258.00	3740725.00	0.01487	(81011124)
552358.00	3740725.00	0.01625	(81011124)	552458.00	3740725.00	0.01788	(81011124)
552558.00	3740725.00	0.01983	(81011124)	552658.00	3740725.00	0.02222	(81011124)

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       552758.00   3740725.00        0.02515  (81011124)                552858.00
3740725.00         0.02876  (81011124)
       552958.00   3740725.00        0.03330  (81011124)                553058.00
3740725.00         0.03929  (81011124)
       553158.00   3740725.00        0.04752  (81011124)                553258.00
3740725.00         0.05967  (81011124)
       555058.00   3740725.00        0.13035  (81011024)                555158.00
3740725.00         0.10298  (81011824)
       555258.00   3740725.00        0.08691  (81011824)                555358.00
3740725.00         0.07455  (81011824)
       555458.00   3740725.00        0.06738  (81121224)                555558.00
3740725.00         0.06207  (81121224)
       555658.00   3740725.00        0.05761  (81121224)                555758.00
3740725.00         0.05378  (81121224)
       555858.00   3740725.00        0.05043  (81121224)                555958.00
3740725.00         0.04745  (81121224)
       556058.00   3740725.00        0.04478  (81121224)                556158.00
3740725.00         0.04235  (81121224)
       556258.00   3740725.00        0.04013  (81121224)                556358.00
3740725.00         0.03810  (81121224)
       556458.00   3740725.00        0.03622  (81121224)                556558.00
3740725.00         0.03448  (81121224)
       551758.00   3740825.00        0.01029  (81011124)                551858.00
3740825.00         0.01124  (81011124)
       551958.00   3740825.00        0.01230  (81011124)                552058.00
3740825.00         0.01350  (81011124)
       552158.00   3740825.00        0.01485  (81011124)                552258.00
3740825.00         0.01639  (81011124)
       552358.00   3740825.00        0.01817  (81011124)                552458.00
3740825.00         0.02024  (81011124)
       552558.00   3740825.00        0.02264  (81011124)                552658.00
3740825.00         0.02544  (81011124)
       552758.00   3740825.00        0.02871  (81011124)                552858.00
3740825.00         0.03263  (81011124)
       552958.00   3740825.00        0.03751  (81011124)                553058.00
3740825.00         0.04378  (81011124)
       553158.00   3740825.00        0.05211  (81011124)                553258.00
3740825.00         0.06420  (81011124)
♀ *** ISCST3 - VERSION 02035 ***    *** Section 24 Specific Plan
                        ***          07/10/14
                                     *** Particulates (PM2.5)
                       ***          16:14:44
**MODELOPTs:
                                    PAGE  45
CONC                     URBAN FLAT  FLGPOL                                NOCALM
                       NOCMPL

                                *** THE   1ST HIGHEST 24-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL       ***
                                    INCLUDING SOURCE(S):      L_SCAPE , C1      , C2
  , C3      , C4      , C5      , C6      ,
        C7      , C8      , C9      , C10     , C11     , C12     , C13     , C14
  , C15     , C16     , C17     , C18     ,
        C19     , C20     , C21     , C22     , C23     , C24     , C25     , C26
  , C27     , C28     , C29     ,  . . .  ,

                                                *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                             ** CONC OF OTHER    IN MICROGRAMS/M**3
                    **

     X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
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Y-COORD (M)	CONC	(YYMMDDHH)			
555058.00	3740825.00	0.12232	(81011824)	555158.00	3740825.00	0.09770	(81011824)
555258.00	3740825.00	0.08229	(81121224)	555358.00	3740825.00	0.07399	(81121224)
555458.00	3740825.00	0.06751	(81121224)	555558.00	3740825.00	0.06223	(81121224)
555658.00	3740825.00	0.05781	(81121224)	555758.00	3740825.00	0.05401	(81121224)
555858.00	3740825.00	0.05069	(81121224)	555958.00	3740825.00	0.04774	(81121224)
556058.00	3740825.00	0.04508	(81121224)	556158.00	3740825.00	0.04267	(81121224)
556258.00	3740825.00	0.04045	(81121224)	556358.00	3740825.00	0.03841	(81121224)
556458.00	3740825.00	0.03651	(81121224)	556558.00	3740825.00	0.03473	(81121224)
551758.00	3740925.00	0.01062	(81011124)	551858.00	3740925.00	0.01176	(81011124)
551958.00	3740925.00	0.01306	(81011124)	552058.00	3740925.00	0.01454	(81011124)
552158.00	3740925.00	0.01621	(81011124)	552258.00	3740925.00	0.01809	(81011124)
552358.00	3740925.00	0.02022	(81011124)	552458.00	3740925.00	0.02260	(81011124)
552558.00	3740925.00	0.02527	(81011124)	552658.00	3740925.00	0.02829	(81011124)
552758.00	3740925.00	0.03177	(81011124)	552858.00	3740925.00	0.03593	(81011124)
552958.00	3740925.00	0.04100	(81011124)	553058.00	3740925.00	0.04733	(81011124)
553158.00	3740925.00	0.05558	(81011124)	553258.00	3740925.00	0.06750	(81011124)
555058.00	3740925.00	0.11396	(81011824)	555158.00	3740925.00	0.09178	(81121224)
555258.00	3740925.00	0.08059	(81121224)	555358.00	3740925.00	0.07244	(81121224)
555458.00	3740925.00	0.06610	(81121224)	555558.00	3740925.00	0.06096	(81121224)
555658.00	3740925.00	0.05664	(81121224)	555758.00	3740925.00	0.05294	(81121224)
555858.00	3740925.00	0.04970	(81121224)	555958.00	3740925.00	0.04682	(81121224)
556058.00	3740925.00	0.04423	(81121224)	556158.00	3740925.00	0.04187	(81121224)
556258.00	3740925.00	0.03970	(81121224)	556358.00	3740925.00	0.03770	(81121224)
556458.00	3740925.00	0.03584	(81121224)	556558.00	3740925.00	0.03410	(81121224)
551758.00	3741025.00	0.01115	(81011124)	551858.00	3741025.00	0.01247	(81011124)
551958.00	3741025.00	0.01398	(81011124)	552058.00	3741025.00	0.01568	(81011124)
552158.00	3741025.00	0.01759	(81011124)	552258.00	3741025.00	0.01971	(81011124)
552358.00	3741025.00	0.02204	(81011124)	552458.00	3741025.00	0.02459	(81011124)
552558.00	3741025.00	0.02742	(81011124)	552658.00	3741025.00	0.03059	(81011124)
552758.00	3741025.00	0.03425	(81011124)	552858.00	3741025.00	0.03856	(81011124)

552958.00 3741025.00 0.04369 (81011124) 553058.00 3741025.00 0.04996 (81011124)
553158.00 3741025.00 0.05806 (81011124) 553258.00 3741025.00 0.06977 (81011124)
555058.00 3741025.00 0.10268 (81121224) 555158.00 3741025.00 0.08699 (81121224)
555258.00 3741025.00 0.07671 (81121224) 555358.00 3741025.00 0.06918 (81121224)
555458.00 3741025.00 0.06327 (81121224) 555558.00 3741025.00 0.05843 (81121224)
555658.00 3741025.00 0.05434 (81121224) 555758.00 3741025.00 0.05080 (81121224)
555858.00 3741025.00 0.04768 (81121224) 555958.00 3741025.00 0.04491 (81121224)
556058.00 3741025.00 0.04240 (81121224) 556158.00 3741025.00 0.04013 (81121224)
556258.00 3741025.00 0.03804 (81121224) 556358.00 3741025.00 0.03612 (81121224)
556458.00 3741025.00 0.03433 (81121224) 556558.00 3741025.00 0.03268 (81121224)

♀ *** ISCST3 - VERSION 02035 *** *** Section 24 Specific Plan
*** 07/10/14
*** Particulates (PM2.5)
*** 16:14:44

**MODELOPTs:

CONC URBAN FLAT FLGPOL NOCALM
NOCMPL

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L_SCAPE , C1 , C2 , C3 , C4 , C5 , C6 , C7 , C8 , C9 , C10 , C11 , C12 , C13 , C14 , C15 , C16 , C17 , C18 , C19 , C20 , C21 , C22 , C23 , C24 , C25 , C26 , C27 , C28 , C29 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
551758.00	3741125.00	0.01190	(81011124)	551858.00	3741125.00	0.01333	(81011124)
551958.00	3741125.00	0.01495	(81011124)	552058.00	3741125.00	0.01676	(81011124)
552158.00	3741125.00	0.01877	(81011124)	552258.00	3741125.00	0.02097	(81011124)
552358.00	3741125.00	0.02338	(81011124)	552458.00	3741125.00	0.02601	(81011124)
552558.00	3741125.00	0.02894	(81011124)	552658.00	3741125.00	0.03225	(81011124)
552758.00	3741125.00	0.03603	(81011124)	552858.00	3741125.00	0.04040	(81011124)
552958.00	3741125.00	0.04551	(81011124)	553058.00	3741125.00	0.05168	(81011124)
553158.00	3741125.00	0.05963	(81011124)	553258.00			

3741125.00 555058.00 0.07117 (81011124)
3741125.00 555158.00 0.09173 (81121224)
3741125.00 555258.00 0.07969 (81121224)
3741125.00 555358.00 0.07114 (81121224)
3741125.00 555458.00 0.06460 (81121224)
3741125.00 555558.00 0.05932 (81121224)
3741125.00 555658.00 0.05489 (81121224)
3741125.00 555758.00 0.05109 (81121224)
3741125.00 555858.00 0.04777 (81121224)
3741125.00 555958.00 0.04482 (81121224)
3741125.00 556058.00 0.04219 (81121224)
3741125.00 556158.00 0.03981 (81121224)
3741125.00 556258.00 0.03765 (81121224)
3741125.00 556358.00 0.03567 (81121224)
3741125.00 556458.00 0.03387 (81121224)
3741125.00 556558.00 0.03221 (81121224)
3741125.00 556658.00 0.03069 (81121224)
3741225.00 551758.00 0.01281 (81011124)
3741225.00 551858.00 0.01425 (81011124)
3741225.00 551958.00 0.01586 (81011124)
3741225.00 552058.00 0.01764 (81011124)
3741225.00 552158.00 0.01959 (81011124)
3741225.00 552258.00 0.02175 (81011124)
3741225.00 552358.00 0.02413 (81011124)
3741225.00 552458.00 0.02679 (81011124)
3741225.00 552558.00 0.02978 (81011124)
3741225.00 552658.00 0.03317 (81011124)
3741225.00 552758.00 0.03700 (81011124)
3741225.00 552858.00 0.04136 (81011124)
3741225.00 552958.00 0.04642 (81011124)
3741225.00 553058.00 0.05251 (81011124)
3741225.00 553158.00 0.06038 (81011124)
3741225.00 553258.00 0.07180 (81011124)
3741225.00 554958.00 0.09886 (81121224)
3741225.00 555058.00 0.08294 (81121224)
3741225.00 555158.00 0.07273 (81121224)
3741225.00 555258.00 0.06531 (81121224)
3741225.00 555358.00 0.05950 (81121224)
3741225.00 555458.00 0.05473 (81121224)
3741225.00 555558.00 0.05067 (81121224)
3741225.00 555658.00 0.04716 (81121224)
3741225.00 555758.00 0.04406 (81121224)
3741225.00 555858.00 0.04132 (81121224)
3741225.00 555958.00 0.03886 (81121224)
3741225.00 556058.00 0.03664 (81121224)
3741225.00 556158.00 0.03465 (81121224)
3741225.00 556258.00 0.03284 (81121224)
3741225.00 556358.00 0.03120 (81121224)
3741225.00 556458.00 0.02970 (81121224)
3741225.00 556558.00 0.02834 (81121224)
3741325.00 551758.00 0.01379 (81011124)
3741325.00 551858.00 0.01515 (81011124)
3741325.00 551958.00 0.01664 (81011124)
3741325.00 552058.00 0.01827 (81011124)
3741325.00 552158.00 0.02007 (81011124)
3741325.00 552258.00 0.02208 (81011124)
3741325.00 552358.00 0.02435 (81011124)
3741325.00 552458.00 0.02695 (81011124)
3741325.00 552558.00 0.02992 (81011124)
3741325.00 552658.00 0.03328 (81011124)
3741325.00 552758.00 0.03709 (81011124)
3741325.00 552858.00 0.04141 (81011124)
3741325.00 552958.00 0.04642 (81011124)

553058.00 3741325.00 0.05248 (81011124) 553158.00 3741325.00 0.06033 (81011124)

♀ *** ISCST3 - VERSION 02035 *** *** Section 24 Specific Plan *** 07/10/14 *** Particulates (PM2.5) *** 16:14:44

**MODELOPTs:

CONC URBAN FLAT FLGPOL NOCALM NOCMPL

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L_SCAPE , C1 , C2 , C3 , C4 , C5 , C6 , C7 , C8 , C9 , C10 , C11 , C12 , C13 , C14 , C15 , C16 , C17 , C18 , C19 , C20 , C21 , C22 , C23 , C24 , C25 , C26 , C27 , C28 , C29 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
553258.00	3741325.00	0.07174	(81011124)	554858.00	3741325.00	0.11859	(81122724)
554958.00	3741325.00	0.08729	(81122724)	555058.00	3741325.00	0.07429	(81121224)
555158.00	3741325.00	0.06577	(81121224)	555258.00	3741325.00	0.05929	(81121224)
555358.00	3741325.00	0.05407	(81121224)	555458.00	3741325.00	0.04970	(81121224)
555558.00	3741325.00	0.04597	(81121224)	555658.00	3741325.00	0.04274	(81121224)
555758.00	3741325.00	0.03989	(81121224)	555858.00	3741325.00	0.03738	(81121224)
555958.00	3741325.00	0.03514	(81121224)	556058.00	3741325.00	0.03315	(81121224)
556158.00	3741325.00	0.03136	(81121224)	556258.00	3741325.00	0.02976	(81121224)
556358.00	3741325.00	0.02832	(81121224)	556458.00	3741325.00	0.02702	(81121224)
556558.00	3741325.00	0.02584	(81121224)	551758.00	3741425.00	0.01478	(81011124)
551858.00	3741425.00	0.01600	(81011124)	551958.00	3741425.00	0.01732	(81011124)
552058.00	3741425.00	0.01876	(81011124)	552158.00	3741425.00	0.02036	(81011124)
552258.00	3741425.00	0.02217	(81011124)	552358.00	3741425.00	0.02425	(81011124)
552458.00	3741425.00	0.02666	(81011124)	552558.00	3741425.00	0.02945	(81011124)
552658.00	3741425.00	0.03266	(81011124)	552758.00	3741425.00	0.03634	(81011124)
552858.00	3741425.00	0.04057	(81011124)	552958.00	3741425.00	0.04554	(81011124)
553058.00	3741425.00	0.05160	(81011124)	553158.00			

```
3741425.00        0.05947  (81011124)
       553258.00   3741425.00        0.07093  (81011124)                554758.00
3741425.00        0.13352  (81122724)
       554858.00   3741425.00        0.10253  (81122724)                554958.00
3741425.00        0.07699  (81122724)
       555058.00   3741425.00        0.06617  (81121224)                555158.00
3741425.00        0.05869  (81121224)
       555258.00   3741425.00        0.05289  (81121224)                555358.00
3741425.00        0.04818  (81121224)
       555458.00   3741425.00        0.04424  (81121224)                555558.00
3741425.00        0.04088  (81121224)
       555658.00   3741425.00        0.03797  (81121224)                555758.00
3741425.00        0.03544  (81121224)
       555858.00   3741425.00        0.03322  (81121224)                555958.00
3741425.00        0.03126  (81121224)
       556058.00   3741425.00        0.02953  (81121224)                556158.00
3741425.00        0.02800  (81121224)
       556258.00   3741425.00        0.02662  (81121224)                556358.00
3741425.00        0.02539  (81121224)
       556458.00   3741425.00        0.02428  (81121224)                556558.00
3741425.00        0.02327  (81121224)
       551758.00   3741525.00        0.01571  (81011124)                551858.00
3741525.00        0.01679  (81011124)
       551958.00   3741525.00        0.01795  (81011124)                552058.00
3741525.00        0.01922  (81011124)
       552158.00   3741525.00        0.02063  (81011124)                552258.00
3741525.00        0.02223  (81011124)
       552358.00   3741525.00        0.02408  (81011124)                552458.00
3741525.00        0.02621  (81011124)
       552558.00   3741525.00        0.02868  (81011124)                552658.00
3741525.00        0.03155  (81011124)
       552758.00   3741525.00        0.03493  (81011124)                552858.00
3741525.00        0.03895  (81011124)
       552958.00   3741525.00        0.04380  (81011124)                553058.00
3741525.00        0.04982  (81011124)
       553158.00   3741525.00        0.05770  (81011124)                553258.00
3741525.00        0.06922  (81011124)
       554758.00   3741525.00        0.11684  (81122724)                554858.00
3741525.00        0.08712  (81122724)
       554958.00   3741525.00        0.06679  (81122724)                555058.00
3741525.00        0.05761  (81121224)
       555158.00   3741525.00        0.05112  (81121224)                555258.00
3741525.00        0.04600  (81121224)
       555358.00   3741525.00        0.04184  (81121224)                555458.00
3741525.00        0.03839  (81121224)
       555558.00   3741525.00        0.03548  (81121224)                555658.00
3741525.00        0.03299  (81121224)
♀ *** ISCST3 - VERSION 02035 ***    *** Section 24 Specific Plan
                          ***        07/10/14
                                     *** Particulates (PM2.5)
                         ***        16:14:44
**MODELOPTs:
                                    PAGE  48
CONC                    URBAN FLAT  FLGPOL                                NOCALM
                      NOCMPL

                                *** THE   1ST HIGHEST 24-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL       ***
                                    INCLUDING SOURCE(S):      L_SCAPE , C1      , C2
  , C3      , C4      , C5      , C6      ,
        C7      , C8      , C9      , C10     , C11     , C12     , C13     , C14
  , C15     , C16     , C17     , C18     ,
        C19     , C20     , C21     , C22     , C23     , C24     , C25     , C26
```

, C27 , C28 , C29 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
555758.00	3741525.00	0.03085	(81121224)	555858.00	3741525.00	0.02899	(81121224)
555958.00	3741525.00	0.02735	(81121224)	556058.00	3741525.00	0.02591	(81121224)
556158.00	3741525.00	0.02463	(81121224)	556258.00	3741525.00	0.02348	(81121224)
556358.00	3741525.00	0.02245	(81121224)	556458.00	3741525.00	0.02152	(81121224)
556558.00	3741525.00	0.02067	(81121224)	551758.00	3741625.00	0.01652	(81011124)
551858.00	3741625.00	0.01750	(81011124)	551958.00	3741625.00	0.01855	(81011124)
552058.00	3741625.00	0.01970	(81011124)	552158.00	3741625.00	0.02098	(81011124)
552258.00	3741625.00	0.02242	(81011124)	552358.00	3741625.00	0.02405	(81011124)
552458.00	3741625.00	0.02590	(81011124)	552558.00	3741625.00	0.02801	(81011124)
552658.00	3741625.00	0.03045	(81011124)	552758.00	3741625.00	0.03335	(81011124)
552858.00	3741625.00	0.03689	(81011124)	552958.00	3741625.00	0.04135	(81011124)
553058.00	3741625.00	0.04710	(81011124)	553158.00	3741625.00	0.05487	(81011124)
553258.00	3741625.00	0.06636	(81011124)	554658.00	3741625.00	0.13010	(81122724)
554758.00	3741625.00	0.09801	(81122724)	554858.00	3741625.00	0.07328	(81122724)
554958.00	3741625.00	0.05658	(81122724)	555058.00	3741625.00	0.04839	(81121224)
555158.00	3741625.00	0.04288	(81121224)	555258.00	3741625.00	0.03857	(81121224)
555358.00	3741625.00	0.03512	(81121224)	555458.00	3741625.00	0.03230	(81121224)
555558.00	3741625.00	0.02995	(81121224)	555658.00	3741625.00	0.02795	(81121224)
555758.00	3741625.00	0.02624	(81121224)	555858.00	3741625.00	0.02475	(81121224)
555958.00	3741625.00	0.02345	(81121224)	556058.00	3741625.00	0.02229	(81121224)
556158.00	3741625.00	0.02125	(81121224)	556258.00	3741625.00	0.02032	(81121224)
556358.00	3741625.00	0.01948	(81121224)	556458.00	3741625.00	0.01872	(81121224)
556558.00	3741625.00	0.01802	(81121224)	551758.00	3741725.00	0.01714	(81011124)
551858.00	3741725.00	0.01805	(81011124)	551958.00	3741725.00	0.01904	(81011124)
552058.00	3741725.00	0.02013	(81011124)	552158.00	3741725.00	0.02134	(81011124)
552258.00	3741725.00	0.02268	(81011124)	552358.00			

3741725.00 0.02417 (81011124)
552458.00 3741725.00 0.02581 (81011124) 552558.00
3741725.00 0.02765 (81011124)
552658.00 3741725.00 0.02972 (81011124) 552758.00
3741725.00 0.03214 (81011124)
552858.00 3741725.00 0.03506 (81011124) 552958.00
3741725.00 0.03877 (81011124)
553058.00 3741725.00 0.04376 (81011124) 553158.00
3741725.00 0.05089 (81011124)
553258.00 3741725.00 0.06197 (81011124) 554658.00
3741725.00 0.10727 (81122724)
554758.00 3741725.00 0.07927 (81122724) 554858.00
3741725.00 0.05995 (81122724)
554958.00 3741725.00 0.04659 (81122724) 555058.00
3741725.00 0.03832 (81121224)
555158.00 3741725.00 0.03407 (81121224) 555258.00
3741725.00 0.03080 (81121224)
555358.00 3741725.00 0.02822 (81121224) 555458.00
3741725.00 0.02612 (81121224)
555558.00 3741725.00 0.02438 (81121224) 555658.00
3741725.00 0.02290 (81121224)
555758.00 3741725.00 0.02162 (81121224) 555858.00
3741725.00 0.02050 (81121224)
555958.00 3741725.00 0.01952 (81121224) 556058.00
3741725.00 0.01864 (81121224)
556158.00 3741725.00 0.01785 (81121224) 556258.00
3741725.00 0.01714 (81121224)
556358.00 3741725.00 0.01650 (81121224) 556458.00
3741725.00 0.01591 (81121224)
♀ *** ISCST3 - VERSION 02035 *** *** Section 24 Specific Plan *** 07/10/14
*** Particulates (PM2.5) *** 16:14:44
**MODELOPTs: PAGE 49
CONC URBAN FLAT FLGPOL NOCALM NOCMPL

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L_SCAPE , C1 , C2 , C3 , C4 , C5 , C6 ,
C7 , C8 , C9 , C10 , C11 , C12 , C13 , C14 , C15 , C16 , C17 , C18 ,
C19 , C20 , C21 , C22 , C23 , C24 , C25 , C26 , C27 , C28 , C29 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M) Y-COORD (M) CONC (YYMMDDHH) X-COORD (M) Y-COORD (M) CONC (YYMMDDHH)
- -
556558.00 3741725.00 0.01537 (81121224) 551758.00
3741825.00 0.01748 (81011124)
551858.00 3741825.00 0.01834 (81011124) 551958.00
3741825.00 0.01929 (81011124)
552058.00 3741825.00 0.02034 (81011124) 552158.00
3741825.00 0.02149 (81011124)

552258.00 3741825.00 0.02276 (81011124) 552358.00 3741825.00 0.02415 (81011124)
552458.00 3741825.00 0.02566 (81011124) 552558.00 3741825.00 0.02733 (81011124)
552658.00 3741825.00 0.02920 (81011124) 552758.00 3741825.00 0.03132 (81011124)
552858.00 3741825.00 0.03381 (81011124) 552958.00 3741825.00 0.03684 (81011124)
553058.00 3741825.00 0.04073 (81011124) 553158.00 3741825.00 0.04625 (81011124)
553258.00 3741825.00 0.05546 (81011124) 554658.00 3741825.00 0.08376 (81122724)
554758.00 3741825.00 0.06208 (81122724) 554858.00 3741825.00 0.04788 (81122724)
554958.00 3741825.00 0.03800 (81122724) 555058.00 3741825.00 0.03275 (81021924)
555158.00 3741825.00 0.03004 (81021924) 555258.00 3741825.00 0.02772 (81021924)
555358.00 3741825.00 0.02567 (81021924) 555458.00 3741825.00 0.02380 (81021924)
555558.00 3741825.00 0.02203 (81021924) 555658.00 3741825.00 0.02034 (81021924)
555758.00 3741825.00 0.01874 (81021924) 555858.00 3741825.00 0.01728 (81021924)
555958.00 3741825.00 0.01646 (81010824) 556058.00 3741825.00 0.01585 (81062024)
556158.00 3741825.00 0.01549 (81062024) 556258.00 3741825.00 0.01516 (81062024)
556358.00 3741825.00 0.01485 (81062024) 556458.00 3741825.00 0.01456 (81062024)
556558.00 3741825.00 0.01428 (81062024) 551758.00 3741925.00 0.01748 (81011124)
551858.00 3741925.00 0.01829 (81011124) 551958.00 3741925.00 0.01918 (81011124)
552058.00 3741925.00 0.02017 (81011124) 552158.00 3741925.00 0.02124 (81011124)
552258.00 3741925.00 0.02240 (81011124) 552358.00 3741925.00 0.02366 (81011124)
552458.00 3741925.00 0.02502 (81011124) 552558.00 3741925.00 0.02650 (81011124)
552658.00 3741925.00 0.02815 (81011124) 552758.00 3741925.00 0.03000 (81011124)
552858.00 3741925.00 0.03211 (81011124) 552958.00 3741925.00 0.03459 (81011124)
553058.00 3741925.00 0.03759 (81011124) 553158.00 3741925.00 0.04136 (81011124)
553258.00 3741925.00 0.04642 (81011124) 554658.00 3741925.00 0.06149 (81122724)
554758.00 3741925.00 0.04867 (81122724) 554858.00 3741925.00 0.03878 (81122724)
554958.00 3741925.00 0.03346 (81021924) 555058.00 3741925.00 0.03081 (81021924)
555158.00 3741925.00 0.02852 (81021924) 555258.00 3741925.00 0.02651 (81021924)
555358.00 3741925.00 0.02471 (81021924) 555458.00 3741925.00 0.02307 (81021924)
555558.00 3741925.00 0.02150 (81021924) 555658.00 3741925.00 0.01999 (81021924)
555758.00 3741925.00 0.01852 (81021924) 555858.00 3741925.00 0.01714 (81021924)
555958.00 3741925.00 0.01588 (81021924) 556058.00 3741925.00 0.01477 (81021924)
556158.00 3741925.00 0.01408 (81062024) 556258.00

3741925.00 0.01384 (81062024)
556358.00 3741925.00 0.01361 (81062024) 556458.00
3741925.00 0.01340 (81062024)
556558.00 3741925.00 0.01320 (81062024) 551758.00
3742025.00 0.01714 (81011124)
551858.00 3742025.00 0.01789 (81011124) 551958.00
3742025.00 0.01870 (81011124)
552058.00 3742025.00 0.01959 (81011124) 552158.00
3742025.00 0.02053 (81011124)
552258.00 3742025.00 0.02154 (81011124) 552358.00
3742025.00 0.02261 (81011124)

♀ *** ISCST3 - VERSION 02035 *** *** Section 24 Specific Plan
*** 07/10/14
*** Particulates (PM2.5)
*** 16:14:44

**MODELOPTs:

CONC URBAN FLAT FLGPOL NOCALM
NOCMPL

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L_SCAPE , C1 , C2 , C3 , C4 , C5 , C6 , C7 , C8 , C9 , C10 , C11 , C12 , C13 , C14 , C15 , C16 , C17 , C18 , C19 , C20 , C21 , C22 , C23 , C24 , C25 , C26 , C27 , C28 , C29 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
552458.00	3742025.00	0.02375	(81011124)	552558.00	3742025.00	0.02496	(81011124)
554958.00	3742025.00	0.03024	(81112724)	555058.00	3742025.00	0.02694	(81021924)
555158.00	3742025.00	0.02553	(81021924)	555258.00	3742025.00	0.02416	(81021924)
555358.00	3742025.00	0.02284	(81021924)	555458.00	3742025.00	0.02157	(81021924)
555558.00	3742025.00	0.02033	(81021924)	555658.00	3742025.00	0.01909	(81021924)
555758.00	3742025.00	0.01785	(81021924)	555858.00	3742025.00	0.01663	(81021924)
555958.00	3742025.00	0.01547	(81021924)	556058.00	3742025.00	0.01441	(81021924)
556158.00	3742025.00	0.01348	(81021924)	556258.00	3742025.00	0.01269	(81021924)
556358.00	3742025.00	0.01224	(81062024)	556458.00	3742025.00	0.01210	(81062024)
556558.00	3742025.00	0.01198	(81062024)	551758.00	3742125.00	0.01658	(81011124)
551858.00	3742125.00	0.01725	(81011124)	551958.00	3742125.00	0.01798	(81011124)
552058.00	3742125.00	0.01874	(81011124)	552158.00	3742125.00	0.01954	(81011124)

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       552258.00   3742125.00         0.02037  (81011124)                552358.00
3742125.00         0.02122  (81011124)
       552458.00   3742125.00         0.02207  (81011124)                552558.00
3742125.00         0.02292  (81011124)
       554958.00   3742125.00         0.02968  (81112724)                555058.00
3742125.00         0.02551  (81112724)
       555158.00   3742125.00         0.02219  (81112724)                555258.00
3742125.00         0.02049  (81021924)
       555358.00   3742125.00         0.01979  (81021924)                555458.00
3742125.00         0.01903  (81021924)
       555558.00   3742125.00         0.01823  (81021924)                555658.00
3742125.00         0.01738  (81021924)
       555758.00   3742125.00         0.01647  (81021924)                555858.00
3742125.00         0.01552  (81021924)
       555958.00   3742125.00         0.01456  (81021924)                556058.00
3742125.00         0.01364  (81021924)
       556158.00   3742125.00         0.01280  (81021924)                556258.00
3742125.00         0.01205  (81021924)
       556358.00   3742125.00         0.01142  (81021924)                556458.00
3742125.00         0.01089  (81021924)
       556558.00   3742125.00         0.01071  (81062024)                551758.00
3742225.00         0.01593  (81011124)
       551858.00   3742225.00         0.01652  (81011124)                551958.00
3742225.00         0.01713  (81011124)
       552058.00   3742225.00         0.01775  (81011124)                552158.00
3742225.00         0.01837  (81011124)
       552258.00   3742225.00         0.01896  (81011124)                552358.00
3742225.00         0.01952  (81011124)
       552458.00   3742225.00         0.01999  (81011124)                552558.00
3742225.00         0.02035  (81011124)
       554958.00   3742225.00         0.02903  (81112724)                555058.00
3742225.00         0.02527  (81112724)
       555158.00   3742225.00         0.02219  (81112724)                555258.00
3742225.00         0.01962  (81112724)
       555358.00   3742225.00         0.01750  (81112724)                555458.00
3742225.00         0.01604  (81021924)
       555558.00   3742225.00         0.01558  (81021924)                555658.00
3742225.00         0.01507  (81021924)
       555758.00   3742225.00         0.01449  (81021924)                555858.00
3742225.00         0.01383  (81021924)
       555958.00   3742225.00         0.01313  (81021924)                556058.00
3742225.00         0.01241  (81021924)
       556158.00   3742225.00         0.01171  (81021924)                556258.00
3742225.00         0.01107  (81021924)
       556358.00   3742225.00         0.01050  (81021924)                556458.00
3742225.00         0.01002  (81021924)
       556558.00   3742225.00         0.00970  (81101124)                551758.00
3742325.00         0.01520  (81011124)
       551858.00   3742325.00         0.01566  (81011124)                551958.00
3742325.00         0.01612  (81011124)
       552058.00   3742325.00         0.01653  (81011124)                552158.00
3742325.00         0.01690  (81011124)
       552258.00   3742325.00         0.01718  (81011124)                552358.00
3742325.00         0.01736  (81011124)
       552458.00   3742325.00         0.01741  (81011124)                552558.00
3742325.00         0.01730  (81011124)
♀ *** ISCST3 - VERSION 02035 ***    *** Section 24 Specific Plan
                        ***          07/10/14
                                     *** Particulates (PM2.5)
                       ***          16:14:44
**MODELOPTs:
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CONC                    URBAN FLAT  FLGPOL                                NOCALM
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SECTION_24_PM2.5

NOCMPL

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): L_SCAPE , C1 , C2 , C3 , C4 , C5 , C6 , C7 , C8 , C9 , C10 , C11 , C12 , C13 , C14 , C15 , C16 , C17 , C18 , C19 , C20 , C21 , C22 , C23 , C24 , C25 , C26 , C27 , C28 , C29 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
554958.00	3742325.00	0.02805	(81112724)	555058.00	3742325.00	0.02486	(81112724)
555158.00	3742325.00	0.02210	(81112724)	555258.00	3742325.00	0.01970	(81112724)
555358.00	3742325.00	0.01767	(81112724)	555458.00	3742325.00	0.01600	(81112724)
555558.00	3742325.00	0.01456	(81112724)	555658.00	3742325.00	0.01321	(81112724)
555758.00	3742325.00	0.01239	(81021924)	555858.00	3742325.00	0.01193	(81021924)
555958.00	3742325.00	0.01142	(81021924)	556058.00	3742325.00	0.01088	(81021924)
556158.00	3742325.00	0.01033	(81021924)	556258.00	3742325.00	0.00980	(81021924)
556358.00	3742325.00	0.00932	(81021924)	556458.00	3742325.00	0.00909	(81062224)
556558.00	3742325.00	0.00899	(81062224)	551758.00	3742425.00	0.01427	(81011124)
551858.00	3742425.00	0.01456	(81011124)	551958.00	3742425.00	0.01479	(81011124)
552058.00	3742425.00	0.01495	(81011124)	552158.00	3742425.00	0.01503	(81011124)
552258.00	3742425.00	0.01500	(81011124)	552358.00	3742425.00	0.01508	(81011224)
552458.00	3742425.00	0.01560	(81011224)	552558.00	3742425.00	0.01602	(81011224)
554958.00	3742425.00	0.02675	(81112724)	555058.00	3742425.00	0.02415	(81112724)
555158.00	3742425.00	0.02181	(81112724)	555258.00	3742425.00	0.01967	(81112724)
555358.00	3742425.00	0.01777	(81112724)	555458.00	3742425.00	0.01617	(81112724)
555558.00	3742425.00	0.01480	(81112724)	555658.00	3742425.00	0.01354	(81112724)
555758.00	3742425.00	0.01231	(81112724)	555858.00	3742425.00	0.01106	(81112724)
555958.00	3742425.00	0.00986	(81021924)	556058.00	3742425.00	0.00940	(81021924)
556158.00	3742425.00	0.00894	(81021924)	556258.00	3742425.00	0.00865	(81012824)
556358.00	3742425.00	0.00854	(81012824)	556458.00	3742425.00	0.00844	(81062224)

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       556558.00   3742425.00        0.00841  (81062224)               551758.00
3742525.00        0.01305  (81011124)
       551858.00   3742525.00        0.01313  (81011124)               551958.00
3742525.00        0.01314  (81011124)
       552058.00   3742525.00        0.01307  (81011124)               552158.00
3742525.00        0.01350  (81011224)
       552258.00   3742525.00        0.01398  (81011224)               552358.00
3742525.00        0.01437  (81011224)
       552458.00   3742525.00        0.01465  (81011224)               552558.00
3742525.00        0.01496  (81010724)
       554958.00   3742525.00        0.02519  (81112724)               555058.00
3742525.00        0.02319  (81112724)
       555158.00   3742525.00        0.02127  (81112724)               555258.00
3742525.00        0.01944  (81112724)
       555358.00   3742525.00        0.01775  (81112724)               555458.00
3742525.00        0.01626  (81112724)
       555558.00   3742525.00        0.01497  (81112724)               555658.00
3742525.00        0.01379  (81112724)
       555758.00   3742525.00        0.01266  (81112724)               555858.00
3742525.00        0.01151  (81112724)
       555958.00   3742525.00        0.01034  (81112724)               556058.00
3742525.00        0.00916  (81112724)
       556158.00   3742525.00        0.00842  (81010824)               556258.00
3742525.00        0.00818  (81010824)
       556358.00   3742525.00        0.00800  (81010824)               556458.00
3742525.00        0.00788  (81010824)
       556558.00   3742525.00        0.00785  (81062224)               551758.00
3742625.00        0.01156  (81011124)
       551858.00   3742625.00        0.01164  (81011224)               551958.00
3742625.00        0.01215  (81011224)
       552058.00   3742625.00        0.01260  (81011224)               552158.00
3742625.00        0.01299  (81011224)
       552258.00   3742625.00        0.01330  (81011224)               552358.00
3742625.00        0.01349  (81011224)
       552458.00   3742625.00        0.01405  (81010724)               552558.00
3742625.00        0.01494  (81010724)
       554958.00   3742625.00        0.02385  (81031424)               555058.00
3742625.00        0.02201  (81112724)
♀ *** ISCST3 - VERSION 02035 ***    *** Section 24 Specific Plan
                        ***          07/10/14
                                     *** Particulates (PM2.5)
                       ***          16:14:44
**MODELOPTs:
                                    PAGE  52
CONC                    URBAN FLAT  FLGPOL                                NOCALM
                      NOCMPL

                                *** THE   1ST HIGHEST 24-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                    INCLUDING SOURCE(S):      L_SCAPE , C1      , C2
  , C3      , C4      , C5      , C6      ,
        C7      , C8      , C9      , C10     , C11     , C12     , C13     , C14
  , C15     , C16     , C17     , C18     ,
        C19     , C20     , C21     , C22     , C23     , C24     , C25     , C26
  , C27     , C28     , C29     ,  . . .  ,

                                                *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                             ** CONC OF OTHER    IN MICROGRAMS/M**3
                    **

     X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
```

Y-COORD (M)	CONC	(YYMMDDHH)			
555158.00	3742625.00	0.02052	(81112724)	555258.00	3742625.00	0.01901	(81112724)
555358.00	3742625.00	0.01756	(81112724)	555458.00	3742625.00	0.01623	(81112724)
555558.00	3742625.00	0.01505	(81112724)	555658.00	3742625.00	0.01397	(81112724)
555758.00	3742625.00	0.01292	(81112724)	555858.00	3742625.00	0.01187	(81112724)
555958.00	3742625.00	0.01079	(81112724)	556058.00	3742625.00	0.00969	(81112724)
556158.00	3742625.00	0.00859	(81112724)	556258.00	3742625.00	0.00802	(81022624)
556358.00	3742625.00	0.00775	(81022624)	556458.00	3742625.00	0.00751	(81010824)
556558.00	3742625.00	0.00744	(81010824)	551758.00	3742725.00	0.01097	(81011224)
551858.00	3742725.00	0.01141	(81011224)	551958.00	3742725.00	0.01180	(81011224)
552058.00	3742725.00	0.01213	(81011224)	552158.00	3742725.00	0.01237	(81011224)
552258.00	3742725.00	0.01249	(81011224)	552358.00	3742725.00	0.01326	(81010724)
552458.00	3742725.00	0.01402	(81010724)	552558.00	3742725.00	0.01460	(81010724)
554958.00	3742725.00	0.02346	(81031424)	555058.00	3742725.00	0.02106	(81031424)
555158.00	3742725.00	0.01959	(81112724)	555258.00	3742725.00	0.01840	(81112724)
555358.00	3742725.00	0.01719	(81112724)	555458.00	3742725.00	0.01605	(81112724)
555558.00	3742725.00	0.01501	(81112724)	555658.00	3742725.00	0.01404	(81112724)
555758.00	3742725.00	0.01310	(81112724)	555858.00	3742725.00	0.01215	(81112724)
555958.00	3742725.00	0.01116	(81112724)	556058.00	3742725.00	0.01014	(81112724)
556158.00	3742725.00	0.00911	(81112724)	556258.00	3742725.00	0.00808	(81112724)
556358.00	3742725.00	0.00772	(81022624)	556458.00	3742725.00	0.00749	(81022624)
556558.00	3742725.00	0.00722	(81022624)	551758.00	3742825.00	0.01075	(81011224)
551858.00	3742825.00	0.01110	(81011224)	551958.00	3742825.00	0.01138	(81011224)
552058.00	3742825.00	0.01157	(81011224)	552158.00	3742825.00	0.01176	(81010724)
552258.00	3742825.00	0.01255	(81010724)	552358.00	3742825.00	0.01321	(81010724)
552458.00	3742825.00	0.01371	(81010724)	552558.00	3742825.00	0.01399	(81010724)
554958.00	3742825.00	0.02291	(81031424)	555058.00	3742825.00	0.02094	(81031424)
555158.00	3742825.00	0.01866	(81031424)	555258.00	3742825.00	0.01764	(81112724)
555358.00	3742825.00	0.01667	(81112724)	555458.00	3742825.00	0.01572	(81112724)
555558.00	3742825.00	0.01483	(81112724)	555658.00	3742825.00	0.01400	(81112724)
555758.00	3742825.00	0.01317	(81112724)	555858.00	3742825.00	0.01233	(81112724)

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       555958.00   3742825.00        0.01144  (81112724)               556058.00
3742825.00        0.01051  (81112724)
       556158.00   3742825.00        0.00955  (81112724)               556258.00
3742825.00        0.00857  (81112724)
       556358.00   3742825.00        0.00762  (81112724)               556458.00
3742825.00        0.00744  (81022624)
       556558.00   3742825.00        0.00723  (81022624)               551758.00
3742925.00        0.01048  (81011224)
       551858.00   3742925.00        0.01073  (81011224)               551958.00
3742925.00        0.01088  (81011224)
       552058.00   3742925.00        0.01120  (81010724)               552158.00
3742925.00        0.01190  (81010724)
       552258.00   3742925.00        0.01249  (81010724)               552358.00
3742925.00        0.01293  (81010724)
       552458.00   3742925.00        0.01316  (81010724)               552558.00
3742925.00        0.01317  (81010724)
       554958.00   3742925.00        0.02224  (81031424)               555058.00
3742925.00        0.02068  (81031424)
       555158.00   3742925.00        0.01873  (81031424)               555258.00
3742925.00        0.01675  (81112724)
♀ *** ISCST3 - VERSION 02035 ***    *** Section 24 Specific Plan
                      ***          07/10/14
                                   *** Particulates (PM2.5)
                     ***           16:14:44
**MODELOPTs:
                                   PAGE  53
CONC                    URBAN FLAT  FLGPOL                                NOCALM
                    NOCMPL

                              *** THE   1ST HIGHEST 24-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                   INCLUDING SOURCE(S):      L_SCAPE , C1      , C2
  , C3      , C4      , C5      , C6      ,
        C7      , C8      , C9      , C10     , C11     , C12     , C13     , C14
  , C15     , C16     , C17     , C18     ,
        C19     , C20     , C21     , C22     , C23     , C24     , C25     , C26
  , C27     , C28     , C29     ,  . . .  ,

                                                *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                             ** CONC OF OTHER    IN MICROGRAMS/M**3
                  **

     X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
       555358.00   3742925.00        0.01603  (81112724)               555458.00
3742925.00        0.01527  (81112724)
       555558.00   3742925.00        0.01453  (81112724)               555658.00
3742925.00        0.01383  (81112724)
       555758.00   3742925.00        0.01313  (81112724)               555858.00
3742925.00        0.01240  (81112724)
       555958.00   3742925.00        0.01162  (81112724)               556058.00
3742925.00        0.01079  (81112724)
       556158.00   3742925.00        0.00991  (81112724)               556258.00
3742925.00        0.00900  (81112724)
       556358.00   3742925.00        0.00809  (81112724)               556458.00
3742925.00        0.00730  (81022624)
       556558.00   3742925.00        0.00716  (81022624)               551758.00
3743025.00        0.01016  (81011224)
       551858.00   3743025.00        0.01028  (81011224)               551958.00
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3743025.00        0.01069  (81010724)
       552058.00   3743025.00        0.01132  (81010724)              552158.00
3743025.00        0.01184  (81010724)
       552258.00   3743025.00        0.01222  (81010724)              552358.00
3743025.00        0.01243  (81010724)
       552458.00   3743025.00        0.01243  (81010724)              552558.00
3743025.00        0.01221  (81010724)
       554958.00   3743025.00        0.02148  (81031424)              555058.00
3743025.00        0.02028  (81031424)
       555158.00   3743025.00        0.01867  (81031424)              555258.00
3743025.00        0.01678  (81031424)
       555358.00   3743025.00        0.01528  (81112724)              555458.00
3743025.00        0.01471  (81112724)
       555558.00   3743025.00        0.01412  (81112724)              555658.00
3743025.00        0.01354  (81112724)
       555758.00   3743025.00        0.01297  (81112724)              555858.00
3743025.00        0.01236  (81112724)
       555958.00   3743025.00        0.01170  (81112724)              556058.00
3743025.00        0.01097  (81112724)
       556158.00   3743025.00        0.01019  (81112724)              556258.00
3743025.00        0.00936  (81112724)
       556358.00   3743025.00        0.00850  (81112724)              556458.00
3743025.00        0.00765  (81112724)
       556558.00   3743025.00        0.00700  (81022624)              551758.00
3743125.00        0.00976  (81011224)
       551858.00   3743125.00        0.01022  (81010724)              551958.00
3743125.00        0.01079  (81010724)
       552058.00   3743125.00        0.01125  (81010724)              552158.00
3743125.00        0.01159  (81010724)
       552258.00   3743125.00        0.01177  (81010724)              552358.00
3743125.00        0.01176  (81010724)
       552458.00   3743125.00        0.01156  (81010724)              552558.00
3743125.00        0.01117  (81010724)
       554958.00   3743125.00        0.02067  (81031424)              555058.00
3743125.00        0.01977  (81031424)
       555158.00   3743125.00        0.01848  (81031424)              555258.00
3743125.00        0.01686  (81031424)
       555358.00   3743125.00        0.01509  (81031424)              555458.00
3743125.00        0.01405  (81112724)
       555558.00   3743125.00        0.01362  (81112724)              555658.00
3743125.00        0.01317  (81112724)
       555758.00   3743125.00        0.01271  (81112724)              555858.00
3743125.00        0.01222  (81112724)
       555958.00   3743125.00        0.01167  (81112724)              556058.00
3743125.00        0.01106  (81112724)
       556158.00   3743125.00        0.01037  (81112724)              556258.00
3743125.00        0.00963  (81112724)
       556358.00   3743125.00        0.00884  (81112724)              556458.00
3743125.00        0.00804  (81112724)
       556558.00   3743125.00        0.00725  (81112724)              551758.00
3743225.00        0.00978  (81010724)
       551858.00   3743225.00        0.01030  (81010724)              551958.00
3743225.00        0.01071  (81010724)
       552058.00   3743225.00        0.01101  (81010724)              552158.00
3743225.00        0.01117  (81010724)
       552258.00   3743225.00        0.01116  (81010724)              552358.00
3743225.00        0.01098  (81010724)
       552458.00   3743225.00        0.01061  (81010724)              552558.00
3743225.00        0.01010  (81010724)
       554958.00   3743225.00        0.01982  (81031424)              555058.00
3743225.00        0.01918  (81031424)
       555158.00   3743225.00        0.01817  (81031424)              555258.00
3743225.00        0.01683  (81031424)
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555358.00 3743225.00 0.01526 (81031424) 555458.00 3743225.00 0.01399 (81101324)

**MODELOPTs:

CONC URBAN FLAT FLGPOL NOCALM NOCMPL

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L_SCAPE , C1 , C2 , C3 , C4 , C5 , C6 , C7 , C8 , C9 , C10 , C11 , C12 , C13 , C14 , C15 , C16 , C17 , C18 , C19 , C20 , C21 , C22 , C23 , C24 , C25 , C26 , C27 , C28 , C29 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
555558.00	3743225.00	0.01311	(81101324)	555658.00	3743225.00	0.01271	(81112724)
555758.00	3743225.00	0.01237	(81112724)	555858.00	3743225.00	0.01198	(81112724)
555958.00	3743225.00	0.01154	(81112724)	556058.00	3743225.00	0.01104	(81112724)
556158.00	3743225.00	0.01046	(81112724)	556258.00	3743225.00	0.00981	(81112724)
556358.00	3743225.00	0.00911	(81112724)	556458.00	3743225.00	0.00837	(81112724)
556558.00	3743225.00	0.00762	(81112724)	551758.00	3743325.00	0.00984	(81010724)
551858.00	3743325.00	0.01022	(81010724)	551958.00	3743325.00	0.01049	(81010724)
552058.00	3743325.00	0.01062	(81010724)	552158.00	3743325.00	0.01061	(81010724)
552258.00	3743325.00	0.01044	(81010724)	552358.00	3743325.00	0.01011	(81010724)
552458.00	3743325.00	0.00964	(81010724)	552558.00	3743325.00	0.01006	(81120324)
554958.00	3743325.00	0.01895	(81031424)	555058.00	3743325.00	0.01852	(81031424)
555158.00	3743325.00	0.01776	(81031424)	555258.00	3743325.00	0.01668	(81031424)
555358.00	3743325.00	0.01534	(81031424)	555458.00	3743325.00	0.01388	(81031424)
555558.00	3743325.00	0.01313	(81101324)	555658.00	3743325.00	0.01232	(81101324)
555758.00	3743325.00	0.01195	(81112724)	555858.00	3743325.00	0.01167	(81112724)
555958.00	3743325.00	0.01133	(81112724)	556058.00	3743325.00	0.01093	(81112724)
556158.00	3743325.00	0.01045	(81112724)	556258.00			

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3743525.00        0.01235  (81101324)
♀ *** ISCST3 - VERSION 02035 ***    *** Section 24 Specific Plan
                          ***        07/10/14
                                     *** Particulates (PM2.5)
                        ***         16:14:44
**MODELOPTs:
                                    PAGE  55
CONC                    URBAN FLAT  FLGPOL                                NOCALM
                      NOCMPL

                                *** THE   1ST HIGHEST 24-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL       ***
                                    INCLUDING SOURCE(S):      L_SCAPE , C1      , C2
  , C3      , C4      , C5      , C6      ,
        C7      , C8      , C9      , C10     , C11     , C12     , C13     , C14
  , C15     , C16     , C17     , C18     ,
        C19     , C20     , C21     , C22     , C23     , C24     , C25     , C26
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, C27 , C28 , C29 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
555758.00	3743525.00	0.01172	(81101324)	555858.00	3743525.00	0.01096	(81101324)
555958.00	3743525.00	0.01072	(81112724)	556058.00	3743525.00	0.01049	(81112724)
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556358.00	3743525.00	0.00939	(81112724)	556458.00	3743525.00	0.00889	(81112724)
556558.00	3743525.00	0.00833	(81112724)				

♀ *** ISCST3 - VERSION 02035 *** *** Section 24 Specific Plan ***
07/10/14
*** Particulates (PM2.5)
*** 16:14:44
**MODELOPTs:
PAGE 56
CONC URBAN FLAT FLGPOL NOCALM NOCMPL

*** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

GROUP ID	NETWORK AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	GRID-ID
ALL	HIGH 1ST HIGH VALUE IS 0.16061	ON 81121824:	AT (554858.00, 3740225.00, 0.00, 2.00)	DC	NA

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
BD = BOUNDARY

♀ *** ISCST3 - VERSION 02035 *** *** Section 24 Specific Plan ***
07/10/14
*** Particulates (PM2.5)
*** 16:14:44
**MODELOPTs:
PAGE 57
CONC URBAN FLAT FLGPOL NOCALM NOCMPL

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*** Message Summary : ISCST3 Model Execution ***

 --------- Summary of Total Messages --------

A Total of            0 Fatal Error Message(s)
A Total of            0 Warning Message(s)
A Total of          563 Informational Message(s)

A Total of          563 Calm Hours Identified


   ******** FATAL ERROR MESSAGES ********
              ***  NONE  ***


   ********   WARNING MESSAGES   ********
              ***  NONE  ***


   ***********************************
   *** ISCST3 Finishes Successfully ***
   ***********************************
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**BEE-Line Software: BEEST for Windows (Version 10.13) data input file
**  Model: ST3WIN.EXE     Input File Creation Date: 7/10/2014  Time: 4:14:25 PM
NO ECHO


CO STARTING
CO TITLEONE Section 24 Specific Plan
CO TITLETWO Particulates (PM2.5)
CO MODELOPT CONC URBAN NOCMPL NOCALM
CO AVERTIME 24
CO POLLUTID OTHER
CO TERRHGTS FLAT
CO FLAGPOLE 0
CO RUNORNOT RUN
CO FINISHED

SO STARTING
SO ELEVUNIT METERS
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APPENDIX C

Biological Resources Study

GENERAL BIOLOGICAL RESOURCES ASSESSMENT

Rancho Mirage Section 24 Specific Plan Site

Located Within
SECTION 24, RANGE 5 EAST, TOWNSHIP 4 SOUTH
Parcels 673-120-021, 673-120-022, 673-120-023,
673-120-024 and 673-120-025,
Riverside County, California

Prepared For:
MERIDIAN CONSULTANTS
860 Hampshire Road, Suite P
Westlake Village, California 91361
(805) 367-5720

Field Study and Report Completed By:
JAMES W. CORNETT
Ecological Consultants
P.O. Box 846
Palm Springs, California 92263
(760) 320-8135

March 28, 2014

CONTENTS

EXECUTIVE SUMMARY

A proposed specific plan for an eventual residential/commercial subdivision within the Agua Caliente Indian Reservation necessitated a biological survey and impact analysis.

Five species covered under the Tribal Habitat Conservation Plan (THCP) of the Agua Caliente Band of Cahuilla Indians were detected onsite and are considered resident: the Coachella Valley milk-vetch, Coachella Valley fringe-toed lizard, flat-tailed horned lizard, western burrowing owl (Mountains and Canyons Conservation Area only) and Palm Springs Ground Squirrel. Three additional covered species (Coachella giant sand-treader cricket, Coachella Valley Jerusalem cricket and Palm Springs pocket mouse) may occur onsite but were not detected.

Most of the land within the project boundaries is considered habitat for the Coachella Valley fringe-toed lizard. Six observations of this species were recorded and the loose, wind-blown sand substrate that covers most of the site is the lizard's preferred habitat. The flat-tailed horned lizard also favors wind-blown sand flats and one specimen of this species was recorded.

The western burrowing owl was detected within the project boundaries on six occasions including one active burrow. A survey for owls is recommended not more than 30-days prior to future ground disturbance on the site. The Palm Springs ground squirrel was detected only twice in the southwestern quarter of the site but should be expected throughout the project area.

The Coachella Valley milk-vetch has previously been recorded from the site. However, three years of drought, including the winter of 2013-2014, prevented seeds of this species from germinating and no living specimens were encountered during the surveys. Nonetheless, over a dozen dried milk-vetch seed pods were discovered in the southeastern quarter of the project site.

Two observations of the loggerhead shrike, not a covered species but considered sensitive by wildlife regulatory agencies, were recorded though no nests were found.

No blue-line stream corridors (streams or dry washes) were found within the project boundaries. Therefore, no streambed alteration permits are required from the federal government.

With regard to mitigating impacts to sensitive species, the project site falls under the jurisdiction of the THCP. The Plan indicates the site lies outside Target Acquisition Areas and the Fluvial Sand Transport Process Area. Therefore, mitigation for impacts to all covered species described in this report consists of the payment of $2,371 per disturbed acre. The fee is paid to the Agua Caliente Band of Cahuilla Indians who, in turn, use the fee to purchase comparable habitat elsewhere in the Coachella Valley.

Following the implementation of the required and recommended mitigation described in this report, development of the project site is not expected to have significant adverse impacts upon sensitive species or other biological resources beyond the project site.

I. INTRODUCTION

On November 28, 2013, the firm of James W. Cornett - Ecological Consultants, Inc., was retained by Meridian Consultants to conduct a biological survey and analysis on an approximately 577-acre site located within the Agua Caliente Band of Cahuilla Indians Reservation and within the sphere of influence of the City of Rancho Mirage, Riverside County, California. The project site encompassed the majority of Section 24, Range 5 East, Township 4 South (San Bernardino Baseline and Meridian). The regional location is shown in Figure 1, the area location in Figure 2 and the specific location with project boundaries in Figure 3. Site photographs are shown in Figures 4-7.

This study was included as part of an environmental assessment mandated by the National Environmental Policy Act (NEPA) and the City of Rancho Mirage, Riverside County, California. The biological survey and impact analysis were designed to ascertain the impacts of development on the biological resources of the project site and immediate vicinity.

Specific purposes of the biological surveys and impact analyses are listed below.

1. Determine the vascular plant and vertebrate animal species that occur on, and immediately adjacent to, the project site.

2. Ascertain the presence of any plant or animal species given special status by the federal government or the Agua Caliente Band of Cahuilla Indians as stated in the Tribe's Habitat Conservation Plan (THCP).

3. Ascertain the existence of other significant biotic elements, corridors or communities.

4. Consider the site's biological resources as they relate to the THCP.

5. If necessary and where feasible, recommend measures to mitigate significant adverse impacts of the project on any sensitive species determined to occur within the project boundaries, unique biotic elements or unique biological communities.

Figure 1. Regional Location of Project Site

Figure 2. Area Location

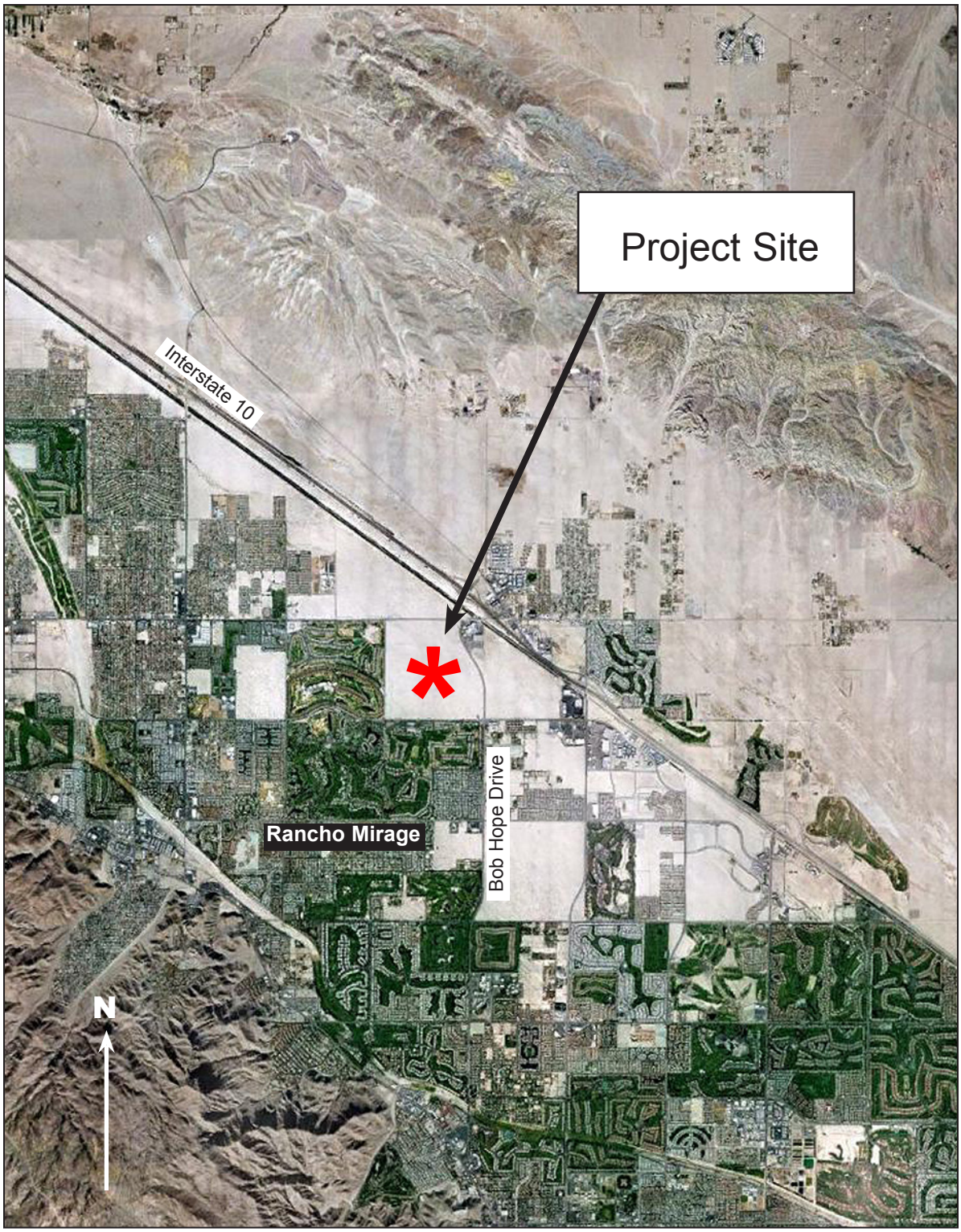
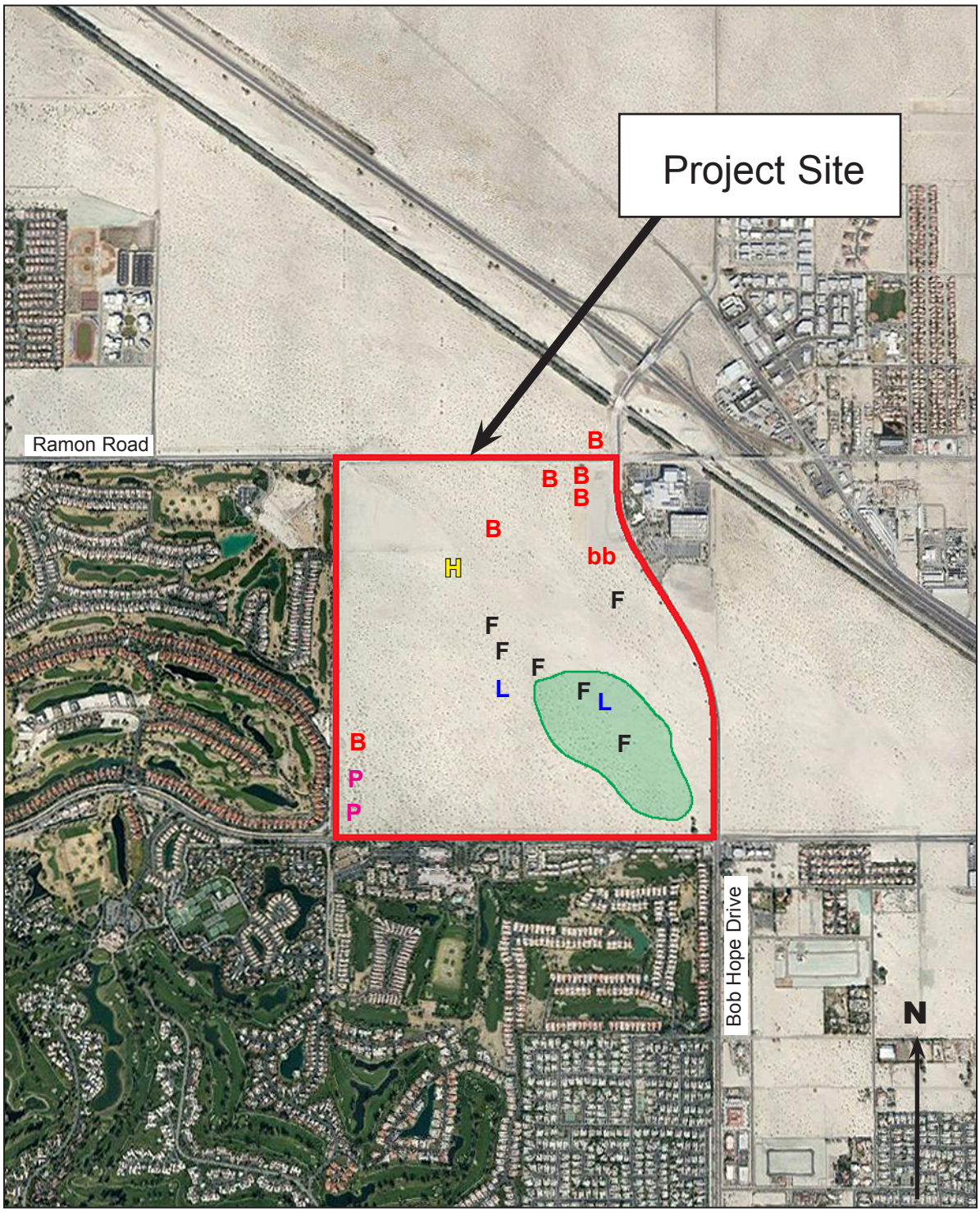


Figure 3. Project Site Boundary (in red)
Sensitive Species Detection Sites, Areas



F= Coachella Valley Fringe-toed Lizard
H = Flat-tailed Horned Lizard
B = Burrowing Owl, **bb** = active owl burrow
L = Loggerhead Shrike
= Coachella Valley Milkvetch
P = Palm Springs Ground Squirrel

Figures 4-7. Project Site Images

Figure 4. View across site to northheast.

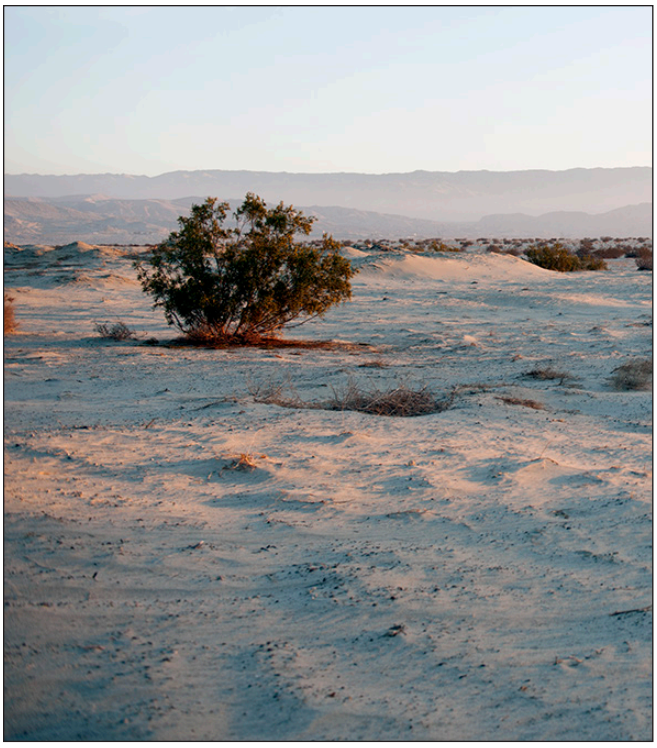


Figure 5. View across site to northwest.

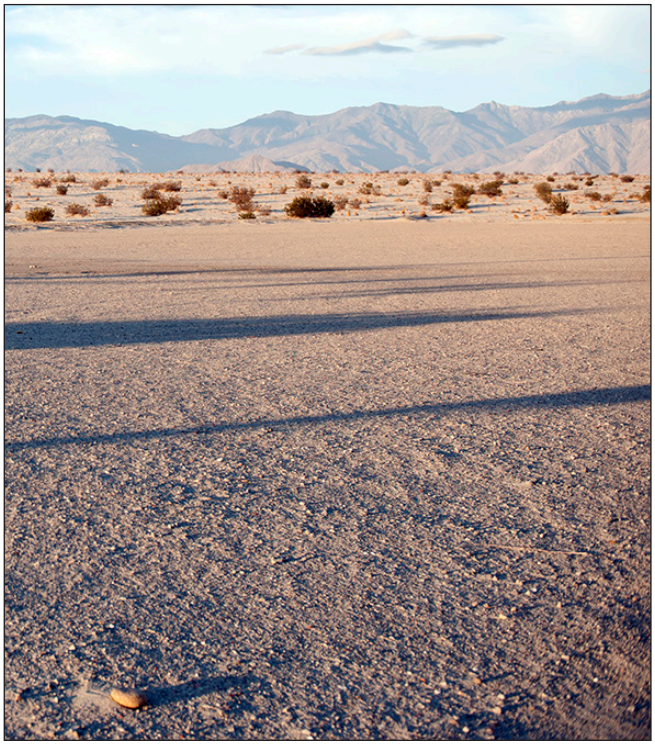


Figure 6. View across site to southwest.

Figure 7. View across site to southeast.

II. SITE AND PROJECT DESCRIPTIONS

Climate

The project area lies within the confines of a geographical region known as the Colorado Desert (Jaeger, 1957). As is typical of this subdivision of the Sonoran Desert, annual rainfall averages less than six inches (National Climatic Center, 2013). Most precipitation falls during the winter and late spring with occasional summer storms accounting for approximately one fifth of the annual total. Winter days are mild, averaging 71 degrees Fahrenheit. Winter nights occasionally drop to near freezing. The month of July brings the hottest temperatures with daytime highs averaging 109 degrees F.

Physical Features

The elevation of the project site ranges from approximately 252 feet above sea level at the northeast corner of the project site rising to 353 feet near the southeast corner. The only topographical relief consists of sand hummocks that rise from one to four feet above their base. The hummocks have been formed by shrubs that interrupt the flow of sand carrying wind coming from the northwest off the Whitewater River Floodplain. The shrubs reduce wind velocity and result in sand deposits or "hummocks" on the leeward or easterly side of the shrubs. The environment of the project site is included as part of the sand field habitat of the valley floor as described in the THCP.

There are no naturally occurring springs or permanent aquatic habitats within the project site boundaries. No blue-line stream corridors (streams or dry washes) are shown on U.S. Geological Survey maps for the project site nor are there botanical indicators of such corridors. Thus, there appear to be no need to obtain streambed alteration permits from the federal government.

Soil characteristics are uniform over the entire site. Soil is composed of wind-blown alluvium created by persistent air movements from the northwest. This process increased in intensity with the drying out of the Coachella Valley at the close of the Pleistocene epoch ending 10,000 years before present. At the current time residential and commercial developments to the west and north have resulted in some sand stabilization on portions of the site.

Surrounding Lands

To the east of the project site is located Bob Hope Drive, a relatively busy four-lane thoroughfare. To the east of Bob Hope Drive is the Agua Caliente Resort Spa and relatively undisturbed habitat similar to the project site (see Figure 3).

Dinah Shore Drive, another relatively busy four-lane thoroughfare, forms the southern boundary of the project site. Immediately south of Dinah Shore Drive is a golf course and residential development.

Another golf course and residential development are located along the western boundary of the project site.

Ramon Road, a busy four-lane thoroughfare, forms the northern site boundary. Relatively undisturbed creosote scrub habitat, similar to the project site, lies immediately north of Ramon Road.

The project site is nearly an ecological island bounded on all four sides by paved roadways (three of them carrying high volumes of traffic) and on two sides by residential developments. These undoubtedly severely limit the movement of small terrestrial animals on and off the project site.

Existing Impacts

The area has been impacted by human developments and activities on all boundaries of the project site. A residential development to the west has lifted and shielded the site from prevailing westerly winds emanating from the San Gorgonio Pass. This has had the effect of reducing wind-carried sand resulting in the partial stabilization of sand deposits across some of the project site.

Native vegetation has been removed from approximately forty acres in the northwestern corner of the site when sand was excavated to provide fill for freeway interchanges in 2010. Native vegetation has also been removed and soils compacted on the northeastern corner of the project site (approximately 40 acres) to create a temporary parking lot. Another approximately 40 acres in the southwestern corner of site has received large mounds of fill dirt in the past decade.

Several elevated bill boards have been installed along the eastern and southern edges of the site. Unpaved access roads parallel the eastern and southern boundaries.

A four-foot high sand fence has been installed along the southern project boundary.

The entire project area has been inundated with the exotic and invasive Sahara mustard, *Brassica tournefortii*. The establishment of this non-native, ephemeral species has likely contributed to the stabilization of blowsand on the project site.

Project Description (Provided by Meridian Consultants)

The Agua Caliente Band of Cahuilla Indians (“Tribe”) intends to prepare an Environmental Impact Statement (EIS) for the proposed Section 24 Specific Plan in compliance with the Agua

Caliente Tribal Environmental Policy Act (Tribal Ordinance No. 28). The Tribe is acting as the lead agency for the preparation of the EIS as the Section 24 Specific Plan area is located within the boundaries of the Agua Caliente Indian Reservation.

The Specific Plan area is located within the Sphere of Influence of the City of Rancho Mirage as identified by the Riverside Local Agency Formation Commission (LAFCO). Following action on the EIS and Section 24 Specific Plan by the Tribe, the Specific Plan area may be annexed to the City of Rancho Mirage.

The Tribe and Pulte Home Corporation/SCC Rancho Mirage Holdings LP ("Pulte/SCC") are proposing the Section 24 Specific Plan to coordinate the planning and future development of the Specific Plan area, which consists of land under separate ownerships, including approximately 120 acres located on Ramon Road that is owned by the Tribe, approximately 97 acres located on Bob Hope Drive that is allotted to members of the Tribe and under contract to be acquired by the Tribe, approximately 40 acres located on the corner of Bob Hope Drive and Dinah Shore Drive that is allotted to members of the Tribe, and 320 acres located north of Dinah Shore Drive that is currently allotted to members of the Tribe and under contract to be acquired by Pulte Homes/SCC and developed as an active adult residential community for residents aged 55 and above.

The Section 24 Specific Plan would allow development of a mix of retail, entertainment, office, hotel and residential uses intended to complement existing and planned surrounding uses in the City of Rancho Mirage. The Section 24 Specific Plan would create eight Planning Areas and a circulation system planned to support the proposed uses. Commercial uses are proposed on Ramon Road and Bob Hope Drive with residential uses proposed for the remainder of the Specific Plan area.

An active adult residential community, containing up to 1,200 units, is proposed on the 312 acres located north of Dinah Shore Drive. The Specific Plan will include development standards and design guidelines for this new residential community. Planning Area 8 will be the first portion of the Specific Plan area to develop, with full development anticipated to occur within 6-8 years.

No timeframes have been identified for development of the remaining Planning Areas, which are being programmatically planned at this time to coordinate streets and other infrastructure, and to ensure the comprehensive land use planning of the Specific Plan area in relation to existing and planned surrounding uses. The Specific Plan will include development and design standards for the Ramon Road, Bob Hope Drive and Dinah Shore Drive frontages to promote compatibility with surrounding uses. The land uses that would be allowed by the proposed Specific Plan in Planning Areas 1-7 are described below.

The proposed Specific Plan will allow approximately 67 acres of multi-family residential development, at a density of up to 18 dwelling units per acre, in Planning Areas 1B, 2B, 5, 6B and 7B. Up to 1,206 multi-family residential units would be allowed by the proposed Specific

Plan in these areas. Retail commercial uses would be allowed in Planning Area 3, located on the corner of Ramon Road and Bob Hope Drive and Planning Area 7A, located on the corner of Bob Hope Drive and Dinah Shore Drive.

The Specific Plan would allow development of up to 777,000 square feet (s.f.) of development on the 51 acres designated for retail commercial uses. Resort flex uses, a mix of hotel, retail commercial and entertainment uses, would be allowed in Planning Areas 1A, 4 and 6A on Ramon Road and Bob Hope Drive. Up to 1,271,600 s.f. of retail commercial, hotel, and entertainment uses would be allowed on the 73 acres designated for resort flex uses. Planning Area 2A, centrally located on Ramon Road, would be designated Mixed Use Core, with up to 1,090,000 s.f. of development allowed on this 25 acres. This land use designation would allow a mix of uses, including community retail commercial uses, office, and attached residential units. In total the Specific Plan would allow a maximum of 2,406 residential dwelling units and 3,138,000 square feet of commercial development.

III. STUDY METHODS

Prior to the initiation of field work, reviews of the literature and institutional records were conducted to determine the biological resources that might exist within the general area and to determine the possible occurrence of special status species. Records, collections, websites and/or staff of the University of California at Riverside Herbarium, the Boyd Deep Canyon Desert Research Center and the Coachella Valley Association of Governments were consulted for specific information as to the occurrence of selected species. A California Department of Fish & Game Natural Diversity Database (updated, March, 2014) check was also reviewed.

Field surveys were initiated in February of 2014. Specific dates of biological surveys were February 10, 11, 12, 14, 15, 16, 18, 19, 20, 21, 23, 24, 25, 26 and 27; and March 1, 2, 22 and 23, 2014. Night surveys were conducted on the evenings of February 19 and 24, 2014.

Survey dates were in late winter and early spring when all plant species and resident vertebrate species can be detected when maximum daytime air temperatures exceed 80° F. (Most days exceeded 80° during field surveys.) Reducing the likelihood that any species would be detected was the existence of unusually dry winters in 2012, 2013 and 2014. Drought dictates against the germination of ephemeral plant species and reproduction and survival in all animal species. In spite of severe long-term drought, it was concluded that this phenomenon did not impact the findings in this report because of evidence of sensitive species that was discovered and historical information regarding the biota of the project site.

Surveys were conducted by walking east/west transects at 10-yard intervals through the project site. The survey pattern used has been approved by the U.S. Fish & Wildlife Service for determining the presence or absence of the burrowing owl and desert tortoise and represents an intensive survey effort that resulted in no officially listed or federally protected species being overlooked (see Results section).

Private properties surround Section 24 prohibiting offsite surveys. Inability to conduct offsite surveys was considered inconsequential because very busy four-lane thoroughfares exist on the north, south and east boundaries of the project site. In addition, a walled residential community forms the western boundary. These barriers dramatically reduce dispersal movements of species on and off the site, particularly small terrestrial vertebrates.

Animal surveys were conducted simultaneously with plant surveys. In addition, twenty-five live-animal traps (which capture animals unharmed) for large and small mammals were set within the project site for twenty-four hour periods on February 19 and 24, 2014.

In an effort to determine if large animal corridors existed on the project site special attention was given to observing and identifying animal tracks. In addition, sand sifting and smoothing was done in several areas so that tracks would be more prominent and identifiable. Road kills on surrounding paved roadways were also monitored on all site visits.

Invertebrate sampling was conducted on the evenings of February 19 and 24, 2014. Three Bioquip Light Traps were used for attracting and live-capturing flying insects and some terrestrial arthropods. Black lights were the attracting mechanism with each trap powered by a 12-volt automobile battery. Traps were placed for maximum visibility.

Although scientific name changes occur as new discoveries are made in plant and animal taxonomy, the scientific names used in this report are taken from the standard and most available references describing the species found in the desert regions of Southern California—Bruce G. Baldwin's *The Jepson Manual* (Second Edition) published in 2012; D. P. Tibor's *Inventory of rare and endangered vascular plants of California* published in 2001; R. A. Stebbins' *A field guide to western reptiles and amphibians* published in 2003; Peterson's *Bird of North America* published in 2008; and E. W. Jameson's and H. J. Peeters' *California mammals* published in 2004. Plant common names used in this report are taken from Baldwin (2012), Jaeger (1969) and Tibor (2001). Animal common names are taken from Stebbins (2003), Peterson (2008) and Jameson and Peeter (2004).

Fieldwork was conducted by James Cornett (M.S., biology) and Walter Millin (B.A., environmental studies). Plant identifications were made by Andrew Sanders and Mr. Cornett. Animal remains were identified by Robert Reynolds and Mr. Cornett. The literature review was conducted by Terry Belknap. The report was written by Mr. Cornett.

IV. PLANT SURVEY RESULTS

A single plant association or *community* was found on site: the Sonoran creosote bush scrub community as described by Sawyer Keeler-Wolf (1995).

Sonoran creosote bush scrub community dominates vegetation of the entire area and is the pervasive plant community throughout the Colorado Desert of southeastern California. The creosote bush (*Larrea tridentata*) is, by far, the dominant perennial followed by Emory's Dalea (*Dalea emoryi*), wingscale (*Atriplex canescens*) and croton (*Croton californicus*).

Approximately 25% of the project site has been disturbed by road shoulder clearing, removal of topsoil for fill, grading for a temporary a parking lot and fill piling. The vegetation of these areas is dominated by weed species that germinate and grow following the damage or removal of native vegetation. Within the project area such species include Sahara mustard (*Brassica tournefortii*), Emory's Dalea (*Dalea emoryi*) and croton (*Croton californicus*). These species are often found throughout the California deserts wherever the natural vegetation has been removed. (The Sahara mustard is also established in undisturbed areas of the project site.)

The Inventory of Rare and Endangered Vascular Plants of California, published by the California Native Plant Society (2001), the *CNDDB Special Plant List* (2013) or the *Endangered, Threatened, and Rare Plants of California* (2013) lists a total of four plant species that could conceivably occur on the project site. They are the glandular ditaxis (*Ditaxis clariana*), ribbed cryptantha (*Cryptantha costata*), flat-seeded spurge (*Chamaesyce platysperma*), and Coachella Valley milk vetch (*Astragalus lentiginosus coachellae*).

1. The glandular ditaxis is a very rare perennial herb that blooms from December through March. It is restricted to sandy environments in the Sonoran Desert and has been found in the Coachella Valley at elevations similar to those found on the project site. Since the glandular ditaxis is a perennial, it is likely that it would be detected during the plant surveys. It was not detected and therefore presumed to not occur onsite. This species is not listed as rare, threatened or endangered by either the state or federal governments nor is it proposed to be listed at this time.

2. The ribbed cryptantha is an uncommon ephemeral known to occur on sandy soils in the Coachella Valley. The project site can be considered suitable habitat for this species. It was not detected but the surveys were done following an early winter period of below-average precipitation when most ephemerals would not be detected. The ribbed cryptantha is not listed as rare, threatened or endangered by either the state or federal governments nor is it proposed to be listed at this time.

3. The flat-seeded spurge is an extremely rare ephemeral herb known to occur on sandy soils in the Sonoran Desert. There has been at least one specimen found in the Coachella Valley. The species was not detected but the surveys were done in a winter of below-average precipitation.

The flat-seeded spurge is not listed as rare, threatened or endangered by either the state or federal governments nor is it proposed to be listed at this time.

4. The Coachella Valley milk vetch is an uncommon, spring-blooming ephemeral herb that is known to occur on sandy soils in the Coachella Valley. No living individuals of this subspecies were detected on or near the project site. However, many seed pods of this species were found and the area where they were located has been mapped and shown in Figure 3. Prior surveys on the project site in 2011 revealed 309 living individuals of this species within the project boundaries (Cornett, 2011). The project site appears to have a large seed bank of this species within the sandy soil and it is considered to be present today within the project boundaries.

No additional plant surveys are recommended. The only officially listed plant species that is considered to be present (as seed) is the Coachella Valley milk vetch. The milk vetch is listed as endangered by the U.S. Fish & Wildlife Service.

A complete list of vascular plant species found within the project boundaries has been placed in Table 1 of the Appendix. Taxonomic nomenclature follows Baldwin (2012). Common names are taken from Jaeger (1969), Baldwin (2012), Munz (1974) or Tibor (2001).

V. ANIMAL SURVEY RESULTS

The fauna of the project site and surrounding vicinity is composed of species typical of sandy, windswept habitats in the Coachella Valley portion of the Colorado Desert as defined by Jaeger (1957). Animal species associated with residential subdivisions were also recorded from the site.

Arthropods

Encountered arthropods on the site included the sand scorpion (*Paruroctonus mesaensis*), Eleodes beetle (*Eleodes armata*), harvester ant (*Pogonomyrmex californicus*) and creosote bush grasshopper (*Bootettix argentatus*).

Three insect species known to occur within the Coachella Valley have been placed on the California Department of Fish and Game's *Special Animals* list. They are the Coachella giant sand treader cricket (*Macrobaenetes valgum*), Coachella Valley Jerusalem cricket (*Stenopelmatus cahuilaensis*) and Coachella Valley grasshopper (*Spaniacris deserticola*). None of these three insect species were found during the surveys and none have any official status with the federal government. The Coachella giant sand treader cricket and Jerusalem cricket are covered species under the THCP.

Amphibians and Reptiles

No amphibian species were found during the surveys and none are expected.

Detected reptiles included the side-blotched lizard (*Uta stansburiana*), western whiptail (*Cnemidophorus tigris*), desert iguana (*Dipsosaurus dorsalis*), western shovel-nosed snake (*Chionactis occipitalis*) and sidewinder (*Crotalus cerastes*).

Six observations of the federally threatened Coachella Valley fringe-toed lizard, *Uma inornata*, were recorded (February 10, 11, 12, 18, 20, 26, 2014). Suitable habitat (surfaces of loose, windblown sand) for the lizard exists across the entire site with the exception of the temporary parking area in the northeast corner (approximately 40 acres). With this single exception, the lizard should be expected throughout the project site.

A concerted effort was made to locate sign of the officially listed desert tortoise (*Goperhus agassizi*). However, no evidence of any kind was found and no direct observations were made. In addition, the California Natural Diversity Database (March, 2014) has no records of the tortoise on or within one mile of the project site. It is therefore concluded that this species does not occur within the project site and immediate vicinity and no additional surveys for this species are recommended.

An intensive effort was also made to locate individuals or sign of the flat-tailed horned lizard, *Phrynosoma mcallii.* A single individual was found (February 16, 2014). Most of the project site is considered suitable habitat for this species and it may be more widespread than the discovery of a single specimen would indicate. The surveys were done in late winter and many individuals might still be in hibernation. In 2011, the U.S. Fish & Wildlife Service considered listing the flat-tailed horned lizard but elected to not do so in May of that year.

Birds

Frequently detected birds within the project area were the common raven (*Corvus corax*), greater roadrunner (*Geococcyx californianus*), mourning dove (*Zenaida macroura*), house finch (*Carpodacus mexicanus*) and Say's phoebe (*Sayornis saya*).

No observations of LeConte's thrasher (*Toxostoma lecontei*) were recorded during the surveys. In the Coachella Valley this species is closely associated with golden cholla, an arborescent cactus that provides a nesting site for the thrasher. The cactus species is absent from the project area and, therefore, it was concluded the thrasher does not occupy the project site at this time. LeConte's thrasher is a covered species under the THCP but is not listed by the USFWS.

Two sensitive avian species were observed within the project boundaries: the burrowing owl (*Athene cunicularia*) and loggerhead shrike (*Lanius ludovicianus*).

Burrowing Owl

The burrowing owl was recorded within project site boundaries on six separate days: February 11, 16, 24, 25, and 26 and March 1, 2014. (see Figure 3 for locations). All observations were of adult birds. One active burrow was found on the project site. The entire project site is considered potential habitat for the burrowing owl.

According to the THCP, the burrowing owl is not a covered species within the Valley Floor Conservation Area. However, it is protected in the United States by the Migratory Bird Treaty Act of 1918. Mitigation of impacts to the owl is required under the Act.

Loggerhead Shrike

The loggerhead shrike was observed on two occasions within the project site boundaries: February 20 and March 2, 2014. The locations are shown in Figure 3. No old or new nests were found but the species is likely resident in the project area because of suitable habitat and prey.

According to the THCP, the loggerhead shrike is not a covered species and has no special federal status. It is considered a Species of Special Concern by the state of California.

Mammals

Recorded mammals included the black-tailed jackrabbit (*Lepus californicus*), Palm Springs ground squirrel (*Spermophilus tereticaudus chlorus*), desert kangaroo rat (*Dipodomys deserti*) and coyote (*Canis latrans*). No individuals of the Palm Springs Pocket Mouse (*Perognathus longimembris bangsi*), a covered species, were found.

The Palm Springs Ground Squirrel is the only mammalian covered species discovered within the project boundaries. It was only detected twice (February 25, 26, 2014) but should be expected throughout the project site as the habitat is suitable. It currently is not a listed species and has a much broader range than was previously thought (Federal Register, 2009). It is, therefore, unlikely that it will be listed in the foreseeable future.

Wildlife Corridors

Smoothing of surfaces to yield tracks was performed on each site visit to determine if important wildlife corridors existed on the site. Much of the project site was sampled using this technique. Tracks of ravens, roadrunners, coyotes and black-tailed jackrabbits were each recorded. However, no discernable and routinely used corridors could be found.

A complete list of vertebrate species observed or detected on the project site can be found in Table 2 of the Appendix.

VI. FINDINGS AND RECOMMENDATIONS

Intensive plant and animal surveys were conducted within the boundaries of the proposed project site. Four sensitive species were detected that are classified as covered species in the Valley Floor Conservation Area of the THCP. The covered species are Coachella Valley milk vetch, Coachella Valley fringe-toed lizard, flat-tailed horned lizard and Palm Springs ground squirrel. Under the THCP adverse impacts to these four species can be mitigated by the project proponent paying the Tribe the required mitigation fee of $2,371 per disturbed acre for all covered species. Collected fees are used to purchase and preserve comparable habitat elsewhere in the Coachella Valley.

Three additional covered species may also occur within the project site but were not detected during the surveys. They are the Coachella giant sand treader cricket, Coachella Valley Jerusalem cricket and Palm Springs pocket mouse. Any adverse impacts to these three species are mitigated by paying the habitat mitigation fee described in the previous paragraph. Impacts to all covered species are mitigated by the payment of the one-time fee of $2,371 per acre.

Burrowing Owl

The burrowing owl was observed six separate times within the project site boundaries. One active burrow was found. According to the THCP the burrowing owl is not a covered species in the Valley Floor Conservation Area (HTCP, page 1-3). However, the Migratory Bird Act prohibits harming the owl therefore mitigation of potential adverse impacts are required. Owl mitigation is provided in the **Staff Report on Burrowing Owl Mitigation** prepared by the California Department of Fish and Game on March 7, 2012, and approved and accepted by the U.S. Fish & Wildlife Service. Mitigation for the owl is summarized below.

1. A preconstruction survey should take place not more than 30 days prior to project grading to determine the location of active burrows on and within 550 yards of an approved project site. If no active burrows are found in the survey area, site disturbance may commence providing a biological monitor is onsite.
2. A biological monitor, with the authority to halt or redirect grading, should be present whenever grading or construction vehicles are present and operating on the project site. The function of the monitor is to protect burrowing owls that arrive on or near the project site after the clearance survey and during the construction period
3. The breeding season of the western burrowing owl is from February 1 through August 31 of each year. No construction disturbances of any kind should occur within 500 meters (550 yards) of an active burrow during this time period. Thus, on a project site, grading should take place from September 1 through January 30 of each year to avoid restriction or cancellation of grading because of the presence of burrowing owls during the breeding season.

4. Resident owls present on or near the project site outside the breeding season can, in some instances, be relocated to other sites by a permitted biologist under the authorization of the U.S. Fish and Wildlife Service.

Loggerhead Shrike

According to the THCP, the loggerhead shrike is not a covered species and has no special federal status. It is considered a Species of Special Concern by the state of California. Mitigating impacts to the shrike is not required under federal statutes or the THCP. Nevertheless, it is recommended that breeding surveys be conducted simultaneously with burrowing owls surveys 30 days prior to any construction activities that are planned between February 15 and June 15, breeding seasons for both species. If a shrike nest is found, a buffer should be established in which construction activities are prohibited until all young have fledged. The width of the buffer should be determined by a qualified biologist.

Indirect Impacts

The project site is surrounded by high-volume roadways and two residential developments. As a result, it is nearly an ecological island with likely little significant biological interaction with natural habitats elsewhere in the Coachella Valley. Therefore, it is concluded that the development of the project site will have no significant indirect impacts to biological resources in the region.

Conclusion

Development of the proposed project site is not anticipated to have significant adverse impacts upon biological resources in the region providing the mitigation described in this report is implemented.

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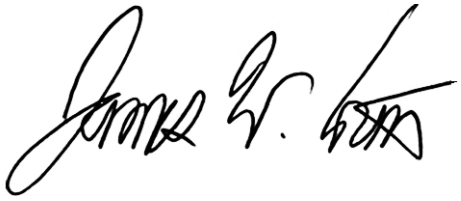
VIII. CERTIFICATION STATEMENT

I, James W. Cornett, hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this biological evaluation, and that the facts, statements and information presented are true and correct to the best of my knowledge and belief.



March 28, 2014 _____

Date Principal Investigator

APPENDIX

TABLE 1

PLANT SPECIES RECORDED

RANCHO MIRAGE SECTION 24 SITE

ANGIOSPERMAE – DICOTYLEDONES

ASTERACEAE - SUNFLOWER FAMILY
Ambrosia dumosa - Burro-weed
Dicoria canescens - Desert Dicoria
Encelia farinosa - Brittlebush
Hymenoclea salsola - Cheese-bush
Palafoxia arida - Spanish Needle
Stephanomeria exigua - Mitra

BORAGINACEAE - BORAGE FAMILY
Cryptantha micrantha - Purple-rooted Forget-me-not
Tiquilia plicata - Plicate Coldenia

BRASSICACEAE - MUSTARD FAMILY
Brassica tournefortii - Sahara Mustard

CHENOPODIACEAE - GOOSEFOOT FAMILY
Atriplex canescens - Wingscale
Salsola tragus - Russian Thistle

EUPHORBIACEAE - SPURGE FAMILY
Croton californicus - Desert Croton
Chamaesyce polycarpa - Sand-mat

FABACEAE - PEA FAMILY
Astragalus lentiginosus coachellae - Coachella Valley milk vetch
Psorothamnus emoryi - Emory Dalea

GERANIACEAE - GERANIUM FAMILY
Erodium cicutarium – Filaree

NYCTAGINACEAE - FOUR-O'CLOCK FAMILY
Abronia villosa - Hairy Sand-Verbena

PLANTAGINACEAE - Plantain Family
Plantago ovata - Woolly Plantain

SOLANACEAE - NIGHTSHADE FAMILY
Datura metaloides - Jimson Weed

TAMARICACEAE - TAMARISK FAMILY
Tamarix aphylla - Athel Tree

ZYGOPHYLLACEAE - CALTROP FAMILY
Larrea tridentata - Creosote Bush

ANGIOSPERMAE - MONOCOTYLEDONES

POACEAE - GRASS FAMILY
Bromus madritensis - Foxtail Grass
Cynodon dactylon – Bermuda Grass
Schismus barbatus - Abu-mashi

TABLE 2

EXPECTED BREEDING OR OBSERVED VERTEBRATES

RANCHO MIRAGE SECTION 24 SITE

REPTILES

GEKKONIDAE - GECKOS
Coleonyx variegatus - Western Banded Gecko *

IGUANIDAE - IGUANIDS
Dipsosaurus dorsalis - Desert Iguana *
Gambelia wislizenii - Long-nosed Leopard Lizard ?
Phrynosoma mcallii - Flat-tailed Horned Lizard *
Uma inornata – Coachella Valley Fringe-toed Lizard *
Urosaurus graciosus - Long-Tailed Bush Lizard *
Uta stansburiana - Side-Blotched Lizard *

TEIIDAE - WHIPTAILS
Cnemidophorus tigris - Western Whiptail

LEPTOTYPHLOPIDAE - BLIND SNAKES
Leptotyphlops humilis - Western Blind Snake

COLUBRIDAE - COLUBRIDS
Arizona elegans - Glossy Snake *
Chionactis occipitalis - Western Shovel-nosed Snake *
Lampropeltis getulus - Common Kingsnake ?
Masticophis flagellum - Coachwhip
Phyllorhynchus decurtatus - Spotted Leaf-nosed Snake
Pituophis melanoleucus - Gopher Snake
Rhinocheilus lecontei - Long-nosed Snake

VIPERIDAE - VIPERS
Crotalus cerastes - Sidewinder *

BIRDS

ANATIDAE – GEESE, SWANS AND DUCKS
Branta canadensis - Canada Goose *

ACCIPITRIDAE - OSPREY, HAWKS, EAGLES
Buteo jamaicensis - Red-Tailed Hawk *

FALCONIDAE - FALCONS
Falco sparverius - American Kestrel *

STRIGIDAE - TYPICAL OWLS
Athene cunicularia – Burrowing Owl *

COLUMBIDAE - PIGEONS AND DOVES
Columba livia - Rock Dove *
Zenaida macroura - Mourning Dove *

CUCULIDAE - CUCKOOS
Geococcyx californianus - Greater Roadrunner *

TROCHILIDAE - HUMMINGBIRDS
Calypte costae - Costa's Hummingbird *

TYRANNIDAE - TYRANT FLYCATCHERS
Sayornis saya - Say's Phoebe *

CORVIDAE - CROWS AND JAYS
Corvus corax - Common Raven *

MIMIDAE - MOCKINGBIRDS AND THRASHERS
Mimus polyglottos - Northern Mockingbird *

STURNIDAE - STARLINGS
Sturnus vulgaris - European Starling *

LANIIDAE - SHRIKES
Lanius ludovicianus - Loggerhead Shrike *

ICTERIDAE – BLACKBIRDS AND ORIOLES
Euphagus cyanocephalus - Brewer's Blackbird *
Quiscalus mexicanus – Great-tailed Grackle *
Sturnella neglecta – Western Meadowlark *

BIRDS (continued)

EMBERIZIDS – SPARROWS
Amphispiza belli – Sage Sparrow *

PLOCEIDAE - WEAVER FINCHES
Passer domesticus - House Sparrow *

FRINGILLIDAE - FINCHES
Carpodacus mexicanus - House Finch *

MAMMALS

VESPERTILIONIDAE - EVENING BATS
Pipistrellus hesperus - Western Pipistrelle

MOLOSSIDAE - FREE-TAILED BATS
Tadarida brasiliensis - Brazilian Free-tailed Bat

LEPORIDAE - HARES AND RABBITS
Lepus californicus - Black-tailed Jackrabbit *

SCIURIDAE - SQUIRRELS
Spermophilus tereticaudus chlorus – Palm Springs Ground Squirrel *

GEOMYIDAE - POCKET GOPHERS
Thomomys bottae - Botta Pocket Gopher *

HETEROMYIDAE - POCKET MICE, KANGAROO RATS
Dipodomys deserti - Desert Kangaroo Rat *

CRICETIDAE - DEER MICE AND WOODRATS
Peromyscus maniculatus - Deer Mouse *

CANIDAE - FOXES, WOLVES, AND COYOTES
Canis latrans - Coyote *

* = Sign or individual observed on site
? = Possible occurrence on or near site; not detected during surveys

APPENDIX E

Geotechnical Report

Leighton and Associates, Inc.
A LEIGHTON GROUP COMPANY

TRANSMITTAL

To: Meridian Consultants, LLC
860 Hampshire Road, Suite P
Westlake Village, CA 91361

May 15, 2014

Project No. 10143.003

Attn: Mr. Tony Locacciato, AICP

Transmitted:	*The Following:*	*For:*
X Mail/Overnight	____ Draft Report	X Your Use
____ Courier	X Final Report	____ As Requested
____ Pick Up	____ Extra Report	
	____ Proposal	
	____ Other	

Subject: Soils/Geology Review, Section 24 Specific Plan - Rancho Mirage Area, Riverside County, California

LEIGHTON AND ASSOCIATES, INC.

By: Robert F. Riha, CEG / Simon I. Saiid, GE

Copies to: (3) Addressee

75-400 Gerald Ford Drive, Unit 107 ▪ Palm Desert, CA 92211
760.776.4192 ▪ 760.776.4080 Fax ▪ www.leightongroup.com

SOILS/GEOLOGY REVIEW
SECTION 24 SPECIFIC PLAN - RANCHO MIRAGE AREA
RIVERSIDE COUNTY, CALIFORNIA

Prepared for

MERIDIAN CONSULTANTS, LLC

860 Hampshire Road, Suite P
Westlake Village, California 91361

Project No. 10143.003

May 15, 2014

Leighton and Associates, Inc.
A LEIGHTON GROUP COMPANY

Leighton and Associates, Inc.
A LEIGHTON GROUP COMPANY

May 15, 2014

Project No. 10143.003

Meridian Consultants, LLC
860 Hampshire Road, Suite P
Westlake Village, CA 91361

Attention: Mr. Tony Locacciato, AICP

Subject: Soils/Geology Review
Section 24 Specific Plan - Rancho Mirage Area
Riverside County, California

In accordance with your request and authorization, we are pleased to present herewith the results of our geotechnical/geologic review of the subject site located southwest of the intersection of Ramon Road and Bob Hope Drive, north of Dinah Shore Drive and east of Los Alamos Road, in the Rancho Mirage area of unincorporated Riverside County, California. We understand that the subject site/parcels, known collectively as planned "Section 24" will consist of a mix of retail, entertainment, office, resort and residential development. This report summarizes our findings and conclusions, and provides preliminary geotechnical recommendations for site development. Based on the results of this review, the site is considered suitable for the intended use provided our recommendations included herein are properly incorporated during design and construction phases of development. However, design level geotechnical evaluations will be needed to further define the extent of remedial grading and/or allowable settlements based on individual building loads and requirements.

If you have any questions regarding this report, please do not hesitate to contact the undersigned. We appreciate this opportunity to be of service on this project.

Respectfully submitted,
LEIGHTON AND ASSOCIATES, INC.

Simon I. Saiid
GE 2641 (Exp. 09/30/15)
Principal Engineer

Robert F. Riha
CEG 1921 (Exp. 02/29/16)
Senior Principal Geologist

Distribution: (3) Addressee

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1.0 INTRODUCTION

1.1 Purpose and Scope

This soils/geology review is for the proposed "Section 24 Specific Plan" project located in the Rancho Mirage area of Riverside County, California (see Figure 1). Our scope of services for this review included the following:

- Review of sequential pairs of aerial photographs and our in-house and relevant published data for this area (see references at the end of this report).
- A site geologic reconnaissance and visual observations of surface conditions.
- Excavation, sampling and logging of 9 exploratory geotechnical hollow stem auger borings throughout the site. Logs of test borings are presented in Appendix A.
- Laboratory testing of representative soil samples obtained from the subsurface exploration program. A brief description of laboratory testing procedures and laboratory test results are presented in Appendix B.
- Geotechnical engineering analyses performed or as directed by a California registered Geotechnical Engineer (GE) including preliminary foundation and seismic design parameters based on the 2013 California Building Code (CBC). A California Certified Engineering Geologist (CEG) performed engineering geology review of site geologic hazards.
- Preparation of this report which presents the results of our review and provides preliminary geotechnical recommendations for the proposed development.

This report is not intended to be used as an environmental site assessment (Phase I or other).

1.2 Site Location and Description

The project site is located on several contiguous undeveloped parcels (Assessor Parcel Numbers (APNs) 673-120-021; -022; -023; -024; and -025), totaling approximately 577.33 acres (gross). The property is located southwest of the intersection of Ramon Road and Bob Hope Drive, north of Dinah Shore Drive, east of Los Alamos Road in an unincorporated portion of Riverside County, California (within the sphere of influence of the City of Rancho Mirage). The approximate limits of the site are shown on the Site Location Map, Figure 1. The property is

located immediately west of the Aqua Caliente Casino Resort Spa; north and east of the Westin Mission Hills resort community and northwest of Desert Ridge Plaza shopping center.

Topographically, the site and surrounding area slopes to the north and north-east. Site elevations range from high point elevation of approximately 356 feet above mean sea level (msl) near the southwestern corner to a low point elevation of approximately 248 feet (msl) near the northeast corner of the property.

The site is currently vacant land characterized with typical sand dune topography. It appears that a borrow source was located along the central western boundary and as well as an area for soil stockpiling in the southwest corner. Remnants of gravel parking lot are located at northeast corner, adjacent to intersection of Bob Hope Drive and Ramon Road.

1.3 Proposed Development

Based on a provided project description and conceptual plan by MSA Consulting, we understand that the proposed mix-use development will consist of retail, entertainment, office space, resort, residential lots, park sites, open spaces, several lakes and associated street improvements. Although structural loads are not known to us at this time, typical column loads for retail, office/hotel, and commercial structures are expected to range up to 200 kips and perimeter bearing wall loads are to range up to 6 kips per lineal foot. We anticipate residential lots to host a one- or two-story single or multi-family residential homes consisting of typical wood-frame structure with slab-on-grade foundations.

We anticipate that site grading will include typical cut and fill grading to create level pads, access streets and maximum 3:1 (horizontal to vertical) slopes. Based on provided preliminary Earthwork Exhibit (ALT 10) prepared by MSA Consulting Inc. (MSA, 2014) the maximum proposed cut and fill thickness is on the order of 45 feet (cut) to 50 feet (fill).

2.0 FIELD EXPLORATION AND LABORATORY TESTING

2.1 Field Exploration

Our field exploration program consisted of 9 hollow-stem auger borings excavated at the approximate locations shown on the Geotechnical Map (Plate 1, Geotechnical Map). During excavation, bulk samples and relatively "undisturbed" Ring samples were collected from the exploration borings for further laboratory testing and evaluation. The relatively undisturbed samples were obtained utilizing a modified California drive sampler (2⅜-inch inside diameter and 3-inch outside diameter) driven 18 inches in general accordance with ASTM Test Method D3550. Standard penetration tests (SPT) were performed using a 2-inch outside diameter (1⅜-inch inside diameter) sampler driven 18 inches in general accordance with ASTM Test Method D1586. The number of blows to drive the samplers are recorded on the boring logs for each 6-inch increment (unless encountering refusal or >50 blows per 6 inches). Sampling was conducted by a staff geologist from our firm. After logging and sampling, the excavations were loosely backfilled with spoils generated during excavation. The logs of exploratory test borings are presented in Appendix A.

2.2 Laboratory Testing

Laboratory tests were performed on representative bulk and undisturbed drive samples to provide a basis for development of remedial earthwork and geotechnical design parameters. Selected samples were tested for the following parameters: insitu moisture and density, maximum dry density (Proctor), R-Value, gradation, collapse, soluble sulfate, pH, resistivity and chloride content. The results of our laboratory testing are presented in Appendix B.

3.0 GEOTECHNICAL AND GEOLOGIC FINDINGS

3.1 Regional Geology

The site is located within the Coachella Valley area in the Colorado Desert Geomorphic Province of California. The San Bernardino Mountains of the Transverse Ranges Geomorphic Province are to the north and the San Jacinto Mountains of the Peninsular Range are to the south. The dominant structural feature in this region is the active San Andreas transform system that consists of several major northwest-trending right lateral strike slip faults that extend through the San Gorgonio pass along the southern foothills of the San Bernardino Mountains, and along the northeast margin of the Coachella Valley. The San Andreas Fault Zone is composed of a series of fault zones of which the South Branch of the San Andreas is located in the vicinity, generally north of the site. Figure 2, Regional Geologic Map, depicts the fault location and shows the region as underlain by unconsolidated Holocene sediments (alluvium and other deposits). The site itself is underlain by wind-blown (aeolian) sand deposits as well as alluvial soil eroded from the nearby mountains and deposited in the site vicinity.

3.2 Site Specific Geology

Based on the results of our field exploration and review of relevant geologic data for this area (see References), the site subsurface materials consist of dune sands over alluvium to the depths explored. Stockpiled undocumented fill soils are locally observed onsite. These units are discussed in the following sections in order of increasing age and further described on the logs of geotechnical borings in Appendix A.

3.2.1 Undocumented Fill (Map Symbol Afu)

As indicated above, a borrow source and associated grading was located along the central, western boundary and soil stockpiling was observed in the southwest corner. Grading to produce a large gravel parking field was also noted in the north east corner of the site. If encountered during site grading, undocumented fills are considered unsuitable for support of additional fill or structures or other planned improvements. The undocumented fill soils appear to be generated from onsite or nearby sources; hence they should be generally suitable for use as compacted fills provided they are cleared of debris, organics, and any deleterious materials.

3.2.2 Dune Sand (Map symbol Qs)

Dune sand materials are expected to mantle the majority of the site. The depth of the dune sand materials cannot be easily verified based on this limited investigation and relatively homogenous onsite alluvium. However, it is estimated that the dune sands generally extend to a depth varying from 5 to 20 feet below ground surface (BGS). These materials generally consist of light brown gray to darker gray and loose to medium dense silty sand to poorly-graded fine sand. Based on the results of our laboratory testing, these materials are expected to possess a very low expansion potential (EI<21) and N-values ranging from 5 to 15 blows/foot.

3.2.3 Quaternary Alluvium (Map Symbol Qal)

Quaternary-aged alluvial deposits were encountered in all of our borings to the maximum depth explored. As encountered, the alluvium typically consists of light brown to brownish gray, medium dense to very dense, poorly-graded fine sand to sand with silt. The alluvium is expected to generally possess very low expansion potential (EI<21).

3.3 Groundwater and Surface Water

Groundwater was not encountered in any of the borings and no standing water was observed on the ground surface during the time of the investigation. According to Department of water Resources, Southern District, Well 04S05E29A001S located west of the site, groundwater depths may be between 160 and 175 feet below ground surface (bgs). Based on this data, it appears that shallow groundwater has not been present recently, or historically. As such, groundwater is not expected to be a constraint to development of the site and considered to be no impact to this site. However, it should be noted that local perched water conditions may exist intermittently and may fluctuate seasonally, depending on rainfall and irrigation conditions. Surface runoff from the adjacent elevated portions of the site should be anticipated.

3.4 Faulting and Fissuring

This site is not located within a currently designated Alquist-Priolo Earthquake Fault Zone or County of Riverside Fault Zone. No active, inactive fault traces or fissuring are known to traverse the planned development portions (Bryant and Hart, 2007) and no evidence of onsite faulting was observed during our investigation. As defined by the California Geologic Survey, an active fault is one that has had surface displacement within the Holocene Epoch (roughly the last 11,000 years).

The closest known active fault zone is the Coachella Segment of the San Andreas Fault Zone located approximately, 5.0 miles (7.6 km) northwest of the site (Blake, 2000d). Twenty eight active faults are known to exist within 100 Km (62.4 miles) of the site. A table of the major active earthquakes (>5.5 Mw) within 20 miles of the site in the last 150 years is presented in the table below. The South Branch Segment of the San Andreas Fault Zone is considered to be the source of the design earthquake. Due to the distance to active fault(s), ground rupture at this site is considered to be no impact.

Fault Segment	Distance from Site	Moment Magnitude
San Andreas	4.7 miles (7.6 Km)	7.1
Burnt Mountain	9.6 miles (15.5 Km)	6.4
Eureka Peak	11.8 miles (19.0 Km)	6.4
Pinto Mountain	20.3 miles (32.7 Km)	7.0

3.5 Ground Shaking

Strong ground shaking can be expected at the site during moderate to severe earthquakes in this general region. This is common to virtually all of Southern California and can be considered a significant impact. Intensity of ground shaking at a given location depends primarily upon earthquake magnitude, site distance from the source, and site response (soil type) characteristics. Based on the 2013 California Building Code (CBC) and using the USGS Ground Motion Parameter Calculator, the seismic coefficients for this site are provided in the following table:

Table 1. 2013 CBC Site-Specific Seismic Coefficients

CBC Categorization/Coefficient		Design Value (g)
Site Longitude (-116.41581)	Site Latitude (33.80725)	
Site Class Definition	**D**	
Mapped Spectral Response Acceleration at 0.2s Period, S_S		2.01
Mapped Spectral Response Acceleration at 1s Period, S_1		0.97
Short Period Site Coefficient at 0.2s Period, F_a		**1.00**
Long Period Site Coefficient at 1s Period, F_v		**1.50**
Adjusted Spectral Response Acceleration at 0.2s Period, S_{MS}		2.01
Adjusted Spectral Response Acceleration at 1s Period, S_{M1}		1.46
Design Spectral Response Acceleration at 0.2s Period, S_{DS}		***1.34***
Design Spectral Response Acceleration at 1s Period, S_{D1}		***0.97***

* g- Gravity acceleration

3.6 Dynamic Settlement (Liquefaction and Dry Settlement)

Liquefaction and dynamic settlement of cohesionless soils can be caused by strong vibratory motion due to earthquakes. Research and historical data indicate that loose granular soils below a near-surface groundwater table are most susceptible to liquefaction. Due to the absence of shallow groundwater, the liquefaction-induced settlement is considered to be no impact for this site.

However, during a strong seismic event, seismically-induced settlement can still occur within loose to moderately dense, dry or saturated granular soils. Settlement caused by ground shaking is often non-uniformly distributed, which can result in differential settlement. Based on the proposed remedial grading recommendations in areas of planned development, the potential total settlement resulting from ground shaking is considered minimal or less than ½ inch in the upper 50 feet of soils. The seismically-induced ground settlement is considered to be less than significant impact when the recommendations contained herein are implemented.

3.7 Flooding

The site is not within a FEMA flood plain. However, the northeast portion of the site is within a Coachella Valley Water District flood hazard area (CVWD, 2014 and Northwest Hydraulics, 2014).

3.8 Seiche and Tsunami

Due to the sites elevated location and lack of nearby open bodies of water, the possibility of the seiches or tsunami is considered to be no impact for this site.

3.9 Expansive/Collapsible Soils

Limited laboratory testing indicated that onsite soils possess a very low expansion potential (EI<21). Based on the remedial grading recommendations in areas of planned development, the potential impact due to collapsible soils, if they exist onsite, is less than significant.

3.10 Slope Stability and Landslides

Cut and fill slopes are currently planned on the order of approximately 20 feet high at inclinations of 3:1 (horizontal to vertical). As such, slope instability is not considered an issue at this site. The site is not considered susceptible to seismically induced landslides and therefore there is no impact for this site.

4.0 SUMMARY OF FINDINGS AND CONCLUSIONS

Based on the results of this review, it is our opinion that the proposed development is feasible from a geotechnical/geologic standpoint. The following is a summary of the main geotechnical findings or factors that may affect development of the site.

- The existing onsite soils appear to be suitable for reuse as fill during proposed grading provided they are relatively free of organic material and debris.
- Undocumented fill soils (existing stockpiled soils), topsoil, and loose dune sand are considered to be potentially compressible. These materials should be recompacted in areas of planned development.
- The near surface soils are potentially compressible in their present state and may settle under the surcharge of fills or foundation loading. As such, these materials should be removed (over-excavated) and re-compacted in all settlement-sensitive areas based on specific building loads and settlement criteria for individual structures.
- Based on our subsurface exploration, it is our opinion that the onsite earth materials can be excavated with heavy-duty conventional grading equipment in good working condition.
- Evidence of active faulting was not identified within or projecting into the planned development area. Strong ground shaking may occur at this site due to local earthquake activity.
- Groundwater was not encountered; however, perched groundwater may develop in areas of soils with contrasting permeabilities possibly resulting in saturated soil conditions.
- Based on preliminary laboratory results and field observations, onsite earth materials are expected to possess a very low expansion potential and negligible sulfate exposure to concrete.
- Cut/Fill slopes are anticipated to be less than 20 feet in height and are expected to be grossly stable. Due to the cohesionless nature of site soils, surficial erosion should be anticipated.
- Unprotected pads and slope faces will be susceptible to erosion. This risk can be reduced by planting the slopes as soon as possible after grading, and by maintaining proper erosion control measures.
- A relative small low lying northeast portion of the site is located within a local CVWD Flood Hazard area. The design civil engineer should review this condition and address the flood design mitigation.

5.0 RECOMMENDATIONS

5.1 General

Based on the results of this review, it is our opinion that the subject site is suitable for the proposed development from a geotechnical viewpoint. Design and grading of the site should be in accordance with our recommendations included in this report and based on additional site-specific development plans and evaluations made during design and construction by the geotechnical consultant.

5.2 Earthwork Considerations

Earthwork should be performed in accordance with the General Earthwork and Grading Specifications in Appendix C as well as the following recommendations. The recommendations contained in Appendix C, are general grading specifications provided for typical grading projects and some of the recommendations may not be strictly applicable to this project. The specific recommendations contained in the text of this report supersede the general recommendations in Appendix C.

The contract between the developer and earthwork contractor should be worded such that it is the responsibility of the contractor to place the fill properly in accordance with the recommendations of this report, and applicable County Grading Ordinances, notwithstanding the testing and observation of the geotechnical consultant during construction.

5.2.1 Site Preparation and Remedial Grading

Prior to grading, the proposed structural improvement areas (i.e. all structural fill areas, pavement areas, buildings, etc.) of the site should be cleared of surface and subsurface obstructions, heavy vegetation and boulders. Roots and debris should be disposed of offsite. Septic Tanks or seepage pits, if encountered, should be abandoned in accordance with the County of Riverside Department of Health Services guidelines.

The near surface soils are potentially compressible in their present state and may settle under the surcharge of fills or foundation loading. As such, these materials should be removed (over-excavated) and re-compacted in all settlement-sensitive areas in accordance with specific building loads and/or settlement criteria for individual structures. In general, it is estimated that with pre-watering to optimum moisture condition to depths of 5 to 7 feet below existing grades (in fill areas) the planned remedial removal depths may range from 3 to 5 feet below bottom of footings for most buildings. In

general, the depth of removal should be anticipated to extend to 3 feet below street subgrade, pad subgrade or footing bottom, or whichever is deeper. However, such criteria should be further verified based on review of future site development plans and foundation loads.

Acceptability of all removal bottoms should be reviewed by the geotechnical consultant and documented in the as-graded geotechnical report. The removal limit should be established by a 1:1 (horizontal: vertical) projection from the edge of fill soils supporting settlement-sensitive structures downward and outward to competent material identified by the geotechnical consultant. Removal will also include benching into competent material as the fills rise. Areas adjacent to existing structures or property limits may require special considerations and monitoring. Steeper temporary slopes in these areas may be considered.

5.2.2 Cut/Fill Transition Lots

In order to mitigate the impact of underlying cut/fill transition conditions, we recommend over-excavation of the cut portion of transition lots. Over-excavation should extend to a minimum depth of 3 feet below the bottom of the proposed footings or one-half of the maximum fill thickness on the lot, whichever is deeper (not to exceed 10 feet). This overexcavation does not include scarification or preprocessing prior to placement of fill.

5.2.3 Structural Fills

The onsite soils are generally suitable for re-use as compacted fill provided they are free of debris and organic matter. Areas to receive structural fill and/or other surface improvements should be scarified to a minimum depth of 8 inches, conditioned to at least optimum moisture content, and recompacted. Fill soils should be placed at a minimum of 90 percent relative compaction (based on ASTM D1557) and near or above optimum moisture content. Placement and compaction of fill should be performed in accordance with local grading ordinances under the observation and testing of the geotechnical consultant. The optimum lift thickness to produce a uniformly compacted fill will depend on the type and size of compaction equipment used. In general, fill should be placed in uniform lifts not exceeding 8 inches in thickness.

Fill slope keyways will be necessary at the toe of all fill slopes and cut slope replacement fills. Keyway schematics, including dimensions and subdrain recommendations, are provided in Appendix C. All keyways should be excavated into dense bedrock or dense alluvium as determined by the geotechnical engineer. The cut portions of all slope and keyway excavations should be geologically mapped and approved by a geologist prior to fill placement.

Fills placed on slopes steeper than 5:1 (horizontal:vertical) should be benched into dense soils (see Appendix C for benching detail). Benching should be of sufficient depth to remove all loose material. A minimum bench height of 2 feet into approved material should be maintained at all times.

5.2.4 Shrinkage and Subsidence

The volume change of excavated onsite materials upon compaction is expected to vary with materials, volume of roots and deleterious materials, density, insitu moisture content, location, and compaction effort. The in-place and compacted densities of soil materials vary and accurate overall determination of shrinkage and bulking cannot be made. Therefore, we recommend site grading include, if possible, a balance area or ability to adjust import quantities to accommodate some variation. Based on our experience with similar materials, we anticipate 12 to 15 percent shrinkage in the upper 5 to 10 feet of dune sand/alluvium.

Subsidence due solely to scarification, moisture conditioning and recompaction of the exposed bottom of overexcavation, is expected to be on the order of 0.10 foot. This should be added to the above shrinkage value for the recompacted fill zone, to calculate overall recompaction subsidence.

5.2.5 Import Soils

Import soils and/or borrow sites, if needed, should be evaluated by the geotechnical consultant prior to import. Import soils should be uncontaminated, granular in nature, free of organic material (loss on ignition less-than 2 percent), have a very low expansion potential (with an Expansion Index less than 21) and have a low corrosion impact to the proposed improvements.

5.2.6 Utility Trenches

Utility trenches should be backfilled with compacted fill in accordance with Sections 306-1.2 and 306-1.3 of the Standard Specifications for Public Works Construction, (“Greenbook”), 2012 Edition (or most recent). Fill material above the pipe zone should be placed in lifts not exceeding 8 inches in uncompacted thickness and should be compacted to at least 90 percent relative compaction (ASTM D 1557) by mechanical means only. Site soils may generally be suitable as trench backfill provided these soils are screened of rocks over 1½ inches in diameter and organic matter. If imported sand is used as backfill, the upper 3 feet in building and pavement areas should be compacted to 95 percent. The upper 6 inches of backfill in all pavement areas should be compacted to at least 95 percent relative compaction.

Where granular backfill is used in utility trenches adjacent moisture sensitive subgrades and foundation soils, we recommend that a cut-off "plug" of impermeable material be placed in these trenches at the perimeter of buildings, and at pavement edges adjacent to irrigated landscaped areas. A "plug" can consist of a 5-foot long section of clayey soils with more than 35-percent passing the No. 200 sieve, or a Controlled Low Strength Material (CLSM) consisting of one sack of Portland-cement plus one sack of bentonite per cubic-yard of sand. CLSM should generally conform to Section 201-6 of the Standard Specifications for Public Works Construction, ("Greenbook"), 2012 Edition. This is intended to reduce the likelihood of water permeating trenches from landscaped areas, then seeping along permeable trench backfill into the building and pavement subgrades, resulting in wetting of moisture sensitive subgrade earth materials under buildings and pavements.

Excavation of utility trenches should be performed in accordance with the project plans, specifications and the California Construction Safety Orders (2012 Edition or more current). The contractor should be responsible for providing a "competent person" as defined in Article 6 of the California Construction Safety Orders. Contractors should be advised that sandy soils (such as fills generated from the onsite alluvium) could make excavations particularly unsafe if all safety precautions are not properly implemented. In addition, excavations at or near the toe of slopes and/or parallel to slopes may be highly unstable due to the increased driving force and load on the trench wall. Spoil piles from the excavation(s) and construction equipment should be kept away from the sides of the trenches. Leighton does not consult in the area of safety engineering.

5.2.7 Drainage

All drainage should be directed away from structures, slopes and pavements by means of approved permanent/temporary drainage devices. Adequate storm drainage of any proposed pad should be provided to avoid wetting of foundation soils. Irrigation adjacent to buildings should be avoided when possible. As an option, sealed-bottom planter boxes and/or drought resistant vegetation should be used within 5-feet of buildings.

5.2.8 Slope Design and Construction

Based on our understanding and planning purposes, all fill and cut slopes will be designed and constructed at 3:1 (horizontal:vertical) with benches at maximum 30 foot intervals. These slopes are considered grossly stable for static and pseudostatic conditions. For planning purposes, cut slopes exceeding 5 feet in height should be constructed as replacement fill slopes due to the highly erosive nature of site soils. Future grading plans should be subject to further review and evaluation.

The outer portion of fill slopes should be either overbuilt by 2 feet (minimum) and trimmed back to the finished slope configuration or compacted in vertical increments of 5 feet (maximum) by a weighted sheepsfoot roller as the fill is placed. The slope face should then be track-walked by dozers of appropriate weight to achieve the final slope configuration and compaction to the slope face.

Slope faces are inherently subject to erosion, particularly if exposed to wind, rainfall and irrigation. Landscaping and slope maintenance should be conducted as soon as possible in order to increase long-term surficial stability. Berms should be provided at the top of fill slopes. Drainage should be directed such that surface runoff on the slope face is minimized

5.3 Foundation Design

5.3.1 Bearing and Lateral Pressures

Based on our analysis, the proposed residential/ and retail/commercial structures may be founded on conventional foundation systems based on the design parameters provided below. The proposed foundations and slabs should be designed in accordance with the structural consultants' design, the minimum geotechnical recommendations presented herein, and the 2013 CBC. In utilizing the minimum geotechnical foundation recommendations, the structural consultant should design the foundation system to acceptable deflection criteria as determined by the architect. Foundation footings may be designed with the following geotechnical design parameters:

- Bearing Capacity: A net allowable bearing capacity of 2,000 pounds per square foot (psf), or a modulus of subgrade reaction of 150 pci may be used for design of footings founded entirely into compacted fill. The footings should extend a minimum of 12 inches below lowest adjacent grade. A minimum base width of 18 inches for continuous footings and a minimum bearing area of 3 square feet (1.75 ft by 1.75 ft) for pad foundations should be used. Additionally, an increase of one-third may be applied when considering short-term live loads (e.g. seismic and wind).

- Passive Pressures: The passive earth pressure may be computed as an equivalent fluid having a density of 300 psf per foot of depth, to a maximum earth pressure of 3,000 pounds per square foot. A coefficient of friction between soil and concrete of 0.35 may be used with dead load forces. When combining passive pressure and frictional resistance, the passive pressure component should be reduced by one-third

The footing width, depth, reinforcement, slab reinforcement, and the slab-on-grade thickness should be designed by the structural consultant based on recommendations and soil characteristics indicated herein and the most recently adopted edition of the CBC.

5.3.2 Settlement

For preliminary design purposes, the project civil engineer, structural engineer, and architect should consider the potential effects of both static settlement and dynamic settlement presented below.

- Static Settlement**:** Most of the static settlement of onsite soils is expected to be immediate or within 30 days following fill placement. A differential static settlement of 0.5 inch over a 40-foot span may be considered. Additional settlement will also occur in the future if sites grades are raised or due to specific or large footing/foundation loads.

- Dynamic Settlement: Based on our analysis, we estimate that total dynamic settlement is expected to be less than 0.5 inch. Differential settlement is expected to be minimal or less than 0.25 inches over a 40-foot horizontal span.

5.3.3 Vapor Retarder

It has been a standard of care to install a moisture retarder underneath all slabs where moisture condensation is undesirable. Moisture vapor retarders may retard but not totally eliminate moisture vapor movement from the underlying soils up through the slabs. Moisture vapor transmission may be additionally reduced by use of concrete additives. Leighton does not practice in the field of moisture vapor transmission evaluation/mitigation. Therefore, we recommend that a qualified person/firm be engaged/consulted with to evaluate the general and specific moisture vapor transmission paths and any impact on the proposed construction. This person/firm should provide recommendations for mitigation of potential adverse impact of moisture vapor transmission on various components of the structure as deemed appropriate. The slab subgrade soils should be well wetted prior to placing concrete.

5.4 Retaining Walls

Retaining wall earth pressures are a function of the amount of wall yielding horizontally under load. If the wall can yield enough to mobilize full shear strength of backfill soils, then the wall can be designed for "active" pressure. If the wall cannot yield under the applied load, the shear strength of the soil cannot be mobilized and the earth pressure will be higher. Such walls should be designed for "at rest" conditions. If a structure moves toward the soils, the

resulting resistance developed by the soil is the "passive" resistance. Retaining walls backfilled with non-expansive soils should be designed using the following equivalent fluid pressures:

Table 2. Retaining Wall Design Earth Pressures (Static, Drained)

Loading Conditions	Equivalent Fluid Density (pcf)	
	Level Backfill	2:1 Backfill
Active	35	50
At-Rest	50	80
Passive*	300	150 (2:1, sloping down)

* This assumes level condition in front of the wall will remain for the duration of the project, not to exceed 3,000 psf at depth. If sloping down (2:1) grades exist in front of walls, then they should be designed using passive values reduced to ½ of level backfill passive resistance values.

Unrestrained (yielding) cantilever walls should be designed for the active equivalent-fluid weight value provided above for very low to low expansive soils that are free draining. In the design of walls restrained from movement at the top (non-yielding) such as basement or elevator pit/utility vaults, the at-rest equivalent fluid weight value should be used. Total depth of retained earth for design of cantilever walls should be measured as the vertical distance below the ground surface measured at the wall face for stem design, or measured at the heel of the footing for overturning and sliding calculations. Should a sloping backfill other than a 2:1 (horizontal:vertical) be constructed above the wall (or a backfill is loaded by an adjacent surcharge load), the equivalent fluid weight values provided above should be re-evaluated on an individual case basis by us. Non-standard wall designs should also be reviewed by us prior to construction to check that the proper soil parameters have been incorporated into the wall design.

All retaining walls should be provided with appropriate drainage. The outlet pipe should be sloped to drain to a suitable outlet. Typical wall drainage design is illustrated in Appendix C, *Retaining Wall Backfill and Subdrain Detail*. Wall backfill should be non-expansive (EI $\leq$ 21) sands compacted by mechanical methods to a minimum of 90 percent relative compaction (ASTM D 1557). Clayey site soils should not be used as wall backfill. Walls should not be backfilled until wall concrete attains the 28-day compressive strength and/or as determined by the Structural Engineer that the wall is structurally capable of supporting backfill. Lightweight compaction equipment should be used, unless otherwise approved by the Structural Engineer.

5.5 Geochemical Characteristics

Limited laboratory testing indicated a negligible concentration of soluble sulfates in onsite soils for representative samples. The laboratory test results are presented in Appendix B.

Additional corrosion testing should be performed on representative finish grade soils at the completion of rough grading. Concrete foundations in contact with site soils should be designed in accordance with 2013 CBC. A qualified corrosion engineer should be consulted to review the results of laboratory tests and coordinate additional testing if corrosion sensitive materials are to be used.

5.6 Preliminary Pavement Design Parameters

In order to provide the following recommendations, we have assumed an R-value of 45 based on our laboratory testing and the granular nature of the onsite soils and results of our laboratory testing. For the final pavement design, appropriate traffic indices should be selected by the project civil engineer or traffic engineering consultant and representative samples of actual subgrade materials should be tested for R-value.

Table 3. Preliminary Pavement Design

Street Type	Loading Conditions TI	*AC Pavement Section Thickness*	
		Asphaltic-Concrete (AC) Thickness (inch)	Aggregate Base (AB) Thickness (inch)
Parking Stalls	5	3.0	4
Local Street	5.5 to 6	3.0	6
Heavy Traffic Driveways/trucks	6.5 to 7	4.0	6

The subgrade soils in the upper 6 inches should be properly compacted to at least 95 percent relative compaction (ASTM D1557) and should be moisture-conditioned to near optimum and kept in this condition until the pavement section is constructed. Proof-rolling subgrade to identify localized areas of yielding subgrade (if any) should be performed prior to placement of aggregate base and under the observation of the geotechnical consultant.

Minimum relative compaction requirements for aggregate base should be 95 percent of the maximum laboratory density as determined by ASTM D1557. Base rock should conform to the "Standard Specifications for Public Works

Construction" (green book) current edition or Caltrans Class 2 aggregate base having a minimum R-value of 78. Asphaltic concrete should be placed on compacted aggregate base and compacted to a minimum 95 percent relative compaction

The preliminary pavement sections provided in this section are meant as minimum, if thinner or highly variable pavement sections are constructed, increased maintenance and repair may be needed.

6.0 GEOTECHNICAL CONSTRUCTION SERVICES

Geotechnical review is of paramount importance in engineering practice. Poor performances of many foundation and earthwork projects have been attributed to inadequate construction review. We recommend that Leighton be provided the opportunity to review the grading plan and foundation plan(s) for each type of structure that design level recommendations can be provided based on actual loads and locations.

Reasonably-continuous construction observation and review during site grading and foundation installation allows for evaluation of the actual soil conditions and the ability to provide appropriate revisions where required during construction. Geotechnical conclusions and preliminary recommendations should be reviewed and verified by Leighton during construction, and revised accordingly if geotechnical conditions encountered vary from our findings and interpretations. Geotechnical observation and testing should be provided:

- After completion of site demolition and clearing,
- During ground preparation, fill slope key excavations, overexcavation of surface soils and subdrain placement as described herein,
- During compaction of all fill materials,
- After excavation of all footings, and prior to placement of concrete,
- During utility trench backfilling and compaction, and
- When any unusual conditions are encountered.

Additional geotechnical exploration and analysis may be required based on final development plans, for reasons such as significant changes in proposed structure locations/footprints. We should review grading (civil) and foundation (structural) plans, and comment further on geotechnical aspects of this project.

7.0 LIMITATIONS

This report was necessarily based in part upon data obtained from a limited number of observances, site visits, soil samples, tests, analyses, histories of occurrences, spaced subsurface explorations and limited information on historical events and observations. Such information is necessarily incomplete. The nature of many sites is such that differing characteristics can be experienced within small distances and under various climatic conditions. Changes in subsurface conditions can and do occur over time. This investigation was performed with the understanding that the subject site is proposed for residential and commercial development. The client is referred to Appendix D regarding important information provided by the Associated Soil and Foundation Engineers (ASFE) on geotechnical engineering studies and reports and their applicability.

This report was prepared for Meridian Consultants, LLC., based on its needs, directions, and requirements at the time of our investigation. This report is not authorized for use by, and is not to be relied upon by any party except Meridian consultants, LLC, and its successors and assigns as owner of the property, with whom Leighton and Associates, Inc. has contracted for the work. Use of or reliance on this report by any other party is at that party's risk. Unauthorized use of or reliance on this report constitutes an agreement to defend and indemnify Leighton and Associates, Inc. from and against any liability which may arise as a result of such use or reliance, regardless of any fault, negligence, or strict liability of Leighton and Associates, Inc.

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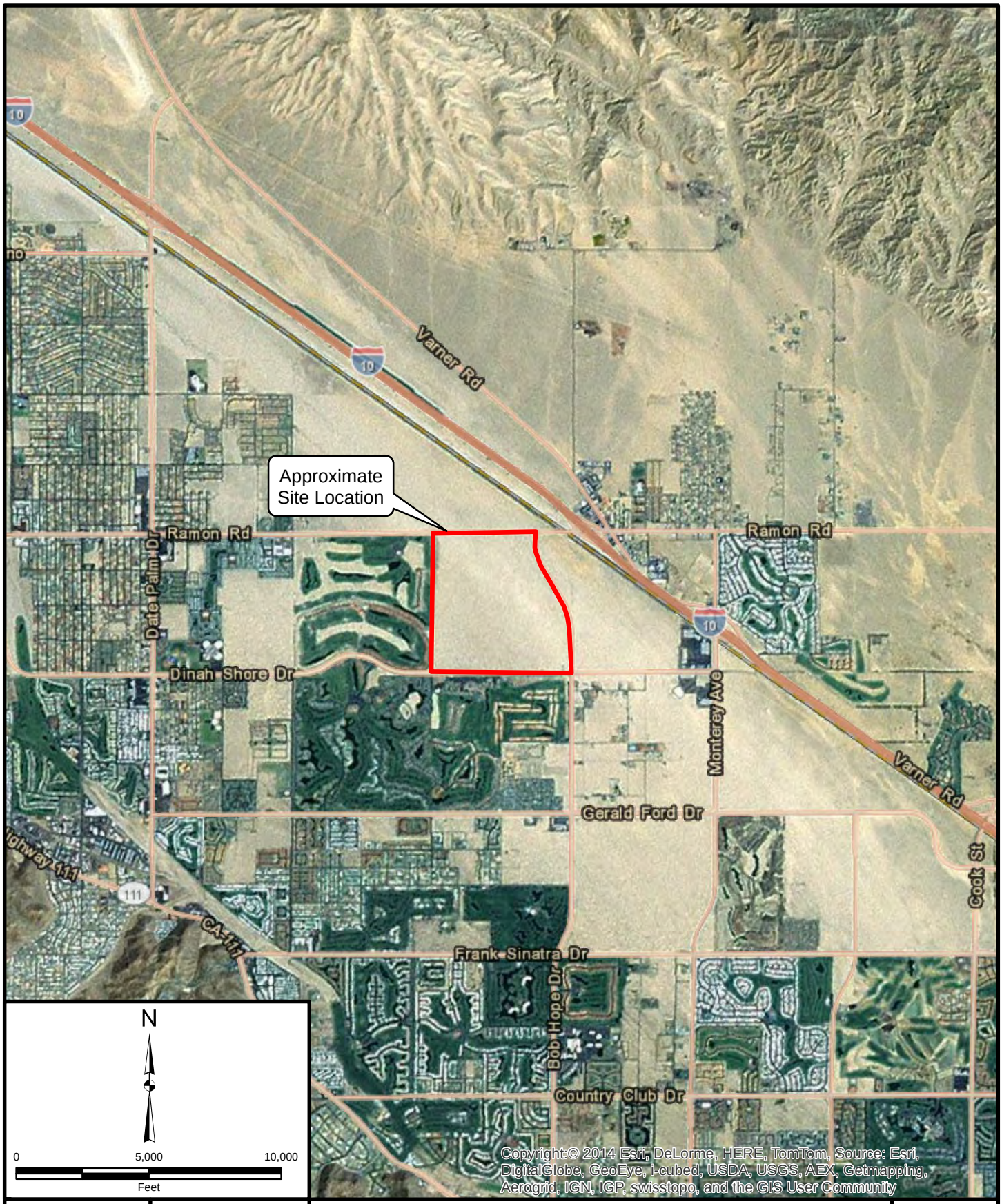
Aerial Photos Reviewed

Date	Source	Photo
2-15-77	RCFC	RIV 5-20/5-21
11-9-89	RCFC	C-122-51-212/213
7-9-93	RCFC	C95-22A-92/93
5-20-95	RCFC	C108-51-165/166



Project: 10143.003	Eng/Geol: SIS/RFR
Scale:1 " = 5,000 '	Date: May 2014

Base Map: ESRI ArcGIS Online 2014
Thematic Information: Leighton
Author: Leighton Geomatics (mmurphy)

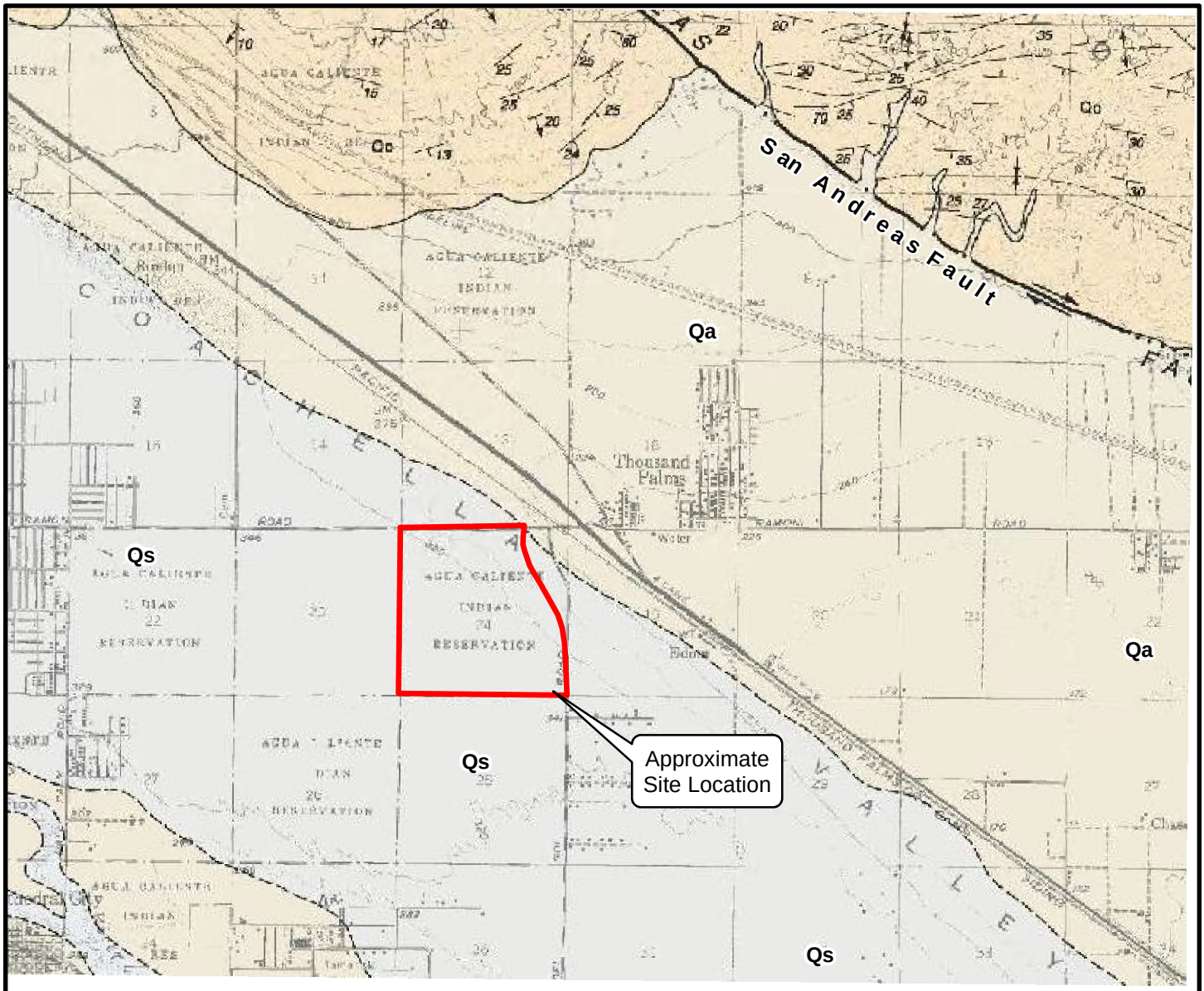
SITE LOCATION MAP

Rancho Mirage
Section 24 Specific Plan
Riverside County, California

Figure 1

Leighton

Map Saved as V:\drafting\10143\003\GIS\of_2014-05-15\Figure1.mxd on 5/16/2014 9:56:26 AM



N

0 5,000 10,000

Feet

LEGEND

Qa Quaternary-age Alluvium

Qs Quaternary-age Dune Sand

Project: 10143.003	Eng/Geol: SIS/RFR
Scale:1 " = 5,000 '	Date: May 2014

Base Map: United States Geological Survey, 1/2013
Thematic Information: Leighton
Author: Leighton Geomatics (mmurphy)

REGIONAL GEOLOGY MAP

Rancho Mirage
Section 24 Specific Plan
Riverside County, California

Figure 2

Leighton

Map Saved as V:\drafting\10143\003\Maps\10143-003_F02_RGM_20140224.mxd on 2/24/2014 10:56:23 AM

RAMON ROAD

BOB HOPE DRIVE

LOS ALAMOS DRIVE

DINAH SHORE DRIVE

PA 1

PA 1B

PA 2A

PA 2B

PA 3

NAP

PA 4

PA 5

PA 6A

PA 6B

PA 7A

PA 7B

PA 8

CLUBHOUSE AREA

Qs

Afu

B-1 T.D.30'

B-2 T.D.30'

B-3 T.D.50'

B-4 T.D.50'

B-5 T.D.25'

B-6 T.D.30'

B-7 T.D.30'

B-8 T.D.30'

B-9 T.D.30'

Legend

B-9 T.D.30' — Approximate Location of Exploratory Borings showing total depth

Approximate Geologic Contact

Afu — Artificial Fill (Undcumented)

Qs — Quaternary-aged Dune Sand

N

0 200 400

Feet

GEOTECHNICAL MAP

Rancho Mirage Section 24 Specific Plan
Riverside County, California

Plate1

Project: 10143.003	Eng/Geol: SIS/RFR
Scale: 1 " = 200 '	Date: May 2014

Reference: Figure 23C, Conceptual Mass Grading Exhibit by MSA Consulting, Inc., undated.
Thematic Info: Leighton

Author: Leighton Geomatics (mmurphy)

Leighton

Map Saved as V:\drafting\10143\003\GIS\of_2014-05-15\Plate1.mxd on 5/16/2014 10:49:27 AM

APPENDIX A

Field Exploration Logs of Exploratory Borings

GEOTECHNICAL BORING LOG B-1

Project No.	10143	**Date Drilled**	2-26-13
Project	Rancho Mirage	**Logged By**	BSS
Drilling Co.	Pacific Drilling	**Hole Diameter**	7"
Drilling Method	Hollow Stem Auger - 140lb - Automatic - 30" Drop	**Ground Elevation**	350'
Location	See Boring Location Plan	**Sampled By**	BSS

Elevation Feet	Depth Feet	Graphic Log (N / S)	Attitudes	Sample No.	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
350	0			B-1				SP-SM	**Quaternary Sand Dunes (Qs):** Poorly graded SAND, loose, grayish brown, dry, fine sand, micaceous, some silt	SA, MD, CR
345	5			R-1	7 8 9				No Recovery, sand fell out of sampler	
340	10			R-2	10 12 13	88	1		medium dense, light brownish gray, dry, fine to medium sand	
335	15			R-3	6 11 16				No Recovery	
330	20			S-4	7 10 11		1		**Quaternary Alluvium (Qa)** Poorly graded SAND, medium dense, light gray, dry, fine sand, some silt and mica	
325	25			S-5	10 13 14			SP-SM	Poorly graded SAND with SILT, medium dense, light gray, dry, fine sand	
320	30									

SOIL DESCRIPTION: This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.

SAMPLE TYPES:
- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:
- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

GEOTECHNICAL BORING LOG B-1

Project No.	10143	**Date Drilled**	2-26-13
Project	Rancho Mirage	**Logged By**	BSS
Drilling Co.	Pacific Drilling	**Hole Diameter**	7"
Drilling Method	Hollow Stem Auger - 140lb - Automatic - 30" Drop	**Ground Elevation**	350'
Location	See Boring Location Plan	**Sampled By**	BSS

Elevation Feet	Depth Feet	Graphic Log (N S)	Attitudes	Sample No.	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
320	30			R-6	11 19 24			SP	Poorly graded SAND, medium dense, light gray, dry, fine sand, (no recovery)	
									Drilled to 30' Sampled to 31.5' Groundwater not encountered Backfilled with soil cuttings (2/26/13)	
315	35									
310	40									
305	45									
300	50									
295	55									
290	60									

This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.

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- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

GEOTECHNICAL BORING LOG B-2

Project No.	10143	**Date Drilled**	2-26-13
Project	Rancho Mirage	**Logged By**	BSS
Drilling Co.	Pacific Drilling	**Hole Diameter**	7"
Drilling Method	Hollow Stem Auger - 140lb - Automatic - 30" Drop	**Ground Elevation**	360'
Location	See Boring Location Plan	**Sampled By**	BSS

Elevation Feet	Depth Feet	Graphic Log (N S)	Attitudes	Sample No.	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
360	0							SP	**Quaternary Sand Dunes (Qs):** Poorly graded SAND, loose, light brownish gray, dry, fine sand	
355	5			R-1	5 8 10				medium dense, light gray, dry, fine sand, (no recovery as ring, recovered as bag)	
350	10			S-2	4 5 8		1		medium dense, light gray, dry, fine sand, micaceous	
345	15			S-3	6 9 10		1		medium dense, light gray, dry, fine sand, micaceous, some silt	
									Quaternary Alluvium (Qa)	
340	20			R-4	18 19 21				medium dense, gray, dry, fine sand, some silt	
335	25			S-5	7 11 13				medium stiff, gray, dry, fine sand, some silt and mica, very friable	
330	30									

This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.

SAMPLE TYPES:
- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:
- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

GEOTECHNICAL BORING LOG B-2

Project No.	10143	**Date Drilled**	2-26-13
Project	Rancho Mirage	**Logged By**	BSS
Drilling Co.	Pacific Drilling	**Hole Diameter**	7"
Drilling Method	Hollow Stem Auger - 140lb - Automatic - 30" Drop	**Ground Elevation**	360'
Location	See Boring Location Plan	**Sampled By**	BSS

Elevation Feet	Depth Feet	Graphic Log (N S)	Attitudes	Sample No.	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
330	30			S-6	7 16 18				dense, light gray, dry, fine sand, some silt	
									Drilled to 30' Sampled to 31.5' Groundwater not encountered Backfilled with soil cuttings (2/26/13)	
325	35									
320	40									
315	45									
310	50									
305	55									
300	60									

This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.

SAMPLE TYPES:

- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:

- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

GEOTECHNICAL BORING LOG B-3

Project No.	10143	**Date Drilled**	2-26-13
Project	Rancho Mirage	**Logged By**	BSS
Drilling Co.	Pacific Drilling	**Hole Diameter**	7"
Drilling Method	Hollow Stem Auger - 140lb - Automatic - 30" Drop	**Ground Elevation**	360'
Location	See Boring Location Plan	**Sampled By**	BSS

Elevation Feet	Depth Feet	Graphic Log (N S)	Attitudes	Sample No.	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
360	0			B-1				SP	**Quaternary Sand Dunes (Qs):** Poorly graded SAND, loose, light gray, dry, fine sand, some coarse grains	SA, CR, RV
355	5			S-1	3 5 5		1		loose, light gray, dry, fine sand, some mica, friable	
350	10			S-2	3 3 5		1		loose, light gray, dry, fine to medium sand, some mica	
345	15			S-3	3 6 10		1		medium dense, light gray, dry, fine to medium sand	
									Quaternary Alluvium (Qa)	
340	20			S-4	8 13 16				Poorly graded SAND, medium dense, light gray, dry, fine sand	
335	25			S-5	6 9 10				medium dense, light brownish gray, dry, fine sand, some silt	
330	30									

SAMPLE TYPES:
- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:
- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

GEOTECHNICAL BORING LOG B-3

Project No.	10143	**Date Drilled**	2-26-13
Project	Rancho Mirage	**Logged By**	BSS
Drilling Co.	Pacific Drilling	**Hole Diameter**	7"
Drilling Method	Hollow Stem Auger - 140lb - Automatic - 30" Drop	**Ground Elevation**	360'
Location	See Boring Location Plan	**Sampled By**	BSS

Elevation Feet	Depth Feet	Graphic Log (N S)	Attitudes	Sample No.	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
330	30			R-6	30 50-6"				dense, light gray, dry, fine sand, friable	
325	35			S-7	5 15 26			SP-SM	Poorly graded SAND with SILT, dense, grayish brown, dry, fine sand	
320	40			S-8	17 25 28				dense, light brownish gray, dry, very fine to fine sand, friable	
315	45			S-9	14 26 30			SP	Poorly graded SAND, dense, light brown to light brownish gray, dry, fine sand, some silt, micaceous, friable	
310	50			S-10	22 29 39				dense, light gray, dry, fine sand, some silt, micaceous, friable	
305	55								Drilled to 50' Sampled to 51.5' Groundwater not encountered Backfilled with soil cuttings (2/26/13)	
300	60									

This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.

SAMPLE TYPES:
- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:
- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

GEOTECHNICAL BORING LOG B-4

Project No.	10143	**Date Drilled**	2-26-13
Project	Rancho Mirage	**Logged By**	BSS
Drilling Co.	Pacific Drilling	**Hole Diameter**	7"
Drilling Method	Hollow Stem Auger - 140lb - Automatic - 30" Drop	**Ground Elevation**	260'
Location	See Boring Location Plan	**Sampled By**	BSS

Elevation Feet	Depth Feet	Graphic Log (N / S)	Attitudes	Sample No.	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
260	0							SP	**Quaternary Sand Dunes (Qs):** Poorly graded SAND, loose, light gray, dry, fine sand	
255	5			R-1	5 9 9	102	20		medium dense, gray, dry to moist, fine sand, some silt (water added to hole)	
250	10			R-2	11 19 28	106	17		medium dense, dark gray, dry to moist, fine sand, some silt	CO
									Quaternary Alluvium (Qa)	
245	15			R-3	16 32 40	103	4	SP	Poorly graded SAND, dense, light gray, dry to moist, fine sand, micaceous, some silt (water added to the hole)	
240	20			R-4	14 33 42	109	13	SP-SM	Poorly graded SAND with SILT, dense, olive brown, dry to moist, fine sand, micaceous (water added to the hole)	
235	25			R-5	21 31 43			SW	Well-graded SAND, dense, olive brown, dry to moist, fine to coarse sand, some silt, micaceous (water added to the hole)	
230	30									

This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.

SAMPLE TYPES:
- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:
- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

GEOTECHNICAL BORING LOG B-4

Project No.	10143	**Date Drilled**	2-26-13
Project	Rancho Mirage	**Logged By**	BSS
Drilling Co.	Pacific Drilling	**Hole Diameter**	7"
Drilling Method	Hollow Stem Auger - 140lb - Automatic - 30" Drop	**Ground Elevation**	260'
Location	See Boring Location Plan	**Sampled By**	BSS

Elevation Feet	Depth Feet	Graphic Log (N S)	Attitudes	Sample No.	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
									This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.	
230	30			R-6	28 50-5"				Well-graded SAND, dense, olive brown, dry to moist, fine to coarse sand, some silt, micaceous (water added to the hole) dense, dark grayish brown, dry to moist, fine to coarse sand, some silt and mica (water added to the hole)	
225	35			R-7	44 50-6"	131	7	SW	with gravel, very dense, light brownish gray, dry, fine to coarse sand, micaceous, some cobbles	
220	40			S-8	19 25 23			SP	Poorly graded SAND, dense, light gray, dry, fine sand, micaceous, some silt	
215	45			R-9	20 23 50	103	5	SM	SILTY SAND, dense, light brown, dry, fine sand, to sandy silt	
210	50			S-10	11 11 13			SP-SM	Poorly graded SAND with SILT, dense, grayish brown, dry to moist, fine sand, micaceous	
									Drilled to 50' Sampled to 51.5' Groundwater not encountered Backfilled with soil cuttings (2/26/13)	
205	55									
200	60									

SAMPLE TYPES:
- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:
- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

GEOTECHNICAL BORING LOG B-5

Project No.	10143	**Date Drilled**	2-27-13
Project	Rancho Mirage	**Logged By**	BSS
Drilling Co.	Pacific Drilling	**Hole Diameter**	7"
Drilling Method	Hollow Stem Auger - 140lb - Auto Hammer - 30" Drop	**Ground Elevation**	270'
Location	See Boring Location Plan	**Sampled By**	BSS

Elevation Feet	Depth Feet	Graphic Log (N / S)	Attitudes	Sample No.	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
270	0							SP	**Quaternary Sand Dunes (Qs):** Poorly graded SAND, loose, light gray, dry, fine sand, micaceous	
265	5			R-1	11 20 31	108	2	SP	**Quaternary Alluvium (Qa)** medium dense, grayish brown, dry to moist, fine sand, micaceous, some silt	
260	10			R-2	13 26 37	103	7	SP-SM	Poorly graded SAND with SILT, medium dense, light brownish gray, dry to moist, fine sand, micaceous (water added to the hole)	
255	15			R-3	13 36 50-6"				dense, light brownish gray, dry to moist, very fine sand, micaceous, friable (water added to the hole)	
250	20			R-4	20 50-6"	101	7	SP	Poorly graded SAND, dense, light gray, dry to moist, fine sand, micaceous, some silt (water added to the hole)	
245	25			R-5	26 50-5"				very dense, light gray, dry to moist, fine sand, friable (water added to the hole)	
240	30								Drilled to 25' Sampled to 26' Groundwater not encountered Backfilled with soil cuttings (2/27/13)	

SAMPLE TYPES:

B	BULK SAMPLE
C	CORE SAMPLE
G	GRAB SAMPLE
R	RING SAMPLE
S	SPLIT SPOON SAMPLE
T	TUBE SAMPLE

TYPE OF TESTS:

-200	% FINES PASSING	DS	DIRECT SHEAR	SA	SIEVE ANALYSIS
AL	ATTERBERG LIMITS	EI	EXPANSION INDEX	SE	SAND EQUIVALENT
CN	CONSOLIDATION	H	HYDROMETER	SG	SPECIFIC GRAVITY
CO	COLLAPSE	MD	MAXIMUM DENSITY	UC	UNCONFINED COMPRESSIVE STRENGTH
CR	CORROSION	PP	POCKET PENETROMETER		
CU	UNDRAINED TRIAXIAL	RV	R VALUE		

GEOTECHNICAL BORING LOG B-6

Project No.	10143	**Date Drilled**	2-27-13
Project	Rancho Mirage	**Logged By**	BSS
Drilling Co.	Pacific Drilling	**Hole Diameter**	7"
Drilling Method	Hollow Stem Auger - 140lb - Automatic - 30" Drop	**Ground Elevation**	290'
Location	See Boring Location Plan	**Sampled By**	BSS

Elevation Feet	Depth Feet	Graphic Log (N S)	Attitudes	Sample No.	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
290	0			B-1				SP	**Quaternary Sand Dunes (Qs):** Poorly graded SAND, loose, light gray, dry, fine sand, friable, some mica	
285	5			R-1	8 14 24				medium dense, light gray, dry, fine sand, friable, trace silt (water added to the hole)	
280	10			R-2	16 30 50-5"	109	9	SW	**Quaternary Alluvium (Qa)** Well-graded SAND, dense, light gray, dry, fine to coarse sand, friable, some silt in the top part of sample (water added to the hole)	
275	15			R-3	17 29 48	104	1		dense, light brownish gray, dry, fine to medium sand, friable (water added to the hole)	
270	20			R-4	23 50-5"				dense, light gray, dry, fine to medium sand, friable, some silt (water added to the hole)	
265	25			S-5	19 26 30			SP	Poorly graded SAND, dense, light gray, dry, fine sand, some silt	
260	30									

This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.

SAMPLE TYPES:
- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:
- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

GEOTECHNICAL BORING LOG B-6

Project No.	10143	**Date Drilled**	2-27-13
Project	Rancho Mirage	**Logged By**	BSS
Drilling Co.	Pacific Drilling	**Hole Diameter**	7"
Drilling Method	Hollow Stem Auger - 140lb - Automatic - 30" Drop	**Ground Elevation**	290'
Location	See Boring Location Plan	**Sampled By**	BSS

Elevation Feet	Depth Feet	Graphic Log (N / S)	Attitudes	Sample No.	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
260	30			S-6	21 27 31			SP-SM	Poorly graded SAND with SILT, dense, light gray, dry, fine sand, friable, some mica	
									Drilled to 30' Sampled to 31.5' Groundwater not encountered Backfilled with soil cuttings (2/27/13)	
255	35									
250	40									
245	45									
240	50									
235	55									
230	60									

This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.

SAMPLE TYPES:

- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:

- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

GEOTECHNICAL BORING LOG B-7

Project No.	10143	**Date Drilled**	2-27-13
Project	Rancho Mirage	**Logged By**	BSS
Drilling Co.	Pacific Drilling	**Hole Diameter**	7"
Drilling Method	Hollow Stem Auger - 140lb - Automatic - 30" Drop	**Ground Elevation**	290'
Location	See Boring Location Plan	**Sampled By**	BSS

Elevation Feet	Depth Feet	Graphic Log (N / S)	Attitudes	Sample No.	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
290	0							SP	**Quaternary Sand Dunes (Qs):** Poorly graded SAND, loose, light gray, dry, fine sand, micaceous, some silt	
285	5			R-1	14 21 33	109	3	SP	**Quaternary Alluvium (Qa)** medium dense, light gray, dry, medium sand, micaceous	
280	10			R-2	17 50-6"	112	13		dense, grayish brown, dry to moist, fine sand, some silt (water added to the hole)	
275	15			R-3	13 31 50-5"	105	7	SP-SM	Poorly graded SAND with SILT, dense, light brownish gray, dry to moist, fine sand, micaceous (water added to the hole)	
270	20			R-4	16 50-6"			SP	Poorly graded SAND, dense, light gray, dry to moist, fine sand, micaceous, some silt	
265	25			S-5	16 24 30				dense, light gray, dry, fine sand, some silt	
260	30									

This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.

SAMPLE TYPES:
- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:
- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

GEOTECHNICAL BORING LOG B-7

Project No.	10143	**Date Drilled**	2-27-13
Project	Rancho Mirage	**Logged By**	BSS
Drilling Co.	Pacific Drilling	**Hole Diameter**	7"
Drilling Method	Hollow Stem Auger - 140lb - Automatic - 30" Drop	**Ground Elevation**	290'
Location	See Boring Location Plan	**Sampled By**	BSS

Elevation Feet	Depth Feet	Graphic Log (N S)	Attitudes	Sample No.	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
260	30			S-6	8 18 29				dense, light brownish gray, dry, very fine sand, micaceous, more silt	
									Drilled to 30' Sampled to 31.5' Groundwater not encountered Backfilled with soil cuttings (2/27/13)	
255	35									
250	40									
245	45									
240	50									
235	55									
230	60									

This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.

SAMPLE TYPES:

- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:

- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

GEOTECHNICAL BORING LOG B-8

Project No.	10143	**Date Drilled**	2-27-13
Project	Rancho Mirage	**Logged By**	BSS
Drilling Co.	Pacific Drilling	**Hole Diameter**	7"
Drilling Method	Hollow Stem Auger - 140lb - Automatic - 30" Drop	**Ground Elevation**	340'
Location	See Boring Location Plan	**Sampled By**	BSS

Elevation Feet	Depth Feet	Graphic Log (N / S)	Attitudes	Sample No.	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
340	0							SP	**Quaternary Sand Dunes (Qs):** Poorly graded SAND, loose, light gray, fine sand, some mica	
335	5			R-1	7 15 16	100	2		medium dense, light brownish gray, dry to moist, fine sand, friable, some silt and mica (water added to the hole)	
330	10			R-2 B-1	4 16 18	113	3	SP-SM	Poorly graded SAND with SILT, medium dense, grayish brown, dry to moist, fine sand, micaceous (water added to the hole)	
325	15			R-3	7 14 25	117	4	SP	Poorly graded SAND, medium dense, light brownish gray, dry to moist, medium sand, some silt and mica (water added to the hole)	
320	20			R-4	19 24 42			SP	**Quaternary Alluvium (Qa)** dense, light gray, dry to moist, medium sand, micaceous, friable, some silt	
315	25			S-5	7 16 17				dense, light gray, dry, fine sand, friable	
310	30									

SAMPLE TYPES:
- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:
- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

GEOTECHNICAL BORING LOG B-8

Project No.	10143	**Date Drilled**	2-27-13
Project	Rancho Mirage	**Logged By**	BSS
Drilling Co.	Pacific Drilling	**Hole Diameter**	7"
Drilling Method	Hollow Stem Auger - 140lb - Automatic - 30" Drop	**Ground Elevation**	340'
Location	See Boring Location Plan	**Sampled By**	BSS

Elevation Feet	Depth Feet	Graphic Log (N S)	Attitudes	Sample No.	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
310	30			S-6	4 9 12				medium dense, light gray, dry, very fine sand, with silt	
									Drilled to 30' Sampled to 31.5' Groundwater not encountered Backfilled with soil cuttings (2/27/13)	
305	35									
300	40									
295	45									
290	50									
285	55									
280	60									

The Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.

SAMPLE TYPES:

- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:

- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

GEOTECHNICAL BORING LOG B-9

Project No.	10143	**Date Drilled**	2-27-13
Project	Rancho Mirage	**Logged By**	BSS
Drilling Co.	Pacific Drilling	**Hole Diameter**	7"
Drilling Method	Hollow Stem Auger - 140lb - Automatic - 30" Drop	**Ground Elevation**	330'
Location	See Boring Location Plan	**Sampled By**	BSS

Elevation Feet	Depth Feet	Graphic Log (N / S)	Attitudes	Sample No.	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
330	0							SP	**Quaternary Sand Dunes (Qs):** Poorly graded SAND, loose, light brownish gray, dry, fine sand, some silt	
325	5			R-1	7 9 9	107	2		medium dense, light gray, dry, fine sand, some silt and mica (water added to the hole)	
320	10			R-2	6 10 13	106	7		medium dense, light brownish gray, dry to moist, fine sand, more silt	
315	15			R-3	7 13 19	102	3	SP-SM	Poorly graded SAND with SILT, medium dense, light brownish gray, dry, fine sand, some mica	
310	20			R-4	7 15 31	113	3	SP-SM	**Quaternary Alluvium (Qa)** Poorly graded SAND, dense, light olive brown, dry to moist, fine sand, some mica	
305	25			S-5	6 8 10				medium dense, light olive brown, dry to moist, fine sand, more silt, some mica	
300	30									

This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.

SAMPLE TYPES:

- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:

- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

GEOTECHNICAL BORING LOG B-9

Project No.	10143	**Date Drilled**	2-27-13
Project	Rancho Mirage	**Logged By**	BSS
Drilling Co.	Pacific Drilling	**Hole Diameter**	7"
Drilling Method	Hollow Stem Auger - 140lb - Automatic - 30" Drop	**Ground Elevation**	330'
Location	See Boring Location Plan	**Sampled By**	BSS

Elevation Feet	Depth Feet	Graphic Log (N S)	Attitudes	Sample No.	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
300	30			S-6	6 11 15				medium dense, grayish brown, dry to moist, fine sand	
									Drilled to 30' Sampled to 31.5' Groundwater not encountered Backfilled with soil cuttings (2/27/13)	
295	35									
290	40									
285	45									
280	50									
275	55									
270	60									

The soil description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.

SAMPLE TYPES:

- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:

- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

APPENDIX B

Results of Geotechnical Laboratory Testing

Leighton

PARTICLE-SIZE DISTRIBUTION (GRADATION) of SOILS USING SIEVE ANALYSIS

ASTM D 6913

Project Name:	RANCHO MIRAGE	Tested By:	JAP	Date:	03/04/13
Project No.:	10143.002	Checked By:	JMB	Date:	03/06/13
Exploration No.:	**B-1**	Depth (feet):	0-5.0		
Sample No.:	**B-1**				
Soil Identification:	POORLY GRADED SAND WITH SILT (SP-SM), light gray.				

		Moisture Content of Total Air - Dry Soil	
Container No.:	DE	Wt. of Air-Dry Soil + Cont. (g)	921.2
Wt. of Air-Dried Soil + Cont.(g)	921.2	Wt. of Dry Soil + Cont. (g)	918.9
Wt. of Container (g)	408.8	Wt. of Container No._____ (g)	408.8
Dry Wt. of Soil (g)	510.1	Moisture Content (%)	0.5

After Wet Sieve	Container No.	DE
	Wt. of Dry Soil + Container (g)	890.9
	Wt. of Container (g)	408.8
	Dry Wt. of Soil Retained on # 200 Sieve (g)	482.1

U. S. Sieve Size (in.)	U. S. Sieve Size (mm.)	Cumulative Weight Dry Soil Retained (g)	Percent Passing (%)
3"	75.000		100.0
1"	25.000		100.0
3/4"	19.000		100.0
1/2"	12.500		100.0
3/8"	9.500		100.0
#4	4.750	0.0	100.0
#8	2.360	0.1	100.0
#16	1.180	12.5	97.5
#30	0.600	161.7	68.3
#50	0.300	268.1	47.4
#100	0.150	386.5	24.2
#200	0.075	480.2	5.9
PAN			

GRAVEL: **0 %**

SAND: **94 %**

FINES: **6 %**

GROUP SYMBOL: **(SP-SM)**

Cu = D60/D10 = 5.28

Cc = $(D30)^2/(D60*D10)$ = 0.81

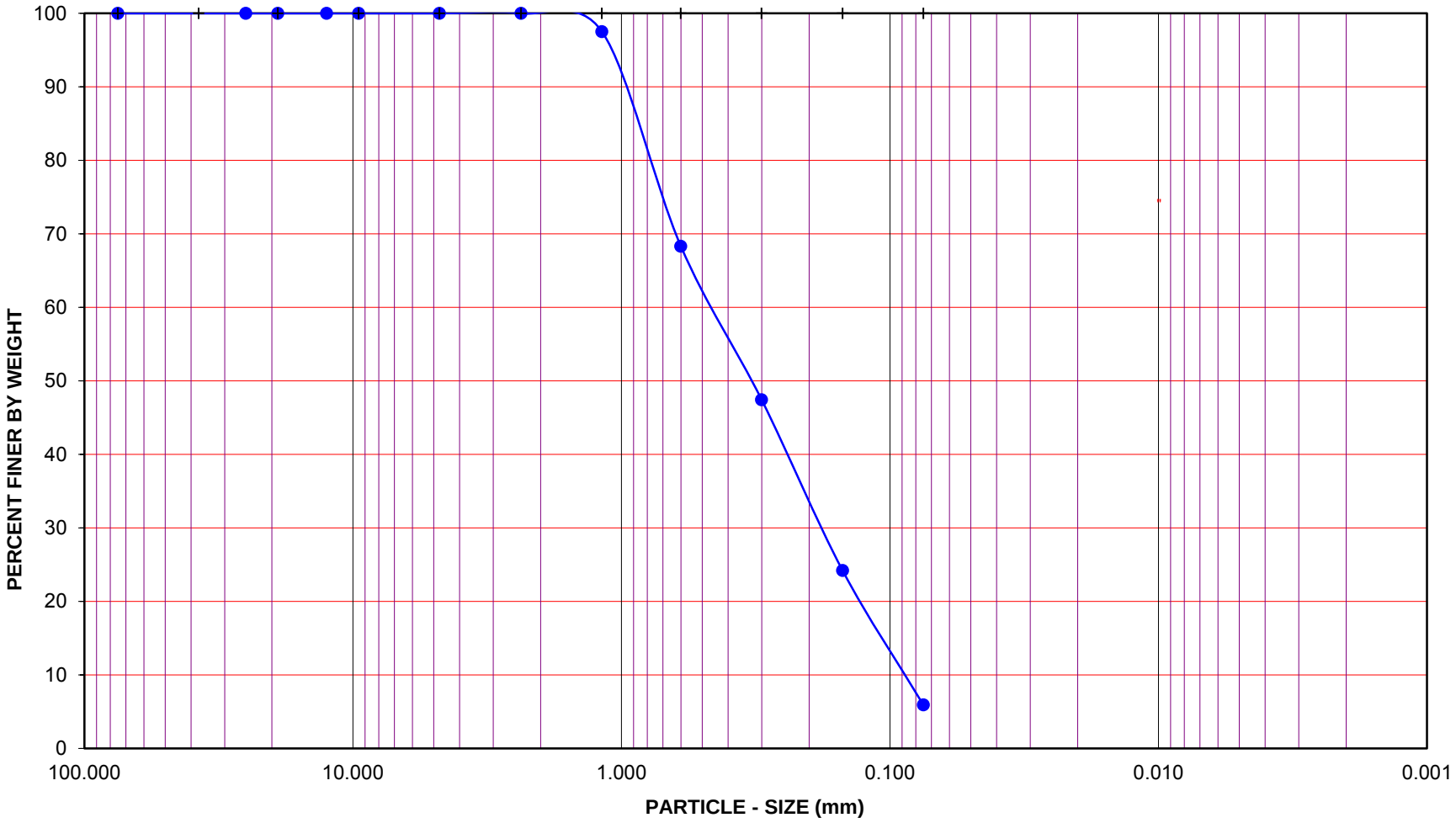
Remarks: **

GRAVEL		SAND			FINES	
COARSE	FINE	COARSE	MEDIUM	FINE	SILT	CLAY

U.S. STANDARD SIEVE OPENING: 3.0" 1 1/2" 3/4" 3/8"

U.S. STANDARD SIEVE NUMBER: #4 #8 #16 #30 #50 #100 #200

HYDROMETER



Project Name: RANCHO MIRAGE

Project No.: 10143.002

Exploration No.: B-1 Sample No.: B-1

Depth (feet): 0-5.0 Soil Type : (SP-SM)

Soil Identification: POORLY GRADED SAND WITH SILT (SP-SM), light gray.

GR:SA:FI : (%) 0 : 94 : 6

Leighton

PARTICLE - SIZE DISTRIBUTION ASTM D 6913

Mar-13

Leighton

PARTICLE-SIZE DISTRIBUTION (GRADATION) of SOILS USING SIEVE ANALYSIS

ASTM D 6913

Project Name: RANCHO MIRAGE Tested By: MRV / JAP Date: 03/04/13

Project No.: 10143.002 Checked By: JMB Date: 03/06/13

Exploration No.: **B-3** Depth (feet): 0-5.0

Sample No.: **B-1**

Soil Identification: POORLY GRADED SAND (SP), light gray.

		Moisture Content of Total Air - Dry Soil	
Container No.:	GH	Wt. of Air-Dry Soil + Cont. (g)	746.2
Wt. of Air-Dried Soil + Cont.(g)	746.2	Wt. of Dry Soil + Cont. (g)	743.3
Wt. of Container (g)	217.4	Wt. of Container No._____ (g)	217.4
Dry Wt. of Soil (g)	525.9	Moisture Content (%)	0.6

After Wet Sieve	Container No.	GH
	Wt. of Dry Soil + Container (g)	723.3
	Wt. of Container (g)	217.4
	Dry Wt. of Soil Retained on # 200 Sieve (g)	505.9

U. S. Sieve Size (in.)	U. S. Sieve Size (mm.)	Cumulative Weight Dry Soil Retained (g)	Percent Passing (%)
3"	75.000		100.0
1"	25.000		100.0
3/4"	19.000		100.0
1/2"	12.500		100.0
3/8"	9.500		100.0
#4	4.750		100.0
#8	2.360	0.0	100.0
#16	1.180	11.9	97.7
#30	0.600	180.5	65.7
#50	0.300	310.2	41.0
#100	0.150	419.2	20.3
#200	0.075	502.5	4.4
PAN			

GRAVEL: **0 %**

SAND: **96 %**

FINES: **4 %**

GROUP SYMBOL: **SP**

Cu = D60/D10 = 5.40

Cc = $(D30)^2/(D60*D10)$ = 0.95

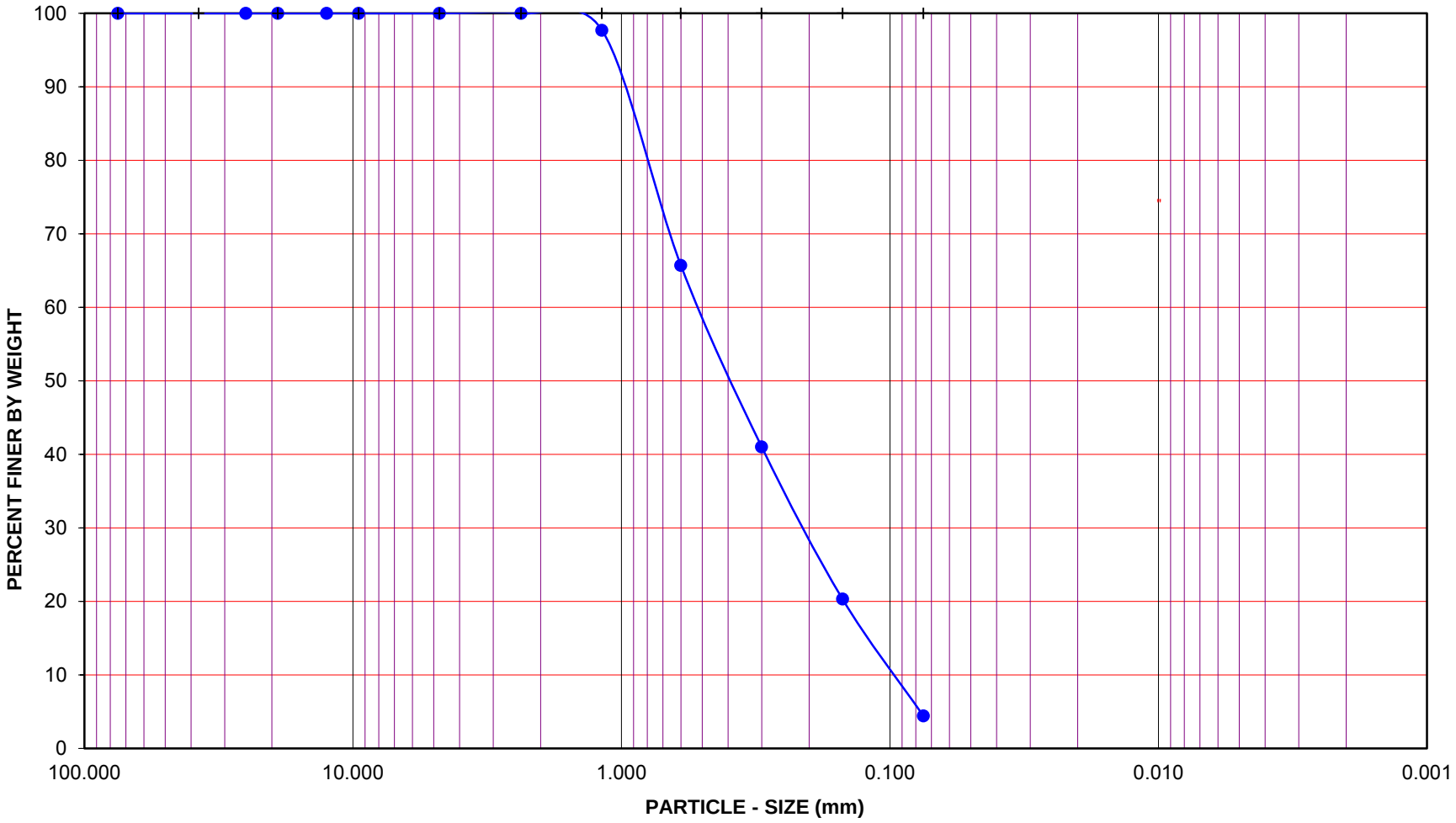
Remarks: **

GRAVEL		SAND			FINES	
COARSE	FINE	COARSE	MEDIUM	FINE	SILT	CLAY

U.S. STANDARD SIEVE OPENING: 3.0" 1 1/2" 3/4" 3/8"

U.S. STANDARD SIEVE NUMBER: #4 #8 #16 #30 #50 #100 #200

HYDROMETER



Project Name: RANCHO MIRAGE

Project No.: 10143.002

Exploration No.: B-3 Sample No.: B-1

Depth (feet): 0-5.0 Soil Type : SP

Soil Identification: POORLY GRADED SAND (SP), light gray.

GR:SA:FI : (%) 0 : 96 : 4

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PARTICLE - SIZE DISTRIBUTION ASTM D 6913

Mar-13

Sieve Landscape; B-3, B-1 (2-26-13)

MODIFIED PROCTOR COMPACTION TEST

Leighton

ASTM D 1557

Project Name:	RANCHO MIRAGE	Tested By :	RS	Date:	3-4-13
Project No.:	10143.002	Input By :	JMB	Date:	3-6-13
Location:	**B-1**	Depth (ft.)	0-5.0		
Sample No. :	**B-1**				
Soil Identification:	POORLY GRADED SAND WITH SILT (SP-SM), light gray.				

Preparation Method: [X] Moist [ ] Dry — [ ] Mechanical Ram [X] Manual Ram

Mold Volume (ft³) 0.03325 *Ram Weight = 10 lb.; Drop = 18 in.*

Moisture Added (ml)	250	325	400	175		
TEST NO.	1	2	3	4	5	6
Wt. Compacted Soil + Mold (g)	6162	6196	6151	6065		
Weight of Mold (g)	4209	4209	4209	4209		AS-REC'
Net Weight of Soil (g)	1953	1987	1942	1856		M/C
Wet Weight of Soil + Cont. (g)	966.0	1051.6	1200.0	1242.7		921.2
Dry Weight of Soil + Cont. (g)	891.2	944.4	1051.3	1167.9		918.9
Weight of Container (g)	157.9	144.2	150.0	151.9		408.8
Moisture Content (%)	10.2	13.4	16.5	7.4		0.5
Wet Density (pcf)	129.5	131.7	128.8	123.1		
Dry Density (pcf)	117.5	116.2	110.5	114.6		

Maximum Dry Density (pcf) **118.0** **Optimum Moisture Content (%)** **11.5**

PROCEDURE USED

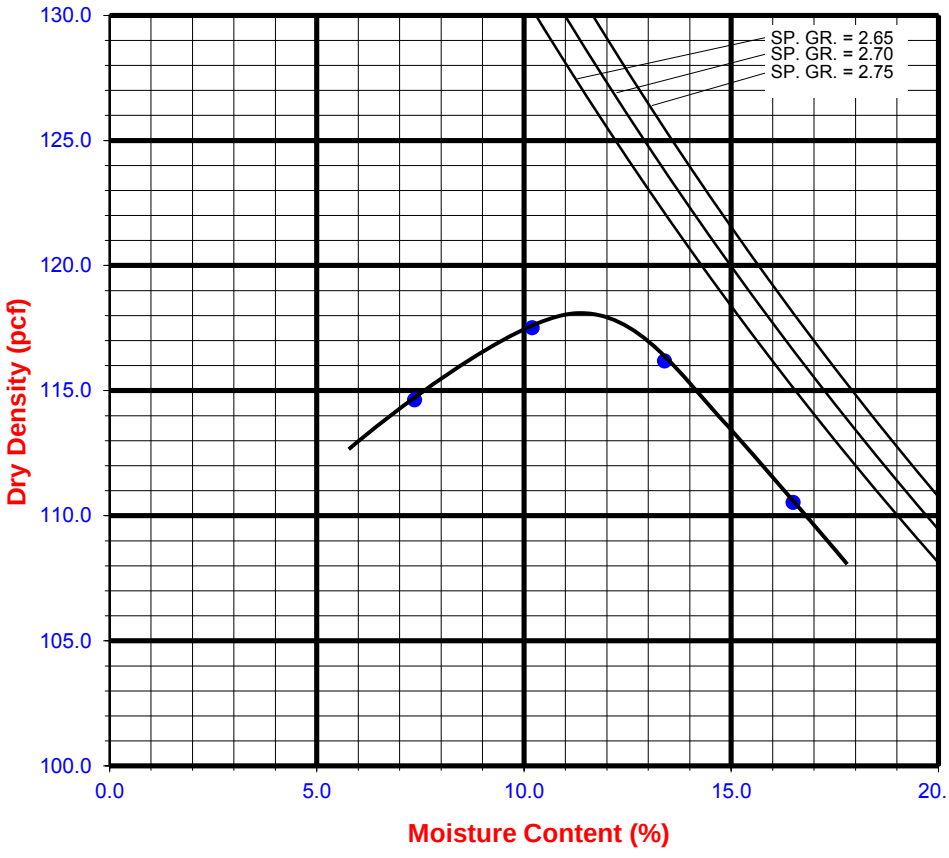
[X] **Procedure A**
Soil Passing No. 4 (4.75 mm) Sieve
Mold : 4 in. (101.6 mm) diameter
Layers : 5 (Five)
Blows per layer : 25 (twenty-five)
May be used if +#4 is 20% or less

[ ] **Procedure B**
Soil Passing 3/8 in. (9.5 mm) Sieve
Mold : 4 in. (101.6 mm) diameter
Layers : 5 (Five)
Blows per layer : 25 (twenty-five)
Use if +#4 is >20% and +3/8 in. is 20% or less

[ ] **Procedure C**
Soil Passing 3/4 in. (19.0 mm) Sieve
Mold : 6 in. (152.4 mm) diameter
Layers : 5 (Five)
Blows per layer : 56 (fifty-six)
Use if +3/8 in. is >20% and +¾ in. is <30%

Particle-Size Distribution:
GR:SA:FI

Atterberg Limits:
LL,PL,PI



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One-Dimensional Swell or Settlement Potential of Cohesive Soils

(ASTM D 4546) -- Method 'B'

Project Name:	RANCHO MIRAGE	Tested By:	JAP	Date:	3/4/13
Project No.:	10143.002	Checked By:	JMB	Date:	3/6/13
Boring No.:	B-4	Sample Type:	IN SITU		
Sample No.:	R-2	Depth (ft.)	10.0		

Sample Description: WELL GRADED SAND WITH SILT (SW-SM), gray.

Source and Type of Water Used for Inundation: Arrowhead (Distilled)

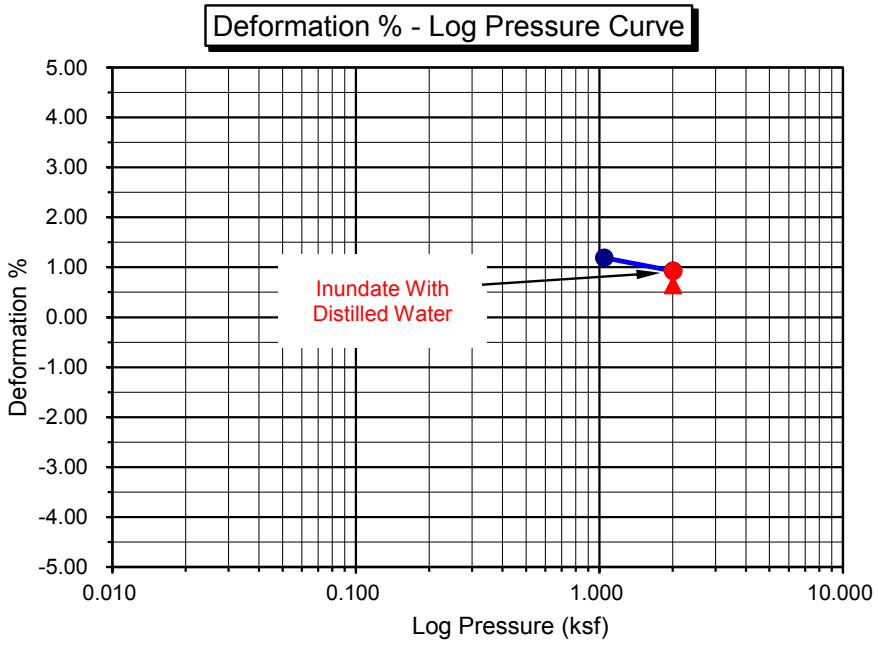
** Note: Loading After Wetting (Inundation) not Performed Using this Test Method.

Initial Dry Density (pcf):	102.3
Initial Moisture (%):	18.8
Initial Height (in.):	0.9830
Initial Dial Reading (in):	0.0500
Inside Diameter of Ring (in):	2.434

Final Dry Density (pcf):	103.7
Final Moisture (%) :	20.1
Initial Void ratio:	0.6478
Specific Gravity (assumed):	2.70
Initial Degree of Saturation (%):	78.2

Pressure (p) (ksf)	Final Reading (in)	Apparent Thickness (in)	Load Compliance (%)	Swell (+) Settlement (-) % of Sample Thickness	Void Ratio	Corrected Deformation (%)
1.050	0.0553	0.9947	0.00	1.19	0.6674	1.19
2.010	0.0579	0.9921	0.00	0.93	0.6630	0.93
H2O	0.0607	0.9893	0.00	0.64	0.6583	0.64

Percent Swell / Settlement After Inundation = -0.28



Leighton

TESTS for SULFATE CONTENT CHLORIDE CONTENT and pH of SOILS

Project Name: RANCHO MIRAGE Tested By : JAP Date: 3/6/13

Project No. : 10143.002 Data Input By: JMB Date: 3/7/13

Boring No.	**B-1**				
Sample No.	**B-1**				
Sample Depth (ft)	0-5.0				
Visual Soil Classification	(SP-SM)				
Wet Weight of Soil + Container (g)	921.2				
Dry Weight of Soil + Container (g)	918.9				
Weight of Container (g)	408.8				
Moisture Content (%)	0.5				
Weight of Soaked Soil (g)	100.0				

SULFATE CONTENT, Hach Kit Method

Dillution : 1	3				
Water Fraction (ml)	25				
Tube Reading	<50				
PPM Sulfate	<150				
% Sulfate	<0.0150				

CHLORIDE CONTENT, AASHTO T-291

ml of Chloride Soln. For Titration (B)	25				
ml of AgNO3 Soln. Used in Titration (C)	0.6				
PPM of Chloride (C -0.2) * Titre (1) * 1000 / 10g	12				
PPM of Chloride, Dry Wt. Basis	**12**				

pH TEST, ASTM D-4972

Container No.	A				
Temperature (C°)	22.8				
pH Value (METHOD A)	**7.40**				

Leighton

SOIL RESISTIVITY TEST
ASTM G-187

Project Name: RANCHO MIRAGE
Project No. : 10143.002
Boring No.: **B-1**
Sample No. : **B-1**
Visual Soil Identification: (SP-SM)

Tested By : JAP Date: 3/6/13
Data Input By: JMB Date: 3/7/13
Checked By: JMB Date: 3/7/13
Depth (ft.) : 0-5.0

** NOTE: ASTM G-187 REQUIRES SOIL SPECIMENS TO PASS THROUGH NO.8 SIEVE PRIOR TO TESTING. THEREFORE, THIS TEST METHOD MAY NOT BE REPRESENTATIVE FOR COARSER MATERIALS.

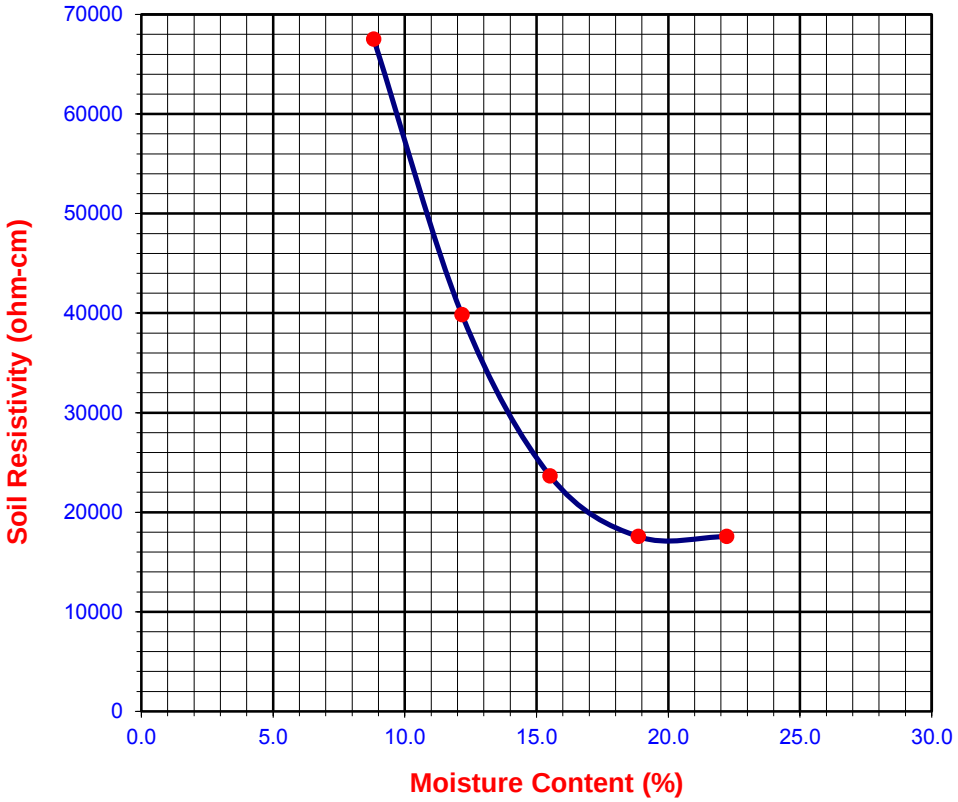
Initial Moisture Content (%)

Wet Wt. of Soil + Cont. (g)	921.2
Dry Wt. of Soil + Cont. (g)	918.9
Wt. of Container (g)	408.8
Moisture Content (%) (MCi)	0.45

Initial Soil Weight (gm)(Wt)	1500.0
Box Constant:	6.7522

MC =(((1+Mci/100)x(Wa/Wt+1))-1)x100

Remolded Specimen	Moisture Adjustments				
Water Added (ml) (Wa)	125	175	225	275	325
Adj. Moisture Content (%) (MC)	8.82	12.17	15.52	18.87	22.22
Resistance Rdg. (ohm)	10000	5900	3500	2600	2600
Soil Resistivity (ohm-cm)	67522	39838	23633	17556	17556



Minimum Resistivity (ohm-cm)	Moisture Content (%)	Sulfate Content ppm / %	Chloride Content (ppm)	Soil pH
ASTM G-187, D-2216		HACH KIT METHOD	AASHTO T-291	ASTM D-4972
17556	18.87	**<150** <0.015	**12**	7.40

Rev. 11-04

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Soluble Sulfates
(Hach Sulfate Test Kit)

Project Name: RANCHO MIRAGE
Project Number: 10143.002
Date: 3/6/13
Technician: JAP

Sample Identification		Dilution	Reading (PPM)			% Sulfates
			Water Fraction		Tube Reading	
Boring No.:	**B-3**	3 :1	3		<50	**<0.0150**
Sample No:	**B-1**			=	<150	
Depth (ft.):	0-5.0					

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R-VALUE TEST RESULTS

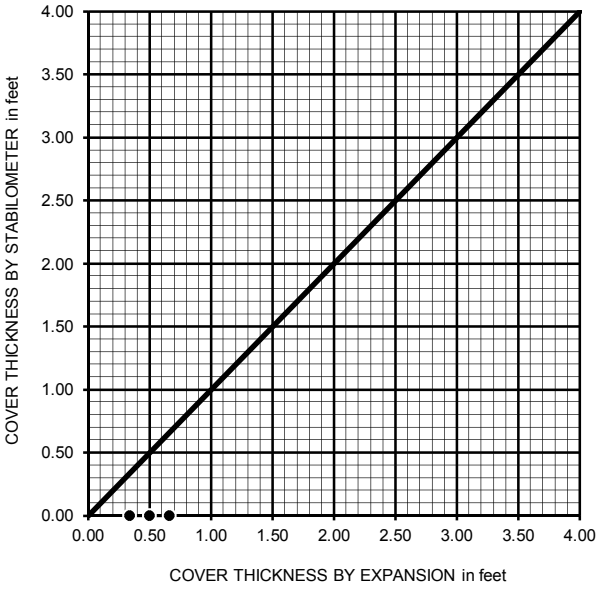
DOT CA Test 301

PROJECT NAME:	Rancho Mirage	PROJECT NUMBER:	10143.002
BORING NUMBER:	B-3	DEPTH (FT.):	0-5
SAMPLE NUMBER:	B-1	TECHNICIAN:	S. Felter
SAMPLE DESCRIPTION:	Gray SP	DATE COMPLETED:	3/8/2013

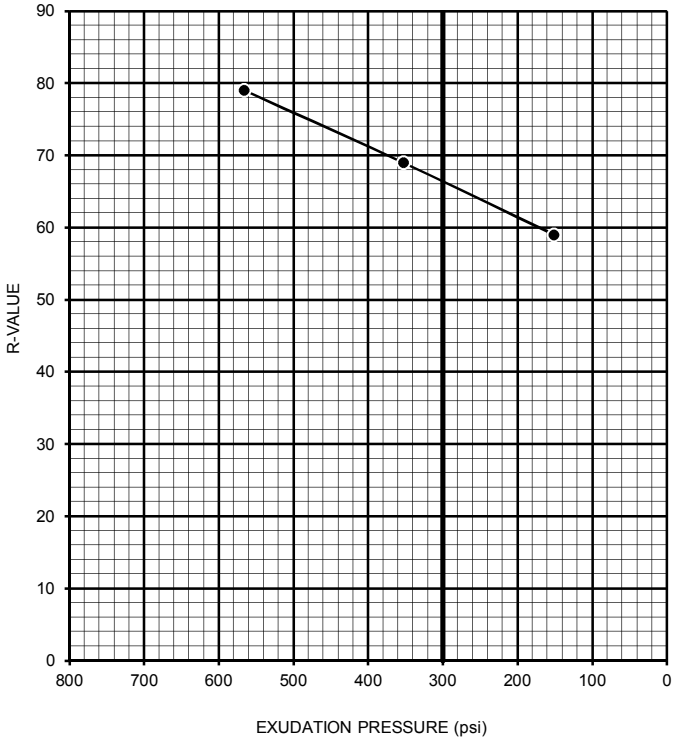
TEST SPECIMEN	a	b	c
MOISTURE AT COMPACTION %	7.6	8.0	8.4
HEIGHT OF SAMPLE, Inches	2.54	2.52	2.56
DRY DENSITY, pcf	112.9	113.6	113.1
COMPACTOR PRESSURE, psi	350	275	150
EXUDATION PRESSURE, psi	566	353	151
EXPANSION, Inches x 10exp-4	0	0	0
STABILITY Ph 2,000 lbs (160 psi)	20	29	40
TURNS DISPLACEMENT	4.70	5.05	5.36
R-VALUE UNCORRECTED	79	69	58
R-VALUE CORRECTED	79	69	59

DESIGN CALCULATION DATA	a	b	c
GRAVEL EQUIVALENT FACTOR	1.0	1.0	1.0
TRAFFIC INDEX	5.0	5.0	5.0
STABILOMETER THICKNESS, ft.	0.34	0.50	0.66
EXPANSION PRESSURE THICKNESS, ft.	0.00	0.00	0.00

EXPANSION PRESSURE CHART



EXUDATION PRESSURE CHART



R-VALUE BY EXPANSION:	N/A
R-VALUE BY EXUDATION:	66
EQUILIBRIUM R-VALUE:	66

APPENDIX C

EARTHWORK AND GRADING SPECIFICATIONS

APPENDIX C

GENERAL EARTHWORK AND GRADING SPECIFICATIONS

TABLE OF CONTENTS

1.0 General

1.1 Intent

These General Earthwork and Grading Specifications are for the grading and earthwork shown on the approved grading plan(s) and/or indicated in the geotechnical report(s). These Specifications are a part of the recommendations contained in the geotechnical report(s). In case of conflict, the specific recommendations in the geotechnical report shall supersede these more general Specifications. Observations of the earthwork by the project Geotechnical Consultant during the course of grading may result in new or revised recommendations that could supersede these specifications or the recommendations in the geotechnical report(s).

1.2 The Geotechnical Consultant of Record

Prior to commencement of work, the owner shall employ the Geotechnical Consultant of Record (Geotechnical Consultant). The Geotechnical Consultants shall be responsible for reviewing the approved geotechnical report(s) and accepting the adequacy of the preliminary geotechnical findings, conclusions, and recommendations prior to the commencement of the grading.

Prior to commencement of grading, the Geotechnical Consultant shall review the "work plan" prepared by the Earthwork Contractor (Contractor) and schedule sufficient personnel to perform the appropriate level of observation, mapping, and compaction testing.

During the grading and earthwork operations, the Geotechnical Consultant shall observe, map, and document the subsurface exposures to verify the geotechnical design assumptions. If the observed conditions are found to be significantly different than the interpreted assumptions during the design phase, the Geotechnical Consultant shall inform the owner, recommend appropriate changes in design to accommodate the observed conditions, and notify the review agency where required. Subsurface areas to be geotechnically observed, mapped, elevations recorded, and/or tested include natural ground after it has been cleared for receiving fill but before fill is placed, bottoms of all "remedial removal" areas, all key bottoms, and benches made on sloping ground to receive fill.

The Geotechnical Consultant shall observe the moisture-conditioning and processing of the subgrade and fill materials and perform relative compaction testing of fill to determine the attained level of compaction. The Geotechnical Consultant shall provide the test results to the owner and the Contractor on a routine and frequent basis.

1.3 The Earthwork Contractor

The Earthwork Contractor (Contractor) shall be qualified, experienced, and knowledgeable in earthwork logistics, preparation and processing of ground to receive fill, moisture-conditioning and processing of fill, and compacting fill. The Contractor shall review and accept the plans, geotechnical report(s), and these Specifications prior to commencement of grading. The Contractor shall be solely responsible for performing the grading in accordance with the plans and specifications.

The Contractor shall prepare and submit to the owner and the Geotechnical Consultant a work plan that indicates the sequence of earthwork grading, the number of "spreads" of work and the estimated quantities of daily earthwork contemplated for the site prior to commencement of grading. The Contractor shall inform the owner and the Geotechnical Consultant of changes in work schedules and updates to the work plan at least 24 hours in advance of such changes so that appropriate observations and tests can be planned and accomplished. The Contractor shall not assume that the Geotechnical Consultant is aware of all grading operations.

The Contractor shall have the sole responsibility to provide adequate equipment and methods to accomplish the earthwork in accordance with the applicable grading codes and agency ordinances, these Specifications, and the recommendations in the approved geotechnical report(s) and grading plan(s). If, in the opinion of the Geotechnical Consultant, unsatisfactory conditions, such as unsuitable soil, improper moisture condition, inadequate compaction, insufficient buttress key size, adverse weather, etc., are resulting in a quality of work less than required in these specifications, the Geotechnical Consultant shall reject the work and may recommend to the owner that construction be stopped until the conditions are rectified.

2.0 Preparation of Areas to be Filled

2.1 Clearing and Grubbing

Vegetation, such as brush, grass, roots, and other deleterious material shall be sufficiently removed and properly disposed of in a method acceptable to the owner, governing agencies, and the Geotechnical Consultant.

The Geotechnical Consultant shall evaluate the extent of these removals depending on specific site conditions. Earth fill material shall not contain more than 1 percent of organic materials (by volume). No fill lift shall contain more than 5 percent of organic matter. Nesting of the organic materials shall not be allowed.

If potentially hazardous materials are encountered, the Contractor shall stop work in the affected area, and a hazardous material specialist shall be informed immediately for proper evaluation and handling of these materials prior to continuing to work in that area.

As presently defined by the State of California, most refined petroleum products (gasoline, diesel fuel, motor oil, grease, coolant, etc.) have chemical constituents that are considered to be hazardous waste. As such, the indiscriminate dumping or spillage of these fluids onto the ground may constitute a misdemeanor, punishable by fines and/or imprisonment, and shall not be allowed.

2.2 Processing

Existing ground that has been declared satisfactory for support of fill by the Geotechnical Consultant shall be scarified to a minimum depth of 6 inches. Existing ground that is not satisfactory shall be overexcavated as specified in the following section. Scarification shall continue until soils are broken down and free of large clay lumps or clods and the working surface is reasonably uniform, flat, and free of uneven features that would inhibit uniform compaction.

2.3 Overexcavation

In addition to removals and overexcavations recommended in the approved geotechnical report(s) and the grading plan, soft, loose, dry, saturated, spongy, organic-rich, highly fractured or otherwise unsuitable ground shall be overexcavated to competent ground as evaluated by the Geotechnical Consultant during grading.

2.4 Benching

Where fills are to be placed on ground with slopes steeper than 5:1 (horizontal to vertical units), the ground shall be stepped or benched. The lowest bench or key shall be a minimum of 15 feet wide and at least 2 feet deep, into competent material as evaluated by the Geotechnical Consultant. Other benches shall be excavated a minimum height of 4 feet into competent material or as otherwise recommended by the Geotechnical Consultant. Fill placed on ground sloping flatter than 5:1 shall also be benched or otherwise overexcavated to provide a flat subgrade for the fill.

2.5 Evaluation/Acceptance of Fill Areas

All areas to receive fill, including removal and processed areas, key bottoms, and benches, shall be observed, mapped, elevations recorded, and/or tested prior to being accepted by the Geotechnical Consultant as suitable to receive fill. The Contractor shall obtain a written acceptance from the Geotechnical Consultant

prior to fill placement. A licensed surveyor shall provide the survey control for determining elevations of processed areas, keys, and benches.

3.0 Fill Material

3.1 General

Material to be used as fill shall be essentially free of organic matter and other deleterious substances evaluated and accepted by the Geotechnical Consultant prior to placement. Soils of poor quality, such as those with unacceptable gradation, high expansion potential, or low strength shall be placed in areas acceptable to the Geotechnical Consultant or mixed with other soils to achieve satisfactory fill material.

3.2 Oversize

Oversize material defined as rock, or other irreducible material with a maximum dimension greater than 8 inches, shall not be buried or placed in fill unless location, materials, and placement methods are specifically accepted by the Geotechnical Consultant. Placement operations shall be such that nesting of oversized material does not occur and such that oversize material is completely surrounded by compacted or densified fill. Oversize material shall not be placed within 10 vertical feet of finish grade or within 2 feet of future utilities or underground construction.

3.3 Import

If importing of fill material is required for grading, proposed import material shall meet the requirements of Section 3.1. The potential import source shall be given to the Geotechnical Consultant at least 48 hours (2 working days) before importing begins so that its suitability can be determined and appropriate tests performed.

4.0 Fill Placement and Compaction

4.1 Fill Layers

Approved fill material shall be placed in areas prepared to receive fill (per Section 3.0) in near-horizontal layers not exceeding 8 inches in loose thickness. The Geotechnical Consultant may accept thicker layers if testing indicates the grading procedures can adequately compact the thicker layers. Each layer shall be spread evenly and mixed thoroughly to attain relative uniformity of material and moisture throughout.

4.2 Fill Moisture Conditioning

Fill soils shall be watered, dried back, blended, and/or mixed, as necessary to attain a relatively uniform moisture content at or slightly over optimum. Maximum density and optimum soil moisture content tests shall be performed in accordance with the American Society of Testing and Materials (ASTM Test Method D1557).

4.3 Compaction of Fill

After each layer has been moisture-conditioned, mixed, and evenly spread, it shall be uniformly compacted to not less than 90 percent of maximum dry density (ASTM Test Method D1557). Compaction equipment shall be adequately sized and be either specifically designed for soil compaction or of proven reliability to efficiently achieve the specified level of compaction with uniformity.

4.4 Compaction of Fill Slopes

In addition to normal compaction procedures specified above, compaction of slopes shall be accomplished by backrolling of slopes with sheepsfoot rollers at increments of 3 to 4 feet in fill elevation, or by other methods producing satisfactory results acceptable to the Geotechnical Consultant. Upon completion of grading, relative compaction of the fill, out to the slope face, shall be at least 90 percent of maximum density per ASTM Test Method D1557.

4.5 Compaction Testing

Field-tests for moisture content and relative compaction of the fill soils shall be performed by the Geotechnical Consultant. Location and frequency of tests shall be at the Consultant's discretion based on field conditions encountered. Compaction test locations will not necessarily be selected on a random basis. Test locations shall be selected to verify adequacy of compaction levels in areas that are judged to be prone to inadequate compaction (such as close to slope faces and at the fill/bedrock benches).

4.6 Frequency of Compaction Testing

Tests shall be taken at intervals not exceeding 2 feet in vertical rise and/or 1,000 cubic yards of compacted fill soils embankment. In addition, as a guideline, at least one test shall be taken on slope faces for each 5,000 square feet of slope face and/or each 10 feet of vertical height of slope. The Contractor shall assure that fill construction is such that the testing schedule can be accomplished by the Geotechnical Consultant. The Contractor shall stop or slow down the earthwork construction if these minimum standards are not met.

4.7 Compaction Test Locations

The Geotechnical Consultant shall document the approximate elevation and horizontal coordinates of each test location. The Contractor shall coordinate with the project surveyor to assure that sufficient grade stakes are established so that the Geotechnical Consultant can determine the test locations with sufficient accuracy. At a minimum, two grade stakes within a horizontal distance of 100 feet and vertically less than 5 feet apart from potential test locations shall be provided.

5.0 Subdrain Installation

Subdrain systems shall be installed in accordance with the approved geotechnical report(s), the grading plan. The Geotechnical Consultant may recommend additional subdrains and/or changes in subdrain extent, location, grade, or material depending on conditions encountered during grading. All subdrains shall be surveyed by a land surveyor/civil engineer for line and grade after installation and prior to burial. Sufficient time should be allowed by the Contractor for these surveys.

6.0 Excavation

Excavations, as well as over-excavation for remedial purposes, shall be evaluated by the Geotechnical Consultant during grading. Remedial removal depths shown on geotechnical plans are estimates only. The actual extent of removal shall be determined by the Geotechnical Consultant based on the field evaluation of exposed conditions during grading. Where fill-over-cut slopes are to be graded, the cut portion of the slope shall be made, evaluated, and accepted by the Geotechnical Consultant prior to placement of materials for construction of the fill portion of the slope, unless otherwise recommended by the Geotechnical Consultant.

7.0 Trench Backfills

7.1 Safety

The Contractor shall follow all OSHA and Cal/OSHA requirements for safety of trench excavations.

7.2 Bedding and Backfill

All bedding and backfill of utility trenches shall be performed in accordance with the applicable provisions of Standard Specifications of Public Works Construction. Bedding material shall have a Sand Equivalent greater than 30 (SE>30). The bedding shall be placed to 1 foot over the top of the conduit and densified by jetting. Backfill shall be placed and densified to a minimum of 90 percent of relative compaction from 1 foot above the top of the conduit to the surface.

The Geotechnical Consultant shall test the trench backfill for relative compaction. At least one test should be made for every 300 feet of trench and 2 feet of fill.

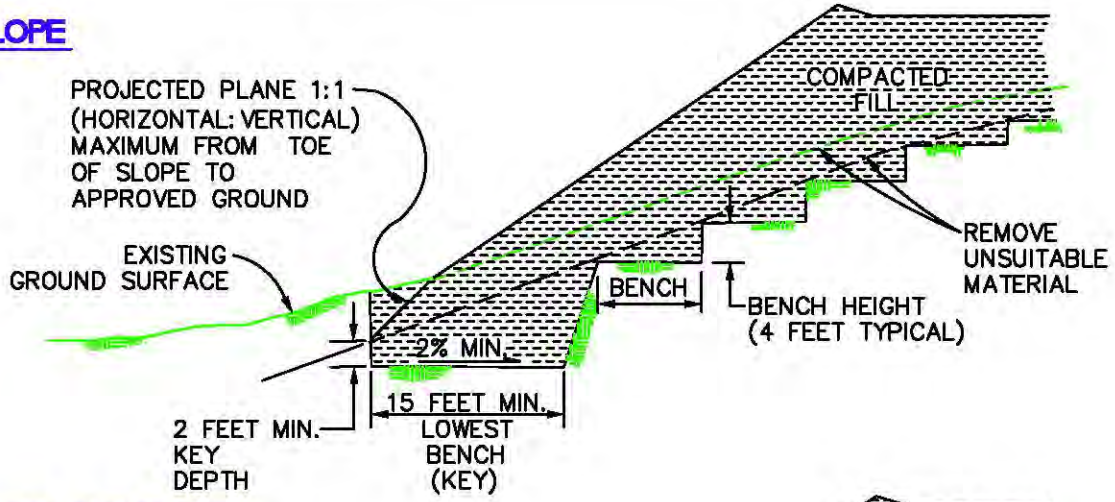
7.3 Lift Thickness

Lift thickness of trench backfill shall not exceed those allowed in the Standard Specifications of Public Works Construction unless the Contractor can demonstrate to the Geotechnical Consultant that the fill lift can be compacted to the minimum relative compaction by his alternative equipment and method.

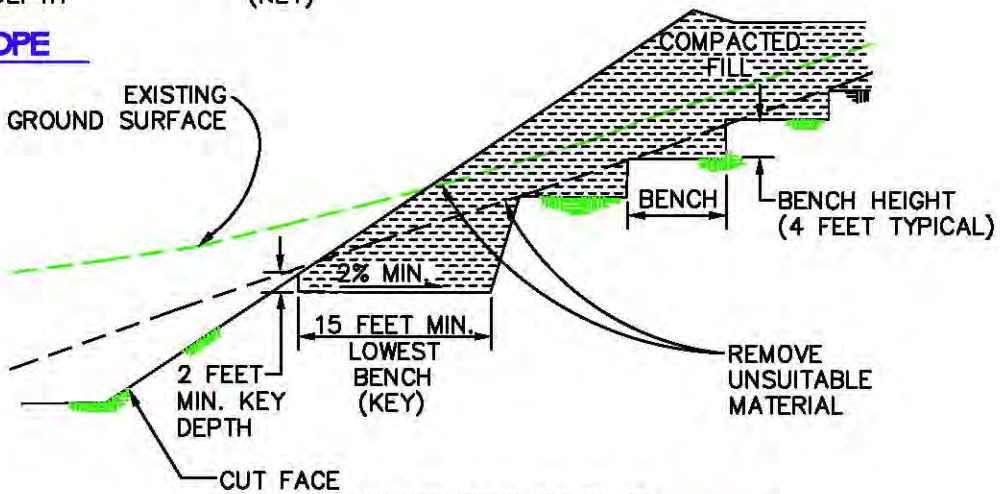
7.4 Observation and Testing

The jetting of the bedding around the conduits shall be observed by the Geotechnical Consultant.

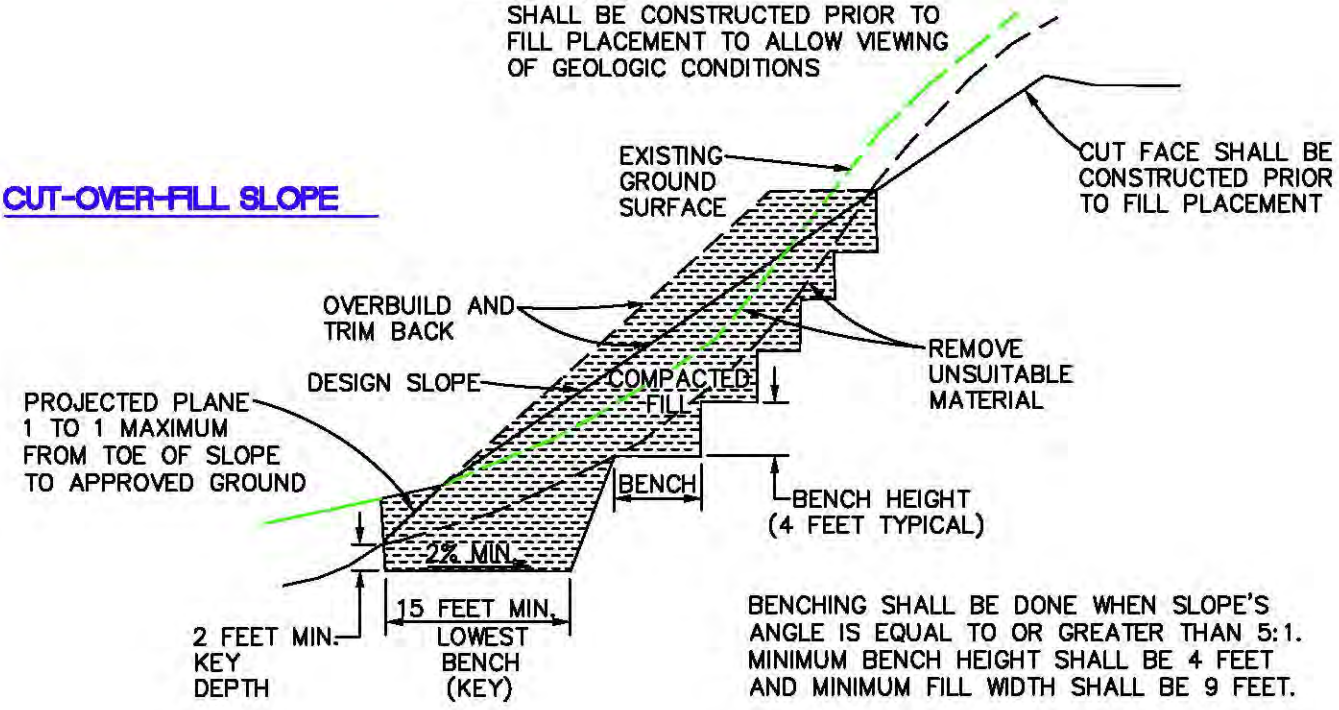
FILL SLOPE



FILL-OVER-CUT SLOPE



CUT-OVER-FILL SLOPE

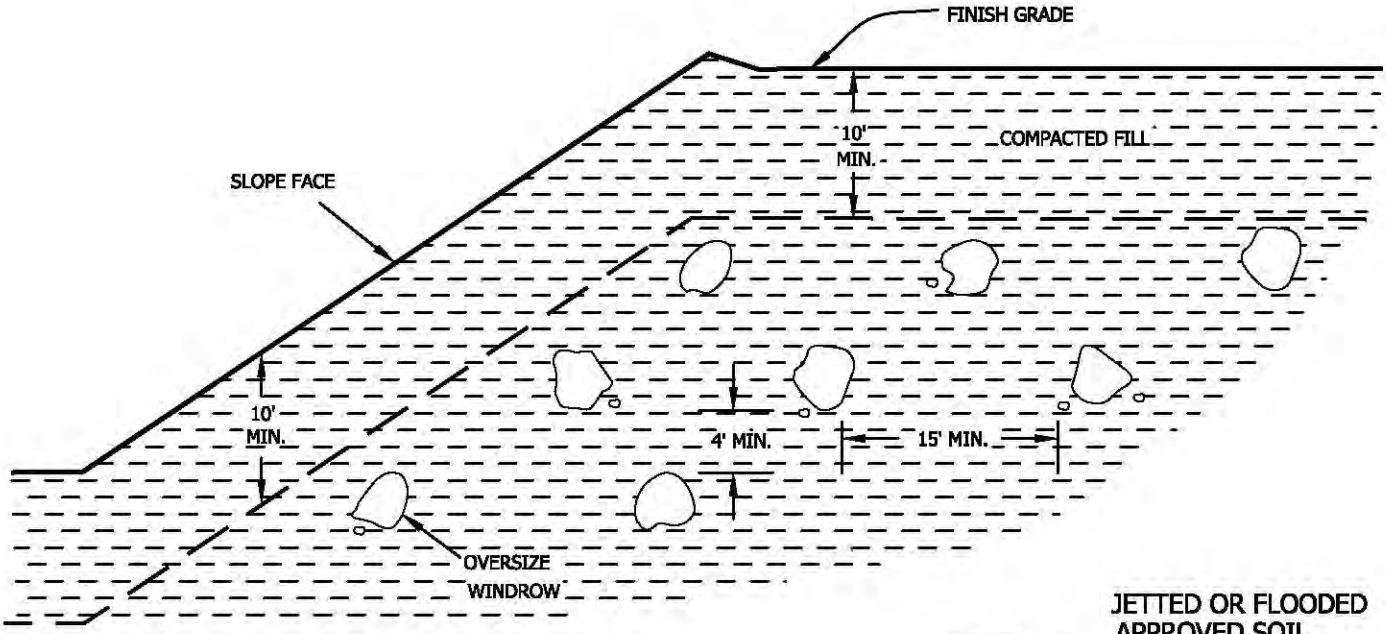


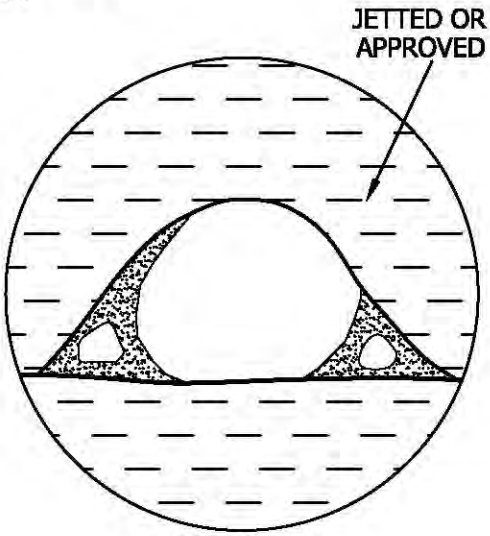
BENCHING SHALL BE DONE WHEN SLOPE'S ANGLE IS EQUAL TO OR GREATER THAN 5:1. MINIMUM BENCH HEIGHT SHALL BE 4 FEET AND MINIMUM FILL WIDTH SHALL BE 9 FEET.

KEYING AND BENCHING

GENERAL EARTHWORK AND GRADING SPECIFICATIONS
STANDARD DETAILS A

Leighton

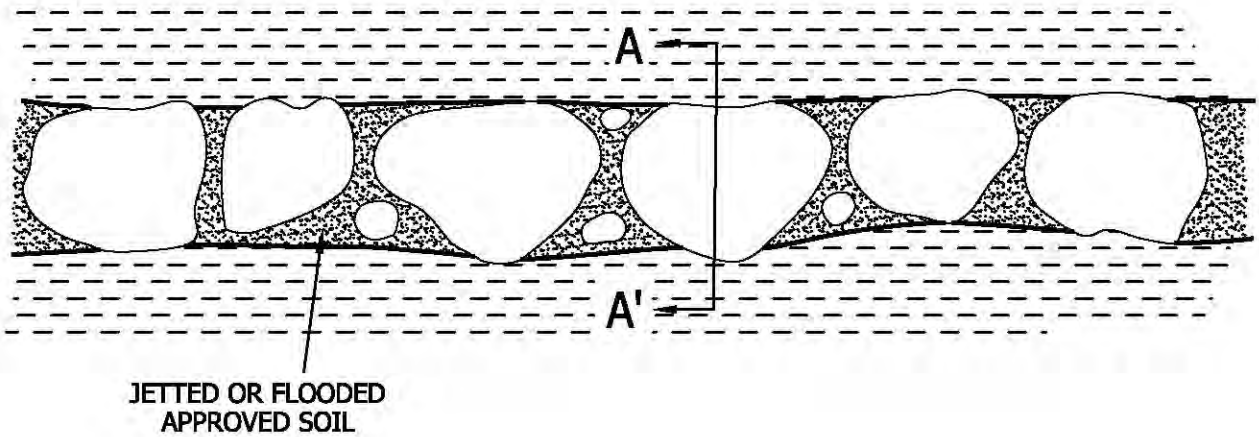




SECTION A-A'

- Oversize rock is larger than 8 inches in largest dimension.
- Backfill with approved soil jetted or flooded in place to fill all the voids.
- Do not bury rock within 10 feet of finish grade.
- Windrow of buried rock shall be parallel to the finished slope face.

PROFILE ALONG WINDROW



OVERSIZE ROCK DISPOSAL

GENERAL EARTHWORK AND GRADING SPECIFICATIONS
STANDARD DETAILS B

Leighton

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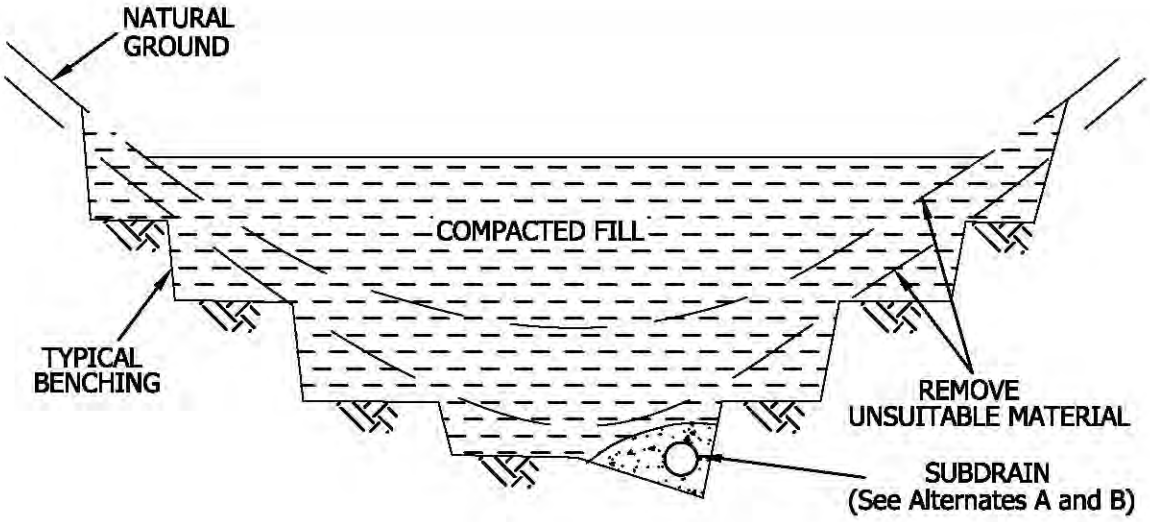
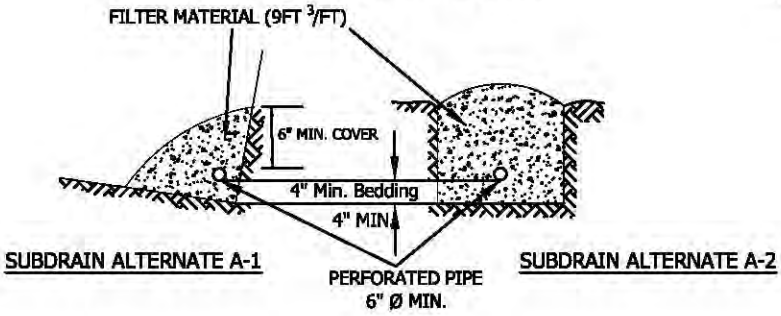


SUBDRAIN ALTERNATE A

PERFORATED PIPE SURROUNDED WITH FILTER MATERIAL

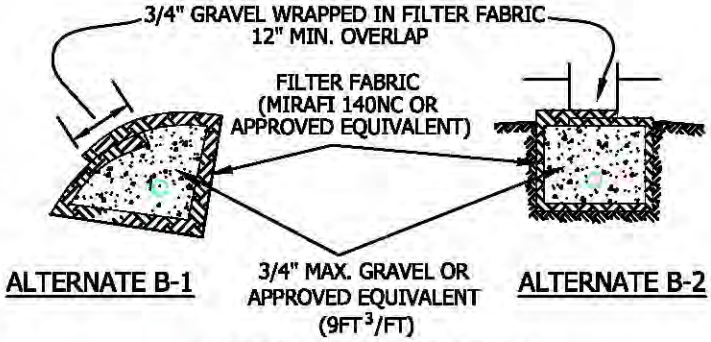


FILTER MATERIAL

FILTER MATERIAL SHALL BE CLASS 2 PERMEABLE MATERIAL PER STATE OF CALIFORNIA STANDARD SPECIFICATION, OR APPROVED ALTERNATE. CLASS 2 GRADING AS FOLLOWS:

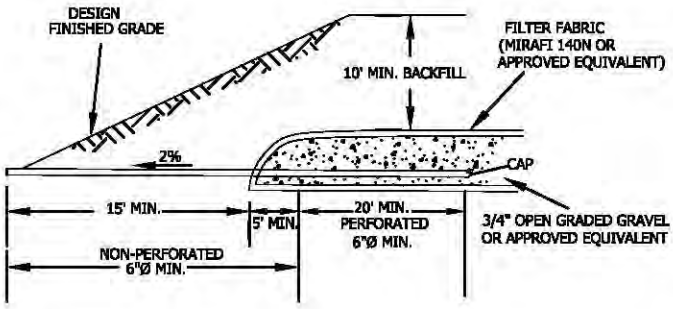
Sieve Size	Percent Passing
1"	100
3/4"	90-100
3/8"	40-100
No. 4	25-40
No. 8	18-33
No. 30	5-15
No. 50	0-7
No. 200	0-3

SUBDRAIN ALTERNATE B



○ PERFORATED PIPE IS OPTIONAL PER GOVERNING AGENCY'S REQUIREMENTS

DETAIL OF CANYON SUBDRAIN TERMINAL



CANYON SUBDRAIN	GENERAL EARTHWORK AND GRADING SPECIFICATIONS STANDARD DETAILS C	Leighton

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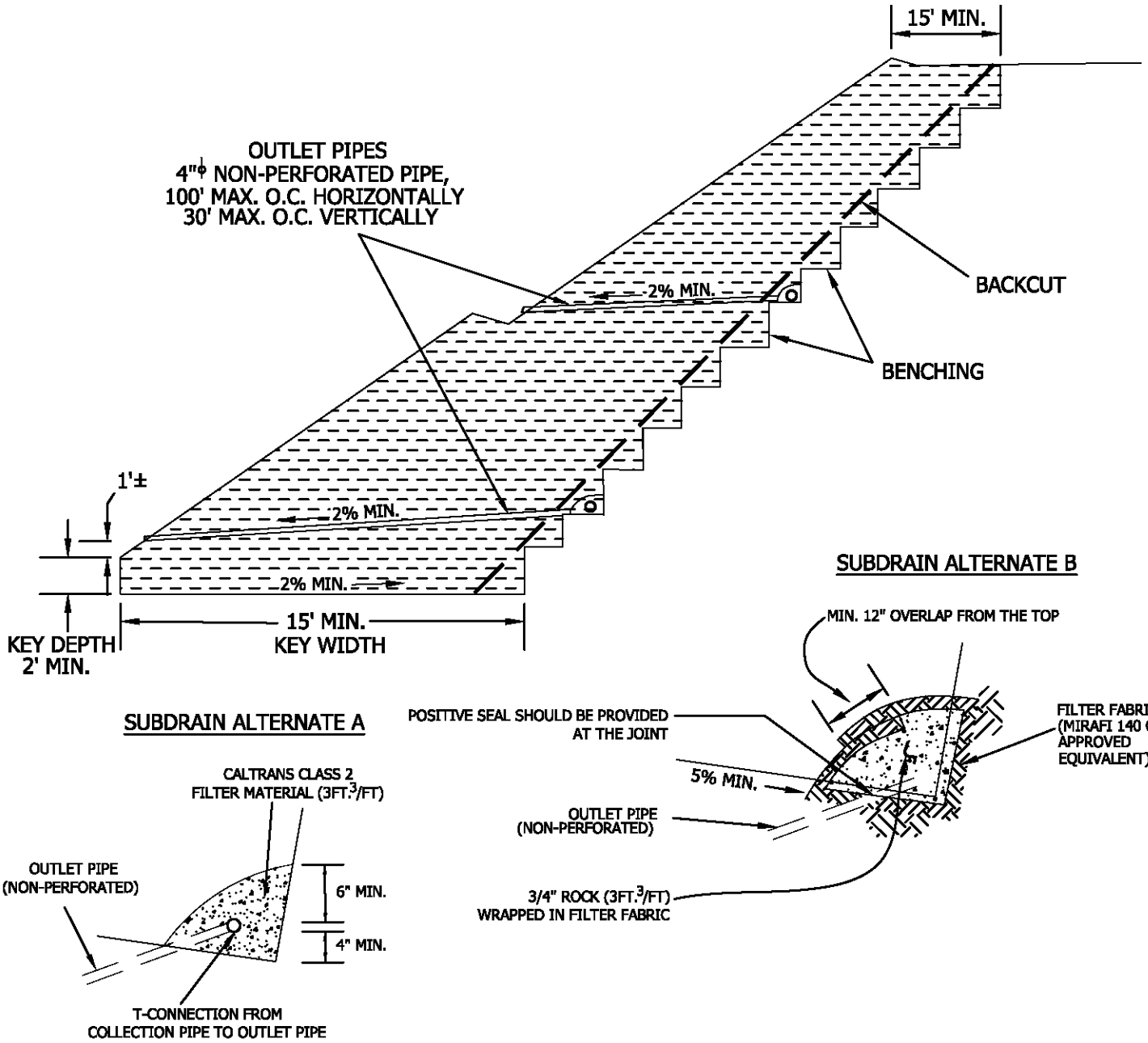

- SUBDRAIN INSTALLATION - Subdrain collector pipe shall be installed with perforations down or, unless otherwise designated by the geotechnical consultant. Outlet pipes shall be non-perforated pipe. The subdrain pipe shall have at least 8 perforations uniformly spaced per foot. Perforation shall be 1/4" to 1/2" if drilled holes are used. All subdrain pipes shall have a gradient at least 2% towards the outlet.
- SUBDRAIN PIPE - Subdrain pipe shall be ASTM D2751, ASTM D1527 (Schedule 40) or SDR 23.5 ABS pipe or ASTM D3034 (Schedule 40) or SDR 23.5 PVC pipe.
- All outlet pipe shall be placed in a trench and, after fill is placed above it, rodded to verify integrity.

BUTTRESS OR REPLACEMENT FILL SUBDRAINS	GENERAL EARTHWORK AND GRADING SPECIFICATIONS STANDARD DETAILS D	Leighton

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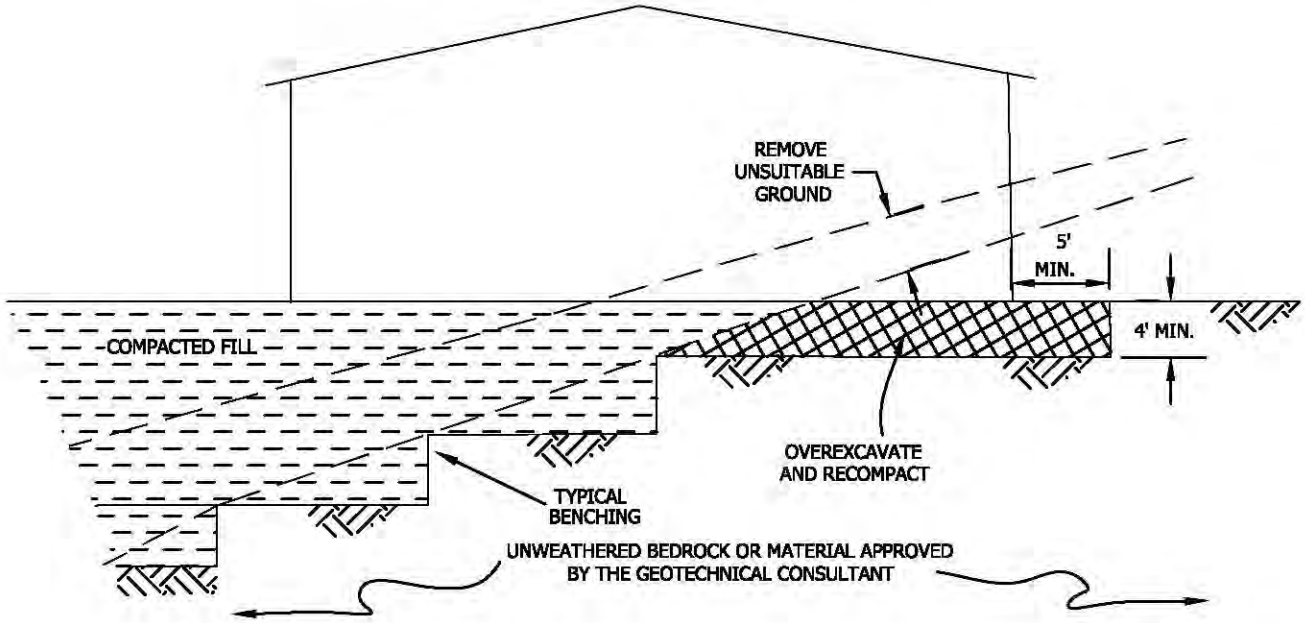
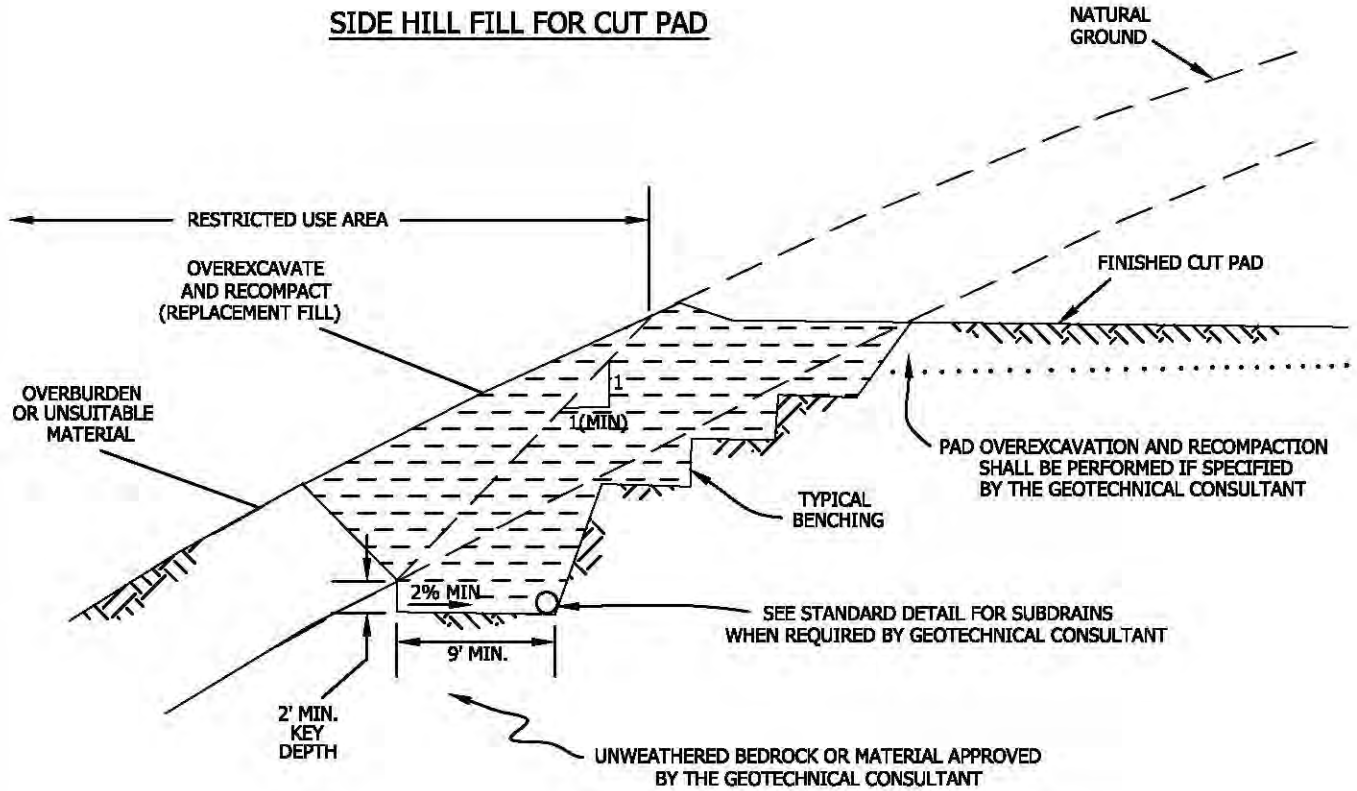
CUT-FILL TRANSITION LOT OVEREXCAVATION



SIDE HILL FILL FOR CUT PAD



TRANSITION LOT FILLS AND SIDE HILL FILLS

GENERAL EARTHWORK AND GRADING
SPECIFICATIONS
STANDARD DETAILS E

Leighton

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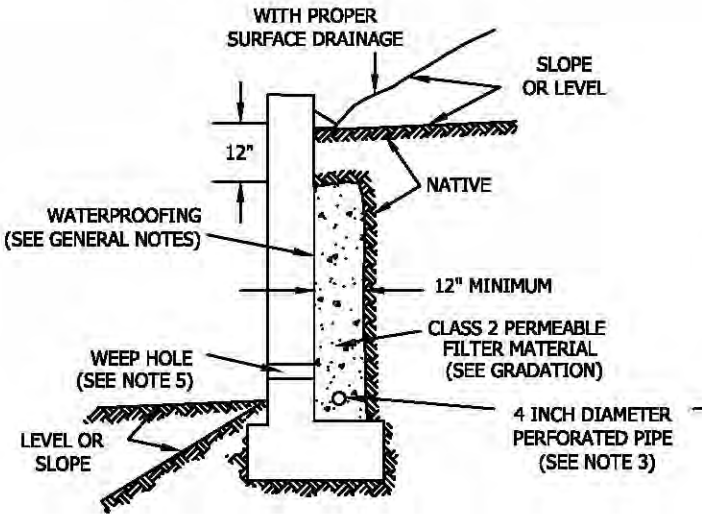
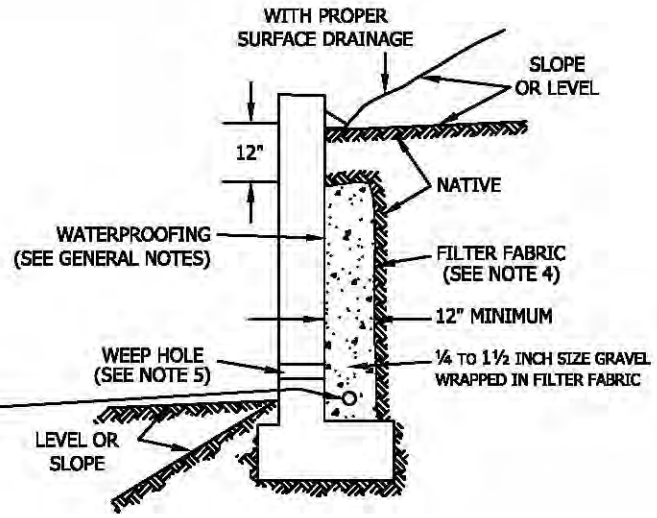
SUBDRAIN OPTIONS AND BACKFILL WHEN NATIVE MATERIAL HAS EXPANSION INDEX OF ≤50

OPTION 1: PIPE SURROUNDED WITH CLASS 2 PERMEABLE MATERIAL



OPTION 2: GRAVEL WRAPPED IN FILTER FABRIC



Class 2 Filter Permeable Material Gradation
Per Caltrans Specifications

Sieve Size	Percent Passing
1"	100
3/4"	90-100
3/8"	40-100
No. 4	25-40
No. 8	18-33
No. 30	5-15
No. 50	0-7
No. 200	0-3

GENERAL NOTES:

* Waterproofing should be provided where moisture nuisance problem through the wall is undesirable.
* Water proofing of the walls is not under purview of the geotechnical engineer
* All drains should have a gradient of 1 percent minimum
*Outlet portion of the subdrain should have a 4-inch diameter solid pipe discharged into a suitable disposal area designed by the project engineer. The subdrain pipe should be accessible for maintenance (rodding)
*Other subdrain backfill options are subject to the review by the geotechnical engineer and modification of design parameters.

Notes:
1) Sand should have a sand equivalent of 30 or greater and may be densified by water jetting.
2) 1 Cu. ft. per ft. of 1/4- to 1 1/2-inch size gravel wrapped in filter fabric
3) Pipe type should be ASTM D1527 Acrylonitrile Butadiene Styrene (ABS) SDR35 or ASTM D1785 Polyvinyl Chloride plastic (PVC), Schedule 40, Armco A2000 PVC, or approved equivalent. Pipe should be installed with perforations down. Perforations should be 3/8 inch in diameter placed at the ends of a 120-degree arc in two rows at 3-inch on center (staggered)
4) Filter fabric should be Mirafi 140NC or approved equivalent.
5) Weephole should be 3-inch minimum diameter and provided at 10-foot maximum intervals. If exposure is permitted, weepholes should be located 12 inches above finished grade. If exposure is not permitted such as for a wall adjacent to a sidewalk/curb, a pipe under the sidewalk to be discharged through the curb face or equivalent should be provided. For a basement-type wall, a proper subdrain outlet system should be provided.
6) Retaining wall plans should be reviewed and approved by the geotechnical engineer.
7) Walls over six feet in height are subject to a special review by the geotechnical engineer and modifications to the above requirements.

RETAINING WALL BACKFILL AND SUBDRAIN DETAIL FOR WALLS 6 FEET OR LESS IN HEIGHT

WHEN NATIVE MATERIAL HAS EXPANSION INDEX OF ≤50

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Figure

APPENDIX D

ASFE Important Information about Your Geotechnical Engineering Report

Important Information About Your

Geotechnical Engineering Report

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.

The following information is provided to help you manage your risks.

Geotechnical Services Are Performed for Specific Purposes, Persons, and Projects

Geotechnical engineers structure their services to meet the specific needs of their clients. A geotechnical engineering study conducted for a civil engineer may not fulfill the needs of a construction contractor or even another civil engineer. Because each geotechnical engineering study is unique, each geotechnical engineering report is unique, prepared *solely* for the client. No one except you should rely on your geotechnical engineering report without first conferring with the geotechnical engineer who prepared it. *And no one — not even you* — should apply the report for any purpose or project except the one originally contemplated.

Read the Full Report

Serious problems have occurred because those relying on a geotechnical engineering report did not read it all. Do not rely on an executive summary. Do not read selected elements only.

A Geotechnical Engineering Report Is Based on A Unique Set of Project-Specific Factors

Geotechnical engineers consider a number of unique, project-specific factors when establishing the scope of a study. Typical factors include: the client's goals, objectives, and risk management preferences; the general nature of the structure involved, its size, and configuration; the location of the structure on the site; and other planned or existing site improvements, such as access roads, parking lots, and underground utilities. Unless the geotechnical engineer who conducted the study specifically indicates otherwise, do not rely on a geotechnical engineering report that was:

- not prepared for you,
- not prepared for your project,
- not prepared for the specific site explored, or
- completed before important project changes were made.

Typical changes that can erode the reliability of an existing geotechnical engineering report include those that affect:

- the function of the proposed structure, as when it's changed from a parking garage to an office building, or from a light industrial plant to a refrigerated warehouse,
- elevation, configuration, location, orientation, or weight of the proposed structure,
- composition of the design team, or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project changes—even minor ones—and request an assessment of their impact. *Geotechnical engineers cannot accept responsibility or liability for problems that occur because their reports do not consider developments of which they were not informed.*

Subsurface Conditions Can Change

A geotechnical engineering report is based on conditions that existed at the time the study was performed. *Do not rely on a geotechnical engineering report* whose adequacy may have been affected by: the passage of time; by man-made events, such as construction on or adjacent to the site; or by natural events, such as floods, earthquakes, or groundwater fluctuations. *Always* contact the geotechnical engineer before applying the report to determine if it is still reliable. A minor amount of additional testing or analysis could prevent major problems.

Most Geotechnical Findings Are Professional Opinions

Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. Geotechnical engineers review field and laboratory data and then apply their professional judgment to render an opinion about subsurface conditions throughout the site. Actual subsurface conditions may differ—sometimes significantly—from those indicated in your report. Retaining the geotechnical engineer who developed your report to provide construction observation is the most effective method of managing the risks associated with unanticipated conditions.

A Report's Recommendations Are *Not* Final

Do not overrely on the construction recommendations included in your report. *Those recommendations are not final,* because geotechnical engineers develop them principally from judgment and opinion. Geotechnical engineers can finalize their recommendations only by observing actual

subsurface conditions revealed during construction. *The geotechnical engineer who developed your report cannot assume responsibility or liability for the report's recommendations if that engineer does not perform construction observation.*

A Geotechnical Engineering Report Is Subject to Misinterpretation

Other design team members' misinterpretation of geotechnical engineering reports has resulted in costly problems. Lower that risk by having your geotechnical engineer confer with appropriate members of the design team after submitting the report. Also retain your geotechnical engineer to review pertinent elements of the design team's plans and specifications. Contractors can also misinterpret a geotechnical engineering report. Reduce that risk by having your geotechnical engineer participate in prebid and preconstruction conferences, and by providing construction observation.

Do Not Redraw the Engineer's Logs

Geotechnical engineers prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors or omissions, the logs included in a geotechnical engineering report should *never* be redrawn for inclusion in architectural or other design drawings. Only photographic or electronic reproduction is acceptable, *but recognize that separating logs from the report can elevate risk.*

Give Contractors a Complete Report and Guidance

Some owners and design professionals mistakenly believe they can make contractors liable for unanticipated subsurface conditions by limiting what they provide for bid preparation. To help prevent costly problems, give contractors the complete geotechnical engineering report, *but* preface it with a clearly written letter of transmittal. In that letter, advise contractors that the report was not prepared for purposes of bid development and that the report's accuracy is limited; encourage them to confer with the geotechnical engineer who prepared the report (a modest fee may be required) and/or to conduct additional study to obtain the specific types of information they need or prefer. A prebid conference can also be valuable. *Be sure contractors have sufficient time* to perform additional study. Only then might you be in a position to give contractors the best information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions.

Read Responsibility Provisions Closely

Some clients, design professionals, and contractors do not recognize that geotechnical engineering is far less exact than other engineering disciplines. This lack of understanding has created unrealistic expectations that have led to disappointments, claims, and disputes. To help reduce the risk of such outcomes, geotechnical engineers commonly include a variety of explanatory provisions in their reports. Sometimes labeled "limitations" many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help others recognize their own responsibilities and risks. *Read these provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

Geoenvironmental Concerns Are Not Covered

The equipment, techniques, and personnel used to perform a *geoenvironmental* study differ significantly from those used to perform a *geotechnical* study. For that reason, a geotechnical engineering report does not usually relate any geoenvironmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated environmental problems have led to numerous project failures.* If you have not yet obtained your own geoenvironmental information, ask your geotechnical consultant for risk management guidance. *Do not rely on an environmental report prepared for someone else.*

Obtain Professional Assistance To Deal with Mold

Diverse strategies can be applied during building design, construction, operation, and maintenance to prevent significant amounts of mold from growing on indoor surfaces. To be effective, all such strategies should be devised for the *express purpose* of mold prevention, integrated into a comprehensive plan, and executed with diligent oversight by a professional mold prevention consultant. Because just a small amount of water or moisture can lead to the development of severe mold infestations, a number of mold prevention strategies focus on keeping building surfaces dry. While groundwater, water infiltration, and similar issues may have been addressed as part of the geotechnical engineering study whose findings are conveyed in this report, the geotechnical engineer in charge of this project is not a mold prevention consultant; ***none of the services performed in connection with the geotechnical engineer's study were designed or conducted for the purpose of mold prevention. Proper implementation of the recommendations conveyed in this report will not of itself be sufficient to prevent mold from growing in or on the structure involved.***

Rely, on Your ASFE-Member Geotechncial Engineer for Additional Assistance

Membership in ASFE/The Best People on Earth exposes geotechnical engineers to a wide array of risk management techniques that can be of genuine benefit for everyone involved with a construction project. Confer with you ASFE-member geotechnical engineer for more information.

ASFE
The Best People on Earth

8811 Colesville Road/Suite G106, Silver Spring, MD 20910
Telephone: 301/565-2733 Facsimile: 301/589-2017
e-mail: info@asfe.org www.asfe.org

IIGER08041.0MRP

APPENDIX E

Phase I and Limited Phase II Environmental Site Assessment

Leighton and Associates, Inc.
A LEIGHTON GROUP COMPANY

June 23, 2014

Project No. 10143.001

Pulte Homes
27101 Puerta Real, Suite 300
Mission Viejo, California 92691

Attention: Mr. Bob Paradise

Subject: Phase I and Limited Phase II ESA Addendum Letter
Rancho Mirage 1200
Assessor Parcel Numbers 673-120-021 through -025
Rancho Mirage, Unincorporated Area of Riverside County, California

Leighton and Associates, Inc. (Leighton) presents this Addendum to the Phase I and Phase II Environmental Site Assessment (ESA) prepared for the subject site in 2013 (Leighton, 2013). The purpose of this Phase I ESA Addendum is to incorporate the additional property (Assessor Parcel Numbers [APNs] 673-120-021 and 673-120-022) that are now associated with the subject site (see Figure 1 – Site Location Map). The scope of work for this Phase I ESA Addendum Letter included: an updated review of historical aerial photographs and topographic maps (to include the new APNs), review of an online database resources such as Geotracker and Envirostor, a site reconnaissance, and preparation of this addendum letter.

SITE RECONNAISSANCE

On June 20, 2014, Leighton personnel conducted a reconnaissance-level visit of the subject site to observe and document existing site conditions. The two new APNs consist of approximately 72 acres of vacant land. The eastern half of the northeastern parcel (APN 673-120-022) appears to have been paved with asphalt and possibly used as a construction staging/parking or overflow parking lot for the casino (based on aerial photographs). The entrance to this paved area is now blocked and the asphalt is degraded and covered in windblown sand. Small areas of asphalt and construction debris were observed in the middle portion of the northeastern parcel separating the paved area from the vacant land. A stormwater retention basin was observed in the northwestern portion of this parcel. The southeastern parcel was observed to be a

vacant land, with the exception of a pole mounted billboard in the corner of the parcel, and a small stockpile of aggregate base and asphalt debris on the eastern border of the subject parcel (APN 673-120-021). Significant changes were not observed on the original parcels, with the exception of more blown sand on the eastern and southern borders of the subject site.

ONLINE DATABASE RESOURCES

A search of the selected online government databases was conducted by Leighton on June 19, 2014. A review of The Department of Toxic Substances Control's (DTSC) website Envirostor and the State Water Resources Control Board's (SWRCB) online database GeoTracker did not reveal any environmental sites of concern within one mile of the of the subject site.

REVIEW OF HISTORICAL AERIAL PHOTOGRAPHS

Historical aerial photographs were reviewed for information regarding past subject site uses. Aerial photographs dated 1953, 1969, 1978, 1984, 1989, 2002, 2005, 2007, 2009, and 2010 were reviewed.

In the **1953** aerial photograph, the subject site and adjacent properties are vacant, undeveloped land. Paved Ramon Road and Bob Hope Drive are observed to the north and the east of the subject site, respectively. Southern Pacific railroad is observed approximately 650 feet to the northeast of the subject site.

Significant changes were not observed in the **1969, 1978 and 1984** aerial photographs, with the exception of the addition of Interstate 10 (northeast of the railroad) and its on-ramps and off-ramps located to the northeast of the subject site, and what appears to be part of Dinah Shore Drive to the southeast of the subject site.

In the **1989** aerial photograph, the subject site and adjacent properties to the north and east are observed to be vacant, undeveloped land. Paved Dinah Shore Drive and additional residential development are depicted to the south of the subject site, and a golf course was observed to the west of the subject site. Los Alamos Road is a dirt road.

In the **2002** aerial photograph, the subject site and adjacent properties to the north and east are observed to be vacant, undeveloped land. Adjacent properties to the west and south of the subject site were observed to be in development as the present day

residential homes and golf courses. Adjacent to the northeast was observed the original Agua Caliente Casino and Resort. Los Alamos Road is a paved road.

In the **2005** aerial photograph, significant changes were not observed on the subject site and adjacent properties.

In a **2007** aerial photograph viewed on the Riverside County Land Information System (RCLIS) website for APN 673-120-022, it appears that the northeastern section of the subject site appears to have graded and used for staging construction materials, equipment, vehicles, and modular offices (RCLIS, 2014). There is what appears to be a depression in the northeast corner of the staging area. Construction activities for the Agua Caliente Casino and Resort were observed in the adjacent property to northeast of the subject site. Significant changes were not observed on the adjacent properties.

In the **2009** aerial photograph it appears that the construction activities for the Agua Caliente Casino and Resort have ceased and the graded area appears to be vacant. Significant changes were not observed on the majority of the subject site and adjacent properties.

In the **2010** aerial photograph, the subject site and adjacent properties appear in the present day configuration.

REVIEW OF HISTORICAL TOPOGRAPHIC MAPS

Historical topographic maps were reviewed to obtain information regarding past site uses. Topographic map coverage of the site vicinity is provided by “Indio, California” Quadrangle (1904) and “Edom, California” Quadrangle (1941), “Thousand Palms, California” Quadrangle (1947, and 1958), and “Cathedral City, California” Quadrangle (1958, 1972, and 1981). References are provided in Appendix A.

Indio 1904: Structures, tanks, or wells were not depicted on the subject site or adjacent properties.

Edom 1941: Structures, tanks, or wells were not depicted on the subject site or adjacent properties. Southern Pacific railroad is observed approximately 650 feet to the northeast of the subject site.

Thousand Palms 1947: Land use changes were not depicted on the subject site or adjacent properties.

Thousand Palms 1958: Land use changes were not depicted on the subject site or adjacent properties. Ramon Road is observed to the north of the subject site, and Rio Del Sol (present day Bob Hope Drive) is observed to the east of the subject site.

Cathedral City 1958: Land use changes were not depicted on the subject site or adjacent properties, with the exception of some residential development to the southeast of the subject site.

Cathedral City 1972: Land use changes were not depicted on the subject site or adjacent properties.

Cathedral City 1981: Land use changes were not depicted on the subject site or adjacent properties.

CONCLUSIONS AND RECOMMENDATIONS

Historically, the subject site has been vacant, undeveloped land. Portions of the subject site have been graded, used for construction staging, and possibly offsite casino parking.

Based on our review of information on the subject site and the addition of the two APNs, there are no changes to the conclusions and recommendations of the Phase I and Phase II ESA.

We have performed a Phase I and Limited Phase II ESA in conformance with the scope and limitations of ASTM E1527-05 on of the Rancho Mirage 1200 Property, APNs 673-120-021 through -025, Rancho Mirage, an Unincorporated Area of Riverside County, California, the property. Exceptions to, or deletions from, this practice are described in Section 1.5 of this report. This assessment has revealed no evidence of recognized environmental conditions in connection with the property.

In general, observations should be made during future site development for areas of possible contamination such as, but not limited to, the presence of underground facilities, buried debris, waste drums, and tanks, stained soil or odorous soils. Should

such materials be encountered, further investigation and analysis may be necessary at that time.

If you have questions regarding this report, please contact us. We appreciate the opportunity to be of service to Pulte Homes.

Respectfully submitted,

LEIGHTON AND ASSOCIATES, INC.

Kristin Stout
Senior Project Scientist

Attachments: Appendix A – References
Figure 1 – Site Location Map

Distribution: (1) Addressee (electronically)

APPENDIX A

References

ASTM International, 2013, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, Designation E1527-13, dated November 6, 2013.

EDR, The EDR Historical Topographic Map Report, February 8, 2013.

EDR, The EDR Aerial Photo Decade Package, February 14, 2013.

County Riverside Transportation and Land Management Agency, Riverside County Land Information System, http://tlmabld5.agency.tlma.co.riverside.ca.us/website/rclis/, 2007 Aerial Photograph, accessed June 19, 2014.

Leighton and Associates Inc., Phase I and Limited Phase II Environmental Site Assessment, Rancho Mirage 1200, Assessor Parcel Numbers 673-120-023, -024, and -025, Area Rancho Mirage, Unincorporated Area of Riverside County, California, Project No. 10143.001, dated March 15, 2013.

State Water Resources Control Board, Geotracker Online Database, http://geotracker.waterboards.ca.gov/. Accessed June 19, 2014.

Department of Toxic Substance Control, EnviroStor Online Database, http://www.envirostor.dtsc.ca.gov/public/, Accessed June 19, 2014.

Project: 10143.001	Eng/Geol:
Scale: 1 " = 4,000 '	Date: June 2014

Base Map: ESRI ArcGIS Online 2014
Thematic Information: Leighton
Author: Leighton Geomatics (cgiovando)

SITE LOCATION MAP

Pulte Rancho Mirage 1200
Riverside County, California

Figure 1

Leighton

Map Saved as V:\drafting\10143\001\Maps\10143-001_F01_SLM_20140623.mxd on 6/23/2014 11:46:54 AM

Leighton and Associates, Inc.
A LEIGHTON GROUP COMPANY

T R A N S M I T T A L

To: Pulte Home Corporation
27101 Puerta Real, Suite 300
Mission Viejo, California 92691

Date: March 15, 2013

Project No. 10143.001

Attention: Mr. Darren Warren

Transmitted:		The Following:		For:	
X	Mail/Overnight	____	Draft Report	X	Your Use
____	Courier	X	Final Report	____	As Requested
____	Pick Up	____	Extra Report		
		____	Proposal		
		____	Other		

Subject: Phase I and Limited Phase II Environmental Site Assessment, Rancho Mirage 1200, Assessor Parcel Numbers 673-120-023, -024, and -025, Rancho Mirage, Unincorporated Area of Riverside County, California

LEIGHTON AND ASSOCIATES, INC.

By: Kristin Stout

Distribution: (1) Addressee (electronic)

75-400 Gerald Ford Drive, Unit 107 ▪ Palm Desert, CA 92211
760.776.4182 ▪ 760.776.4080 Fax

PHASE I AND LIMITED PHASE II ENVIRONMENTAL SITE ASSESSMENT
RANCHO MIRAGE 1200
ASSESSOR PARCEL NUMBERS 673-120-023, -024, AND -025
RANCHO MIRAGE, UNINCORPORATED AREA OF RIVERSIDE COUNTY, CALIFORNIA

Prepared For:

PULTE HOME CORPORATION
27101 Puerta Real, Suite 300
Mission Viejo, California 92691

Project No. 10143.001

March 15, 2013

Leighton and Associates, Inc.
A LEIGHTON GROUP COMPANY

Leighton and Associates, Inc.
A LEIGHTON GROUP COMPANY

March 15, 2013

Project No. 10143.001

Pulte Home Corporation
27101 Puerta Real, Suite 300
Mission Viejo, California 92691

Attention: Mr. Darren Warren

Subject: Phase I and Limited Phase II Environmental Site Assessment, Rancho Mirage 1200, Assessor Parcel Numbers 673-120-023, -024, and -025, Rancho Mirage, Unincorporated Area of Riverside County, California

Leighton and Associates, Inc. (Leighton) is pleased to present this Phase I and Limited Phase II Environmental Site Assessment Report for Rancho Mirage 1200, located in Rancho Mirage, an Unincorporated Area of Riverside County, California (subject site). Leighton declares that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in §312.10 of 40 Code of Federal Regulations (CFR) 312, and the ASTM International (ASTM) Standard E1527-05.

Leighton has the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject site. Leighton has developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

If you have questions regarding this report, please contact us. We appreciate the opportunity to be of service to Pulte Home Corporation.

Respectfully submitted,
LEIGHTON AND ASSOCIATES, INC.

Kristin Stout, REA I
Sr. Project Scientist

Brynn McCulloch, PG
Project Geologist

Distribution: (1) Addressee (electronic)

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TABLE OF CONTENTS

List of Accompanying Illustrations and Appendices

1.0 INTRODUCTION

1.1 Authorization

Leighton and Associates, Inc. (Leighton) performed a Phase I and Limited Phase II Environmental Site Assessment (ESA) for the Rancho Mirage 1200 Property, Assessor Parcel Numbers (APNs) 673-120-023, -024, and -025, Rancho Mirage, an Unincorporated Area of Riverside County, California (subject site – Figure 1) in accordance with the authorization of Pulte Home Corporation.

1.2 Purpose

The purpose of the Phase I and Limited Phase II ESA was to identify, to the extent feasible pursuant to the processes prescribed in ASTM International (ASTM) Standard E1527-05, recognized environmental conditions (RECs) in connection with the subject site. Recognized environmental conditions are defined as *"the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include de minimus conditions that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be de minimus are not recognized environmental conditions" (ASTM E1527-05, 2005).*

1.3 Scope of Work

The scope of work was performed in accordance with Leighton's proposal and included the following tasks:

- A reconnaissance-level visit of the subject site for evidence of the release(s) of hazardous materials and petroleum products and to assess the potential for onsite releases of hazardous materials and petroleum products;
- Records review (including review of previous environmental reports, selected governmental databases, and historical review);
- Interviews;

- Limited soil sampling; and
- Preparation of a report presenting our findings.

1.4 Significant Assumptions

Leighton assumes that the information provided by the Client and its agents, regulatory database provider, and regulatory agencies is true and reliable.

1.5 Limitations and Exceptions

Leighton performed the Phase I and Phase II Limited ESA in conformance with the scope and limitations of ASTM Practice E1527-05 of the subject site. Other than the non-scope items shown in Section 1.6 that were not applicable, there were no exceptions to, or deletions from, this practice.

Property-specific activities performed by Leighton and information collected regarding these activities are summarized within this report. The findings of this Phase I and Limited Phase II ESA are presented in Section 8.0. Opinions and conclusions drawn by Leighton, based on the information collected as part of the Phase I and Limited Phase II ESA, are presented in Sections 9.0 and 10.0, respectively. References are included as Appendix A. Site Photographs are presented in Appendix B. Client Supplied documentation is included as Appendix C. Research of Environmental Liens is documented in Appendix D. The Environmental Radius Report is included as Appendix E. Regulatory records requests and responses are included as Appendix F. Historical documentation is provided in Appendix G. Laboratory reports are provided in Appendix H.

This Phase I and Limited Phase II ESA was conducted in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions.

The observations and conclusions presented in this report are professional opinions based on the scope of activities, work schedule, and information obtained through the Phase I and Limited Phase II ESA described herein. Opinions presented herein apply to property conditions existing at the time of our study and cannot necessarily be taken to apply to property conditions or changes that we are not aware of or have not had the opportunity to evaluate. It must be recognized that conclusions drawn from these data are limited to the amount,

type, distribution, and integrity of the information collected at the time of the investigation, the methods utilized to collect and evaluate the data, and that a full and complete determination of environmental risks cannot be made. Although Leighton has taken steps to obtain true copies of available information, we make no representation or warranty with respect to the accuracy or completeness of this information.

This practice does not address whether requirements in addition to all appropriate inquiry have been met in order to qualify for the landowner liability protections including the continuing obligation not to impede the integrity and effectiveness of activity and use limitations, or the duty to take reasonable steps to prevent releases, or the duty to comply with legally required release reporting obligations. Users should also be aware that there are likely to be other legal obligations with regard to hazardous substances or petroleum products discovered on the subject site that are not addressed in this practice and that may pose risks of civil and/or criminal sanctions for non-compliance.

1.6 Special Terms and Conditions

The scope of work for this Phase I and Limited Phase II did not include non-scope considerations, such as, but not limited to, those listed in Section 13 of ASTM E1527-05. This scope of work did not include items such as testing of electrical equipment for the presence of polychlorinated biphenyls (PCBs) or collection of other environmental samples, such as, water, air, building materials, paint or other media; assessment of natural hazards such as naturally occurring asbestos, radon gas, methane gas, or mold; assessment of the potential presence of radionuclides, biological agents, or lead in drinking water; assessment of indoor air quality (such as vapor intrusion assessment); or assessment of nonchemical hazards such as the potential for damage from earthquakes or floods, or the presence of endangered species or wildlife habitats. This Phase I and Limited Phase II also did not include an extensive assessment of the environmental compliance status of the Subject Property or of businesses operating at the Subject Property, or a health-based risk assessment.

1.7 User Reliance

This report is for the exclusive use of Pulte Home Corporation and SCC Rancho Mirage Holdings. Use of this report by any other party shall be at such party's sole risk.

1.8 Important Information about Geoenvironmental Reports

Pulte Home Corporation is referred to Appendix I regarding important information provided by ASFE on geoenvironmental studies and reports.

2.0 SITE DESCRIPTION

2.1 Location and Legal Description

The subject site is located southwest of the intersection of Ramon Road and Bob Hope Drive, north of Dinah Shore Drive, Unincorporated Area of Riverside County, California (Figure 1). The County of Riverside Assessor's Office designates the subject site as APNs 673-120-023, -024, and -025. Addresses were not found to be associated with the subject site. A legal description of the subject site is included in the Environmental LienSearch Report provided by EDR (Appendix D).

2.2 Property and Vicinity General Characteristics

The site vicinity and the surrounding area are generally developed as vacant land, residential and golf properties, and a casino.

2.3 Current Use of the Subject Property

The subject site consists of approximately 488 acres of vacant land (Photos 1 through 8, Appendix B).

2.4 Descriptions of Structures, Roads and Other Improvements on the Property

There are no structures or roads on the subject site.

The following utilities provide or will provide future service to the subject site.

Natural Gas:	The Southern California Gas Company
Source of Potable Water:	Coachella Valley Water District (CVWD)
Electric:	Southern California Edison (SCE)
Sewage Disposal:	CVWD
Solid Waste Disposal:	Not applicable (currently vacant)

2.5 Current Uses of Adjoining Properties

The subject site is currently bordered by Los Alamos Road, a golf course and single family residential homes to the west; Dinah Shore Drive, a golf course and single family residential homes to the south; Ramon Road and vacant land to the north; and Bob Hope Drive, vacant land and Agua Caliente Casino to the east.

3.0 USER PROVIDED INFORMATION

The user of this Phase I and Limited Phase II ESA is identified as Pulte Home Corporation. As a part of the ASTM E1527-05 process, Mr. Bob Paradise, Project Manager at Pulte Home Corporation, completed a questionnaire regarding the property. A copy of this questionnaire is provided in Appendix C.

3.1 Environmental Liens or Activity and Use Limitations

Mr. Paradise indicated that they were not aware of environmental liens or activity and use limitations filed or recorded for the subject site.

Leighton also researched environmental liens through Environmental Data Resources, Inc. (EDR). According to the Environmental LienSearch dated March 4, 2013, environmental liens or activity use limitations were not identified for the subject site. A copy of the lien search is included in Appendix D and references are provided in Appendix A.

3.2 Specialized Knowledge

Mr. Paradise indicated that they do not have specialized knowledge or experience related to the subject site.

3.3 Commonly Known or Reasonably Ascertainable Information

Mr. Paradise is not aware of commonly known or reasonably ascertainable information related to the subject site.

3.4 Valuation Reduction for Environmental Issues

Mr. Paradise stated that the purchase price being paid for the subject site is based on fair market value.

3.5 Owner, Property Manager, and Occupant Information

The subject site is currently owned by Michael Prieto, Cecil Ruiz, and Denise Duran. Refer to Section 6.0 for interview information.

3.6 Reason for Performing Phase I and Limited Phase II ESA

According to the user questionnaire, the reason for requesting this Phase I and Limited Phase II ESA is for due diligence for property acquisition.

3.7 Other

Additional information was not provided by Pulte Home Corporation.

4.0 RECORDS REVIEW

4.1 Physical Setting Source(s)

Leighton reviewed pertinent maps and readily available literature for information on the physiography and hydrogeology of the subject site. A summary of this information is presented in the following subsections.

4.1.1 Topography

The subject site is located in Section 24 of Township 4 South, Range 5 east of the San Bernardino Baseline and Meridian. Topographic map coverage of the site vicinity is provided by the United States Geological Survey (USGS) "Cathedral City, California" Quadrangle (1981). The elevation of the property is approximately 240 to 360 feet above mean sea level and slopes to the southwest and northeast from the central portion of the subject site.

4.1.2 Surface Water

Surface water was not observed on the subject site.

4.1.3 Geology and Soils

According to the Geotechnical Investigation (Leighton, 2013), the subject site is underlain by Dune Sand over Quaternary Alluvium. Dune sand materials are expected to mantle the majority of the subject site. The depth of the dune sand materials cannot be easily verified based on the limited geotechnical investigation and relatively homogenous onsite alluvium. It is estimated that the dune sands generally extend to a depth varying from 5 to 20 feet below ground surface (bgs). These materials generally consist of light brown gray to darker gray and loose to medium dense silty sand to poorly-graded fine sand. Quaternary-aged alluvial deposits were encountered in all of the borings to the maximum depth explored (51 feet bgs). As encountered, the alluvium typically consists of light brown to brownish gray, medium dense to very dense, poorly-graded fine sand to sand with silt.

4.1.4 Hydrogeology

The subject site is located in the Colorado River Basin. Beneficial uses of groundwater included municipal or domestic supply, agricultural supply, industrial service supply, and industrial process supply (Colorado River Water Quality Plan, 2006).

According to Well 04S05E29A001S, dated April 1, 1968 (Water Data Library, 1968), located on the property adjacent to the site, groundwater depth is about 173 feet bgs.

Direction of groundwater flow is not known; however it is generally known to follow topography.

4.1.5 Oil and Gas Fields

Leighton and Associates reviewed the California Department of Conservation, Division of Oil, Gas, and Geothermal Resources, Online Mapping System, updated July 23, 2012. Evidence of oil wells or oil field-related facilities was not indicated on the subject site or adjacent properties.

4.2 Standard Environmental Record Sources

A search of selected government databases was conducted by Leighton using the Environmental EDR Radius Report environmental database report system. Details and descriptions of the database search are provided in the EDR report. The report meets the government records search requirements of ASTM E1527-05 Standard Practice for Environmental Property Assessments: Phase I Environmental Property Assessment Process. The database listings were reviewed within the specified radii established by the ASTM E1527-05. A copy of this report is included in Appendix E.

4.2.1 Subject Property

The subject site was identified in the EDR database report as an INDIAN RESERVATION, part of the Agua Caliente Indian Reservation.

4.2.2 Offsite

Seven facilities were listed on the HAZNET listings:

- Westin Mission Hills Resort, 70705 Ramon Road, Rancho Mirage, located adjacent to the west of the subject site;
- Agua Caliente Band of Cahuilla, 32250 Bob Hope Drive, Rancho Mirage, located adjacent to the northeast of the subject site;
- Westin Mission Hills Resort, 71501 Dinah Shore Drive, Rancho Mirage, adjacent to the west of the subject site; and
- Westin Mission Hills Resort, 71333 Dinah Shore Drive, Rancho Mirage, located adjacent to the west of the subject site.

These facilities were listed for waste disposal and mixing categories and violations or enforcements were not noted; therefore there is a low potential for these facilities to adversely affect the subject site.

The MACCO CONSTRUCTORS, INC., 34200 Rio Del Sol, Thousand Palms, was listed on the SWEEPS and UST listings, and is mapped by EDR 0.02 miles east- southeast of the subject site. Based on the site reconnaissance, this property is located 0.50 miles to the northeast of the subject site. Violations or enforcements were not noted on this facility, therefore there is a low potential for this facility to adversely affect the subject site.

Mission Hills Country Club, 34600 Mission Hills Drive, Rancho Mirage, was listed on the INDIAN and LUST listings, and is located 0.42 miles west- southwest of the subject site. Based on the EDR report, this facility was issued case closure. According to the State Water Resources Control Board (SWRCB) online Geotracker database the facility was issued closure on October 7, 2010. Based on the case closure status, there is a low potential for this facility to adversely affect the subject site.

Flying J Travel Plaza, 72235 Varner Road, Thousand Palms, was listed on the LUST listing, and is located 0.46 miles northeast of the subject site. Based on the EDR report, this facility was issued case closure. According to the SWRCB online Geotracker database the facility was issued closure on October 10, 2003. Based on the case closure status, there is a low potential for this facility to adversely affect the subject site.

Unmapped Listings: Several properties were listed within Environmental EDR Report as “non-geocoded listings”. Non-geocoded or unmapped listings are properties without a complete street address and therefore cannot be located on a map. Leighton reviewed these listings to evaluate if the properties were possibly located near the subject site. Based on information provided in the Environmental EDR Report and area reconnaissance, these unmapped sites are unlikely to have the potential to adversely impact the subject site.

4.2.3 Regulatory Agency Contacts

On February 7, 2013, Leighton requested regulatory records from the following agencies for the APNs 673-120-021, 673-120-022, 673-120-023, 673-120-024, and 673-120-025. It should be noted that the subject site does not have a physical address; therefore, the APNs and a Thomas Guide Map were utilized. It is Leighton’ experience that records often cannot be found without a site address.

- Department of Toxic Substances Control (DTSC) – Cypress and Chatsworth Divisions;
- National Pipeline Mapping System (NPMS);
- Regional Water Quality Control Board, Colorado River Region (RWQCB);
- Riverside County Department of Environmental Health (RCDEH); and
- South Coast Air Quality Management District (SCAQMD)

Records were not found at the agencies contacted. Copies of records requests and responses are provided in Appendix F.

4.2.4 Other Reports

Additional reports were not provided to Leighton for review.

4.3 Historical Use Information on the Property

Leighton reviewed selected historical information on the subject site. These references were reviewed for evidence of activities, which would suggest the presence of hazardous substances at the subject site and to evaluate the

potential for the subject site to be impacted by offsite sources of contamination. The following paragraphs are a chronological summary of the review.

4.3.1 Aerial Photographs

Historical aerial photographs were reviewed for information regarding past subject site uses. Aerial photographs dated 1953, 1969, 1978, 1984, 1989, 2002, 2005, 2009, and 2010 were reviewed. References are provided in Appendix A.

In the **1953** aerial photograph, the subject site and adjacent properties are vacant, undeveloped land. Paved Ramon Road and Bob Hope Drive are observed to the north and the east of the subject site, respectively. Southern Pacific railroad is observed approximately 900 feet to the northeast of the subject site.

Significant changes were not observed in the **1969** and **1978** aerial photographs, with the exception of the addition of Interstate 10 (northeast of the railroad) and its on-ramps and off-ramps to the northeast of the subject site, and what appears to be part of Dinah Shore Drive to the southeast of the subject site.

In the **1984** aerial photograph, the subject site remains vacant, undeveloped land. A golf course and residential development is observed south of the subject site.

In the **1989** aerial photograph, the subject site and adjacent properties to the north and east are observed to be vacant, undeveloped land. Paved Dinah Shore Drive and additional residential development are depicted to the south of the subject site, and a golf course was observed to the west of the subject site. Los Alamos Road is still a dirt road.

In the **2002** aerial photograph, the subject site and adjacent properties to the north and east are observed to be vacant, undeveloped land. Adjacent properties to the west and south of the subject site were observed to be in development as the present day residential homes and golf courses. Adjacent to the northeast was observed the Agua Caliente Casino and Resort. Los Alamos Road is a paved road.

In the **2005, 2009,** and **2010,** aerial photograph, the subject site and adjacent properties appear in the present day configuration.

4.3.2 Historical Topographic Maps

Historical topographic maps were reviewed to obtain information regarding past site uses. Topographic map coverage of the site vicinity is provided by "Indio, California" Quadrangle (1904) and "Edom, California" Quadrangle (1941), "Thousand Palms, California" Quadrangle (1947, and 1958), and "Cathedral City, California" Quadrangle (1958, 1972, and 1981). References are provided in Appendix A.

Indio 1904: Structures, tanks, or wells were not depicted on the subject site or adjacent properties.

Edom 1941: Structures, tanks, or wells were not depicted on the subject site or adjacent properties. Southern Pacific railroad is observed approximately 900 feet to the northeast of the subject site.

Thousand Palms 1947: Land use changes were not depicted on the subject site or adjacent properties.

Thousand Palms 1958: Land use changes were not depicted on the subject site or adjacent properties. Ramon Road is observed to the north of the subject site, and Rio Del Sol (present day Bob Hope Drive) is observed to the east of the subject site.

Cathedral City 1958: Land use changes were not depicted on the subject site or adjacent properties, with the exception of some residential development to the southeast of the subject site.

Cathedral City 1972: Land use changes were not depicted on the subject site or adjacent properties.

Cathedral City 1981: Land use changes were not depicted on the subject site or adjacent properties.

4.3.3 Fire Insurance Maps

Fire insurance maps, or Sanborn® maps, are detailed city plans showing building footprints, construction details, use of structure, street address, etc. The maps were designed to assist fire insurance agents in determining the degree of hazard associated with a particular property. Sanborn Maps were produced from approximately 1867 to the present for commercial, industrial, and residential sections of approximately 12,000 cities and towns in the United States.

According to the report by EDR, there is no Sanborn Fire Insurance Map coverage for the subject site. A copy of this report has been provided in Appendix G.

4.3.4 Historical City Directories

Historical City Directories were reviewed by EDR for information regarding past subject site uses. City directories were reviewed for the following years: 1995, 2000, 2005, and 2010. Adjacent properties of concern were not noted during the city directory review. A copy of this report has been provided in Appendix G.

4.3.5 Other Historical Sources

Additional resources were not researched as a part of this assessment.

4.3.6 Summary of Historical Land Use

Based on historical records, land usage is summarized as follows:

Time Period	Land Usage	Reference
Prior to 1904	Unknown	None Available
Approximately 1904 to present	Vacant, Undeveloped Land	Site Reconnaissance Interviews

5.0 SITE RECONNAISSANCE

5.1 Methodology and Limiting Conditions

On February 26, 2013, a representative of Leighton conducted a reconnaissance–level assessment of the subject site. The property reconnaissance consisted of observing and documenting existing conditions of the subject site and nature of the neighboring development within 0.25-miles of the subject site. Photographs of the subject site are presented in Appendix B and their view directions are noted on Figure 2. Items noted during the property reconnaissance are also depicted on Figure 2.

5.2 General Property Setting

The subject site consists of approximately 488 acres of vacant land (Photos 1 through 8, Appendix B).

The subject site currently consists of a vacant land (Photos 1 through 8, Appendix B).

5.3 Exterior and Interior Observations

5.3.1 Hazardous Substances, Drums, and Other Chemical Containers

Hazardous or regulated substance containers were not observed on the subject site.

5.3.2 Storage Tanks

Evidence of underground storage tanks (USTs) or aboveground storage tanks (ASTs) (such as vent lines, fill or overfill ports) was not observed on the subject site.

5.3.3 Polychlorinated Biphenyls (PCBs)

One pad-mounted transformer was observed in the eastern portion of the subject site along Bob Hope Drive (Photo 9, Appendix B). Visual evidence of leakage or staining was not observed near the transformers. It is not known if the transformer contains PCBs; however the transformer is likely owned, operated, and maintained by SCE.

5.3.4 Waste Disposal

The subject site is unoccupied and there is currently no waste disposal.

5.3.5 Dumping

Soil stockpiles were observed in the western portion of the subject site (Photo 6, Appendix B). The source of the stockpiles may have been generated from nearby grading activities but this could not be confirmed. Refer to Section 7.0 for sampling activities associated with these stockpiles.

Construction debris, such as concrete blocks and metal gate were observed onsite (Photo 7, Appendix B).

5.3.6 Pits, Ponds, Lagoons, Septic Systems, Wastewater, Drains, Cisterns, and Sumps

Evidence of pits, ponds, lagoons, septic systems, wastewater, drains, sumps, and cisterns was not observed on the subject site.

5.3.7 Pesticide Use

Pesticides were not observed on the subject site.

5.3.8 Staining, Discolored Soils, Corrosion

Staining, discolored soils, or corrosion were not observed on the subject site.

5.3.9 Stressed Vegetation

Stressed vegetation was not observed on the subject site.

5.3.10 Unusual Odors

Unusual odors were not detected on the subject site.

5.3.11 Onsite Wells

Wells were not observed or reported onsite.

5.3.12 Other Observations

A PVC riser (Photo 7, Appendix B) was observed in the south portion of the subject site. The purpose of this PVC riser could not be determined.

6.0 INTERVIEWS

Leighton conducted interviews with persons having knowledge of current or past subject site usage. Interviews were conducted either orally or in the form of a written questionnaire. Written responses are included as Appendix C.

6.1 Interview with Owner

On February 8, 2013, Mr. Shaun Murphy, attorney and representative of site owners, completed a Site Contact Interview Form. Mr. Murphy indicated that he is not aware of any environmental concerns associated with the subject site or any adjacent properties.

6.2 Interview with Site/Property Manager

Leighton did not interview the Site or Property Manager as the site is not occupied.

6.3 Interviews with Occupants

Leighton did not interview the occupants as the site is not occupied.

6.4 Interviews with Local Government Officials

Leighton did not interview employees with local government agencies to request information regarding historic and current uses of the subject site with the exception of those noted in Section 4.3.1.

6.5 Interviews with Others

Leighton did not conduct additional interviews for this Phase I and Limited Phase II ESA with the exception of the User interview discussed in Section 3.

7.0 LIMITED PHASE II ESA

Leighton conducted a Limited Phase II ESA on the property based on the findings of site use identified during this Phase I ESA. Soil stockpiles of unknown sources were identified on the western portion of the subject site. The volume of the soil piles is estimated to be 7,800 cubic yards.

On March 12, 2013, a Leighton representative collected 15 representative soil samples from the five homogeneous soil stockpiles. The 15 soil samples were composited in the laboratory into five composite samples. Soil samples G-1-0.5, G-2-0.5, G-3-0.5, G-4-0.5, and G-5-0.5 were composited into sample C-1. Soil samples G-6-0.5 and G-7-0.5 were composited into sample C-2. Soil samples G-8-0.5, G-9-0.5, and G-10-0.5 were composited into sample C-3. Soil samples G-11-0.5, G-12-0.5, and G-13-0.5 were composited into sample C-4. Soil samples G-14-0.5 and G-15-0.5 were composited into sample C-5 (see Figure 2). Freshly exposed soils were excavated from each sample location by removing the surficial 6- to 12-inches of soil and retrieving the sample from depth. Samples were collected in new laboratory supplied 4-ounce glass jars with Teflon-lined lids. The soil samples were labeled with sample identification, date, and time of collection and placed in an ice-chilled cooler and transported under chain-of-custody procedures to Enviro-Chem, Inc. in Pomona, California for analysis.

Each of the composite soil samples were analyzed for total petroleum hydrocarbons (TPH) full carbon chain by EPA Method 8015M, organochlorine pesticides (OCPs) and PCBs by EPA Method 8081A/8082, Title 22 metals by EPA Method 6010B and 7471A, volatile organic compounds (VOCs) by EPA Method 8260B, and semi-volatile organic compounds (SVOCs) by EPA Method 8270C.

Concentrations of TPH, OCPs, PCBs, VOCs, and SVOCs were not reported above the laboratory reporting limits in each of the composite samples analyzed.

Title 22 Metals were detected below their respective EPA Region 9 Regional Screening Levels for residential property (RSL-R) and California Human Health Screening Level for residential property (CHHSL-R) with the exception of arsenic. Arsenic was detected in four of the five composite samples analyzed at concentrations ranging from 0.290 milligrams per kilogram (mg/kg) to 0.627 mg/kg, well below the Department of Toxic Substances Control (DTSC) established background level of 12 mg/kg (DTSC, 2008).

Concentrations of chemicals of potential concern were not identified exceeding the RSLs or CHHSLs for unrestricted land use in the soil stockpiles.

A copy of the laboratory report is provided in Appendix H.

8.0 FINDINGS

Leighton and Associates, Inc. (Leighton) performed a Phase I and Limited Phase II ESA of the Rancho Mirage 1200 Property, Assessor Parcel Numbers (APNs) 673-120-023, -024, and -025, Unincorporated Area of Riverside County, California in accordance with Pulte Home Corporation's authorization.

8.1 Onsite

Historically, the subject site has been vacant, undeveloped land. The subject site consists of approximately 488 acres of vacant land (Photos 1 through 8, Appendix B). Undocumented soil stockpiles were noted onsite in the western portion of the subject site. Sources for the large soil stockpile and soils placed on the southwestern portion of the site are unknown. Soil sampling activities of these soil stockpiles indicated that chemicals of potential concern were not identified.

A PVC riser (Photo 7, Appendix B) was observed in the south portion of the subject site. The purpose of this PVC riser could not be determined.

A search of selected government databases was conducted by Leighton using the EDR Radius Report environmental database report system. Details of the database search along with descriptions of each database researched are provided in the EDR report. The report meets the government records search requirements of ASTM E1527-05 Standard Practice for Environmental Property Assessments: Phase I and Limited Phase II Environmental Property Assessment Process. The database listings were reviewed within the specified radii established by the ASTM E1527-05. The subject site was listed in the database report as being a part of the Agua Caliente Indian Reservation.

8.2 Offsite

Historically, the adjacent properties were vacant, undeveloped land. The subject site is currently bordered by Los Alamos Road, a golf course and single family residential homes to the west; Dinah Shore Drive, a golf course and single family residential homes to the south; Ramon Road and vacant land to the north; and Bob Hope Drive, vacant land and Agua Caliente Casino to the east.

Surrounding properties with environmental concern were not identified on the EDR report.

8.3 Data Gaps

Data gaps were identified by Leighton:

- Historical records prior to 1909 were not available. It is Leighton's opinion that this data gap is not significant to identifying recognized environmental conditions on the subject site.
- A response from the RCDEH has not been received as of the date of this report. Leighton will forward any received response altering the conclusions and recommendations of this report in an addendum letter. It is Leighton's opinion that this data gap is not significant to identifying recognized environmental conditions on the subject site.

9.0 OPINION

9.1 Onsite

It is Leighton's opinion that the soil stockpiles are suitable for reuse on the subject site. Construction debris should be disposed of in accordance with regulatory guidelines.

Leighton recommends caution when grading in the area of the PVC riser. If it is determined that the riser leads to an underground storage area or is indicative of hazardous materials or wastes, additional investigation may be recommended in this area.

9.2 Offsite

No offsite recognized environmental conditions were identified that would negatively impact the subject site.

10.0 CONCLUSIONS

We have performed a Phase I and Limited Phase II ESA in conformance with the scope and limitations of ASTM E1527-05 on of the Rancho Mirage 1200 Property, APNs 673-120-023, -024, and -025, Rancho Mirage, an Unincorporated Area of Riverside County, California, the property. Exceptions to, or deletions from, this practice are described in Section 1.5 of this report. This assessment has revealed no evidence of recognized environmental conditions in connection with the property.

In general, observations should be made during future property development for areas of possible contamination such as, but not limited to, the presence of underground facilities, buried debris, waste drums, and tanks, stained soil or odorous soils. Should such materials be encountered, further investigation and analysis may be necessary at that time.

11.0 DEVIATIONS

Leighton did not deviate from or alter the scope of work, as defined in Section 1.3 of this report. Significant data gaps were not identified that affect the ability of Leighton to identify recognized environmental conditions at the subject site.

12.0 ADDITIONAL SERVICES

Leighton did not perform work outside the scope of work as defined in Section 1.3 and 1.6 of this report.

13.0 QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

13.1 Corporate

Leighton is a California corporation, providing geotechnical and environmental consulting services throughout California. We are solely a consulting firm without interests in real property other than our office locations in Southern California. We provide professional environmental consulting services including application of science and engineering to environmental compliance, hazardous materials/waste assessment and cleanup, and management of hazardous, solid and industrial waste. Phase I and Limited Phase II Environmental Property Assessments are a part of this practice area and have been conducted by us.

13.2 Individual

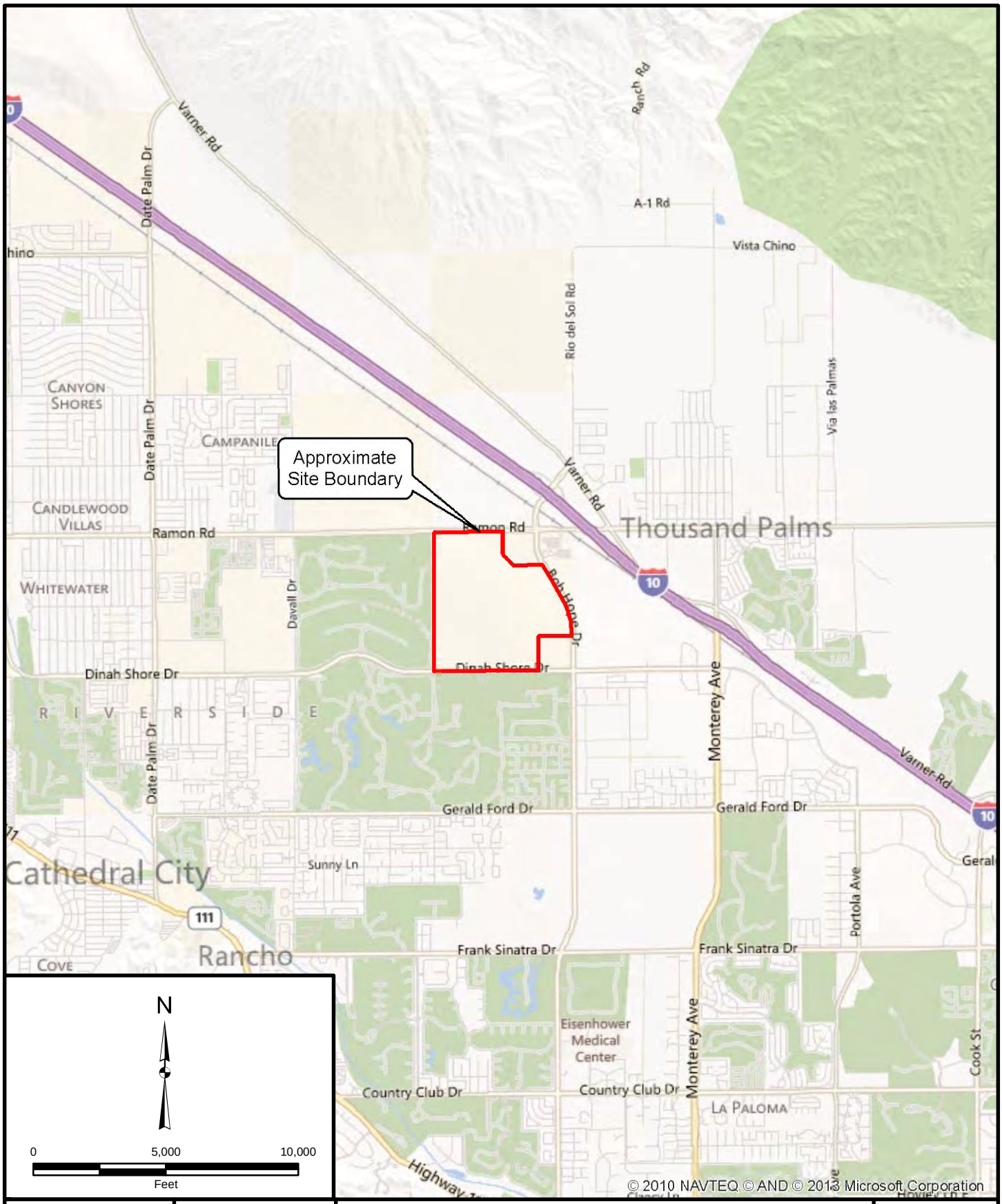
The qualifications of the Project Scientist and the other Leighton environmental professionals involved in this Phase I and Limited Phase II ESA meet the Leighton corporate requirements for performing Phase I and Limited Phase II ESAs as specified by ASTM E1527-05. In addition, Ms. Kristin Stout is a Registered Environmental Assessor I.

13.3 Environmental Professional Statement

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional, as defined by §312.10 of 40 CFR Part 312.

I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject site. I have developed and performed all the appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Kristin Stout, REA I
Senior Project Scientist



Project: 10143.001	Eng/Geol: SIS/RFR
Scale: 1 " = 5,000 '	Date: March, 2013

Base Map: ESRI Resource Center, 2010
Thematic Info: Leighton
Author: Leighton Geomatics (mmurphy)

SITE LOCATION MAP

Pulte Rancho Mirage 1200
Riverside County, California

Figure 1

Leighton

Map Saved as P:\drafting\10143\001\GIS\of_2013-03-07\Figure1.mxd on 3/7/2013 10:09:19 AM

Project: 10143.001	Eng/Geol: KAS
Scale: 1 " = 800 '	Date: March, 2013

Base Map: Aerials Express, 2008
Thematic Info: Leighton
Author: Leighton Geomatics (mmurphy)

SITE PLAN

Pulte Rancho Mirage 1200
Riverside County, California

Figure 2

Leighton

Map Saved as V:\drafting\10143\001\GIS\of_2013-03-07\Figure2.mxd on 3/14/2013 5:10:52 PM

APPENDIX A

References

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California Department of Conservation, Division of Oil, Gas, and Geothermal Resources, Online Mapping System, Accessed February 7, 2013, Updated July 23, 2012.

California Department of Health Services, California Indoor Radon Levels Sorted by Zip Code, May 4, 2010.

California Regional Water Quality Control Board (RWQCB), 1994, Water Quality Control Plan for the Colorado River Basin (7), August 3, 1994.

DTSC, 2008, Determination of a Southern California Regional Background Arsenic Concentration in Soil, presented at the Society of Toxicology Conference, March, 2008.

Leighton and Associates, Inc., Preliminary Geotechnical Evaluation, Rancho Mirage 1200, APN 673-120-023, -024, and -025, Riverside County, California, Project No. 10143.002, March 8, 2013.

Environmental Data Resources, Inc., EDR Environmental LienSearch Report, March 4, 2013.

Environmental Data Resources, Inc., The EDR Historical Aerial Photo Decade Package.

Environmental Data Resources, Inc., FirstSearch Area/Linear Report, dated February 7, 2013.

Office of Environmental Health Hazard Assessment, California Human Health Screening Levels, http://oehha.ca.gov/risk/chhsltable.html, September 23, 2010.

State Water Resources Control Board, Geotracker Online Database, Accessed February 7, 2013.

United States Environmental Protection Agency, Region 9, Regional Screening Levels, November 2012.

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United States Geological Survey Topographic Map, “Edom, California” Quadrangle, 1941.

United States Geological Survey Topographic Map, “Thousand Palms, California” Quadrangle, 1947 and 1958.

United States Geological Survey Topographic Map, “Cathedral City, California” Quadrangle, 1958, 1972, and 1981.

Water Data Library, Department of Water Resources, Well 04S05E29A001S, dated April 1, 1968.

APPENDIX B

SITE PHOTOS

PHOTO NO. 1:

View of the north portion of the site, looking east along Ramon Road, note power poles (no transformers) and wind-blown trash.

PHOTO NO. 2:

View of the north portion of the site, looking west along Ramon Road, note power poles (no transformers).

SITE PHOTOS

PHOTO NO. 3:

View of the western portion of the site, showing site access gates along Los Alamos, about midway along property line.

PHOTO NO. 4:

View of the previous borrows area, northwest quadrant of property, near Los Alamos.

SITE PHOTOS

PHOTO NO. 5:

View of the stock piled construction materials at southwest corner, boulders, concrete, PVC pieces, broken block and brick, some vegetation debris.

PHOTO NO. 6:

View of the large stockpile in the southwestern portion of the subject site.

PHOTO NO. 7:

View of construction debris along the western portion of the subject site.

PHOTO NO. 8:

View of the PVC riser in the southern portion of the subject site, along Dinah Shore Drive.

SITE PHOTOS

PHOTO NO. 9:
View of the two transformers in the eastern portion of the subject site along Bob Hope Drive.

PHOTO NO. 10:
View of the Southern California Edison below ground vault, along Bob Hope Drive

APPENDIX C

Leighton

Phase I ESA Users Questionnaire

Project Name: Rancho Mirage 1200

Project Address and/or APN:

South of Ramon Rd, West of Bob Hope Dr, North of Dinah Shore Dr, East of Los Alomos in Rancho Mirage

Client (or user of the Phase I Environmental Site Assessment)	**Contact Name/Title:**
Pulte Homes	Bob Paradise

Client Phone: 951.258.6001

Site Owner: Michael Prieto, Ceclie Ruiz, Denise Duran

Reason Phase I is required: Property acquisition

Type of property:

Raw Land

Type of property transaction (e.g., Sale, purchase, exchange):

Purchase

Complete and Correct Address of the property and APN(s):

673120024, 673120023, 673120025, 673120022

Any scope of services beyond the ASTM Practice E 1527:

No

All Parties that will rely on the Phase I report:

Pulte Homes, SCC Rancho Mirage Holdings

Name and Contact Information for Site Contact:

Bob Paradise - 951.258.6001

Any special terms or conditions:

Any other pertinent knowledge or experience with the property (e.g., prior reports, documents, correspondence concerning the environmental conditions of the property):

(1). Environmental cleanup liens that are filed or recorded against the site (40 CFR 312.25).

Are you aware of any environmental cleanup liens against the property that are filed or recorded under federal, tribal, state or local law? ☐ Yes | ☑ No

If Yes, Describe:

(2). Activity and land use limitations (AULs) that are in place on the site or that have been filed or recorded in a registry (40 CFR 312.26).

Are you aware of any AULs, such as engineering controls, land use restrictions or institutional controls that are in place at the site and/or have been filed or recorded in a registry under federal, tribal, state or local law? ☐ Yes | ☑ No

If Yes, Describe:

(3). Specialized knowledge or experience of the person seeking to qualify for the Landowners Liability Protections (LLP) (40 CFR 312.28).

As the user of this ESA do you have any specialized knowledge or experience related to the property or the property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the property or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business? ☐ Yes | ☑ No

If Yes, Describe:

(4). Relationship of the purchase price to the fair market value of the property if it were not contaminated (40 DRF 312.29).

Does the purchase price being paid for this property reasonably reflect the fair market value of the property?

☑ Yes | ☐ No

If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the property? ☐ Yes | ☑ No

If Yes, Describe:

(5). Commonly known or reasonable ascertainable information about the property (40 CFR 312.30).

Are you aware of commonly known or *reasonably ascertainable* information about the property that would help the *environmental professional* to identify conditions indicative of releases or threatened releases? For example, as user,

(a.) Do you know the past uses of the property? ☐ Yes | ☑ No

(b.) Do you know of specific chemicals that are present or once were present at the property? ☐ Yes | ☑ No

(c.) Do you know of spills or other chemical releases that have taken place at the property? ☐ Yes | ☑ No

(d.) Do you know of any environmental cleanups that have taken place at the property? ☐ Yes | ☑ No

If Yes, Describe:

(6). The degree of obviousness of the presence of likely presence of contamination at the property, and the ability to detect the contamination by appropriate investigation (40 CFR 312.31).

As the *user of this ESA,* based on your knowledge and experience related to the *property* are there any *obvious* indicators that point to the presence or likely presence of contamination at the *property?* ☐ Yes | ☑ No

If Yes, Describe:

Signature

2/11/13
Date

Leighton

Leighton

Phase I ESA Owner/Site Contact Interview Form

Interviewee Name: Shaun M. Murphy **Title:** Attorney

Address: 1800 E. Tahquitz Canyon Way, PS 92262 **Phone:** 760.322.2275

Relationship to Property: Representative of Owners

Name of Property Owner: Michael Prieto, Cecile Ruiz, and Denise Duran

Address of Property Owner:

Site Name: Not Applicable

Property Address: 417 acres bordered by Dinah Shore, Bob Hope Drive, Los Alamitos and Ramon Rd

Previous Street Names/Numbers: None

General Business Type/Present Property Use: raw land

Assessor Parcel #: PS-101E, PS-101EC, PS-114E, PS-114EA PS-115E **Grant Total Square Footage:** 417

Total # of Buildings: o **Date Built:** N/A

Past Property Uses (include dates): none

Source of Potable Water Supply (municipal/groundwater wells): None

Sewage Disposal (municipal/septic) (provide name of utility): None

Means of Heating/Cooling (gas, electric, heating oil, etc.): None

Fuel Source for Heating/Air Conditioning (provide name of utility): None

Neighboring Property Types (commercial/industrial/residential): Residential/commercial

Current Uses of Adjoining Properties:

North: undeveloped

South: Residential/time share

East: commercial

West: Residential

ARE THERE NOW, OR HAVE THERE BEEN IN THE PAST, ANY OF THESE ITEMS ONSITE OR ON ADJACENT PROPERTIES:

ITEM	YES	NO	UNK	ADJACENT PROPERTY
• Hazardous Materials	☐	✓	☐	☐
• Hazardous Waste	☐	✓	☐	☐
• MSDS Sheets	☐	✓	☐	☐
• Underground Storage Tanks	☐	✓	☐	☐
• Aboveground Storage Tanks	☐	✓	☐	☐
• Vent Pipes, fill pipes, or access ways indicating a fill pipe to an underground storage area	☐	✓	☐	☐
• Odors	☐	✓	☐	☐
• Drums	☐	✓	☐	☐
• Electrical or hydraulic equipment known to contain PCBs	☐	✓	☐	☐
• Stained soil or surfaces	☐	✓	☐	☐
• Drains	☐	✓	☐	☐
• Sumps	☐	✓	☐	☐
• Clarifier	☐	✓	☐	☐
• Pits, ponds, or lagoons	☐	✓	☐	☐
• Stressed vegetation	☐	✓	☐	☐
• Areas for dumping solid waste (landfill)	☐	✓	☐	☐
• Wastewater	☐	✓	☐	☐
• Wells (oil or gas)	☐	✓	☐	☐
• Septic Systems	☐	✓	☐	☐
• Fill Material (if fill material is on site, please state source of fill)	☐	✓	☐	☐

ADDITIONAL QUESTIONS:	YES	NO	UNK	REMARKS
Has the Site been used as any of the following: gas station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard, or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility? If so, state which type of facility.	☐	☑	☐	
Are you aware of any regulatory compliance audit reports, geotechnical reports, Phase I Environmental Site Assessments, or Phase II Environmental Site Assessments, or soil sampling reports prepared for the Site?	☑	☐	☐	2002 EA
Do you know of any notices or correspondence from any government agency relating to past or current violations of environmental laws with respect to the Site or relating to environmental liens encumbering the Site?	☐	☑	☐	
Do you know of any pending, threatened, or past litigation or administrative proceedings relevant to hazardous substances or petroleum products in, on or from the Site?	☐	☑	☐	
Do you know of any notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products?	☐	☑	☐	
Do you know of any environmental concerns associated with the Site? If so please state in remarks column.	☐	☑	☐	
Do you know of any environmental concerns associated with any adjacent or nearby properties? If so please state in remarks column.	☐	☑	☐	

Property Utilization During Ownership: Undeveloped trust land

Name and Address of Past Owners: N/A

Additional Comments:

Preparer presents that to the best of the preparer's knowledge the above statements and facts are true and correct, and to the best of the preparer's actual knowledge no material facts have been suppressed or misstated.

Shaun M. Murphy

Signature

February 8, 2013

Date

Leighton

APPENDIX D

Ramon Rd
Ramon Rd
Rancho Mirage, CA 92270

Inquiry Number: 3514709.7S
March 04, 2013

The EDR Environmental LienSearch™ Report

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

EDR Environmental LienSearch™ Report

The EDR Environmental LienSearch Report provides results from a search of available current land title records for environmental cleanup liens and other activity and use limitations, such as engineering controls and institutional controls.

A network of professional, trained researchers, following established procedures, uses client supplied address information to:

- search for parcel information and/or legal description;
- search for ownership information;
- research official land title documents recorded at jurisdictional agencies such as recorders' offices, registries of deeds, county clerks' offices, etc.;
- access a copy of the deed;
- search for environmental encumbering instrument(s) associated with the deed;
- provide a copy of any environmental encumbrance(s) based upon a review of key words in the instrument(s) (title, parties involved, and description); and
- provide a copy of the deed or cite documents reviewed.

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

EDR Environmental LienSearch™ Report

TARGET PROPERTY INFORMATION

ADDRESS

Ramon Rd
Ramon Rd
Rancho Mirage, CA 92270

RESEARCH SOURCE

Source 1: Riverside County, California Assessor

Source 2: Riverside County, California Recorder

PROPERTY INFORMATION

Deed 1:

Type of Deed: Quitclaim Deed

Title is vested in: The Prieto Bob Hope Family Limited Partnership, a California limited partnership (as to an undivided ½ interest)

Title received from: Frank Prieto, II

Deed Dated: 05/02/2005

Deed Recorded: 05/13/2005

Instrument: 2005-0381893

Deed 2:

Type of Deed: Grant Deed

Title is vested in: Diana Richards, Trustee of The Frank Prieto Irrevocable Grandchildren's Trust dated 11/02/2004

Title received from: The Prieto Bob Hope Family Limited Partnership, a California limited partnership (as to an undivided ½ interest)

Deed Dated: 08/01/2012

Deed Recorded: 08/27/2012

Instrument: 2012-0406410

Legal Description: All that certain piece or parcel of land being the Southeast Quarter of the Southeast Quarter of Section 24, Township 4 South, Range 5 East, San Bernardino Base and Meridian, situate and lying in the County of Riverside, State of California.

Legal Current Owner: Diana Richards, Trustee of The Frank Prieto Irrevocable Grandchildren's Trust dated 11/02/2004, et al

Property Identifiers: 673-120-021

Deed 3:

Type of Deed: Grant Deed

Title is vested in: The United States of America in Trust for the Agua Caliente Band of Cahuilla Indians

Title received from: Agua Caliente Band of Cahuilla Indians, a Federally Recognized Indian Tribe

Deed Dated: 09/13/2004

Deed Recorded: 09/21/2004

Instrument: 2004-0747586

Legal Description: All that certain piece or parcel of land being a portion of the Northwest Quarter of the Northeast Quarter of Section 24, Township 4 South, Range 5 East, San Bernardino Base and Meridian, situate and lying in the County of Riverside, State of California.

Legal Current Owner: The United States of America in Trust for the Agua Caliente Band of Cahuilla Indians

Property Identifiers: 673-120-022

Deed 4:

Type of Deed: Grant Deed

Title is vested in: The United States of America in Trust for the Agua Caliente Band of Cahuilla Indians

Title received from: Agua Caliente Band of Cahuilla Indians, a Federally Recognized Indian Tribe

Deed Dated: 09/13/2004

Deed Recorded: 09/21/2004

Instrument: 2004-0747586

Legal Description: All that certain piece or parcel of land being the Northeast Quarter of the Northwest Quarter of Section 24, Township 4 South, Range 5 East, San Bernardino Base and Meridian, situate and lying in the County of Riverside, State of California.

Legal Current Owner: The United States of America in Trust for the Agua Caliente Band of Cahuilla Indians

Property Identifiers: 673-120-023

Deed 5:

Type of Deed: Grant Deed

Title is vested in: The United States of America in Trust for the Agua Caliente Band of Cahuilla Indians

Title received from: Agua Caliente Band of Cahuilla Indians, a Federally Recognized Indian Tribe

Deed Dated: 09/13/2004

Deed Recorded: 09/21/2004

Instrument: 2004-0747586

Legal Description: All that certain piece or parcel of land being the Northwest Quarter of the Northwest Quarter of Section 24, Township 4 South, Range 5 East, San Bernardino Base and Meridian, situate and lying in the County of Riverside, State of California.

Legal Current Owner: The United States of America in Trust for the Agua Caliente Band of Cahuilla Indians

Property Identifiers: 673-120-024

EDR Environmental LienSearch™ Report

Deed 6:

Type of Deed: Grant Deed

Title is vested in: The United States of America in Trust for the Agua Caliente Band of Cahuilla Indians

Title received from: Agua Caliente Band of Cahuilla Indians, a Federally Recognized Indian Tribe

Deed Dated: 09/13/2004

Deed Recorded: 09/21/2004

Instrument: 2004-0747586

Comments: This deed conveys that portion of the Southeast Quarter of the Northeast Quarter of Section 24.

Legal Description: All that certain piece or parcel of land being the South Half of the Northeast Quarter and the Northeast Quarter of the Southeast Quarter; the Southeast Quarter of the Northwest Quarter; the Southwest Quarter of the Northwest Quarter and North Half of the Southwest Quarter and the Southwest Quarter of the Southwest Quarter; the Northwest Quarter of the Southeast Quarter; the Southwest Quarter of the Southeast Quarter and the Southeast Quarter of the Southwest Quarter, all in Section 24, Township 4 South, Range 5 East, San Bernardino Base and Meridian, situate and lying in the County of Riverside, State of California.

Legal Current Owner: The United States of America in Trust for the Agua Caliente Band of Cahuilla Indians; United States of America, Bureau of Indian Affairs

Property Identifiers: 673-120-025

EDR Environmental LienSearch™ Report

ENVIRONMENTAL LIEN

Environmental Lien: Found ☐ Not Found ☒

If found:

1st Party:

2nd Party:

Dated:

Recorded:

Book:

Page:

Docket:

Volume:

Instrument:

Comments:

Miscellaneous:

OTHER ACTIVITY AND USE LIMITATIONS (AULs)

Other AUL's: Found ☐ Not Found ☒

If found:

1st Party:

2nd Party:

Dated:

Recorded:

Book:

Page:

Docket:

Volume:

Instrument:

Comments:

Miscellaneous:

EDR Environmental LienSearch™ Report

DEED EXHIBIT

DOC # 2005-0381893
05/13/2005 08:00A Fee:13.00
Page 1 of 3
Recorded in Official Records
County of Riverside
Larry W. Ward
Assessor, County Clerk & Recorder

PTT ok BC

RECORDING REQUESTED BY
AND WHEN RECORDED MAIL TO:

BEST BEST & KRIEGER LLP
Attn: Michael D. Harris
P. O. Box 13650
Palm Desert, CA 92255

IRA:

Space above this line for Recorder's Use

M	S	U	PAGE	SIZE	DA	PCOR	NOCOR	SMF	MISC.
	1		3			✓			
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A	R	L			COPY	LONG	REFUND	NCHG	EXAM

14
C
RU

QUITCLAIM DEED

THE UNDERSIGNED GRANTOR DECLARES:

Documentary Transfer Tax is $ -0-
xx Computed on the full value of the interest or property conveyed, or is
_____ Computed on the full value less the value of liens or encumbrances remaining thereon at the time of sale.

COMMONLY KNOWN AS BOB HOPE DRIVE PARCEL
ASSESSOR'S PARCEL NO. 673-120-021

FOR VALUABLE CONSIDERATION, the receipt of which is hereby acknowledged, FRANK PRIETO, II, Grantor, hereby REMISES, RELEASES AND FOREVER QUITCLAIMS to THE PRIETO BOB HOPE FAMILY LIMITED PARTNERSHIP, a California Limited Partnership, Grantee, the following described real property in the City of Palm Springs, County of Riverside, State of California:

SEE EXHIBIT "A" ATTACHED HERETO AND MADE A PART HEREOF BY THIS REFERENCE.

Dated May 2, 2005.

FRANK PRIETO, II, Grantor

MAIL TAX STATEMENTS TO:

The Prieto Bob Hope Family
Limited Partnership
850 N. Cerritos Drive
Palm Springs, CA 92262

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

STATE OF CALIFORNIA

COUNTY OF RIVERSIDE

On MAY 2, _____, 2005, before me, personally appeared FRANK PRIETO, II, ~ personally known to me - OR - ~ proved to me on the basis of satisfactory evidence to be the person(s) whose names(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

(SIGNATURE OF NOTARY)

GRILON BAUTISTA RODAS
Commission # 1550441
Notary Public - California
Riverside County
My Comm. Expires Feb 6, 2009

OPTIONAL

Though the data below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent reattachment of this form.

CAPACITY CLAIMED BY SIGNER

~ INDIVIDUAL
~ CORPORATE OFFICER

TITLE(S)

~ PARTNER(S) ~ LIMITED
~ GENERAL
~ ATTORNEY-IN-FACT
~ TRUSTEE(S)
~ GUARDIAN/CONSERVATOR

~ OTHER:

SIGNER IS REPRESENTING:
(NAME OF PERSON(S) OR ENTITY(IES))

DESCRIPTION OF ATTACHED DOCUMENT

QUITCLAIM DEED
APN NO: 673-120-021
(BOB HOPE DRIVE PARCEL)
TITLE OR TYPE OF DOCUMENT

3

NUMBER OF PAGES

MAY 2, 2005

DATE OF DOCUMENT

SIGNER(S) OTHER THAN NAMED ABOVE

2005-0381893
05/13/2005 08:00A
2 of 3

Exhibit "A"

Real property situated in the City of Palm Springs, County of Riverside, State of California, described as follows:

An undivided one-half (1/2) interest in the Southeast quarter of the Southeast quarter of Section 24, Township 4 South, Range 5 East, San Bernardino Base and Meridian.

2005-0381893
05/13/2005 08:00A
3 of 3

RECORDING REQUESTED BY

Best Best & Krieger LLP

AND WHEN RECORDED MAIL THIS DEED AND, UNLESS OTHERWISE SHOWN BELOW, MAIL TAX STATEMENT TO:

Name David J. Erwin
Street Address Best Best & Krieger LLP
P. O. Box 13650
City & State Zip Palm Desert, CA 92255

Title Order No. Escrow No.

DOC # 2012-0406410
08/27/2012 10:47A Fee:25.00
Page 1 of 1
Recorded in Official Records
County of Riverside
Larry W. Ward
Assessor, County Clerk & Recorder

S	R	U	PAGE	SIZE	DA	MISC	LONG	RFD	COPY
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Grant Deed

(26)

C
809

THE UNDERSIGNED GRANTOR (S) DECLARE (S)

DOCUMENTARY TRANSFER TAX IS $ -0-

unincorporated area City of Rancho Mirage

Parcel No. 673-120-021

☑ computed on full value of interest or property conveyed, or

☐ computed on full value less value of liens or encumbrances remaining at time of sale, and

FOR A VALUABLE CONSIDERATION, receipt of which is hereby acknowledged,

The Prieto Bob Hope Family Limited Partnership, a California limited partnership

hereby GRANT(S) to

Diana Richards, Trustee of The Frank Prieto Irrevocable Grandchildren's Trust dated November 2, 2004

the following described real property in the

County of Riverside , state of California

An undivided one-half (1/2) interest in the Southeast quarter of the Southeast quarter of Section 24, Township 4 South, Range 5 East, SBB&M.

Dated 8-1-12

The Prieto Bob Hope Family Limited Partnership

Diana Richards, General Partner

STATE OF CALIFORNIA
COUNTY OF RIVERSIDE

On August 1, 2012 before me,

ALICE RICHARDSON
(here insert name and title of the officer)

,notary public, personally appeared Diana Richards

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the state of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal

Signature

ALICE L. RICHARDSON
COMM. #1873960
NOTARY PUBLIC • CALIFORNIA
RIVERSIDE COUNTY
Commission Expires DEC 20, 2013

(This area for official notarial seal)

MAIL TAX STATEMENTS TO PARTY SHOWN ON FOLLOWING LINE; IF NO PARTY SHOWN, MAIL AS DIRECTED ABOVE

Diana M. Richards (Name) 2150 E. Tamarisk Road (Street Address) Palm Springs, CA 92262 (City & State)

DOC # 2004-0747586
09/21/2004 08:00A Fee:42.00
Page 1 of 6
Recorded in Official Records
County of Riverside
Gary L. Orso
Assessor, County Clerk & Recorder

RECORDING REQUESTED BY:
STEWART TITLE OF CALIFORNIA

AND WHEN RECORDED MAIL TO:
BUREAU OF INDIAN AFFAIRS
P.O. BOX 2245
PALM SPRINGS, CA 92263

ORDER NO: 511219047

M	S	U	PAGE	SIZE	DA	PCOR	NOCOR	SMF	MISC.
	1		6				1		
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A	R	L			COPY	LONG	REFUND	NCHG	EXAM

APN : 673-120-001

TRA : 061005

DTT : $-0-

T
LJ

42

GRANT DEED
TITLE OF DOCUMENT

THIS PAGE ADDED TO PROVIDE ADEQUATE SPACE FOR RECORDING INFORMATION

($3.00 ADDITIONAL RECORDING FEE APPLIES)

RECORDING REQUEST BY
AND RECORDED MAIL TO

NAME Bureau of Indian Affairs
STREET ADDRESS P.O. Box 2245
CITY & STATE PALM SPRINGS, CA 92263

SPACE ABOVE THIS LINE FOR RECORDERS USE

MAIL TAX STAEMENTS TO:

DOCUMENTARY TRANSFER TAX $___ **Not Applicable**____
_____ COMPUTED ON FULL PROPERTY CONVEYED
_____ OR COMPUTED ON FULL VALUE LESS LIENS AND ENCUMBRANCES REMAINING AT THE TIME OF SALE

Agent, U.S. Government (Interior-Indian)

GRANT DEED

For valuable consideration, receipt of which is hereby acknowledged, the AGUA CALIENTE BAND OF CAHUILLA INDIANS, A FEDERALLY RECOGNIZED INDIAN TRIBE

Hereby GRANT(S) to the United States of America in Trust for the AGUA CALIENTE BAND OF CAHUILLA INDIANS

The following described real property in the county of Riverside, state of California: described as

Parcel 1: (Thomas) THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 24, TOWNSHIP 4 SOUTH, RANGE 5 EAST, SAN BERNARDINO BASE AND MERIDIAN, ACCORDING TO THE OFFICIAL PLAT THEREOF. EXCEPT THEREFROM ANY PORTIONS LYING WITHIN RAMON ROAD. Riverside County Assessor Parcel Number 673-120-001-0, 40.00 acres more or less (Former Allotment 79EC)

Parcel 2: (Thomas) THE NORTHEAST QUARTER OF THE NORTHWEST QUARTER OF SECTION 24, TOWNSHIP 4 SOUTH, RANGE 5 EAST, SAN BERNARDINO BASE AND MERIDIAN, ACCORDING TO THE OFFICIAL PLAT THEREOF. EXCEPT THEREFROM ANY PORTIONS LYING WITHIN RAMON ROAD. Riverside County Assessor Parcel Number 673-120-004-3, 40.00 acres more or less (Former Allotment 9EB)

Parcel 3: (Thomas) THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 24, TOWNSHIP 4 SOUTH, RANGE 5 EAST, SAN BERNARDINO BASE AND MERIDIAN, ACCORDING TO THE OFFICIAL PLAT THEREOF. EXCEPT THEREFROM ANY PORTIONS LYING WITHIN RAMON ROAD AND WITHIN BOB HOPE DRIVE. Riverside County Assessor Parcel Number 673-120-005-4, 40.00 acres more or less (Former Allotment 50EB)

Parcel 4: (Sunair) THAT PORTION OF THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 24, TOWNSHIP 4 SOUTH, RANGE 5 EAST, SAN BERNARDINO MERIDIAN, MORE PARTICULARLY DESCRIBED IN EXHIBIT "A" ATTACHED HERETO AND INCORPORATED
HEREIN. Riverside County Assessor Parcel Number 673-120-010-8, 20.41 acres more or less (Former Allotment 101E)

TOTAL ACRES TO BE ACCEPTED INTO TRUST: 140.41 acres more or less.

THE AGUA CALIENTE BAND OF CAHUILLA INDIANS

Dated this 13th day of September, 2004

Richard M. Milanovich, Tribal Chairman

STATE OF CALIFORNIA)
) ss.
COUNTY OF RIVERSIDE)

On the 13th day of September 2004, before me Judith A. Simon, the undersigned, a Notary Public in and for the said State, personally appeared Richard M. Milanovich, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument, and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person or the entity upon behalf of which the person acted, executed the instrument.

WITNESS MY HAND AND OFFICIAL SEAL.

My Commission Expires:

3/23/2008

Notary Public

LAND DESCRIPTION CERTIFIED AS TO ACCURACY

Belinda Ray-Realty Officer

JUDITH A. SIMON
Commission # 1478348
Notary Public - California
Riverside County
My Comm. Expires Mar 23, 2008

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF INDIAN AFFAIRS
PALM SPRINGS AGENCY
P.O. Box 2245
Palm Springs, CA 92263

ACCEPTANCE OF CONVEYANCE

In accordance with the Indian Land Consolidation Act of January 12, 1983 (96 Stat. 2517, 25 U.S.C. § 2202) which established the provisions of the Indian Reorganization Act of June 18, 1934 (25 U.S.C. § 465) and pursuant to the authority delegated to the Assistant Secretary of Indian Affairs by the Secretary of Interior in 209 DM 8 and to the Commissioner of Indian Affairs by the Assistant Secretary of Indian Affairs in 230 DM 1 and to the Regional Director by the Commissioner of Indian Affairs in 3 IAM 4 and to the Superintendent under Redelegation Order No. 1 (43 F.R. 30131), the real property described in that Deed dated September 13, 2004 is hereby accepted by the United States of America in Trust for the Agua Caliente Band of Cahuilla Indians.

Dated: September 13, 2004

Kim Snyder, Superintendent

PARCEL 1: (THOMAS)

THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 24, TOWNSHIP 4 SOUTH, RANGE 5 EAST, SAN BERNARDINO BASE AND MERIDIAN, ACCORDING TO THE OFFICIAL PLAT THEREOF.

EXCEPT THEREFROM ANY PORTIONS LYING WITHIN RAMON ROAD.

PARCEL 2: (THOMAS)

THE NORTHEAST QUARTER OF THE NORTHWEST QUARTER OF SECTION 24, TOWNSHIP 4 SOUTH, RANGE 5 EAST, SAN BERNARDINO BASE AND MERIDIAN, ACCORDING TO THE OFFICIAL PLAT THEREOF.

EXCEPT THEREFROM ANY PORTIONS LYING WITHIN RAMON ROAD.

PARCEL 3: (THOMAS)

THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 24, TOWNSHIP 4 SOUTH, RANGE 5 EAST, SAN BERNARDINO BASE AND MERIDIAN, ACCORDING TO THE OFFICIAL PLAT THEREOF.

EXCEPT THEREFROM ANY PORTIONS LYING WITHIN RAMON ROAD AND WITHIN BOB HOPE DRIVE.

PARCEL 4: (SUNAIRE)

THAT PORTION OF THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 24, TOWNSHIP 4 SOUTH, RANGE 5 EAST, SAN BERNARDINO MERIDIAN, DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHEAST CORNER OF SAID SOUTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 24, SAID POINT BEING THE TRUE POINT OF BEGINNING; THENCE SOUTH 89°45'29" WEST ALONG THE SOUTH LINE OF SAID SOUTHEAST QUARTER OF THE NORTHEAST QUARTER A DISTANCE OF 278.59 FEET TO A POINT ON THE ARC OF A NON-TANGENT CURVE CONCAVE SOUTHWESTERLY AND HAVING A RADIUS OF 3040.00 FEET, A RADIAL BEARING PASSING THROUGH SAID POINT BEARS SOUTH 63°51'19" WEST. SAID POINT ALSO BEING ON THE NORTHEASTERLY RIGHT OF WAY OF THAT CERTAIN ROAD KNOWN AS BOB HOPE DRIVE, BEING 80.00 FEET IN WIDTH THE LOCATION OF SAID ROAD BEING DESCRIBED AS RIO DEL SOL ROAD AS SHOWN ON RIVERSIDE COUNTY DEED PLAT NO. 727-111 OF RIVERSIDE COUNTY RECORDS, AND AS APPROVED BY THE SECRETARY OF THE INTERIOR AND ON FILE IN THE OFFICE OF THE BUREAU OF INDIAN AFFAIRS, PORTLAND, OREGON; THENCE NORTHWESTERLY ALONG SAID CURVE, THROUGH A CENTRAL ANGLE OF 4°52'19", AN ARC DISTANCE OF 258.50 FEET; THENCE NORTH 31°01'00" WEST, TANGENT TO LAST MENTIONED CURVE, A DISTANCE OF 1281.65 FEET TO A POINT INTERSECTING THE NORTH LINE OF THE AFORESAID SOUTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 24; THENCE NORTH 89°43'24" EAST, ALONG SAID NORTH LINE A DISTANCE OF 1070.46 FEET TO THE NORTHEAST CORNER OF SAID SOUTHEAST QUARTER OF THE NORTHEAST QUARTER; THENCE SOUTH 0°20'14" WEST, ALONG THE EAST LINE OF SAID SECTION 24, A DISTANCE OF 1329.34 FEET TO THE TRUE POINT OF BEGINNING.

End of Legal Description

Government Code 27361.7

I certify under penalty of perjury that the notary seal on the document to which this statement is attached reads as follows:

Name of notary: Judith A. Simon

Commission No.: 1478348

Date Commission expires: 3-23-08

County: Riverside

By: [signature]

Date: 9-21-04

APPENDIX E

RAMON RD
RAMON RD
Rancho Mirage, CA 92270

Inquiry Number: 3514709.2s
February 07, 2013

FirstSearch Area/Linear Report

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
Toll Free: 800.352.0050
www.edrnet.com

Search Summary Report

TARGET SITE **RAMON RD**
RANCHO MIRAGE, CA 92270

Category	Sel	Site	1/8	1/4	1/2	> 1/2	ZIP	TOTALS
NPL	Y	0	0	0	0	0	0	0
NPL Delisted	Y	0	0	0	0	0	0	0
CERCLIS	Y	0	0	0	0	-	0	0
NFRAP	Y	0	0	0	0	-	0	0
RCRA COR ACT	Y	0	0	0	0	0	0	0
RCRA TSD	Y	0	0	0	0	-	0	0
RCRA GEN	Y	0	1	0	-	-	0	1
Federal IC / EC	Y	0	0	0	0	-	0	0
ERNS	Y	0	-	-	-	-	2	2
State/Tribal NPL	Y	0	0	0	0	0	0	0
State/Tribal CERCLIS	Y	0	0	0	0	0	1	1
State/Tribal SWL	Y	0	0	0	0	-	0	0
State/Tribal LTANKS	Y	0	0	0	2	-	0	2
State/Tribal Tanks	Y	0	0	0	-	-	0	0
State/Tribal VCP	Y	0	0	0	0	-	0	0
US Brownfields	Y	0	0	0	0	-	0	0
Other SWF	Y	0	0	0	0	-	0	0
Other Haz Sites	Y	0	-	-	-	-	0	0
Other Tanks	Y	0	1	0	-	-	0	1
Local Land Records	Y	0	0	0	0	-	0	0
Spills	Y	0	-	-	-	-	0	0
Other	Y	0	8	-	-	-	3	11
	- Totals --	0	10	0	2	0	6	18

Search Summary Report

TARGET SITE: **RAMON RD**
RANCHO MIRAGE, CA 92270

Category	Database	Update	Radius	Site	1/8	1/4	1/2	> 1/2	ZIP	TOTALS
NPL	NPL	10/01/2012	1.000	0	0	0	0	0	0	0
	Proposed NPL	10/01/2012	1.000	0	0	0	0	0	0	0
NPL Delisted	Delisted NPL	10/01/2012	1.000	0	0	0	0	0	0	0
CERCLIS	CERCLIS	11/02/2012	0.500	0	0	0	0	-	0	0
NFRAP	CERC-NFRAP	11/02/2012	0.500	0	0	0	0	-	0	0
RCRA COR ACT	CORRACTS	08/19/2011	1.000	0	0	0	0	0	0	0
RCRA TSD	RCRA-TSDF	09/11/2012	0.500	0	0	0	0	-	0	0
RCRA GEN	RCRA-LQG	09/11/2012	0.250	0	0	0	-	-	0	0
	RCRA-SQG	09/11/2012	0.250	0	1	0	-	-	0	1
	RCRA-CESQG	09/11/2012	0.250	0	0	0	-	-	0	0
Federal IC / EC	US ENG CONTROLS	07/18/2012	0.500	0	0	0	0	-	0	0
	US INST CONTROL	07/18/2012	0.500	0	0	0	0	-	0	0
ERNS	ERNS	04/02/2012	TP	0	-	-	-	-	2	2
State/Tribal NPL	RESPONSE	12/05/2012	1.000	0	0	0	0	0	0	0
State/Tribal CERCLIS	ENVIROSTOR	12/05/2012	1.000	0	0	0	0	0	1	1
State/Tribal SWL	SWF/LF	11/19/2012	0.500	0	0	0	0	-	0	0
State/Tribal LTANKS	LUST	12/17/2012	0.500	0	0	0	1	-	0	1
	SLIC	12/17/2012	0.500	0	0	0	0	-	0	0
	INDIAN LUST	04/12/2012	0.500	0	0	0	1	-	0	1
State/Tribal Tanks	UST	12/17/2012	0.250	0	0	0	-	-	0	0
	AST	08/01/2009	0.250	0	0	0	-	-	0	0
	INDIAN UST	04/12/2012	0.250	0	0	0	-	-	0	0
State/Tribal VCP	VCP	12/05/2012	0.500	0	0	0	0	-	0	0
US Brownfields	US BROWNFIELDS	12/10/2012	0.500	0	0	0	0	-	0	0

Search Summary Report

TARGET SITE: **RAMON RD**
RANCHO MIRAGE, CA 92270

Category	Database	Update	Radius	Site	1/8	1/4	1/2	> 1/2	ZIP	TOTALS
Other SWF	WMUDS/SWAT	04/01/2000	0.500	0	0	0	0	-	0	0
Other Haz Sites	US CDL	07/11/2012	TP	0	-	-	-	-	0	0
	SCH	12/05/2012	0.250	0	0	0	-	-	0	0
Other Tanks	CA FID UST	10/31/1994	0.250	0	0	0	-	-	0	0
	SWEEPS UST	06/01/1994	0.250	0	1	0	-	-	0	1
Local Land Records	DEED	12/10/2012	0.500	0	0	0	0	-	0	0
Spills	HMIRS	04/01/2012	TP	0	-	-	-	-	0	0
	CHMIRS	03/28/2012	TP	0	-	-	-	-	0	0
Other	RCRA NonGen / NLR	09/11/2012	TP	0	-	-	-	-	0	0
	TRIS	12/31/2009	TP	0	-	-	-	-	0	0
	TSCA	12/31/2006	TP	0	-	-	-	-	0	0
	FTTS	04/09/2009	TP	0	-	-	-	-	0	0
	SSTS	12/31/2009	TP	0	-	-	-	-	0	0
	ICIS	07/20/2011	TP	0	-	-	-	-	0	0
	PADS	11/01/2010	TP	0	-	-	-	-	0	0
	MLTS	06/21/2011	TP	0	-	-	-	-	0	0
	RADINFO	10/02/2012	TP	0	-	-	-	-	0	0
	FINDS	10/23/2011	TP	0	-	-	-	-	0	0
	RAATS	04/17/1995	TP	0	-	-	-	-	0	0
	Cortese	10/01/2012	0.500	0	0	0	0	-	0	0
	CUPA Listings		0.250	0	0	0	-	-	0	0
	HAZNET	12/31/2011	0.250	0	7	0	-	-	3	10
	INDIAN RESERV	12/31/2005	1.000	0	1	0	0	0	0	1
	WDS	06/19/2007	TP	0	-	-	-	-	0	0
	US AIRS	01/18/2012	TP	0	-	-	-	-	0	0
	PRP	10/01/2012	TP	0	-	-	-	-	0	0
	- Totals --			0	10	0	2	0	6	18

Site Information Report

Request Date: FEBRUARY 7, 2013
Request Name: KRISTIN STOUT
Search Type: COORD
Job Number: NA

Target Site: RAMON RD
RANCHO MIRAGE, CA 92270

Site Location

	Degrees (Decimal)	Degrees (Min/Sec)		UTMs
Longitude:	116.415500	116.4155000 - 116° 24' 55.80''	Easting:	554099.9
Latitude:	33.808200	33.8082000 - 33° 48' 29.52''	Northing:	3740849.5
Elevation:	350 ft. above sea level		Zone:	Zone 11

Demographics

Sites: 12 **Non-Geocoded:** 6 **Population:** N/A

RADON:

Federal EPA Radon Zone for RIVERSIDE County: 2

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 92270

Number of sites tested: 1

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.800 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

Federal Area Radon Information for RIVERSIDE COUNTY, CA

Number of sites tested: 12

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.117 pCi/L	100%	0%	0%
Living Area - 2nd Floor	0.450 pCi/L	100%	0%	0%
Basement	1.700 pCi/L	100%	0%	0%

Site Information Report

RADON

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
92270	20	2

Target Site Summary Report

Target Property: RAMON RD
RANCHO MIRAGE, CA 92270

JOB: NA

TOTAL: 18 GEOCODED: 12 NON GEOCODED: 6

Map ID	DB Type --Status/ID	Site Name	Address	Dist/Dir	ElevDiff	Page No.

No sites found for target address

Sites Summary Report

Target Property: RAMON RD
RANCHO MIRAGE, CA 92270

JOB: NA

TOTAL: 18 GEOCODED: 12 NON GEOCODED: 6

Map ID	DB Type --Status/ID	Site Name	Address	Dist/Dir	ElevDiff	Page No.
Reg	INDIAN RESERV	AGUA CALIENTE INDIAN RESERVATI	, CA	0.00		1
1	HAZNET	WESTIN MISSION HILLS RESORT/NO	70=705 RAMON RD RANCHO MIRAGE, CA 92270	0.00	- 97	2
2	HAZNET	BRAILLE INSTITUTE	70251 RAMON RD RANCHO MIRAGE, CA 92270	0.02 NW	- 34	3
3	HAZNET	AGUA CALIENTE BAND OF CAHUILLA	32250 BOB HOPE DR RANCHO MIRAGE, CA 92270	0.02 NE	- 93	4
4	SWEEPS UST --A	MACCO CONSTRUCTORS, INC.	34200 RIO DEL SOL THOUSAND PALMS, CA 92276	0.02 ESE	- 35	6
5	HAZNET	WESTIN MISSION HILLS RESORT	71501 DINAH SHORE DR RANCHO MIRAGE, CA 92270	0.03 South	- 16	7
A6	HAZNET	WALGREENS #9641	72027 DINAH SHORE DR RANCHO MIRAGE, CA 92270	0.05 SE	- 8	9
A7	RCRA-SQG	SAMS CYCLE SERVICE	34 044 BOB HOPE DR RANCHO MIRAGE, CA 92270	0.06 SE	- 6	11
A8	HAZNET	SAM'S CYCLE SERVICE	34-044 BOB HOPE DR RANCHO MIRAGE, CA 92270	0.06 SE	- 6	13
9	HAZNET	WESTIN MISSION HILLS RESORT	71333 DINAH SHORE DRIVE RANCHO MIRAGE, CA 92253	0.09 SSW	- 23	15
10	INDIAN LUST	MISSION HILLS COUNTRY CLUB	34-600 MISSION HILLS DRIV RANCHO MIRAGE, CA 92270	0.42 WSW	- 10	17
11	LUST --9 - Case Closed --Completed - Case Closed --200521941 --980062	FLYING J TRAVEL PLAZA	72235 VARNER RD THOUSAND PALMS, CA	0.46 NE	- 118	18

Sites Summary Report

Target Property: RAMON RD
RANCHO MIRAGE, CA 92270

JOB: NA

TOTAL: 18 GEOCODED: 12 NON GEOCODED: 6

Map ID	DB Type --Status/ID	Site Name	Address	Dist/Dir	ElevDiff	Page No.
	HAZNET	POWELLS CARPET BLDG	7677 HWY 111 RANCHO MIRAGE, CA 92270	NON GC	N/A	N/A
	HAZNET	FRED SMITH JAGUAR ROLLS ROYCE	41387 HWY 111 RANCHO MIRAGE, CA 92270	NON GC	N/A	N/A
	ENVIROSTOR --71002592 --Inactive - Needs Evaluation	EISENHOWER MEDICAL CENTER	3900 BOB HOPE DR RANCHO MIRAGE, CA 92270	NON GC	N/A	N/A
	HAZNET	F & M MISSION HILLS	DINAH SHORE DR & RAMON R RANCHO MIRAGE, CA 92270	NON GC	N/A	N/A
	ERNS	33276 FOX RD	33276 FOX RD RIVERSIDE COUNTY, CA	NON GC	N/A	N/A
	ERNS	AT THE INTERSECTION OF KADIAN	AT THE INTERSECTION OF KA RIVERSIDE COUNTY, CA	NON GC	N/A	N/A

Site Detail Report

Target Property: RAMON RD
RANCHO MIRAGE, CA 92270

JOB: NA

INDIAN RESERV

EDR ID: CIND100430 **DIST/DIR:** 0.000 **ELEVATION:** **MAP ID:** 0

NAME: AGUA CALIENTE INDIAN RESERVATION **Rev:** 12/31/2005

ADDRESS:
, CA
AGUA CALIENTE INDIAN RESE

SOURCE: US USGS

INDIAN RESERV:
Feature: Indian Reservation
Name: Agua Caliente Indian Reservation
Agency: BIA
State: CA

Site Detail Report

Target Property: RAMON RD
RANCHO MIRAGE, CA 92270

JOB: NA

HAZNET

EDR ID: S107149373 **DIST/DIR:** 0.000 **ELEVATION:** 253 **MAP ID:** 1

NAME: WESTIN MISSION HILLS RESORT/NORTH **Rev:** 12/31/2011

ADDRESS: 70=705 RAMON RD
RANCHO MIRAGE, CA 92270
RIVERSIDE

SOURCE: CA California Environmental Protection Agency

HAZNET:
Year: 2003
Gepaid: CAL000274408
Contact: SUREN RASANAYAGAM
Telephone: 7607702110
Mailing Name: Not reported
Mailing Address: 71333 DINAH SHORE DR
Mailing City,St,Zip: RANCHO MIRAGE, CA 92270
Gen County: Riverside
TSD EPA ID: CAD982444481
TSD County: Riverside
Waste Category: Unspecified organic liquid mixture
Disposal Method: Transfer Station
Tons: 0.22
Facility County: Riverside

Site Detail Report

Target Property: RAMON RD
RANCHO MIRAGE, CA 92270

JOB: NA

HAZNET

EDR ID: S109929189 **DIST/DIR:** 0.017 NW **ELEVATION:** 316 **MAP ID:** 2

NAME: BRAILLE INSTITUTE **Rev:** 12/31/2011

ADDRESS: 70251 RAMON RD
RANCHO MIRAGE, CA 92270
RIVERSIDE

SOURCE: CA California Environmental Protection Agency

HAZNET:
Year: 2008
Gepaid: CAC002630009
Contact: BECKY GRAVES
Telephone: 7603211111
Mailing Name: Not reported
Mailing Address: 70251 RAMON RD
Mailing City,St,Zip: RANCHO MIRAGE, CA 922705202
Gen County: Riverside
TSD EPA ID: CAD981696420
TSD County: Los Angeles
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 2.1
Facility County: Riverside

Site Detail Report

Target Property: RAMON RD
RANCHO MIRAGE, CA 92270

JOB: NA

HAZNET

EDR ID: S108196941 **DIST/DIR:** 0.019 NE **ELEVATION:** 257 **MAP ID:** 3

NAME: AGUA CALIENTE BAND OF CAHUILLA INDIANS DBA AGUA CALIENTE **Rev:** 12/31/2011

ADDRESS: 32250 BOB HOPE DR
RANCHO MIRAGE, CA 92270
RIVERSIDE

SOURCE: CA California Environmental Protection Agency

HAZNET:
Year: 2011
Gepaid: CAL000262398
Contact: JAKE BRITTON
Telephone: 7602022690
Mailing Name: Not reported
Mailing Address: 32250 BOB HOPE DR
Mailing City,St,Zip: RANCHO MIRAGE, CA 922700000
Gen County: Not reported
TSD EPA ID: NVT330010000
TSD County: Not reported
Waste Category: Latex waste
Disposal Method: Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons: 1.375
Facility County: Riverside

Year: 2011
Gepaid: CAL000262398
Contact: JAKE BRITTON
Telephone: 7602022690
Mailing Name: Not reported
Mailing Address: 32250 BOB HOPE DR
Mailing City,St,Zip: RANCHO MIRAGE, CA 922700000
Gen County: Not reported
TSD EPA ID: NVT330010000
TSD County: Not reported
Waste Category: Other organic solids
Disposal Method: Not reported
Tons: Not reported
Facility County: Riverside

Year: 2011
Gepaid: CAL000262398
Contact: JAKE BRITTON
Telephone: 7602022690
Mailing Name: Not reported
Mailing Address: 32250 BOB HOPE DR
Mailing City,St,Zip: RANCHO MIRAGE, CA 922700000
Gen County: Not reported
TSD EPA ID: TXD077603371
TSD County: Not reported
Waste Category: Unspecified sludge waste
Disposal Method: Fuel Blending Prior To Energy Recovery At Another Site

- Continued on next page -

Site Detail Report

Target Property: RAMON RD
RANCHO MIRAGE, CA 92270

JOB: NA

HAZNET

EDR ID: S108196941 **DIST/DIR:** 0.019 NE **ELEVATION:** 257 **MAP ID:** 3

NAME: AGUA CALIENTE BAND OF CAHUILLA INDIANS DBA AGUA CALIENTE **Rev:** 12/31/2011

ADDRESS: 32250 BOB HOPE DR
RANCHO MIRAGE, CA 92270
RIVERSIDE

SOURCE: CA California Environmental Protection Agency

Tons: 0.0875
Facility County: Riverside

Year: 2011
Gepaid: CAL000262398
Contact: JAKE BRITTON
Telephone: 7602022690
Mailing Name: Not reported
Mailing Address: 32250 BOB HOPE DR
Mailing City,St,Zip: RANCHO MIRAGE, CA 922700000
Gen County: Not reported
TSD EPA ID: NVT330010000
TSD County: Not reported
Waste Category: Organic liquids with metals (Alkaline solution (pH >= 12.5) with metals)
Disposal Method: Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons: 0.1375
Facility County: Riverside

Year: 2010
Gepaid: CAL000262398
Contact: JAKE BRITTON
Telephone: 7602022690
Mailing Name: Not reported
Mailing Address: 32250 BOB HOPE DR
Mailing City,St,Zip: RANCHO MIRAGE, CA 922700000
Gen County: Not reported
TSD EPA ID: TXD077603371
TSD County: Not reported
Waste Category: Unspecified sludge waste
Disposal Method: Fuel Blending Prior To Energy Recovery At Another Site
Tons: 0.0375
Facility County: Riverside

Click this hyperlink while viewing on your computer to access
21 additional CA_HAZNET: record(s) in the EDR Site Report.

Site Detail Report

Target Property: RAMON RD
RANCHO MIRAGE, CA 92270

JOB: NA

SWEEPS UST

EDR ID: U001574240 **DIST/DIR:** 0.019 ESE **ELEVATION:** 315 **MAP ID:** 4

NAME: MACCO CONSTRUCTORS, INC.
Rev: 06/01/1994
ID/Status: A

ADDRESS: 34200 RIO DEL SOL
THOUSAND PALMS, CA 92276
RIVERSIDE

SOURCE: CA State Water Resources Control Board

SWEEPS UST:
Status: Active
Comp Number: 34794
Number: 1
Board Of Equalization: 44-007681
Referral Date: 11-16-92
Action Date: 11-16-92
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: 000667
Swrcb Tank Id: 33-000-034794-000001
Actv Date: 11-16-92
Capacity: 1000
Tank Use: M.V. FUEL
Stg: P
Content: REG UNLEADED
Number Of Tanks: 2

Status: Active
Comp Number: 34794
Number: 1
Board Of Equalization: 44-007681
Referral Date: 11-16-92
Action Date: 11-16-92
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: 000667
Swrcb Tank Id: 33-000-034794-000002
Actv Date: 11-16-92
Capacity: 1000
Tank Use: M.V. FUEL
Stg: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Site Detail Report

Target Property: RAMON RD
RANCHO MIRAGE, CA 92270

JOB: NA

HAZNET

EDR ID: S106090774 **DIST/DIR:** 0.025 South **ELEVATION:** 334 **MAP ID:** 5

NAME: WESTIN MISSION HILLS RESORT **Rev:** 12/31/2011

ADDRESS: 71501 DINAH SHORE DR
RANCHO MIRAGE, CA 92270
RIVERSIDE

SOURCE: CA California Environmental Protection Agency

HAZNET:
Year: 2011
Gepaid: CAL000042183
Contact: SUREN CONTROLLER
Telephone: 7603285955
Mailing Name: Not reported
Mailing Address: 71333 DINAH SHORE DR
Mailing City,St,Zip: RANCHO MIRAGE, CA 922701501
Gen County: Not reported
TSD EPA ID: TXD077603371
TSD County: Not reported
Waste Category: Other organic solids
Disposal Method: Fuel Blending Prior To Energy Recovery At Another Site
Tons: 0.15
Facility County: Riverside

Year: 2004
Gepaid: CAL000042183
Contact: SUREN CONTROLLER
Telephone: 7603285955
Mailing Name: Not reported
Mailing Address: 71333 DINAH SHORE DR
Mailing City,St,Zip: RANCHO MIRAGE, CA 922701501
Gen County: Riverside
TSD EPA ID: CAT000613927
TSD County: San Bernardino
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Transfer Station
Tons: 0.17
Facility County: Not reported

Year: 2003
Gepaid: CAL000042183
Contact: SUREN RASANAYAGAM/CONTROLLER
Telephone: 7603285955
Mailing Name: Not reported
Mailing Address: 71333 DINAH SHORE DR
Mailing City,St,Zip: RANCHO MIRAGE, CA 922701501
Gen County: Riverside
TSD EPA ID: CAT000613927
TSD County: Riverside
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Transfer Station
Tons: 0.39

- Continued on next page -

Site Detail Report

Target Property: RAMON RD
RANCHO MIRAGE, CA 92270

JOB: NA

HAZNET

EDR ID: S106090774 **DIST/DIR:** 0.025 South **ELEVATION:** 334 **MAP ID:** 5

NAME: WESTIN MISSION HILLS RESORT **Rev:** 12/31/2011

ADDRESS: 71501 DINAH SHORE DR
RANCHO MIRAGE, CA 92270
RIVERSIDE

SOURCE: CA California Environmental Protection Agency

Facility County: Riverside

Year: 2002
Gepaid: CAL000042183
Contact: --
Telephone: --
Mailing Name: Not reported
Mailing Address: 71333 DINAH SHORE DR
Mailing City,St,Zip: RANCHO MIRAGE, CA 922701501
Gen County: Riverside
TSD EPA ID: Not reported
TSD County: San Bernardino
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Transfer Station
Tons: 0.13
Facility County: Not reported

Site Detail Report

Target Property: RAMON RD
RANCHO MIRAGE, CA 92270

JOB: NA

HAZNET

EDR ID: S109935268 **DIST/DIR:** 0.050 SE **ELEVATION:** 342 **MAP ID:** A6

NAME: WALGREENS #9641 **Rev:** 12/31/2011

ADDRESS: 72027 DINAH SHORE DR
RANCHO MIRAGE, CA 92270

SOURCE: CA California Environmental Protection Agency

HAZNET:
Year: 2011
Gepaid: CAL000327758
Contact: ANDREW MARKS
Telephone: 8473152602
Mailing Name: Not reported
Mailing Address: 104 WILMOT RD MS 1434
Mailing City,St,Zip: DEERFIELD, IL 600150000
Gen County: Not reported
TSD EPA ID: OHD083377010
TSD County: Not reported
Waste Category: Unspecified solvent mixture
Disposal Method: Energy Recovery At This Site--Use As Fuel(Includes On-Site Fuel Blending)
Tons: 0.006
Facility County: Riverside

Year: 2011
Gepaid: CAL000327758
Contact: ANDREW MARKS
Telephone: 8473152602
Mailing Name: Not reported
Mailing Address: 104 WILMOT RD MS 1434
Mailing City,St,Zip: DEERFIELD, IL 600150000
Gen County: Not reported
TSD EPA ID: OHD083377010
TSD County: Not reported
Waste Category: Unspecified solvent mixture
Disposal Method: Energy Recovery At This Site--Use As Fuel(Includes On-Site Fuel Blending)
Tons: 0.006
Facility County: Riverside

Year: 2011
Gepaid: CAL000327758
Contact: ANDREW MARKS
Telephone: 8473152602
Mailing Name: Not reported
Mailing Address: 104 WILMOT RD MS 1434
Mailing City,St,Zip: DEERFIELD, IL 600150000
Gen County: Not reported
TSD EPA ID: INR000110197
TSD County: Not reported
Waste Category: Unspecified aqueous solution

- Continued on next page -

Site Detail Report

Target Property: RAMON RD
RANCHO MIRAGE, CA 92270

JOB: NA

HAZNET

EDR ID: S109935268 **DIST/DIR:** 0.050 SE **ELEVATION:** 342 **MAP ID:** A6

NAME: WALGREENS #9641 **Rev:** 12/31/2011

ADDRESS: 72027 DINAH SHORE DR
RANCHO MIRAGE, CA 92270

SOURCE: CA California Environmental Protection Agency

Disposal Method: Not reported
Tons: 0.0255
Facility County: Riverside

Year: 2011
Gepaid: CAL000327758
Contact: ANDREW MARKS
Telephone: 8473152602
Mailing Name: Not reported
Mailing Address: 104 WILMOT RD MS 1434
Mailing City,St,Zip: DEERFIELD, IL 600150000
Gen County: Not reported
TSD EPA ID: INR000110197
TSD County: Not reported
Waste Category: Unspecified aqueous solution
Disposal Method: Not reported
Tons: 0.0255
Facility County: Riverside

Year: 2011
Gepaid: CAL000327758
Contact: ANDREW MARKS
Telephone: 8473152602
Mailing Name: Not reported
Mailing Address: 104 WILMOT RD MS 1434
Mailing City,St,Zip: DEERFIELD, IL 600150000
Gen County: Not reported
TSD EPA ID: INR000110197
TSD County: Not reported
Waste Category: Pharmaceutical waste
Disposal Method: Not reported
Tons: 0.0025
Facility County: Riverside

Click this hyperlink while viewing on your computer to access
19 additional CA_HAZNET: record(s) in the EDR Site Report.

Site Detail Report

Target Property: RAMON RD
RANCHO MIRAGE, CA 92270

JOB: NA

RCRA-SQG

EDR ID: 1004677261 **DIST/DIR:** 0.056 SE **ELEVATION:** 344 **MAP ID:** A7

NAME: SAMS CYCLE SERVICE **Rev:** 09/11/2012

ADDRESS: 34 044 BOB HOPE DR
RANCHO MIRAGE, CA 92270

SOURCE: US Environmental Protection Agency

RCRA-SQG:
Date form received by agency: 04/18/2001
Facility name: SAMS CYCLE SERVICE
Facility address: 34 044 BOB HOPE DR
RANCHO MIRAGE, CA 92270
EPA ID: CAR000095158
Contact: SAM PLONSKI
Contact address: 34 044 BOB HOPE DR
RANCHO MIRAGE, CA 92270
Contact country: US
Contact telephone: (760) 343-3131
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: SAM PLONSKI
Owner/operator address: 34 044 BOB HOPE DR
RANCHO MIRAGE, CA 92270
Owner/operator country: Not reported
Owner/operator telephone: (760) 343-3131
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No

- Continued on next page -

Site Detail Report

Target Property: RAMON RD
RANCHO MIRAGE, CA 92270

JOB: NA

RCRA-SQG

EDR ID: 1004677261 **DIST/DIR:** 0.056 SE **ELEVATION:** 344 **MAP ID:** A7

NAME: SAMS CYCLE SERVICE **Rev:** 09/11/2012

ADDRESS: 34 044 BOB HOPE DR
RANCHO MIRAGE, CA 92270

SOURCE: US Environmental Protection Agency

Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Hazardous Waste Summary:
Waste code: D000
Waste name: Not Defined

Waste code: D039
Waste name: TETRACHLOROETHYLENE

Violation Status: No violations found

Site Detail Report

Target Property: RAMON RD
RANCHO MIRAGE, CA 92270

JOB: NA

HAZNET

EDR ID: S102815891 **DIST/DIR:** 0.056 SE **ELEVATION:** 344 **MAP ID:** A8

NAME: SAM'S CYCLE SERVICE **Rev:** 12/31/2011

ADDRESS: 34-044 BOB HOPE DR
RANCHO MIRAGE, CA 92270
RIVERSIDE

SOURCE: CA California Environmental Protection Agency

HAZNET:
Year: 2009
Gepaid: CAL000082083
Contact: SAM PLONSKI
Telephone: 7603433131
Mailing Name: Not reported
Mailing Address: 34044 BOB HOPE DR
Mailing City,St,Zip: RANCHO MIRAGE, CA 922701731
Gen County: Riverside
TSD EPA ID: CAD028409019
TSD County: Los Angeles
Waste Category: Off-specification, aged or surplus organics
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.0099
Facility County: Riverside

Year: 1998
Gepaid: CAL000082083
Contact: SAM PLONSKI
Telephone: 7603242309
Mailing Name: Not reported
Mailing Address: 34044 BOB HOPE DR
Mailing City,St,Zip: RANCHO MIRAGE, CA 922701731
Gen County: Riverside
TSD EPA ID: CAD981696420
TSD County: Los Angeles
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Transfer Station
Tons: .2085
Facility County: Riverside

Year: 1995
Gepaid: CAL000082083
Contact: SAM PLONSKI
Telephone: 7603242309
Mailing Name: Not reported
Mailing Address: 34044 BOB HOPE DR
Mailing City,St,Zip: RANCHO MIRAGE, CA 922701731
Gen County: Riverside
TSD EPA ID: CAD050099696
TSD County: Los Angeles
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Recycler

- Continued on next page -

Site Detail Report

Target Property: RAMON RD
RANCHO MIRAGE, CA 92270

JOB: NA

HAZNET

EDR ID: S102815891 **DIST/DIR:** 0.056 SE **ELEVATION:** 344 **MAP ID:** A8

NAME: SAM'S CYCLE SERVICE **Rev:** 12/31/2011

ADDRESS: 34-044 BOB HOPE DR
RANCHO MIRAGE, CA 92270
RIVERSIDE

SOURCE: CA California Environmental Protection Agency

Tons: .1668
Facility County: Riverside

Site Detail Report

Target Property: RAMON RD
RANCHO MIRAGE, CA 92270

JOB: NA

HAZNET

EDR ID: S102820592 **DIST/DIR:** 0.092 SSW **ELEVATION:** 327 **MAP ID:** 9

NAME: WESTIN MISSION HILLS RESORT **Rev:** 12/31/2011

ADDRESS: 71333 DINAH SHORE DRIVE
RANCHO MIRAGE, CA 92253
RIVERSIDE

SOURCE: CA California Environmental Protection Agency

HAZNET:
Year: 2011
Gepaid: CAL000338521
Contact: KELLY LADNER
Telephone: 7607702110
Mailing Name: Not reported
Mailing Address: 71333 DINAH SHORE DR
Mailing City,St,Zip: RANCHO MIRAGE, CA 922701501
Gen County: Not reported
TSD EPA ID: TXD077603371
TSD County: Not reported
Waste Category: Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Disposal Method: Fuel Blending Prior To Energy Recovery At Another Site
Tons: 0.25
Facility County: Riverside

Year: 2011
Gepaid: CAL000338521
Contact: KELLY LADNER
Telephone: 7607702110
Mailing Name: Not reported
Mailing Address: 71333 DINAH SHORE DR
Mailing City,St,Zip: RANCHO MIRAGE, CA 922701501
Gen County: Not reported
TSD EPA ID: NVT330010000
TSD County: Not reported
Waste Category: Unspecified oil-containing waste
Disposal Method: Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons: 0.0375
Facility County: Riverside

Year: 2011
Gepaid: CAL000338521
Contact: KELLY LADNER
Telephone: 7607702110
Mailing Name: Not reported
Mailing Address: 71333 DINAH SHORE DR
Mailing City,St,Zip: RANCHO MIRAGE, CA 922701501
Gen County: Not reported
TSD EPA ID: TXD077603371
TSD County: Not reported
Waste Category: Unspecified solvent mixture
Disposal Method: Fuel Blending Prior To Energy Recovery At Another Site

- Continued on next page -

Site Detail Report

Target Property: RAMON RD
RANCHO MIRAGE, CA 92270

JOB: NA

HAZNET

EDR ID: S102820592 **DIST/DIR:** 0.092 SSW **ELEVATION:** 327 **MAP ID:** 9

NAME: WESTIN MISSION HILLS RESORT **Rev:** 12/31/2011

ADDRESS: 71333 DINAH SHORE DRIVE
RANCHO MIRAGE, CA 92253
RIVERSIDE

SOURCE: CA California Environmental Protection Agency

Tons: 0.725
Facility County: Riverside

Year: 2005
Gepaid: CAL000117283
Contact: SUREN CONTROLLER
Telephone: 7607702110
Mailing Name: Not reported
Mailing Address: 71333 DINAH SHORE DR
Mailing City,St,Zip: RANCHO MIRAGE, CA 922701501
Gen County: Riverside
TSD EPA ID: CAD099452708
TSD County: Los Angeles
Waste Category: Waste oil and mixed oil
Disposal Method: Recycler
Tons: 0.88
Facility County: Not reported

Year: 2004
Gepaid: CAL000117283
Contact: SUREN CONTROLLER
Telephone: 7607702110
Mailing Name: Not reported
Mailing Address: 71333 DINAH SHORE DR
Mailing City,St,Zip: RANCHO MIRAGE, CA 922701501
Gen County: Riverside
TSD EPA ID: CAD099452708
TSD County: Los Angeles
Waste Category: Waste oil and mixed oil
Disposal Method: Recycler
Tons: 0.88
Facility County: Not reported

Click this hyperlink while viewing on your computer to access
17 additional CA_HAZNET: record(s) in the EDR Site Report.

Site Detail Report

Target Property: RAMON RD
RANCHO MIRAGE, CA 92270

JOB: NA

INDIAN LUST

EDR ID: 1012054007 **DIST/DIR:** 0.422 WSW **ELEVATION:** 340 **MAP ID:** 10

NAME: MISSION HILLS COUNTRY CLUB **Rev:** 04/12/2012

ADDRESS: 34-600 MISSION HILLS DRIVE
RANCHO MIRAGE, CA 92270

SOURCE: US EPA Region 1

INDIAN LUST:
Facility ID: 808
Region: 9
Alt Facility ID: AGUA016
Tribe Name: AGUA CALIENTE
LUST Status: CLEANUP COMPLETED
LUST Status Date: 9/3/2009

Facility ID: 808
Region: 9
Alt Facility ID: AGUA016
Tribe Name: AGUA CALIENTE
LUST Status: Site Assessment Stage
LUST Status Date: 6/4/2004

Facility ID: 808
Region: 9
Alt Facility ID: AGUA016
Tribe Name: AGUA CALIENTE
LUST Status: Site Investigation Completed
LUST Status Date: 6/4/2004

Site Detail Report

Target Property: RAMON RD
RANCHO MIRAGE, CA 92270

JOB: NA

LUST

EDR ID: S103670421 **DIST/DIR:** 0.461 NE **ELEVATION:** 232 **MAP ID:** 11

NAME: FLYING J TRAVEL PLAZA
ADDRESS: 72235 VARNER RD
THOUSAND PALMS, CA

Rev: 12/17/2012
ID/Status: 9 - Case Closed
ID/Status: Completed - Case Closed
ID/Status: 200521941
ID/Status: 980062

SOURCE: CA State Water Resources Control Board

LUST:
Region: STATE
Global Id: T0606592603
Latitude: 33.8180908453131
Longitude: -116.403300762177
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 04/10/2009
Lead Agency: RIVERSIDE COUNTY LOP
Case Worker: LS
Local Agency: RIVERSIDE COUNTY LOP
RB Case Number: Not reported
LOC Case Number: 200521941
File Location: Local Agency Warehouse
Potential Media Affect: Soil
Potential Contaminants of Concern: Diesel, Gasoline
Site History: See case closure summary and site file for cleanup details.

Click here to access the California GeoTracker records for this facility:

LUST:
Global Id: T0606592603
Contact Type: Local Agency Caseworker
Contact Name: LINDA SHURLOW
Organization Name: RIVERSIDE COUNTY LOP
Address: 47950 Arabia Street, Suite A
City: Indio
Email: lshurlow@rivcocha.org
Phone Number: 7608637570

Global Id: T0606592603
Contact Type: Regional Board Caseworker
Contact Name: KAI DUNN
Organization Name: COLORADO RIVER BASIN RWQCB (REGION 7)
Address: 73-720 FRED WARING DR. STE 100
City: PALM DESERT
Email: kdunn@waterboards.ca.gov
Phone Number: Not reported

LUST:
Global Id: T0606592603
Action Type: RESPONSE
Date: 06/05/2007
Action: Preliminary Site Assessment Report

- Continued on next page -

Site Detail Report

Target Property: RAMON RD
RANCHO MIRAGE, CA 92270

JOB: NA

LUST

EDR ID: S103670421 **DIST/DIR:** 0.461 NE **ELEVATION:** 232 **MAP ID:** 11

NAME: FLYING J TRAVEL PLAZA

ADDRESS: 72235 VARNER RD
THOUSAND PALMS, CA

SOURCE: CA State Water Resources Control Board

Rev: 12/17/2012
ID/Status: 9 - Case Closed
ID/Status: Completed - Case Closed
ID/Status: 200521941
ID/Status: 980062

Global Id: T0606592603
Action Type: RESPONSE
Date: 03/06/2008
Action: Other Report / Document

Global Id: T0606592603
Action Type: Other
Date: 01/01/1950
Action: Leak Stopped

Global Id: T0606592603
Action Type: ENFORCEMENT
Date: 08/21/2007
Action: Technical Correspondence / Assistance / Other - #081607

Global Id: T0606592603
Action Type: ENFORCEMENT
Date: 04/05/2007
Action: Staff Letter - #040507

Global Id: T0606592603
Action Type: ENFORCEMENT
Date: 10/05/2007
Action: Staff Letter - #100507

Global Id: T0606592603
Action Type: Other
Date: 01/01/1950
Action: Leak Discovery

Global Id: T0606592603
Action Type: ENFORCEMENT
Date: 12/06/2007
Action: Staff Letter - #120607

Global Id: T0606592603
Action Type: RESPONSE
Date: 11/30/2007
Action: Other Workplan

Global Id: T0606592603
Action Type: ENFORCEMENT
Date: 11/25/2008
Action: Staff Letter - #RCDEH112508

- Continued on next page -

Site Detail Report

Target Property: RAMON RD
RANCHO MIRAGE, CA 92270

JOB: NA

LUST

EDR ID: S103670421 **DIST/DIR:** 0.461 NE **ELEVATION:** 232 **MAP ID:** 11

NAME: FLYING J TRAVEL PLAZA
ADDRESS: 72235 VARNER RD
THOUSAND PALMS, CA

Rev: 12/17/2012
ID/Status: 9 - Case Closed
ID/Status: Completed - Case Closed
ID/Status: 200521941
ID/Status: 980062

SOURCE: CA State Water Resources Control Board

Global Id: T0606592603
Action Type: RESPONSE
Date: 02/17/2009
Action: Well Destruction Report

Global Id: T0606592603
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

Global Id: T0606592603
Action Type: ENFORCEMENT
Date: 04/10/2009
Action: Closure/No Further Action Letter - #RCDEH Closure

Region: STATE
Global Id: T0606501103
Latitude: 33.817941
Longitude: -116.404185
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 10/10/2003
Lead Agency: RIVERSIDE COUNTY LOP
Case Worker: RIV
Local Agency: RIVERSIDE COUNTY LOP
RB Case Number: 7T2276008
LOC Case Number: 980062
File Location: Not reported
Potential Media Affect: Soil
Potential Contaminants of Concern: Gasoline
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

LUST:
Global Id: T0606501103
Contact Type: Regional Board Caseworker
Contact Name: Phan Le
Organization Name: COLORADO RIVER BASIN RWQCB (REGION 7)
Address: 73720 FRED WARING DRIVE SUITE #100
City: PALM DESERT
Email: ple@waterboards.ca.gov
Phone Number: Not reported

- Continued on next page -

Site Detail Report

Target Property: RAMON RD
RANCHO MIRAGE, CA 92270

JOB: NA

LUST

EDR ID: S103670421 **DIST/DIR:** 0.461 NE **ELEVATION:** 232 **MAP ID:** 11

NAME: FLYING J TRAVEL PLAZA

ADDRESS: 72235 VARNER RD
THOUSAND PALMS, CA

SOURCE: CA State Water Resources Control Board

Rev: 12/17/2012
ID/Status: 9 - Case Closed
ID/Status: Completed - Case Closed
ID/Status: 200521941
ID/Status: 980062

Global Id: T0606501103
Contact Type: Local Agency Caseworker
Contact Name: Riverside County LOP Closed Cases
Organization Name: RIVERSIDE COUNTY LOP
Address: PO Box 1280
City: RIVERSIDE
Email: Not reported
Phone Number: 9519558982

LUST:
Global Id: T0606501103
Action Type: ENFORCEMENT
Date: 03/17/2003
Action: Technical Correspondence / Assistance / Other

Global Id: T0606501103
Action Type: ENFORCEMENT
Date: 10/10/2003
Action: Closure/No Further Action Letter

Global Id: T0606501103
Action Type: Other
Date: 01/01/1950
Action: Leak Stopped

Global Id: T0606501103
Action Type: Other
Date: 01/01/1950
Action: Leak Discovery

Global Id: T0606501103
Action Type: ENFORCEMENT
Date: 10/09/2003
Action: Technical Correspondence / Assistance / Other

Global Id: T0606501103
Action Type: ENFORCEMENT
Date: 10/09/2003
Action: File review - #RCDEH Upload Site File 3/3/2011

Global Id: T0606501103
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

- Continued on next page -

Site Detail Report

Target Property: RAMON RD
RANCHO MIRAGE, CA 92270

JOB: NA

LUST

EDR ID: S103670421 **DIST/DIR:** 0.461 NE **ELEVATION:** 232 **MAP ID:** 11

NAME: FLYING J TRAVEL PLAZA

ADDRESS: 72235 VARNER RD
THOUSAND PALMS, CA

SOURCE: CA State Water Resources Control Board

Rev: 12/17/2012
ID/Status: 9 - Case Closed
ID/Status: Completed - Case Closed
ID/Status: 200521941
ID/Status: 980062

LUST REG 7:
Region: 7
Status: 9 - Case Closed
Case Num: 7T2276008
Substance: Gasoline - Automotive
ID: 768
Global ID: T0606501103
Lead Agency: Local Agency
Case Worker: YO

RIVERSIDE CO. LUST:
Region: RIVERSIDE
Facility ID: 200521941
Employee: Shurlow-LOP
Site Closed: Yes
Case Type: Soil only
Facility Status: closed/action completed

Region: RIVERSIDE
Facility ID: 980062
Employee: Shurlow-LOP
Site Closed: Yes
Case Type: Soil only
Facility Status: closed/action completed

Database Descriptions

NPL: NPL National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices. NPL - National Priority List Proposed NPL - Proposed National Priority List Sites.

NPL Delisted: DELISTED NPL The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate. DELISTED NPL - National Priority List Deletions

CERCLIS: CERCLIS CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL. CERCLIS - Comprehensive Environmental Response, Compensation, and Liability Information System

NFRAP: CERCLIS-NFRAP Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site. CERCLIS-NFRAP - CERCLIS No Further Remedial Action Planned

RCRA COR ACT: CORRACTS CORRACTS identifies hazardous waste handlers with RCRA corrective action activity. CORRACTS - Corrective Action Report

RCRA TSD: RCRA-TSDF RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste. RCRA-TSDF - RCRA - Treatment, Storage and Disposal

RCRA GEN: RCRA-LQG RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month. RCRA-LQG - RCRA - Large Quantity Generators RCRA-SQG - RCRA - Small Quantity Generators. RCRA-CESQG - RCRA - Conditionally Exempt Small Quantity Generators.

Federal IC / EC: US ENG CONTROLS A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health. US ENG CONTROLS - Engineering Controls Sites List US INST CONTROL - Sites with Institutional Controls.

ERNS: ERNS Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances. ERNS - Emergency Response Notification System

Database Descriptions

State/Tribal NPL: RESPONSE Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk. RESPONSE - State Response Sites

State/Tribal CERCLIS: ENVIROSTOR The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites. ENVIROSTOR - EnviroStor Database

State/Tribal SWL: SWF/LF (SWIS) Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites. SWF/LF (SWIS) - Solid Waste Information System

State/Tribal LTANKS: LUST SONOMA CO. LUST - Leaking Underground Storage Tank Sites. LUST REG 9 - Leaking Underground Storage Tank Report. LUST REG 3 - Leaking Underground Storage Tank Database. SAN MATEO CO. LUST - Fuel Leak List. LUST REG 6L - Leaking Underground Storage Tank Case Listing. RIVERSIDE CO. LUST - Listing of Underground Tank Cleanup Sites. LUST REG 6V - Leaking Underground Storage Tank Case Listing. LUST REG 1 - Active Toxic Site Investigation. VENTURA CO. LUST - Listing of Underground Tank Cleanup Sites. SOLANO CO. LUST - Leaking Underground Storage Tanks. LUST SANTA CLARA - LOP Listing. LUST REG 8 - Leaking Underground Storage Tanks. NAPA CO. LUST - Sites With Reported Contamination. LUST REG 7 - Leaking Underground Storage Tank Case Listing. LUST REG 5 - Leaking Underground Storage Tank Database. LUST REG 4 - Underground Storage Tank Leak List. LUST REG 2 - Fuel Leak List. SAN FRANCISCO CO. LUST - Local Oversite Facilities. ORANGE CO. LUST - List of Underground Storage Tank Cleanups. A listing of leaking underground storage tank sites located in San Francisco county. ORANGE CO. LUST - Local Oversite Facilities SLIC - Statewide SLIC Cases. SLIC REG 1 - Active Toxic Site Investigations. SLIC REG 2 - Spills, Leaks, Investigation & Cleanup Cost Recovery Listing. SLIC REG 3 - Spills, Leaks, Investigation & Cleanup Cost Recovery Listing. SLIC REG 4 - Spills, Leaks, Investigation & Cleanup Cost Recovery Listing. SLIC REG 5 - Spills, Leaks, Investigation & Cleanup Cost Recovery Listing. SLIC REG 6V - Spills, Leaks, Investigation & Cleanup Cost Recovery Listing. SLIC REG 6L - SLIC Sites. SLIC REG 7 - SLIC List. SLIC REG 8 - Spills, Leaks, Investigation & Cleanup Cost Recovery Listing. Sacramento Co. CS - Toxic Site Clean-Up List. SLIC REG 9 - Spills, Leaks, Investigation & Cleanup Cost Recovery Listing. SAN DIEGO CO. SAM - Environmental Case Listing. INDIAN LUST R6 - Leaking Underground Storage Tanks on Indian Land. INDIAN LUST R10 - Leaking Underground Storage Tanks on Indian Land. INDIAN LUST R8 - Leaking Underground Storage Tanks on Indian Land. INDIAN LUST R4 - Leaking Underground Storage Tanks on Indian Land. INDIAN LUST R7 - Leaking Underground Storage Tanks on Indian Land. INDIAN LUST R9 - Leaking Underground Storage Tanks on Indian Land. INDIAN LUST R1 - Leaking Underground Storage Tanks on Indian Land.

State/Tribal Tanks: UST Active UST facilities gathered from the local regulatory agencies UST - Active UST Facilities AST - Aboveground Petroleum Storage Tank Facilities. INDIAN UST R8 - Underground Storage Tanks on Indian Land. INDIAN UST R6 - Underground Storage Tanks on Indian Land. INDIAN UST R5 - Underground Storage Tanks on Indian Land. INDIAN UST R4 - Underground Storage Tanks on Indian Land. INDIAN UST R9 - Underground Storage Tanks on Indian Land. INDIAN UST R7 - Underground Storage Tanks on Indian Land. INDIAN UST R10 - Underground Storage Tanks on Indian Land. INDIAN UST R1 - Underground Storage Tanks on Indian Land.

State/Tribal VCP: VCP Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs. VCP - Voluntary Cleanup Program Properties

Database Descriptions

US Brownfields: US BROWNFIELDS Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs. US BROWNFIELDS - A Listing of Brownfields Sites

Other SWF: SAN DIEGO CO. LF VENTURA CO. LF - Inventory of Illegal Abandoned and Inactive Sites. CA LA LF - City of Los Angeles Landfills. LOS ANGELES CO. LF - List of Solid Waste Facilities. San Diego County Solid Waste Facilities. LOS ANGELES CO. LF - Solid Waste Facilities WMUDS/SWAT - Waste Management Unit Database.

Other Haz Sites: US CDL A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments. US CDL - Clandestine Drug Labs SCH - School Property Evaluation Program. SAN DIEGO CO. HMMD - Hazardous Materials Management Division Database.

Other Tanks: CA FID UST The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data. CA FID UST - Facility Inventory Database ALAMEDA CO. UST - Underground Tanks. KERN CO. UST - Underground Storage Tank Sites & Tank Listing. MARIN CO. UST - Underground Storage Tank Sites. NAPA CO. UST - Closed and Operating Underground Storage Tank Sites. ORANGE CO. UST - List of Underground Storage Tank Facilities. RIVERSIDE CO. UST - Underground Storage Tank Tank List. SAN FRANCISCO CO. UST - Underground Storage Tank Information. SOLANO CO. UST - Underground Storage Tanks. SUTTER CO. UST - Underground Storage Tanks. VENTURA CO. UST - Underground Tank Closed Sites List. YOLO CO. UST - Underground Storage Tank Comprehensive Facility Report. EL SEGUNDO UST - City of El Segundo Underground Storage Tank. LONG BEACH UST - City of Long Beach Underground Storage Tank. TORRANCE UST - City of Torrance Underground Storage Tank. UST SAN JOAQUIN - San Joaquin Co. UST. UST MENDOCINO - Mendocino County UST Database. SWEEPS UST - SWEEPS UST Listing.

Local Land Records: DEED Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners. DEED - Deed Restriction Listing

Spills: HMIRS Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT. HMIRS - Hazardous Materials Information Reporting System CHMIRS - California Hazardous Material Incident Report System. Orange Co. Industrial Site - List of Industrial Site Cleanups.

Other: RCRA NonGen / NLR RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste. RCRA NonGen / NLR - RCRA - Non Generators TRIS - Toxic Chemical Release Inventory System. TSCA - Toxic Substances Control Act. FTTS - FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act). FTTS INSP - FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act). SSTS - Section 7 Tracking Systems. ICIS - Integrated Compliance Information System. PADS - PCB Activity Database System. MLTS - Material Licensing Tracking System. RADINFO - Radiation Information Database. FINDS - Facility Index System/Facility Registry System. RAATS - RCRA Administrative Action Tracking System. BRS - Biennial Reporting System. CORTESE - "Cortese" Hazardous Waste & Substances Sites List. CUPA FRESNO - CUPA Resources List. CUPA SANTA BARBARA - CUPA Facility Listing. CUPA MONTEREY - CUPA Facility Listing. CUPA SANTA CRUZ - CUPA Facility List. CUPA MERCED - CUPA Facility List. CUPA SAN LUIS OBISPO - CUPA Facility List. CUPA SHASTA - CUPA Facility List. CUPA HUMBOLDT - CUPA Facility List. CUPA INYO - CUPA Facility List. CUPA KINGS - CUPA Facility List. CUPA MADERA - CUPA Facility List. CUPA NEVADA - CUPA Facility List. CUPA BUTTE - CUPA Facility Listing. CUPA COLUSA - CUPA Facility List. CUPA YUBA - CUPA Facility List. CUPA EL DORADO - CUPA Facility List. CUPA - CUPA Resources List. CUPA IMPERIAL - CUPA Facility List. LA Co. Site Mitigation - Site Mitigation List. Sacramento Co. ML - Master Hazardous Materials Facility List. San Bern. Co. Permit - Hazardous Material Permits. HAZNET - Facility and Manifest Data. INDIAN RESERV - Indian Reservations. FEDLAND - Federal and Indian Lands. WDS - Waste Discharge System. US AIRS MINOR - Air Facility System Data. US AIRS (AFS) - Aerometric Information Retrieval System Facility Subsystem (AFS). PRP - Potentially Responsible

Database Sources

NPL: EPA

Updated Quarterly

NPL Delisted: EPA

Updated Quarterly

CERCLIS: EPA

Updated Quarterly

NFRAP: EPA

Updated Quarterly

RCRA COR ACT: EPA

Updated Quarterly

RCRA TSD: Environmental Protection Agency

Updated Quarterly

RCRA GEN: Environmental Protection Agency

Updated Quarterly

Federal IC / EC: Environmental Protection Agency

Varies

ERNS: National Response Center, United States Coast Guard

Updated Annually

State/Tribal NPL: Department of Toxic Substances Control

Updated Quarterly

State/Tribal CERCLIS: Department of Toxic Substances Control

Updated Quarterly

State/Tribal SWL: Department of Resources Recycling and Recovery

Updated Quarterly

State/Tribal LTANKS: Department Of Public Health San Francisco County

Updated Quarterly

Database Sources

State/Tribal Tanks: SWRCB

Updated Semi-Annually

State/Tribal VCP: Department of Toxic Substances Control

Updated Quarterly

US Brownfields: Environmental Protection Agency

Updated Semi-Annually

Other SWF: Engineering & Construction Division

Varies

Other Haz Sites: Drug Enforcement Administration

Updated Quarterly

Other Tanks: California Environmental Protection Agency

No Update Planned

Local Land Records: Department of Toxic Substances Control

Updated Semi-Annually

Spills: U.S. Department of Transportation

Updated Annually

Other: Environmental Protection Agency

Varies

Street Name Report for Streets within .25 Miles of Target Property

Target Property: RAMON RD
RANCHO MIRAGE, CA 92270

JOB: NA

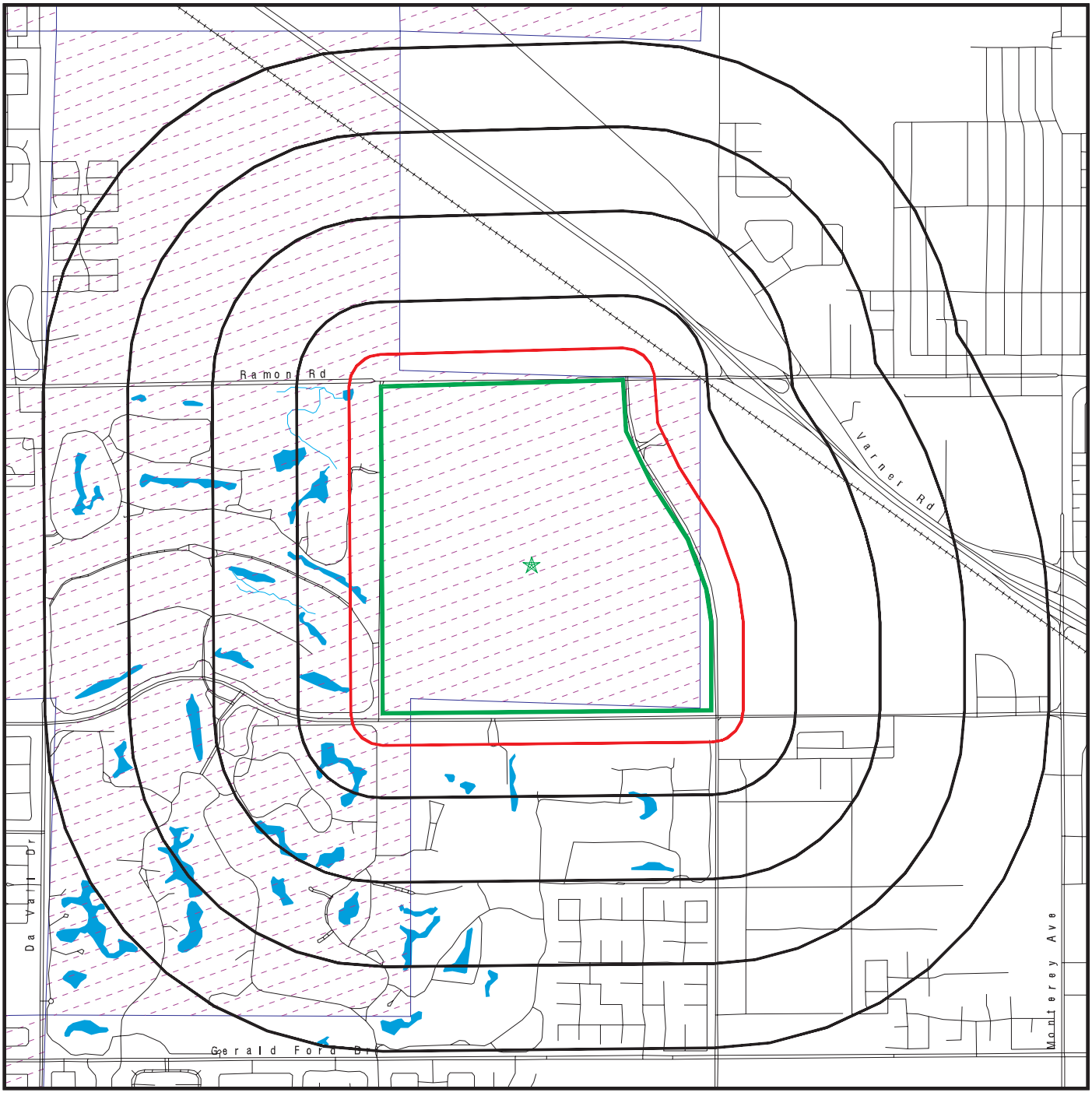
Street Name	Dist/Dir	Street Name	Dist/Dir

Environmental FirstSearch

1.000 Mile Radius
ASTM MAP: NPL, RCRACOR, STATES Sites

EDR® Environmental Data Resources Inc

RAMON RD RANCHO MIRAGE, CA 92270



Black Rings Represent Qtr. Mile Radius; Red Ring Represents 500 ft. Radius

★ Target Property (Latitude: 33.8082 Longitude: 116.4155)

▲ Identified Sites

National Priority List Sites

Indian Reservations BIA

EDR Reference Code (EDR internal use only): 3514709.2s

13-02-07.19:53:33.Thu

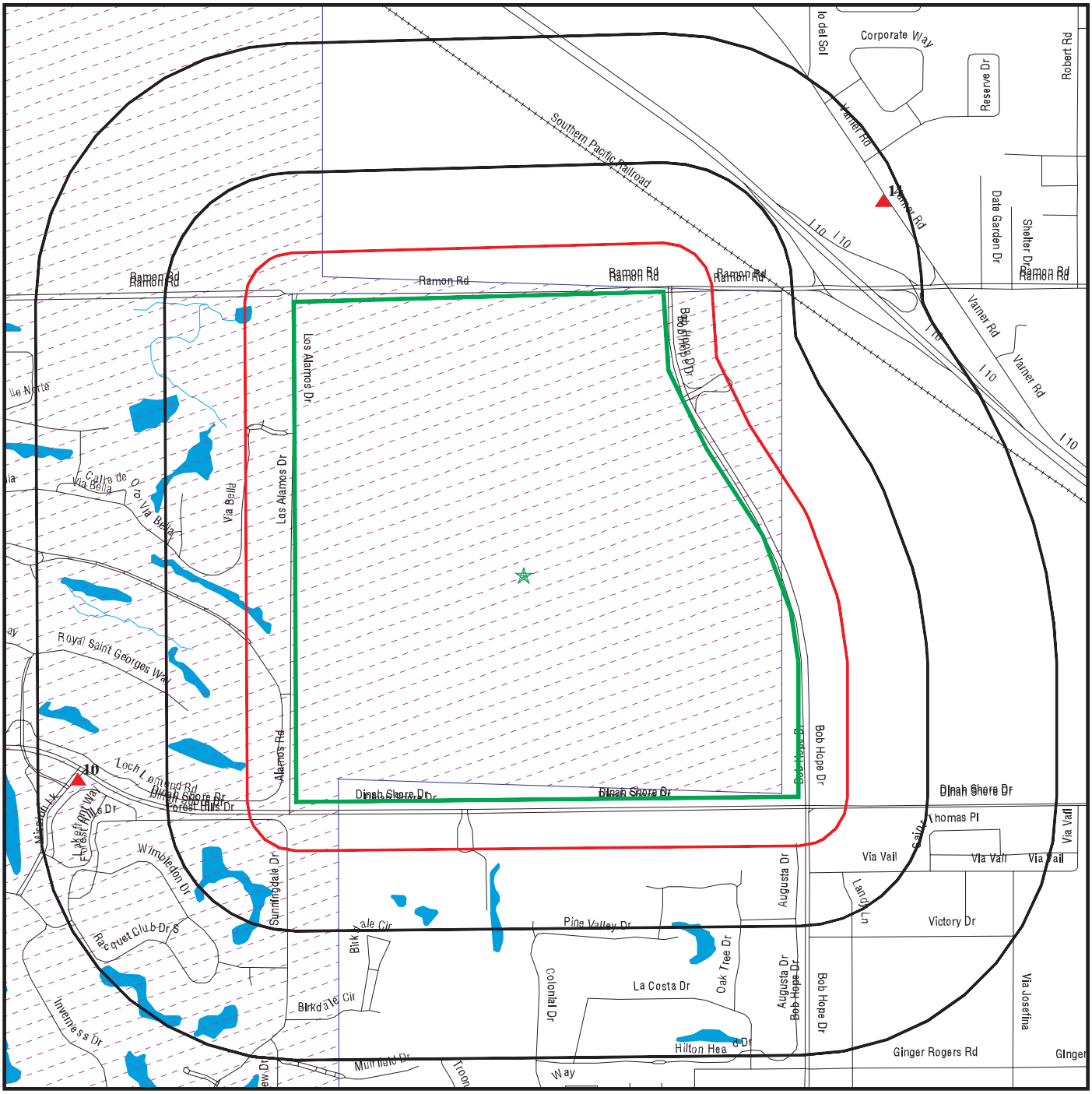
Environmental FirstSearch

0.500 Mile Radius

ASTM MAP: CERCLIS, RCRATSD, LUST, SWL

EDR® Environmental Data Resources Inc

RAMON RD RANCHO MIRAGE, CA 92270



Black Rings Represent Qtr. Mile Radius; **Red Ring Represents 500 ft. Radius**

★ **Target Property (Latitude: 33.8082 Longitude: 116.4155)**

▲ **Identified Sites**

National Priority List Sites

Indian Reservations BIA

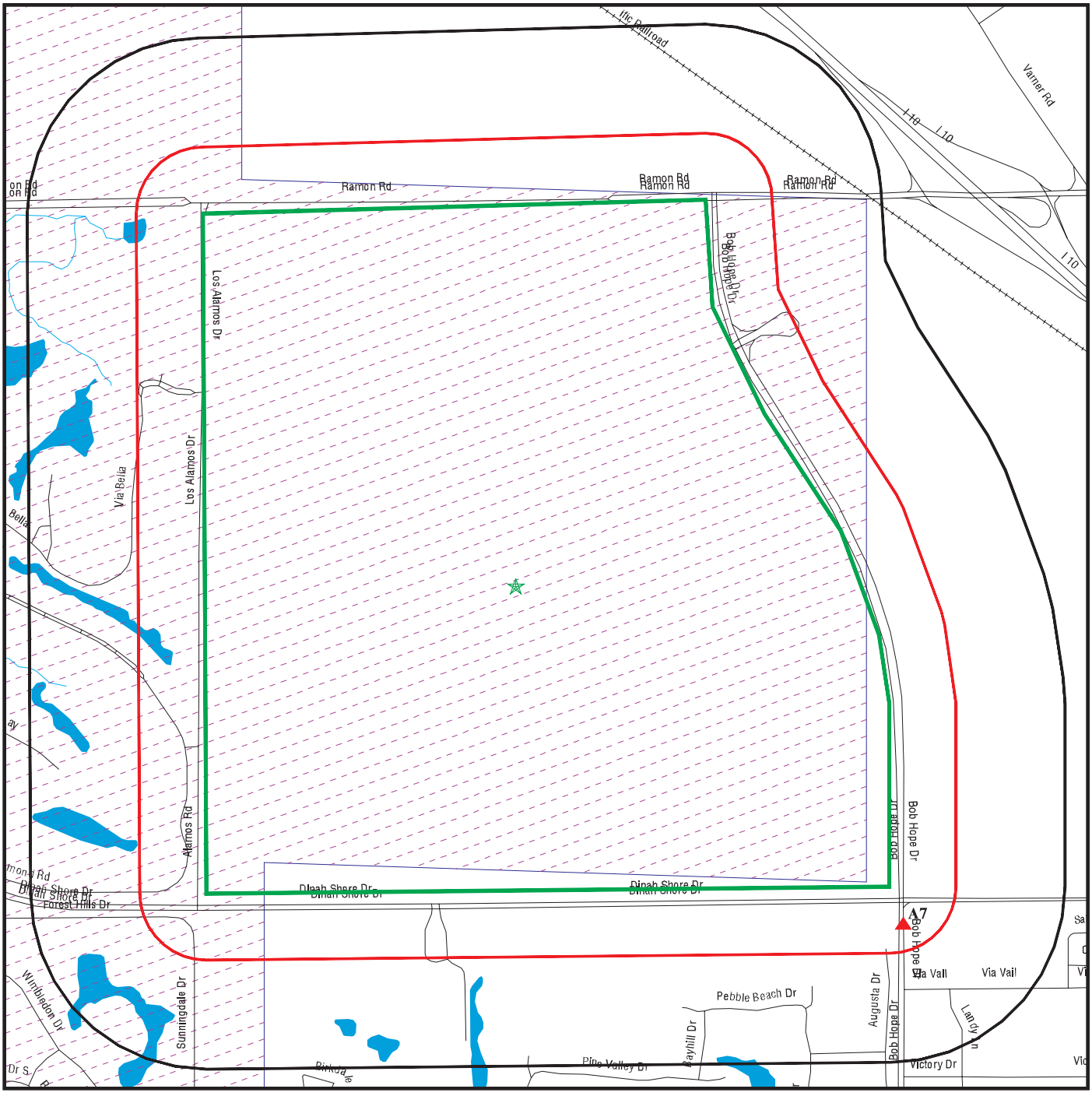
Environmental FirstSearch

0.25 Mile Radius

ASTM MAP: RCRAGEN, ERNS, UST, FED IC/EC, METH LABS

EDR® Environmental Data Resources Inc

RAMON RD RANCHO MIRAGE, CA 92270



Black Rings Represent Qtr. Mile Radius; **Red Ring Represents 500 ft. Radius**

★ **Target Property (Latitude: 33.8082 Longitude: 116.4155)**

▲ **Identified Sites**

National Priority List Sites

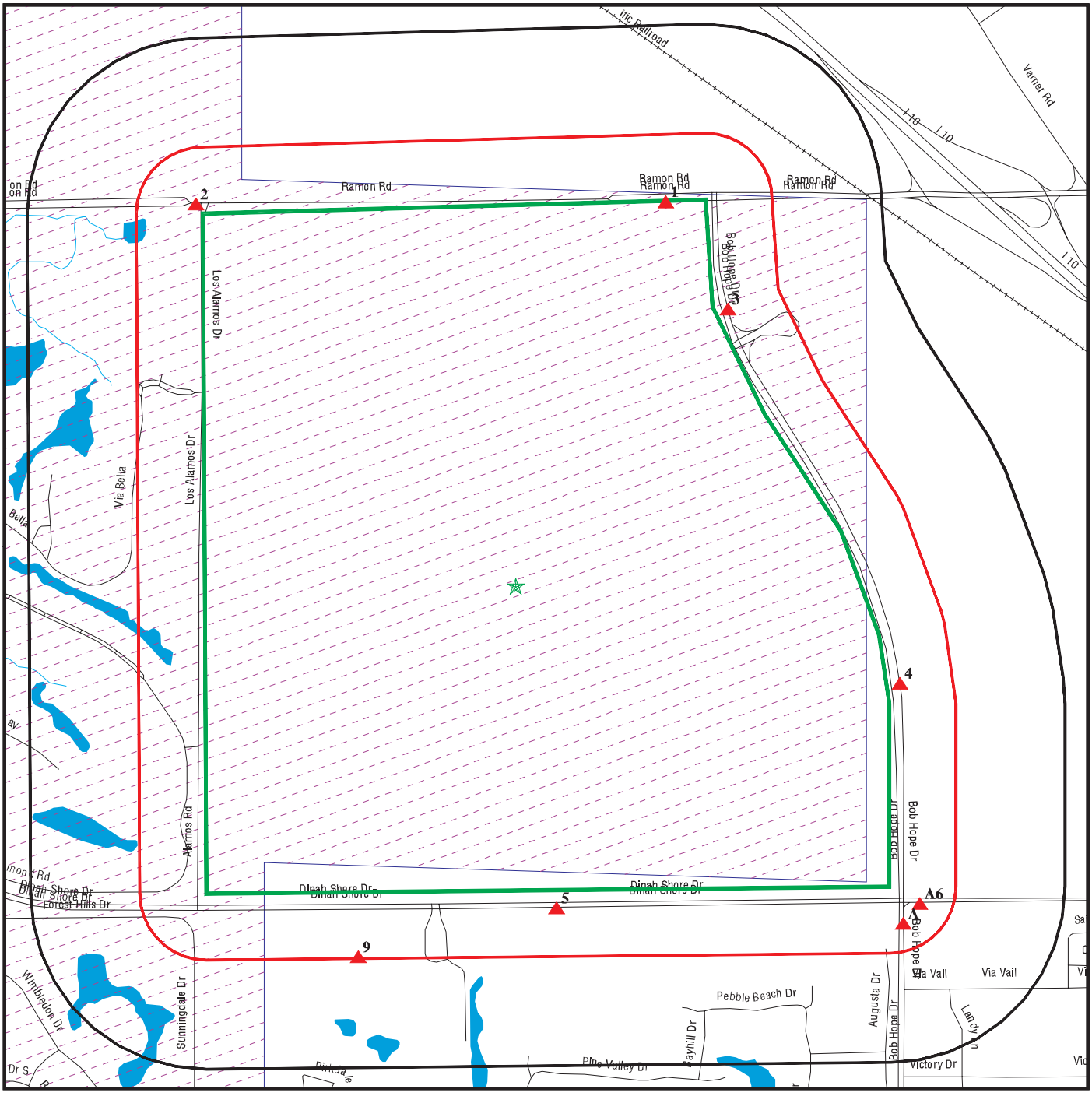
Indian Reservations BIA

Environmental FirstSearch

0.25 Mile Radius
Non ASTM Map, Spills, FINDS

EDR® Environmental Data Resources Inc

RAMON RD RANCHO MIRAGE, CA 92270



Black Rings Represent Qtr. Mile Radius; **Red Ring Represents 500 ft. Radius**

★ **Target Property (Latitude: 33.8082 Longitude: 116.4155)**

▲ **Identified Sites**

Sensitive Receptors

National Priority List Sites

Indian Reservations BIA

EDR Reference Code (EDR internal use only): 3514709.2s

13-02-07.19:55:12.Thu

APPENDIX F

Kristin Stout

From: Kristin Stout
Sent: Thursday, February 07, 2013 1:53 PM
To: 'RB7-PRA@waterboards.ca.gov'
Subject: Records Request

Leighton and Associates, Inc. is requesting information for the property located **southwest of Ramon Road and Bob Hope Drive, in the area of Rancho Mirage, Unincorporated** Riverside County, California. The subject site is identified by the following **Assessor Parcel Numbers:**

673-120-021
673-120-022
673-120-023
673-120-024
673-120-025

We are requesting information concerning hazardous waste/materials, above and below ground storage tanks, leaking underground storage tanks, hazardous waste cleanups, inspections, violations, or any other environmental sensitive spills, responses or concerns. Thank you for your assistance.

Kristin Stout
Sr. Project Scientist
41715 Enterprise Circle Road, Suite 103
Temecula, California 92590
951.252.8927 Direct
951.795.2627 Cell
951.296.0530 Main
Leighton
Solutions You Can Build On

Leighton and Associates, Inc.
A LEIGHTON GROUP COMPANY

3 pages

Ms. Suzanne Cauffiel
Riverside County Environmental Health Department
Fax No. (951) 358-5342

February 7, 2013

Subject: **File Review, Project Number 10143.001**

Leighton and Associates, Inc. is requesting information for the property located **southwest of Ramon Road and Bob Hope Drive, in the area of Rancho Mirage, Unincorporated** Riverside County, California. The subject site is identified by the following **Assessor Parcel Numbers:**

673-120-021
673-120-022
673-120-023
673-120-024
673-120-025

We are requesting information concerning hazardous waste/materials, above and below ground storage tanks, leaking underground storage tanks, hazardous waste cleanups, inspections, violations, or any other environmental sensitive spills, responses or concerns. Thank you for your assistance.

Please see attached billing instructions.

We are requesting any information concerning hazardous waste/materials, above and below ground storage tanks, leaking underground storage tanks cleanup, hazardous waste inspections, violations, or any other environmental sensitive spills, responses or concerns. Thank you for your assistance.

Included is a Site Location map.

Sincerely,

LEIGHTON AND ASSOCIATES, INC.
Kristin Stout
Senior Project Scientist
951.252.8927
kstout@leightongroup.com

Print Form

Leighton

VENDOR BILLING INSTRUCTIONS

WORK TYPE

Non-Prevailing Wage

LEIGHTON COMPANY CONTRACTING WORK

LEIGHTON AND ASSOCIATES, INC.

LEIGHTON OFFICE CONTRACTING WORK

PALM DESERT

Send Invoice To:

LEIGHTON AND ASSOCIATES, INC.

ACCOUNTS PAYABLE
17781 COWAN
IRVINE, CA 92614-6009

acctpayable@leightongroup.com

Information Required On Invoice:

Leighton Project Manager: Kristin Stout

Leighton Project Name: **Pulte Rancho Mirage**

Leighton Project Number: **10143.001**

INCLUDE PROJECT NAME AND PROJECT NUMBER ON ALL INVOICES

Leighton Project Location: SWC Ramon Road and Bob Hope Drive

Address or APN #

Rancho Mirage, CA

City, St,zip

Project Owner/Awarding Body: NA

Address

City; State Zip

Leighton must have this information to process your invoice:
Conditional Waiver and Release provided with the invoice

Due to contractual obligations to Leighton's clients, it is important to bill the correct company with the required information. Be sure to bill the company as shown above.

For Accounts Payable Questions:
Phone: (949) 681-4231 | FAX: (949) 253-9750

R:8-12

Leighton and Associates, Inc.
A LEIGHTON GROUP COMPANY

2 pages

February 7, 2013

Ms. Julie Johnson
Department of Toxic Substances Control
5796 Corporate Avenue
Cypress, CA 90630
VIA FACSIMILE: (714) 484-5318

Subject: **File Review**

Dear Ms. Johnson:

Leighton and Associates, Inc. is requesting information for the property located **southwest of Ramon Road and Bob Hope Drive, in the area of Rancho Mirage, Unincorporated** Riverside County, California. The subject site is identified by the following **Assessor Parcel Numbers:**

673-120-021
673-120-022
673-120-023
673-120-024
673-120-025

We are requesting information concerning hazardous waste/materials, above and below ground storage tanks, leaking underground storage tanks, hazardous waste cleanups, inspections, violations, or any other environmental sensitive spills, responses or concerns. Thank you for your assistance.

Sincerely,

LEIGHTON AND ASSOCIATES, INC.

Kristin Stout
Senior Project Scientist
951.252.8927
kstout@leightongroup.com

Leighton and Associates, Inc.
A LEIGHTON GROUP COMPANY

2 pages

February 7, 2013

Ms. Jone Barrio
Department of Toxic Substances Control
9211 Oakdale Avenue
Chatsworth, CA 91311
VIA FACSIMILE: (818) 717-6526

Subject: **File Review**

Dear Ms. Barrio:

Leighton and Associates, Inc. is requesting information for the property located **southwest of Ramon Road and Bob Hope Drive, in the area of Rancho Mirage, Unincorporated** Riverside County, California. The subject site is identified by the following **Assessor Parcel Numbers:**

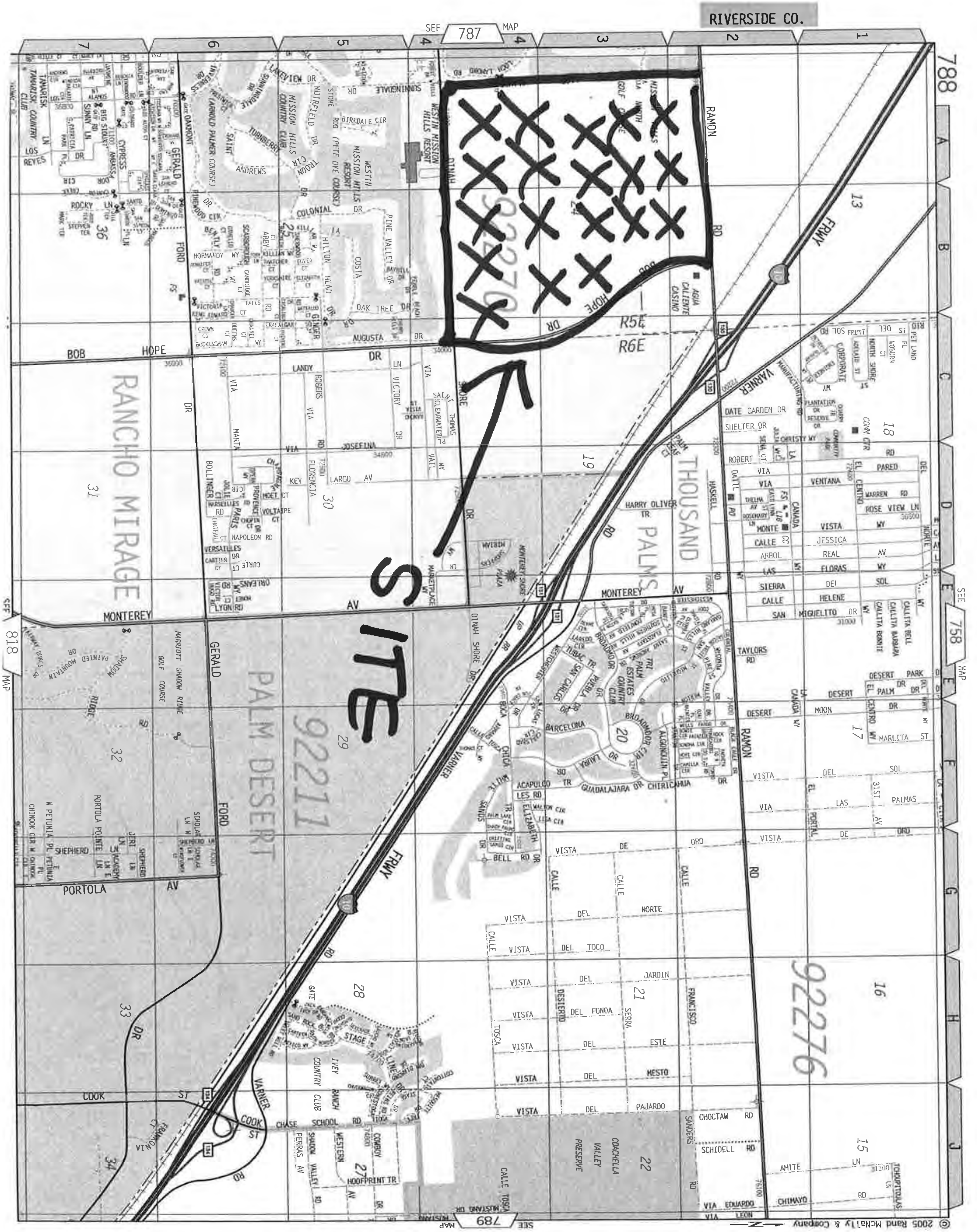
673-120-021
673-120-022
673-120-023
673-120-024
673-120-025

We are requesting information concerning hazardous waste/materials, above and below ground storage tanks, leaking underground storage tanks, hazardous waste cleanups, inspections, violations, or any other environmental sensitive spills, responses or concerns. Thank you for your assistance.

Sincerely,

LEIGHTON AND ASSOCIATES, INC.

Kristin Stout
Senior Project Scientist
951.252.8927
kstout@leightongroup.com


RIVERSIDE CO.
788
SEE 787 MAP
SEE 758 MAP
SEE 818 MAP
SEE 789 MAP
SITE
RANCHO MIRAGE
PALM DESERT
THOUSAND PALMS
92270
92211
92276
BOB HOPE DR
MONTEREY AV
RAMON RD
DINAH SHORE DR
GERALD FORD DR
COOK ST
PORTOLA AV
VARNER RD
FRWY
COACHELLA VALLEY PRESERVE
MISSION HILLS COUNTRY CLUB
WESTIN MISSION HILLS RESORT
AGUA CALIENTE CASINO
MARRIOTT SHADOW RIDGE GOLF COURSE
PALM DESERT COUNTRY CLUB
R5E
R6E
© 2005 Rand McNally & Company

****
*** ACTIVITY REPORT ***
****

ST. TIME	DESTINATION TEL/ID	NO.	MODE	PGS.	RESULT
*01/30 14:01	917144845318	0381	TRANSMIT ECM	1	OK 00'16
*01/30 14:02	913233426111	0382	TRANSMIT ECM	1	OK 00'45
*01/30 14:03	913237280217	0383	TRANSMIT ECM	1	OK 00'15
*01/30 14:04	916264583569	0384	TRANSMIT ECM	1	OK 00'17
*01/30 14:22	912134826862	0385	TRANSMIT ECM	2	OK 00'28
*01/30 14:24	912134826529	0386	TRANSMIT ECM	10	OK 01'05
*01/30 14:32	912139783615	0387	TRANSMIT ECM	10	OK 01'04
01/31 09:09	626 458 3569	5985	AUTO RX ECM	1	OK 00'19
02/01 04:25		5986	AUTO RX ECM	1	OK 00'24
02/01 11:28		5987	AUTO RX ECM	1	OK 00'20
02/01 16:12		5988	AUTO RX ECM	1	OK 00'23
02/01 17:56		5989	AUTO RX G3	1	OK 00'54
02/04 11:15	00000000	5990	AUTO RX ECM	2	OK 00'25
02/06 10:55		5991	AUTO RX ECM	1	OK 00'25
02/07 09:33	8380 3	5992	AUTO RX G3	1	OK 01'36
02/07 10:04		5993	AUTO RX G3	1	OK 00'59
02/07 10:28	888 261 0363	5994	AUTO RX ECM	1	OK 00'24
02/07 14:26	93585342	0388	TRANSMIT ECM	3	OK 00'45
02/07 14:31	917144845318	0389	TRANSMIT ECM	2	OK 00'35
02/07 14:32	918187176526	0390	TRANSMIT ECM	2	OK 01'41

Kristin Stout

From: Wells, Soni@Waterboards <Soni.Wells@waterboards.ca.gov>
Sent: Thursday, February 07, 2013 2:00 PM
To: Kristin Stout
Subject: RE: Records Request

Dear Kristin,

Unfortunately we are unable to search our files by PRN. I need a physical address. You can contact me directly for any file review request you may have if you wish.

Thank you,
Soni Wells
Associate Governmental Program Analyst
CRWQCB-7
73-720 Fred Waring Drive
Suite 100
Palm Desert, CA 92260
(760) 346-7491

From: Kristin Stout [mailto:kstout@leightongroup.com]
Sent: Thursday, February 07, 2013 1:53 PM
To: WB-RB7-PRA
Subject: Records Request

Leighton and Associates, Inc. is requesting information for the property located **southwest of Ramon Road and Bob Hope Drive, in the area of Rancho Mirage, Unincorporated** Riverside County, California. The subject site is identified by the following **Assessor Parcel Numbers:**

673-120-021
673-120-022
673-120-023
673-120-024
673-120-025

We are requesting information concerning hazardous waste/materials, above and below ground storage tanks, leaking underground storage tanks, hazardous waste cleanups, inspections, violations, or any other environmental sensitive spills, responses or concerns. Thank you for your assistance.

Kristin Stout
Sr. Project Scientist
41715 Enterprise Circle Road, Suite 103
Temecula, California 92590
951.252.8927 Direct
951.795.2627 Cell
951.296.0530 Main
Leighton

Solutions You Can Build On

Matthew Rodriquez
Secretary for
Environmental Protection

Department of Toxic Substances Control

Deborah O. Raphael, Director
5796 Corporate Ave
Cypress, California 90630

Edmund G. Brown Jr.
Governor

February 7, 2013

Mrs. Kristin Stout
Leighton & Associates, Inc.
41715 Enterprise Circle N., Suite 103
Temecula, California 92590

PR40207136

Dear Mrs. Stout:

We have received your Public Records Act Request for records from the Department of Toxic Substances Control. After a thorough review of our files we have found that, **no such records** exist at this office pertaining to the sites/facility referenced.

Southwest of Ramon Rd & Bob Hope Drive, 5 various APN #'S all in Rancho Mirage

If you have any questions, would like further information regarding your request, please contact our Regional Records Coordinator at (714) 484-5336.

We would like to inform you about Envirostor, a database that provides information and documents on over 5,000 DTSC cleanup sites. Envirostor can be accessed at: http://www.envirostor.dtsc.ca.gov/public. Also, a computer is available in the Central Files of each DTSC Regional Office for use by community members to view Envirostor.

Sincerely,

Jone Barrio
Regional Records Coordinator
Cypress Administrative Services
Department of Toxic Substances Control

Department of Toxic Substances Control

Deborah O. Raphael, Director
9211 Oakdale Avenue
Chatsworth, California 91311

Matthew Rodriquez
Secretary for
Environmental Protection

Edmund G. Brown Jr.
Governor

February 12, 2013

Ms. Kristin Stout
Leighton and Associates, Inc.
41715 Enterprise Circle N., Suite 103
Temecula, CA 92590-5661

VARIOUS SITES
PR #30208133

Dear Ms. Stout:

We have received your Public Records Act Request for records from the Department of Toxic Substances Control.

After a thorough review of our files we have found that no such records exist at this office pertaining to the sites/facilities referenced below.

- APNs: 673-120-021, 673-120-022, 673-120-023, 673-120-024, and 673-120-025

We would like to inform you about Envirostor, a database that provides information and documents on over 5,000 DTSC cleanup sites. EnviroStor can be accessed at: http://www.envirostor.dtsc.ca.gov/public. Also, a computer is available in the Central Files of each DTSC Regional Office for use by community members to view EnviroStor.

If you have any questions or would like further information regarding your request, please contact me at (818) 717-6522.

Sincerely,

Glenn Castillo/cs
Regional Records Coordinator

APPENDIX G

RAMON RD
RAMON RD
Rancho Mirage, CA 92270

Inquiry Number: 3519566.1
February 14, 2013

The EDR Aerial Photo Decade Package

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

When delivered electronically by EDR, the aerial photo images included with this report are for ONE TIME USE ONLY. Further reproduction of these aerial photo images is prohibited without permission from EDR. For more information contact your EDR Account Executive.

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

Date EDR Searched Historical Sources:

Aerial Photography February 14, 2013

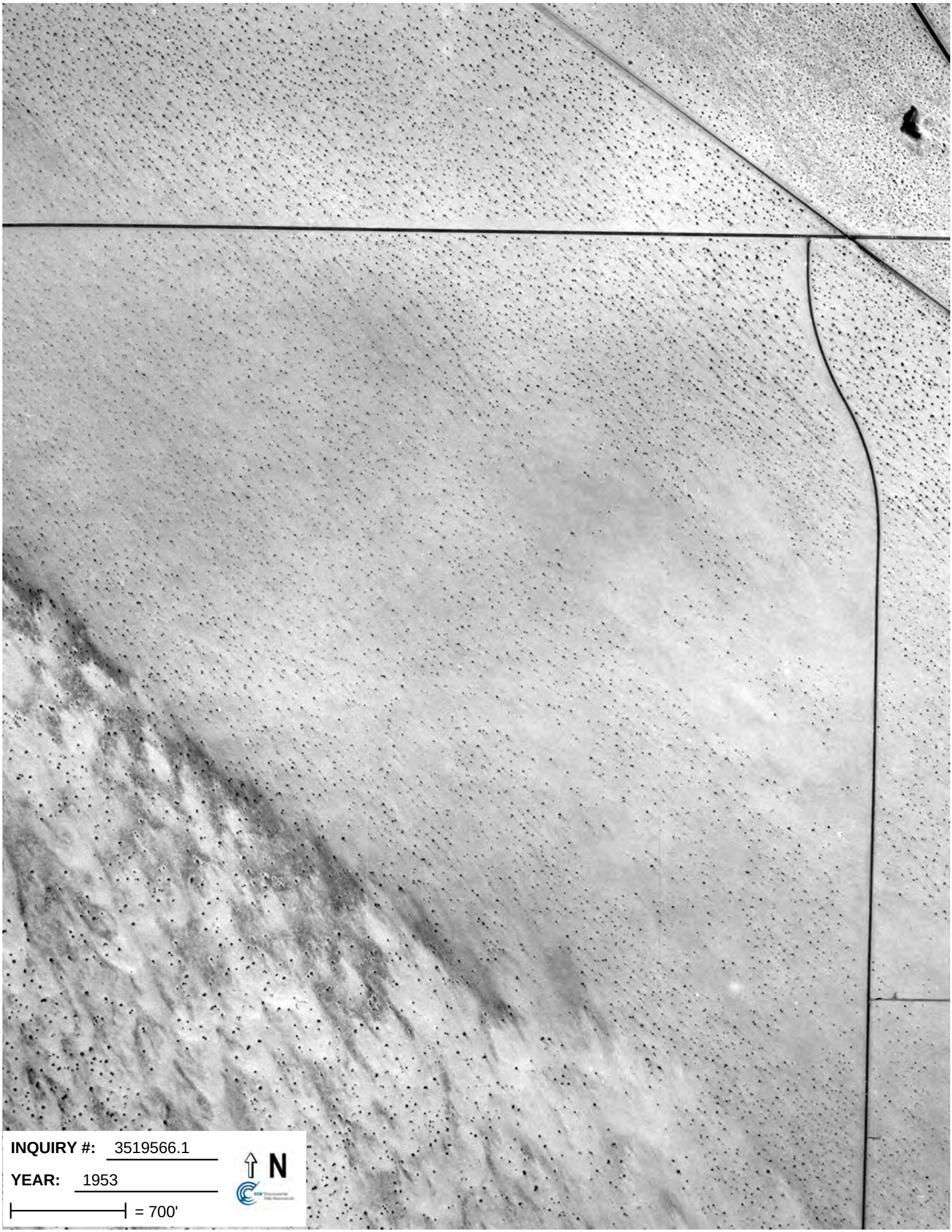
Target Property:

RAMON RD

Rancho Mirage, CA 92270

Year	***Scale***	***Details***	***Source***
1953	Aerial Photograph. Scale: 1"=700'	Flight Year: 1953	Pacific Air
1969	Aerial Photograph. Scale: 1"=700'	Flight Year: 1969	USGS
1978	Aerial Photograph. Scale: 1"=700'	Flight Year: 1978	AMI
1984	Aerial Photograph. Scale: 1"=700'	Flight Year: 1984	USGS
1989	Aerial Photograph. Scale: 1"=700'	Flight Year: 1989	USGS
2002	Aerial Photograph. Scale: 1"=500'	/DOQQ - acquisition dates: 2002	EDR
2002	Aerial Photograph. Scale: 1"=500'	/DOQQ - acquisition dates: 2002	EDR
2002	Aerial Photograph. Scale: 1"=500'	/DOQQ - acquisition dates: 2002	EDR
2002	Aerial Photograph. Scale: 1"=500'	/DOQQ - acquisition dates: 2002	EDR
2005	Aerial Photograph. Scale: 1"=500'	Flight Year: 2005	EDR
2005	Aerial Photograph. Scale: 1"=500'	Flight Year: 2005	EDR
2005	Aerial Photograph. Scale: 1"=500'	Flight Year: 2005	EDR
2005	Aerial Photograph. Scale: 1"=500'	Flight Year: 2005	EDR
2009	Aerial Photograph. Scale: 1"=500'	Flight Year: 2009	EDR
2009	Aerial Photograph. Scale: 1"=500'	Flight Year: 2009	EDR
2009	Aerial Photograph. Scale: 1"=500'	Flight Year: 2009	EDR
2009	Aerial Photograph. Scale: 1"=500'	Flight Year: 2009	EDR
2010	Aerial Photograph. Scale: 1"=500'	Flight Year: 2010	EDR
2010	Aerial Photograph. Scale: 1"=500'	Flight Year: 2010	EDR

Year	*Scale*	*Details*	*Source*
2010	Aerial Photograph. Scale: 1"=500'	Flight Year: 2010	EDR
2010	Aerial Photograph. Scale: 1"=500'	Flight Year: 2010	EDR



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YEAR: 1953

= 700'

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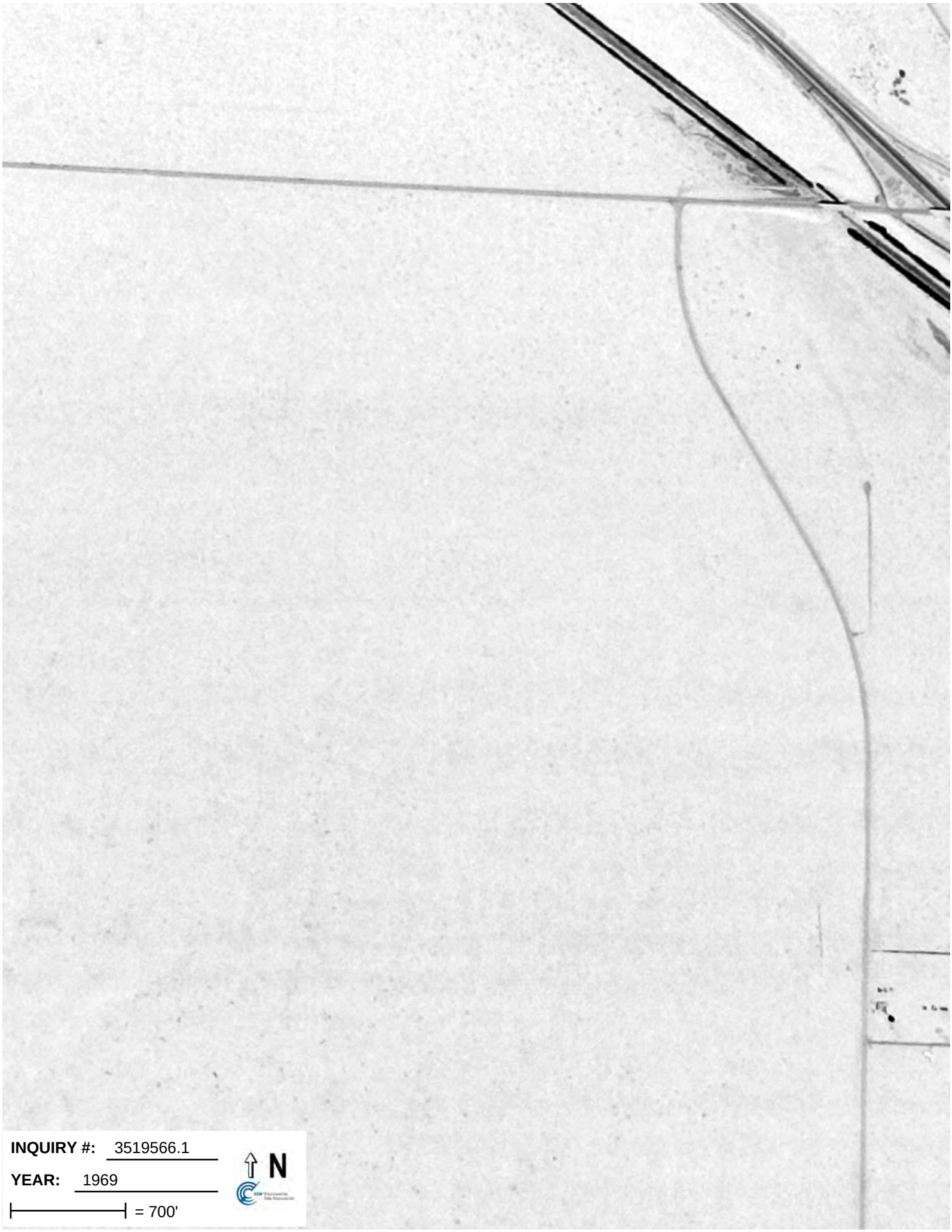

INQUIRY #: 3519566.1

YEAR: 1969

= 700'

N


INQUIRY #: 3519566.1
YEAR: 1978
= 700'
N


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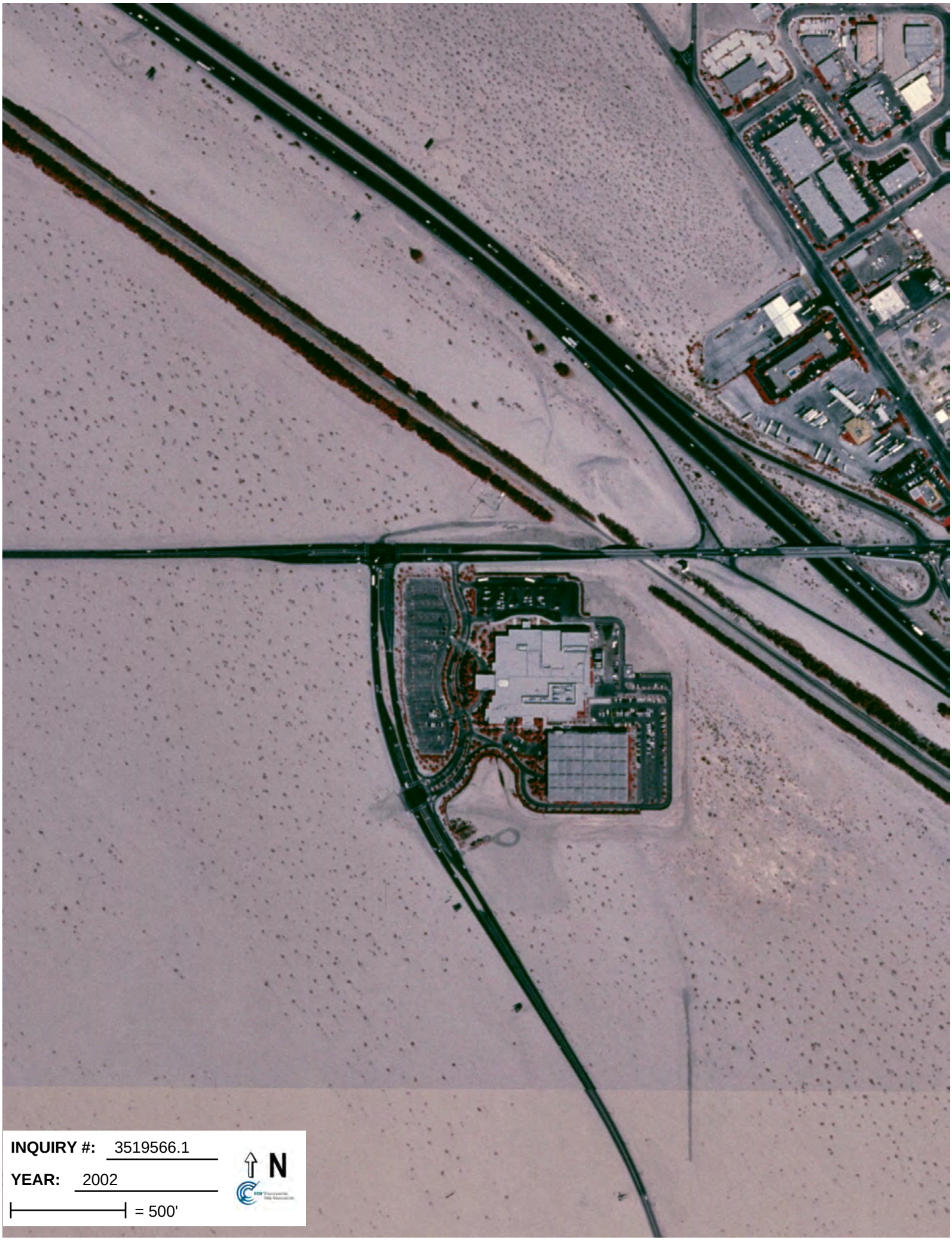
YEAR: 1984
= 700'
N

INQUIRY #: 3519566.1

YEAR: 1989

= 700'

N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YEAR: 2002
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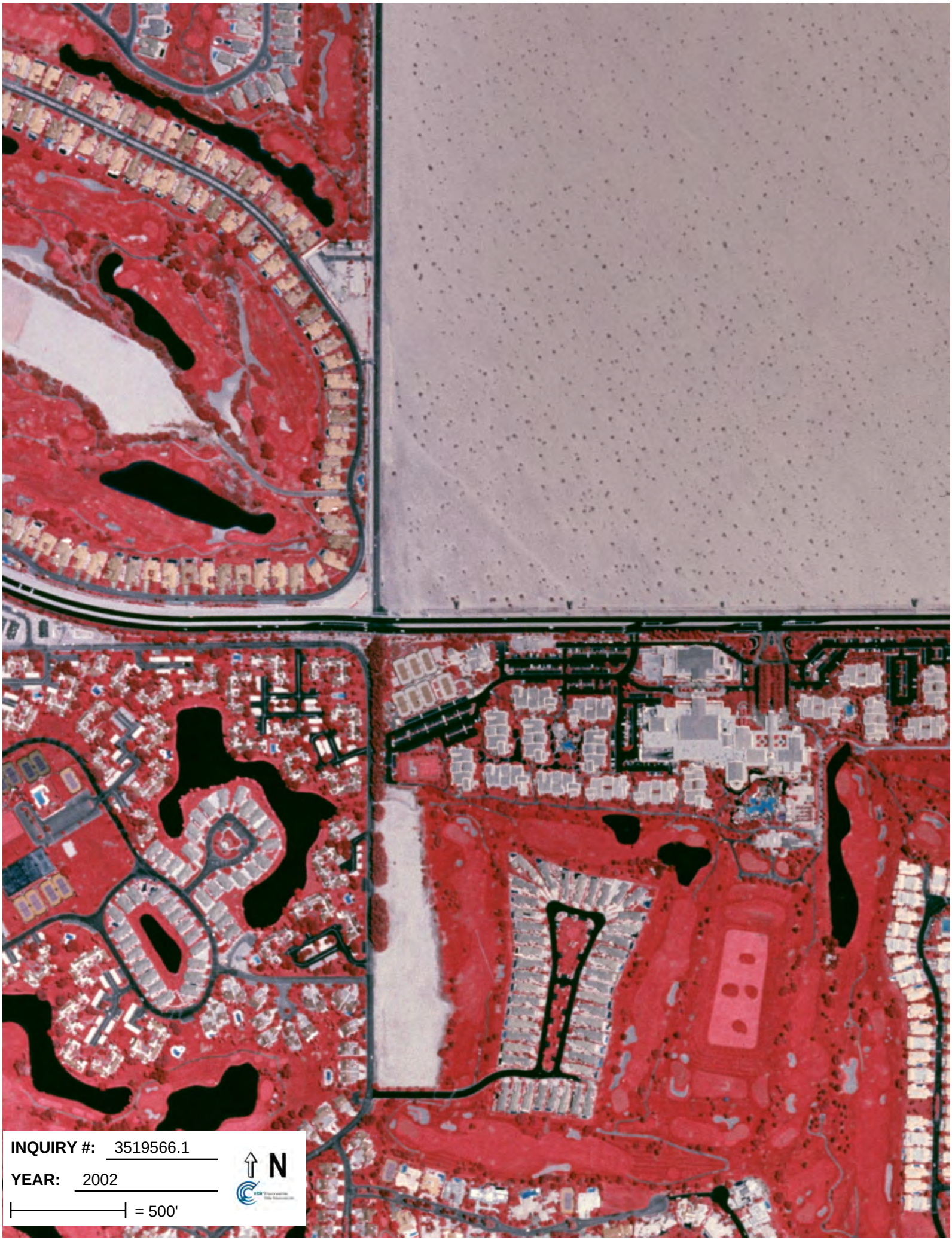
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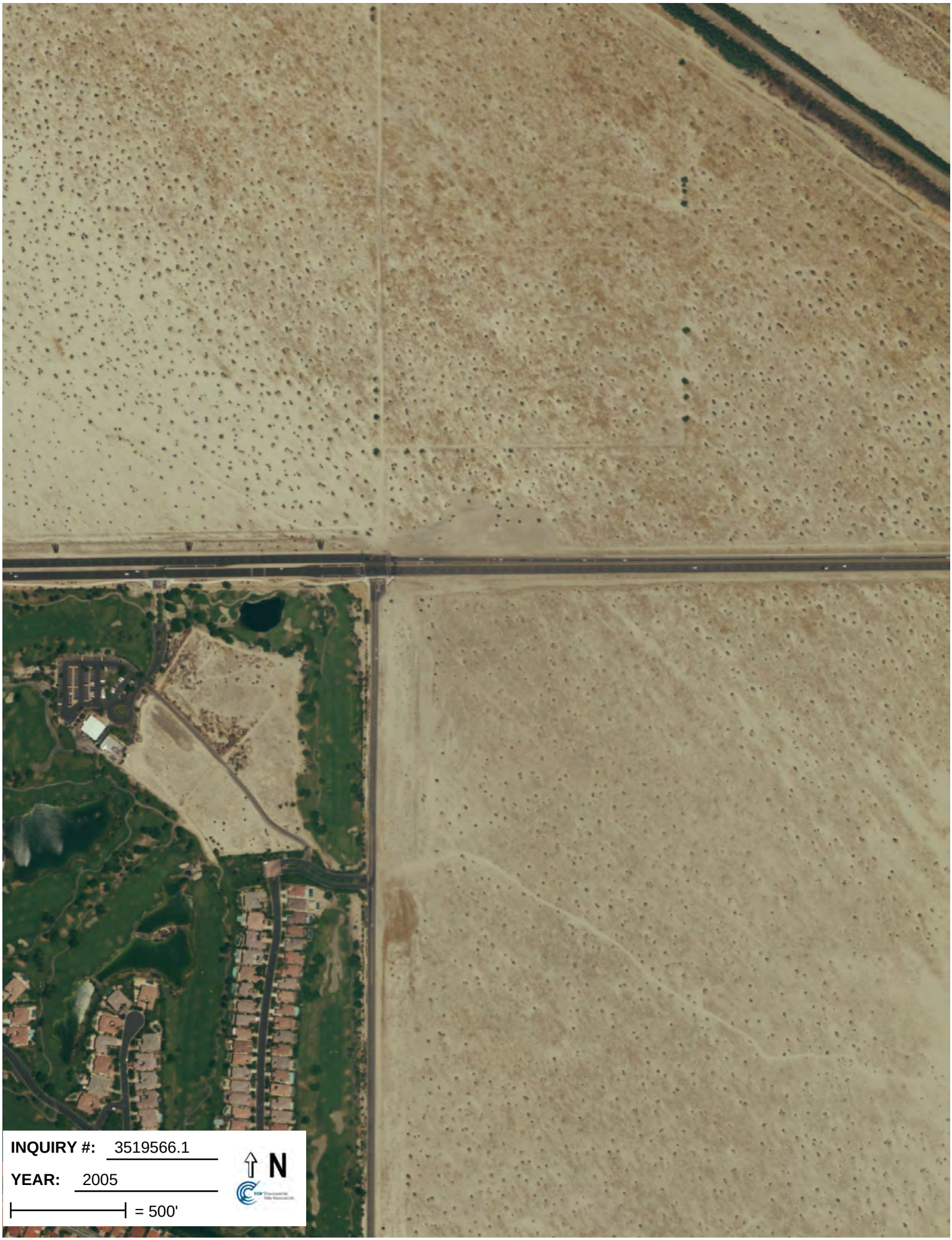
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INQUIRY #: 3519566.1
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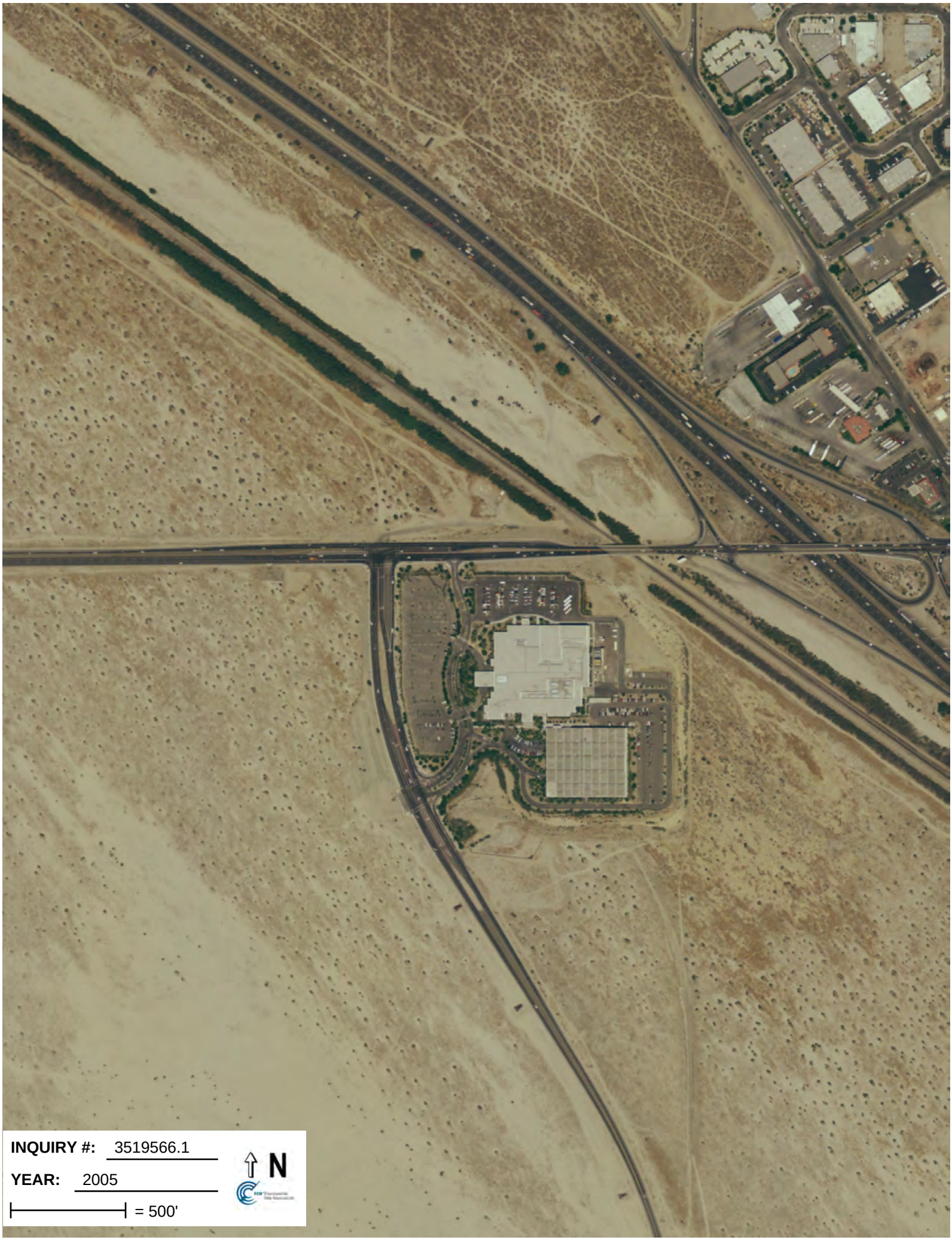
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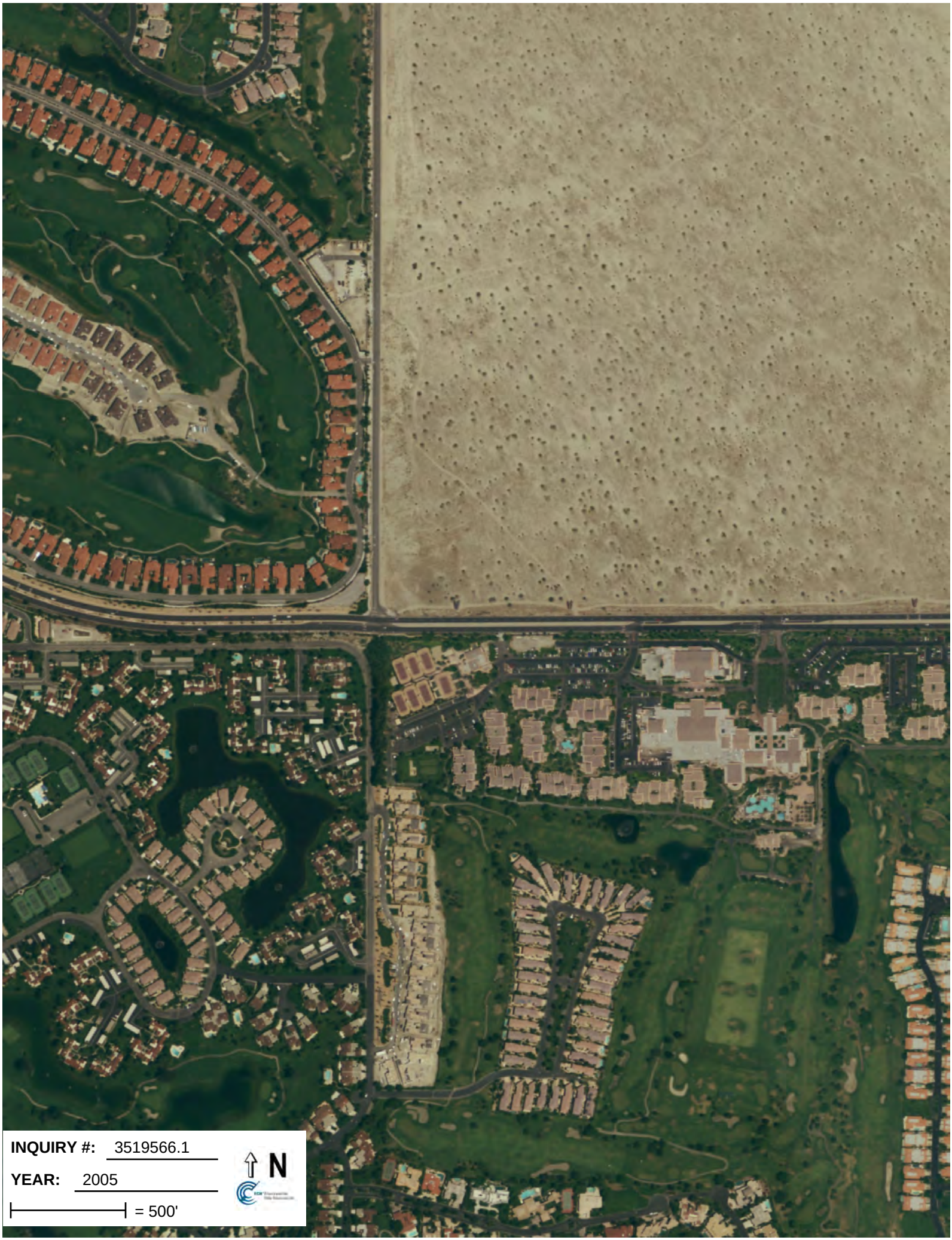
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YEAR: 2009
= 500'
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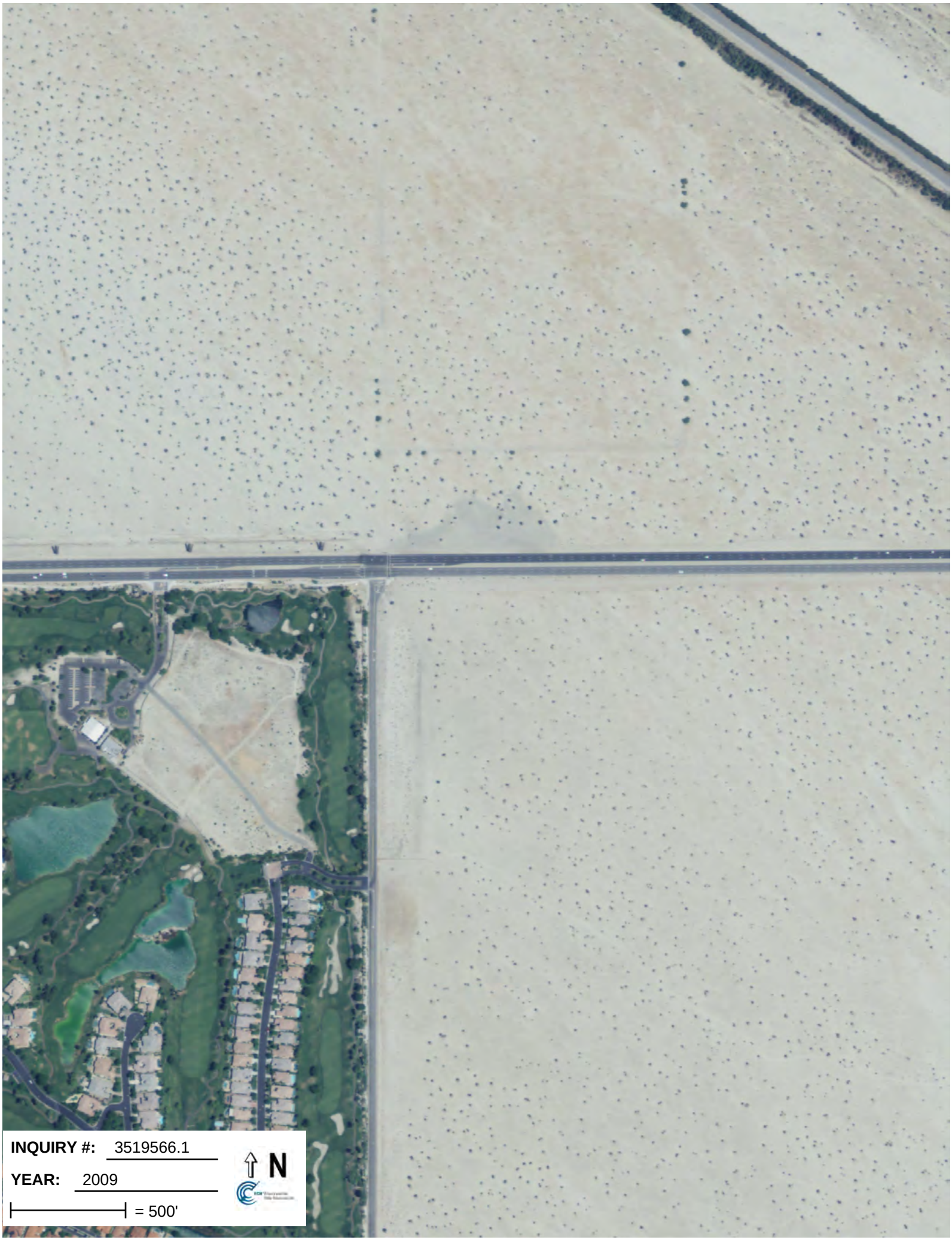
INQUIRY #: 3519566.1
YEAR: 2009
= 500'
N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YEAR: 2009
= 500'
N


INQUIRY #: 3519566.1
YEAR: 2009
= 500'
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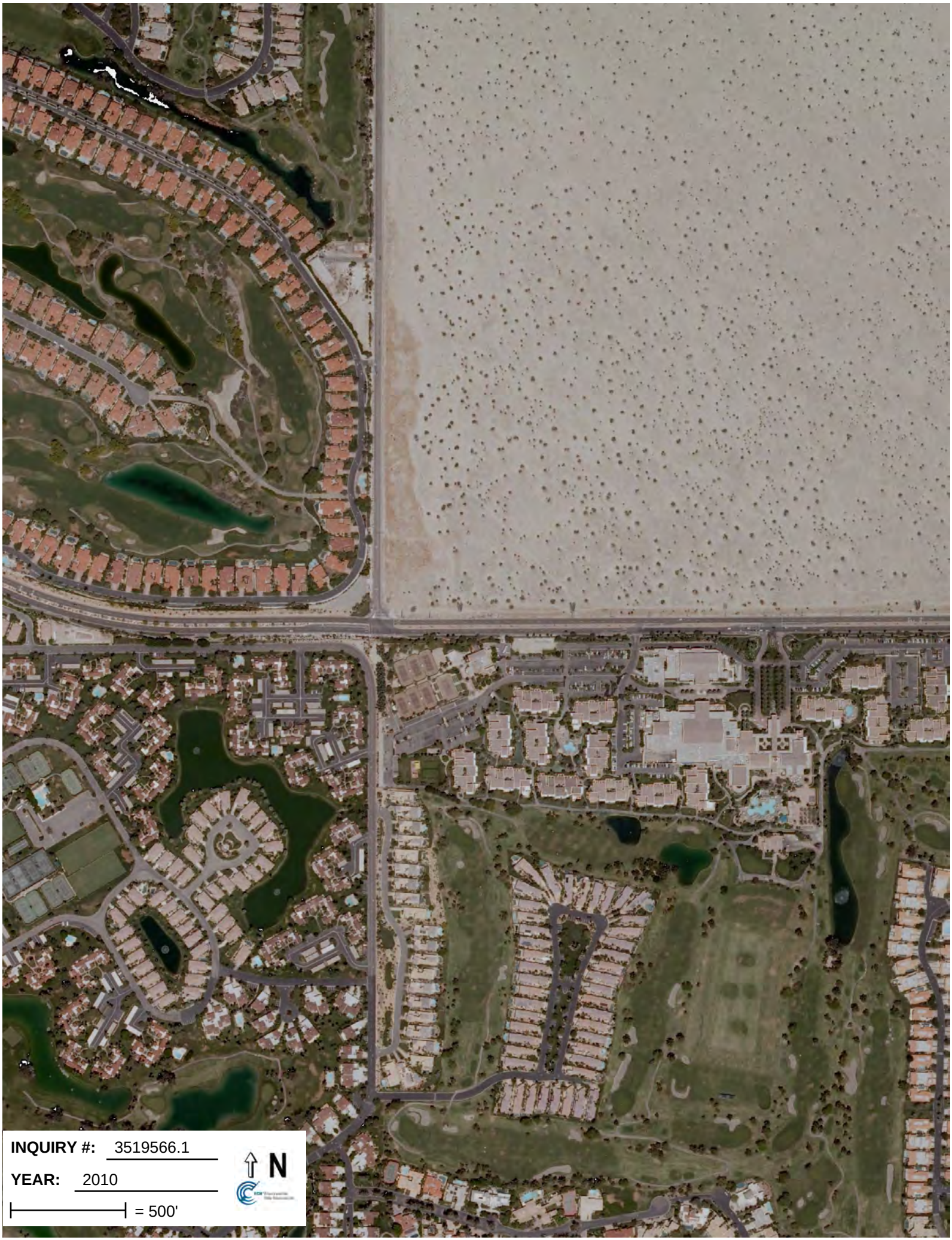
INQUIRY #: 3519566.1
YEAR: 2010
= 500'
N

INQUIRY #: 3519566.1

YEAR: 2010

= 500'

N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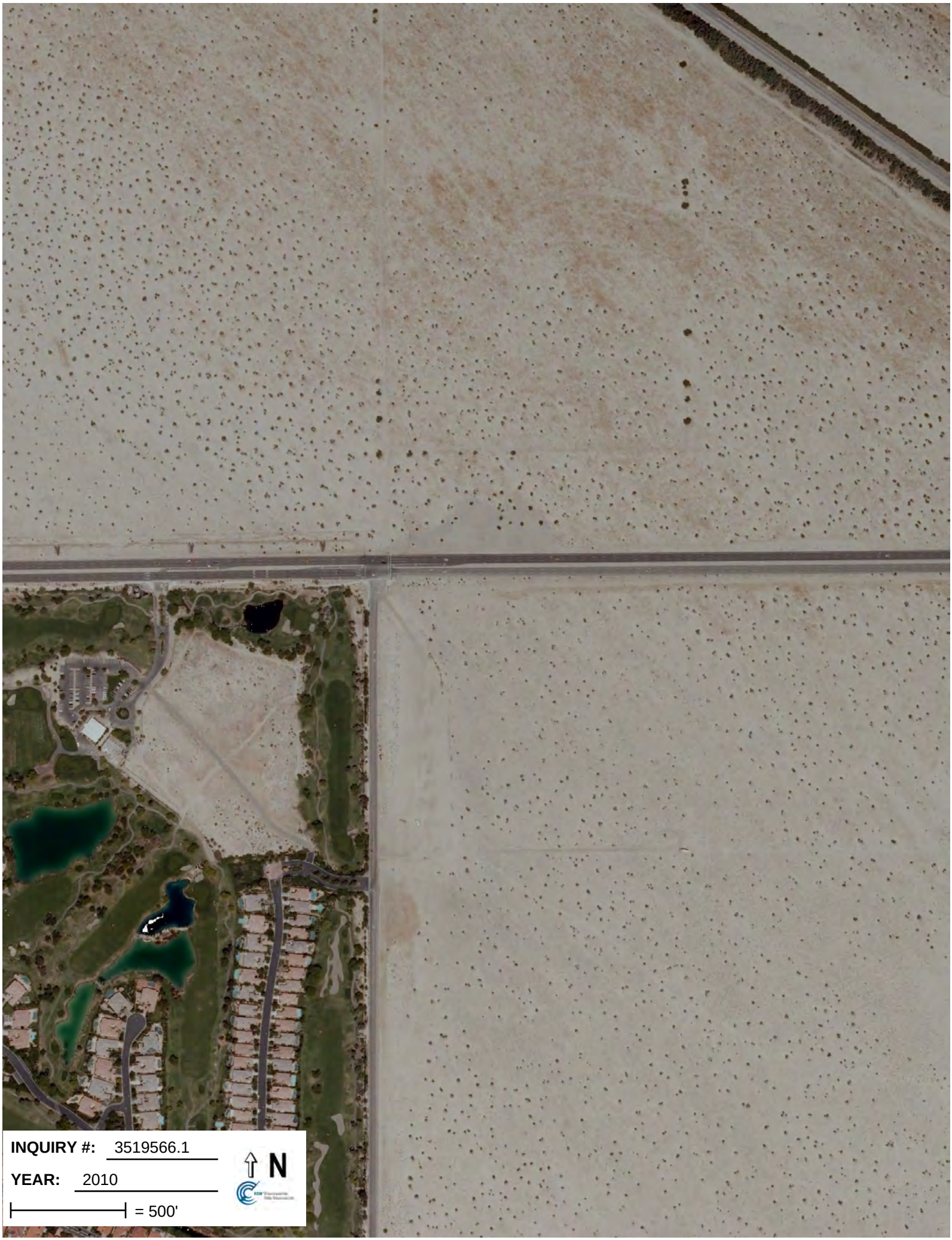
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YEAR: 2010
= 500'
N

RAMON RD
RAMON RD
Rancho Mirage, CA 92270

Inquiry Number: 3514709.4
February 08, 2013

EDR Historical Topographic Map Report

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

EDR Historical Topographic Map Report

Environmental Data Resources, Inc.s (EDR) Historical Topographic Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topographic Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the early 1900s.

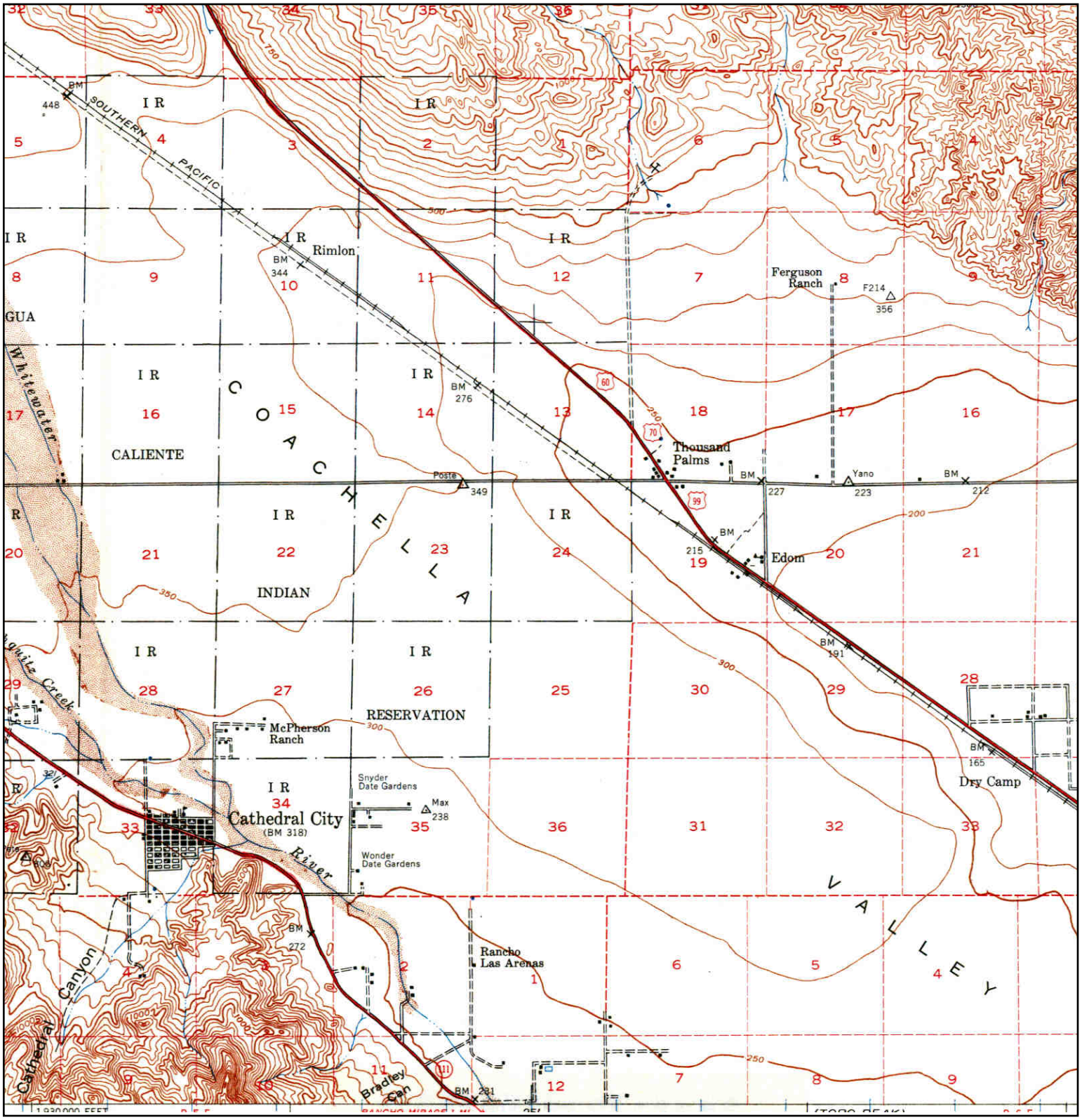
Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

Historical Topographic Map

Unsurveyed Area on the Topographic Map

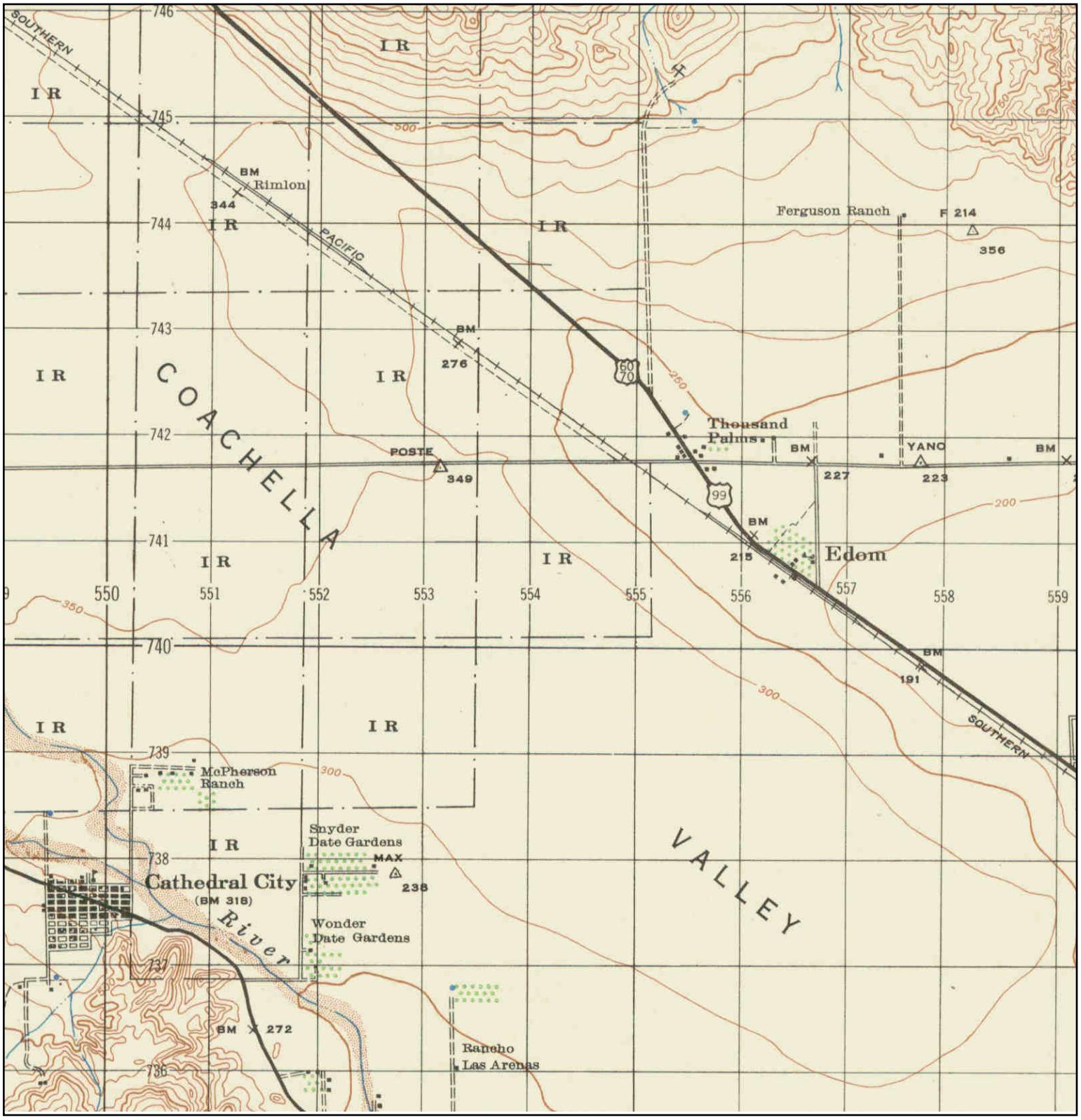
N	TARGET QUAD NAME: INDIO MAP YEAR: 1904 SERIES: 30 SCALE: 1:125000	SITE NAME: RAMON RD ADDRESS: RAMON RD Rancho Mirage, CA 92270 LAT/LONG: 33.8082 / -116.4155	CLIENT: Leighton & Associates, Inc. CONTACT: Kristin Stout INQUIRY#: 3514709.4 RESEARCH DATE: 02/08/2013

Historical Topographic Map



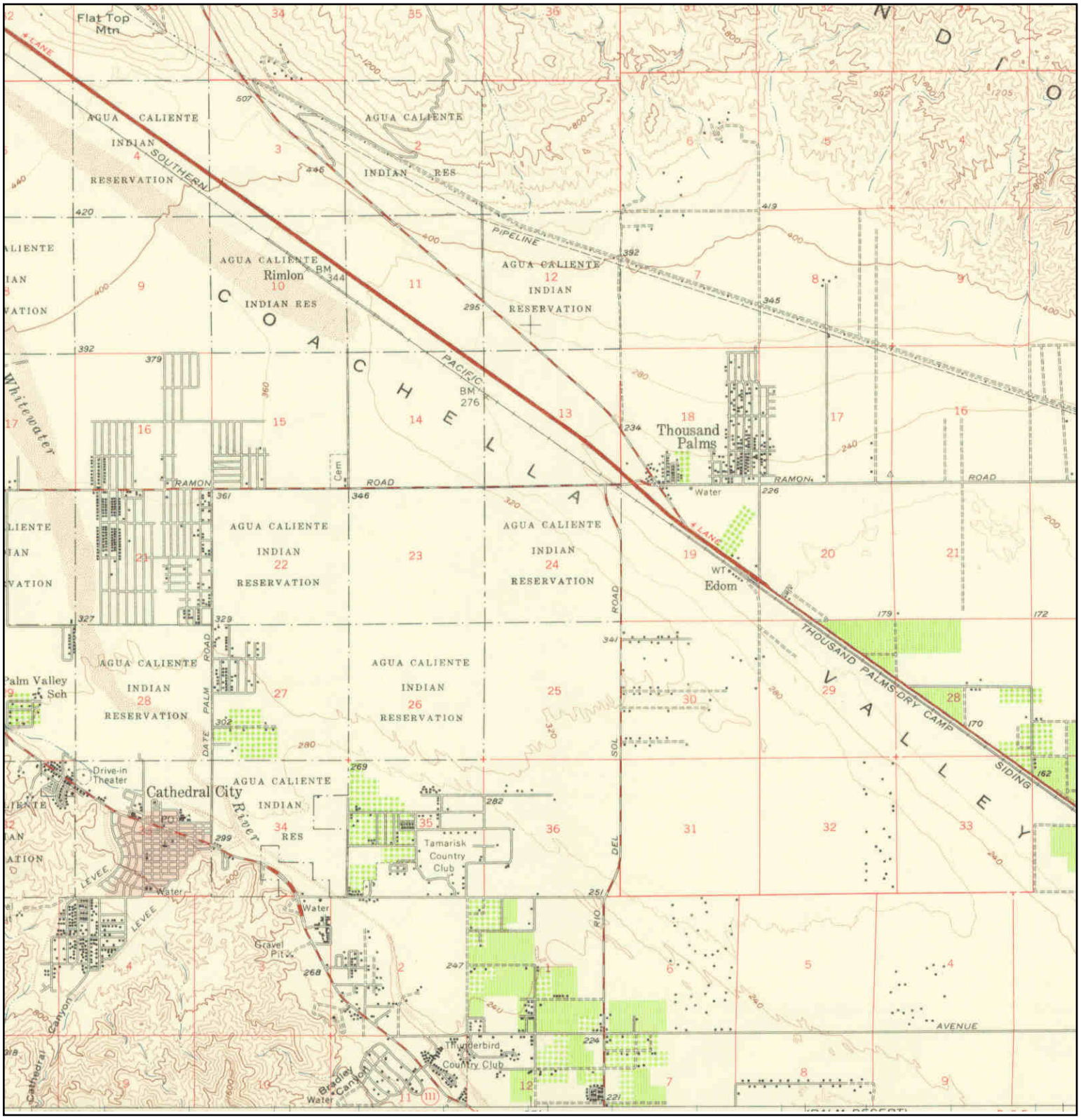
N	TARGET QUAD NAME: EDOM MAP YEAR: 1941 SERIES: 15 SCALE: 1:62500	SITE NAME: RAMON RD ADDRESS: RAMON RD Rancho Mirage, CA 92270 LAT/LONG: 33.8082 / -116.4155	CLIENT: Leighton & Associates, Inc. CONTACT: Kristin Stout INQUIRY#: 3514709.4 RESEARCH DATE: 02/08/2013

Historical Topographic Map



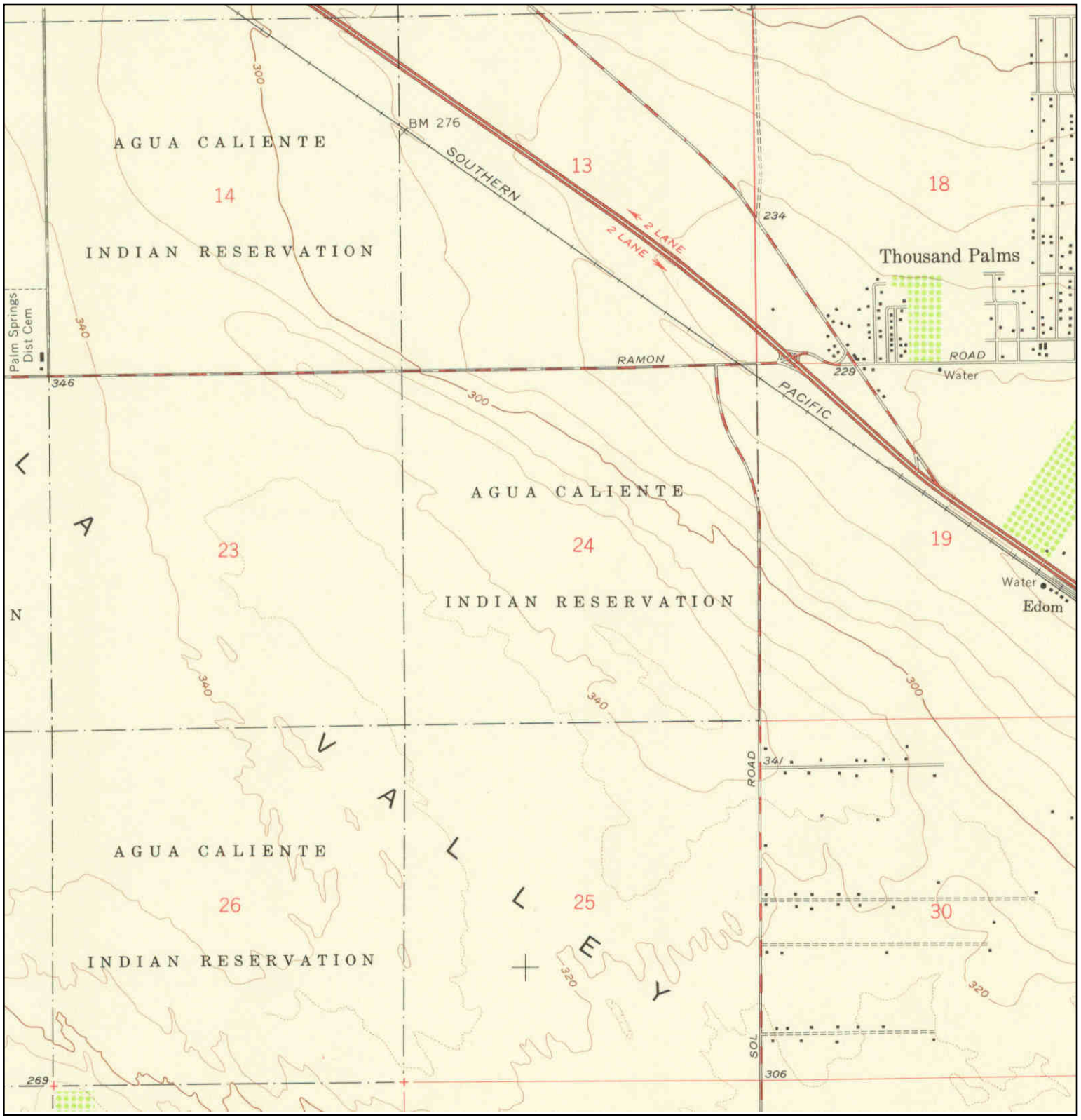
N	TARGET QUAD NAME: THOUSAND PALMS MAP YEAR: 1947 SERIES: 15 SCALE: 1:50000	SITE NAME: RAMON RD ADDRESS: RAMON RD Rancho Mirage, CA 92270 LAT/LONG: 33.8082 / -116.4155	CLIENT: Leighton & Associates, Inc. CONTACT: Kristin Stout INQUIRY#: 3514709.4 RESEARCH DATE: 02/08/2013

Historical Topographic Map



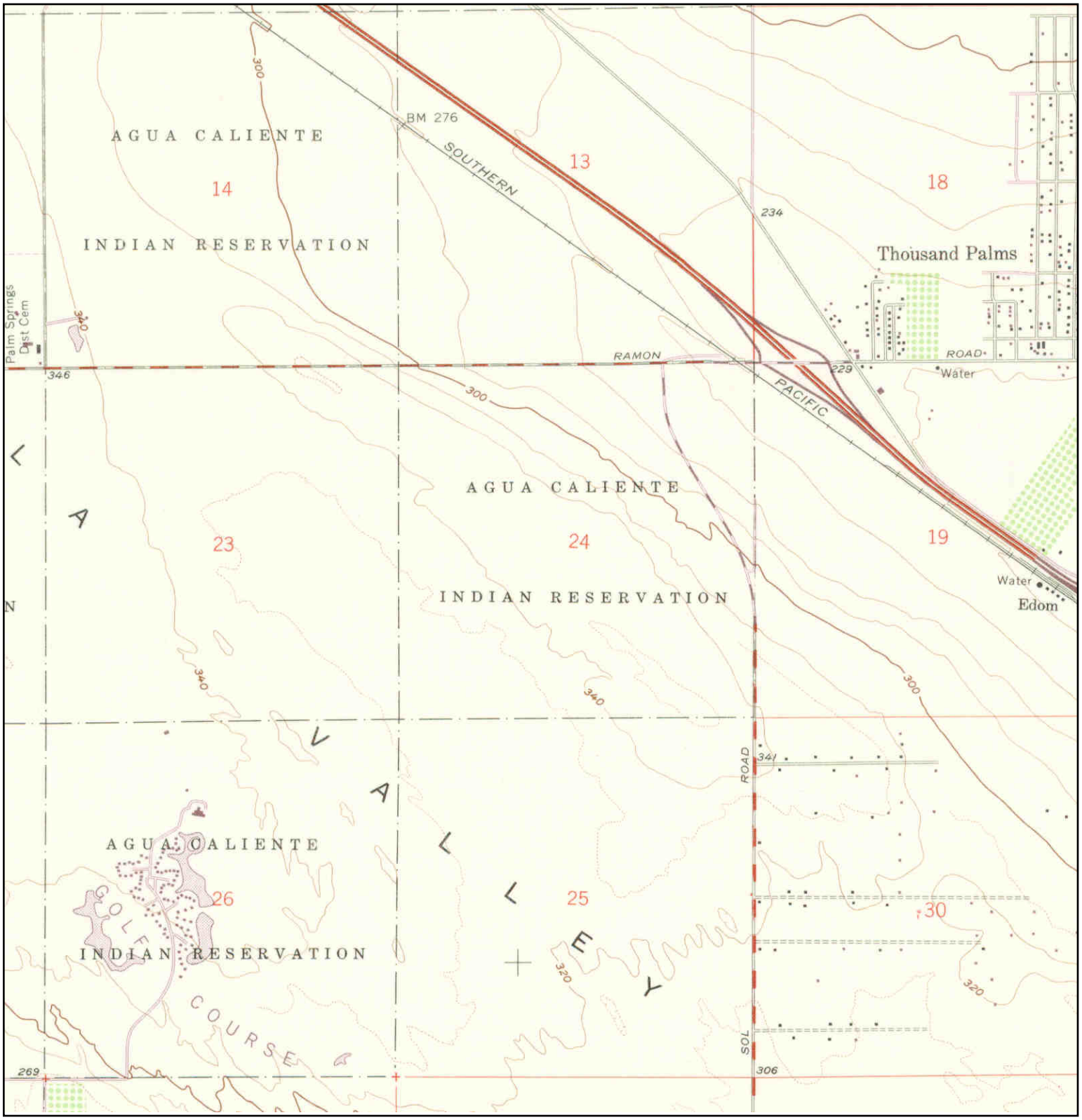
N	TARGET QUAD NAME: THOUSAND PALMS MAP YEAR: 1958 SERIES: 15 SCALE: 1:62500	SITE NAME: RAMON RD ADDRESS: RAMON RD Rancho Mirage, CA 92270 LAT/LONG: 33.8082 / -116.4155	CLIENT: Leighton & Associates, Inc. CONTACT: Kristin Stout INQUIRY#: 3514709.4 RESEARCH DATE: 02/08/2013

Historical Topographic Map



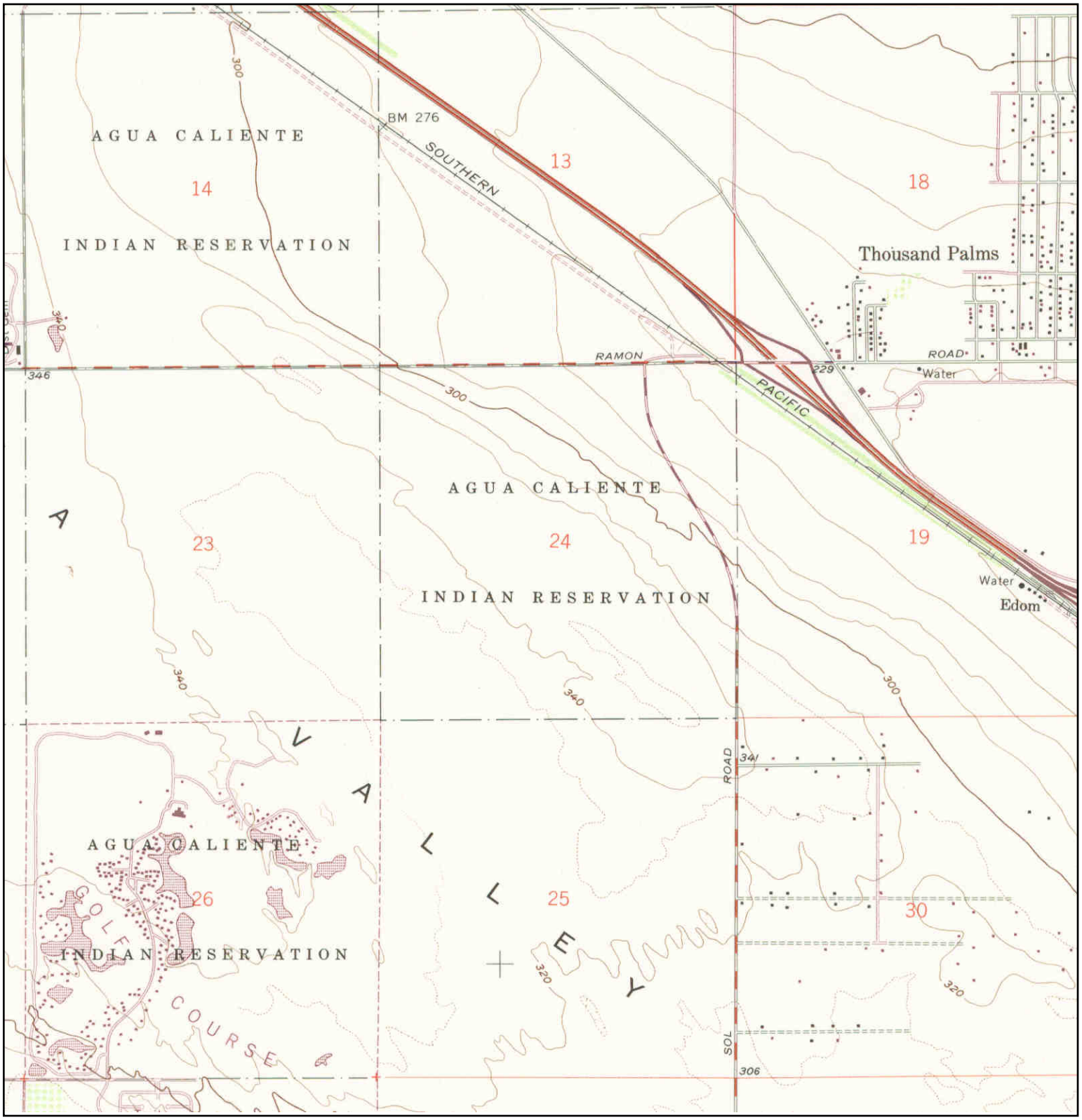
N	TARGET QUAD NAME: CATHEDRAL CITY MAP YEAR: 1958 SERIES: 7.5 SCALE: 1:24000	SITE NAME: RAMON RD ADDRESS: RAMON RD Rancho Mirage, CA 92270 LAT/LONG: 33.8082 / -116.4155	CLIENT: Leighton & Associates, Inc. CONTACT: Kristin Stout INQUIRY#: 3514709.4 RESEARCH DATE: 02/08/2013

Historical Topographic Map



N	TARGET QUAD NAME: CATHEDRAL CITY MAP YEAR: 1972 PHOTOREVISED FROM :1958 SERIES: 7.5 SCALE: 1:24000	SITE NAME: RAMON RD ADDRESS: RAMON RD Rancho Mirage, CA 92270 LAT/LONG: 33.8082 / -116.4155	CLIENT: Leighton & Associates, Inc. CONTACT: Kristin Stout INQUIRY#: 3514709.4 RESEARCH DATE: 02/08/2013

Historical Topographic Map



N	TARGET QUAD NAME: CATHEDRAL CITY MAP YEAR: 1981 PHOTOREVISED FROM :1958 SERIES: 7.5 SCALE: 1:24000	SITE NAME: RAMON RD ADDRESS: RAMON RD Rancho Mirage, CA 92270 LAT/LONG: 33.8082 / -116.4155	CLIENT: Leighton & Associates, Inc. CONTACT: Kristin Stout INQUIRY#: 3514709.4 RESEARCH DATE: 02/08/2013

RAMON RD
RAMON RD
Rancho Mirage, CA 92270

Inquiry Number: 3514709.8
February 13, 2013

The EDR-City Directory Image Report

Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available city directory data at 5 year intervals.

RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

Year	*Target Street*	*Cross Street*	*Source*
2010	☑	☑	Haines Criss-Cross Directory
2005	☑	☑	Haines Criss-Cross Directory
2000	☑	☐	Haines Criss-Cross Directory
1995	☑	☐	Haines Criss-Cross Directory
1990	☐	☐	Haines Criss-Cross Directory
1985	☐	☐	Haines Criss-Cross Directory
1980	☐	☐	Haines Criss-Cross Directory
1975	☐	☐	Haines Criss-Cross Directory

RECORD SOURCES

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FINDINGS

TARGET PROPERTY STREET

RAMON RD
Rancho Mirage, CA 92270

Year	*CD Image*	*Source*	
RAMON RD			
2010	pg A1	Haines Criss-Cross Directory	
2005	pg A2	Haines Criss-Cross Directory	
2000	pg A3	Haines Criss-Cross Directory	
1995	pg A4	Haines Criss-Cross Directory	
1990	-	Haines Criss-Cross Directory	Street not listed in Source
1985	-	Haines Criss-Cross Directory	Street not listed in Source
1980	-	Haines Criss-Cross Directory	Street not listed in Source
1975	-	Haines Criss-Cross Directory	Street not listed in Source

FINDINGS

CROSS STREETS

Year	*CD Image*	*Source*	
Bob Hope Dr			
2010	pg. A5	Haines Criss-Cross Directory	
2005	pg. A6	Haines Criss-Cross Directory	
2005	pg. A7	Haines Criss-Cross Directory	
2000	-	Haines Criss-Cross Directory	Target and Adjoining not listed in Source
1995	-	Haines Criss-Cross Directory	Target and Adjoining not listed in Source
1990	-	Haines Criss-Cross Directory	Target and Adjoining not listed in Source
1985	-	Haines Criss-Cross Directory	Target and Adjoining not listed in Source
1980	-	Haines Criss-Cross Directory	Target and Adjoining not listed in Source
1975	-	Haines Criss-Cross Directory	Target and Adjoining not listed in Source

City Directory Images

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

RAMON RD 2010

★ 219 BUS 294 RES 36 NEW

RAMON RD 92270
RANCHO MIRAGE

70251 ★ BRAILLE INST INC 760-321-1111
70705 ★ WESTIN MSN HLLS 760-770-9496
RSRT&GLF CLB

X BOB HOPE DR

★ 2 BUS 0 RES 0 NEW

RAMON RD 92276
THOUSAND PALMS

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

RAMON RD 2005

★217 BUS 681 RES 152 NEW

RAMON RD 92270
RANCHO MIRAGE

70251 ★ BRAILLE INST INC 760-321-1111
70705 ★ WESTIN MSSN HLLS 760-770-9496 0
RSRT&GLF CLB

★ 2 BUS 0 RES 0 NEW

RAMON RD 92276
THOUSAND PALMS

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

RAMON RD 2000

* 220 BUS 869 RES 162 NEW

RAMON RD (91) 92270
RANCHO MIRAGE

70251	* BRAILLE INST INC	760-321-1111	5
70705	* WESTIN MSSN HLLS RSRT&GLF CLB	760-770-9496	+0

* 2 BUS 0 RES 1 NEW

RAMON RD 92276
THOUSAND PALMS

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

RAMON RD 1995

* 222 BUS 806 RES 179 NEW

RAMON RD (91) 92270
RANCHO MIRAGE

70251	*BRAILLE INST INC	321-1111	+5
70705	*MISSION HLS GOLF	770-9496	3
	*WESTIN MSN HLS RSRT	770-9496	3

* 3 BUS 0 RES 1 NEW

RAMON RD 92276
THOUSAND PALMS

Target Street	Cross Street	Source
-	✓	Haines Criss-Cross Directory

Bob Hope Dr 2010

BOB HOPE DR 92270
RANCHO MIRAGE

WEALTH CODE 7 2

311 ♣ ●ROZAS Santiago OO 2

X RAMON RD

32250 ★ PRIME 10 STEAKHOUSE 760-202-6063 2
★ SAMMY'S WOODFIRED PIZZA 760-202-6068 5
★ SYSTEM ELECTRIC 760-773-4736 7

X DINAH SHORE DR

34044 ● PLONSKI Samuel OO
★ SAM'S CYCLE SERVICE 760-343-3131 2
34200 ★ MAINIERO SMITH & ASSOCTS INC 760-320-9811 5
34500 ★ VICTORY CHRSTN CT SANCTUARY SC 760-324-3100
34530 ★ YI KLAUS DDS 760-324-2939 8

Target Street	Cross Street	Source
-	✓	Haines Criss-Cross Directory

Bob Hope Dr 2005

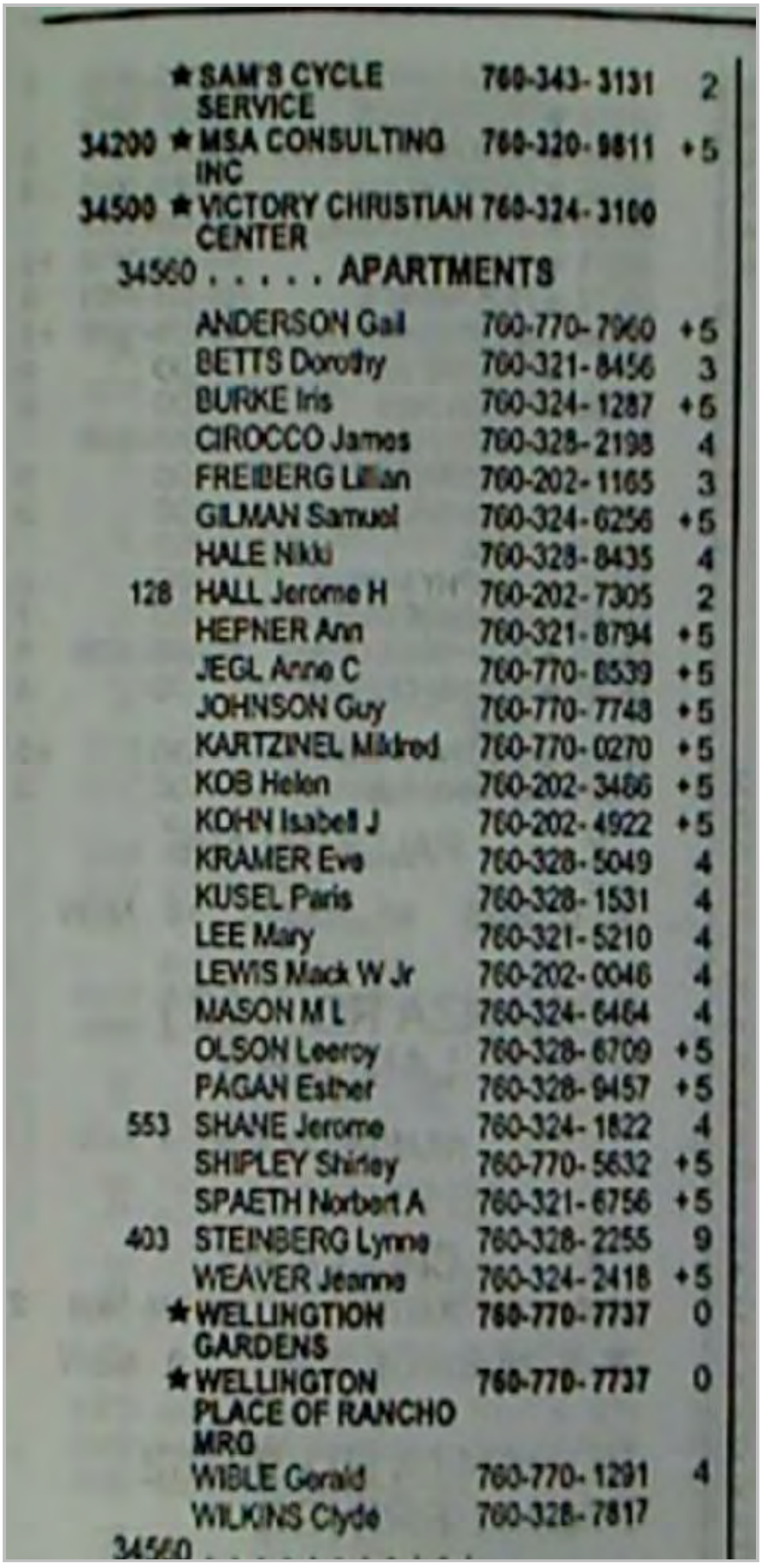
BOB HOPE DR 92270
RANCHO MIRAGE

WEALTH CODE 4.7

32250	★	AGUA CALIENTE CASINO	760-321-2000	2
	★	MARASKINO RESTAURANT&BAR	760-202-6063	2
	★	PRIME 10 STEAKHOUSE	760-202-6063	2
	★	PRIME TEN STEAK HOUSE BANQUETS	760-202-7646	+5
	★	SAMMY'S WOOD FIRED PIZZA BNQTS	760-202-7646	+5
34044	●	PLONSKI Florence	OO	⊖ 1

Target Street	Cross Street	Source
-	✓	Haines Criss-Cross Directory

Bob Hope Dr 2005



	★ SAM'S CYCLE SERVICE	760-343-3131	2
34200	★ MSA CONSULTING INC	760-320-9811	+5
34500	★ VICTORY CHRISTIAN CENTER	760-324-3100	
34560	. . . . . APARTMENTS		
	ANDERSON Gail	760-770-7960	+5
	BETTS Dorothy	760-321-8456	3
	BURKE Iris	760-324-1287	+5
	CIROCCO James	760-328-2198	4
	FREIBERG Lillian	760-202-1165	3
	GILMAN Samuel	760-324-6256	+5
	HALE Nikki	760-328-8435	4
128	HALL Jerome H	760-202-7305	2
	HEFNER Ann	760-321-8794	+5
	JEGL Anne C	760-770-8539	+5
	JOHNSON Guy	760-770-7748	+5
	KARTZINEL Mildred	760-770-0270	+5
	KOB Helen	760-202-3486	+5
	KOHN Isabell J	760-202-4922	+5
	KRAMER Eve	760-328-5049	4
	KUSEL Paris	760-328-1531	4
	LEE Mary	760-321-5210	4
	LEWIS Mack W Jr	760-202-0046	4
	MASON M L	760-324-6464	4
	OLSON Leeroy	760-328-6709	+5
	PAGAN Esther	760-328-9457	+5
553	SHANE Jerome	760-324-1822	4
	SHIPLEY Shirley	760-770-5632	+5
	SPAETH Norbert A	760-321-6756	+5
403	STEINBERG Lynne	760-328-2255	9
	WEAVER Jeanne	760-324-2418	+5
	★ WELLINGTON GARDENS	760-770-7737	0
	★ WELLINGTON PLACE OF RANCHO MRG	760-770-7737	0
	WIBLE Gerald	760-770-1291	4
	WILKINS Clyde	760-328-7817	
34560			

APPENDIX H

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

Date: March 13, 2013

Ms. Kristin Stout
Leighton Consulting
41715 Enterprise Circle N, Suite 103
Temecula, CA 92590
Tel(951)296-0530 Fax(951)296-0534

Project: **Pulte - Rancho Mirage**
Project No.: **10143.001**
Lab I.D.: **130312-21 through -35**

Dear Ms. Stout:

The **analytical results** for the soil samples, received by our lab on March 12, 2013, are attached. The samples were received chilled, intact and with chain of custody record.

Trace concentrations between the MDL and the PQL have been reported with a "J" flag indicator.

Enviro-Chem appreciates the opportunity to provide you and your company this and other services. Please do not hesitate to call us if you have any questions.

Sincerely,

Curtis Desilets
Vice President/Program Manger

Andy Wang
Laboratory Manager

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **Leighton Consulting**
41715 Enterprise Circle N, Suite 103
Temecula, CA 92590
Tel(951)296-0530 Fax(951)296-0534

PROJECT: **Pulte - Rancho Mirage** PROJECT No.: **10143.001**
DATE RECEIVED:03/12/13
MATRIX:SOIL DATE EXTRACTED:03/13/13
SAMPLING DATE:03/12/13 DATE ANALYZED:03/13/13
REPORT TO:MS. KRISTIN STOUT DATE REPORTED:03/13/13

TOTAL PETROLEUM HYDROCARBONS(TPH) - CARBON CHAIN ANALYSIS
METHOD: EPA 8015B
UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

SAMPLE I.D.	LAB I.D.	C4-C10	C11-C22	C23-C35	DF
G-1/2/3/4/5-0.5 (COMPOSITE)	130312-21 THROUGH -25 (COMPOSITE)	ND	ND	ND	1
G-6/7-0.5 (COMPOSITE)	130312-26, -27 (COMPOSITE)	ND	ND	ND	1
G-8/9/10-0.5 (COMPOSITE)	130312-28, -29, -30 (COMPOSITE)	ND	ND	ND	1
G-11/12/13-0.5 (COMPOSITE)	130312-31, -32, -33 (COMPOSITE)	ND	ND	ND	1
G-14/15-0.5 (COMPOSITE)	130312-34, -35 (COMPOSITE)	ND	ND	ND	1
METHOD BLANK		ND	ND	ND	1
	MDL	5	5	25	
	PQL	10	10	50	

COMMENTS
C4-C10 = GASOLINE RANGE
C11-C22 = DIESEL RANGE
C23-C35 = MOTOR OIL RANGE
DF = DILUTION FACTOR
MDL = METHOD DETECTION LIMIT
PQL = PRACTICAL QUANTITATION LIMIT
J = TRACE CONCENTRATION BETWEEN MDL AND PQL
ACTUAL DETECTION LIMIT = DF X PQL
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

Data Reviewed and Approved by: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro Chem, Inc

1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909)590-5905 Fax (909)590-5907

8015B QA/QC Report

Date Analyzed: 3/13/2013 **Units:** mg/Kg (ppm)

Matrix: **Soil/Solid/Sludge**

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

Spiked Sample Lab I.D.: **1303012-34-35 MS/MSD**

Analyte	SR	spk conc	MS	%MS	MSD	%MSD	%RPD	ACP %MS	ACP RPD
C11~C22 Range	0	2000	1740	**87%**	1980	**99%**	**13%**	**75-125**	**0-20%**

LCS STD RECOVERY:

Analyte	spk conc	LCS	% REC	ACP
C11~C22 Range	200	171	**86%**	**75-125**

Analyzed and Reviewed By: B

Final Reviewer:

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **Leighton Consulting**
41715 Enterprise Circle N, Suite 103
Temecula, CA 92590
Tel(951)296-0530 Fax(951)296-0534

PROJECT: **Pulte - Rancho Mirage** PROJECT No.: **10143.001**
MATRIX:SOIL DATE RECEIVED:03/12/13
SAMPLING DATE:03/12/13 DATE ANALYZED:03/13/13
REPORT TO:MS. KRISTIN STOUT DATE REPORTED:03/13/13

SAMPLE I.D.: **G-1/2/3/4/5-0.5(COMPOSITE)**
LAB I.D.: 130312-21 THROUGH -25(COMPOSITE)

TOTAL THRESHOLD LIMIT CONCENTRATION ANALYSIS
UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

ELEMENT ANALYZED	SAMPLE RESULT	PQL	MDL	DF	TTLC LIMIT	STLC LIMIT	EPA METHOD
Antimony(Sb)	ND	1.0	0.250	1	500	15	6010B
Arsenic(As)	0.444	0.3	0.248	1	500	5.0	6010B
Barium(Ba)	45.3	5.0	0.143	1	10,000	100	6010B
Beryllium(Be)	ND	0.5	0.180	1	75	0.75	6010B
Cadmium(Cd)	ND	0.5	0.119	1	100	1.0	6010B
Chromium Total(Cr)	12.8	0.5	0.138	1	2,500	560/5@	6010B
Chromium VI (Cr6)	--	0.2	0.0156	1	500	5.0	7196A
Cobalt(Co)	6.31	1.0	0.156	1	8,000	80	6010B
Copper(Cu)	8.75	1.0	0.203	1	2,500	25	6010B
Lead(Pb)	2.03	0.5	0.192	1	1,000	5.0	6010B
Mercury(Hg)	ND	0.01	0.0062	1	20	0.2	7471A
Molybdenum(Mo)	ND	5.0	0.274	1	3,500	350	6010B
Nickel(Ni)	3.95	2.5	0.165	1	2,000	20	6010B
Selenium(Se)	ND	1.0	0.234	1	100	1.0	6010B
Silver(Ag)	ND	1.0	0.414	1	500	5.0	6010B
Thallium(Tl)	ND	1.0	0.432	1	700	7.0	6010B
Vanadium(V)	48.0	5.0	0.171	1	2,400	24	6010B
Zinc(Zn)	39.5	0.5	0.131	1	5,000	250	6010B

COMMENTS
DF = Dilution Factor
MDL = Method Detection Limit
PQL = Practical Quantitation Limit
J = Trace Concentration between MDL and PQL
Actual Detection Limit = PQL X DF
ND = Below the Actual Detection Limit or non-detected
TTLC = Total Threshold Limit Concentration
STLC = Soluble Threshold Limit Concentration
@ = Must meet both the STLC Limit at 560 and EPA-TCLP Limit at 5
* = STLC analysis for the metal is recommended (if marked)
** = Additional Analysis required, please call to discuss (if marked)
*** = The concentration exceeds the TTLC Limit, and the sample is defined as hazardous waste as per CCR-TITLE 22 (if marked)
-- = Not analyzed/not requested

Data Reviewed and Approved by: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **Leighton Consulting**
41715 Enterprise Circle N, Suite 103
Temecula, CA 92590
Tel(951)296-0530 Fax(951)296-0534

PROJECT: **Pulte - Rancho Mirage** PROJECT No.: **10143.001**
MATRIX:SOIL DATE RECEIVED:03/12/13
SAMPLING DATE:03/12/13 DATE ANALYZED:03/13/13
REPORT TO:MS. KRISTIN STOUT DATE REPORTED:03/13/13

SAMPLE I.D.: **G-6/7-0.5(COMPOSITE)**
LAB I.D.: 130312-26, -27(COMPOSITE)

TOTAL THRESHOLD LIMIT CONCENTRATION ANALYSIS
UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

ELEMENT ANALYZED	SAMPLE RESULT	PQL	MDL	DF	TTLC LIMIT	STLC LIMIT	EPA METHOD
Antimony(Sb)	ND	1.0	0.250	1	500	15	6010B
Arsenic(As)	0.364	0.3	0.248	1	500	5.0	6010B
Barium(Ba)	61.1	5.0	0.143	1	10,000	100	6010B
Beryllium(Be)	ND	0.5	0.180	1	75	0.75	6010B
Cadmium(Cd)	ND	0.5	0.119	1	100	1.0	6010B
Chromium Total(Cr)	14.6	0.5	0.138	1	2,500	560/5@	6010B
Chromium VI (Cr6)	--	0.2	0.0156	1	500	5.0	7196A
Cobalt(Co)	7.20	1.0	0.156	1	8,000	80	6010B
Copper(Cu)	9.60	1.0	0.203	1	2,500	25	6010B
Lead(Pb)	1.99	0.5	0.192	1	1,000	5.0	6010B
Mercury(Hg)	ND	0.01	0.0062	1	20	0.2	7471A
Molybdenum(Mo)	ND	5.0	0.274	1	3,500	350	6010B
Nickel(Ni)	4.48	2.5	0.165	1	2,000	20	6010B
Selenium(Se)	ND	1.0	0.234	1	100	1.0	6010B
Silver(Ag)	ND	1.0	0.414	1	500	5.0	6010B
Thallium(Tl)	ND	1.0	0.432	1	700	7.0	6010B
Vanadium(V)	37.7	5.0	0.171	1	2,400	24	6010B
Zinc(Zn)	41.8	0.5	0.131	1	5,000	250	6010B

COMMENTS
DF = Dilution Factor
MDL = Method Detection Limit
PQL = Practical Quantitation Limit
J = Trace Concentration between MDL and PQL
Actual Detection Limit = PQL X DF
ND = Below the Actual Detection Limit or non-detected
TTLC = Total Threshold Limit Concentration
STLC = Soluble Threshold Limit Concentration
@ = Must meet both the STLC Limit at 560 and EPA-TCLP Limit at 5
* = STLC analysis for the metal is recommended (if marked)
** = Additional Analysis required, please call to discuss (if marked)
*** = The concentration exceeds the TTLC Limit, and the sample is defined as hazardous waste as per CCR-TITLE 22 (if marked)
-- = Not analyzed/not requested

Data Reviewed and Approved by: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **Leighton Consulting**
41715 Enterprise Circle N, Suite 103
Temecula, CA 92590
Tel(951)296-0530 Fax(951)296-0534

PROJECT: **Pulte - Rancho Mirage** PROJECT No.: **10143.001**
MATRIX:SOIL DATE RECEIVED:03/12/13
SAMPLING DATE:03/12/13 DATE ANALYZED:03/13/13
REPORT TO:MS. KRISTIN STOUT DATE REPORTED:03/13/13

SAMPLE I.D.: **G-8/9/10-0.5(COMPOSITE)**
LAB I.D.: 130312-28, -29, -30(COMPOSITE)

TOTAL THRESHOLD LIMIT CONCENTRATION ANALYSIS
UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

ELEMENT ANALYZED	SAMPLE RESULT	PQL	MDL	DF	TTLC LIMIT	STLC LIMIT	EPA METHOD
Antimony(Sb)	ND	1.0	0.250	1	500	15	6010B
Arsenic(As)	ND	0.3	0.248	1	500	5.0	6010B
Barium(Ba)	187	5.0	0.143	1	10,000	100	6010B
Beryllium(Be)	ND	0.5	0.180	1	75	0.75	6010B
Cadmium(Cd)	ND	0.5	0.119	1	100	1.0	6010B
Chromium Total(Cr)	16.4	0.5	0.138	1	2,500	560/5@	6010B
Chromium VI (Cr6)	--	0.2	0.0156	1	500	5.0	7196A
Cobalt(Co)	8.26	1.0	0.156	1	8,000	80	6010B
Copper(Cu)	8.16	1.0	0.203	1	2,500	25	6010B
Lead(Pb)	1.96	0.5	0.192	1	1,000	5.0	6010B
Mercury(Hg)	ND	0.01	0.0062	1	20	0.2	7471A
Molybdenum(Mo)	ND	5.0	0.274	1	3,500	350	6010B
Nickel(Ni)	3.69	2.5	0.165	1	2,000	20	6010B
Selenium(Se)	ND	1.0	0.234	1	100	1.0	6010B
Silver(Ag)	ND	1.0	0.414	1	500	5.0	6010B
Thallium(Tl)	ND	1.0	0.432	1	700	7.0	6010B
Vanadium(V)	53.9	5.0	0.171	1	2,400	24	6010B
Zinc(Zn)	54.7	0.5	0.131	1	5,000	250	6010B

COMMENTS
DF = Dilution Factor
MDL = Method Detection Limit
PQL = Practical Quantitation Limit
J = Trace Concentration between MDL and PQL
Actual Detection Limit = PQL X DF
ND = Below the Actual Detection Limit or non-detected
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-- = Not analyzed/not requested

Data Reviewed and Approved by: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **Leighton Consulting**
41715 Enterprise Circle N, Suite 103
Temecula, CA 92590
Tel(951)296-0530 Fax(951)296-0534

PROJECT: **Pulte - Rancho Mirage** PROJECT No.: **10143.001**
MATRIX:SOIL DATE RECEIVED:03/12/13
SAMPLING DATE:03/12/13 DATE ANALYZED:03/13/13
REPORT TO:MS. KRISTIN STOUT DATE REPORTED:03/13/13

SAMPLE I.D.: **G-11/12/13-0.5(COMPOSITE)**
LAB I.D.: 130312-31, -32, -33(COMPOSITE)

TOTAL THRESHOLD LIMIT CONCENTRATION ANALYSIS
UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

ELEMENT ANALYZED	SAMPLE RESULT	PQL	MDL	DF	TTLC LIMIT	STLC LIMIT	EPA METHOD
Antimony(Sb)	ND	1.0	0.250	1	500	15	6010B
Arsenic(As)	0.627	0.3	0.248	1	500	5.0	6010B
Barium(Ba)	42.6	5.0	0.143	1	10,000	100	6010B
Beryllium(Be)	ND	0.5	0.180	1	75	0.75	6010B
Cadmium(Cd)	ND	0.5	0.119	1	100	1.0	6010B
Chromium Total(Cr)	13.0	0.5	0.138	1	2,500	560/5@	6010B
Chromium VI (Cr6)	--	0.2	0.0156	1	500	5.0	7196A
Cobalt(Co)	6.72	1.0	0.156	1	8,000	80	6010B
Copper(Cu)	8.67	1.0	0.203	1	2,500	25	6010B
Lead(Pb)	2.06	0.5	0.192	1	1,000	5.0	6010B
Mercury(Hg)	ND	0.01	0.0062	1	20	0.2	7471A
Molybdenum(Mo)	ND	5.0	0.274	1	3,500	350	6010B
Nickel(Ni)	3.92	2.5	0.165	1	2,000	20	6010B
Selenium(Se)	ND	1.0	0.234	1	100	1.0	6010B
Silver(Ag)	ND	1.0	0.414	1	500	5.0	6010B
Thallium(Tl)	ND	1.0	0.432	1	700	7.0	6010B
Vanadium(V)	48.9	5.0	0.171	1	2,400	24	6010B
Zinc(Zn)	36.9	0.5	0.131	1	5,000	250	6010B

COMMENTS
DF = Dilution Factor
MDL = Method Detection Limit
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Actual Detection Limit = PQL X DF
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Data Reviewed and Approved by: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **Leighton Consulting**
41715 Enterprise Circle N, Suite 103
Temecula, CA 92590
Tel(951)296-0530 Fax(951)296-0534

PROJECT: **Pulte - Rancho Mirage** PROJECT No.: **10143.001**
MATRIX:SOIL DATE RECEIVED:03/12/13
SAMPLING DATE:03/12/13 DATE ANALYZED:03/13/13
REPORT TO:MS. KRISTIN STOUT DATE REPORTED:03/13/13

SAMPLE I.D.: **G-14/15-0.5(COMPOSITE)**
LAB I.D.: 130312-34, -35(COMPOSITE)

TOTAL THRESHOLD LIMIT CONCENTRATION ANALYSIS
UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

ELEMENT ANALYZED	SAMPLE RESULT	PQL	MDL	DF	TTLC LIMIT	STLC LIMIT	EPA METHOD
Antimony(Sb)	ND	1.0	0.250	1	500	15	6010B
Arsenic(As)	0.290J	0.3	0.248	1	500	5.0	6010B
Barium(Ba)	65.5	5.0	0.143	1	10,000	100	6010B
Beryllium(Be)	ND	0.5	0.180	1	75	0.75	6010B
Cadmium(Cd)	ND	0.5	0.119	1	100	1.0	6010B
Chromium Total(Cr)	14.8	0.5	0.138	1	2,500	560/5@	6010B
Chromium VI (Cr6)	--	0.2	0.0156	1	500	5.0	7196A
Cobalt(Co)	7.69	1.0	0.156	1	8,000	80	6010B
Copper(Cu)	10.6	1.0	0.203	1	2,500	25	6010B
Lead(Pb)	2.30	0.5	0.192	1	1,000	5.0	6010B
Mercury(Hg)	ND	0.01	0.0062	1	20	0.2	7471A
Molybdenum(Mo)	ND	5.0	0.274	1	3,500	350	6010B
Nickel(Ni)	4.45	2.5	0.165	1	2,000	20	6010B
Selenium(Se)	ND	1.0	0.234	1	100	1.0	6010B
Silver(Ag)	ND	1.0	0.414	1	500	5.0	6010B
Thallium(Tl)	ND	1.0	0.432	1	700	7.0	6010B
Vanadium(V)	53.4	5.0	0.171	1	2,400	24	6010B
Zinc(Zn)	43.9	0.5	0.131	1	5,000	250	6010B

COMMENTS
DF = Dilution Factor
MDL = Method Detection Limit
PQL = Practical Quantitation Limit
J = Trace Concentration between MDL and PQL
Actual Detection Limit = PQL X DF
ND = Below the Actual Detection Limit or non-detected
TTLC = Total Threshold Limit Concentration
STLC = Soluble Threshold Limit Concentration
@ = Must meet both the STLC Limit at 560 and EPA-TCLP Limit at 5
* = STLC analysis for the metal is recommended (if marked)
** = Additional Analysis required, please call to discuss (if marked)
*** = The concentration exceeds the TTLC Limit, and the sample is defined as hazardous waste as per CCR-TITLE 22 (if marked)
-- = Not analyzed/not requested

Data Reviewed and Approved by: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

METHOD BLANK REPORT

CUSTOMER: **Leighton Consulting**
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Tel(951)296-0530 Fax(951)296-0534

PROJECT: **Pulte - Rancho Mirage** PROJECT No.: **10143.001**
MATRIX:SOIL DATE RECEIVED:03/12/13
SAMPLING DATE:03/12/13 DATE ANALYZED:03/13/13
REPORT TO:MS. KRISTIN STOUT DATE REPORTED:03/13/13

METHOD BLANK FOR LAB I.D.:
130312-21 THROUGH -25(COMPOSITE), -26/-27(COMPOSITE),
-28/-29/-30(COMPOSITE), -31/-32/-33(COMPOSITE), -34/-35(COMPOSITE)

TOTAL THRESHOLD LIMIT CONCENTRATION ANALYSIS
UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

ELEMENT ANALYZED	SAMPLE RESULT	PQL	MDL	DF	TTLC LIMIT	STLC LIMIT	EPA METHOD
Antimony(Sb)	ND	1.0	0.250	1	500	15	6010B
Arsenic(As)	ND	0.3	0.248	1	500	5.0	6010B
Barium(Ba)	ND	5.0	0.143	1	10,000	100	6010B
Beryllium(Be)	ND	0.5	0.180	1	75	0.75	6010B
Cadmium(Cd)	ND	0.5	0.119	1	100	1.0	6010B
Chromium Total(Cr)	ND	0.5	0.138	1	2,500	560/5@	6010B
Chromium VI (Cr6)	--	0.2	0.0156	1	500	5.0	7196A
Cobalt(Co)	ND	1.0	0.156	1	8,000	80	6010B
Copper(Cu)	ND	1.0	0.203	1	2,500	25	6010B
Lead(Pb)	ND	0.5	0.192	1	1,000	5.0	6010B
Mercury(Hg)	ND	0.01	0.0062	1	20	0.2	7471A
Molybdenum(Mo)	ND	5.0	0.274	1	3,500	350	6010B
Nickel(Ni)	ND	2.5	0.165	1	2,000	20	6010B
Selenium(Se)	ND	1.0	0.234	1	100	1.0	6010B
Silver(Ag)	ND	1.0	0.414	1	500	5.0	6010B
Thallium(Tl)	ND	1.0	0.432	1	700	7.0	6010B
Vanadium(V)	ND	5.0	0.171	1	2,400	24	6010B
Zinc(Zn)	ND	0.5	0.131	1	5,000	250	6010B

COMMENTS
DF = Dilution Factor
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QA/QC for Metals Analysis --TTLC--SOLID/SOIL *MATRIX*

Matrix Spike/ Matrix Spike Duplicate/ LCS :

Metals Analysis Date : 3/13/2013
Mercury Analysis Date : 3/13/2013

Unit : *mg/Kg(ppm)*

Analysis	Spk.Sample ID	LCS CONC.	LCS %Rec.	LCS STATUS	*Sample Result*	Spike Conc.	MS	% Rec MS	MSD	% Rec MSD	% RPD
Antimony (Sb)	130312-21~25	1.00	103	*PASS*	0	50	44.5	89%	44.5	89%	0%
Arsenic (As)	130312-21~25	1.00	108	*PASS*	0.444	50	47.3	94%	47.6	94%	1%
Barium (Ba)	130312-21~25	1.00	104	*PASS*	45.3	50	88.7	87%	88.7	87%	0%
Beryllium (Be)	130312-21~25	1.00	100	*PASS*	0	50	44.9	90%	45.2	90%	1%
Cadmium (Cd)	130312-21~25	1.00	113	*PASS*	0	50	49.1	98%	49.4	99%	1%
Chromium (Cr)	130312-21~25	1.00	95	*PASS*	12.8	50	54.7	84%	55.0	84%	1%
Cobalt (Co)	130312-21~25	1.00	108	*PASS*	6.31	50	49.9	87%	46.5	80%	8%
Copper (Cu)	130312-21~25	1.00	98	*PASS*	8.75	50	52.2	87%	51.6	86%	1%
Lead (Pb)	130312-21~25	1.00	110	*PASS*	2.03	50	42.7	81%	42.7	81%	0%
Mercury (Hg)	130312-10	0.125	96	*PASS*	*0*	0.125	0.109	87%	0.114	91%	4%
Molybdenum(Mo)	130312-21~25	1.00	104	*PASS*	0	50	45.1	90%	45.4	91%	1%
Nickel (Ni)	130312-21~25	1.00	108	*PASS*	3.95	50	45.0	82%	45.9	84%	2%
Selenium (Se)	130312-21~25	1.00	111	*PASS*	0	50	45.8	92%	46.2	92%	1%
Silver (Ag)	130312-21~25	0.10	107	*PASS*	0	5.0	4.53	91%	4.54	91%	0%
Thallium (Tl)	130312-21~25	1.00	92	*PASS*	0	50	38.3	77%	38.6	77%	1%
Vanadium (V)	130312-21~25	1.00	99	*PASS*	48.0	50	88.1	80%	88.7	81%	1%
Zinc (Zn)	130312-21~25	1.00	114	*PASS*	39.5	50	90.4	102%	90.5	102%	0%

ANALYST: _____

FINAL REVIEWER: _____

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PROJECT: **Pulte - Rancho Mirage**
PROJECT No.: **10143.001**
DATE RECEIVED: 03/12/13
MATRIX: SOIL
DATE EXTRACTED: 03/13/13
SAMPLING DATE: 03/12/13
DATE ANALYZED: 03/13/13
REPORT TO: MS. KRISTIN STOUT
DATE REPORTED: 03/13/13

SAMPLE I.D.: **G-1/2/3/4/5-0.5(COMPOSITE)**
LAB I.D.: 130312-21 THROUGH -25(COMPOSITE)

Organochlorine Pesticides & PCBs Analysis
Method: EPA 8081A/8082
Unit: mg/Kg = Milligram per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0001	1
alpha-BHC	ND	0.001	0.0002	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0002	1
alpha-Chlordane	ND	0.001	0.0002	1
gamma-Chlordane	ND	0.001	0.0001	1
Technical Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0003	1
4,4'-DDE	ND	0.001	0.0003	1
4,4'-DDT	ND	0.001	0.0001	1
Dieldrin	ND	0.001	0.0003	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0001	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0004	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0003	1
Heptachlor	ND	0.001	0.0001	1
Methoxyclor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1
PCB-1016	ND	0.010	0.0050	1
PCB-1221	ND	0.010	0.0050	1
PCB-1232	ND	0.010	0.0050	1
PCB-1242	ND	0.010	0.0050	1
PCB-1248	ND	0.010	0.0050	1
PCB-1254	ND	0.010	0.0050	1
PCB-1260	ND	0.010	0.0050	1

COMMENTS:
DF = Dilution Factor
MDL = Method Detection Limit
Actual Detection Limit = PQL X DF
PQL = Practical Quantitation Limit
J = Trace Concentration between MDL and PQL
ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
CAL-DHS CERTIFICATE # 1555

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MATRIX:SOIL DATE EXTRACTED:03/13/13
SAMPLING DATE:03/12/13 DATE ANALYZED:03/13/13
REPORT TO:MS. KRISTIN STOUT DATE REPORTED:03/13/13

SAMPLE I.D.: **G-6/7-0.5(COMPOSITE)**
LAB I.D.: 130312-26, -27(COMPOSITE)

Organochlorine Pesticides & PCBs Analysis
Method: EPA 8081A/8082
Unit: mg/Kg = Milligram per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0001	1
alpha-BHC	ND	0.001	0.0002	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0002	1
alpha-Chlordane	ND	0.001	0.0002	1
gamma-Chlordane	ND	0.001	0.0001	1
Technical Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0003	1
4,4'-DDE	ND	0.001	0.0003	1
4,4'-DDT	ND	0.001	0.0001	1
Dieldrin	ND	0.001	0.0003	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0001	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0004	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0003	1
Heptachlor	ND	0.001	0.0001	1
Methoxyclor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1
PCB-1016	ND	0.010	0.0050	1
PCB-1221	ND	0.010	0.0050	1
PCB-1232	ND	0.010	0.0050	1
PCB-1242	ND	0.010	0.0050	1
PCB-1248	ND	0.010	0.0050	1
PCB-1254	ND	0.010	0.0050	1
PCB-1260	ND	0.010	0.0050	1

COMMENTS:
DF = Dilution Factor
MDL = Method Detection Limit
Actual Detection Limit = PQL X DF
PQL = Practical Quantitation Limit
J = Trace Concentration between MDL and PQL
ND = Below the Actual Detection Limit or non-detected

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PROJECT: **Pulte - Rancho Mirage**
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DATE REPORTED:03/13/13

MATRIX:SOIL
SAMPLING DATE:03/12/13
REPORT TO:MS. KRISTIN STOUT

SAMPLE I.D.: **G-8/9/10-0.5(COMPOSITE)**
LAB I.D.: 130312-28, -29, -30(COMPOSITE)

Organochlorine Pesticides & PCBs Analysis
Method: EPA 8081A/8082
Unit: mg/Kg = Milligram per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0001	1
alpha-BHC	ND	0.001	0.0002	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0002	1
alpha-Chlordane	ND	0.001	0.0002	1
gamma-Chlordane	ND	0.001	0.0001	1
Technical Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0003	1
4,4'-DDE	ND	0.001	0.0003	1
4,4'-DDT	ND	0.001	0.0001	1
Dieldrin	ND	0.001	0.0003	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0001	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0004	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0003	1
Heptachlor	ND	0.001	0.0001	1
Methoxyclor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1
PCB-1016	ND	0.010	0.0050	1
PCB-1221	ND	0.010	0.0050	1
PCB-1232	ND	0.010	0.0050	1
PCB-1242	ND	0.010	0.0050	1
PCB-1248	ND	0.010	0.0050	1
PCB-1254	ND	0.010	0.0050	1
PCB-1260	ND	0.010	0.0050	1

COMMENTS:
DF = Dilution Factor
MDL = Method Detection Limit
Actual Detection Limit = PQL X DF
PQL = Practical Quantitation Limit
J = Trace Concentration between MDL and PQL
ND = Below the Actual Detection Limit or non-detected

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REPORT TO:MS. KRISTIN STOUT
DATE REPORTED:03/13/13

SAMPLE I.D.: **G-11/12/13-0.5(COMPOSITE)**
LAB I.D.: 130312-31, -32, -33(COMPOSITE)

Organochlorine Pesticides & PCBs Analysis
Method: EPA 8081A/8082
Unit: mg/Kg = Milligram per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0001	1
alpha-BHC	ND	0.001	0.0002	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0002	1
alpha-Chlordane	ND	0.001	0.0002	1
gamma-Chlordane	ND	0.001	0.0001	1
Technical Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0003	1
4,4'-DDE	ND	0.001	0.0003	1
4,4'-DDT	ND	0.001	0.0001	1
Dieldrin	ND	0.001	0.0003	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0001	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0004	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0003	1
Heptachlor	ND	0.001	0.0001	1
Methoxyclor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1
PCB-1016	ND	0.010	0.0050	1
PCB-1221	ND	0.010	0.0050	1
PCB-1232	ND	0.010	0.0050	1
PCB-1242	ND	0.010	0.0050	1
PCB-1248	ND	0.010	0.0050	1
PCB-1254	ND	0.010	0.0050	1
PCB-1260	ND	0.010	0.0050	1

COMMENTS:
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SAMPLE I.D.: **G-14/15-0.5(COMPOSITE)**
LAB I.D.: 130312-34, -35(COMPOSITE)

Organochlorine Pesticides & PCBs Analysis
Method: EPA 8081A/8082
Unit: mg/Kg = Milligram per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0001	1
alpha-BHC	ND	0.001	0.0002	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0002	1
alpha-Chlordane	ND	0.001	0.0002	1
gamma-Chlordane	ND	0.001	0.0001	1
Technical Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0003	1
4,4'-DDE	ND	0.001	0.0003	1
4,4'-DDT	ND	0.001	0.0001	1
Dieldrin	ND	0.001	0.0003	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0001	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0004	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0003	1
Heptachlor	ND	0.001	0.0001	1
Methoxyclor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1
PCB-1016	ND	0.010	0.0050	1
PCB-1221	ND	0.010	0.0050	1
PCB-1232	ND	0.010	0.0050	1
PCB-1242	ND	0.010	0.0050	1
PCB-1248	ND	0.010	0.0050	1
PCB-1254	ND	0.010	0.0050	1
PCB-1260	ND	0.010	0.0050	1

COMMENTS:
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PQL = Practical Quantitation Limit
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ND = Below the Actual Detection Limit or non-detected

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PROJECT No.: **10143.001**
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DATE REPORTED: 03/13/13

METHOD BLANK FOR LAB I.D.:
130312-21 THROUGH -25(COMPOSITE), -26/-27(COMPOSITE),
-28/-29/-30(COMPOSITE), -31/-32/-33(COMPOSITE), -34/-35(COMPOSITE)

Organochlorine Pesticides & PCBs Analysis
Method: EPA 8081A/8082
Unit: mg/Kg = Milligram per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Aldrin	ND	0.001	0.0001	1
alpha-BHC	ND	0.001	0.0002	1
beta-BHC	ND	0.001	0.0001	1
gamma-BHC (Lindane)	ND	0.001	0.0001	1
delta-BHC	ND	0.001	0.0002	1
alpha-Chlordane	ND	0.001	0.0002	1
gamma-Chlordane	ND	0.001	0.0001	1
Technical Chlordane	ND	0.005	0.0005	1
4,4'-DDD	ND	0.001	0.0003	1
4,4'-DDE	ND	0.001	0.0003	1
4,4'-DDT	ND	0.001	0.0001	1
Dieldrin	ND	0.001	0.0003	1
Endosulfan I	ND	0.001	0.0002	1
Endosulfan II	ND	0.001	0.0001	1
Endosulfan Sulfate	ND	0.001	0.0001	1
Endrin	ND	0.001	0.0004	1
Endrin Aldehyde	ND	0.001	0.0001	1
Endrin Ketone	ND	0.001	0.0001	1
Heptachlor Epoxide	ND	0.001	0.0003	1
Heptachlor	ND	0.001	0.0001	1
Methoxyclor	ND	0.001	0.0001	1
Toxaphene	ND	0.020	0.0100	1
PCB-1016	ND	0.010	0.0050	1
PCB-1221	ND	0.010	0.0050	1
PCB-1232	ND	0.010	0.0050	1
PCB-1242	ND	0.010	0.0050	1
PCB-1248	ND	0.010	0.0050	1
PCB-1254	ND	0.010	0.0050	1
PCB-1260	ND	0.010	0.0050	1

COMMENTS:
DF = Dilution Factor
MDL = Method Detection Limit
Actual Detection Limit = PQL X DF
PQL = Practical Quantitation Limit
J = Trace Concentration between MDL and PQL
ND = Below the Actual Detection Limit or non-detected

Data Reviewed and Approved by:
CAL-DHS CERTIFICATE # 1555

Enviro-Chem, Inc.

1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909)590-5905 Fax (909)590-5907

EPA 8081 QA/QC Report

Matrix: **Soil/Solid/Liquid** Date Analyzed: **3/13/2013**

Unit: **mg/Kg (ppm)**

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

Spiked Sample Lab I.D.: 130312-34-35 MS/MSD

Analyte	S.R.	spk conc	MS	%REC	MSD	%REC	%RPD	ACP %RPD	ACP %REC
Gamma-BHC	0.000	0.0500	0.0480	**96%**	0.0501	**100%**	**4%**	**0-20%**	**70-130**
Aldrin	0.000	0.0500	0.0566	**113%**	0.0567	**113%**	**0%**	**0-20%**	**70-130**
4,4-DDE	0.000	0.0500	0.0650	**130%**	0.0646	**129%**	**1%**	**0-20%**	**70-130**

Lab Control Spike (LCS) Recovery:

Analyte	spk conc	LCS	% REC	ACP %REC
Gamma-BHC	0.00500	0.00496	**99%**	**75-125**
Aldrin	0.00500	0.00587	**117%**	**75-125**
4,4-DDE	0.00500	0.00529	**106%**	**75-125**
Dieldrin	0.00500	0.00533	**107%**	**75-125**

Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.		MB	130312-21-25	130312-26-27	130312-28-30	130312-31-33	130312-34-35	
Tetra-chloro-meta-xylene	50-150	111%	100%	96%	105%	82%	89%	
Decachlorobiphenyl	50-150	140%	128%	136%	142%	144%	139%	

Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.								
Tetra-chloro-meta-xylene	50-150							
Decachlorobiphenyl	50-150							

Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.								
Tetra-chloro-meta-xylene	50-150							
Decachlorobiphenyl	50-150							

S.R. = Sample Result

spk conc = Spike Concentration

%REC = Percent Recovery

ACP %RPD = Acceptable Percent RPD Range

ACP %REC = Acceptable Percent Recovery Range

** = Surrogate fail due to matrix interference (If Marked)*

Note: *LCS, MS, MSD are in control therefore results are in control.*

Analyzed and Reviewed By: B

Final Reviewer:

Enviro-Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909)590-5905 Fax (909)590-5907

QA/QC Report

Analysis: EPA 8082 (PCB)

Matrix: **Soil/Solid/Liquid/Sludge** Date Analyzed: **3/13/2013**

Unit: mg/Kg (PPM)

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

Spiked Sample Lab I.D.: 130312-34-35 MS/MSD

Analyte	S.R.	spk conc	MS	%REC	MSD	%REC	%RPD	ACP % RPD	ACP %REC
PCB (1016+1260)	0.00	1.00	0.764	**76%**	0.707	**71%**	**8%**	**0-20%**	**70-130**

LCS STD RECOVERY:

Analyte	spk conc	LCS	% REC	ACP %REC
PCB (1016+1260)	0.100	0.106	**106%**	**75-125**

S.R. = Sample Result
spk conc = Spike Concentration
%REC = Percent Recovery
ACP %RPD = Acceptable Percent RPD Range
ACP %REC = Acceptable Percent Recovery Range

Analyzed and Reviewed By: B

Final Reviewer: CH

Enviro – Chem, Inc.
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LABORATORY REPORT

CUSTOMER: **Leighton Consulting**
41715 Enterprise Circle N, Suite 103
Temecula, CA 92590
Tel(951)296-0530 Fax(951)296-0534

PROJECT: **Pulte - Rancho Mirage** PROJECT No.: **10143.001**
MATRIX:SOIL DATE RECEIVED:03/12/13
SAMPLING DATE:03/12/13 DATE ANALYZED:03/13/13
REPORT TO:MS. KRISTIN STOUT DATE REPORTED:03/13/13

SAMPLE I.D.: **G-1/2/3/4/5-0.5(COMPOSITE)**
LAB I.D.: 130312-21 THROUGH -25(COMPOSITE)

ANALYSIS: VOLATILE ORGANICS, EPA METHOD 5030B/8260B, PAGE 1 OF 2
UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
ACETONE	ND	0.020	0.010	1
BENZENE	ND	0.005	0.002	1
BROMOBENZENE	ND	0.005	0.002	1
BROMOCHLOROMETHANE	ND	0.005	0.002	1
BROMODICHLOROMETHANE	ND	0.005	0.002	1
BROMOFORM	ND	0.005	0.002	1
BROMOMETHANE	ND	0.005	0.002	1
2-BUTANONE (MEK)	ND	0.020	0.010	1
N-BUTYLBENZENE	ND	0.005	0.002	1
SEC-BUTYLBENZENE	ND	0.005	0.002	1
TERT-BUTYLBENZENE	ND	0.005	0.002	1
CARBON DISULFIDE	ND	0.010	0.005	1
CARBON TETRACHLORIDE	ND	0.005	0.002	1
CHLOROBENZENE	ND	0.005	0.002	1
CHLOROETHANE	ND	0.005	0.002	1
CHLOROFORM	ND	0.005	0.002	1
CHLOROMETHANE	ND	0.005	0.002	1
2-CHLOROTOLUENE	ND	0.005	0.002	1
4-CHLOROTOLUENE	ND	0.005	0.002	1
DIBROMOCHLOROMETHANE	ND	0.005	0.002	1
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.005	0.002	1
1,2-DIBROMOETHANE	ND	0.005	0.002	1
DIBROMOMETHANE	ND	0.005	0.002	1
1,2-DICHLOROBENZENE	ND	0.005	0.002	1
1,3-DICHLOROBENZENE	ND	0.005	0.002	1
1,4-DICHLOROBENZENE	ND	0.005	0.002	1
DICHLORODIFLUOROMETHANE	ND	0.005	0.002	1
1,1-DICHLOROETHANE	ND	0.005	0.002	1
1,2-DICHLOROETHANE	ND	0.005	0.002	1
1,1-DICHLOROETHENE	ND	0.005	0.002	1
CIS-1,2-DICHLOROETHENE	ND	0.005	0.002	1
TRANS-1,2-DICHLOROETHENE	ND	0.005	0.002	1
1,2-DICHLOROPROPANE	ND	0.005	0.002	1

----- TO BE CONTINUED ON PAGE #2 -----

DATA REVIEWED AND APPROVED BY: _____

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LABORATORY REPORT

CUSTOMER: **Leighton Consulting**
41715 Enterprise Circle N, Suite 103
Temecula, CA 92590
Tel(951)296-0530 Fax(951)296-0534

PROJECT: **Pulte - Rancho Mirage** PROJECT No.: **10143.001**
MATRIX:SOIL DATE RECEIVED:03/12/13
SAMPLING DATE:03/12/13 DATE ANALYZED:03/13/13
REPORT TO:MS. KRISTIN STOUT DATE REPORTED:03/13/13

SAMPLE I.D.: **G-1/2/3/4/5-0.5(COMPOSITE)**
LAB I.D.: 130312-21 THROUGH -25(COMPOSITE)

ANALYSIS: VOLATILE ORGANICS, EPA METHOD 5030B/8260B, PAGE 2 OF 2
UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
1,3-DICHLOROPROPANE	ND	0.005	0.002	1
2,2-DICHLOROPROPANE	ND	0.005	0.002	1
1,1-DICHLOROPROPENE	ND	0.005	0.002	1
CIS-1,3-DICHLOROPROPENE	ND	0.005	0.002	1
TRANS-1,3-DICHLOROPROPENE	ND	0.005	0.002	1
ETHYLBENZENE	ND	0.005	0.002	1
2-HEXANONE	ND	0.020	0.010	1
HEXACHLOROBUTADIENE	ND	0.005	0.002	1
ISOPROPYLBENZENE	ND	0.005	0.002	1
4-ISOPROPYLTOLUENE	ND	0.005	0.002	1
4-METHYL-2-PENTANONE (MIBK)	ND	0.020	0.010	1
METHYL tert-BUTYL ETHER (MTBE)	ND	0.005	0.002	1
METHYLENE CHLORIDE	ND	0.010	0.005	1
NAPHTHALENE	ND	0.005	0.002	1
N-PROPYLBENZENE	ND	0.005	0.002	1
STYRENE	ND	0.005	0.002	1
1,1,1,2-TETRACHLOROETHANE	ND	0.005	0.002	1
1,1,2,2-TETRACHLOROETHANE	ND	0.005	0.002	1
TETRACHLOROETHENE (PCE)	ND	0.005	0.002	1
TOLUENE	ND	0.005	0.002	1
1,2,3-TRICHLOROBENZENE	ND	0.005	0.002	1
1,2,4-TRICHLOROBENZENE	ND	0.005	0.002	1
1,1,1-TRICHLOROETHANE	ND	0.005	0.002	1
1,1,2-TRICHLOROETHANE	ND	0.005	0.002	1
TRICHLOROETHENE (TCE)	ND	0.005	0.002	1
TRICHLOROFLUOROMETHANE	ND	0.005	0.002	1
1,2,3-TRICHLOROPROPANE	ND	0.005	0.002	1
1,2,4-TRIMETHYLBENZENE	ND	0.005	0.002	1
1,3,5-TRIMETHYLBENZENE	ND	0.005	0.002	1
VINYL CHLORIDE	ND	0.005	0.002	1
M/P-XYLENE	ND	0.010	0.005	1
O-XYLENE	ND	0.005	0.002	1

COMMENTS DF = DILUTION FACTOR
MDL = METHOD DETECTION LIMIT
ACTUAL DETECTION LIMIT = PQL X DF
PQL = PRACTICAL QUANTITATION LIMIT
J = TRACE CONCENTRATION BETWEEN MDL and PQL
ND = BELOW THE ACTUAL DETECTION LIMIT OR NON-DETECTED
DATA REVIEWED AND APPROVED BY:
CAL-DHS CERTIFICATE # 1555

Enviro – Chem, Inc.
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LABORATORY REPORT

CUSTOMER: Leighton Consulting
41715 Enterprise Circle N, Suite 103
Temecula, CA 92590
Tel(951)296-0530 Fax(951)296-0534

PROJECT: Pulte - Rancho Mirage
MATRIX: SOIL
SAMPLING DATE: 03/12/13
REPORT TO: MS. KRISTIN STOUT

PROJECT No.: 10143.001
DATE RECEIVED: 03/12/13
DATE ANALYZED: 03/13/13
DATE REPORTED: 03/13/13

SAMPLE I.D.: G-6/7-0.5(COMPOSITE)
LAB I.D.: 130312-26, -27(COMPOSITE)

ANALYSIS: VOLATILE ORGANICS, EPA METHOD 5030B/8260B, PAGE 1 OF 2
UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
ACETONE	ND	0.020	0.010	1
BENZENE	ND	0.005	0.002	1
BROMOBENZENE	ND	0.005	0.002	1
BROMOCHLOROMETHANE	ND	0.005	0.002	1
BROMODICHLOROMETHANE	ND	0.005	0.002	1
BROMOFORM	ND	0.005	0.002	1
BROMOMETHANE	ND	0.005	0.002	1
2-BUTANONE (MEK)	ND	0.020	0.010	1
N-BUTYLBENZENE	ND	0.005	0.002	1
SEC-BUTYLBENZENE	ND	0.005	0.002	1
TERT-BUTYLBENZENE	ND	0.005	0.002	1
CARBON DISULFIDE	ND	0.010	0.005	1
CARBON TETRACHLORIDE	ND	0.005	0.002	1
CHLOROBENZENE	ND	0.005	0.002	1
CHLOROETHANE	ND	0.005	0.002	1
CHLOROFORM	ND	0.005	0.002	1
CHLOROMETHANE	ND	0.005	0.002	1
2-CHLOROTOLUENE	ND	0.005	0.002	1
4-CHLOROTOLUENE	ND	0.005	0.002	1
DIBROMOCHLOROMETHANE	ND	0.005	0.002	1
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.005	0.002	1
1,2-DIBROMOETHANE	ND	0.005	0.002	1
DIBROMOMETHANE	ND	0.005	0.002	1
1,2-DICHLOROBENZENE	ND	0.005	0.002	1
1,3-DICHLOROBENZENE	ND	0.005	0.002	1
1,4-DICHLOROBENZENE	ND	0.005	0.002	1
DICHLORODIFLUOROMETHANE	ND	0.005	0.002	1
1,1-DICHLOROETHANE	ND	0.005	0.002	1
1,2-DICHLOROETHANE	ND	0.005	0.002	1
1,1-DICHLOROETHENE	ND	0.005	0.002	1
CIS-1,2-DICHLOROETHENE	ND	0.005	0.002	1
TRANS-1,2-DICHLOROETHENE	ND	0.005	0.002	1
1,2-DICHLOROPROPANE	ND	0.005	0.002	1

----- TO BE CONTINUED ON PAGE #2 -----

DATA REVIEWED AND APPROVED BY: _____

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LABORATORY REPORT

CUSTOMER: **Leighton Consulting**
41715 Enterprise Circle N, Suite 103
Temecula, CA 92590
Tel(951)296-0530 Fax(951)296-0534

PROJECT: **Pulte - Rancho Mirage** PROJECT No.: **10143.001**
MATRIX:SOIL DATE RECEIVED:03/12/13
SAMPLING DATE:03/12/13 DATE ANALYZED:03/13/13
REPORT TO:MS. KRISTIN STOUT DATE REPORTED:03/13/13

SAMPLE I.D.: **G-6/7-0.5(COMPOSITE)**
LAB I.D.: 130312-26, -27(COMPOSITE)

ANALYSIS: VOLATILE ORGANICS, EPA METHOD 5030B/8260B, PAGE 2 OF 2
UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
1,3-DICHLOROPROPANE	ND	0.005	0.002	1
2,2-DICHLOROPROPANE	ND	0.005	0.002	1
1,1-DICHLOROPROPENE	ND	0.005	0.002	1
CIS-1,3-DICHLOROPROPENE	ND	0.005	0.002	1
TRANS-1,3-DICHLOROPROPENE	ND	0.005	0.002	1
ETHYLBENZENE	ND	0.005	0.002	1
2-HEXANONE	ND	0.020	0.010	1
HEXACHLOROBUTADIENE	ND	0.005	0.002	1
ISOPROPYLBENZENE	ND	0.005	0.002	1
4-ISOPROPYLTOLUENE	ND	0.005	0.002	1
4-METHYL-2-PENTANONE (MIBK)	ND	0.020	0.010	1
METHYL tert-BUTYL ETHER (MTBE)	ND	0.005	0.002	1
METHYLENE CHLORIDE	ND	0.010	0.005	1
NAPHTHALENE	ND	0.005	0.002	1
N-PROPYLBENZENE	ND	0.005	0.002	1
STYRENE	ND	0.005	0.002	1
1,1,1,2-TETRACHLOROETHANE	ND	0.005	0.002	1
1,1,2,2-TETRACHLOROETHANE	ND	0.005	0.002	1
TETRACHLOROETHENE (PCE)	ND	0.005	0.002	1
TOLUENE	ND	0.005	0.002	1
1,2,3-TRICHLOROBENZENE	ND	0.005	0.002	1
1,2,4-TRICHLOROBENZENE	ND	0.005	0.002	1
1,1,1-TRICHLOROETHANE	ND	0.005	0.002	1
1,1,2-TRICHLOROETHANE	ND	0.005	0.002	1
TRICHLOROETHENE (TCE)	ND	0.005	0.002	1
TRICHLOROFLUOROMETHANE	ND	0.005	0.002	1
1,2,3-TRICHLOROPROPANE	ND	0.005	0.002	1
1,2,4-TRIMETHYLBENZENE	ND	0.005	0.002	1
1,3,5-TRIMETHYLBENZENE	ND	0.005	0.002	1
VINYL CHLORIDE	ND	0.005	0.002	1
M/P-XYLENE	ND	0.010	0.005	1
O-XYLENE	ND	0.005	0.002	1

COMMENTS DF = DILUTION FACTOR
MDL = METHOD DETECTION LIMIT
ACTUAL DETECTION LIMIT = PQL X DF
PQL = PRACTICAL QUANTITATION LIMIT
J = TRACE CONCENTRATION BETWEEN MDL and PQL
ND = BELOW THE ACTUAL DETECTION LIMIT OR NON-DETECTED
DATA REVIEWED AND APPROVED BY:
CAL-DHS CERTIFICATE # 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: Leighton Consulting
41715 Enterprise Circle N, Suite 103
Temecula, CA 92590
Tel(951)296-0530 Fax(951)296-0534

PROJECT: Pulte - Rancho Mirage
MATRIX: SOIL
SAMPLING DATE: 03/12/13
REPORT TO: MS. KRISTIN STOUT

PROJECT No.: 10143.001
DATE RECEIVED: 03/12/13
DATE ANALYZED: 03/13/13
DATE REPORTED: 03/13/13

SAMPLE I.D.: G-8/9/10-0.5(COMPOSITE)
LAB I.D.: 130312-28, -29, -30(COMPOSITE)

ANALYSIS: VOLATILE ORGANICS, EPA METHOD 5030B/8260B, PAGE 1 OF 2
UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
ACETONE	ND	0.020	0.010	1
BENZENE	ND	0.005	0.002	1
BROMOBENZENE	ND	0.005	0.002	1
BROMOCHLOROMETHANE	ND	0.005	0.002	1
BROMODICHLOROMETHANE	ND	0.005	0.002	1
BROMOFORM	ND	0.005	0.002	1
BROMOMETHANE	ND	0.005	0.002	1
2-BUTANONE (MEK)	ND	0.020	0.010	1
N-BUTYLBENZENE	ND	0.005	0.002	1
SEC-BUTYLBENZENE	ND	0.005	0.002	1
TERT-BUTYLBENZENE	ND	0.005	0.002	1
CARBON DISULFIDE	ND	0.010	0.005	1
CARBON TETRACHLORIDE	ND	0.005	0.002	1
CHLOROBENZENE	ND	0.005	0.002	1
CHLOROETHANE	ND	0.005	0.002	1
CHLOROFORM	ND	0.005	0.002	1
CHLOROMETHANE	ND	0.005	0.002	1
2-CHLOROTOLUENE	ND	0.005	0.002	1
4-CHLOROTOLUENE	ND	0.005	0.002	1
DIBROMOCHLOROMETHANE	ND	0.005	0.002	1
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.005	0.002	1
1,2-DIBROMOETHANE	ND	0.005	0.002	1
DIBROMOMETHANE	ND	0.005	0.002	1
1,2-DICHLOROBENZENE	ND	0.005	0.002	1
1,3-DICHLOROBENZENE	ND	0.005	0.002	1
1,4-DICHLOROBENZENE	ND	0.005	0.002	1
DICHLORODIFLUOROMETHANE	ND	0.005	0.002	1
1,1-DICHLOROETHANE	ND	0.005	0.002	1
1,2-DICHLOROETHANE	ND	0.005	0.002	1
1,1-DICHLOROETHENE	ND	0.005	0.002	1
CIS-1,2-DICHLOROETHENE	ND	0.005	0.002	1
TRANS-1,2-DICHLOROETHENE	ND	0.005	0.002	1
1,2-DICHLOROPROPANE	ND	0.005	0.002	1

----- TO BE CONTINUED ON PAGE #2 -----

DATA REVIEWED AND APPROVED BY: _____

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **Leighton Consulting**
41715 Enterprise Circle N, Suite 103
Temecula, CA 92590
Tel(951)296-0530 Fax(951)296-0534

PROJECT: **Pulte - Rancho Mirage** PROJECT No.: **10143.001**
MATRIX:SOIL DATE RECEIVED:03/12/13
SAMPLING DATE:03/12/13 DATE ANALYZED:03/13/13
REPORT TO:MS. KRISTIN STOUT DATE REPORTED:03/13/13

SAMPLE I.D.: **G-8/9/10-0.5(COMPOSITE)**
LAB I.D.: 130312-28, -29, -30(COMPOSITE)

ANALYSIS: VOLATILE ORGANICS, EPA METHOD 5030B/8260B, PAGE 2 OF 2
UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
1,3-DICHLOROPROPANE	ND	0.005	0.002	1
2,2-DICHLOROPROPANE	ND	0.005	0.002	1
1,1-DICHLOROPROPENE	ND	0.005	0.002	1
CIS-1,3-DICHLOROPROPENE	ND	0.005	0.002	1
TRANS-1,3-DICHLOROPROPENE	ND	0.005	0.002	1
ETHYLBENZENE	ND	0.005	0.002	1
2-HEXANONE	ND	0.020	0.010	1
HEXACHLOROBUTADIENE	ND	0.005	0.002	1
ISOPROPYLBENZENE	ND	0.005	0.002	1
4-ISOPROPYLTOLUENE	ND	0.005	0.002	1
4-METHYL-2-PENTANONE (MIBK)	ND	0.020	0.010	1
METHYL tert-BUTYL ETHER (MTBE)	ND	0.005	0.002	1
METHYLENE CHLORIDE	ND	0.010	0.005	1
NAPHTHALENE	ND	0.005	0.002	1
N-PROPYLBENZENE	ND	0.005	0.002	1
STYRENE	ND	0.005	0.002	1
1,1,1,2-TETRACHLOROETHANE	ND	0.005	0.002	1
1,1,2,2-TETRACHLOROETHANE	ND	0.005	0.002	1
TETRACHLOROETHENE (PCE)	ND	0.005	0.002	1
TOLUENE	ND	0.005	0.002	1
1,2,3-TRICHLOROBENZENE	ND	0.005	0.002	1
1,2,4-TRICHLOROBENZENE	ND	0.005	0.002	1
1,1,1-TRICHLOROETHANE	ND	0.005	0.002	1
1,1,2-TRICHLOROETHANE	ND	0.005	0.002	1
TRICHLOROETHENE (TCE)	ND	0.005	0.002	1
TRICHLOROFLUOROMETHANE	ND	0.005	0.002	1
1,2,3-TRICHLOROPROPANE	ND	0.005	0.002	1
1,2,4-TRIMETHYLBENZENE	ND	0.005	0.002	1
1,3,5-TRIMETHYLBENZENE	ND	0.005	0.002	1
VINYL CHLORIDE	ND	0.005	0.002	1
M/P-XYLENE	ND	0.010	0.005	1
O-XYLENE	ND	0.005	0.002	1

COMMENTS DF = DILUTION FACTOR
MDL = METHOD DETECTION LIMIT
ACTUAL DETECTION LIMIT = PQL X DF
PQL = PRACTICAL QUANTITATION LIMIT
J = TRACE CONCENTRATION BETWEEN MDL and PQL
ND = BELOW THE ACTUAL DETECTION LIMIT OR NON-DETECTED
DATA REVIEWED AND APPROVED BY:
CAL-DHS CERTIFICATE # 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **Leighton Consulting**
41715 Enterprise Circle N, Suite 103
Temecula, CA 92590
Tel(951)296-0530 Fax(951)296-0534

PROJECT: **Pulte - Rancho Mirage** PROJECT No.: **10143.001**
MATRIX:SOIL DATE RECEIVED:03/12/13
SAMPLING DATE:03/12/13 DATE ANALYZED:03/13/13
REPORT TO:MS. KRISTIN STOUT DATE REPORTED:03/13/13

SAMPLE I.D.: **G-11/12/13-0.5(COMPOSITE)**
LAB I.D.: 130312-31, -32, -33(COMPOSITE)

ANALYSIS: VOLATILE ORGANICS, EPA METHOD 5030B/8260B, PAGE 1 OF 2
UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
ACETONE	ND	0.020	0.010	1
BENZENE	ND	0.005	0.002	1
BROMOBENZENE	ND	0.005	0.002	1
BROMOCHLOROMETHANE	ND	0.005	0.002	1
BROMODICHLOROMETHANE	ND	0.005	0.002	1
BROMOFORM	ND	0.005	0.002	1
BROMOMETHANE	ND	0.005	0.002	1
2-BUTANONE (MEK)	ND	0.020	0.010	1
N-BUTYLBENZENE	ND	0.005	0.002	1
SEC-BUTYLBENZENE	ND	0.005	0.002	1
TERT-BUTYLBENZENE	ND	0.005	0.002	1
CARBON DISULFIDE	ND	0.010	0.005	1
CARBON TETRACHLORIDE	ND	0.005	0.002	1
CHLOROBENZENE	ND	0.005	0.002	1
CHLOROETHANE	ND	0.005	0.002	1
CHLOROFORM	ND	0.005	0.002	1
CHLOROMETHANE	ND	0.005	0.002	1
2-CHLOROTOLUENE	ND	0.005	0.002	1
4-CHLOROTOLUENE	ND	0.005	0.002	1
DIBROMOCHLOROMETHANE	ND	0.005	0.002	1
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.005	0.002	1
1,2-DIBROMOETHANE	ND	0.005	0.002	1
DIBROMOMETHANE	ND	0.005	0.002	1
1,2-DICHLOROBENZENE	ND	0.005	0.002	1
1,3-DICHLOROBENZENE	ND	0.005	0.002	1
1,4-DICHLOROBENZENE	ND	0.005	0.002	1
DICHLORODIFLUOROMETHANE	ND	0.005	0.002	1
1,1-DICHLOROETHANE	ND	0.005	0.002	1
1,2-DICHLOROETHANE	ND	0.005	0.002	1
1,1-DICHLOROETHENE	ND	0.005	0.002	1
CIS-1,2-DICHLOROETHENE	ND	0.005	0.002	1
TRANS-1,2-DICHLOROETHENE	ND	0.005	0.002	1
1,2-DICHLOROPROPANE	ND	0.005	0.002	1

----- TO BE CONTINUED ON PAGE #2 -----

DATA REVIEWED AND APPROVED BY: _____

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LABORATORY REPORT

CUSTOMER: **Leighton Consulting**
41715 Enterprise Circle N, Suite 103
Temecula, CA 92590
Tel(951)296-0530 Fax(951)296-0534

PROJECT: **Pulte - Rancho Mirage** PROJECT No.: **10143.001**
MATRIX: SOIL DATE RECEIVED: 03/12/13
SAMPLING DATE: 03/12/13 DATE ANALYZED: 03/13/13
REPORT TO: MS. KRISTIN STOUT DATE REPORTED: 03/13/13

SAMPLE I.D.: **G-11/12/13-0.5(COMPOSITE)**
LAB I.D.: 130312-31, -32, -33(COMPOSITE)

ANALYSIS: VOLATILE ORGANICS, EPA METHOD 5030B/8260B, PAGE 2 OF 2
UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
1,3-DICHLOROPROPANE	ND	0.005	0.002	1
2,2-DICHLOROPROPANE	ND	0.005	0.002	1
1,1-DICHLOROPROPENE	ND	0.005	0.002	1
CIS-1,3-DICHLOROPROPENE	ND	0.005	0.002	1
TRANS-1,3-DICHLOROPROPENE	ND	0.005	0.002	1
ETHYLBENZENE	ND	0.005	0.002	1
2-HEXANONE	ND	0.020	0.010	1
HEXACHLOROBUTADIENE	ND	0.005	0.002	1
ISOPROPYLBENZENE	ND	0.005	0.002	1
4-ISOPROPYLTOLUENE	ND	0.005	0.002	1
4-METHYL-2-PENTANONE (MIBK)	ND	0.020	0.010	1
METHYL tert-BUTYL ETHER (MTBE)	ND	0.005	0.002	1
METHYLENE CHLORIDE	ND	0.010	0.005	1
NAPHTHALENE	ND	0.005	0.002	1
N-PROPYLBENZENE	ND	0.005	0.002	1
STYRENE	ND	0.005	0.002	1
1,1,1,2-TETRACHLOROETHANE	ND	0.005	0.002	1
1,1,2,2-TETRACHLOROETHANE	ND	0.005	0.002	1
TETRACHLOROETHENE (PCE)	ND	0.005	0.002	1
TOLUENE	ND	0.005	0.002	1
1,2,3-TRICHLOROBENZENE	ND	0.005	0.002	1
1,2,4-TRICHLOROBENZENE	ND	0.005	0.002	1
1,1,1-TRICHLOROETHANE	ND	0.005	0.002	1
1,1,2-TRICHLOROETHANE	ND	0.005	0.002	1
TRICHLOROETHENE (TCE)	ND	0.005	0.002	1
TRICHLOROFLUOROMETHANE	ND	0.005	0.002	1
1,2,3-TRICHLOROPROPANE	ND	0.005	0.002	1
1,2,4-TRIMETHYLBENZENE	ND	0.005	0.002	1
1,3,5-TRIMETHYLBENZENE	ND	0.005	0.002	1
VINYL CHLORIDE	ND	0.005	0.002	1
M/P-XYLENE	ND	0.010	0.005	1
O-XYLENE	ND	0.005	0.002	1

COMMENTS DF = DILUTION FACTOR
MDL = METHOD DETECTION LIMIT
ACTUAL DETECTION LIMIT = PQL X DF
PQL = PRACTICAL QUANTITATION LIMIT
J = TRACE CONCENTRATION BETWEEN MDL and PQL
ND = BELOW THE ACTUAL DETECTION LIMIT OR NON-DETECTED
DATA REVIEWED AND APPROVED BY:
CAL-DHS CERTIFICATE # 1555

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LABORATORY REPORT

CUSTOMER: Leighton Consulting
41715 Enterprise Circle N, Suite 103
Temecula, CA 92590
Tel(951)296-0530 Fax(951)296-0534

PROJECT: Pulte - Rancho Mirage
MATRIX: SOIL
SAMPLING DATE: 03/12/13
REPORT TO: MS. KRISTIN STOUT

PROJECT No.: 10143.001
DATE RECEIVED: 03/12/13
DATE ANALYZED: 03/13/13
DATE REPORTED: 03/13/13

SAMPLE I.D.: G-14/15-0.5(COMPOSITE)
LAB I.D.: 130312-34, -35(COMPOSITE)

ANALYSIS: VOLATILE ORGANICS, EPA METHOD 5030B/8260B, PAGE 1 OF 2
UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
ACETONE	ND	0.020	0.010	1
BENZENE	ND	0.005	0.002	1
BROMOBENZENE	ND	0.005	0.002	1
BROMOCHLOROMETHANE	ND	0.005	0.002	1
BROMODICHLOROMETHANE	ND	0.005	0.002	1
BROMOFORM	ND	0.005	0.002	1
BROMOMETHANE	ND	0.005	0.002	1
2-BUTANONE (MEK)	ND	0.020	0.010	1
N-BUTYLBENZENE	ND	0.005	0.002	1
SEC-BUTYLBENZENE	ND	0.005	0.002	1
TERT-BUTYLBENZENE	ND	0.005	0.002	1
CARBON DISULFIDE	ND	0.010	0.005	1
CARBON TETRACHLORIDE	ND	0.005	0.002	1
CHLOROBENZENE	ND	0.005	0.002	1
CHLOROETHANE	ND	0.005	0.002	1
CHLOROFORM	ND	0.005	0.002	1
CHLOROMETHANE	ND	0.005	0.002	1
2-CHLOROTOLUENE	ND	0.005	0.002	1
4-CHLOROTOLUENE	ND	0.005	0.002	1
DIBROMOCHLOROMETHANE	ND	0.005	0.002	1
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.005	0.002	1
1,2-DIBROMOETHANE	ND	0.005	0.002	1
DIBROMOMETHANE	ND	0.005	0.002	1
1,2-DICHLOROBENZENE	ND	0.005	0.002	1
1,3-DICHLOROBENZENE	ND	0.005	0.002	1
1,4-DICHLOROBENZENE	ND	0.005	0.002	1
DICHLORODIFLUOROMETHANE	ND	0.005	0.002	1
1,1-DICHLOROETHANE	ND	0.005	0.002	1
1,2-DICHLOROETHANE	ND	0.005	0.002	1
1,1-DICHLOROETHENE	ND	0.005	0.002	1
CIS-1,2-DICHLOROETHENE	ND	0.005	0.002	1
TRANS-1,2-DICHLOROETHENE	ND	0.005	0.002	1
1,2-DICHLOROPROPANE	ND	0.005	0.002	1

----- TO BE CONTINUED ON PAGE #2 -----

DATA REVIEWED AND APPROVED BY: _____

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LABORATORY REPORT

CUSTOMER: **Leighton Consulting**
41715 Enterprise Circle N, Suite 103
Temecula, CA 92590
Tel(951)296-0530 Fax(951)296-0534

PROJECT: **Pulte - Rancho Mirage** PROJECT No.: **10143.001**
MATRIX: SOIL DATE RECEIVED: 03/12/13
SAMPLING DATE: 03/12/13 DATE ANALYZED: 03/13/13
REPORT TO: MS. KRISTIN STOUT DATE REPORTED: 03/13/13

SAMPLE I.D.: **G-14/15-0.5(COMPOSITE)**
LAB I.D.: 130312-34, -35(COMPOSITE)

ANALYSIS: VOLATILE ORGANICS, EPA METHOD 5030B/8260B, PAGE 2 OF 2
UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
1,3-DICHLOROPROPANE	ND	0.005	0.002	1
2,2-DICHLOROPROPANE	ND	0.005	0.002	1
1,1-DICHLOROPROPENE	ND	0.005	0.002	1
CIS-1,3-DICHLOROPROPENE	ND	0.005	0.002	1
TRANS-1,3-DICHLOROPROPENE	ND	0.005	0.002	1
ETHYLBENZENE	ND	0.005	0.002	1
2-HEXANONE	ND	0.020	0.010	1
HEXACHLOROBUTADIENE	ND	0.005	0.002	1
ISOPROPYLBENZENE	ND	0.005	0.002	1
4-ISOPROPYLTOLUENE	ND	0.005	0.002	1
4-METHYL-2-PENTANONE (MIBK)	ND	0.020	0.010	1
METHYL tert-BUTYL ETHER (MTBE)	ND	0.005	0.002	1
METHYLENE CHLORIDE	ND	0.010	0.005	1
NAPHTHALENE	ND	0.005	0.002	1
N-PROPYLBENZENE	ND	0.005	0.002	1
STYRENE	ND	0.005	0.002	1
1,1,1,2-TETRACHLOROETHANE	ND	0.005	0.002	1
1,1,2,2-TETRACHLOROETHANE	ND	0.005	0.002	1
TETRACHLOROETHENE (PCE)	ND	0.005	0.002	1
TOLUENE	ND	0.005	0.002	1
1,2,3-TRICHLOROBENZENE	ND	0.005	0.002	1
1,2,4-TRICHLOROBENZENE	ND	0.005	0.002	1
1,1,1-TRICHLOROETHANE	ND	0.005	0.002	1
1,1,2-TRICHLOROETHANE	ND	0.005	0.002	1
TRICHLOROETHENE (TCE)	ND	0.005	0.002	1
TRICHLOROFLUOROMETHANE	ND	0.005	0.002	1
1,2,3-TRICHLOROPROPANE	ND	0.005	0.002	1
1,2,4-TRIMETHYLBENZENE	ND	0.005	0.002	1
1,3,5-TRIMETHYLBENZENE	ND	0.005	0.002	1
VINYL CHLORIDE	ND	0.005	0.002	1
M/P-XYLENE	ND	0.010	0.005	1
O-XYLENE	ND	0.005	0.002	1

COMMENTS DF = DILUTION FACTOR
MDL = METHOD DETECTION LIMIT
ACTUAL DETECTION LIMIT = PQL X DF
PQL = PRACTICAL QUANTITATION LIMIT
J = TRACE CONCENTRATION BETWEEN MDL and PQL
ND = BELOW THE ACTUAL DETECTION LIMIT OR NON-DETECTED
DATA REVIEWED AND APPROVED BY:
CAL-DHS CERTIFICATE # 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

METHOD BLANK REPORT

CUSTOMER: Leighton Consulting
41715 Enterprise Circle N, Suite 103
Temecula, CA 92590
Tel(951)296-0530 Fax(951)296-0534

PROJECT: Pulte - Rancho Mirage
MATRIX: SOIL
SAMPLING DATE: 03/12/13
REPORT TO: MS. KRISTIN STOUT

PROJECT No.: 10143.001
DATE RECEIVED: 03/12/13
DATE ANALYZED: 03/13/13
DATE REPORTED: 03/13/13

METHOD BLANK FOR LAB I.D.:
130312-21 THROUGH -25(COMPOSITE), -26/-27(COMPOSITE), -28/-29/-30(COMPOSITE), -31/-32/-33(COMPOSITE), -34/-35(COMPOSITE)

ANALYSIS: VOLATILE ORGANICS, EPA METHOD 5030B/8260B, PAGE 1 OF 2
UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
ACETONE	ND	0.020	0.010	1
BENZENE	ND	0.005	0.002	1
BROMOBENZENE	ND	0.005	0.002	1
BROMOCHLOROMETHANE	ND	0.005	0.002	1
BROMODICHLOROMETHANE	ND	0.005	0.002	1
BROMOFORM	ND	0.005	0.002	1
BROMOMETHANE	ND	0.005	0.002	1
2-BUTANONE (MEK)	ND	0.020	0.010	1
N-BUTYLBENZENE	ND	0.005	0.002	1
SEC-BUTYLBENZENE	ND	0.005	0.002	1
TERT-BUTYLBENZENE	ND	0.005	0.002	1
CARBON DISULFIDE	ND	0.010	0.005	1
CARBON TETRACHLORIDE	ND	0.005	0.002	1
CHLOROBENZENE	ND	0.005	0.002	1
CHLOROETHANE	ND	0.005	0.002	1
CHLOROFORM	ND	0.005	0.002	1
CHLOROMETHANE	ND	0.005	0.002	1
2-CHLOROTOLUENE	ND	0.005	0.002	1
4-CHLOROTOLUENE	ND	0.005	0.002	1
DIBROMOCHLOROMETHANE	ND	0.005	0.002	1
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.005	0.002	1
1,2-DIBROMOETHANE	ND	0.005	0.002	1
DIBROMOMETHANE	ND	0.005	0.002	1
1,2-DICHLOROBENZENE	ND	0.005	0.002	1
1,3-DICHLOROBENZENE	ND	0.005	0.002	1
1,4-DICHLOROBENZENE	ND	0.005	0.002	1
DICHLORODIFLUOROMETHANE	ND	0.005	0.002	1
1,1-DICHLOROETHANE	ND	0.005	0.002	1
1,2-DICHLOROETHANE	ND	0.005	0.002	1
1,1-DICHLOROETHENE	ND	0.005	0.002	1
CIS-1,2-DICHLOROETHENE	ND	0.005	0.002	1
TRANS-1,2-DICHLOROETHENE	ND	0.005	0.002	1
1,2-DICHLOROPROPANE	ND	0.005	0.002	1

----- TO BE CONTINUED ON PAGE #2 -----

DATA REVIEWED AND APPROVED BY: _____

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METHOD BLANK REPORT

CUSTOMER: Leighton Consulting
41715 Enterprise Circle N, Suite 103
Temecula, CA 92590
Tel(951)296-0530 Fax(951)296-0534

PROJECT: Pulte - Rancho Mirage
MATRIX:SOIL
SAMPLING DATE:03/12/13
REPORT TO:MS. KRISTIN STOUT

PROJECT No.: 10143.001
DATE RECEIVED:03/12/13
DATE ANALYZED:03/13/13
DATE REPORTED:03/13/13

METHOD BLANK FOR LAB I.D.:
130312-21 THROUGH -25(COMPOSITE), -26/-27(COMPOSITE), -28/-29/-30(COMPOSITE), -31/-32/-33(COMPOSITE), -34/-35(COMPOSITE)

ANALYSIS: VOLATILE ORGANICS, EPA METHOD 5030B/8260B, PAGE 2 OF 2
UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
1,3-DICHLOROPROPANE	ND	0.005	0.002	1
2,2-DICHLOROPROPANE	ND	0.005	0.002	1
1,1-DICHLOROPROPENE	ND	0.005	0.002	1
CIS-1,3-DICHLOROPROPENE	ND	0.005	0.002	1
TRANS-1,3-DICHLOROPROPENE	ND	0.005	0.002	1
ETHYLBENZENE	ND	0.005	0.002	1
2-HEXANONE	ND	0.020	0.010	1
HEXACHLOROBUTADIENE	ND	0.005	0.002	1
ISOPROPYLBENZENE	ND	0.005	0.002	1
4-ISOPROPYLTOLUENE	ND	0.005	0.002	1
4-METHYL-2-PENTANONE (MIBK)	ND	0.020	0.010	1
METHYL tert-BUTYL ETHER (MTBE)	ND	0.005	0.002	1
METHYLENE CHLORIDE	ND	0.010	0.005	1
NAPHTHALENE	ND	0.005	0.002	1
N-PROPYLBENZENE	ND	0.005	0.002	1
STYRENE	ND	0.005	0.002	1
1,1,1,2-TETRACHLOROETHANE	ND	0.005	0.002	1
1,1,2,2-TETRACHLOROETHANE	ND	0.005	0.002	1
TETRACHLOROETHENE (PCE)	ND	0.005	0.002	1
TOLUENE	ND	0.005	0.002	1
1,2,3-TRICHLOROBENZENE	ND	0.005	0.002	1
1,2,4-TRICHLOROBENZENE	ND	0.005	0.002	1
1,1,1-TRICHLOROETHANE	ND	0.005	0.002	1
1,1,2-TRICHLOROETHANE	ND	0.005	0.002	1
TRICHLOROETHENE (TCE)	ND	0.005	0.002	1
TRICHLOROFLUOROMETHANE	ND	0.005	0.002	1
1,2,3-TRICHLOROPROPANE	ND	0.005	0.002	1
1,2,4-TRIMETHYLBENZENE	ND	0.005	0.002	1
1,3,5-TRIMETHYLBENZENE	ND	0.005	0.002	1
VINYL CHLORIDE	ND	0.005	0.002	1
M/P-XYLENE	ND	0.010	0.005	1
O-XYLENE	ND	0.005	0.002	1

COMMENTS DF = DILUTION FACTOR
MDL = METHOD DETECTION LIMIT
ACTUAL DETECTION LIMIT = PQL X DF
PQL = PRACTICAL QUANTITATION LIMIT
J = TRACE CONCENTRATION BETWEEN MDL and PQL
ND = BELOW THE ACTUAL DETECTION LIMIT OR NON-DETECTED
DATA REVIEWED AND APPROVED BY:
CAL-DHS CERTIFICATE # 1555

Enviro-Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909)590-5905 Fax (909)590-5907

8260B QA/QC Report

Date Analyzed: 3/13/2013 **Matrix:** Solid/Soil/Liquid
Machine: C **Unit:** mg/Kg (PPM)

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)
Spiked Sample Lab I.D.: 130313-LCS1/2

Analyte	S.R.	spk conc	MS	%RC	MSD	%RC	%RPD	ACP %RC	ACP RPD
Benzene	0	0.050	0.046	92%	0.046	92%	0%	75-125	0-20
Chlorobenzene	0	0.050	0.060	121%	0.060	119%	1%	75-125	0-20
1,1-Dichloroethene	0	0.050	0.048	96%	0.043	87%	9%	75-125	0-20
Toluene	0	0.050	0.049	98%	0.049	97%	0%	75-125	0-20
Trichloroethene (TCE)	0	0.050	0.053	105%	0.053	106%	1%	75-125	0-20

Lab Control Spike (LCS):

Analyte	spk conc	LCS	%RC	ACP %RC
Benzene	0.050	0.048	97%	75-125
Chlorobenzene	0.050	0.061	122%	75-125
Chloroform	0.050	0.052	104%	75-125
1,1-Dichlorothene	0.050	0.051	102%	75-125
Ethylbenzene	0.050	0.059	117%	75-125
o-Xylene	0.050	0.061	122%	75-125
m,p-Xylene	0.100	0.123	123%	75-125
Toluene	0.050	0.051	101%	75-125
1,1,1-Trichloroethane	0.050	0.053	106%	75-125
Trichloroethene (TCE)	0.050	0.051	102%	75-125

Surrogate Recovery	spk conc	ACP %RC	MB %RC	%RC	%RC	%RC	%RC	%RC	%RC
Sample I.D.			M-BLK	130312-15	130312-21~25	130312-26~27	130312-28~30	130312-31~33	130312-34~35
Dibromofluoromethane	50.0	70-130	106%	108%	73%	75%	76%	74%	75%
Toluene-d8	50.0	70-130	87%	91%	88%	89%	87%	87%	86%
4-Bromofluorobenzene	50.0	70-130	106%	113%	109%	112%	108%	111%	107%

Surrogate Recovery	spk conc	ACP %RC	%RC	%RC	%RC	%RC	%RC	%RC	%RC
Sample I.D.									
Dibromofluoromethane	50.0	70-130							
Toluene-d8	50.0	70-130							
4-Bromofluorobenzene	50.0	70-130							

Surrogate Recovery	spk conc	ACP %RC	%RC	%RC	%RC	%RC	%RC	%RC	%RC
Sample I.D.									
Dibromofluoromethane	50.0	70-130							
Toluene-d8	50.0	70-130							
4-Bromofluorobenzene	50.0	70-130							

** = Surrogate fail due to matrix interference; LCS, MS, MSD are in control therefore the analysis is in control.*
S.R. = Sample Results *%RC = Percent Recovery*
spk conc = Spike Concentration *ACP %RC = Accepted Percent Recovery*
MS = Matrix Spike *MSD = Matrix Spike Duplicate*

Analyzed/Revlewed By: _____

Final Revlewer: _____

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **Leighton Consulting**
41715 Enterprise Circle N, Suite 103
Temecula, CA 92590
Tel(951)296-0530 Fax(951)296-0534

PROJECT: **Pulte - Rancho Mirage**
PROJECT No.: **10143.001**
DATE RECEIVED: 03/12/13
MATRIX: SOIL
DATE EXTRACTED: 03/13/13
SAMPLING DATE: 03/12/13
DATE ANALYZED: 03/13/13
REPORT TO: MS. KRISTIN STOUT
DATE REPORTED: 03/13/13

SAMPLE I.D.: **G-1/2/3/4/5-0.5(COMPOSITE)**
LAB I.D.: 130312-21 THROUGH -25(COMPOSITE)

SEMI-VOLATILE ORGANICS, EPA 8270C, PAGE 1 OF 2
UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Acenaphthene	ND	0.50	0.017	1
Acenaphthylene	ND	0.50	0.028	1
Anthracene	ND	0.50	0.028	1
Benzo(a)anthracene	ND	0.50	0.080	1
Benzo(b)fluoranthene	ND	0.50	0.104	1
Benzo(a)pyrene	ND	0.50	0.049	1
Benzo(g,h,i)perylene	ND	0.50	0.044	1
Benzo(k)fluoranthene	ND	0.50	0.150	1
Benzoic Acid	ND	0.50	0.387	1
Benzyl Alcohol	ND	0.50	0.021	1
Bis(2-Chloroethoxy)methane	ND	0.50	0.026	1
Bis(2-Chloroethyl)ether	ND	0.50	0.015	1
Bis(2-Chloroisopropyl)ether	ND	0.50	0.044	1
Bis(2-Ethylhexyl)Phthalate	ND	0.50	0.037	1
4-Bromophenyl Phenyl Ether	ND	0.50	0.061	1
Butylbenzylphthalate	ND	0.50	0.031	1
4-Chloro-3-Methylphenol	ND	0.50	0.035	1
4-Chloroaniline	ND	0.50	0.043	1
2-Chloronaphthalene	ND	0.50	0.038	1
2-Chlorophenol	ND	0.50	0.024	1
4-Chlorophenyl Phenyl Ether	ND	0.50	0.027	1
Chrysene	ND	0.50	0.036	1
Di-n-butylphthalate	ND	0.50	0.028	1
Di-n-octylphthalate	ND	0.50	0.037	1
Dibenzo(a,h)anthracene	ND	0.50	0.047	1
Dibenzofuran	ND	0.50	0.041	1
1,2-Dichlorobenzene	ND	0.50	0.039	1
1,3-Dichlorobenzene	ND	0.50	0.039	1
1,4-Dichlorobenzene	ND	0.50	0.029	1
3,3-Dichlorobenzidine	ND	0.50	0.075	1
2,4-Dichlorophenol	ND	0.50	0.028	1
Diethyl Phthalate	ND	0.50	0.029	1
2,4-Dimethylphenol	ND	0.50	0.023	1
Dimethyl Phthalate	ND	0.50	0.018	1

----- TO BE CONTINUED ON PAGE #2 -----

DATA REVIEWED AND APPROVED BY: _____

Enviro – Chem, Inc.
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LABORATORY REPORT

CUSTOMER: **Leighton Consulting**
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Temecula, CA 92590
Tel(951)296-0530 Fax(951)296-0534

PROJECT: **Pulte - Rancho Mirage**
PROJECT No.: **10143.001**
DATE RECEIVED: 03/12/13
MATRIX: SOIL
DATE EXTRACTED: 03/13/13
SAMPLING DATE: 03/12/13
DATE ANALYZED: 03/13/13
REPORT TO: MS. KRISTIN STOUT
DATE REPORTED: 03/13/13

SAMPLE I.D.: **G-1/2/3/4/5-0.5(COMPOSITE)**
LAB I.D.: 130312-21 THROUGH -25(COMPOSITE)

SEMI-VOLATILE ORGANICS, EPA 8270C, PAGE 2 OF 2
UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
4,6-Dinitro-2-methylphenol	ND	0.50	0.045	1
2,4-Dinitrophenol	ND	0.50	0.047	1
2,4-Dinitrotoluene	ND	0.50	0.024	1
2,6-Dinitrotoluene	ND	0.50	0.050	1
Fluoranthene	ND	0.50	0.022	1
Fluorene	ND	0.50	0.026	1
Hexachlorobenzene	ND	0.50	0.031	1
Hexachlorobutadiene	ND	0.50	0.022	1
Hexachlorocyclopentadiene	ND	0.50	0.041	1
Hexachloroethane	ND	0.50	0.030	1
Indeno(1,2,3-cd)pyrene	ND	0.50	0.046	1
Isophorone	ND	0.50	0.026	1
2-Methyl Phenol	ND	0.50	0.042	1
3/4-Methyl Phenol	ND	0.50	0.037	1
2-Methylnaphthalene	ND	0.50	0.036	1
N-Nitroso-di-n-dipropylamine	ND	0.50	0.024	1
N-Nitrosodimethylamine	ND	0.50	0.015	1
N-Nitrosodiphenylamine	ND	0.50	0.042	1
Naphthalene	ND	0.50	0.014	1
2-Nitroaniline	ND	0.50	0.026	1
3-Nitroaniline	ND	0.50	0.043	1
4-Nitroaniline	ND	0.50	0.052	1
Nitrobenzene	ND	0.50	0.157	1
2-Nitrophenol	ND	0.50	0.031	1
4-Nitrophenol	ND	0.50	0.040	1
Pentachlorophenol	ND	0.50	0.048	1
Phenanthrene	ND	0.50	0.036	1
Phenol	ND	0.50	0.031	1
Pyrene	ND	0.50	0.043	1
1,2,4-Trichlorobenzene	ND	0.50	0.030	1
2,4,5-Trichlorophenol	ND	0.50	0.054	1
2,4,6-Trichlorophenol	ND	0.50	0.041	1

COMMENTS DF = DILUTION FACTOR
MDL = METHOD DETECTION LIMIT / PQL = PRACTICAL QUANTITATION LIMIT
J = TRACE CONCENTRATION BETWEEN MDL AND PQL
ACTUAL DETECTION LIMIT = PQL X DF
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT
DATA REVIEWED AND APPROVED BY:
CAL-DHS CERTIFICATE # 1555

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LABORATORY REPORT

CUSTOMER: **Leighton Consulting**
41715 Enterprise Circle N, Suite 103
Temecula, CA 92590
Tel(951)296-0530 Fax(951)296-0534

PROJECT: **Pulte - Rancho Mirage** PROJECT No.: **10143.001**
DATE RECEIVED:03/12/13
MATRIX:SOIL DATE EXTRACTED:03/13/13
SAMPLING DATE:03/12/13 DATE ANALYZED:03/13/13
REPORT TO:MS. KRISTIN STOUT DATE REPORTED:03/13/13

SAMPLE I.D.: **G-6/7-0.5(COMPOSITE)**
LAB I.D.: 130312-26, -27(COMPOSITE)

SEMI-VOLATILE ORGANICS, EPA 8270C, PAGE 1 OF 2
UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Acenaphthene	ND	0.50	0.017	1
Acenaphthylene	ND	0.50	0.028	1
Anthracene	ND	0.50	0.028	1
Benzo(a)anthracene	ND	0.50	0.080	1
Benzo(b)fluoranthene	ND	0.50	0.104	1
Benzo(a)pyrene	ND	0.50	0.049	1
Benzo(g,h,i)perylene	ND	0.50	0.044	1
Benzo(k)fluoranthene	ND	0.50	0.150	1
Benzoic Acid	ND	0.50	0.387	1
Benzyl Alcohol	ND	0.50	0.021	1
Bis(2-Chloroethoxy)methane	ND	0.50	0.026	1
Bis(2-Chloroethyl)ether	ND	0.50	0.015	1
Bis(2-Chloroisopropyl)ether	ND	0.50	0.044	1
Bis(2-Ethylhexyl)Phthalate	ND	0.50	0.037	1
4-Bromophenyl Phenyl Ether	ND	0.50	0.061	1
Butylbenzylphthalate	ND	0.50	0.031	1
4-Chloro-3-Methylphenol	ND	0.50	0.035	1
4-Chloroaniline	ND	0.50	0.043	1
2-Chloronaphthalene	ND	0.50	0.038	1
2-Chlorophenol	ND	0.50	0.024	1
4-Chlorophenyl Phenyl Ether	ND	0.50	0.027	1
Chrysene	ND	0.50	0.036	1
Di-n-butylphthalate	ND	0.50	0.028	1
Di-n-octylphthalate	ND	0.50	0.037	1
Dibenzo(a,h)anthracene	ND	0.50	0.047	1
Dibenzofuran	ND	0.50	0.041	1
1,2-Dichlorobenzene	ND	0.50	0.039	1
1,3-Dichlorobenzene	ND	0.50	0.039	1
1,4-Dichlorobenzene	ND	0.50	0.029	1
3,3-Dichlorobenzidine	ND	0.50	0.075	1
2,4-Dichlorophenol	ND	0.50	0.028	1
Diethyl Phthalate	ND	0.50	0.029	1
2,4-Dimethylphenol	ND	0.50	0.023	1
Dimethyl Phthalate	ND	0.50	0.018	1

----- TO BE CONTINUED ON PAGE #2 -----

DATA REVIEWED AND APPROVED BY: _____

LABORATORY REPORT

CUSTOMER: **Leighton Consulting**
41715 Enterprise Circle N, Suite 103
Temecula, CA 92590
Tel(951)296-0530 Fax(951)296-0534

PROJECT: **Pulte - Rancho Mirage**
PROJECT No.: **10143.001**
DATE RECEIVED:03/12/13
MATRIX:SOIL
DATE EXTRACTED:03/13/13
SAMPLING DATE:03/12/13
DATE ANALYZED:03/13/13
REPORT TO:MS. KRISTIN STOUT
DATE REPORTED:03/13/13

SAMPLE I.D.: **G-6/7-0.5(COMPOSITE)**
LAB I.D.: 130312-26, -27(COMPOSITE)

SEMI-VOLATILE ORGANICS, EPA 8270C, PAGE 2 OF 2
UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
4,6-Dinitro-2-methylphenol	ND	0.50	0.045	1
2,4-Dinitrophenol	ND	0.50	0.047	1
2,4-Dinitrotoluene	ND	0.50	0.024	1
2,6-Dinitrotoluene	ND	0.50	0.050	1
Fluoranthene	ND	0.50	0.022	1
Fluorene	ND	0.50	0.026	1
Hexachlorobenzene	ND	0.50	0.031	1
Hexachlorobutadiene	ND	0.50	0.022	1
Hexachlorocyclopentadiene	ND	0.50	0.041	1
Hexachloroethane	ND	0.50	0.030	1
Indeno(1,2,3-cd)pyrene	ND	0.50	0.046	1
Isophorone	ND	0.50	0.026	1
2-Methyl Phenol	ND	0.50	0.042	1
3/4-Methyl Phenol	ND	0.50	0.037	1
2-Methylnaphthalene	ND	0.50	0.036	1
N-Nitroso-di-n-dipropylamine	ND	0.50	0.024	1
N-Nitrosodimethylamine	ND	0.50	0.015	1
N-Nitrosodiphenylamine	ND	0.50	0.042	1
Naphthalene	ND	0.50	0.014	1
2-Nitroaniline	ND	0.50	0.026	1
3-Nitroaniline	ND	0.50	0.043	1
4-Nitroaniline	ND	0.50	0.052	1
Nitrobenzene	ND	0.50	0.157	1
2-Nitrophenol	ND	0.50	0.031	1
4-Nitrophenol	ND	0.50	0.040	1
Pentachlorophenol	ND	0.50	0.048	1
Phenanthrene	ND	0.50	0.036	1
Phenol	ND	0.50	0.031	1
Pyrene	ND	0.50	0.043	1
1,2,4-Trichlorobenzene	ND	0.50	0.030	1
2,4,5-Trichlorophenol	ND	0.50	0.054	1
2,4,6-Trichlorophenol	ND	0.50	0.041	1

COMMENTS DF = DILUTION FACTOR
MDL = METHOD DETECTION LIMIT / PQL = PRACTICAL QUANTITATION LIMIT
J = TRACE CONCENTRATION BETWEEN MDL AND PQL
ACTUAL DETECTION LIMIT = PQL X DF
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT
DATA REVIEWED AND APPROVED BY:
CAL-DHS CERTIFICATE # 1555

Enviro – Chem, Inc.
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LABORATORY REPORT

CUSTOMER: **Leighton Consulting**
41715 Enterprise Circle N, Suite 103
Temecula, CA 92590
Tel(951)296-0530 Fax(951)296-0534

PROJECT: **Pulte - Rancho Mirage** PROJECT No.: **10143.001**
DATE RECEIVED: 03/12/13
MATRIX: SOIL DATE EXTRACTED: 03/13/13
SAMPLING DATE: 03/12/13 DATE ANALYZED: 03/13/13
REPORT TO: MS. KRISTIN STOUT DATE REPORTED: 03/13/13

SAMPLE I.D.: **G-8/9/10-0.5(COMPOSITE)**
LAB I.D.: 130312-28, -29, -30(COMPOSITE)

SEMI-VOLATILE ORGANICS, EPA 8270C, PAGE 1 OF 2
UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Acenaphthene	ND	0.50	0.017	1
Acenaphthylene	ND	0.50	0.028	1
Anthracene	ND	0.50	0.028	1
Benzo(a)anthracene	ND	0.50	0.080	1
Benzo(b)fluoranthene	ND	0.50	0.104	1
Benzo(a)pyrene	ND	0.50	0.049	1
Benzo(g,h,i)perylene	ND	0.50	0.044	1
Benzo(k)fluoranthene	ND	0.50	0.150	1
Benzoic Acid	ND	0.50	0.387	1
Benzyl Alcohol	ND	0.50	0.021	1
Bis(2-Chloroethoxy)methane	ND	0.50	0.026	1
Bis(2-Chloroethyl)ether	ND	0.50	0.015	1
Bis(2-Chloroisopropyl)ether	ND	0.50	0.044	1
Bis(2-Ethylhexyl)Phthalate	ND	0.50	0.037	1
4-Bromophenyl Phenyl Ether	ND	0.50	0.061	1
Butylbenzylphthalate	ND	0.50	0.031	1
4-Chloro-3-Methylphenol	ND	0.50	0.035	1
4-Chloroaniline	ND	0.50	0.043	1
2-Chloronaphthalene	ND	0.50	0.038	1
2-Chlorophenol	ND	0.50	0.024	1
4-Chlorophenyl Phenyl Ether	ND	0.50	0.027	1
Chrysene	ND	0.50	0.036	1
Di-n-butylphthalate	ND	0.50	0.028	1
Di-n-octylphthalate	ND	0.50	0.037	1
Dibenzo(a,h)anthracene	ND	0.50	0.047	1
Dibenzofuran	ND	0.50	0.041	1
1,2-Dichlorobenzene	ND	0.50	0.039	1
1,3-Dichlorobenzene	ND	0.50	0.039	1
1,4-Dichlorobenzene	ND	0.50	0.029	1
3,3-Dichlorobenzidine	ND	0.50	0.075	1
2,4-Dichlorophenol	ND	0.50	0.028	1
Diethyl Phthalate	ND	0.50	0.029	1
2,4-Dimethylphenol	ND	0.50	0.023	1
Dimethyl Phthalate	ND	0.50	0.018	1

----- TO BE CONTINUED ON PAGE #2 -----

DATA REVIEWED AND APPROVED BY: _____

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LABORATORY REPORT

CUSTOMER: **Leighton Consulting**
41715 Enterprise Circle N, Suite 103
Temecula, CA 92590
Tel(951)296-0530 Fax(951)296-0534

PROJECT: **Pulte - Rancho Mirage** PROJECT No.: **10143.001**
DATE RECEIVED: 03/12/13
MATRIX: SOIL DATE EXTRACTED: 03/13/13
SAMPLING DATE: 03/12/13 DATE ANALYZED: 03/13/13
REPORT TO: MS. KRISTIN STOUT DATE REPORTED: 03/13/13

SAMPLE I.D.: **G-8/9/10-0.5(COMPOSITE)**
LAB I.D.: 130312-28, -29, -30(COMPOSITE)

SEMI-VOLATILE ORGANICS, EPA 8270C, PAGE 2 OF 2
UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
4,6-Dinitro-2-methylphenol	ND	0.50	0.045	1
2,4-Dinitrophenol	ND	0.50	0.047	1
2,4-Dinitrotoluene	ND	0.50	0.024	1
2,6-Dinitrotoluene	ND	0.50	0.050	1
Fluoranthene	ND	0.50	0.022	1
Fluorene	ND	0.50	0.026	1
Hexachlorobenzene	ND	0.50	0.031	1
Hexachlorobutadiene	ND	0.50	0.022	1
Hexachlorocyclopentadiene	ND	0.50	0.041	1
Hexachloroethane	ND	0.50	0.030	1
Indeno(1,2,3-cd)pyrene	ND	0.50	0.046	1
Isophorone	ND	0.50	0.026	1
2-Methyl Phenol	ND	0.50	0.042	1
3/4-Methyl Phenol	ND	0.50	0.037	1
2-Methylnaphthalene	ND	0.50	0.036	1
N-Nitroso-di-n-dipropylamine	ND	0.50	0.024	1
N-Nitrosodimethylamine	ND	0.50	0.015	1
N-Nitrosodiphenylamine	ND	0.50	0.042	1
Naphthalene	ND	0.50	0.014	1
2-Nitroaniline	ND	0.50	0.026	1
3-Nitroaniline	ND	0.50	0.043	1
4-Nitroaniline	ND	0.50	0.052	1
Nitrobenzene	ND	0.50	0.157	1
2-Nitrophenol	ND	0.50	0.031	1
4-Nitrophenol	ND	0.50	0.040	1
Pentachlorophenol	ND	0.50	0.048	1
Phenanthrene	ND	0.50	0.036	1
Phenol	ND	0.50	0.031	1
Pyrene	ND	0.50	0.043	1
1,2,4-Trichlorobenzene	ND	0.50	0.030	1
2,4,5-Trichlorophenol	ND	0.50	0.054	1
2,4,6-Trichlorophenol	ND	0.50	0.041	1

COMMENTS DF = DILUTION FACTOR
MDL = METHOD DETECTION LIMIT / PQL = PRACTICAL QUANTITATION LIMIT
J = TRACE CONCENTRATION BETWEEN MDL AND PQL
ACTUAL DETECTION LIMIT = PQL X DF
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT
DATA REVIEWED AND APPROVED BY:
CAL-DHS CERTIFICATE # 1555

Enviro – Chem, Inc.
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LABORATORY REPORT

CUSTOMER: **Leighton Consulting**
41715 Enterprise Circle N, Suite 103
Temecula, CA 92590
Tel(951)296-0530 Fax(951)296-0534

PROJECT: **Pulte - Rancho Mirage** PROJECT No.: **10143.001**
DATE RECEIVED: 03/12/13
MATRIX: SOIL DATE EXTRACTED: 03/13/13
SAMPLING DATE: 03/12/13 DATE ANALYZED: 03/13/13
REPORT TO: MS. KRISTIN STOUT DATE REPORTED: 03/13/13

SAMPLE I.D.: **G-11/12/13-0.5(COMPOSITE)**
LAB I.D.: 130312-31, -32, -33(COMPOSITE)

SEMI-VOLATILE ORGANICS, EPA 8270C, PAGE 1 OF 2
UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Acenaphthene	ND	0.50	0.017	1
Acenaphthylene	ND	0.50	0.028	1
Anthracene	ND	0.50	0.028	1
Benzo(a)anthracene	ND	0.50	0.080	1
Benzo(b)fluoranthene	ND	0.50	0.104	1
Benzo(a)pyrene	ND	0.50	0.049	1
Benzo(g,h,i)perylene	ND	0.50	0.044	1
Benzo(k)fluoranthene	ND	0.50	0.150	1
Benzoic Acid	ND	0.50	0.387	1
Benzyl Alcohol	ND	0.50	0.021	1
Bis(2-Chloroethoxy)methane	ND	0.50	0.026	1
Bis(2-Chloroethyl)ether	ND	0.50	0.015	1
Bis(2-Chloroisopropyl)ether	ND	0.50	0.044	1
Bis(2-Ethylhexyl)Phthalate	ND	0.50	0.037	1
4-Bromophenyl Phenyl Ether	ND	0.50	0.061	1
Butylbenzylphthalate	ND	0.50	0.031	1
4-Chloro-3-Methylphenol	ND	0.50	0.035	1
4-Chloroaniline	ND	0.50	0.043	1
2-Chloronaphthalene	ND	0.50	0.038	1
2-Chlorophenol	ND	0.50	0.024	1
4-Chlorophenyl Phenyl Ether	ND	0.50	0.027	1
Chrysene	ND	0.50	0.036	1
Di-n-butylphthalate	ND	0.50	0.028	1
Di-n-octylphthalate	ND	0.50	0.037	1
Dibenzo(a,h)anthracene	ND	0.50	0.047	1
Dibenzofuran	ND	0.50	0.041	1
1,2-Dichlorobenzene	ND	0.50	0.039	1
1,3-Dichlorobenzene	ND	0.50	0.039	1
1,4-Dichlorobenzene	ND	0.50	0.029	1
3,3-Dichlorobenzidine	ND	0.50	0.075	1
2,4-Dichlorophenol	ND	0.50	0.028	1
Diethyl Phthalate	ND	0.50	0.029	1
2,4-Dimethylphenol	ND	0.50	0.023	1
Dimethyl Phthalate	ND	0.50	0.018	1

----- TO BE CONTINUED ON PAGE #2 -----

DATA REVIEWED AND APPROVED BY: _____

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **Leighton Consulting**
41715 Enterprise Circle N, Suite 103
Temecula, CA 92590
Tel(951)296-0530 Fax(951)296-0534

PROJECT: **Pulte - Rancho Mirage** PROJECT No.: **10143.001**
DATE RECEIVED: 03/12/13
MATRIX: SOIL DATE EXTRACTED: 03/13/13
SAMPLING DATE: 03/12/13 DATE ANALYZED: 03/13/13
REPORT TO: MS. KRISTIN STOUT DATE REPORTED: 03/13/13

SAMPLE I.D.: **G-11/12/13-0.5(COMPOSITE)**
LAB I.D.: 130312-31, -32, -33(COMPOSITE)

SEMI-VOLATILE ORGANICS, EPA 8270C, PAGE 2 OF 2
UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
4,6-Dinitro-2-methylphenol	ND	0.50	0.045	1
2,4-Dinitrophenol	ND	0.50	0.047	1
2,4-Dinitrotoluene	ND	0.50	0.024	1
2,6-Dinitrotoluene	ND	0.50	0.050	1
Fluoranthene	ND	0.50	0.022	1
Fluorene	ND	0.50	0.026	1
Hexachlorobenzene	ND	0.50	0.031	1
Hexachlorobutadiene	ND	0.50	0.022	1
Hexachlorocyclopentadiene	ND	0.50	0.041	1
Hexachloroethane	ND	0.50	0.030	1
Indeno(1,2,3-cd)pyrene	ND	0.50	0.046	1
Isophorone	ND	0.50	0.026	1
2-Methyl Phenol	ND	0.50	0.042	1
3/4-Methyl Phenol	ND	0.50	0.037	1
2-Methylnaphthalene	ND	0.50	0.036	1
N-Nitroso-di-n-dipropylamine	ND	0.50	0.024	1
N-Nitrosodimethylamine	ND	0.50	0.015	1
N-Nitrosodiphenylamine	ND	0.50	0.042	1
Naphthalene	ND	0.50	0.014	1
2-Nitroaniline	ND	0.50	0.026	1
3-Nitroaniline	ND	0.50	0.043	1
4-Nitroaniline	ND	0.50	0.052	1
Nitrobenzene	ND	0.50	0.157	1
2-Nitrophenol	ND	0.50	0.031	1
4-Nitrophenol	ND	0.50	0.040	1
Pentachlorophenol	ND	0.50	0.048	1
Phenanthrene	ND	0.50	0.036	1
Phenol	ND	0.50	0.031	1
Pyrene	ND	0.50	0.043	1
1,2,4-Trichlorobenzene	ND	0.50	0.030	1
2,4,5-Trichlorophenol	ND	0.50	0.054	1
2,4,6-Trichlorophenol	ND	0.50	0.041	1

COMMENTS DF = DILUTION FACTOR
MDL = METHOD DETECTION LIMIT / PQL = PRACTICAL QUANTITATION LIMIT
J = TRACE CONCENTRATION BETWEEN MDL AND PQL
ACTUAL DETECTION LIMIT = PQL X DF
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT
DATA REVIEWED AND APPROVED BY:
CAL-DHS CERTIFICATE # 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **Leighton Consulting**
41715 Enterprise Circle N, Suite 103
Temecula, CA 92590
Tel(951)296-0530 Fax(951)296-0534

PROJECT: **Pulte - Rancho Mirage** PROJECT No.: **10143.001**
DATE RECEIVED: 03/12/13
MATRIX: SOIL DATE EXTRACTED: 03/13/13
SAMPLING DATE: 03/12/13 DATE ANALYZED: 03/13/13
REPORT TO: MS. KRISTIN STOUT DATE REPORTED: 03/13/13

SAMPLE I.D.: **G-14/15-0.5(COMPOSITE)**
LAB I.D.: 130312-34, -35(COMPOSITE)

SEMI-VOLATILE ORGANICS, EPA 8270C, PAGE 1 OF 2
UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Acenaphthene	ND	0.50	0.017	1
Acenaphthylene	ND	0.50	0.028	1
Anthracene	ND	0.50	0.028	1
Benzo(a)anthracene	ND	0.50	0.080	1
Benzo(b)fluoranthene	ND	0.50	0.104	1
Benzo(a)pyrene	ND	0.50	0.049	1
Benzo(g,h,i)perylene	ND	0.50	0.044	1
Benzo(k)fluoranthene	ND	0.50	0.150	1
Benzoic Acid	ND	0.50	0.387	1
Benzyl Alcohol	ND	0.50	0.021	1
Bis(2-Chloroethoxy)methane	ND	0.50	0.026	1
Bis(2-Chloroethyl)ether	ND	0.50	0.015	1
Bis(2-Chloroisopropyl)ether	ND	0.50	0.044	1
Bis(2-Ethylhexyl)Phthalate	ND	0.50	0.037	1
4-Bromophenyl Phenyl Ether	ND	0.50	0.061	1
Butylbenzylphthalate	ND	0.50	0.031	1
4-Chloro-3-Methylphenol	ND	0.50	0.035	1
4-Chloroaniline	ND	0.50	0.043	1
2-Chloronaphthalene	ND	0.50	0.038	1
2-Chlorophenol	ND	0.50	0.024	1
4-Chlorophenyl Phenyl Ether	ND	0.50	0.027	1
Chrysene	ND	0.50	0.036	1
Di-n-butylphthalate	ND	0.50	0.028	1
Di-n-octylphthalate	ND	0.50	0.037	1
Dibenzo(a,h)anthracene	ND	0.50	0.047	1
Dibenzofuran	ND	0.50	0.041	1
1,2-Dichlorobenzene	ND	0.50	0.039	1
1,3-Dichlorobenzene	ND	0.50	0.039	1
1,4-Dichlorobenzene	ND	0.50	0.029	1
3,3-Dichlorobenzidine	ND	0.50	0.075	1
2,4-Dichlorophenol	ND	0.50	0.028	1
Diethyl Phthalate	ND	0.50	0.029	1
2,4-Dimethylphenol	ND	0.50	0.023	1
Dimethyl Phthalate	ND	0.50	0.018	1

----- TO BE CONTINUED ON PAGE #2 -----

DATA REVIEWED AND APPROVED BY: _____

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **Leighton Consulting**
41715 Enterprise Circle N, Suite 103
Temecula, CA 92590
Tel(951)296-0530 Fax(951)296-0534

PROJECT: **Pulte - Rancho Mirage**
PROJECT No.: **10143.001**
DATE RECEIVED: 03/12/13
DATE EXTRACTED: 03/13/13
DATE ANALYZED: 03/13/13
DATE REPORTED: 03/13/13

MATRIX: SOIL
SAMPLING DATE: 03/12/13
REPORT TO: MS. KRISTIN STOUT

SAMPLE I.D.: **G-14/15-0.5(COMPOSITE)**
LAB I.D.: 130312-34, -35(COMPOSITE)

SEMI-VOLATILE ORGANICS, EPA 8270C, PAGE 2 OF 2
UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
4,6-Dinitro-2-methylphenol	ND	0.50	0.045	1
2,4-Dinitrophenol	ND	0.50	0.047	1
2,4-Dinitrotoluene	ND	0.50	0.024	1
2,6-Dinitrotoluene	ND	0.50	0.050	1
Fluoranthene	ND	0.50	0.022	1
Fluorene	ND	0.50	0.026	1
Hexachlorobenzene	ND	0.50	0.031	1
Hexachlorobutadiene	ND	0.50	0.022	1
Hexachlorocyclopentadiene	ND	0.50	0.041	1
Hexachloroethane	ND	0.50	0.030	1
Indeno(1,2,3-cd)pyrene	ND	0.50	0.046	1
Isophorone	ND	0.50	0.026	1
2-Methyl Phenol	ND	0.50	0.042	1
3/4-Methyl Phenol	ND	0.50	0.037	1
2-Methylnaphthalene	ND	0.50	0.036	1
N-Nitroso-di-n-dipropylamine	ND	0.50	0.024	1
N-Nitrosodimethylamine	ND	0.50	0.015	1
N-Nitrosodiphenylamine	ND	0.50	0.042	1
Naphthalene	ND	0.50	0.014	1
2-Nitroaniline	ND	0.50	0.026	1
3-Nitroaniline	ND	0.50	0.043	1
4-Nitroaniline	ND	0.50	0.052	1
Nitrobenzene	ND	0.50	0.157	1
2-Nitrophenol	ND	0.50	0.031	1
4-Nitrophenol	ND	0.50	0.040	1
Pentachlorophenol	ND	0.50	0.048	1
Phenanthrene	ND	0.50	0.036	1
Phenol	ND	0.50	0.031	1
Pyrene	ND	0.50	0.043	1
1,2,4-Trichlorobenzene	ND	0.50	0.030	1
2,4,5-Trichlorophenol	ND	0.50	0.054	1
2,4,6-Trichlorophenol	ND	0.50	0.041	1

COMMENTS DF = DILUTION FACTOR
MDL = METHOD DETECTION LIMIT / PQL = PRACTICAL QUANTITATION LIMIT
J = TRACE CONCENTRATION BETWEEN MDL AND PQL
ACTUAL DETECTION LIMIT = PQL X DF
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT
DATA REVIEWED AND APPROVED BY:
CAL-DHS CERTIFICATE # 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

METHOD BLANK REPORT

CUSTOMER: **Leighton Consulting**
41715 Enterprise Circle N, Suite 103
Temecula, CA 92590
Tel(951)296-0530 Fax(951)296-0534

PROJECT: **Pulte - Rancho Mirage** PROJECT No.: **10143.001**
DATE RECEIVED: 03/12/13
MATRIX: SOIL DATE EXTRACTED: 03/13/13
SAMPLING DATE: 03/12/13 DATE ANALYZED: 03/13/13
REPORT TO: MS. KRISTIN STOUT DATE REPORTED: 03/13/13

METHOD BLANK FOR LAB I.D.:
130312-21 THROUGH -25(COMPOSITE), -26/-27(COMPOSITE),
-28/-29/-30(COMPOSITE), -31/-32/-33(COMPOSITE), -34/-35(COMPOSITE)

SEMI-VOLATILE ORGANICS, EPA 8270C, PAGE 1 OF 2
UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
Acenaphthene	ND	0.50	0.017	1
Acenaphthylene	ND	0.50	0.028	1
Anthracene	ND	0.50	0.028	1
Benzo(a)anthracene	ND	0.50	0.080	1
Benzo(b)fluoranthene	ND	0.50	0.104	1
Benzo(a)pyrene	ND	0.50	0.049	1
Benzo(g,h,i)perylene	ND	0.50	0.044	1
Benzo(k)fluoranthene	ND	0.50	0.150	1
Benzoic Acid	ND	0.50	0.387	1
Benzyl Alcohol	ND	0.50	0.021	1
Bis(2-Chloroethoxy)methane	ND	0.50	0.026	1
Bis(2-Chloroethyl)ether	ND	0.50	0.015	1
Bis(2-Chloroisopropyl)ether	ND	0.50	0.044	1
Bis(2-Ethylhexyl)Phthalate	ND	0.50	0.037	1
4-Bromophenyl Phenyl Ether	ND	0.50	0.061	1
Butylbenzylphthalate	ND	0.50	0.031	1
4-Chloro-3-Methylphenol	ND	0.50	0.035	1
4-Chloroaniline	ND	0.50	0.043	1
2-Chloronaphthalene	ND	0.50	0.038	1
2-Chlorophenol	ND	0.50	0.024	1
4-Chlorophenyl Phenyl Ether	ND	0.50	0.027	1
Chrysene	ND	0.50	0.036	1
Di-n-butylphthalate	ND	0.50	0.028	1
Di-n-octylphthalate	ND	0.50	0.037	1
Dibenzo(a,h)anthracene	ND	0.50	0.047	1
Dibenzofuran	ND	0.50	0.041	1
1,2-Dichlorobenzene	ND	0.50	0.039	1
1,3-Dichlorobenzene	ND	0.50	0.039	1
1,4-Dichlorobenzene	ND	0.50	0.029	1
3,3-Dichlorobenzidine	ND	0.50	0.075	1
2,4-Dichlorophenol	ND	0.50	0.028	1
Diethyl Phthalate	ND	0.50	0.029	1
2,4-Dimethylphenol	ND	0.50	0.023	1
Dimethyl Phthalate	ND	0.50	0.018	1

----- TO BE CONTINUED ON PAGE #2 -----

DATA REVIEWED AND APPROVED BY: _____

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

METHOD BLANK REPORT

CUSTOMER: Leighton Consulting
41715 Enterprise Circle N, Suite 103
Temecula, CA 92590
Tel(951)296-0530 Fax(951)296-0534

PROJECT: Pulte - Rancho Mirage
PROJECT No.: 10143.001
DATE RECEIVED: 03/12/13
MATRIX: SOIL
DATE EXTRACTED: 03/13/13
SAMPLING DATE: 03/12/13
DATE ANALYZED: 03/13/13
REPORT TO: MS. KRISTIN STOUT
DATE REPORTED: 03/13/13

METHOD BLANK FOR LAB I.D.:
130312-21 THROUGH -25(COMPOSITE), -26/-27(COMPOSITE), -28/-29/-30(COMPOSITE), -31/-32/-33(COMPOSITE), -34/-35(COMPOSITE)

SEMI-VOLATILE ORGANICS, EPA 8270C, PAGE 2 OF 2
UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

PARAMETER	SAMPLE RESULT	PQL	MDL	DF
4,6-Dinitro-2-methylphenol	ND	0.50	0.045	1
2,4-Dinitrophenol	ND	0.50	0.047	1
2,4-Dinitrotoluene	ND	0.50	0.024	1
2,6-Dinitrotoluene	ND	0.50	0.050	1
Fluoranthene	ND	0.50	0.022	1
Fluorene	ND	0.50	0.026	1
Hexachlorobenzene	ND	0.50	0.031	1
Hexachlorobutadiene	ND	0.50	0.022	1
Hexachlorocyclopentadiene	ND	0.50	0.041	1
Hexachloroethane	ND	0.50	0.030	1
Indeno(1,2,3-cd)pyrene	ND	0.50	0.046	1
Isophorone	ND	0.50	0.026	1
2-Methyl Phenol	ND	0.50	0.042	1
3/4-Methyl Phenol	ND	0.50	0.037	1
2-Methylnaphthalene	ND	0.50	0.036	1
N-Nitroso-di-n-dipropylamine	ND	0.50	0.024	1
N-Nitrosodimethylamine	ND	0.50	0.015	1
N-Nitrosodiphenylamine	ND	0.50	0.042	1
Naphthalene	ND	0.50	0.014	1
2-Nitroaniline	ND	0.50	0.026	1
3-Nitroaniline	ND	0.50	0.043	1
4-Nitroaniline	ND	0.50	0.052	1
Nitrobenzene	ND	0.50	0.157	1
2-Nitrophenol	ND	0.50	0.031	1
4-Nitrophenol	ND	0.50	0.040	1
Pentachlorophenol	ND	0.50	0.048	1
Phenanthrene	ND	0.50	0.036	1
Phenol	ND	0.50	0.031	1
Pyrene	ND	0.50	0.043	1
1,2,4-Trichlorobenzene	ND	0.50	0.030	1
2,4,5-Trichlorophenol	ND	0.50	0.054	1
2,4,6-Trichlorophenol	ND	0.50	0.041	1

COMMENTS DF = DILUTION FACTOR
MDL = METHOD DETECTION LIMIT / PQL = PRACTICAL QUANTITATION LIMIT
J = TRACE CONCENTRATION BETWEEN MDL AND PQL
ACTUAL DETECTION LIMIT = PQL X DF
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT
DATA REVIEWED AND APPROVED BY:
CAL-DHS CERTIFICATE # 1555

Enviro-Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909)590-5905 Fax (909)590-5907

8270 QA/QC Report

Matrix: **Soil/Solid/Sludge** Unit: mg/Kg (PPM)

Date Analyzed: 3/13/2013

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

Spiked Sample Lab I.D.: **130312-21-25 MS/MSD**

Analyte	SR	spk conc	MS	%MS	MSD	%MSD	%RPD	ACP %MS	ACP RPD
Phenol	0.0	40.0	16.3	41%	17.1	43%	5%	50-150	0-20
Pyrene	0.0	40.0	44.9	112%	49.1	123%	9%	50-150	0-20

Laboratory Control Spike (LCS):

Analyte	spk conc	LCS	% RC	ACP %RC
Phenol	2.0	1.62	81%	75-125
1,4-Dichlorobenzene	2.0	2.02	101%	75-125
2,4-Dichlorophenol	2.0	1.56	78%	75-125
Hexachlorobutadiene	2.0	2.32	116%	75-125
4-Chloro-3-methylphenol	2.0	1.78	89%	75-125
Fluoranthene	2.0	2.01	101%	75-125

Surrogate Recovery	spk conc	ACP%	%RC	%RC	%RC	%RC	%RC	%RC	%RC
Sample I.D.			**MB**	**130312-21-25**	**130312-26-27**	**130312-28-30**	**130312-31-33**	**130312-34-35**	
2-Fluorophenol	40	25-121	52%	35%	30%	26%	26%	24*%	
Phenol-d5	40	24-113	53%	37%	31%	26%	28%	26%	
Nitrobenzene-d5	40	23-120	78%	79%	79%	76%	79%	78%	
2-Fluorobiphenyl	40	30-115	84%	86%	92%	95%	97%	103%	
2,4,6-Tribromophenol	40	19-122	28%	20%	18*%	18*%	17*%	17*%	
Terphenyl-d14	40	18-137	100%	98%	102%	97%	104%	104%	

Surrogate Recovery	spk conc	ACP%	%RC	%RC	%RC	%RC	%RC	%RC	%RC
Sample I.D.									
2-Fluorophenol	40	25-121							
Phenol-d5	40	24-113							
Nitrobenzene-d5	40	23-120							
2-Fluorobiphenyl	40	30-115							
2,4,6-Tribromophenol	40	19-122							
Terphenyl-d14	40	18-137							

Surrogate Recovery	spk conc	ACP%	%RC	%RC	%RC	%RC	%RC	%RC	%RC
Sample I.D.									
2-Fluorophenol	40	25-121							
Phenol-d5	40	24-113							
Nitrobenzene-d5	40	23-120							
2-Fluorobiphenyl	40	30-115							
2,4,6-Tribromophenol	40	19-122							
Terphenyl-d14	40	18-137							

** = Surrogate fail due to matrix interference*

Note: LCS, MS, MSD are in control therefore results are in control.

Analyzed and Reviewed By: B

Final Reviewer: _____

Enviro-Chem, Inc. Laboratories
1214 E. Lexington Avenue,
Pomona, CA 91766
Tel: (909) 590-5905 Fax: (909) 590-5907
CA-DHS ELAP CERTIFICATE #1555

Turnaround Time
0 Same Day
● 24 Hours
0 48 Hours
0 72 Hours
0 1 Week (Standard)
Other:

RUSH

SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	No. OF CONTAINERS	TEMPERATURE	PRESERVATION	TPH	VOCs	SVOCs	Metals	PCBs/Pesticides	Misc.	COMMENTS
G-1-0.5	1303|2-21	3/12/13	9:04	Soil	1	4°C	on ice							C-1 (composite)
G-2-0.5	-22		9:06											
G-3-0.5	-23		9:08											
G-4-0.5	-24		9:09											
G-5-0.5	-25		9:10											
G-6-0.5	-26		9:12											C-2 composite
G-7-0.5	-27		9:14											
G-8-0.5	-28		9:18											C-3 composite
G-9-0.5	-29		9:23											
G-10-0.5	-30		9:27											
G-11-0.5	-31		9:28											C-4 composite
G-12-0.5	-32		9:40											
G-13-0.5	-33		9:42											C-5 composite
G-14-0.5	-34		9:50											
G-15-0.5	-35		9:58											

Analysis Required

Company Name: Leighton and Associates
Address: 41715 Enterprise Circle N, Ste 103
City/State/Zip: Temecula, CA 92590

Project Contact: Kristin Stout
Tel: 951.252.8927
Fax:

Sampler's Signature:
Project Name/ID: 10143.001
Pulte - Rancho Mirage

Relinquished by:	Received by:	Date & Time: 3/12/13 1740
Relinquished by:	Received by:	Date & Time:
Relinquished by:	Received by:	Date & Time:

Instructions for Sample Storage After Analysis:
● Dispose of O Return to Client O Store (30 Days)
O Other:

CHAIN OF CUSTODY RECORD

Date:

WHITE WITH SAMPLE - YELLOW TO CLIENT

Page _____ of _____

APPENDIX I

Important Information About Your Geoenvironmental Report

Geoenvironmental studies are commissioned to gain information about environmental conditions on and beneath the surface of a site. The more comprehensive the study, the more reliable the assessment is likely to be. But remember: Any such assessment is to a greater or lesser extent based on professional opinions about conditions that cannot be seen or tested. Accordingly, no matter how many data are developed, risks created by unanticipated conditions will always remain. *Have realistic expectations.* Work with your geoenvironmental consultant to manage known and unknown risks. Part of that process should already have been accomplished, through the risk allocation provisions you and your geoenvironmental professional discussed and included in your contract's general terms and conditions. This document is intended to explain some of the concepts that may be included in your agreement, and to pass along information and suggestions to help you manage your risk.

Beware of Change; Keep Your Geoenvironmental Professional Advised

The design of a geoenvironmental study considers a variety of factors that are subject to change. Changes can undermine the applicability of a report's findings, conclusions, and recommendations. *Advise your geoenvironmental professional about any changes you become aware of.* Geoenvironmental professionals cannot accept responsibility or liability for problems that occur because a report fails to consider conditions that did not exist when the study was designed. Ask your geoenvironmental professional about the types of changes you should be particularly alert to. Some of the most common include:

- modification of the proposed development or ownership group,
- sale or other property transfer,
- replacement of or additions to the financing entity,
- amendment of existing regulations or introduction of new ones, or
- changes in the use or condition of adjacent property.

Should you become aware of any change, *do not rely on a geoenvironmental report.* Advise your geoenvironmental professional immediately; follow the professional's advice.

Recognize the Impact of Time

A geoenvironmental professional's findings, recommendations, and conclusions cannot remain valid indefinitely. The more time that passes, the more likely it is that important latent changes will occur. *Do not rely on a geoenvironmental report if too much time has elapsed since it was completed.* Ask your environmental professional to define "too much time." In the case of Phase I Environmental Site Assessments (ESAs), for example, more than 180 days after submission is generally considered "too much."

Prepare To Deal with Unanticipated Conditions

The findings, recommendations, and conclusions of a Phase I ESA report typically are based on a review of historical information, interviews, a site "walkover," and other forms of noninvasive research. When site subsurface conditions are not sampled in any way, the risk of unanticipated conditions is higher than it would otherwise be.

While borings, installation of monitoring wells, and similar invasive test methods can help reduce the risk of unanticipated conditions, *do not overvalue the effectiveness of testing.* Testing provides information about actual conditions only at the precise locations where samples are taken, and only when they are taken. Your geoenvironmental professional has applied that specific information to develop a general opinion about environmental conditions. *Actual conditions in areas not sampled may differ (sometimes sharply) from those predicted in a report.* For example, a site may contain an unregistered underground storage tank that shows no surface trace of its existence. *Even conditions in areas that were tested can change,* sometimes suddenly, due to any number of events, not the least of which include occurrences at

adjacent sites. Recognize, too, that *even some conditions in tested areas may go undiscovered,* because the tests or analytical methods used were designed to detect only those conditions assumed to exist.

Manage your risks by retaining your geoenvironmental professional to work with you as the project proceeds. Establish a contingency fund or other means to enable your geoenvironmental professional to respond rapidly, in order to limit the impact of unforeseen conditions. And to help prevent any misunderstanding, identify those empowered to authorize changes and the administrative procedures that should be followed.

Do Not Permit Any Other Party To Rely on the Report

Geoenvironmental professionals design their studies and prepare their reports to meet the specific needs of the clients who retain them, in light of the risk management methods that the client and geoenvironmental professional agree to, and the statutory, regulatory, or other requirements that apply. The study designed for a developer may differ sharply from one designed for a lender, insurer, public agency...or even another developer. *Unless the report specifically states otherwise, it was developed for you and only you.* Do not unilaterally permit any other party to rely on it. The report and the study underlying it may not be adequate for another party's needs, and you could be held liable for shortcomings your geoenvironmental professional was powerless to prevent or anticipate. Inform your geoenvironmental professional when you know or expect that someone else—a third-party—will want to use or rely on the report. *Do not permit third-party use or reliance until you first confer with the geoenvironmental professional who prepared the report.* Additional testing, analysis, or study may be required and, in any event, appropriate terms and conditions should be agreed to so both you and your geoenvironmental professional are protected from third-party risks. *Any party who relies on a geoenvironmental report without the express written permission of the professional who prepared it and the client for whom it was prepared may be solely liable for any problems that arise.*

Avoid Misinterpretation of the Report

Design professionals and other parties may want to rely on the report in developing plans and specifications. They need to be advised, in writing, that their needs may not have been considered when the study's scope was developed, and, even if their needs were considered, they might misinterpret geoenvironmental findings, conclusions, and recommendations. *Commission your geoenvironmental professional to explain pertinent elements of the report to others who are permitted to rely on it, and to review any plans, specifications or other instruments of professional service that incorporate any of the report's findings, conclusions, or recommendations.* Your geoenvironmental professional has the best understanding of the issues involved, including the fundamental assumptions that underpinned the study's scope.

Give Contractors Access to the Report

Reduce the risk of delays, claims, and disputes by giving contractors access to the full report, *providing that it is accompanied by a letter of transmittal that can protect you* by making it unquestionably clear that: 1) the study was not conducted and the report was not prepared for purposes of bid development, and 2) the findings, conclusions, and recommendations included in the report are based on a variety of opinions, inferences, and assumptions and are subject to interpretation. Use the letter to also advise contractors to consult with your geoenvironmental professional to obtain clarifications, interpretations, and guidance (a fee may be required for this service), and that—in any event—they should conduct additional studies to obtain the specific type and extent of information each prefers for preparing a bid or cost estimate. Providing access to the full report, with the appropriate caveats, helps prevent formation of adversarial attitudes and claims of concealed or differing conditions. If a contractor elects to ignore the warnings and advice in the letter of transmittal, it would do so at its own risk. Your geoenvironmental professional should be able to help you prepare an effective letter.

Do Not Separate Documentation from the Report

Geoenvironmental reports often include supplemental documentation, such as maps and copies of regulatory files, permits, registrations, citations, and correspondence with regulatory agencies. If subsurface explorations were performed, the report may contain final boring logs and copies of laboratory data. If remediation activities occurred on site, the report may include: copies of daily field reports; waste manifests; and information about the disturbance of subsurface materials, the type and thickness of any fill placed on site, and fill placement practices, among other types of documentation. *Do not separate supplemental documentation from the report. Do not, and do not permit any other party to redraw or modify any of the supplemental documentation for incorporation into other professionals' instruments of service.*

Understand the Role of Standards

Unless they are incorporated into statutes or regulations, standard practices and standard guides developed by the American Society for Testing and Materials (ASTM) and other recognized standards-developing organizations (SDOs) are little more than aspirational methods agreed to by a consensus of a committee. The committees that develop standards may not comprise those best-qualified to establish methods and, no matter what, no standard method can possibly consider the infinite client- and project-specific variables that fly in the face of the theoretical "standard conditions" to which standard practices and standard guides apply. In fact, these variables can be so pronounced that geoenvironmental professionals who comply with every directive of an ASTM or other standard procedure could run afoul of local custom and practice, thus violating the standard of care.

Accordingly, when geoenvironmental professionals indicate in their reports that they have performed a service "in general compliance" with one standard or another, it means they have applied professional judgement in creating and implementing a scope of service designed for the specific client and project involved, and which follows some of the general precepts laid out in the referenced standard. To the extent that a report indicates "general compliance" with a standard, you may wish to speak with your geoenvironmental professional to learn more about what was and was not done. *Do not assume a given standard was followed to the letter.* Research indicates that that seldom is the case.

Realize That Recommendations May Not Be Final

The technical recommendations included in a geoenvironmental report are based on assumptions about actual conditions, and so are preliminary or tentative. Final recommendations can be prepared only by observing actual conditions as they are exposed. For that reason, you should retain the geoenvironmental professional of record to observe construction and/or remediation activities on site, to permit rapid response to unanticipated conditions. *The geoenvironmental professional who prepared the report cannot assume responsibility or liability for the report's recommendations if that professional is not retained to observe relevant site operations.*

Understand That Geotechnical Issues Have Not Been Addressed

Unless geotechnical engineering was specifically included in the scope of professional service, a report is not likely to relate any findings, conclusions, or recommendations about the suitability of subsurface materials for construction purposes, especially when site remediation has been accomplished through the removal, replacement, encapsulation, or chemical treatment of on-site soils. The equipment, techniques, and testing used by geotechnical engineers differ markedly from those used by geoenvironmental professionals; their education, training, and experience are also significantly different. If you plan to build on the subject site, but have not yet had a geotechnical engineering study conducted, your geoenvironmental professional should be able to provide guidance about the next steps you should take. The same firm may provide the services you need.

Read Responsibility Provisions Closely

Geoenvironmental studies cannot be exact; they are based on professional judgement and opinion. Nonetheless, some clients, contractors, and others assume geoenvironmental reports are or certainly should be unerringly precise. Such assumptions have created unrealistic expectations that have led to wholly unwarranted claims and disputes. To help prevent such problems, geoenvironmental professionals have developed a number of report provisions and contract terms that explain who is responsible for what, and how risks are to be allocated. Some people mistake these for "exculpatory clauses," that is, provisions whose purpose is to transfer one party's rightful responsibilities and liabilities to someone else. Read the responsibility provisions included in a report and in the contract you and your geoenvironmental professional agreed to. *Responsibility provisions are not "boilerplate."* They are important.

Rely on Your Geoenvironmental Professional for Additional Assistance

Membership in ASFE exposes geoenvironmental professionals to a wide array of risk management techniques that can be of genuine benefit for everyone involved with a geoenvironmental project. Confer with your ASFE-member geoenvironmental professional for more information.

ASFE
THE BEST PEOPLE ON EARTH

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IIGR06055.0M

APPENDIX F

Roadway Noise Calculations

ROADWAY NAME / Segment	Number of Lanes in Each Direction	Median Width	ADT Volume	Design Speed (mph)	Alpha Factor (1)	Vehicle Mix: Medium Trucks	Vehicle Mix: Heavy Trucks	Distance from Center of Roadway: CNEL at 75 Feet	DISTANCE TO CONTOUR: 75 CNEL	70 CNEL	65 CNEL	60 CNEL
DA VALL DRIVE												
North of Ramon Road	2	0	10,430	40	0	3.0%	5.0%	70.4	-	82	253	788
South of Ramon Road	1	0	10,910	40	0	3.0%	5.0%	70.6	-	85	265	823
North of Dinah Shore Drive	1	0	11,550	40	0	3.0%	5.0%	70.8	-	90	280	871
South of Dinah Shore Drive	2	20	11,820	40	0	3.0%	5.0%	70.9	-	92	287	891
RATLLER ROAD										-		
North of Ramon Road	1	15	2,710	40	0	3.0%	5.0%	64.5	-	-	-	209
LOS ALAMOS ROAD										-		
South of Ramon Road	1	0	1,820	40	0	3.0%	5.0%	62.8	-	-	-	141
North of Dinah Shore Drive	1	0	2,000	40	0	3.0%	5.0%	63.2	-	-	-	155
BOB HOPE DRIVE										-		
North of I-10 WB Ramps	2	0	12,530	40	0	3.0%	5.0%	71.2	-	98	304	944
North of I-10 EB Ramps	2	0	17,370	40	0	3.0%	5.0%	72.6	-	135	419	1,302
North of Ramon Road	3	0	18,750	40	0	3.0%	5.0%	72.9	-	145	452	1,403
South of Ramon Road	2	30	19,130	40	0	3.0%	5.0%	73.0	-	148	461	1,431
North of Dinah Shore Drive	3	20	17,860	40	0	3.0%	5.0%	72.7	-	139	431	1,338
South of Dinah Shore Drive	2	25	20,340	40	0	3.0%	5.0%	73.3	-	157	489	1,521
North of Gerald Ford Drive	2	25	19,120	40	0	3.0%	5.0%	73.0	-	148	460	1,431
South of Gerald Ford Drive	2	30	20,090	40	0	3.0%	5.0%	73.2	-	156	483	1,502
KEY LARGO										-		
North of Dinah Shore Drive	0	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A
South of Dinah Shore Drive	0	0	1,340	40	0	3.0%	5.0%	61.5	-	-	-	104
MONTEREY AVENUE										-		
North of Dinah Shore Drive	3	25	46,340	40	0	3.0%	5.0%	76.8	114	354	1,101	3,421
South of Dinah Shore Drive	3	30	31,620	40	0	3.0%	5.0%	75.2	78	243	756	2,348
RAMON ROAD										-		
West of Da Vall Drive	3	15	20,340	40	0	3.0%	5.0%	73.3	-	157	489	1,521
East of Da Vall Drive	3	20	23,760	40	0	3.0%	5.0%	73.9	-	184	570	1,772
West of Los Alamos Road	3	20	24,030	40	0	3.0%	5.0%	74.0	-	186	577	1,792
East of Los Alamos Road	3	20	24,680	40	0	3.0%	5.0%	74.1	-	191	592	1,840
East of Bob Hope Drive	2	20	17,180	40	0	3.0%	5.0%	72.5	-	133	414	1,288
East of EB I-10 Ramp	2	0	11,230	40	0	3.0%	5.0%	70.7	-	88	273	847
DINAH SHORE DRIVE										-		
West of Da Vall Drive	2	20	22,370	40	0	3.0%	5.0%	73.7	-	173	537	1,670
East of Da Vall Drive	2	20	17,950	40	0	3.0%	5.0%	72.7	-	139	433	1,344
West of Los Alamos Road	2	20	18,350	40	0	3.0%	5.0%	72.8	-	142	442	1,374
East of Los Alamos Road	2	20	18,070	40	0	3.0%	5.0%	72.8	-	140	436	1,353
East of Westin Mission Hills	2	20	18,680	40	0	3.0%	5.0%	72.9	-	145	450	1,398
West of Bob Hope Drive	2	20	18,570	40	0	3.0%	5.0%	72.9	-	144	447	1,390
East of Bob Hope Drive	3	25	18,800	40	0	3.0%	5.0%	72.9	-	146	453	1,407
East of Key Largo	3	20	19,150	40	0	3.0%	5.0%	73.0	-	148	461	1,433
West of Monterey Avenue	3	20	26,570	40	0	3.0%	5.0%	74.4	-	205	637	1,978
East of Monterey Avenue	2	15	16,470	40	0	3.0%	5.0%	72.4	-	128	398	1,235
GERALD FORD DRIVE										-		
West of Bob Hope Drive	2	25	16,840	40	0	3.0%	5.0%	72.5	-	131	406	1,263
East of Bob Hope Drive	2	15	14,900	40	0	3.0%	5.0%	71.9	-	116	360	1,119
INTERSTATE 10										-		
West of Bob Hope Drive	2	35	100,000	40	0	3.0%	5.0%	80.2	243	756	2,348	7,296
East of Ramon Road	3	25	102,000	40	0	3.0%	5.0%	80.3	248	771	2,394	7,440
BOB HOPE DR. I-10 RAMPS										-		
Westbound On-Ramp	2	0	5,990	40	0	3.0%	5.0%	68.0	-	-	147	456
Westbound Off-Ramp	2	0	8,600	40	0	3.0%	5.0%	69.5	-	-	210	651
Eastbound On-Ramp	2	0	2,070	40	0	3.0%	5.0%	63.3	-	-	-	160
Eastbound Off-Ramp	2	0	7,570	40	0	3.0%	5.0%	69.0	-	-	185	574
RAMON ROAD I-10 RAMPS										-		
Eastbound On-Ramp	1	0	7,970	40	0	3.0%	5.0%	69.2	-	-	195	604
VIA BELLA										-		
West of Los Alamos Road	1	0	730	40	0	3.0%	5.0%	58.8	-	-	-	-
East of Los Alamos Road	1	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A
CASINO										-		
West of Bob Hope Drive	0	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A
East of Bob Hope Drive	2	0	2,050	40	0	3.0%	5.0%	63.3	-	-	-	159
WESTIN MISSION HILLS												
North of Dinah Shore Drive	0	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A
South of Dinah Shore Drive	1	0	1,580	40	0	3.0%	5.0%	62.2	-	-	-	123
WESTIN RESORT AND VILLAS												
North of Dinah Shore Drive	1	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A
South of Dinah Shore Drive	1	0	800	40	0	3.0%	5.0%	59.2	-	-	-	-
STREET A												
East of Los Alamos Road	1	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A
STREET B												
East of Los Alamos Road	1	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A
STREET C												
South of Ramon Road	1	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A
STREET D												
South of Ramon Road	1	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A
West of Bob Hope Drive	1	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A
STREET E												
West of Bob Hope Drive	1	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A

Notes:

(1) Alpha Factor: Coefficient of absorption relating to the effects of the ground surface. An alpha factor of 0 indicates that the site is an acoustically "hard" site, such as aspalt. An alpha factor of 0.5 indicates that the site is an acoustically "soft" site such, as heavily vegetated ground cover.

"-" = contour is located within the roadway lanes or within 75 feet of the roadway centerline.

Noise levels and distances to contours do not assume any natural or constructed barriers that may attenuate noise.

24-Hour Traffic Distribution for Roadways Designated as "Major," "Arterial" Highways or "Expressways" by Riverside County

Source: Riverside County Department of Public Health, 15 January 2004.

	Weighted Traffic Distribution (%)				Riverside County Traffic Distribution			
	Day	Evening	Night	Totals	Day	Evening	Night	Totals
Auto	75.54%	14.02%	10.43%	100.00%	69.50%	12.90%	9.60%	92.00%
Medium-Duty Trucks	48.00%	2.00%	50.00%	100.00%	1.44%	0.06%	1.50%	3.00%
Heavy-Duty Trucks	48.00%	2.00%	50.00%	100.00%	2.40%	0.10%	2.50%	5.00%

ROADWAY NAME / Segment	Number of Lanes in Each Direction	Median Width	ADT Volume	Design Speed (mph)	Alpha Factor (1)	Vehicle Mix: Medium Trucks	Vehicle Mix: Heavy Trucks	Distance from Center of Roadway: CNEL at 75 Feet	DISTANCE TO CONTOUR: 75 CNEL	70 CNEL	65 CNEL	60 CNEL
DA VALL DRIVE												
North of Ramon Road	2	0	130	40	0	3.0%	5.0%	51.3	-	-	-	-
South of Ramon Road	1	0	90	40	0	3.0%	5.0%	49.7	-	-	-	-
North of Dinah Shore Drive	1	0	90	40	0	3.0%	5.0%	49.7	-	-	-	-
South of Dinah Shore Drive	2	20	220	40	0	3.0%	5.0%	53.6	-	-	-	-
RATLLER ROAD												
North of Ramon Road	1	15	10	40	0	3.0%	5.0%	40.2	-	-	-	-
LOS ALAMOS ROAD												
South of Ramon Road	1	0	1,030	40	0	3.0%	5.0%	60.3	-	-	-	81
North of Dinah Shore Drive	1	0	360	40	0	3.0%	5.0%	55.8	-	-	-	-
BOB HOPE DRIVE												
North of I-10 WB Ramps	2	0	40	40	0	3.0%	5.0%	46.2	-	-	-	-
North of I-10 EB Ramps	2	0	560	40	0	3.0%	5.0%	57.7	-	-	-	-
North of Ramon Road	3	0	810	40	0	3.0%	5.0%	59.3	-	-	-	-
South of Ramon Road	2	30	1,170	40	0	3.0%	5.0%	60.9	-	-	-	91
North of Dinah Shore Drive	3	20	580	40	0	3.0%	5.0%	57.8	-	-	-	-
South of Dinah Shore Drive	2	25	720	40	0	3.0%	5.0%	58.8	-	-	-	-
North of Gerald Ford Drive	2	25	720	40	0	3.0%	5.0%	58.8	-	-	-	-
South of Gerald Ford Drive	2	30	720	40	0	3.0%	5.0%	58.8	-	-	-	-
KEY LARGO												
South of Dinah Shore Drive	0	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A
MONTEREY AVENUE												
North of Dinah Shore Drive	3	25	190	40	0	3.0%	5.0%	53.0	-	-	-	-
South of Dinah Shore Drive	3	30	450	40	0	3.0%	5.0%	56.7	-	-	-	-
RAMON ROAD												
West of Da Vall Drive	3	15	990	40	0	3.0%	5.0%	60.1	-	-	-	77
East of Da Vall Drive	3	20	1,030	40	0	3.0%	5.0%	60.3	-	-	-	81
West of Los Alamos Road	3	20	1,030	40	0	3.0%	5.0%	60.3	-	-	-	81
East of Los Alamos Road	3	20	180	40	0	3.0%	5.0%	52.7	-	-	-	-
East of Bob Hope Drive	2	20	360	40	0	3.0%	5.0%	55.8	-	-	-	-
East of EB I-10 Ramp	2	0	90	40	0	3.0%	5.0%	49.7	-	-	-	-
DINAH SHORE DRIVE												
West of Da Vall Drive	2	20	360	40	0	3.0%	5.0%	55.8	-	-	-	-
East of Da Vall Drive	2	20	670	40	0	3.0%	5.0%	58.4	-	-	-	-
West of Los Alamos Road	2	20	670	40	0	3.0%	5.0%	58.4	-	-	-	-
East of Los Alamos Road	2	20	580	40	0	3.0%	5.0%	57.8	-	-	-	-
East of Westin Mission Hills	2	20	1,210	40	0	3.0%	5.0%	61.0	-	-	-	94
West of Bob Hope Drive	2	20	1,210	40	0	3.0%	5.0%	61.0	-	-	-	94
East of Bob Hope Drive	3	25	900	40	0	3.0%	5.0%	59.7	-	-	-	-
East of Key Largo	3	20	900	40	0	3.0%	5.0%	59.7	-	-	-	-
West of Monterey Avenue	3	20	900	40	0	3.0%	5.0%	59.7	-	-	-	-
East of Monterey Avenue	2	15	260	40	0	3.0%	5.0%	54.3	-	-	-	-
GERALD FORD DRIVE												
West of Bob Hope Drive	2	25	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A
East of Bob Hope Drive	2	15	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A
INTERSTATE 10												
West of Bob Hope Drive	2	35	440	40	0	3.0%	5.0%	56.6	-	-	-	-
East of Ramon Road	3	25	580	40	0	3.0%	5.0%	57.8	-	-	-	-
BOB HOPE DR. I-10 RAMPS												
Westbound On-Ramp	2	0	220	40	0	3.0%	5.0%	53.6	-	-	-	-
Westbound Off-Ramp	2	0	290	40	0	3.0%	5.0%	54.8	-	-	-	-
Eastbound On-Ramp	2	0	20	40	0	3.0%	5.0%	43.2	-	-	-	-
Eastbound Off-Ramp	2	0	220	40	0	3.0%	5.0%	53.6	-	-	-	-
RAMON ROAD I-10 RAMPS												
Eastbound On-Ramp	1	0	270	40	0	3.0%	5.0%	54.5	-	-	-	-
VIA BELLA												
West of Los Alamos Road	1	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A
East of Los Alamos Road	1	0	1,120	40	0	3.0%	5.0%	60.7	-	-	-	88
CASINO												
West of Bob Hope Drive	0	0	1,570	40	0	3.0%	5.0%	62.1	-	-	-	122
East of Bob Hope Drive	2	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A
WESTIN MISSION HILLS												
North of Dinah Shore Drive	0	0	1,790	40	0	3.0%	5.0%	62.7	-	-	-	139
South of Dinah Shore Drive	1	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A
WESTIN RESORT AND VILLAS												
North of Dinah Shore Drive	1	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A
South of Dinah Shore Drive	1	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A
STREET A												
East of Los Alamos Road	1	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A
STREET B												
East of Los Alamos Road	1	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A
STREET C												
South of Ramon Road	1	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A
STREET D												
South of Ramon Road	1	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A
West of Bob Hope Drive	1	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A
STREET E												
West of Bob Hope Drive	1	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A

Notes:

(1) Alpha Factor: Coefficient of absorption relating to the effects of the ground surface. An alpha factor of 0 indicates that the site is an acoustically "hard" site, such as aspalt. An alpha factor of 0.5 indicates that the site is an acoustically "soft" site such, as heavily vegetated ground cover.

"-" = contour is located within the roadway lanes or within 75 feet of the roadway centerline.

Noise levels and distances to contours do not assume any natural or constructed barriers that may attenuate noise.

24-Hour Traffic Distribution for Roadways Designated as "Major," "Arterial" Highways or "Expressways" by Riverside County

Source: Riverside County Department of Public Health, 15 January 2004.

	Weighted Traffic Distribution (%)				Riverside County Traffic Distribution			
	Day	Evening	Night	Totals	Day	Evening	Night	Totals
Auto	75.54%	14.02%	10.43%	100.00%	69.50%	12.90%	9.60%	92.00%
Medium-Duty Trucks	48.00%	2.00%	50.00%	100.00%	1.44%	0.06%	1.50%	3.00%
Heavy-Duty Trucks	48.00%	2.00%	50.00%	100.00%	2.40%	0.10%	2.50%	5.00%

Meridian Consultants LLC
Date: 5/28/14

Section 24 EIS
Off-Site Noise Contours Using Riverside County 24-Hour Traffic Distribution
Existing + Phase I

Rev: 11/12/2012

ROADWAY NAME / Segment	Number of Lanes in Each Direction	Median Width	ADT Volume	Design Speed (mph)	Alpha Factor (1)	Vehicle Mix: Medium Trucks	Vehicle Mix: Heavy Trucks	Distance from Center of Roadway: CNEL at 75 Feet	DISTANCE TO CONTOUR: 75 CNEL	70 CNEL	65 CNEL	60 CNEL
DA VALL DRIVE												
North of Ramon Road	2	0	10,560	40	0	3.0%	5.0%	70.4	-	83	257	797
South of Ramon Road	1	0	11,000	40	0	3.0%	5.0%	70.6	-	86	267	830
North of Dinah Shore Drive	1	0	11,640	40	0	3.0%	5.0%	70.8	-	91	282	878
South of Dinah Shore Drive	2	20	12,040	40	0	3.0%	5.0%	71.0	-	94	292	907
RATLLER ROAD										-		
North of Ramon Road	1	15	2,720	40	0	3.0%	5.0%	64.5	-	-	-	210
LOS ALAMOS ROAD										-		
South of Ramon Road	1	0	2,850	40	0	3.0%	5.0%	64.7	-	-	-	220
North of Dinah Shore Drive	1	0	2,360	40	0	3.0%	5.0%	63.9	-	-	-	182
BOB HOPE DRIVE										-		
North of I-10 WB Ramps	2	0	12,570	40	0	3.0%	5.0%	71.2	-	98	305	947
North of I-10 EB Ramps	2	0	17,930	40	0	3.0%	5.0%	72.7	-	139	432	1,343
North of Ramon Road	3	0	19,560	40	0	3.0%	5.0%	73.1	-	152	471	1,463
South of Ramon Road	2	30	20,300	40	0	3.0%	5.0%	73.3	-	157	488	1,518
North of Dinah Shore Drive	3	20	18,440	40	0	3.0%	5.0%	72.8	-	143	444	1,381
South of Dinah Shore Drive	2	25	21,060	40	0	3.0%	5.0%	73.4	-	163	506	1,574
North of Gerald Ford Drive	2	25	19,840	40	0	3.0%	5.0%	73.2	-	154	477	1,484
South of Gerald Ford Drive	2	30	20,810	40	0	3.0%	5.0%	73.4	-	161	500	1,555
KEY LARGO										-		
South of Dinah Shore Drive	0	0	1,340	40	0	3.0%	5.0%	61.5	-	-	-	104
MONTEREY AVENUE										-		
North of Dinah Shore Drive	3	25	46,530	40	0	3.0%	5.0%	76.9	114	356	1,105	3,435
South of Dinah Shore Drive	3	30	32,070	40	0	3.0%	5.0%	75.2	79	247	766	2,381
RAMON ROAD										-		
West of Da Vall Drive	3	15	21,330	40	0	3.0%	5.0%	73.5	-	165	513	1,593
East of Da Vall Drive	3	20	24,790	40	0	3.0%	5.0%	74.1	-	191	595	1,848
West of Los Alamos Road	3	20	25,060	40	0	3.0%	5.0%	74.2	-	193	601	1,867
East of Los Alamos Road	3	20	24,860	40	0	3.0%	5.0%	74.1	-	192	596	1,853
East of Bob Hope Drive	2	20	17,540	40	0	3.0%	5.0%	72.6	-	136	423	1,314
East of EB I-10 Ramp	2	0	11,320	40	0	3.0%	5.0%	70.7	-	88	275	854
DINAH SHORE DRIVE										-		
West of Da Vall Drive	2	20	22,730	40	0	3.0%	5.0%	73.8	-	176	546	1,696
East of Da Vall Drive	2	20	18,620	40	0	3.0%	5.0%	72.9	-	144	449	1,394
West of Los Alamos Road	2	20	19,020	40	0	3.0%	5.0%	73.0	-	147	458	1,423
East of Los Alamos Road	2	20	18,650	40	0	3.0%	5.0%	72.9	-	145	449	1,396
East of Westin Mission Hills	2	20	19,890	40	0	3.0%	5.0%	73.2	-	154	479	1,487
West of Bob Hope Drive	2	20	19,780	40	0	3.0%	5.0%	73.2	-	153	476	1,479
East of Bob Hope Drive	3	25	19,700	40	0	3.0%	5.0%	73.1	-	153	474	1,473
East of Key Largo	3	20	20,050	40	0	3.0%	5.0%	73.2	-	155	482	1,499
West of Monterey Avenue	3	20	27,470	40	0	3.0%	5.0%	74.6	-	212	658	2,044
East of Monterey Avenue	2	15	16,730	40	0	3.0%	5.0%	72.4	-	130	404	1,254
GERALD FORD DRIVE										-		
West of Bob Hope Drive	2	25	16,840	40	0	3.0%	5.0%	72.5	-	131	406	1,263
East of Bob Hope Drive	2	15	14,900	40	0	3.0%	5.0%	71.9	-	116	360	1,119
INTERSTATE 10										-		
West of Bob Hope Drive	2	35	100,440	40	0	3.0%	5.0%	80.2	244	759	2,358	7,328
East of Ramon Road	3	25	102,580	40	0	3.0%	5.0%	80.3	249	775	2,408	7,481
BOB HOPE DR. I-10 RAMPS										-		
Westbound On-Ramp	2	0	6,210	40	0	3.0%	5.0%	68.1	-	-	152	473
Westbound Off-Ramp	2	0	8,890	40	0	3.0%	5.0%	69.7	-	-	217	673
Eastbound On-Ramp	2	0	2,090	40	0	3.0%	5.0%	63.4	-	-	-	162
Eastbound Off-Ramp	2	0	7,790	40	0	3.0%	5.0%	69.1	-	-	190	591
RAMON ROAD I-10 RAMPS										-		
Eastbound On-Ramp	1	0	8,240	40	0	3.0%	5.0%	69.3	-	-	201	625
VIA BELLA										-		
West of Los Alamos Road	1	0	730	40	0	3.0%	5.0%	58.8	-	-	-	-
East of Los Alamos Road	1	0	1,120	40	0	3.0%	5.0%	60.7	-	-	-	88
CASINO										-		
West of Bob Hope Drive	1	0	1,570	40	0	3.0%	5.0%	62.1	-	-	-	122
East of Bob Hope Drive	2	0	2,050	40	0	3.0%	5.0%	63.3	-	-	-	159
WESTIN MISSION HILLS												
North of Dinah Shore Drive	0	0	1,790	40	0	3.0%	5.0%	62.7	-	-	-	139
South of Dinah Shore Drive	1	0	1,580	40	0	3.0%	5.0%	62.2	-	-	-	123
WESTIN RESORT AND VILLAS												
North of Dinah Shore Drive	1	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A
South of Dinah Shore Drive	1	0	800	40	0	3.0%	5.0%	59.2	-	-	-	-
STREET A												
East of Los Alamos Road	1	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A
STREET B												
East of Los Alamos Road	1	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A
STREET C												
South of Ramon Road	1	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A
STREET D												
South of Ramon Road	1	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A
West of Bob Hope Drive	1	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A
STREET E												
West of Bob Hope Drive	1	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A

Notes:

(1) Alpha Factor: Coefficient of absorption relating to the effects of the ground surface. An alpha factor of 0 indicates that the site is an acoustically "hard" site, such as aspalt. An alpha factor of 0.5 indicates that the site is an acoustically "soft" site such, as heavily vegetated ground cover.

"-" = contour is located within the roadway lanes or within 75 feet of the roadway centerline.

Noise levels and distances to contours do not assume any natural or constructed barriers that may attenuate noise.

24-Hour Traffic Distribution for Roadways Designated as "Major," "Arterial" Highways or "Expressways" by Riverside County

Source: Riverside County Department of Public Health, 15 January 2004.

	Weighted Traffic Distribution (%)				Riverside County Traffic Distribution			
	Day	Evening	Night	Totals	Day	Evening	Night	Totals
Auto	75.54%	14.02%	10.43%	100.00%	69.50%	12.90%	9.60%	92.00%
Medium-Duty Trucks	48.00%	2.00%	50.00%	100.00%	1.44%	0.06%	1.50%	3.00%
Heavy-Duty Trucks	48.00%	2.00%	50.00%	100.00%	2.40%	0.10%	2.50%	5.00%

Meridian Consultants LLC
Date: 5/28/14

Section 24 EIS
Off-Site Noise Contours Using Riverside County 24-Hour Traffic Distribution
Project Buildout

Rev: 11/12/2012

ROADWAY NAME / Segment	Number of Lanes in Each Direction	Median Width	ADT Volume	Design Speed (mph)	Alpha Factor (1)	Vehicle Mix: Medium Trucks	Vehicle Mix: Heavy Trucks	Distance from Center of Roadway: CNEL at 75 Feet	DISTANCE TO CONTOUR: 75 CNEL	70 CNEL	65 CNEL	60 CNEL
DA VALL DRIVE												
North of Ramon Road	2	0	2,260	40	0	3.0%	5.0%	63.7	-	-	-	175
South of Ramon Road	1	0	2,230	40	0	3.0%	5.0%	63.7	-	-	-	172
North of Dinah Shore Drive	1	0	2,230	40	0	3.0%	5.0%	63.7	-	-	-	172
South of Dinah Shore Drive	2	20	3,410	40	0	3.0%	5.0%	65.5	-	-	84	262
RATLLER ROAD										-		
North of Ramon Road	1	15	130	40	0	3.0%	5.0%	51.3	-	-	-	-
LOS ALAMOS ROAD										-		
South of Ramon Road	1	0	5,380	40	0	3.0%	5.0%	67.5	-	-	132	410
North of Dinah Shore Drive	1	0	3,160	40	0	3.0%	5.0%	65.2	-	-	78	243
BOB HOPE DRIVE										-		
North of I-10 WB Ramps	2	0	1,160	40	0	3.0%	5.0%	60.8	-	-	-	91
North of I-10 EB Ramps	2	0	11,040	40	0	3.0%	5.0%	70.6	-	86	268	833
North of Ramon Road	3	0	15,970	40	0	3.0%	5.0%	72.2	-	124	386	1,198
South of Ramon Road	2	30	16,620	40	0	3.0%	5.0%	72.4	-	129	401	1,246
North of Dinah Shore Drive	3	20	14,470	40	0	3.0%	5.0%	71.8	-	113	350	1,087
South of Dinah Shore Drive	2	25	8,390	40	0	3.0%	5.0%	69.4	-	-	205	636
North of Gerald Ford Drive	2	25	8,390	40	0	3.0%	5.0%	69.4	-	-	205	636
South of Gerald Ford Drive	2	30	5,790	40	0	3.0%	5.0%	67.8	-	-	142	441
KEY LARGO										-		
South of Dinah Shore Drive	0	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A
MONTEREY AVENUE										-		
North of Dinah Shore Drive	3	25	1,830	40	0	3.0%	5.0%	62.8	-	-	-	142
South of Dinah Shore Drive	3	30	4,260	40	0	3.0%	5.0%	66.5	-	-	105	326
RAMON ROAD										-		
West of Da Vall Drive	3	15	8,680	40	0	3.0%	5.0%	69.6	-	-	212	657
East of Da Vall Drive	3	20	13,040	40	0	3.0%	5.0%	71.3	-	102	316	981
West of Los Alamos Road	3	20	13,160	40	0	3.0%	5.0%	71.4	-	103	319	990
East of Los Alamos Road	3	20	12,410	40	0	3.0%	5.0%	71.1	-	97	301	935
East of Bob Hope Drive	2	20	6,700	40	0	3.0%	5.0%	68.4	-	-	164	509
East of EB I-10 Ramp	2	0	1,750	40	0	3.0%	5.0%	62.6	-	-	-	136
DINAH SHORE DRIVE										-		
West of Da Vall Drive	2	20	4,890	40	0	3.0%	5.0%	67.1	-	-	120	374
East of Da Vall Drive	2	20	6,200	40	0	3.0%	5.0%	68.1	-	-	152	472
West of Los Alamos Road	2	20	6,200	40	0	3.0%	5.0%	68.1	-	-	152	472
East of Los Alamos Road	2	20	4,360	40	0	3.0%	5.0%	66.6	-	-	107	334
East of Westin Mission Hills	2	20	4,820	40	0	3.0%	5.0%	67.0	-	-	119	368
West of Bob Hope Drive	2	20	3,700	40	0	3.0%	5.0%	65.9	-	-	91	284
East of Bob Hope Drive	3	25	8,520	40	0	3.0%	5.0%	69.5	-	-	208	645
East of Key Largo	3	20	8,520	40	0	3.0%	5.0%	69.5	-	-	208	645
West of Monterey Avenue	3	20	8,520	40	0	3.0%	5.0%	69.5	-	-	208	645
East of Monterey Avenue	2	15	2,440	40	0	3.0%	5.0%	64.1	-	-	-	188
GERALD FORD DRIVE										-		
West of Bob Hope Drive	2	25	1,040	40	0	3.0%	5.0%	60.4	-	-	-	81
East of Bob Hope Drive	2	15	1,560	40	0	3.0%	5.0%	62.1	-	-	-	121
INTERSTATE 10										-		
West of Bob Hope Drive	2	35	8,720	40	0	3.0%	5.0%	69.6	-	-	213	660
East of Ramon Road	3	25	11,060	40	0	3.0%	5.0%	70.6	-	86	269	835
BOB HOPE DR. I-10 RAMPS										-		
Westbound On-Ramp	2	0	4,360	40	0	3.0%	5.0%	66.6	-	-	107	334
Westbound Off-Ramp	2	0	5,530	40	0	3.0%	5.0%	67.6	-	-	136	422
Eastbound On-Ramp	2	0	580	40	0	3.0%	5.0%	57.8	-	-	-	-
Eastbound Off-Ramp	2	0	4,360	40	0	3.0%	5.0%	66.6	-	-	107	334
RAMON ROAD I-10 RAMPS										-		
Eastbound On-Ramp	1	0	4,950	40	0	3.0%	5.0%	67.1	-	-	122	378
VIA BELLA										-		
West of Los Alamos Road	1	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A
East of Los Alamos Road	1	0	830	40	0	3.0%	5.0%	59.4	-	-	-	-
CASINO										-		
West of Bob Hope Drive	1	0	13,630	40	0	3.0%	5.0%	71.5	-	106	330	1,025
East of Bob Hope Drive	2	0	520	40	0	3.0%	5.0%	57.3	-	-	-	-
WESTIN MISSION HILLS												
North of Dinah Shore Drive	0	0	1,320	40	0	3.0%	5.0%	61.4	-	-	-	103
South of Dinah Shore Drive	1	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N./A
WESTIN RESORT AND VILLAS												
North of Dinah Shore Drive	1	0	3,800	40	0	3.0%	5.0%	66.0	-	-	94	291
South of Dinah Shore Drive	1	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A
STREET A												
East of Los Alamos Road	1	0	420	40	0	3.0%	5.0%	56.4	-	-	-	-
STREET B												
East of Los Alamos Road	1	0	2,600	40	0	3.0%	5.0%	64.3	-	-	-	201
STREET C												
South of Ramon Road	1	0	5,880	40	0	3.0%	5.0%	67.9	-	-	144	448
STREET D												
South of Ramon Road	1	0	8,630	40	0	3.0%	5.0%	69.5	-	-	210	654
West of Bob Hope Drive	1	0	6,860	40	0	3.0%	5.0%	68.6	-	-	168	521
STREET E												
West of Bob Hope Drive	1	0	4,060	40	0	3.0%	5.0%	66.3	-	-	100	311

Notes:

(1) Alpha Factor: Coefficient of absorption relating to the effects of the ground surface. An alpha factor of 0 indicates that the site is an acoustically "hard" site, such as aspalt. An alpha factor of 0.5 indicates that the site is an acoustically "soft" site such, as heavily vegetated ground cover.

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Noise levels and distances to contours do not assume any natural or constructed barriers that may attenuate noise.

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Source: Riverside County Department of Public Health, 15 January 2004.

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	Day	Evening	Night	Totals	Day	Evening	Night	Totals
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Medium-Duty Trucks	48.00%	2.00%	50.00%	100.00%	1.44%	0.06%	1.50%	3.00%
Heavy-Duty Trucks	48.00%	2.00%	50.00%	100.00%	2.40%	0.10%	2.50%	5.00%

Meridian Consultants LLC
Date: 5/28/14

Section 24 EIS
Off-Site Noise Contours Using Riverside County 24-Hour Traffic Distribution
Existing + Project Buildout

Rev: 11/12/2012

ROADWAY NAME / Segment	Number of Lanes in Each Direction	Median Width	ADT Volume	Design Speed (mph)	Alpha Factor (1)	Vehicle Mix: Medium Trucks	Vehicle Mix: Heavy Trucks	Distance from Center of Roadway: CNEL at 75 Feet	DISTANCE TO CONTOUR: 75 CNEL	70 CNEL	65 CNEL	60 CNEL
DA VALL DRIVE												
North of Ramon Road	2	0	12,690	40	0	3.0%	5.0%	71.2	-	99	308	955
South of Ramon Road	1	0	13,140	40	0	3.0%	5.0%	71.4	-	102	318	989
North of Dinah Shore Drive	1	0	13,780	40	0	3.0%	5.0%	71.6	-	107	333	1,036
South of Dinah Shore Drive	2	20	15,230	40	0	3.0%	5.0%	72.0	-	118	368	1,144
RATLLER ROAD										-		
North of Ramon Road	1	15	2,840	40	0	3.0%	5.0%	64.7	-	-	-	219
LOS ALAMOS ROAD										-		
South of Ramon Road	1	0	7,200	40	0	3.0%	5.0%	68.8	-	-	176	547
North of Dinah Shore Drive	1	0	5,160	40	0	3.0%	5.0%	67.3	-	-	127	394
BOB HOPE DRIVE										-		
North of I-10 WB Ramps	2	0	13,690	40	0	3.0%	5.0%	71.6	-	107	331	1,030
North of I-10 EB Ramps	2	0	28,410	40	0	3.0%	5.0%	74.7	-	219	680	2,113
North of Ramon Road	3	0	34,720	40	0	3.0%	5.0%	75.6	86	267	829	2,574
South of Ramon Road	2	30	35,750	40	0	3.0%	5.0%	75.7	88	274	853	2,650
North of Dinah Shore Drive	3	20	32,330	40	0	3.0%	5.0%	75.3	80	249	772	2,400
South of Dinah Shore Drive	2	25	28,730	40	0	3.0%	5.0%	74.8	-	221	688	2,136
North of Gerald Ford Drive	2	25	27,510	40	0	3.0%	5.0%	74.6	-	212	659	2,047
South of Gerald Ford Drive	2	30	25,880	40	0	3.0%	5.0%	74.3	-	200	620	1,928
KEY LARGO										-		
South of Dinah Shore Drive	0	0	1,340	40	0	3.0%	5.0%	61.5	-	-	-	104
MONTEREY AVENUE										-		
North of Dinah Shore Drive	3	25	48,170	40	0	3.0%	5.0%	77.0	118	368	1,144	3,554
South of Dinah Shore Drive	3	30	35,880	40	0	3.0%	5.0%	75.7	89	275	856	2,659
RAMON ROAD										-		
West of Da Vall Drive	3	15	29,020	40	0	3.0%	5.0%	74.8	-	223	694	2,158
East of Da Vall Drive	3	20	36,800	40	0	3.0%	5.0%	75.8	91	282	877	2,726
West of Los Alamos Road	3	20	37,190	40	0	3.0%	5.0%	75.9	92	285	887	2,755
East of Los Alamos Road	3	20	37,090	40	0	3.0%	5.0%	75.9	92	285	884	2,747
East of Bob Hope Drive	2	20	23,880	40	0	3.0%	5.0%	74.0	-	184	573	1,781
East of EB I-10 Ramp	2	0	12,980	40	0	3.0%	5.0%	71.3	-	101	314	977
DINAH SHORE DRIVE										-		
West of Da Vall Drive	2	20	27,260	40	0	3.0%	5.0%	74.5	-	210	653	2,029
East of Da Vall Drive	2	20	24,150	40	0	3.0%	5.0%	74.0	-	186	579	1,801
West of Los Alamos Road	2	20	24,550	40	0	3.0%	5.0%	74.1	-	190	589	1,830
East of Los Alamos Road	2	20	22,430	40	0	3.0%	5.0%	73.7	-	173	539	1,674
East of Westin Mission Hills	2	20	23,500	40	0	3.0%	5.0%	73.9	-	182	564	1,753
West of Bob Hope Drive	2	20	22,270	40	0	3.0%	5.0%	73.7	-	172	535	1,662
East of Bob Hope Drive	3	25	27,320	40	0	3.0%	5.0%	74.6	-	211	654	2,033
East of Key Largo	3	20	27,670	40	0	3.0%	5.0%	74.6	-	213	663	2,059
West of Monterey Avenue	3	20	35,090	40	0	3.0%	5.0%	75.6	87	269	837	2,601
East of Monterey Avenue	2	15	18,910	40	0	3.0%	5.0%	73.0	-	147	455	1,415
GERALD FORD DRIVE										-		
West of Bob Hope Drive	2	25	17,880	40	0	3.0%	5.0%	72.7	-	139	431	1,339
East of Bob Hope Drive	2	15	16,460	40	0	3.0%	5.0%	72.4	-	128	397	1,234
INTERSTATE 10										-		
West of Bob Hope Drive	2	35	108,720	40	0	3.0%	5.0%	80.6	264	821	2,550	7,922
East of Ramon Road	3	25	113,060	40	0	3.0%	5.0%	80.7	274	853	2,650	8,234
BOB HOPE DR. I-10 RAMPS										-		
Westbound On-Ramp	2	0	10,350	40	0	3.0%	5.0%	70.3	-	81	252	782
Westbound Off-Ramp	2	0	14,130	40	0	3.0%	5.0%	71.7	-	110	342	1,062
Eastbound On-Ramp	2	0	2,650	40	0	3.0%	5.0%	64.4	-	-	-	204
Eastbound Off-Ramp	2	0	11,930	40	0	3.0%	5.0%	71.0	-	93	289	899
RAMON ROAD I-10 RAMPS										-		
Eastbound On-Ramp	1	0	12,920	40	0	3.0%	5.0%	71.3	-	101	313	973
VIA BELLA										-		
West of Los Alamos Road	1	0	730	40	0	3.0%	5.0%	58.8	-	-	-	-
East of Los Alamos Road	1	0	830	40	0	3.0%	5.0%	59.4	-	-	-	-
CASINO										-		
West of Bob Hope Drive	0	0	13,630	40	0	3.0%	5.0%	71.5	-	106	330	1,025
East of Bob Hope Drive	2	0	2,570	40	0	3.0%	5.0%	64.3	-	-	-	198
WESTIN MISSION HILLS												
North of Dinah Shore Drive	0	0	1,320	40	0	3.0%	5.0%	61.4	-	-	-	103
South of Dinah Shore Drive	1	0	1,580	40	0	3.0%	5.0%	62.2	-	-	-	123
WESTIN RESORT AND VILLAS												
North of Dinah Shore Drive	1	0	3,800	40	0	3.0%	5.0%	66.0	-	-	94	291
South of Dinah Shore Drive	1	0	800	40	0	3.0%	5.0%	59.2	-	-	-	-
STREET A												
East of Los Alamos Road	1	0	420	40	0	3.0%	5.0%	56.4	-	-	-	-
STREET B												
East of Los Alamos Road	1	0	2,600	40	0	3.0%	5.0%	64.3	-	-	-	201
STREET C												
South of Ramon Road	1	0	5,880	40	0	3.0%	5.0%	67.9	-	-	144	448
STREET D												
South of Ramon Road	1	0	8,630	40	0	3.0%	5.0%	69.5	-	-	210	654
West of Bob Hope Drive	1	0	6,860	40	0	3.0%	5.0%	68.6	-	-	168	521
STREET E												
West of Bob Hope Drive	1	0	4,060	40	0	3.0%	5.0%	66.3	-	-	100	311

Notes:

(1) Alpha Factor: Coefficient of absorption relating to the effects of the ground surface. An alpha factor of 0 indicates that the site is an acoustically "hard" site, such as aspalt. An alpha factor of 0.5 indicates that the site is an acoustically "soft" site such, as heavily vegetated ground cover.

"-" = contour is located within the roadway lanes or within 75 feet of the roadway centerline.

Noise levels and distances to contours do not assume any natural or constructed barriers that may attenuate noise.

24-Hour Traffic Distribution for Roadways Designated as "Major," "Arterial" Highways or "Expressways" by Riverside County

Source: Riverside County Department of Public Health, 15 January 2004.

	Weighted Traffic Distribution (%)				Riverside County Traffic Distribution			
	Day	Evening	Night	Totals	Day	Evening	Night	Totals
Auto	75.54%	14.02%	10.43%	100.00%	69.50%	12.90%	9.60%	92.00%
Medium-Duty Trucks	48.00%	2.00%	50.00%	100.00%	1.44%	0.06%	1.50%	3.00%
Heavy-Duty Trucks	48.00%	2.00%	50.00%	100.00%	2.40%	0.10%	2.50%	5.00%

Meridian Consultants LLC
Date: 5/28/14

Section 24 EIS
Off-Site Noise Contours Using Riverside County 24-Hour Traffic Distribution
Year 2022 Ambient

Rev: 11/12/2012

ROADWAY NAME / Segment	Number of Lanes in Each Direction	Median Width	ADT Volume	Design Speed (mph)	Alpha Factor (1)	Vehicle Mix: Medium Trucks	Vehicle Mix: Heavy Trucks	Distance from Center of Roadway: CNEL at 75 Feet	DISTANCE TO CONTOUR: 75 CNEL	70 CNEL	65 CNEL	60 CNEL
DA VALL DRIVE												
North of Ramon Road	2	0	13,840	40	0	3.0%	5.0%	71.6	-	108	335	1,041
South of Ramon Road	1	0	13,170	40	0	3.0%	5.0%	71.4	-	103	319	991
North of Dinah Shore Drive	1	0	12,390	40	0	3.0%	5.0%	71.1	-	97	300	933
South of Dinah Shore Drive	2	20	14,140	40	0	3.0%	5.0%	71.7	-	110	342	1,063
RATLLER ROAD										-		
North of Ramon Road	1	15	7,350	40	0	3.0%	5.0%	68.9	-	-	180	558
LOS ALAMOS ROAD										-		
South of Ramon Road	1	0	3,430	40	0	3.0%	5.0%	65.5	-	-	85	263
North of Dinah Shore Drive	1	0	3,390	40	0	3.0%	5.0%	65.5	-	-	84	260
BOB HOPE DRIVE										-		
North of I-10 WB Ramps	2	0	17,350	40	0	3.0%	5.0%	72.6	-	135	418	1,300
North of I-10 EB Ramps	2	0	24,570	40	0	3.0%	5.0%	74.1	-	190	589	1,831
North of Ramon Road	3	0	25,770	40	0	3.0%	5.0%	74.3	-	199	618	1,919
South of Ramon Road	2	30	22,820	40	0	3.0%	5.0%	73.8	-	176	548	1,703
North of Dinah Shore Drive	3	20	24,640	40	0	3.0%	5.0%	74.1	-	190	591	1,837
South of Dinah Shore Drive	2	25	23,880	40	0	3.0%	5.0%	74.0	-	184	573	1,781
North of Gerald Ford Drive	2	25	22,010	40	0	3.0%	5.0%	73.6	-	170	529	1,643
South of Gerald Ford Drive	2	30	22,100	40	0	3.0%	5.0%	73.6	-	171	531	1,650
KEY LARGO										-		
North of Dinah Shore Drive	0	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A
South of Dinah Shore Drive	0	0	1,390	40	0	3.0%	5.0%	61.6	-	-	-	108
MONTEREY AVENUE										-		
North of Dinah Shore Drive	3	25	48,210	40	0	3.0%	5.0%	77.0	119	368	1,145	3,557
South of Dinah Shore Drive	3	30	33,790	40	0	3.0%	5.0%	75.5	84	260	807	2,506
RAMON ROAD										-		
West of Da Vall Drive	3	15	27,030	40	0	3.0%	5.0%	74.5	-	208	647	2,012
East of Da Vall Drive	3	20	34,000	40	0	3.0%	5.0%	75.5	84	261	812	2,522
West of Los Alamos Road	3	20	34,230	40	0	3.0%	5.0%	75.5	85	263	817	2,539
East of Los Alamos Road	3	20	33,610	40	0	3.0%	5.0%	75.5	83	258	802	2,493
East of Bob Hope Drive	2	20	21,100	40	0	3.0%	5.0%	73.4	-	163	507	1,576
East of EB I-10 Ramp	2	0	12,830	40	0	3.0%	5.0%	71.3	-	100	311	966
DINAH SHORE DRIVE										-		
West of Da Vall Drive	2	20	23,380	40	0	3.0%	5.0%	73.9	-	181	561	1,744
East of Da Vall Drive	2	20	20,310	40	0	3.0%	5.0%	73.3	-	157	489	1,518
West of Los Alamos Road	2	20	21,670	40	0	3.0%	5.0%	73.5	-	168	521	1,618
East of Los Alamos Road	2	20	21,190	40	0	3.0%	5.0%	73.4	-	164	509	1,583
East of Westin Mission Hills	2	20	21,400	40	0	3.0%	5.0%	73.5	-	166	514	1,599
West of Bob Hope Drive	2	20	19,400	40	0	3.0%	5.0%	73.1	-	150	467	1,451
East of Bob Hope Drive	3	25	23,200	40	0	3.0%	5.0%	73.8	-	179	557	1,731
East of Key Largo	3	20	24,660	40	0	3.0%	5.0%	74.1	-	190	592	1,838
West of Monterey Avenue	3	20	29,900	40	0	3.0%	5.0%	74.9	-	230	715	2,222
East of Monterey Avenue	2	15	17,210	40	0	3.0%	5.0%	72.5	-	134	415	1,290
GERALD FORD DRIVE										-		
West of Bob Hope Drive	2	25	20,760	40	0	3.0%	5.0%	73.4	-	161	499	1,551
East of Bob Hope Drive	2	15	19,310	40	0	3.0%	5.0%	73.0	-	150	465	1,445
INTERSTATE 10										-		
West of Bob Hope Drive	2	35	136,818	40	0	3.0%	5.0%	81.5	331	1,029	3,197	9,935
East of Ramon Road	3	25	141,527	40	0	3.0%	5.0%	81.7	342	1,064	3,306	10,271
BOB HOPE DR. I-10 RAMPS										-		
Westbound On-Ramp	2	0	7,430	40	0	3.0%	5.0%	68.9	-	-	182	564
Westbound Off-Ramp	2	0	11,260	40	0	3.0%	5.0%	70.7	-	88	273	849
Eastbound On-Ramp	2	0	2,500	40	0	3.0%	5.0%	64.2	-	-	-	193
Eastbound Off-Ramp	2	0	8,660	40	0	3.0%	5.0%	69.6	-	-	211	656
RAMON ROAD I-10 RAMPS										-		
Eastbound On-Ramp	1	0	9,680	40	0	3.0%	5.0%	70.0	-	76	236	732
VIA BELLA										-		
West of Los Alamos Road	1	0	760	40	0	3.0%	5.0%	59.0	-	-	-	-
East of Los Alamos Road	1	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A
CASINO										-		
West of Bob Hope Drive	0	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A
East of Bob Hope Drive	2	0	2,130	40	0	3.0%	5.0%	63.5	-	-	-	165
WESTIN MISSION HILLS												
North of Dinah Shore Drive	0	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A
South of Dinah Shore Drive	1	0	1,640	40	0	3.0%	5.0%	62.3	-	-	-	127
WESTIN RESORT AND VILLAS												
North of Dinah Shore Drive	1	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A
South of Dinah Shore Drive	1	0	830	40	0	3.0%	5.0%	59.4	-	-	-	-
STREET A												
East of Los Alamos Road	1	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A
STREET B												
East of Los Alamos Road	1	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A
STREET C												
South of Ramon Road	1	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A
STREET D												
South of Ramon Road	1	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A
West of Bob Hope Drive	1	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A
STREET E												
West of Bob Hope Drive	1	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A

Notes:

(1) Alpha Factor: Coefficient of absorption relating to the effects of the ground surface. An alpha factor of 0 indicates that the site is an acoustically "hard" site, such as aspalt. An alpha factor of 0.5 indicates that the site is an acoustically "soft" site such, as heavily vegetated ground cover.

"-" = contour is located within the roadway lanes or within 75 feet of the roadway centerline.

Noise levels and distances to contours do not assume any natural or constructed barriers that may attenuate noise.

24-Hour Traffic Distribution for Roadways Designated as "Major," "Arterial" Highways or "Expressways" by Riverside County

Source: Riverside County Department of Public Health, 15 January 2004.

	Weighted Traffic Distribution (%)				Riverside County Traffic Distribution			
	Day	Evening	Night	Totals	Day	Evening	Night	Totals
Auto	75.54%	14.02%	10.43%	100.00%	69.50%	12.90%	9.60%	92.00%
Medium-Duty Trucks	48.00%	2.00%	50.00%	100.00%	1.44%	0.06%	1.50%	3.00%
Heavy-Duty Trucks	48.00%	2.00%	50.00%	100.00%	2.40%	0.10%	2.50%	5.00%

Meridian Consultants LLC
Date: 5/28/14

Section 24 EIS
Off-Site Noise Contours Using Riverside County 24-Hour Traffic Distribution
Year 2022 With Phase I

Rev: 11/12/2012

ROADWAY NAME / Segment	Number of Lanes in Each Direction	Median Width	ADT Volume	Design Speed (mph)	Alpha Factor (1)	Vehicle Mix: Medium Trucks	Vehicle Mix: Heavy Trucks	Distance from Center of Roadway: CNEL at 75 Feet	DISTANCE TO CONTOUR: 75 CNEL	70 CNEL	65 CNEL	60 CNEL
DA VALL DRIVE												
North of Ramon Road	2	0	13,970	40	0	3.0%	5.0%	71.6	-	109	338	1,050
South of Ramon Road	1	0	13,260	40	0	3.0%	5.0%	71.4	-	103	321	998
North of Dinah Shore Drive	1	0	12,480	40	0	3.0%	5.0%	71.2	-	97	302	940
South of Dinah Shore Drive	2	20	14,360	40	0	3.0%	5.0%	71.8	-	112	347	1,079
RATLLER ROAD										-		
North of Ramon Road	1	15	7,360	40	0	3.0%	5.0%	68.9	-	-	180	559
LOS ALAMOS ROAD										-		
South of Ramon Road	1	0	4,460	40	0	3.0%	5.0%	66.7	-	-	110	341
North of Dinah Shore Drive	1	0	3,750	40	0	3.0%	5.0%	65.9	-	-	93	288
BOB HOPE DRIVE										-		
North of I-10 WB Ramps	2	0	17,390	40	0	3.0%	5.0%	72.6	-	135	419	1,303
North of I-10 EB Ramps	2	0	25,130	40	0	3.0%	5.0%	74.2	-	194	603	1,873
North of Ramon Road	3	0	26,580	40	0	3.0%	5.0%	74.4	-	205	637	1,979
South of Ramon Road	2	30	23,990	40	0	3.0%	5.0%	74.0	-	185	576	1,789
North of Dinah Shore Drive	3	20	25,220	40	0	3.0%	5.0%	74.2	-	195	605	1,879
South of Dinah Shore Drive	2	25	24,600	40	0	3.0%	5.0%	74.1	-	190	590	1,834
North of Gerald Ford Drive	2	25	22,730	40	0	3.0%	5.0%	73.8	-	176	546	1,696
South of Gerald Ford Drive	2	30	22,820	40	0	3.0%	5.0%	73.8	-	176	548	1,703
KEY LARGO										-		
North of Dinah Shore Drive	0	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A
South of Dinah Shore Drive	0	0	1,390	40	0	3.0%	5.0%	61.6	-	-	-	108
MONTEREY AVENUE										-		
North of Dinah Shore Drive	3	25	48,400	40	0	3.0%	5.0%	77.0	119	370	1,149	3,571
South of Dinah Shore Drive	3	30	34,240	40	0	3.0%	5.0%	75.5	85	263	817	2,539
RAMON ROAD										-		
West of Da Vall Drive	3	15	28,020	40	0	3.0%	5.0%	74.7	-	216	671	2,084
East of Da Vall Drive	3	20	35,030	40	0	3.0%	5.0%	75.6	87	269	836	2,597
West of Los Alamos Road	3	20	35,260	40	0	3.0%	5.0%	75.7	87	271	841	2,614
East of Los Alamos Road	3	20	33,790	40	0	3.0%	5.0%	75.5	84	260	807	2,506
East of Bob Hope Drive	2	20	21,460	40	0	3.0%	5.0%	73.5	-	166	516	1,603
East of EB I-10 Ramp	2	0	12,920	40	0	3.0%	5.0%	71.3	-	101	313	973
DINAH SHORE DRIVE										-		
West of Da Vall Drive	2	20	23,740	40	0	3.0%	5.0%	73.9	-	183	570	1,771
East of Da Vall Drive	2	20	20,980	40	0	3.0%	5.0%	73.4	-	162	505	1,568
West of Los Alamos Road	2	20	22,340	40	0	3.0%	5.0%	73.7	-	173	537	1,668
East of Los Alamos Road	2	20	21,770	40	0	3.0%	5.0%	73.6	-	168	523	1,626
East of Westin Mission Hills	2	20	22,610	40	0	3.0%	5.0%	73.7	-	175	543	1,687
West of Bob Hope Drive	2	20	20,610	40	0	3.0%	5.0%	73.3	-	160	496	1,540
East of Bob Hope Drive	3	25	24,100	40	0	3.0%	5.0%	74.0	-	186	578	1,797
East of Key Largo	3	20	25,560	40	0	3.0%	5.0%	74.3	-	197	613	1,904
West of Monterey Avenue	3	20	30,800	40	0	3.0%	5.0%	75.1	76	237	736	2,288
East of Monterey Avenue	2	15	17,470	40	0	3.0%	5.0%	72.6	-	136	421	1,309
GERALD FORD DRIVE										-		
West of Bob Hope Drive	2	25	20,760	40	0	3.0%	5.0%	73.4	-	161	499	1,551
East of Bob Hope Drive	2	15	19,310	40	0	3.0%	5.0%	73.0	-	150	465	1,445
INTERSTATE 10										-		
West of Bob Hope Drive	2	35	137,258	40	0	3.0%	5.0%	81.6	332	1,032	3,207	9,966
East of Ramon Road	3	25	142,107	40	0	3.0%	5.0%	81.7	344	1,068	3,319	10,313
BOB HOPE DR. I-10 RAMPS										-		
Westbound On-Ramp	2	0	7,650	40	0	3.0%	5.0%	69.0	-	-	187	580
Westbound Off-Ramp	2	0	11,550	40	0	3.0%	5.0%	70.8	-	90	280	871
Eastbound On-Ramp	2	0	2,520	40	0	3.0%	5.0%	64.2	-	-	-	194
Eastbound Off-Ramp	2	0	8,880	40	0	3.0%	5.0%	69.7	-	-	216	672
RAMON ROAD I-10 RAMPS										-		
Eastbound On-Ramp	1	0	9,950	40	0	3.0%	5.0%	70.2	-	78	242	752
VIA BELLA										-		
West of Los Alamos Road	1	0	760	40	0	3.0%	5.0%	59.0	-	-	-	-
East of Los Alamos Road	1	0	1,120	40	0	3.0%	5.0%	60.7	-	-	-	88
CASINO										-		
West of Bob Hope Drive	0	0	1,570	40	0	3.0%	5.0%	62.1	-	-	-	122
East of Bob Hope Drive	2	0	2,130	40	0	3.0%	5.0%	63.5	-	-	-	165
WESTIN MISSION HILLS												
North of Dinah Shore Drive	0	0	1,790	40	0	3.0%	5.0%	62.7	-	-	-	139
South of Dinah Shore Drive	1	0	1,640	40	0	3.0%	5.0%	62.3	-	-	-	127
WESTIN RESORT AND VILLAS												
North of Dinah Shore Drive	1	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A
South of Dinah Shore Drive	1	0	830	40	0	3.0%	5.0%	59.4	-	-	-	-
STREET A												
East of Los Alamos Road	1	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A
STREET B												
East of Los Alamos Road	1	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A
STREET C												
South of Ramon Road	1	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A
STREET D												
South of Ramon Road	1	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A
West of Bob Hope Drive	1	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A
STREET E												
West of Bob Hope Drive	1	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A

Notes:
(1) Alpha Factor: Coefficient of absorption relating to the effects of the ground surface. An alpha factor of 0 indicates that the site is an acoustically "hard" site, such as aspalt. An alpha factor of 0.5 indicates that the site is an acoustically "soft" site such, as heavily vegetated ground cover.

"-" = contour is located within the roadway lanes or within 75 feet of the roadway centerline.

Noise levels and distances to contours do not assume any natural or constructed barriers that may attenuate noise.

24-Hour Traffic Distribution for Roadways Designated as "Major," "Arterial" Highways or "Expressways" by Riverside County

Source: Riverside County Department of Public Health, 15 January 2004.

	Weighted Traffic Distribution (%)				Riverside County Traffic Distribution			
	Day	Evening	Night	Totals	Day	Evening	Night	Totals
Auto	75.54%	14.02%	10.43%	100.00%	69.50%	12.90%	9.60%	92.00%
Medium-Duty Trucks	48.00%	2.00%	50.00%	100.00%	1.44%	0.06%	1.50%	3.00%
Heavy-Duty Trucks	48.00%	2.00%	50.00%	100.00%	2.40%	0.10%	2.50%	5.00%

Meridian Consultants LLC
Date: 5/28/14

Section 24 EIS
Off-Site Noise Contours Using Riverside County 24-Hour Traffic Distribution
Year 2035 Ambient

Rev: 11/12/2012

ROADWAY NAME / Segment	Number of Lanes in Each Direction	Median Width	ADT Volume	Design Speed (mph)	Alpha Factor (1)	Vehicle Mix: Medium Trucks	Vehicle Mix: Heavy Trucks	Distance from Center of Roadway: CNEL at 75 Feet	DISTANCE TO CONTOUR: 75 CNEL	70 CNEL	65 CNEL	60 CNEL
DA VALL DRIVE												
North of Ramon Road	2	0	18,390	40	0	3.0%	5.0%	72.8	-	143	443	1,377
South of Ramon Road	1	0	14,380	40	0	3.0%	5.0%	71.8	-	112	348	1,081
North of Dinah Shore Drive	1	0	12,710	40	0	3.0%	5.0%	71.2	-	99	308	957
South of Dinah Shore Drive	2	20	14,880	40	0	3.0%	5.0%	71.9	-	116	360	1,118
RATLLER ROAD										-		
North of Ramon Road	1	15	8,260	40	0	3.0%	5.0%	69.4	-	-	201	626
LOS ALAMOS ROAD										-		
South of Ramon Road	1	0	3,950	40	0	3.0%	5.0%	66.2	-	-	97	303
North of Dinah Shore Drive	1	0	4,280	40	0	3.0%	5.0%	66.5	-	-	105	328
BOB HOPE DRIVE										-		
North of I-10 WB Ramps	2	0	26,490	40	0	3.0%	5.0%	74.4	-	204	635	1,972
North of I-10 EB Ramps	2	0	29,160	40	0	3.0%	5.0%	74.8	-	225	698	2,168
North of Ramon Road	3	0	24,550	40	0	3.0%	5.0%	74.1	-	190	589	1,830
South of Ramon Road	2	30	21,040	40	0	3.0%	5.0%	73.4	-	163	506	1,572
North of Dinah Shore Drive	3	20	24,430	40	0	3.0%	5.0%	74.1	-	189	586	1,821
South of Dinah Shore Drive	2	25	22,370	40	0	3.0%	5.0%	73.7	-	173	537	1,670
North of Gerald Ford Drive	2	25	21,030	40	0	3.0%	5.0%	73.4	-	163	506	1,571
South of Gerald Ford Drive	2	30	22,100	40	0	3.0%	5.0%	73.6	-	171	531	1,650
KEY LARGO										-		
North of Dinah Shore Drive	0	0	5,010	40	0	3.0%	5.0%	67.2	-	-	123	383
South of Dinah Shore Drive	0	0	1,470	40	0	3.0%	5.0%	61.9	-	-	-	114
MONTEREY AVENUE										-		
North of Dinah Shore Drive	3	25	50,970	40	0	3.0%	5.0%	77.3	125	389	1,209	3,757
South of Dinah Shore Drive	3	30	34,780	40	0	3.0%	5.0%	75.6	86	267	830	2,579
RAMON ROAD										-		
West of Da Vall Drive	3	15	30,670	40	0	3.0%	5.0%	75.1	76	236	733	2,278
East of Da Vall Drive	3	20	42,060	40	0	3.0%	5.0%	76.4	104	322	1,001	3,110
West of Los Alamos Road	3	20	41,940	40	0	3.0%	5.0%	76.4	103	321	998	3,101
East of Los Alamos Road	3	20	37,660	40	0	3.0%	5.0%	75.9	93	289	898	2,789
East of Bob Hope Drive	2	20	21,520	40	0	3.0%	5.0%	73.5	-	166	517	1,607
East of EB I-10 Ramp	2	0	13,760	40	0	3.0%	5.0%	71.6	-	107	333	1,035
DINAH SHORE DRIVE										-		
West of Da Vall Drive	2	20	24,610	40	0	3.0%	5.0%	74.1	-	190	590	1,834
East of Da Vall Drive	2	20	19,750	40	0	3.0%	5.0%	73.1	-	153	475	1,477
West of Los Alamos Road	2	20	21,910	40	0	3.0%	5.0%	73.6	-	169	527	1,636
East of Los Alamos Road	2	20	22,720	40	0	3.0%	5.0%	73.8	-	176	546	1,696
East of Westin Mission Hills	2	20	22,260	40	0	3.0%	5.0%	73.7	-	172	535	1,662
West of Bob Hope Drive	2	20	20,430	40	0	3.0%	5.0%	73.3	-	158	491	1,527
East of Bob Hope Drive	3	25	23,350	40	0	3.0%	5.0%	73.9	-	180	561	1,742
East of Key Largo	3	20	27,400	40	0	3.0%	5.0%	74.6	-	211	656	2,039
West of Monterey Avenue	3	20	29,230	40	0	3.0%	5.0%	74.8	-	225	699	2,173
East of Monterey Avenue	2	15	18,120	40	0	3.0%	5.0%	72.8	-	141	437	1,357
GERALD FORD DRIVE										-		
West of Bob Hope Drive	2	25	27,050	40	0	3.0%	5.0%	74.5	-	209	648	2,013
East of Bob Hope Drive	2	15	26,410	40	0	3.0%	5.0%	74.4	-	204	633	1,966
INTERSTATE 10										-		
West of Bob Hope Drive	2	35	198,456	40	0	3.0%	5.0%	83.2	478	1,484	4,611	14,329
East of Ramon Road	3	25	207,633	40	0	3.0%	5.0%	83.4	499	1,552	4,821	14,981
BOB HOPE DR. I-10 RAMPS										-		
Westbound On-Ramp	2	0	6,590	40	0	3.0%	5.0%	68.4	-	-	161	501
Westbound Off-Ramp	2	0	10,870	40	0	3.0%	5.0%	70.6	-	85	264	820
Eastbound On-Ramp	2	0	2,680	40	0	3.0%	5.0%	64.5	-	-	-	207
Eastbound Off-Ramp	2	0	8,330	40	0	3.0%	5.0%	69.4	-	-	203	631
RAMON ROAD I-10 RAMPS										-		
Eastbound On-Ramp	1	0	8,770	40	0	3.0%	5.0%	69.6	-	-	214	664
VIA BELLA										-		
West of Los Alamos Road	1	0	800	40	0	3.0%	5.0%	59.2	-	-	-	-
East of Los Alamos Road	1	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A
CASINO										-		
West of Bob Hope Drive	0	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A
East of Bob Hope Drive	2	0	2,260	40	0	3.0%	5.0%	63.7	-	-	-	175
WESTIN MISSION HILLS												
North of Dinah Shore Drive	0	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A
South of Dinah Shore Drive	1	0	1,740	40	0	3.0%	5.0%	62.6	-	-	-	135
WESTIN RESORT AND VILLAS												
North of Dinah Shore Drive	1	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A
South of Dinah Shore Drive	1	0	880	40	0	3.0%	5.0%	59.6	-	-	-	-
STREET A												
East of Los Alamos Road	1	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A
STREET B												
East of Los Alamos Road	1	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A
STREET C												
South of Ramon Road	1	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A
STREET D												
South of Ramon Road	1	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A
West of Bob Hope Drive	1	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A
STREET E												
West of Bob Hope Drive	1	0	0	40	0	3.0%	5.0%	N/A	N/A	N/A	N/A	N/A

Notes:

(1) Alpha Factor: Coefficient of absorption relating to the effects of the ground surface. An alpha factor of 0 indicates that the site is an acoustically "hard" site, such as aspalt. An alpha factor of 0.5 indicates that the site is an acoustically "soft" site such, as heavily vegetated ground cover.

"-" = contour is located within the roadway lanes or within 75 feet of the roadway centerline.

Noise levels and distances to contours do not assume any natural or constructed barriers that may attenuate noise.

24-Hour Traffic Distribution for Roadways Designated as "Major," "Arterial" Highways or "Expressways" by Riverside County

Source: Riverside County Department of Public Health, 15 January 2004.

	Weighted Traffic Distribution (%)				Riverside County Traffic Distribution			
	Day	Evening	Night	Totals	Day	Evening	Night	Totals
Auto	75.54%	14.02%	10.43%	100.00%	69.50%	12.90%	9.60%	92.00%
Medium-Duty Trucks	48.00%	2.00%	50.00%	100.00%	1.44%	0.06%	1.50%	3.00%
Heavy-Duty Trucks	48.00%	2.00%	50.00%	100.00%	2.40%	0.10%	2.50%	5.00%

Meridian Consultants LLC
Date: 5/28/14

Section 24 EIS
Off-Site Noise Contours Using Riverside County 24-Hour Traffic Distribution
Year 2035 With Project

Rev: 11/12/2012

ROADWAY NAME / Segment	Number of Lanes in Each Direction	Median Width	ADT Volume	Design Speed (mph)	Alpha Factor (1)	Vehicle Mix: Medium Trucks	Vehicle Mix: Heavy Trucks	Distance from Center of Roadway: CNEL at 75 Feet	DISTANCE TO CONTOUR: 75 CNEL	70 CNEL	65 CNEL	60 CNEL
DA VALL DRIVE												
North of Ramon Road	2	0	20,650	40	0	3.0%	5.0%	73.3	-	160	497	1,543
South of Ramon Road	1	0	16,610	40	0	3.0%	5.0%	72.4	-	129	401	1,246
North of Dinah Shore Drive	1	0	14,940	40	0	3.0%	5.0%	71.9	-	116	361	1,122
South of Dinah Shore Drive	2	20	18,290	40	0	3.0%	5.0%	72.8	-	142	441	1,369
RATLLER ROAD										-		
North of Ramon Road	1	15	8,390	40	0	3.0%	5.0%	69.4	-	-	205	636
LOS ALAMOS ROAD										-		
South of Ramon Road	1	0	9,330	40	0	3.0%	5.0%	69.9	-	-	227	706
North of Dinah Shore Drive	1	0	7,440	40	0	3.0%	5.0%	68.9	-	-	182	565
BOB HOPE DRIVE										-		
North of I-10 WB Ramps	2	0	27,650	40	0	3.0%	5.0%	74.6	-	213	662	2,057
North of I-10 EB Ramps	2	0	40,200	40	0	3.0%	5.0%	76.2	99	308	957	2,974
North of Ramon Road	3	0	40,520	40	0	3.0%	5.0%	76.3	100	310	965	2,997
South of Ramon Road	2	30	37,660	40	0	3.0%	5.0%	75.9	93	289	898	2,789
North of Dinah Shore Drive	3	20	38,900	40	0	3.0%	5.0%	76.1	96	298	927	2,879
South of Dinah Shore Drive	2	25	30,760	40	0	3.0%	5.0%	75.1	76	237	735	2,285
North of Gerald Ford Drive	2	25	29,420	40	0	3.0%	5.0%	74.9	-	227	704	2,187
South of Gerald Ford Drive	2	30	27,890	40	0	3.0%	5.0%	74.6	-	215	668	2,075
KEY LARGO										-		
North of Dinah Shore Drive	0	0	5,010	40	0	3.0%	5.0%	67.2	-	-	123	383
South of Dinah Shore Drive	0	0	1,470	40	0	3.0%	5.0%	61.9	-	-	-	114
MONTEREY AVENUE										-		
North of Dinah Shore Drive	3	25	52,800	40	0	3.0%	5.0%	77.4	130	403	1,252	3,890
South of Dinah Shore Drive	3	30	39,040	40	0	3.0%	5.0%	76.1	96	299	930	2,890
RAMON ROAD										-		
West of Da Vall Drive	3	15	39,350	40	0	3.0%	5.0%	76.1	97	302	937	2,912
East of Da Vall Drive	3	20	55,100	40	0	3.0%	5.0%	77.6	135	420	1,306	4,057
West of Los Alamos Road	3	20	55,100	40	0	3.0%	5.0%	77.6	135	420	1,306	4,057
East of Los Alamos Road	3	20	50,070	40	0	3.0%	5.0%	77.2	123	382	1,188	3,692
East of Bob Hope Drive	2	20	28,220	40	0	3.0%	5.0%	74.7	-	217	676	2,099
East of EB I-10 Ramp	2	0	15,510	40	0	3.0%	5.0%	72.1	-	121	375	1,164
DINAH SHORE DRIVE										-		
West of Da Vall Drive	2	20	29,500	40	0	3.0%	5.0%	74.9	-	227	706	2,193
East of Da Vall Drive	2	20	25,950	40	0	3.0%	5.0%	74.3	-	200	622	1,933
West of Los Alamos Road	2	20	28,110	40	0	3.0%	5.0%	74.7	-	217	673	2,091
East of Los Alamos Road	2	20	27,080	40	0	3.0%	5.0%	74.5	-	209	649	2,016
East of Westin Mission Hills	2	20	27,080	40	0	3.0%	5.0%	74.5	-	209	649	2,016
West of Bob Hope Drive	2	20	24,130	40	0	3.0%	5.0%	74.0	-	186	579	1,799
East of Bob Hope Drive	3	25	31,870	40	0	3.0%	5.0%	75.2	79	245	762	2,366
East of Key Largo	3	20	35,920	40	0	3.0%	5.0%	75.7	89	276	857	2,662
West of Monterey Avenue	3	20	37,750	40	0	3.0%	5.0%	76.0	93	290	900	2,796
East of Monterey Avenue	2	15	20,560	40	0	3.0%	5.0%	73.3	-	159	495	1,537
GERALD FORD DRIVE										-		
West of Bob Hope Drive	2	25	28,090	40	0	3.0%	5.0%	74.7	-	216	672	2,090
East of Bob Hope Drive	2	15	27,970	40	0	3.0%	5.0%	74.7	-	216	670	2,081
INTERSTATE 10										-		
West of Bob Hope Drive	2	35	207,716	40	0	3.0%	5.0%	83.4	500	1,552	4,823	14,987
East of Ramon Road	3	25	218,693	40	0	3.0%	5.0%	83.6	526	1,633	5,074	15,767
BOB HOPE DR. I-10 RAMPS										-		
Westbound On-Ramp	2	0	10,950	40	0	3.0%	5.0%	70.6	-	86	266	826
Westbound Off-Ramp	2	0	16,400	40	0	3.0%	5.0%	72.3	-	127	396	1,230
Eastbound On-Ramp	2	0	3,260	40	0	3.0%	5.0%	65.3	-	-	81	251
Eastbound Off-Ramp	2	0	12,690	40	0	3.0%	5.0%	71.2	-	99	308	955
RAMON ROAD I-10 RAMPS										-		
Eastbound On-Ramp	1	0	13,720	40	0	3.0%	5.0%	71.6	-	107	332	1,032
VIA BELLA										-		
West of Los Alamos Road	1	0	800	40	0	3.0%	5.0%	59.2	-	-	-	-
East of Los Alamos Road	1	0	830	40	0	3.0%	5.0%	59.4	-	-	-	-
CASINO										-		
West of Bob Hope Drive	0	0	13,360	40	0	3.0%	5.0%	71.4	-	104	323	1,005
East of Bob Hope Drive	2	0	2,780	40	0	3.0%	5.0%	64.6	-	-	-	214
WESTIN MISSION HILLS												
North of Dinah Shore Drive	0	0	1,320	40	0	3.0%	5.0%	61.4	-	-	-	103
South of Dinah Shore Drive	1	0	1,740	40	0	3.0%	5.0%	62.6	-	-	-	135
WESTIN RESORT AND VILLAS												
North of Dinah Shore Drive	1	0	3,800	40	0	3.0%	5.0%	66.0	-	-	94	291
South of Dinah Shore Drive	1	0	880	40	0	3.0%	5.0%	59.6	-	-	-	-
STREET A												
East of Los Alamos Road	1	0	420	40	0	3.0%	5.0%	56.4	-	-	-	-
STREET B												
East of Los Alamos Road	1	0	2,600	40	0	3.0%	5.0%	64.3	-	-	-	201
STREET C												
South of Ramon Road	1	0	5,880	40	0	3.0%	5.0%	67.9	-	-	144	448
STREET D												
South of Ramon Road	1	0	8,630	40	0	3.0%	5.0%	69.5	-	-	210	654
West of Bob Hope Drive	1	0	6,860	40	0	3.0%	5.0%	68.6	-	-	168	521
STREET E												
West of Bob Hope Drive	1	0	4,060	40	0	3.0%	5.0%	66.3	-	-	100	311

Notes:

(1) Alpha Factor: Coefficient of absorption relating to the effects of the ground surface. An alpha factor of 0 indicates that the site is an acoustically "hard" site, such as aspalt. An alpha factor of 0.5 indicates that the site is an acoustically "soft" site such, as heavily vegetated ground cover.

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	Weighted Traffic Distribution (%)				Riverside County Traffic Distribution			
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Auto	75.54%	14.02%	10.43%	100.00%	69.50%	12.90%	9.60%	92.00%
Medium-Duty Trucks	48.00%	2.00%	50.00%	100.00%	1.44%	0.06%	1.50%	3.00%
Heavy-Duty Trucks	48.00%	2.00%	50.00%	100.00%	2.40%	0.10%	2.50%	5.00%

Meridian Consultants LLC
Date: 5/28/14

Section 24 EIS
Off-Site Noise Contours Using Riverside County 24-Hour Traffic Distribution
Cumulative

Rev: 11/12/2012

ROADWAY NAME / Segment	Number of Lanes in Each Direction	Median Width	ADT Volume	Design Speed (mph)	Alpha Factor (1)	Vehicle Mix: Medium Trucks	Vehicle Mix: Heavy Trucks	Distance from Center of Roadway: CNEL at 75 Feet	DISTANCE TO CONTOUR: 75 CNEL	70 CNEL	65 CNEL	60 CNEL
Cumulative												
Pelagic Residential	1	0	1,250	40	0	3.0%	5.0%	61.2	-	-	-	98
Rancho Mirage Rehab Hospital	1	0	1,070	40	0	3.0%	5.0%	60.5	-	-	-	84

Notes:

(1) Alpha Factor: Coefficient of absorption relating to the effects of the ground surface. An alpha factor of 0 indicates that the site is an acoustically "hard" site, such as aspalt. An alpha factor of 0.5 indicates that the site is an acoustically "soft" site such, as heavily vegetated ground cover.

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Noise levels and distances to contours do not assume any natural or constructed barriers that may attenuate noise.

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	Day	Evening	Night	Totals	Day	Evening	Night	Totals
Auto	75.54%	14.02%	10.43%	100.00%	69.50%	12.90%	9.60%	92.00%
Medium-Duty Trucks	48.00%	2.00%	50.00%	100.00%	1.44%	0.06%	1.50%	3.00%
Heavy-Duty Trucks	48.00%	2.00%	50.00%	100.00%	2.40%	0.10%	2.50%	5.00%

APPENDIX G

Traffic Study

Section 24 Specific Plan
Traffic Impact Study

Prepared By: Endo Engineering

October 2014

Endo Engineering *Traffic Engineering* *Air Quality Studies* *Noise Assessments*

October 27, 2014

Mr. Tony Locacciato
Meridian Consultants
860 Hampshire Road, Suite P
Westlake Village, California 91361

SUBJECT: Section 24 Specific Plan Traffic Impact Study – Supplemental Analysis

Dear Mr. Locacciato;

Endo Engineering prepared and submitted a draft traffic impact study addressing the Section 24 Specific Plan on April 2, 2014. Minor modifications to the Planning Area boundaries within the Specific Plan were subsequently made to reflect topographic issues that would affect future development plans for the 577 gross acres within the project site. This supplemental information became available in September 2014, after the traffic impact study was completed on April 2, 2014 and revised on July 24, 2014. The modified Conceptual Land Use Plan (attached) would not result in a significant change in any of the findings or recommendations within the *Draft Section 24 Specific Plan Traffic Impact Analysis* (Revised July 24, 2014).

Modified Conceptual Land Use Plan

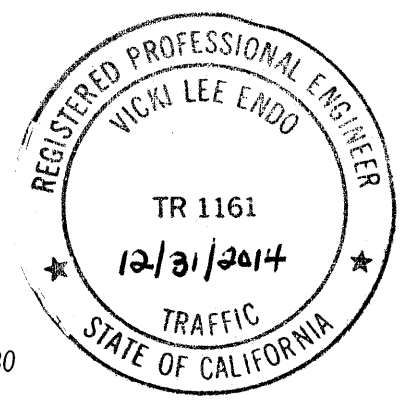
Although the resort flex area increased by eight acres and the retail area increased by one acre, the maximum development potential of the non-residential uses within the Specific Plan remained unchanged at 3,138,600 square feet. Despite a decrease of nine acres in the area within the Specific Plan designated for multi-family residential development and an increase of one acre in the active adult community within Planning Area 8, the maximum permitted number and type of residential dwelling units uses remained unchanged (i.e., 1,206 multi-family residential dwelling units and 1,200 active adult single-family dwelling units). The area required for rights-of-way decreased by one acre.

Since the maximum allowed development remain unchanged, the number of trips that the project would generate would remain unchanged. The RIVTAM socioeconomic parameters for the project site used to forecast future horizon year 2035 travel demands upon full development of the proposed Section 24 Specific Plan would not change with the modified Conceptual Land Use Plan. The distribution of the various land uses within the Specific Plan would remain essentially consistent with that previously evaluated. For example, the relocation of an acre of multifamily residential development from one side of Casino Road to the opposite side would not change the volume of traffic generated by that acre of development from using Casino Road. The site access and internal circulation plan did not change.

Cordially,
ENDO ENGINEERING

Vicki Lee Endo

Vicki Lee Endo
Registered Professional
Traffic Engineer TR 1161



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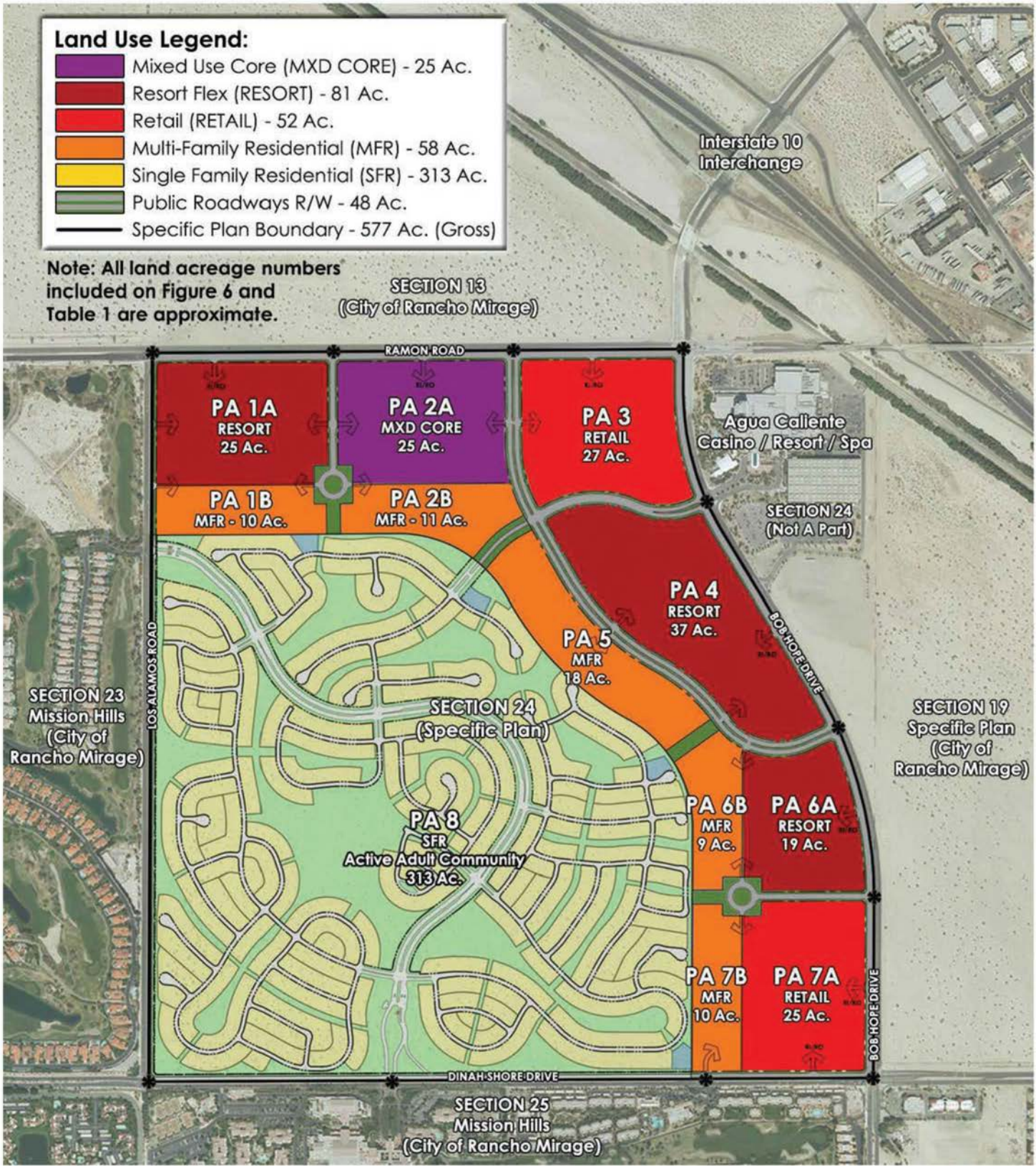

SOURCE: MSA Consulting Inc. - September 2014.

FIGURE **3.0-3**

SECTION 24 SPECIFIC PLAN

Conceptual Land Use Plan

Endo Engineering Traffic Engineering Air Quality Studies Noise Assessments

October 27, 2014

Mr. Tony Locacciato
Meridian Consultants
860 Hampshire Road, Suite P
Westlake Village, California 91361

SUBJECT: Section 24 Specific Plan Traffic Impact Study

Dear Mr. Locacciato;

Endo Engineering is pleased to submit this analysis of the full range of potentially significant transportation consequences associated with implementation of the proposed Section 24 Specific Plan being prepared by the Agua Caliente Band of Cahuilla Indians. The Section 24 Specific Plan would coordinate the planning and future development of 577 acres under separate ownerships within the boundaries of the Agua Caliente Indian Reservation. The project site is undeveloped and located south of Interstate 10 and Ramon Road, north of Dinah Shore Drive, west of Bob Hope Drive, and east of Los Alamos Road. The site is west of the Agua Caliente Casino Resort Spa, within unincorporated Riverside County and the City of Rancho Mirage Sphere of Influence. The Section 24 Specific Plan area is surrounded on all four sides by the City of Rancho Mirage. Following action on the EIS and the Section 24 Specific Plan by the Agua Caliente Band of Cahuilla Indians, the Specific Plan area may be annexed to the City of Rancho Mirage.

The Riverside County General Plan would change the historical growth pattern of random sprawl by moving toward a pattern of concentrated growth and increased job creation in strategic areas, which provide various transportation options for access to the region. In view of its prominent and centralized location within the Coachella Valley, the proposed Section 24 Specific Plan would provide a unique opportunity to implement that vision. The proposed project would create a vital mixed-use development, within the context of a destination resort community, that is supportive of transit and other alternative transportation modes. The development would be pedestrian-friendly and located within an area where the use of golf carts and NEVs is commonplace and multi-use paths exist and are being expanded to accommodate cycling, pedestrians, and golf carts.

The development proposed would take maximum advantage of the opportunities afforded by the seasonal influx of tourists and part-year residents but also provide a mix of future uses that would support the local community and be economically viable year-round. To promote walking and cycling as healthy alternatives to commuting long distances by automobile, the Section 24 Specific Plan would provide a variety of housing options and create employment and entertainment opportunities in close proximity. Cohesive design elements would protect unique viewsheds and introduce streetscapes with coordinated landscaping to reinforce and enhance community aesthetics. The project would create a safe environment within which the use of alternative transportation modes for short trips would increase over time and continue to be a viable option as the population ages.

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A maximum of 2,406 residential dwelling units and 3,138,600 square feet of non-residential development (retail commercial, entertainment, office, and hotel) would be allowed by the Section 24 Specific Plan. The initial phase would be completed in the year 2022 and include up to 1,200 single-family residential dwelling units within a gated community designed for active senior adults that would complement surrounding land uses in the City of Rancho Mirage. Although no time frame has been established for development following the initial phase, the remaining area is being programmatically planned in conjunction with the Section 24 Specific Plan to ensure land use compatibility and coordinate streets and other necessary infrastructure.

The traffic study details: (1) existing circulation conditions; (2) impacts associated with the initial phase of development; (3) impacts associated with project buildout; (4) future impacts in the horizon year 2035; and (5) mitigation measures that would meet the relevant circulation system performance standards. We trust that the information provided herein will be of value to you and the Agua Caliente Band of Cahuilla Indians in their review of the impacts and conditions of approval associated with the project. Should questions or comments develop regarding the findings and recommendations within this report, please do not hesitate to contact me.

Cordially,
ENDO ENGINEERING

Vicki Lee Endo

Vicki Lee Endo
Registered Professional
Traffic Engineer TR 1161

DRAFT TRAFFIC IMPACT ANALYSIS
SECTION 24 SPECIFIC PLAN

AGUA CALIENTE INDIAN RESERVATION
UNINCORPORATED RIVERSIDE COUNTY, CALIFORNIA

Prepared
APRIL 2, 2014

Revised
JULY 24, 2014

2nd Revision
OCTOBER 27, 2014

Prepared For:

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1.0 INTRODUCTION AND SUMMARY

1.1 Purpose and Objectives

This traffic impact study was developed for use in the preparation of an Environmental Impact Statement (EIS) for the proposed Section 24 Specific Plan in Riverside County, California. The project site is located entirely within the Agua Caliente Indian Reservation and within the Sphere of Influence of the City of Rancho Mirage as defined by the Riverside County Local Agency Formation Commission (LAFCo). In compliance with their Environmental Policy Act (Tribal Ordinance No. 28) the Agua Caliente Band of Cahuilla Indians ("Tribe") is acting as the lead agency for the preparation of the EIS. Following action on the EIS and Section 24 Specific Plan by the Tribe, the Specific Plan area may be annexed to the City of Rancho Mirage. To facilitate compliance with the California Environmental Quality Act (CEQA) by the City of Rancho Mirage, the EIS will be prepared in compliance with the CEQA Guidelines.

This traffic impact study was conducted to provide an objective and factually supported full-disclosure analysis of the potentially significant transportation consequences associated with implementation of the proposed project as well as anticipated future discretionary actions and approvals. In the process, potential cumulative transportation impacts associated with other existing, approved, and proposed development in the study area were also evaluated. To achieve the objective, information was obtained from field observations in the study area, discussions with representatives of affected agencies and the project design team. Adopted plans and policies were analyzed. Available studies, reports, data, literature, and relevant local and regional transportation models were also reviewed.

The analyses summarized herein were designed to achieve the following objectives.

- Describe the thresholds used to determine if a significant impact would occur.
- Collect and analyze the data necessary to identify, disclose, and focus on those impacts determined to be potentially significant.
- Identify improvements that would avoid significant effects, where feasible.
- Reduce adverse effects through the project design process or the incorporation of appropriate mitigation.
- Foster inter-agency coordination during the project review process.
- Clearly document the study methodology, assumptions, findings, and recommendations to support informed decision making.

1.2 Site Location and Study Area

The 577-acre undeveloped project site is centrally located within the Coachella Valley, in unincorporated Riverside County. Figure 2-1 depicts the project site in its regional context. The site occupies all of Section 24 except the 63 acres located on the east side of Bob Hope Drive. The project site is surrounded on all four sides by land located within the City of Rancho Mirage and is within the City of Rancho Mirage Sphere of Influence. The project site is located south of Interstate 10 (I-10), near the recently constructed Bob Hope Drive interchange. The site extends south of Ramon Road to Dinah Shore Drive and west of Bob Hope Drive to Los Alamos Road (see Figure 2-2). The site is located south of Section 13, west of Section 19, and east of Section 23 (the Mission Hills golf resort community).

The study area extends east of Da Vall Drive to Monterey Avenue and south of I-10 to Gerald Ford Drive. Seventeen existing key intersections within the study area were identified and approved by the Tribe and the City of Rancho Mirage for peak hour delay and level of service analysis (as shown in Figure 3-1) to determine the traffic impacts of the proposed Specific Plan project. The City of Cathedral City is adjacent to the study area to the west and north. The City of Palm Desert is adjacent to the study area to the east.

1.3 Existing General Plan and Zoning Designations

The *Riverside County Comprehensive General Plan (Revised 2008)* and the *Western Coachella Valley Area Plan (October 2003)* assign three land use designations to the area within the project site: CR (120 gross acres), CT (217 gross acres), MDR (240 gross acres). These designations would allow up to 1,200 single family dwelling units and approximately 3.85 million square feet of non-residential building space associated with local and regional serving retail and service uses,

tourist commercial, hotel, professional offices, recreational and amusement uses.[1] Development at the maximum intensity and density allowed by the *Riverside County General Plan* could generate up to 88,560 unadjusted weekday trips, as shown in Table 2-1.[2]

The proposed Section 24 Specific Plan would establish development standards for consistent land uses (i.e., 1,200 single-family dwellings for active senior adults (aged 55 and above) and a maximum non-residential building area that represents 81.4 percent of the maximum allowed under the land use designations in the *Riverside County General Plan*. A maximum of 1,206 multiple-family residential dwellings not anticipated by the *Riverside County General Plan* are proposed in close proximity to the proposed local and visitor-serving retail and service uses that would be employment generators within the site. Even though the project would include approximately twice as many residential dwellings as the *Riverside County General Plan*, they would generate a similar number of residential trips because 1,200 dwellings would be for active adults (age-restricted for residents aged 55 and above). Development at the maximum intensity and density allowed by the proposed Section 24 Specific Plan could generate up to 73,890 unadjusted weekday trips, which is approximately 16.5 percent below the number of trips that would be generated by the amount and type of development allowed by the current *Riverside County General Plan* land use designations.

The *City of Rancho Mirage General Plan* applies a C-C designation to approximately 75 net acres within the site with the potential to generate approximately 33,100 weekday trips. The *City of Rancho Mirage General Plan* designates approximately 39 net acres of the site R-H (9 dwelling units per acre, maximum) which would allow up to 351 multi-family dwelling units. The remaining 414 net acres are designated R-M (4 dwelling units per acre, maximum) which would allow up to 1,656 single-family detached dwelling units. The proposed project includes 84 percent of the residential acreage shown in the *City of Rancho Mirage General Plan.* However, the multiple-family residential density proposed would be twice that allowed by the *City of Rancho Mirage General Plan.* The proposed project would include twenty percent more residential dwellings (2,406 versus 2,007 units). However, the residential trip generation of the proposed project would be 64 percent of that associated with the 2,007 dwelling units allowed by the *City of Rancho Mirage General Plan* (i.e., 5,590 fewer weekday trips, as shown in Table 2-1). The lower trip generation would be attributed to the 1,200 proposed single-family dwelling units for active senior adults (with residency limited to adults aged 55 and above), which would generate substantially fewer trips on weekdays than conventional single-family dwellings. Development at the maximum intensity and density allowed per the *City of Rancho Mirage General Plan* would generate a total of 48,780 unadjusted weekday trips.

1.4 Proposed Section 24 Specific Plan

The Section 24 Specific Plan would establish a unified vision for the project site to guide the future development of a cohesive and complementary mix of land uses consistent with both local and regional planning goals. The Section 24 Specific Plan provides comprehensive development standards and design guidelines for use in the future development of a mixed-use regional destination resort community with residential uses located near employment opportunities, tourist-related and local-serving commercial and entertainment uses. Offices and hotels would be permitted uses within the proposed Section 24 Specific Plan.

Figure 2-3 depicts the proposed land uses, site access connections, and internal circulation system planned to support the development. A maximum of 2,406 residential dwelling units and 3,138,600 square feet of non-residential development (retail commercial, entertainment, office, hotel) would be allowed by the Section 24 Specific Plan. The mixed-use development proposed would incorporate "complete streets" designed to be supportive of transit and alternative transportation modes. The proposed development reflects the policies and goals set forth in the *Riverside County General Plan* and the *Western Coachella Valley Area Plan* which encourage more concentrated growth at key locations with existing regional and local transportation infrastructure.

The 1,200 single-family residential dwelling units proposed within a gated community designed for active senior adults (residency would be limited to adults aged 55 and above) would complement surrounding existing and planned land uses in the City of Rancho Mirage. The higher density multiple-family attached dwelling units would reflect the emerging pattern

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[1] The Riverside County Traffic Analysis Model (RIVTAM) is the approved regional transportation model used to forecast future horizon year 2035 traffic projections for the project site. In RIVTAM, the gross acreage designated in the *Riverside County General Plan* for commercial land uses is converted to net acreage (by assuming that 25 percent of the gross area would be reserved for roads, rights-of-way, easements, etc.) and the Floor Area Ratio (FAR) represents the non-residential building floor area divided by the net area of each parcel.

[2] These "unadjusted" trips represent the sum of the individual trip-generation estimates associated with each land use within the mixed-use development, without adjustments to remove the double counting of internally-captured trips (i.e., trips with both an origin and a destination within the site that would occur without requiring vehicular travel on external streets).

of more concentrated growth and increased job creation to more cost-effectively accommodate the future transit demands created.

The project site encompasses 577 acres of which approximately 528 net acres would ultimately be developed. The remaining 49+ acres within the site would be roadway rights-of-way. Table 2-2 summarizes the proposed land uses within the site by Planning Area. The proposed land use designations include: Retail, Resort Flex, Mixed Use Core, Residential (Multiple-Family), and Residential (Single-Family) for active seniors (age 55 and over). The initial phase of development would include the development of up to 1,200 single-family homes for active adults (aged 55 and above) within Planning Area 8. The Section 24 Specific Plan would include up to 1,206 multiple-family residential dwellings after the initial phase. Although no time frame has been established for the future development of Planning Areas 1 through 7, these areas are being planned in conjunction with the Section 24 Specific Plan to coordinate streets and other necessary infrastructure and promote land use compatibility.

The RIVTAM model run conducted for the traffic analysis was based on socioeconomic data derived from the proposed residential units and square feet of non-residential uses. The analysis conducted for the study evaluated 3,138,600 square feet of non-residential uses and 2,406 residential units. After this model run was conducted, minor adjustments were made to the configuration of the Planning Areas. The configuration currently proposed for the Draft Section 24 Specific Plan site will allow the development of 529 net acres of the 577-acre site, with 313 net acres in Planning Area 8, 216 net acres in Planning Areas 1 through 7, and 48 acres for roadway rights-of-way. The differences between the size of the Planning Areas originally assumed for the traffic analysis (312 net acres for Planning Area 8, 216 net acres for Planning Areas 1 through 7, and 49 acres of roadway rights-of-way) versus the Draft Specific Plan as currently proposed (313 net acres for PA 8, 216 net acres for PA 1 through 7, and 48 acres for roadway rights-of-way) would not alter the trip generation. The differences between the Specific Plan addressed in the traffic analysis and the currently proposed Specific Plan would not affect the socioeconomic parameters used in the RIVTAM run. Therefore, the analysis presented in this study is consistent with the total non-residential development area and residential units proposed in the Specific Plan.

Proposed Site Access

Figure 2-3 illustrates the proposed site access and internal circulation layout including the internal street designations referred to throughout this report. The initial phase would ultimately be accessed via full-turn access connections proposed opposite three existing T-type intersections (Intersections 8, 9 and 12), as shown in Figure 2-3. However, the extension of Casino Road, from Bob Hope Drive to Planning Area 8, would not be constructed by Pulte Homes as part of the improvements associated with the development of the active adult community in the initial phase.

The timing of the construction of Casino Road on-site, between Planning Area 8 and Bob Hope Drive, is currently unknown. The extension of Casino Road to Planning Area 8 may not occur until adjacent land within Planning Areas 2, 3, 4, and/or 5 is developed. Although the connection of Casino Road on-site between Planning Area 8 and Bob Hope Drive is planned, there may be an interval when the initial phase is completed without the access afforded by Casino Road. As a result, the evaluation of the traffic impacts associated with the completion of the initial phase of development assumed that Casino Road would not be constructed between Planning Area 8 and Bob Hope Drive by the year 2022.

The site access plan proposed to support the ultimate development within the project site would include two existing signalized intersections (Intersections 9, and 12). In addition, five future signalized full-turn site access intersections are proposed (Intersections 13, 18, 19, 20, and 21) as well as two future unsignalized full-turn access intersections (Intersections 22 and 23). All seven of the proposed right-in/right-out access connections would be associated with phases of site development after the initial phase is completed.

The two future signalized full-turn site access intersections proposed on Ramon Road, between Los Alamos Road and Bob Hope Drive, (Intersections 18 and 19) would be located opposite the future access intersections associated with the adopted City of Rancho Mirage Section 13 Specific Plan to the north. The two future signalized full-turn site access intersections proposed on Bob Hope Drive, between Casino Road and Dinah Shore Drive, (Intersections 20 and 21) would be located opposite future access intersections associated with the adopted City of Rancho Mirage Section 19 Specific Plan to the east.

Project Phasing

Planning Area 8 would be developed as the initial phase of the proposed project. Buildout of Planning Area 8 is expected to require six to eight years to complete and occur by the year 2022. No time frame has been established to date for development within Planning Areas 1 through 7. For the purposes of this traffic impact analysis, buildout of the entire project

was assumed to occur by the year 2035, which is the horizon year used in the approved regional transportation model (RIVTAM).

1.5 Principal Findings

Performance Criteria

The *Riverside County Comprehensive General Plan* states that for development within the Sphere of Influence of an incorporated jurisdiction, city standards should generally apply where annexation to the city will logically occur in the short to intermediate range future. The *City of Rancho Mirage General Plan* identifies the adopted performance criteria to be used to evaluate the adequacy of the circulation system to serve the desired future land uses as follows: "While LOS C has long been considered the desirable and optimal level of traffic volume on any given roadway, it represents a standard that is progressively more difficult and less cost-effective to achieve in urban areas. For peak operating periods, LOS D or a maximum volume-to-capacity ratio of 0.90 is now considered the generally acceptable service level."

The City of Cathedral City standard is LOS D. The City of Palm Desert has adopted LOS C as the target for design purposes but considers LOS D provisionally acceptable for intersections that are fully improved and cannot be mitigated to achieve LOS C.

Existing Conditions

All of the seventeen key intersections are currently providing acceptable levels of service in the peak season during the weekday morning and evening peak hours. Peak hour traffic volumes do not currently warrant traffic control signals at the unsignalized key intersection of Los Alamos Road with Via Bella or the intersection of the Westin Resort Villas access with Dinah Shore Drive. The project site has adequate access for the land uses proposed.

Existing Plus Initial Phase Conditions

The initial phase of the proposed development would generate approximately 4,480 weekday trips of which 234 would occur during the morning peak hour and 289 would occur during the evening peak hour on weekdays. Although site traffic generated by the initial phase of development would degrade the peak hour LOS at two of the site access intersections (Intersection 8 and 12) from LOS A to LOS B, this impact would not be significant. All of the key intersections and site access intersections would provide acceptable levels of service upon completion of the initial phase, provided the intersection of Los Alamos Road with Via Bella [Intersection 8] and the intersection of the Westin Mission Hills Access with Dinah Shore Drive [Intersection 12] are improved to provide site access, as shown in Figure 6-2. No new traffic signals would be warranted or required by the initial phase of development. Although multiple access points are desirable to minimize circuitous travel, provide alternate access during maintenance activities and enhance emergency access, the two initial access connections would provide sufficient capacity for the initial phase of development. The extension of Casino Road, from Bob Hope Drive to Planning Area 8, would facilitate internal trip interactions between the active adult community and the non-residential land uses developed in subsequent phases of the Section 24 Specific Plan.

Existing Plus Project Buildout Conditions

Development of the project site at the maximum intensity/density that would be permitted by the proposed Specific Plan would add 59,450 weekday trips to the surrounding street system. Of that total, approximately 2,965 trips would be inbound to the site and 2,874 trips would be outbound from the site during the evening peak hour on a typical weekday.

Traffic generated by the project would cause the peak hour traffic signal warrants to be met at five intersections where site access is proposed including: two future intersections proposed on Ramon Road, two future intersections proposed on Bob Hope Drive, and one existing unsignalized intersection on Dinah Shore Drive, where a site access connection is proposed. All of these intersections would be signalized in conjunction with the proposed project. All of the key intersections are projected to provide acceptable levels of service in the peak hours on weekdays with existing plus project buildout traffic volumes, provided the proposed site access improvements and traffic control signals (shown in Figure 6-3) are constructed when necessary to accommodate the traffic generated by the proposed development. No improvements would be required for existing plus project buildout traffic volumes, other than the improvements proposed to facilitate site access.

Future Year 2022 Through Traffic Conditions (With No Site Traffic)

Future year 2022 through (non-site) traffic conditions were evaluated by adding to existing traffic volumes: (1) the cumulative traffic associated with two near-term developments, and (2) the portion of the projected future growth between the year 2013 and the year 2035 expected to occur by the year 2022. As shown in Tables 5-6 and 5-7, the key intersections are projected to operate at acceptable peak hour levels or service in the year 2022 without the traffic generated by the initial phase of the proposed project. All of the key intersections except two would operate at LOS C or better during the peak hours with the projected year 2022 through traffic volumes. Two of the signalized key intersections (Da Vall Drive at Ramon Road and Bob Hope Drive at Gerald Ford Drive) are projected to operate at LOS D during the morning peak hours and LOS C during the evening peak hours with the year 2022 through traffic volumes. These levels of service are considered acceptable.

Future Year 2022 Plus Initial Phase Conditions

The addition of the site traffic generated by the active adult homes in the initial phase of development to area roadways in the year 2022 would change the peak hour level of service on the minor-street approach at one unsignalized key intersection. During weekday evening peak hours, the site traffic generated by the initial phase is expected to increase the average control delay experienced by eastbound motorists on Via Bella approaching the intersection of Los Alamos Road by 0.6 seconds per vehicle. This increase would cause the peak hour level of service on the approach with the most delay at this intersection to drop from LOS A to LOS B. Since the intersection would have very little control delay and operate at LOS B or better, this impact would be less than significant. The addition of site traffic is not projected to change the peak hour LOS at any of the signalized key intersections in the year 2022.

Horizon Year 2035 Plus Project Buildout Traffic Conditions

As shown in Tables 5-8 and 5-9 the ultimate street system shown in both the *City of Rancho Mirage General Plan* and the *Riverside County General Plan* would accommodate the traffic associated with buildout of the proposed project in the horizon year 2035 at acceptable levels of service (LOS D or better). With the future horizon year 2035 traffic projections, deficiencies were identified at two of the off-site key intersections evaluated: (1) Bob Hope Drive at Gerald Ford Drive, and (2) Da Vall Drive at Ramon Road. Each of these key intersections would require localized mitigation to maintain acceptable levels of service in the form of an additional left-turn lane on one approach, as shown in Figure 6-4. These required improvements would be consistent with the General Plan classifications of Gerald Ford Drive and Da Vall Drive, where the mitigation would be required.

Bob Hope Drive at Gerald Ford Drive [Intersection 17] would require a second eastbound left-turn lane to accommodate projected year 2035 traffic volumes with or without site traffic. The City of Rancho Mirage has included improvements to this intersection in the 2014-2015 Capital Improvement Program (CIP). The planned improvements include the provision of dual left-turn lanes and a dedicated right-turn lane on all four approaches to this intersection. Construction is scheduled to start in May 2015 and end in October, 2015.

Da Vall Drive at Ramon Road [Intersection 3] would require a second southbound left-turn lane to accommodate projected year 2035 traffic volumes with or without traffic from the proposed Section 24 Specific Plan project. Existing development encroaches on the right-of-way required to widen Da Vall Drive to the four-lane divided roadway classification shown in both City and County General Plans. The additional southbound left-turn lane required on Da Vall Drive at Ramon Road would be consistent with the improvements typically required on a four-lane divided roadway.

The 2010 *Transportation Project Prioritization Study* (TPPS) identifies eligible transportation improvement projects on the Regional Arterial system and ranks them based upon various evaluation criteria. CVAG distributes regional transportation improvement funds (including revenue from Measure A and the TUMF program) to supplement local revenues and/or developer contributions required for approved regional road construction projects. CVAG's policy is to pay 75 percent of eligible project costs, with the public agencies responsible for approving the project contributing the remaining 25 percent. The widening of Da Vall Drive to its ultimate cross-section, between Ramon Road and Vista Chino, is an eligible and buildable project (designated B-419) in the TPPS. With a score of 9.3 points, it is ranked 88th of the 247 buildable projects therein. The required mitigation for the intersection of Da Vall Drive at Ramon Road should be part of this roadway improvement project.

The remaining key intersections are projected to operate at acceptable levels of service with the improvements proposed for the site access intersections, as shown in Figure 6-4. Five of the proposed site access intersections would require signalization to provide acceptable levels of service. Four of the five site access intersections that would require signalization are future intersections proposed in conjunction with the Section 24 Specific Plan with traffic signal control. The fifth site access point that would require signalization is proposed on Dinah Shore Drive, approximately 1,220 feet west of Bob Hope Drive (opposite the existing Westin Resort Villas access).

1.6 Recommendations

Section 6 provides a detailed discussion of: (1) standard mitigation for individual development projects, (2) recommendations associated with the initial phase of development, and (3) recommendations associated with full development of the Section 24 Specific Plan. The existing approach lane geometrics at the key intersections are shown in Figure 6-1. Figure 6-2 illustrates the minimum lane geometrics required at the key intersections for the initial phase of the proposed development. Figure 6-3 illustrates the minimum approach lane geometrics required and traffic control assumed for existing plus project buildout conditions. Figure 6-4 illustrates the minimum approach lane geometrics required and traffic control assumed for conditions in the horizon year 2035. The approach lanes therein represent: (1) existing lanes; (2) lanes required to eliminate off-site intersection deficiencies; and (3) future lanes recommended to ensure adequate site access and internal circulation.

Initial Phase Improvements

The developer of the initial phase shall provide, at a minimum, the lane geometrics shown in Figure 6-2 at the site access points in conjunction with the development of the initial phase.

1. The developer of the initial phase shall provide, at a minimum, the lane geometrics shown in Figure 6-2 at the site access points in conjunction with the development of the initial phase.

    - A "STOP" sign shall be installed facing westbound vehicles at the site access proposed on Los Alamos Road, opposite Via Bella [Intersection 8] and a northbound and southbound left-turn bay shall be provided in the median on Los Alamos Road at the intersection of Via Bella.

    - The existing traffic control signal and approach lane geometrics shall be modified at the intersection of the Westin Mission Hills Golf Resort Access with Dinah Shore Drive [Intersection 12] to provide access to the initial phase of development. Two southbound exit lanes shall be provided, including a dedicated right-turn lane and a shared through/left lane. Two northbound entry lanes shall be provided to permit residents to enter while a visitor is awaiting authorization for entry.

2. Adequate stacking distance (100 feet) shall be provided on the approach to each of the three proposed gated entries to store vehicles entering the initial phase. The pavement in advance of the gate shall be wide enough to allow non-accepted vehicles to turn around in advance of the gate. Any gated entry that allows visitor access should provide two entry lanes to allow residents to bypass the vehicles of visitors awaiting entry authorization.

3. The controlled primary entryways to the initial phase of development may be required to include provisions to facilitate access by emergency vehicles. If required, all power-operated controlled access devices shall have a radio-controlled override system capable of opening the gate or barrier when activated by a special transmitter located in emergency vehicles and be equipped to facilitate opening in the event of a power failure.

4. An adequate supply of off-street parking in appropriate locations is an essential component of a balanced neighborhood and should be provided within the initial phase to meet the needs of residents and visitors. Regular use of on-street parking should be expected and accommodated because visitor parking will be heavy at times.

Project Buildout Improvements

The minimum required site access improvements shown in Figure 6-4, including the intersection approach lane geometrics, "STOP " signs, and new traffic control signals, should be provided when necessary to accommodate the traffic generated by the development of the Section 24 Specific Plan.

Traffic signals will be warranted and shall be installed along Ramon Road and Bob Hope Drive at the following five site access intersections to maintain acceptable levels of service in conjunction with adjacent development:

- The Westin Resort Villas @ Dinah Shore Drive [Intersection 13],
- Street “C” @ Ramon Road [Intersection 18],
- Street “D” @ Ramon Road [Intersection 19],
- Bob Hope Drive @ Street “D” [Intersection 20], and
- Bob Hope Drive @ Street “E” [Intersection 21].

2.0 PROPOSED DEVELOPMENT

With its unique natural beauty and resources as well as its history as a retirement destination with seasonal tourism, the Coachella Valley has become a world-class resort destination. As many as 100,000 seasonal residents spend the winter months in the Coachella Valley. Another 3.5 million conventioneers and tourists visit the Coachella Valley each year. The year-round agricultural industry in the Coachella Valley has been augmented by a leisure, hospitality, and retail economy that has developed to accommodate tourists and the influx of seasonal residents.

The *Riverside County General Plan* would change the historical growth pattern of random sprawl by moving toward a pattern of concentrated growth and increased job creation in strategic areas, which provide various transportation options for access to the region. In view of its prominent and centralized location within the Coachella Valley, the proposed Section 24 Specific Plan provides a unique opportunity to implement that vision.

The proposed project would create a vital mixed-use development, within the context of a destination resort community, that is supportive of transit and other alternative transportation modes. The development would be pedestrian-friendly and located within an area where the use of golf carts and NEVs is commonplace and multi-use paths exist and are being expanded to accommodate cycling, pedestrians, and golf carts. The proposed project would be within walking distance of two sites adjacent to the Union Pacific Railroad corridor that are being considered for development as a future regional multi-modal transit center. The development would take maximum advantage of the opportunities afforded by the seasonal influx of tourists and part-year residents but also provide a mix of future uses that would support the local community and be economically viable year-round. The Section 24 Specific Plan would provide a variety of housing options and create employment and entertainment opportunities in close proximity, to promote walking and cycling as healthy alternatives to commuting long distances by automobile. Cohesive design elements would protect unique viewsheds and introduce streetscapes with coordinated landscaping to reinforce and enhance community aesthetics. The project would create a safe environment within which the use of alternative transportation modes for short trips would grow over time and continue to be a viable option as the population ages.

2.1 Project Location

Figure 2-1 illustrates the project site in its regional context within the Coachella Valley region of eastern Riverside County, California. The project site is centrally located within the Coachella Valley, which is approximately 45 miles long and 15 miles wide. The Coachella Valley is separated from the Greater Los Angeles Area to the northwest by the San Gorgonio Pass, through which Interstate 10 (I-10) and the Union Pacific Railroad are the major transportation corridors.

The site is located south of the Union Pacific Railroad corridor and I-10, at the newly constructed Bob Hope Drive interchange. The undeveloped project site is comprised of 577 gross acres entirely within the Agua Caliente Indian Reservation. It is within the Rancho Mirage Sphere of Influence in unincorporated Riverside County. The site occupies approximately 90 percent of Section 24, including all the area west of Bob Hope Drive. The adjacent area within Section 24, located south of Ramon Road and east of Bob Hope Drive, is not a part of the project site and is developed as the Agua Caliente Casino Resort Spa.

Figure 2-2 depicts the project site in its local context. The site is situated between the desert resort cities of Palm Springs (to the west) and Palm Desert (to the east). Cathedral City is located both west and north of the site. The City of Rancho Mirage surrounds the project site on all sides and the Specific Plan area is an island of unincorporated land.

The site is bounded by and has frontage on four existing arterial streets. It extends south of Ramon Road to Dinah Shore Drive and east of Los Alamos Road to Bob Hope Drive. It is bordered to the south and west by the Westin Mission Hills Golf Resort and Mission Hills community. The Desert Ridge Shopping Center is located on the southeast corner of the intersection of Bob Hope Drive and Dinah Shore Drive. The Agua Caliente Casino Resort Spa is located south of Ramon Road and east of Bob Hope Drive, within the portion of Section 24 that is not a part of the project site.

2.2 Land Ownership Within the Section 24 Specific Plan Area

The proposed Specific Plan would establish the 8 planning areas shown in Figure 2-3 for the purposes of planning and regulating land use. A total of 120 gross acres along the south side of Ramon Road (primarily within Planning Areas 1 through 3) are owned by the Tribe. The 97 gross acres located immediately west of and adjacent to Bob Hope Drive (within Planning Areas 4, 5, and 6) are allotted to members of the Tribe and under contract to be acquired by the Tribe. The 40-

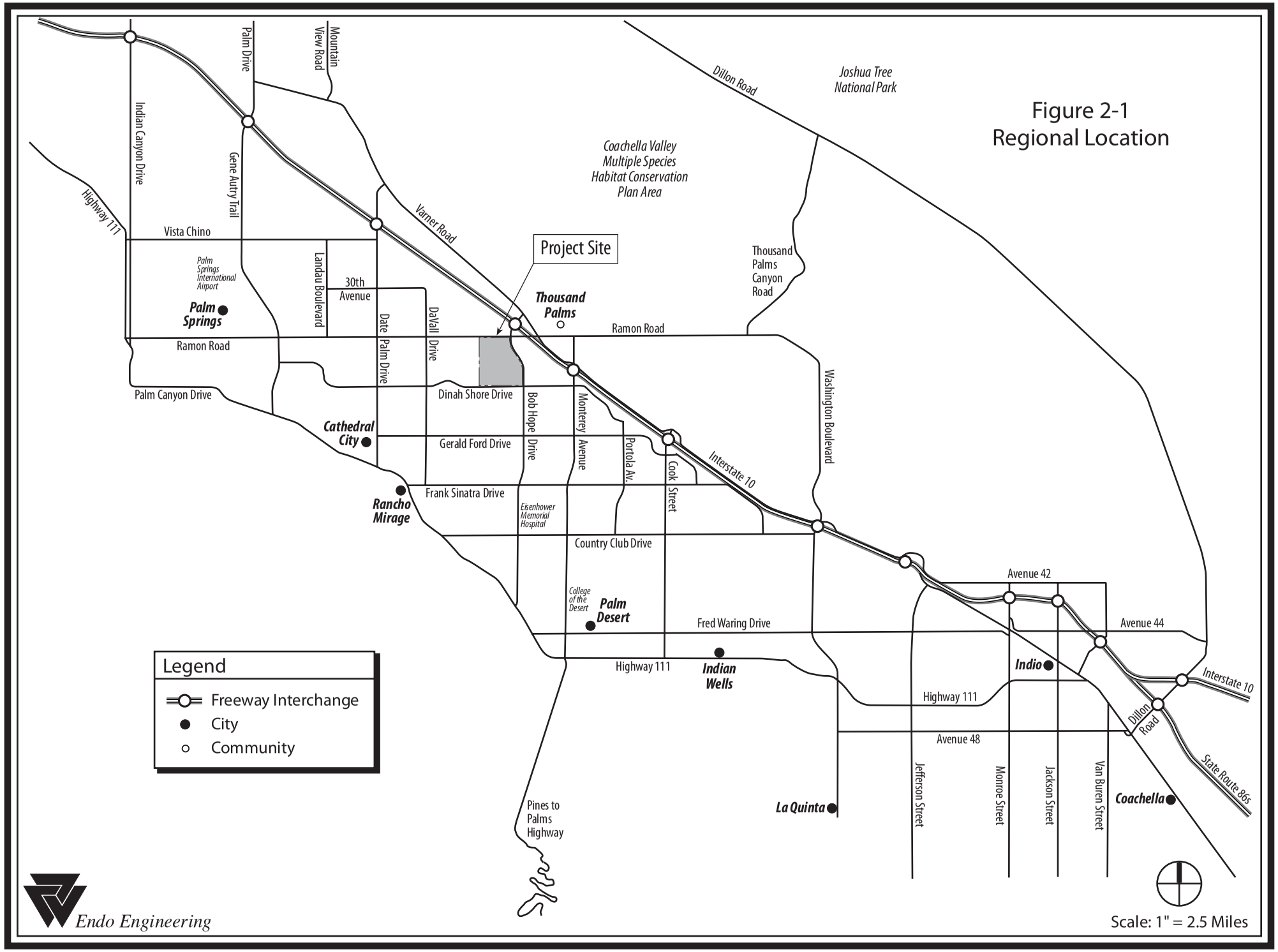
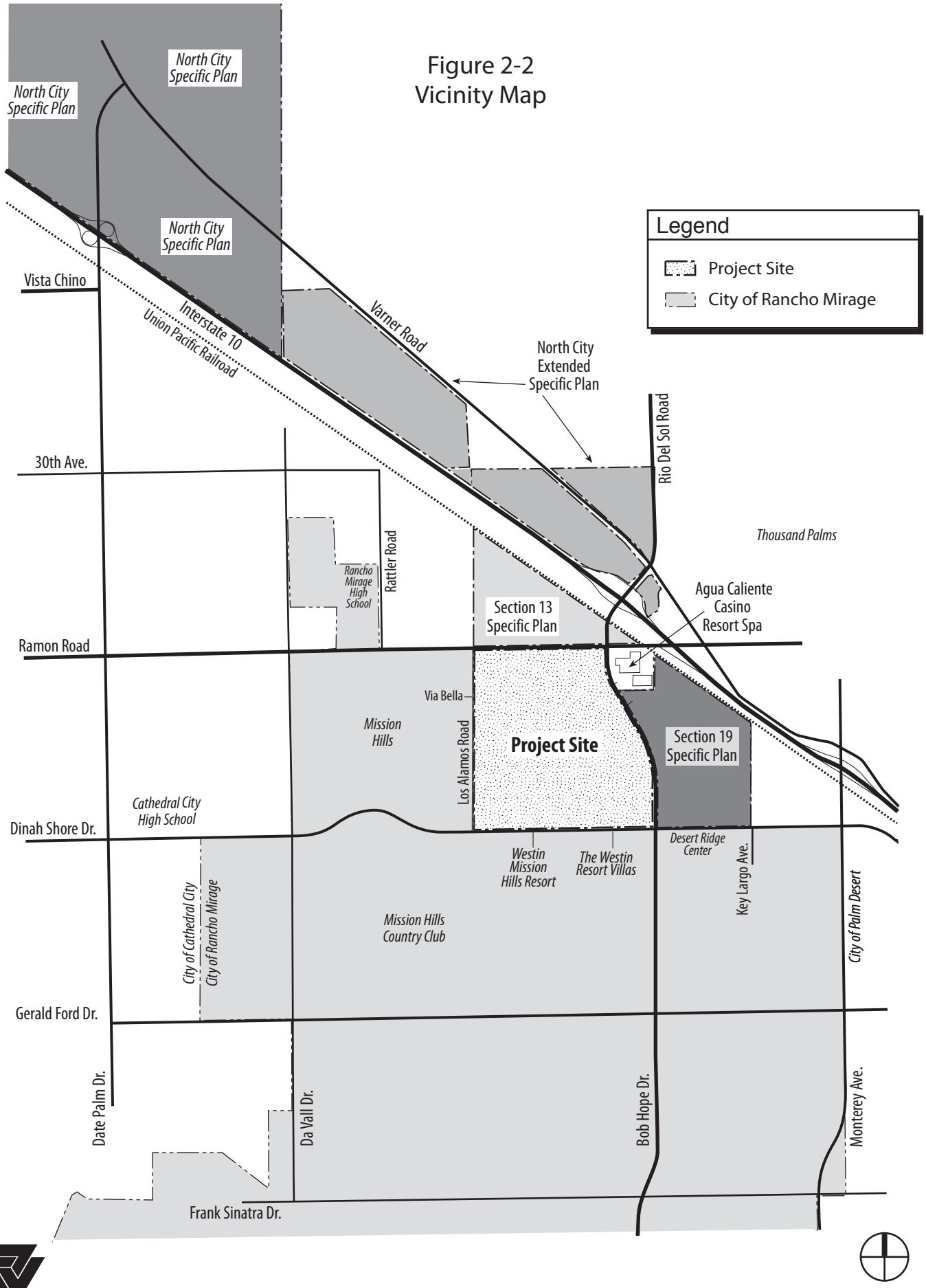


Figure 2-1
Regional Location
Project Site
Palm Drive
Mountain View Road
Indian Canyon Drive
Gene Autry Trail
Highway 111
Vista Chino
Palm Springs International Airport
Palm Springs
Landau Boulevard
30th Avenue
Date Palm Drive
DaVall Drive
Ramon Road
Palm Canyon Drive
Varner Road
Coachella Valley Multiple Species Habitat Conservation Plan Area
Dillon Road
Joshua Tree National Park
Thousand Palms
Thousand Palms Canyon Road
Ramon Road
Dinah Shore Drive
Bob Hope Drive
Monterey Avenue
Portola Av.
Cook Street
Washington Boulevard
Interstate 10
Cathedral City
Gerald Ford Drive
Frank Sinatra Drive
Rancho Mirage
Eisenhower Memorial Hospital
Country Club Drive
College of the Desert
Palm Desert
Fred Waring Drive
Highway 111
Indian Wells
Avenue 42
Avenue 44
Indio
Interstate 10
Highway 111
Dillon Road
Avenue 48
State Route 86S
Jefferson Street
Monroe Street
Jackson Street
Van Buren Street
Coachella
La Quinta
Pines to Palms Highway
Legend
Freeway Interchange
City
Community
Endo Engineering
Scale: 1" = 2.5 Miles

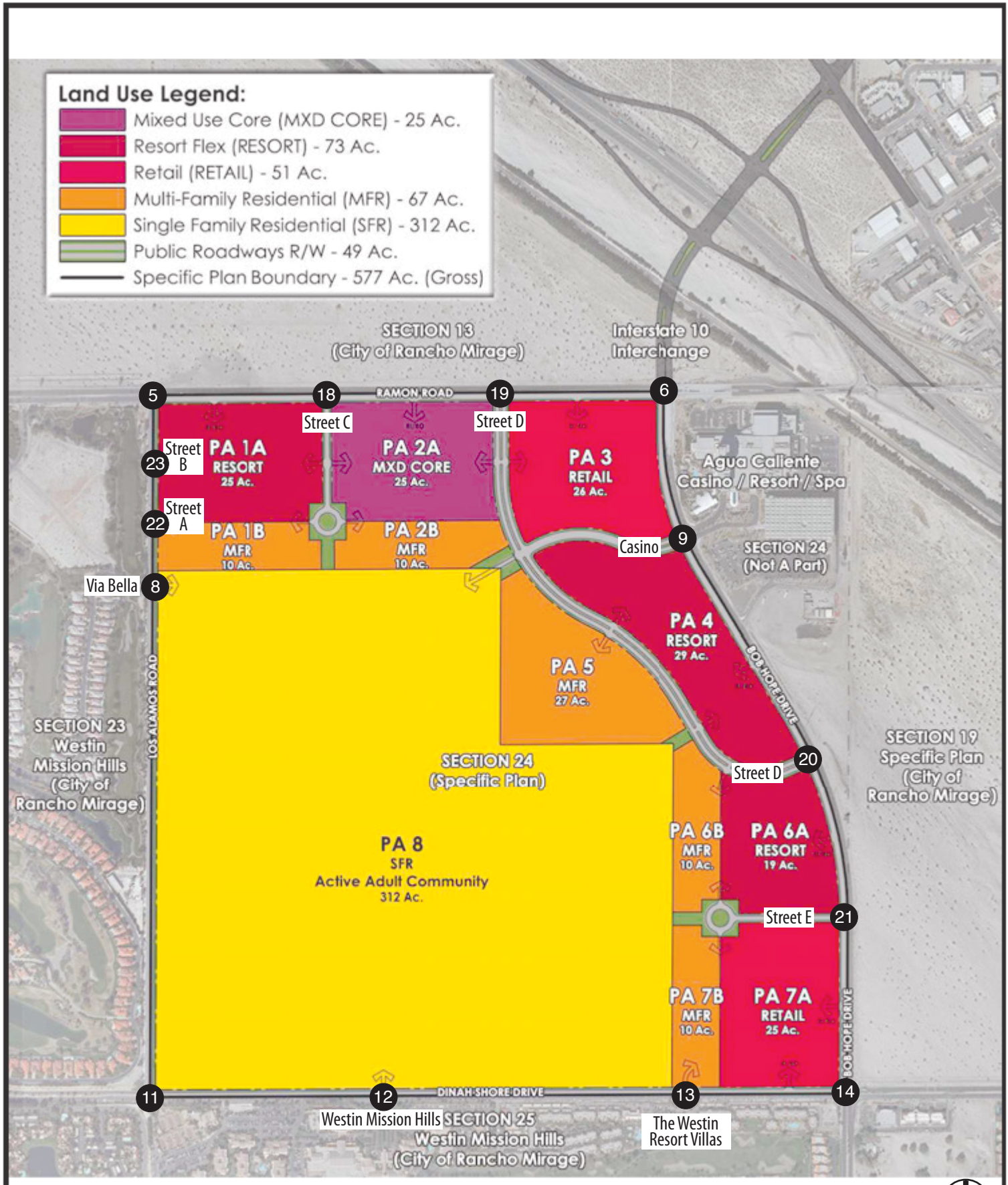
Figure 2-2
Vicinity Map



Endo Engineering

Scale: 1" = 3,200'

Figure 2-3
Proposed Land Use
Site Access and Internal Circulation



Source: MSA Consulting, Inc.; *Section 24 Specific Plan*

Scale: 1" = 975 '

acre parcel located on the northwest corner of the intersection of Bob Hope Drive and Dinah Shore Drive (Planning Area 7) is allotted to members of the Tribe. The remaining 320 gross acres within the site are located on the northeast corner of the intersection of Los Alamos Road and Dinah Shore Drive (within Planning Area 8) and allotted to members of the Tribe. This area is under contract to be acquired by Pulte Home Corporation/SCC Rancho Mirage Holdings LP and developed as an active adult residential community for residents aged 55 and above.

2.3 Existing Agua Caliente Land Use Ordinance Designations

The northernmost 120 acres within the site, located south of Ramon Road (primarily within Planning Areas 1 through 3) are designated "Tribal Enterprise" in the Agua Caliente Land Use Ordinance (amended in January 2011). Future land uses within areas designated Tribal Enterprise are subject to Tribal Council determination. The remainder of the site is designated "Land Use Contract," a designation applied to land allotted to individual members of the tribe. Future land uses in areas designated Land Use Contract are defined by the applicable city/county zoning code.

2.4 Existing County and City General Plan Land Use Designations

Riverside County General Plan and Western Coachella Valley Area Plan

The *Riverside County General Plan* and the *Western Coachella Valley Area Plan* (October 2003) include three land use designations within the project site: CR, CT, MDR. The "Commercial Retail" (CR) designation applies to the 120 gross acres located along the south side of Ramon Road (within Planning Areas 1, 2 and 3). This designation has a building intensity range of 0.20 to 0.35 FAR and includes local and regional serving retail and service uses.[1]

A "Commercial Tourist" (CT) designation applies to 217 gross acres including: 57 acres along the west side of Bob Hope Drive in Planning Areas 4 and 6; 40 acres on the northwest corner of the intersection of Bob Hope Drive with Dinah Shore Drive in Planning Area 7; and 120 acres within Planning Area 8. The CT designation has a building intensity range of 0.20 to 0.35 FAR and reflects tourist-related commercial land uses including: hotels, golf courses, and recreational activities.

The Riverside County Transportation Analysis Model (RIVTAM) assumes a maximum Floor Area Ratio (FAR) of 0.35 for non-residential land uses designated CR and CT. At the maximum permitted building intensity allowed under the land use designations in the *Western Coachella Valley Area Plan*, the site could be developed with approximately 3.85 million square feet of non-residential building space. This building area would accommodate local and regional serving retail and service uses as well as tourist commercial (hotel, visitor-serving commercial, recreation/amusement) uses. The trip-generation potential of commercial retail and tourist commercial development on-site at the maximum intensity allowed by the CR and CT designations would be 78,330 weekday trips. RIVTAM reflects land uses in specific plans, general plans, and zoning; however, the future growth assumed for the horizon year 2035 in RIVTAM was constrained by the *SCAG 2004 Growth Forecast* distribution. Consequently, all of the potential future trip generation associated with buildout of the City and County General Plans is not included in the RIVTAM model.

A "Medium Density Residential" (MDR) designation applies to 240 gross acres within the site including 200 acres within Planning Area 8 and 40 acres within Planning Areas 4 and 5. This designation allows a residential density of 2 to 5 dwelling units per acre. A total of 240 gross acres within the site could be developed with up 1,200 single-family detached/attached dwelling units, under the MDR land use designation of the site shown in the *Western Coachella Valley Area Plan*. These dwelling units have a potential trip generation of 10,230 weekday trips. The total trip generation of the site if developed at the maximum intensity/density allowed by the *Riverside County General Plan* would be 88,560 unadjusted weekday trips.

The City of Rancho Mirage General Plan

The *Rancho Mirage General Plan* includes three land use designations within the project site: C-C, R-H, and R-M. The "Community Commercial" (C-C) designation (with a maximum Floor Area Ratio of 0.35) applies to 75 net acres located south of and adjacent to Ramon Road within Planning Areas 2 and 3. This designation allows regional and community commercial shopping centers and hotels. With a maximum building gross floor area of 1,143,450 square feet, the area designated Community Commercial, could generate up to 33,100 weekday trips.

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[1] The Floor Area Ratio (FAR) is the amount of non-residential building square footage in relation to the size of the lot (i.e., the net area of the parcel in square feet). RIVTAM is consistent with the RCIP socioeconomic assumptions and methodology, which convert all gross acreage with non-residential land use designations in the *Riverside County General Plan* to net acreage (by assuming that 75 percent of the gross area would be developable and 25 percent would be reserved for roads, right-of-way, easements, etc.) prior to determining the associated building area and employment.

A "High Density Residential" (R-H) designation applies to 39 net acres within Planning Area 1. This designation would allow a density of 4 to 9 dwelling units per acre with a maximum of 351 single-family attached or multi-family dwelling units. Based upon the trip-generation rates published by the Institute of Transportation Engineers (ITE) in *Trip Generation* (2008), this area could generate up to 1,920 weekday trips. A "Medium Density Residential" (R-M) designation applies to the remaining 414 net acres within the site. This designation would allow up to four dwelling units per acre or a maximum of 1,656 single-family detached dwelling units. Based upon the trip-generation rates published by the ITE, this area could generate up to 13,760 weekday trips.

The two residential land use designations for the site in the *Rancho Mirage General Plan* would permit up to 2,007 dwelling units to be developed with the potential to generate up to 15,680 weekday trips. With up to 33,100 non-residential trips and 15,680 residential trips, development within the site at the maximum density and intensity allowed by the *City of Rancho Mirage General Plan* could generate up to 48,780 unadjusted weekday trips.

Consistency With General Plan Land Use Designations

Table 2-1 summarizes the maximum residential and non-residential development within the project site for three conditions: (1) proposed by the Section 24 Specific Plan, (2) allowed by the *Riverside County General Plan*, and (3) allowed by the *City of Rancho Mirage General Plan.* The proposed Section 24 Specific Plan would allow more dwelling units than the existing City and County General Plans. However, the initial phase of 1,200 age-restricted dwellings proposed for active adults (age 55 and above) would generate substantially fewer trips than conventional single-family detached dwellings. As a result, the total number of residential weekday trips generated by the 2,406 dwelling units proposed would be slightly less than the trips generated by the 1,200 conventional (not age-restricted) single-family dwellings allowed under the *Riverside County General Plan* and 35 percent less than the number trips generated by the maximum allowed number of residential dwelling units allowed by the *City of Rancho Mirage General Plan*. The residential component of the proposed project would generate 5,590 fewer residential trips on weekdays than the maximum number of residential dwellings allowed by the *City of Rancho Mirage General Plan.*

Consistent with the CR and CT land use designations shown for the site in the *Riverside County General Plan*, the proposed Section 24 Specific Plan would guide the development of tourist-oriented commercial, local serving retail and service uses, professional offices, entertainment, and hotel uses. The maximum proposed non-residential building floor area would be 18.6 percent less than the maximum allowed by the *Western Coachella Valley Area Plan*. Since the number of trips generated would be a function of the total size of the non-residential building gross floor space developed, the proposed project would be expected to generate approximately 18.6 percent fewer non-residential trips on weekdays than the maximum allowed by the *Riverside County General Plan* designations. However, the area proposed as non-residential land uses with the project would be nearly twice the area designated C-C in the *City of Rancho Mirage General Plan*. As a result, the proposed project would generate nearly twice the number of non-residential trips on weekdays anticipated by the *City of Rancho Mirage General Plan.*[2]

The Section 24 Specific Plan would allow development with the potential to generate substantially more weekday trips than the *City of Rancho Mirage General Plan* designations and substantially fewer trips than the *Riverside County General Plan* designations. The proposed density of the multi-family residential dwellings within the site would be twice the highest density allowed by the *City of Rancho Mirage General Plan*. The *City of Rancho Mirage General Plan* suggests that higher residential densities may be appropriate in special circumstances or where conditions would support the densities, such as planned communities, affordable housing, and senior housing in close proximity to commercial, medical, and other supportive land uses. Residential communities developed through the Specific Plan process allow creative and flexible planning where smaller units and higher densities could provide a wider range of residential product types with integrated access and private internal roadways as well as facilities supportive of a variety of alternative transportation modes. By their very nature, Specific Plans for large and complex mixed-use developments can create opportunities to provide development amenities beyond those that would be feasible in smaller, more conventional developments.

[2] Unadjusted trips have not been reduced to reflect the internal trip interactions that occur within a mixed-use development or pass-by trips attracted to the site from the traffic that would be passing the site on adjacent streets without the proposed Section 24 Specific Plan.

Table 2-1
Section 24 Specific Plan
Compared to County/City General Plan Land Uses

Land Use Type/Parameter	Section 24 Specific Plan	Riverside County G.P.	Rancho Mirage G.P.
NON-RESIDENTIAL LAND USES			
- Area (Gross)	177 Acres	337 Acres	80 Acres
- Net Area With Designation	149 Net Acres	252.75 Net Acres	75 Net Acres
- Floor Area Ratio[a] (Max.)	0.48	0.35	0.35
- Building Gross Floor Area (Max.)	3,138,600 S.F.	3,853,427 S.F.	1,143,450 S.F.
- Employment[b] (Max.)	6,277 Jobs	7,707 Jobs	2,287 Jobs
- Weekday Trips Generated[c] (Max.)	63,800 Trips	78,330 Trips	33,100 Trips
RESIDENTIAL LAND USES			
Med. Density Residential Area			
- Site Area With Designation	312 Net Acres	240 Gross Acres	414 Net Acres
- Density Allowed[d] (Max.)	4 DU/Net Acre	5 DU/Gross Acre	4 DU/Net Acre
- Maximum Dwelling Units Allowed	1,200 SF Sr. Adult Units	1,200 SF Units	1,656 SF Units
- Weekday Trips Generated[c]	4,480 Trips	10,230 Trips	13,760 Trips
High Density Residential Area			
- Site Area With Designation	67 Net Acres	–	39 Net Acres
- Density Allowed[d] (Max.)	18 DU/Net Acre	–	9 DU/Net Acre
- Dwelling Units Allowed (Max.)	1,206 MFA Units	–	351 MFA Units
- Weekday Trips Generated	5,610 Trips	–	1,920 Trips
Subtotal Residential Area			
- Dwelling Units (Max.)	2,406 DU	1,200 DU	2,007 DU
- Weekday Trips Generated[c]	10,090 Trips	10,230 Trips	15,680 Trips
- Population[e] (Max.)	4,331	3,564	5,603
UNADJUSTED WEEKDAY TRIPS[f]	73,890 Trips	88,560 Trips	48,780 Trips

a. The Floor Area Ratio (FAR) is the amount of non-residential building gross floor area (in square feet) divided by the net area of the parcel (in square feet). The RCIP and RIVTAM assume that the net acreage is 75% of the gross acreage with commercial land use designations in the *Riverside County General Plan*. FAR values for the Commercial Retail designation ranged from a low of 0.20 to a probable value of 0.23 and a maximum value of 0.35. For areas designated Commercial Tourist, RIVTAM FAR values ranged from a low of 0.20 to a probable value of 0.25 and a maximum value of 0.35. A maximum FAR of 0.35 applies to those areas designated Community Commercial in the *City of Rancho Mirage General Plan* per Section 17.10.020 of the *Rancho Mirage Municipal Code*. The FAR shown for the proposed Section 24 Specific Plan is the average value for all of the non-residential development combined. Minor recent changes to the proposed Section 24 Specific Plan have altered the acreages and land use densities without altering the total proposed residential and non-residential uses, or projected trip generation. The maximum FAR and residential densities will be defined in the Section 24 Specific Plan.

b. For the RCIP and RIVTAM, employment estimates were based upon an employment density factor of 500 S.F. of building gross floor area per employee for areas designated Commercial Retail (CR) and Commercial Tourist (CT) in the *Riverside County General Plan*.

c. The ITE regression equations in *Trip Generation* (8th Edition, 2008) associated with Land Use Codes 820, 210, 230, and 251 were used to estimate the weekday trip generation potential associated with commercial shopping centers, conventional single-family detached dwellings, multiple-family attached dwelling units, and single-family detached dwellings for active senior adults (age 55 and above), respectively. All weekday trip generation estimates shown reflect "unadjusted" trips (i.e., internal and external trips without reductions associated with internal trip capture or pass-by trips).

d. The 1,200 active adult single-family detached age-restricted residential dwellings proposed in Planning Area 8 would have a density of 3.75 dwelling units per gross acre (3.85 units per net acre). The RCIP and RIVTAM use the density allowed and the gross acreage to estimate the number of dwelling units allowed.

e. The population density was assumed to be 2.97 persons/household per the Land Use Element of the *Riverside County General Plan*. The City population assumed 2.97 persons/household for Medium Density Residential and 1.95 persons/household for High Density Residential dwellings. The Section 24 Specific Plan population assumed the age-restricted single-family units would reduce the overall population density to 1.8 persons/household.

f. The *City of Rancho Mirage General Plan* Traffic Model projected weekday productions and attractions for the site using a different methodology. A trip-generation rate of 350 weekday trips per acre of C-C and a residential trip-generation rate of 4.6 weekday trips per dwelling unit were assumed for the R-H and R-M designations, with an average residential density of 3.2 DU/Acre assumed for R-M areas and 8.0 DU/Acre assumed for R-H areas, rather than the maximum density allowed.

2.5 Project Description

The Section 24 Specific Plan would establish a unified vision for the project site to guide the future development of a cohesive and complementary mix of land uses consistent with both local and regional planning goals. The Section 24 Specific Plan provides a comprehensive set of development standards and design guidelines for use in the future development of a mixed-use regional destination resort community with residential uses located near employment opportunities, tourist-oriented commercial and local-serving retail and service uses, professional office space, hotel, and entertainment uses.

Figure 2-3 shows the location of the various planning areas within the site as well as the proposed land uses and the site access and internal circulation system planned to support the development. A maximum of 2,406 residential dwelling units and 3,138,600 square feet of non-residential development (retail commercial, entertainment, office, hotel) would be allowed by the Section 24 Specific Plan that would complement surrounding existing and planned land uses in the City of Rancho Mirage. A total of 528 net acres on-site would ultimately be developed, as shown in Table 2-2. Approximately 49 acres of the site would be rights-of-way associated with streets and highways.

Non-residential land uses would be constructed along Ramon Road and Bob Hope Drive. Single-family detached residential uses would be constructed north of Dinah Shore Drive and east of Los Alamos Road in a gated community for active adults. Multiple-family attached residential development is proposed in five areas located between the lower density single-family residential uses in Planning Area 8 and the higher intensity non-residential land uses along Ramon Road and Bob Hope Drive.

The proposed development within each Planning Area is summarized in Table 2-2. The initial phase of the development would include up to 1,200 single-family residential dwelling units for active seniors (aged 55 and above) within a gated community in Planning Area 8. Although no timeframe has been established to date for Planning Areas 1 through 7, this area is being programmatically planned in conjunction with the Section 24 Specific Plan to coordinate streets and other necessary infrastructure and promote land use compatibility.

A total of 67 net acres of multiple-family attached residential development is proposed within five Planning Areas at a density of up to 18 dwelling units per acre. Within this area up to 1,206 multi-family attached dwelling units would be allowed. Although multi-family residential units would be an allowed use above the retail commercial development under the Mixed Use Core designation of Planning Area 2A, a maximum of 1,206 multi-family residential units would be allowed within the Section 24 Specific Plan area.

The development of up to 1,271,600 square feet of non-residential building floor area would be permitted on the 73 net acres designated as Resort Flex in Planning Areas 1A, 4, and 6A. This development would include a mix of hotel, retail commercial, and entertainment uses. A total of 51 acres are designated for retail commercial uses in Planning Areas 3 and 7A. The development of up to 777,000 square feet of retail building area would be allowed in this area. The 25 net acres designated Mixed Use Core in Planning Area 2A would accommodate up to 1,090,000 square feet of community retail commercial uses, office uses, and possibly attached residential units above the commercial uses.

Proposed Site Access and Internal Circulation

Figure 2-3 shows the site access and internal circulation system planned to support the proposed land uses within the Section 24 Specific Plan area. The letter designations assigned to the internal streets (Street “A” through Street “E”) for ease of reference within this report are shown in Figure 2-3. The number assigned to each existing key intersection for reference in this report is shown on page 3-1 and shown in Figure 3-1. The future full-turn site access intersections and their intersection numbers are shown in Figure 2-3 including each intersection number and the letter designation assigned to each proposed internal street.

Initial Phase Access

The initial phase of development would include the development of up to 1,200 single-family homes for active adults (aged 55 and above) within Planning Area 8. The initial phase would be accessed via full-turn access connections proposed opposite two existing T-type intersections: Los Alamos Road at Via Bella [Intersection 8], and the Westin Mission Hills Access at Dinah Shore Drive [Intersection 12]. Ultimately, a third access to Planning Area 8 would be provided by the extension of Casino Road, from Bob Hope Drive to Planning Area 8. This extension of Casino Road would not be constructed by Pulte Homes as part of the improvements associated with the development of the active adult community in the initial phase.

Table 2-2
Section 24 Specific Plan Land Use Summary[a]

Planning Area	Land Use[b] Designation	Area (Net Acres)	Intensity/Density[c]	Maximum[d] Development
Planning Area 1A	Resort Flex	25	0.40 FAR	435.6 T.S.F.
Planning Area 1B	Residential (MF)	10	18 D.U./Acre	180 D.U.
Planning Area 2A	Mixed Use Core	25	1.00 FAR	1,090.0 T.S.F.
Planning Area 2B	Residential (MF)	10	18 D.U./Acre	180 D.U.
Planning Area 3	Retail	26	0.35 FAR	396.0 T.S.F.
Planning Area 4	Resort Flex	29	0.40 FAR	505.0 T.S.F.
Planning Area 5	Residential (MF)	27	18 D.U./Acre	486 D.U.
Planning Area 6A	Resort Flex	19	0.40 FAR	331.0 T.S.F.
Planning Area 6B	Residential (MF)	10	18 D.U./Acre	180 D.U.
Planning Area7A	Retail	25	0.35 FAR	381.0 T.S.F.
Planning Area 7B	Residential (MF)	10	18 D.U./Acre	180 D.U.
Planning Area 8 (Initial Phase)	Active Adult (Age 55+) Residential (SF)	312	4 D.U./Acre	1,200 D.U.
Total		528		3,138,600 S.F. 1,200 SF Units 1,206 MF Units

a. Source: Meridian Consulting LLC. "Notice of Intent to Prepare an Environmental Impact Statement for the Proposed Section 24 Specific Plan, Riverside County." January 14, 2014. In addition to the net acreage, 49 acres would be associated with roadway rights-of-way for a total gross acreage of 577.0 acres. Minor recent changes to the Section 24 Specific Plan have altered the acreages and land use densities for the individual Planning Areas, without altering the total proposed residential and non-residential uses. The maximum development for each Planning Area will be defined in the Section 24 Specific Plan.
b. MF=Multiple-Family. SF=Single-Family.
c. FAR=Floor Area Ratio. D.U.=Dwelling Units.
d. T.S.F.=Thousand Square Feet of Building Floor Area

The timing of the construction of Casino Road on-site, between Planning Area 8 and Bob Hope Drive, is currently unknown. The extension of Casino Road to Planning Area 8 may not occur until adjacent land within Planning Areas 2, 3, 4, and/or 5 is developed. As a result, the evaluation of the traffic impacts associated with the completion of the initial phase of development assumed that Casino Road would not be constructed between Planning Area 8 and Bob Hope Drive by the year 2022.

Access Plan to Support Development Upon Project Completion

The site access plan proposed to support the ultimate development within the project site would include two existing signalized intersections (Intersections 9 and 12). Five future signalized full-turn site access intersections (Intersections 13, 18, 19, 20, and 21) are proposed. Three unsignalized full-turn site access intersections (Intersections 8, 22 and 23) along Los Alamos Road would serve site traffic. Seven future right-in/right-out site access connections are proposed in conjunction with the proposed project; three on Ramon Road, three on Bob Hope Drive, and one on Dinah Shore Drive. All of these right-in/right-out site access points would all be associated with phases of site development after the initial phase is completed.

The two future signalized full-turn site access intersections proposed on Ramon Road, between Los Alamos Road and Bob Hope Drive, (Intersections 18 and 19) would be located opposite the future access intersections associated with the adopted City of Rancho Mirage Section 13 Specific Plan to the north. The two future signalized full-turn site access intersections proposed on Bob Hope Drive, between Casino Road and Dinah Shore Drive, (Intersections 20 and 21) would be located opposite future access intersections associated with the adopted City of Rancho Mirage Section 19 Specific Plan to the east.

Right-In/Right-Out Access Connections

The proposed right-in/right-out access connections were designated by letter in clockwise order, beginning at the northwest corner of the site, as shown in Figure 4-6. Access A through Access C are proposed from west to east along Ramon Road to serve Planning Areas 1A, 2A, and 3, respectively. Access D through Access F are proposed from north to south along Bob Hope Drive to serve Planning Areas 4, 6A, and 7A, respectively. Access G is proposed on Dinah Shore Drive, west of Bob Hope Drive, to serve Planning Area 7A.

Access to Ramon Road

The proposed site access plan for Ramon Road would include the use of the existing signalized intersection of Los Alamos Road with Ramon Road [Intersection 5] to accommodate site traffic destined to and from Planning Areas 1A, 1B and 8. A future signalized full-turn site access would be constructed on the south side of Ramon Road, one-quarter mile east of Los Alamos Road, at Street "C" [Intersection 18] to serve both the Resort uses in Planning Area 1 and the most intense Mixed Use Core uses proposed in Planning Area 2. A future signalized full-turn site access would also be constructed on the south side of Ramon Road, one-quarter mile west of Bob Hope Drive, at Street "D" [Intersection 19] to serve both the more intense Mixed Use Core uses in Planning Area 2 and the Retail uses in Planning Area 3. Street "D" would be improved within the project site as a four-lane divided Minor Arterial Roadway with a raised landscape median (16 feet in width) within a 110-foot right-of-way. Sidewalks (5-feet in width) and bicycle lanes (5-feet in width) would be incorporated on both sides of this roadway.

Access to Bob Hope Drive

The proposed access along Bob Hope Drive would include the construction of a fourth intersection leg at the existing signalized three-leg intersection of Bob Hope Drive and Casino (Intersection 9). This intersection currently has signal mast arms and signal heads on all four approaches. The westerly extension of Casino Road would provide a direct and convenient route to and from the Agua Caliente Casino Resort Spa for all transportation modes. It would also substantially reduce the volume of site traffic turning right onto and left across Ramon Road, west of Bob Hope Drive.

Two future signalized full-turn intersections are proposed at one-quarter-mile intervals along Bob Hope Drive, between the existing signalized intersections at Dinah Shore Drive and at Casino. The future intersection of Bob Hope Drive with Street "D" (Intersection 20) would connect the proposed internal boulevard through the project site from Ramon Road to Bob Hope Drive. Intersection 20 would be located opposite the street proposed to serve the Section 19 Specific Plan area (east of Bob Hope Drive). The future intersection proposed at Street "E" (Intersection 21) would be located between Planning Areas 6 and 7, opposite the future access proposed to serve the Section 19 Specific Plan area to the east.

Access to Dinah Shore Drive

The existing signalized intersection of Los Alamos Road with Dinah Shore Drive (Intersection 11) is located on the southwest corner of the initial phase of the Section 24 Specific Plan. The primary gated entry for the initial phase of development would be located approximately 1,770 feet east of Los Alamos Road, opposite the existing signalized access on Dinah Shore Drive

associated with the Westin Mission Hills Golf Resort (Intersection 12). This access would require the construction of a north leg at the existing intersection and the modification of the existing traffic control signals.

The future access for Planning Area 7B would be located approximately 1,220 feet west of Bob Hope Drive, opposite the existing unsignalized access on Dinah Shore Drive associated with the Westin Mission Hills Resort Villas (Intersection 13). The ultimate site traffic volumes at this intersection are expected to meet traffic signal warrants. Traffic signal control would be constructed at this intersection in conjunction with the proposed site access improvements. This signalized intersection would be approximately 2,300 feet east of the signalized Westin Mission Hills Golf Resort access (Intersection 12).

Access to Los Alamos Road

The proposed project would take access to Los Alamos Road at three proposed unsignalized full-turn site access intersections. The initial phase of the proposed project would take access to Los Alamos Road opposite Via Bella at the existing unsignalized intersection [Intersection 8]. This intersection is located approximately 1,430 feet south of Ramon Road and 3,860 feet north of Dinah Shore Drive. It would be two-way stop controlled in the future.

Subsequent phases of development would take access to Los Alamos Road for the multiple-family residential land uses proposed within Planning Area 1B via Street "A" [Intersection 22]. This future site access connection on Los Alamos Road is not expected to accommodate sufficient future traffic volumes to warrant traffic control signals. The proposed Resort uses within Planning Area 1 would take access to Los Alamos Road via Street "B" [Intersection 23]. This intersection is also expected to be two-way stop controlled.

Street "D" (Proposed Internal Boulevard)

Street "D" would provide two travel lanes in each direction, separated by a raised landscape median 16 feet in width. This internal multi-modal corridor would extend from its signalized intersection with Ramon Road to its signalized intersection with Bob Hope Drive. It would be aligned with Planning Areas 3 and 4 to the east and Planning Areas 2, 5 and 6 to the west. The alignment would facilitate the phased construction of various Planning Areas within the Specific Plan without interrupting access to the initial phase or previous phases of the development.

Street "D" would be accessible to automobiles, service vehicles, emergency vehicles, neighborhood electric vehicles (NEVs), golf carts, and neighborhood circulator vehicles. This boulevard would provide landscaped buffers between the 5-foot sidewalks proposed on both sides of the roadbed right-of-way/property line. A 5-foot wide on-street Class II bicycle lane would be provided on each side of Street "D", separated from the travel lanes by a 2-foot buffer. The bicycle lanes would be visually separated from the sidewalks by an 8-foot landscape buffer.

Proposed Neighborhood Circulator Service

Neighborhood circulator vehicles (NCVs) are envisioned as a viable means of providing free public transportation services for the community over a relatively small area via shuttles circulating on a fixed route with an established schedule. A typical mini-bus that could be used for a neighborhood circulator service would accommodate 19 passengers and provide two wheelchair positions, a wheelchair lift, and a rack for bicycles. The neighborhood circulator vehicles would improve local access for individuals with limited mobility.

Project Phasing

The initial phase of development would include the 1,200 dwelling units proposed within Planning Area 8 as a gated community for active adult aged 55 and above. The development within Planning Area 8 is expected to require six to eight years to complete. Full development and occupancy of the initial phase of the proposed development was assumed to occur by the year 2022.

No time frame has been established to date for development within Planning Areas 1 through 7. For the purposes of this traffic impact analysis, full development and occupancy of the entire project was assumed to occur by the horizon year of 2035 used in the RIVTAM model. This is a conservative assumption made for the purpose of assessing the potential traffic impact of the proposed project. The Agua Caliente Tribe currently has no plans or timing defined for development of Planning Areas 1 through 7, and it is anticipated that development of the uses that would be allowed by the Specific Plan would extend beyond 2035.

3.0 AREA CONDITIONS

3.1 Study Area and Key Intersections

The area of potential influence and key intersections to be evaluated were identified through coordination with Ms. Margaret Parks, the Director of Planning and Natural Resources for the Agua Caliente Band of Cahuilla Indians, Mr. Bud Kopp, the City of Rancho Mirage Planning Manager, and Mr. Bill Enos, the Rancho Mirage City Engineer. The study area extends east of Da Vall Drive to Monterey Avenue and south of I-10 to Gerald Ford Drive, as shown in Figure 3-1. The seventeen existing key intersections include:

[1] Bob Hope Drive @ the I-10 Westbound Ramps,
[2] Bob Hope Drive @ the I-10 Eastbound Ramps,
[3] Da Vall Drive @ Ramon Road,
[4] Rattler Road @ Ramon Road,
[5] Los Alamos Road @ Ramon Road,
[6] Bob Hope Drive @ Ramon Road,
[7] I-10 Eastbound Ramp @ Ramon Road,
[8] Los Alamos Road @ Via Bella,
[9] Bob Hope Drive @ Casino,
[10] Da Vall Drive @ Dinah Shore Drive,
[11] Los Alamos Road @ Dinah Shore Drive,
[12] Westin Mission Hills Access @ Dinah Shore Drive,
[13] Westin Resort Villas Access @ Dinah Shore Drive,
[14] Bob Hope Drive @ Dinah Shore Drive,
[15] Key Largo Avenue @ Dinah Shore Drive,
[16] Monterey Avenue @ Dinah Shore Drive, and
[17] Bob Hope Drive @ Gerald Ford Drive.

Five of the existing key intersections are located on Ramon Road (including one at the I-10 eastbound onramp). Seven of the existing key intersections are located on Dinah Shore Drive. Six of the existing key intersections are located on Bob Hope Drive (including two at the new I-10 interchange). Two of the existing key intersections are located on Da Vall Drive and two are located on Los Alamos Road. One existing key intersection is located on Gerald Ford Drive.

The key intersections are referenced throughout this report with the north-south street name first, followed by the east-west street name. The existing key intersections were numbered from north to south and from west to east. This provided graphic continuity to facilitate visual comparisons between neighboring intersections.

All of the proposed future full-turn site access intersections were evaluated to ensure that they will provide acceptable levels of service in the horizon year 2035 with the project completed. The internal streets were labeled from Street "A" to Street "E", as shown in Figure 2-3. The proposed future full-turn site access intersections were numbered for reference as key intersections 18 through 23 (see Figure 2-3) and include:

[18] Street "C"@ Ramon Road,
[19] Street "D"@ Ramon Road,
[20] Bob Hope Drive @ Street "D",
[21] Bob Hope Drive @ Street "E",
[22] Los Alamos Road @ Street "A" (the multiple-family access), and
[23] Los Alamos Road @ Street "B" (the resort access).

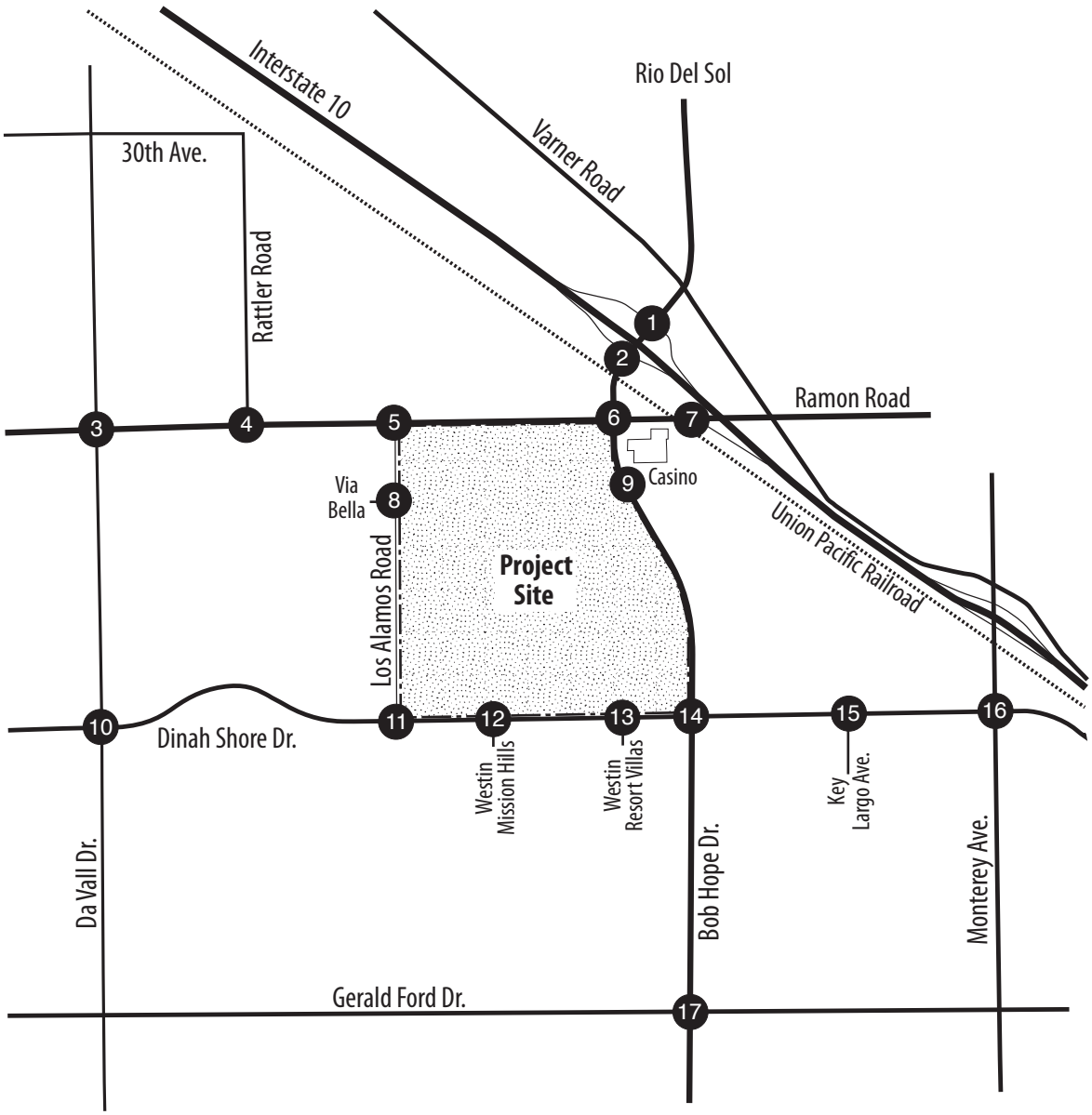
Future internal streets are proposed opposite four existing tee intersections [Intersection 8, 9, 12 and 13]. Rather than assigning these internal streets letter designations, these intersections were referenced by the existing street names.

An operational analysis was not conducted for the proposed right-in/right-out site access points. These access connections will have few conflicting movements and most motorists passing through them will experience relatively little or no control delay. Even though the peak hour delay at these access points was not evaluated, the future site traffic volumes were identified (see Figure 4-3). For reference, the proposed right-in/right-out site access points were designated beginning at the northwest corner of the site and continuing in a clockwise direction to the southeast corner of the site as Access A through Access G.

3.2 Study Area Land Use

The City of Rancho Mirage is largely comprised of low-density residential land uses and golf resort communities accessed via a grid network of arterials streets. The arterial streets provide connections to the neighboring cities of Cathedral City and Palm Springs to the west and Palm Desert and Indian Wells to the east as well as the unincorporated areas of Riverside County. Popular destinations within the study area include: the Agua Caliente Casino Resort Spa, the Westin Mission Hills Golf Resort and Spa, the Rancho Mirage High School, the Braille Institute of America, the Mission Hills Country Club, the Monterey Shore Shopping Center, the Monterey MarketPlace, the Desert Gateway regional commercial center, the Children's Discovery Museum, and Sunnylands (the Annenberg Estate).

Figure 3-1
Study Area and Key Intersections



Legend

1 Existing Key Intersection

Project Site

Endo Engineering

Scale: 1" = 3,200'

Development within the City of Rancho Mirage includes: major resort hotels, vacation rentals, resort-based golf courses, upscale retail centers, and professional services related largely to meeting the needs generated by permanent residents and seasonal tourism. Rancho Mirage has numerous golf resorts and country clubs including: Tamarisk, the Springs, Sunrise, Omni Rancho Las Palmas Resort and Spa, the Mission Hills Country Club, Rancho Las Palmas, Rancho Mirage, Morningside, Mission Hills North, and Tuscania. Commercial office and high-end retail centers like The River shopping complex are located south of the study area, along Highway 111. The Eisenhower Medical Center and the Betty Ford Center are also located south of the study area.

There are no industrial land uses within the City of Rancho Mirage. However, light industrial development is located east of Monterey Avenue and south of Interstate 10, in the neighboring City of Palm Desert. Dinah Shore Drive provides access to this area. A light industrial area is also located north of Interstate 10 and east of Bob Hope Drive/Rio Del Sol Road in the Thousand Palms community.

The 2010 United States Census reported that 7,089 housing units (50 percent) of the 14,243 housing units in Rancho Mirage were owner occupied. Renters occupied 1,740 housing units (12 percent). The remaining 38 percent of the housing units (5,414 units) were vacant homeowner units (second homes) or vacant rental units. The homeowner vacancy rate was 5 percent and the rental vacancy rate was 17.2 percent. In 2010, 19 percent of the population (17,154) lived in rental housing units and 81 percent of the population lived in owner-occupied housing units. The owner-occupied housing units had an average of 1.95 residents per household and the rentals had an average of 1.90 residents per rental unit. Nearly 35 percent of the households were occupied by only one resident. More than 22 percent were occupied by one resident aged 65 or older. The median age in Rancho Mirage in 2010 was 62.3 years and 44 percent of the population was 65 years of age or older. The average family size was 2.46. Only 11.7 percent of the 8,829 households had children under the age of 18 living in them.

The area east of the site surrounding the intersection of Monterey Avenue and Dinah Shore Drive is developed with numerous big box retail stores (Costco, Wal-Mart, Sam's Club, Home Depot, home improvement stores, Joann's Craft Store) that will attract consumers from the project site in the future. The Monterey MarketPlace, the Monterey Shores Shopping Center, the Desert Gateway Shopping Center, and the SBB College are all located south of I-10 at the Monterey Avenue Interchange. A Lowe's Home Improvement Center is located east of Monterey Avenue and north of Gerald Ford Drive. The Pavilions Shopping Center is located on the southwest corner at the intersection of Bob Hope Drive and Gerald Ford Drive. A Fire Station and the Children's Discovery Museum are located south of Gerald Ford Drive, west of this commercial center. Desert Ridge Plaza, a neighborhood shopping center with a Walgreens Drug Store as an anchor, is located on the southeast corner of the intersection of Bob Hope Drive and Dinah Shore Drive.

Bob Hope Drive provides access to the south for trips associated with development within the City of Rancho Mirage such as Sunnylands (the Walter and Leonore Annenberg Estate), the Eisenhower Memorial Hospital and Medical Center, The River commercial/entertainment complex, and the Shops on El Paseo. Da Vall Drive, Bob Hope Drive, and Monterey Avenue provide access to Highway 111, which connects several cities and popular destinations within the Coachella Valley. Highway 111 also provides access to the Palm Desert Civic Center and the College of the Desert via Fred Waring Drive.

The Agua Caliente Casino Resort Spa occupies a 36-acre parcel within Section 24 that is located on the southeast corner of the intersection of Bob Hope Drive and Ramon Road. This adjacent development is not a part of the project site but will be connected to the proposed Section 24 Specific Plan area via the future extension of Casino, west of Bob Hope Drive, between the retail development proposed for Planning Area 3 and the future resort uses in Planning Area 4. The signalized intersection of Bob Hope Drive with Casino will provide a direct and convenient connection between the Agua Caliente Casino Resort Spa and the future residential and non-residential development proposed within the project site designed to encourage trips between the project site and the Agua Caliente Casino Resort Spa while minimizing vehicular travel on Ramon Road and Dinah Shore Drive.

The Agua Caliente Casino Resort Spa includes: a 340-room hotel; 70,000 square feet of gaming floor space with 1,800 slots machines; a 2,000 seat theater for live concert performances; 13,000 square feet of flexible meeting space; six dining venues; a resort pool, spa, and fitness center; and 2,500 parking spaces in a three-story parking structure. This development takes access to and from Ramon Road via a right-in/right-out driveway located east of Bob Hope Drive. It also takes access to Bob Hope Drive, via a signalized full-turn access located at Casino and an unsignalized right-in/right-out driveway located south of Casino.

Existing Land Uses

The 577-acre project site is currently undeveloped. Section 13 is located north of the project site and also undeveloped. The portion of Section 13 located south of Interstate 10 and north of Ramon Road, on both sides of Bob Hope Drive, was annexed by the City of Rancho Mirage in 2012. The General Plan land use designation for this area is regional interstate commercial, a designation that allows mixed-use development with commercial retail, office, resort hotel and restaurant uses. The City's General Plan requires the preparation and approval of a Specific Plan prior to development of this area. Prior to approval, the Section 13 Specific Plan will be subject to environmental review and development review by the City of Rancho Mirage.

The Westin Mission Hills Golf Resort and Spa is located south of the project site at 71333 Dinah Shore Drive, in Rancho Mirage. The main access (key intersection 12) is signalized and located on the south side of Dinah Shore Drive, east of Los Alamos Road. This development includes a hotel with 512 guest rooms, 65,000 square feet of indoor meeting space, 26,000 square feet of outdoor meeting space, a 17,326 square foot ballroom, spa facilities, a fitness center, three swimming pools, a 60-foot water slide, restaurants (signature, café, bar, lounge, grill), two championship golf courses, and seven lighted tennis courts. The Gary Player Signature Golf Course is located west of the project site, within Section 23. The Pete Dye Championship Golf Course is located south of Dinah Shore Drive and west of Bob Hope Drive.

The Westin Mission Hills Resort Villas are also located south of the project site and west of Bob Hope Drive, at 71777 Dinah Shore Drive, Rancho Mirage. This development includes 316 guest rooms, the Restaurant Bella Vista, the Season's Grill, and poolside grills. Access is via an unsignalized gated entry on the south side of Dinah Shore Drive, opposite Planning Area 7B (key intersection 13).

The area located east of the project site is within the Section 19 Specific Plan area and currently undeveloped. Although the Section 19 Specific Plan was approved by the City of Rancho Mirage in 2010, no development has occurred in Section 19. The Section 19 Specific Plan includes planned access connections to Bob Hope Drive, Dinah Shore Drive, and Key Largo Avenue. It also includes access to a future overcrossing of Interstate 10 via the northerly extension of Key Largo Avenue. The intersection of Key Largo Avenue and Dinah Shore Drive is evaluated as key intersection 15.

The Rancho Mirage High School was recently constructed north of Ramon Road and west of Rattler Road. It is located on 60 acres west of Rattler Road and north of Ramon Road. The Rancho Mirage High School opened in August 2013 with a Fall 2013 enrollment of 900 students (freshmen and sophomores only). It is projected to have an enrollment of 1,600 students by the year 2016. The 332,000 square foot school is expected to have an ultimate capacity of 2,300 students in grades 9 through 12. It has a 600-seat theater as well as stadium seating for 3,895. It provides 390 staff parking places and 420 parking spaces for students. A 20-acre site for a future elementary school is located west of Rattler Road, immediately north of the Rancho Mirage High School.

The Palm Valley School is located on the west side of Da Vall Drive, north of Dinah Shore Drive. This school accommodates students in grades K-12 and has an enrollment of approximately 400 students. The campus has substantial space for future expansion. The Cathedral City High School is located north of Dinah Shore Drive and west of Plumley Road. The enrollment of 2,800 dropped by approximately 25 percent, following the opening of the new Rancho Mirage High School.

Anticipated Future Development

General Plans identify land uses based upon a 20-year or longer planning horizon. Zoning identifies specific immediate uses of the land to implement the long-term intent of the General Plan. City General Plans have authority over territory located within the city limits. Land within a city's Sphere of Influence (SOI) can be given land use designations by both the city and the County of Riverside. The city's designation applies if the land is annexed into the city. Otherwise, the county's designation prevails. Spheres of influence established by the Riverside Local Agency Formation Commission are intended to reflect the probable physical boundaries and service area of cities. The project site is located with the Sphere of Influence of the City of Rancho Mirage.

Near-Term Cumulative Projects Evaluated

The City of Rancho Mirage identified two near-term developments for evaluation with the initial phase of the Section 24 Specific Plan in the year 2022. The traffic associated with each of these two developments was assigned to the surrounding streets and added to the future year 2022 non-site (through) traffic volumes (shown in Table 4-4, Figures 4-9 and 4-11) and evaluated in Table 5-7.

One near-term cumulative development was Tentative Tract Map 36553 and Preliminary Development Plan 13005 for 122 single-family detached homes on 36.68 acres located on the northwest corner of the intersection of Rattler Road and Ramon Road. These dwellings would take access from Rattler Road.

The second near-term cumulative development was Tentative Parcel Map 31761 and Preliminary Development Plan 07012 (FDP08002) for 9.69 acres located on the southeast corner of Ramon Road and Da Vall Drive. Approximately 6.79 acres would be developed as a single-story physical rehabilitation hospital with 70 beds and 64,768 square feet. It was assumed that this development would have access connections on both Ramon Road and Da Vall Drive.

Long-Term Cumulative Development

The Riverside County Traffic Analysis Model (RIVTAM) was used to forecast non-site traffic volumes for the future horizon year 2035. Riverside County, the Riverside County Transportation Commission (RCTC), and the members of the Coachella Valley Association of Governments (CVAG) have approved RIVTAM as the regional traffic model for Riverside County, including the Coachella Valley. Future traffic projections from RIVTAM represent the best available projections for the study area and the horizon year 2035.

The traffic analysis zones in RIVTAM reflect SCAG modeling by Census Tract. Base year and future land use forecasts provided by individual jurisdictions and Riverside County are used in developing the socio-economic input data required by RIVTAM. The 2035 SCAG population and employment growth projections were allocated by area, based on the existing and proposed future land use forecasts identified by each city. Riverside County planners provided estimates for Tribal lands and unincorporated areas. RIVTAM reflects the transportation network shown in the approved general plans of the jurisdictions within the Coachella Valley.

North City Specific Plan (Cathedral City)

The North City Specific Plan was approved by Cathedral City in 2009. The North City Specific Plan addressed the future development of 4,664 acres located north of Interstate 10, between the future northerly extension of Da Vall Drive and Palm Drive. Approximately 235 acres are designated BP (Business Park). Another 518 acres are designated MU-U (Mixed Use-Urban). A total of 402 acres are designated MU-N (Mixed Use-Neighborhood). A light industrial designation applies to 267 acres. An OS-R (Open Space-Residential) applies to 832 acres. In all, 2,900 acres would remain in OS (Open Space-Conservation).

The North City Specific Plan mixed-use development was projected to require 50 years to complete. No construction activity has been initiated to date on this development. The development is transected by Varner Road and the future alignment of Valley Center Boulevard, both of which are shown aligned parallel to Interstate 10. Access to Interstate 10 would be via four interchanges located at: Gene Autry Trail/Palm Drive, Landau Boulevard, Date Palm Drive, and Da Vall Drive. The Interstate 10 interchanges at Landau Boulevard and at Da Vall Drive do not currently exist.

North City Extended Specific Plan (Cathedral City)

The North City Extended Specific Plan was approved in the year 2013 by Cathedral City and included annexation of the 591.38-acre site. This site is located north of I-10 north and south of Varner Road on both sides of Bob Hope Drive. The land uses approved include approximately 65 acres zoned Mixed-Use Urban (MU-U), 116 acres zoned Mixed-Use Neighborhood (MU-N), 74 acres zoned Industrial (I-1), and 240 acres of Open Space (OS). The remaining 96 acres were roadway right-of-way. No construction activity has been initiated to date on this development.

Section 19 Specific Plan (Rancho Mirage)

Section 19 extends north of Dinah Shore Drive, between Bob Hope Drive and Key Largo Avenue. The goal of the planning process for the Section 19 Specific Plan initially involved attracting large retailers within a planned commercial district context. However, the Monterey Avenue corridor in Palm Desert was determined to have absorbed nearly all of the big box retail uses that would have been feasible for the Section 19 Specific Plan area.

On February 18, 2010, the 270-acre Section 19 Specific Plan was approved by the City of Rancho Mirage. The Specific Plan area is located north of Dinah Shore Drive and south of the Union Pacific Railroad, between Bob Hope Drive and Key Largo Avenue. The development plan includes residential uses and non-residential (commercial/retail, office, resort, and mixed-

use) development including an 11-acre public facility. The mixed-use development would include a town center, community retail shops and boutiques, high-end thematic restaurants, medium-density and high-density residential neighborhoods, resort and business hotels, retail space for the sale of furniture and furnishings, designer outlets, and resort recreational uses. To date, no construction activity has been initiated on this development.

3.3 Site Accessibility

Based upon its proximity to the newly constructed Interstate 10 interchange at Bob Hope Drive, the project site benefits from a high level of regional accessibility. With Ramon Road, Bob Hope Drive, Dinah Shore Drive, and Los Alamos Road forming the site boundaries, a high level of access is also afforded by the surrounding street system.

3.4 Existing Transportation System

Airport Facilities

Palm Springs International Airport is the largest of the three airports serving the Coachella Valley. This airport is located approximately 3.6 miles west of the project site, within the City of Palm Springs. This commercial airport is located north of Ramon Road and south of Vista Chino, between Gene Autry Trail and Farrell Drive. With connections throughout California and the continental United States, Palm Springs International Airport is the major facility for regional air passenger transportation in the Coachella Valley. It also handles air freight. Heliport access is limited to medical evacuation flights between the Desert Regional Medical Center heliport and the Palm Springs International Airport.

Railroad Facilities

The Union Pacific Railroad line traverses the area south of Interstate 10 and north of the project site. A grade separated railroad crossing exists where Bob Hope Drive crosses over the railroad line, north of the project site. The recently completed I-10 interchange project at Bob Hope Drive included the construction of a new six-lane bridge over the Union Pacific Railroad.

Within Riverside County, freight rail is an important backbone of the goods movement industry. The Union Pacific Railroad provides freight rail service to Riverside County, with up to fifty freight trains per day passing through the area to/from major cities throughout the continental United States.

AMTRAK operates 15 long distance trains on a national network of routes that range in length from 764 to 2,438 miles. Amtrak operates 70 intercity trains and 100 commuter trains per day in California. AMTRAK provides regional passenger rail and bus service in the Coachella Valley. The only AMTRAK station in Riverside County is located within the City of Palm Springs. AMTRAK provides bus connections on a daily basis to and from the San Bernardino AMTRAK station for other Riverside County areas.

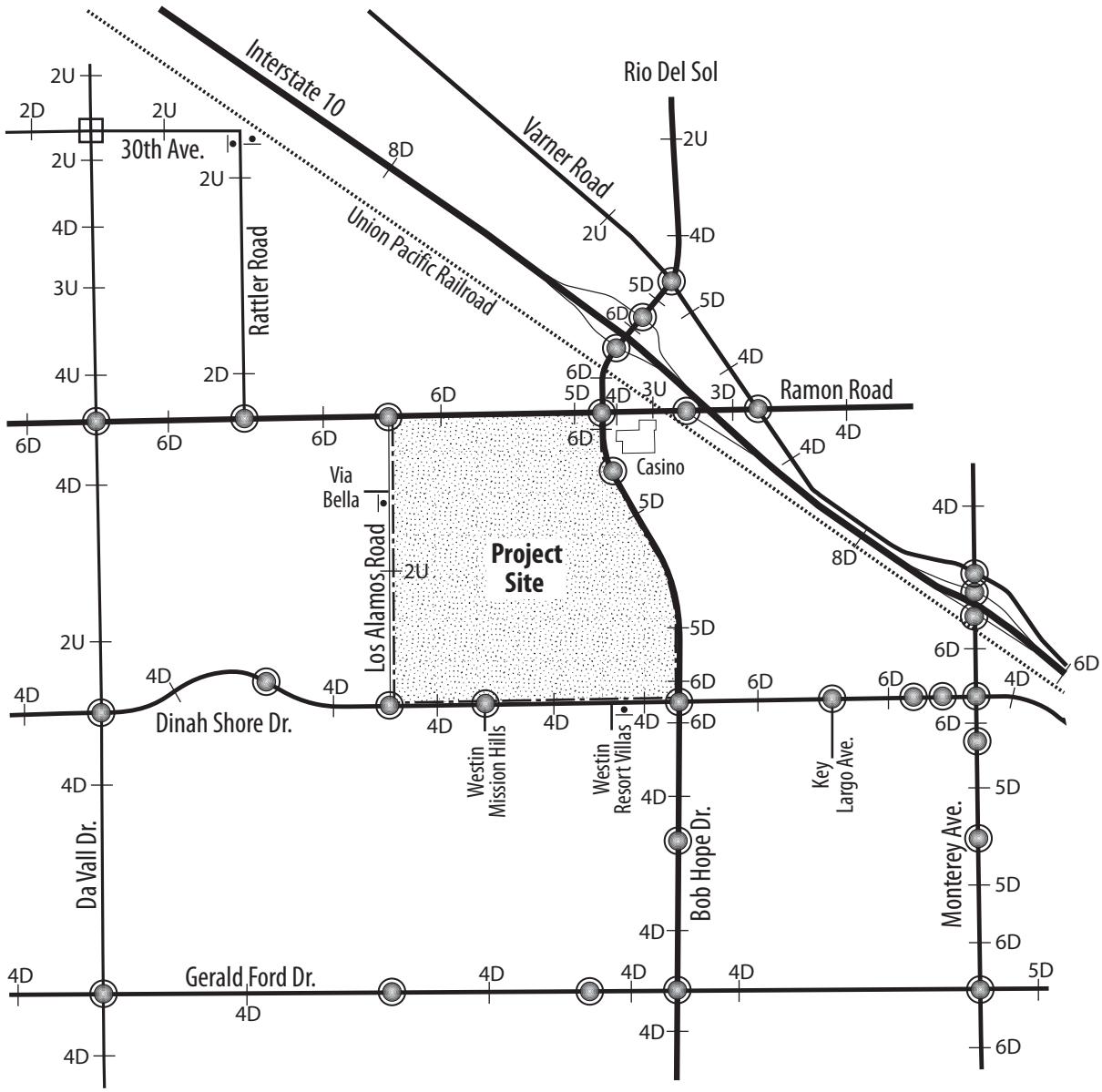
The North Palm Springs Amtrak train station is a stop three times per week on AMTRAK's Sunset Limited passenger service between Los Angeles and New Orleans. Connecting service to Chicago is available from a stop in San Antonio, Texas. The North Palm Springs train station is located 0.6 miles south of Interstate 10, at the intersection of North Indian Canyon Drive and Palm Springs Station Road. AMTRAK does not currently provide commuter rail services.

Existing Roadway and Highway Facilities

The existing transportation system in the study area is shown in Figure 3-2. The traffic control at intersections and the number of mid-block through lanes are shown as well as whether each roadway is divided or undivided. Divided facilities typically include a median, which separates traffic lanes in opposite directions and provides space for left-turn bays at intersections. Undivided facilities typically require motorists making left turns to queue in a through lane, thereby reducing the capacity of the roadway. By prohibiting on-street parking, some undivided roadways can be flared to provide left-turn lanes at intersections. Figure 6-1 shows the existing intersection approach lanes and traffic control type at the key intersections.

Regional travel tends to occur along the major axis of the Coachella Valley. Interstate 10 (I-10) facilitates the movement of vehicles in the Coachella Valley between the northwest and the southeast. I-10 extends from Pacific Coast Highway, in western Los Angeles County, through San Bernardino County and Riverside County. After passing through Blythe, I-10

Figure 3-2
Surrounding Street System



Legend

- 2U — Number of Through Lanes (D = Divided, U = Undivided)
- Stop Sign
- All Way Stop Control
- Signalized Intersection

Endo Engineering

Scale: 1" = 3,200'

extends to the east across Arizona and the transcontinental United States. The posted speed limit on Interstate 10 in the project vicinity is 70 miles per hour.

Regional access for the project site is currently available from Interstate 10, via the recently completed interchange at Bob Hope Drive. Motorists can access I-10 in both directions via the Bob Hope Drive interchange, which includes a new eight-lane overcrossing at I-10 and new ramps configured as a spread diamond interchange. Motorists from Palm Springs, Cathedral City, Rancho Mirage, and Thousand Palms who are destined to the east via Interstate 10 can also access the freeway from Ramon Road via the eastbound on-ramp located east of Bob Hope Drive and the Union Pacific Railroad corridor. Ramon Road crosses over I-10 on a two-lane bridge structure and was recently signalized at the intersection of the I-10 eastbound on-ramp.

Interstate 10 (I-10) is located one-quarter mile north of the project site and provides regional access. I-10 is a freeway under the jurisdiction of Caltrans with a 70 mph posted speed limit that facilitates the movement of vehicles in the Coachella Valley between the northwest and the southeast. Interstate 10 is currently an eight-lane freeway west of and a six-lane freeway east of the Monterey Avenue interchange. Interstate 10 is accessed from Ramon Road via an eastbound on-ramp [intersection 7]. Diamond interchanges are located at Monterey Avenue, Bob Hope Drive, and Date Palm Drive. The Date Palm Drive interchange is located 3.5 miles northwest of the Bob Hope Drive interchange. The Monterey Avenue interchange is approximately 1.5 miles east of the Bob Hope Drive interchange. The signalized intersections of Bob Hope Drive with the Interstate 10 eastbound and westbound ramps were evaluated as key intersections 1 and 2.

Bob Hope Drive is classified as a six-lane divided Urban Arterial Highway in the *County of Riverside General Plan* and a six-lane divided Major Arterial in the *Rancho Mirage General Plan.* Bob Hope Drive is a designated truck route and scenic corridor. This roadway was recently improved in conjunction with the interchange improvements at Interstate 10. Where Bob Hope Drive abuts the project site, it currently provides three northbound through lanes and two southbound through lanes and has a posted speed limit of 55 mph. The posted speed limit is 50 mph south of Dinah Shore Drive.

The Bob Hope Drive overpass at Interstate 10 provides three northbound and three southbound through lanes. At the ramp terminals, the roadbed provides dual left-turn lanes and two through lanes in one direction with three through lanes in the opposite direction. Bob Hope Drive is a six-lane divided arterial south of Interstate 10. The roadbed flares at Ramon Road to provide an exclusive southbound right-turn lane, dual southbound left-turn lanes and three through lanes.

Ramon Road is a four-lane divided arterial immediately east of Bob Hope Drive. West of Bob Hope Drive, Ramon Road is a five-lane divided arterial for approximately 950 feet, with two westbound and three eastbound through lanes. West of the five-lane section, Ramon Road provides three through lanes in each direction with a raised center median divider. Ramon Road is classified as a Major Arterial in the *Rancho Mirage General Plan* with a 120-foot right-of-way. The posted speed limit on Ramon Road within the City of Rancho Mirage is 55 miles per hour.

Dinah Shore Drive is a four-lane divided Minor Arterial with an existing 110-foot right-of-way. It has a 16-foot wide raised landscape median and provides two travel lanes in each direction. The posted speed limit on Dinah Shore Drive is 45 MPH, west of Da Vall Drive, and 50 MPH between Da Vall Drive and Monterey Avenue. Dinah Shore Drive is fully improved adjacent to the Mission Hills Golf Resort and provides a 17-foot wide landscaped parkway with a meandering 12-foot multi-use trail.

Los Alamos Road is currently a two-lane undivided roadway between Ramon Road and Dinah Shore Drive. It is fully improved on the west side. The posted speed limit is 50 mph. A meandering 12-foot wide multi-use trail exists on the west side of Los Alamos Road, which accommodates golf carts, pedestrians, and cyclists. Both the City and County circulation plans classify Los Alamos Road as a future four-lane divided roadway. However, the right-of-way required by the City classification would be 110 feet, whereas the County would require a 118-foot right-of-way.

Da Vall Drive, north of Ramon Road, is a four-lane undivided roadway that narrows to a two-lane undivided roadway before terminating south of the Union Pacific Railroad and Interstate 10. Da Vall Drive may ultimately provide access for site traffic to a future interchange at Interstate 10. The posted speed limit on Da Vall Drive is 45 miles per hour. Da Vall Drive is shown with a four-lane divided cross-section in the Circulation Elements of both of the adjacent cities of Rancho Mirage and Cathedral City. Da Vall Drive, south of Dinah Shore Drive, is improved as a four-lane divided roadway with a posted speed limit of 45 miles per hour. North of Dinah Shore Drive, the right-of-way and improvements along Da Vall Drive are inconsistent. Where the land along the west side of Da Vall Drive is undeveloped and within the Agua Caliente Indian Reservation, the ultimate right-of-way has not been dedicated and General Plan roadway improvements have not been made. The east side of Da Vall Drive was fully improved in conjunction with the development of the adjacent Mission Hills

community. The west side of the roadway is fully improved for approximately one-quarter mile south of Ramon Road, adjacent to the Desert Shadows RV Resort and Forest Lawn Memorial Park and Mortuary. However, for approximately 3,500 feet south of Sunshine Way, Da Vall Drive is currently a two-lane undivided roadway except where the pavement width flares to 38 feet to accommodate a southbound left-turn bay for access to the Mission Hills community. The west side of Da Vall is fully improved for 130 feet immediately north of Dinah Shore Drive.

Rattler Road was recently constructed between 30th Avenue and Ramon Road to provide access to the Rancho Mirage High School. The posted speed limit on Rattler Road is 40 mph unless children are present, when it is 25 mph. Rattler Road is a two-lane divided roadway adjacent to the school, and a two-lane undivided roadway north of the school. Rattler Road is flared north of Ramon Road to provide three southbound lanes and two northbound lanes.

Gerald Ford Drive is a four-lane divided Minor Arterial with a 110-foot right-of-way. Within the study area the posted speed limit is 50 MPH. No trucks are allowed to use Gerald Ford Drive.

Existing Traffic Volumes

Seasonal fluctuations in traffic demand reflect trip purposes and the activity in the area served by the roadways. The Coachella Valley is relatively isolated from neighboring urbanized regions and is home to hundreds of resort facilities and retirement communities. In the Coachella Valley, a large tourist and retired population, supported by large service sector employment, generates travel patterns that are, in many ways, atypical of Southern California.

Approximately 3.5 million people visit the Coachella Valley each year. The tourist season extends from October to May, with the increase in the tourist population beginning to peak in January and decreasing substantially after April. Traffic volumes throughout the Coachella Valley are subject to significant seasonal fluctuations, as the population swells in the winter and spring with tourists and "snow birds," then decreases as they leave to avoid the hot summer months.

Caltrans Traffic Count Data

The most recent Caltrans daily traffic count data for Interstate 10 reflects peak month volumes in the year 2012.[1] Caltrans data indicates that the annual average daily traffic (AADT) volume on I-10 is 91,000 vehicles per day (between Bob Hope Drive and Date Palm Drive) and 93,000 vehicles per day (between Bob Hope Drive and Monterey Avenue). East of Monterey Avenue the AADT is 94,000 vehicles per day.

During the peak month, the average daily traffic (ADT) volume on Interstate 10 is 9.9 percent higher than the AADT between Bob Hope Drive and Date Palm Drive. The volume during the peak month is 9.7 percent higher than the AADT on Interstate 10 between Bob Hope Drive and Monterey Avenue. East of the Monterey Avenue interchange, the ADT on Interstate 10 during the peak month is 11.8 percent higher than the AADT.

The peak hour traffic volume on Interstate 10 of 8,100 vehicles per hour is 8.9 percent of the AADT between Bob Hope Drive and Date Palm Drive. The peak hour volume of 8,300 vehicles per hour on I-10, east of the Bob Hope Drive interchange, also represents 8.9 percent of the AADT. East of the Monterey Avenue interchange, the peak hour volume is 8,500 vehicles per hour (9 percent of the AADT).

Approximately 14,590 vehicles per day (VPD) are currently using I-10 for travel to and from the west and 17,610 VPD are currently using I-10 for travel to and from the east via the new I-10 interchange at Bob Hope Drive and the eastbound I-10 on-ramp from Ramon Road. This indicates that origins and destinations located along I-10 west of the study area account for approximately 45 percent of the 32,200 vehicles per day entering and exiting I-10 in the vicinity of the project site. Origins and destinations along I-10 located east of the study area account for 55 percent of the trips accessing I-10 at Bob Hope Drive and Ramon Road.

Approximately 80 percent of the traffic destined to the east on Interstate 10 from the study area uses the on-ramp on Ramon Road, rather than the on-ramp at the Bob Hope Drive interchange to enter the freeway. The eastbound I-10 on-ramp on Ramon Road improves traffic operations at the intersection of Bob Hope Drive and Ramon Road by allowing a combined total of more than one thousand vehicles during the morning and evening peak commuter travel hours to pass through the intersection in the eastbound through lanes and the dedicated northbound right-turn lane, resulting in less delay than using the Bob Hope eastbound I-10 on-ramp.

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[1] State of California Department of Transportation. *2012 Traffic Volumes on the California State Highway System*; Sacramento, California.

Interstate 10 serves a substantial volume of heavy trucks transporting freight. The heavy vehicles using Interstate 10 currently comprise approximately 23.6 percent of the daily traffic volume, east of Indian Canyon Drive.[2] The Riverside County Department of Public Health specifies a truck mix of 8 percent for Major Highways and Arterial Highways for modeling noise impacts. An 8 percent truck mix was assumed for the peak hour operational analysis of intersections in the study area with every development scenario except those in the horizon year 2035, for which a 5 percent truck mix was assumed.

New Traffic Count Data

Manual intersection turning movement counts were made by Counts Unlimited, Inc. at seventeen existing key intersections to document the existing travel patterns within the study area. The intersection counts were collected continuously for two hours in the morning (from 7:00 a.m. to 9:00 a.m.) and for two hours in the evening (from 4:00 p.m. to 6:00 p.m.) on Wednesday, November 6, 2013. This data was needed to evaluate the existing traffic operations during the peak travel hours on the adjacent streets. The intersection count data, prior to being increased to reflect peak season conditions, is provided in Appendix 1.

While the traffic counts were being made at the key intersections, 24-hour directional traffic counts were collected at five locations including: Bob Hope Drive (north and south of Ramon Road); Ramon Road (west of Bob Hope Drive and west of the I-10 eastbound on-ramp); and Dinah Shore Drive (west of Bob Hope Drive). The 24-hour machine traffic count locations and data are provided in Appendix 1. The 24-hour traffic counts were used to identify the relationship between the daily two-way traffic volumes on area roadways and the peak hour traffic volumes on those roadways. The 24-hour traffic count data was also used to identify an appropriate seasonal adjustment factor for use in expanding the peak hour count data to reflect peak season conditions in the study area.

Relationship Between Daily and Peak Hour Volumes

The highest hourly two-way volumes at the five 24-hour count locations that occurred between 7:00 AM and 9:00 AM (6,227 vehicles per hour) and between 4:00 PM and 6:00 PM (7,100 vehicles per hour) were added together and then divided by the sum of the 24-hour volumes (89,596 vehicles per day) to identify the percentage of the daily volume than was present during the morning and evening peak hours on the streets in the study area. The morning and evening peak hour traffic volume on all of the roadway segments, combined, represented approximately 15 percent of the daily volume on the roadways. This relationship was used to estimate the peak season daily traffic volumes within the study area for each roadway segment adjacent to the key intersections from the peak hour traffic volumes, after they were expanded to reflect peak season conditions.

Peak Season Traffic Expansion Factor

Since traffic volumes in the study area peak in the winter, traffic count data collected in November must be increased to reflect peak season conditions in the winter months. The twenty-four hour weekday traffic count data collected on November 6, 2013 was compared to peak season traffic count data for the same roadways published by CVAG in the *2013 Traffic Census Report* to identify an appropriate seasonal adjustment factor for use in expanding the new traffic count data collected at the key intersections to reflect peak season traffic volumes within the study area. A five percent seasonal expansion factor was identified and applied to the peak hour traffic count data to reflect the existing turning movement volumes at the key intersections during the peak season.

Peak season traffic count data available from the City of Rancho Mirage are shown in Table 3-1. A comparison of the count data collected in March of 2013 to the new 24-hour traffic counts collected in November 2013 validated the five percent seasonal expansion factor. Available 24-hour traffic count data collected for roadways within the northern portion of the study area during September of 2012 were also provided in Table 3-1. These traffic counts from September 2012 occurred shortly after the Bob Hope Drive I-10 interchange was completed, when the dynamic redistribution of traffic associated with the opening of the new interchange may or may not have completely stabilized .

[2] State of California Department of Transportation. *2012 Annual Average Daily Truck Traffic on the California State Highway System*.

Table 3-1
Recent Weekday Traffic Counts

Roadway Segment	Traffic Count[a] Date	Direction/24-Hour One-Way Volume	Direction/24-Hour One-Way Volume	Weekday[b] Two-Way Volume
DA VALL DRIVE				
- North of Ramon Road	03/19/13	NB 4,563	SB 4,092	8,655
- South of Ramon Road	03/19/13	NB 4,477	SB 6,294	10,771
- North of Dinah Shore Drive	03/19/13	NB 4,494	SB 4,515	9,009
- North of Gerald Ford Drive	03/19/13	NB 5,082	SB 5,626	10,708
BOB HOPE DRIVE				
- South of Varner Road	09/05/12	NB 6,066	SB 5,736	11,802
- North of Ramon Road	11/06/13	NB 5,506	SB 11,529	17,035
- North of Ramon Road	09/05/12	NB 4,129	SB 9,265	13,394
- South of Ramon Road	11/07/13	NB 9,342	SB 8,901	18,243
- South of Ramon Road	03/11/13	NB 9,210	SB 9,744	18,954
- South of Ramon Road	09/15/12	NB 7,405	SB 7,206	14,611
- North of Dinah Shore Drive	Winter 2013	Not Available	Not Available	[17,559]
- North of Gerald Ford Drive	03/11/13	NB 9,960	SB 9,963	19,923
- North of Frank Sinatra	03/12/13	NB 9752	SB 8960	18,712
RIO DEL SOL ROAD				
- North of Varner Road	09/05/12	NB 2,752	SB 2,736	5,488
MONTEREY AVENUE				
- North of Dinah Shore Drive	Winter 2013	Not Available	Not Available	[44,125]
- South of Dinah Shore Drive	Winter 2013	Not Available	Not Available	[31,702]
DINAH SHORE DRIVE				
- West of Da Vall Drive	03/19/13	EB 9,372	WB 9,568	18,940
- West of Bob Hope Drive	11/06/13	EB 8,418	WB 9,063	17,481
- West of Bob Hope Drive	03/11/13	EB 7,931	WB 8,484	16,415
- West of Monterey Avenue	03/05/13	EB 13,577	WB 11,050	24,627
- East of Monterey Avenue	Winter 2013	Not Available	Not Available	[9,575]
GERALD FORD DRIVE				
- West of Bob Hope Drive	03/11/13	EB 7,497	WB 6,799	14,296
- East of Bob Hope Drive	03/11/13	EB 5,969	WB 6,501	12,470
RAMON ROAD				
- West of Da Vall Drive	Winter 2013	Not Available	Not Available	[22,682]
- East of Da Vall Drive	03/19/13	EB 12,038	WB 12,217	24,255
- West of Bob Hope Drive	11/06/13	EB 11,278	WB 9,279	20,557
- West of Bob Hope Drive	Winter 2013	Not Available	Not Available	[23,736]
- West of Bob Hope Drive	09/05/12	EB 8,719	WB 8,976	17,695
- East of Bob Hope Drive	11/06/13	EB 11,134	WB 5,146	16,280
- East of Bob Hope Drive	Winter 2013	Not Available	Not Available	[26,402]
- East of Bob Hope Drive	09/05/12	EB 9,149	WB 4,440	13,589
- West of Varner Road	Winter 2013	Not Available	Not Available	[11,693]
- West of Varner Road	09/05/12	EB 3,993	WB 5,665	9,658
- East of Varner Road	09/05/12	EB 4,742	WB 5,764	10,506
VARNER ROAD				
- West of Bob Hope Drive	09/05/12	NB 2,223	SB 1,930	4,153
- East of Bob Hope Drive	09/05/12	NB 5,628	SB 6,163	11,791

a. Traffic count data shown for September, 2012 and November, 2013 was collected by Counts Unlimited, Inc. and was not expanded to reflect peak season conditions. The 24-hour directional traffic count data shown for March, 2013 was collected by Newport Traffic Studies and reflects peak season conditions. This data was available on the City of Rancho Mirage website. NB=Northbound. SB=Southbound. EB=Eastbound. WB= Westbound.

b. The winter 2013 24-hour two-way traffic count data shown in brackets was taken from the CVAG *2013 Traffic Census Report*.

Peak Season Traffic Volumes

Figure 3-3 shows the current peak season daily traffic volumes on the roadway links adjacent to the key intersections. These daily traffic volumes were determined from the peak hour traffic counts made at the key intersections, after they were expanded to reflect peak season conditions. Figure 3-4 shows the current peak season turning movement volumes during the morning and evening peak hours at the key intersections. These volumes represent the new tuning movement counts, expanded by five percent.

Peak Hour Factor

Traffic flow rates can vary substantially over the course of an hour, particularly in the vicinity of schools, where the traffic volumes within the fifteen minutes immediately before and after the school day may exceed the capacity of a roadway even though the hourly volumes would be less than the capacity. For this reason, HCM analyses typically evaluate the peak fifteen -minute traffic flow rate during the peak hour.

Using the peak 15-minute flow rate produces a more conservative analysis that accommodates nearly all of the variations in flow that occur during the peak hour. Since the inputs to the HCM procedures are typically expressed in terms of hourly traffic volumes, a peak hour factor (PHF) is used to increase the traffic volume during the peak hour to reflect the peak 15-minute flow rate. The peak hour factor is the ratio of the total hourly volume to four times the peak 15-minute volume within that hour. Values for PHFs are determined from the peak hour traffic counts made at each key intersection based on the traffic volumes during each 15-minute interval.

A very low PHF (0.25) indicates that all peak hour vehicles arrive in the peak fifteen minutes. A PHF of 1.0 indicates that vehicles are evenly distributed over the peak hour. Site-specific morning and evening PHFs were determined from the observed 15-minute counts at each key intersection during the peak hours. These PHFs are provided in the intersection count data in Appendix 1 and documented for each operational analysis of the key intersections in Section 5. The 2008 Riverside County Transportation Department *Traffic Impact Analysis Preparation Guide* recommends that that actual peak hour factors be determined from traffic counts at the intersections being evaluated and utilized in the existing and near-term operational analyses and PHF of 1.0 be applied to buildout traffic conditions. The future horizon year 2035 conditions with and without site traffic were evaluated using a PHF of 1.0.

Existing Pedestrian Volumes Crossing Ramon Road at Rattler Road

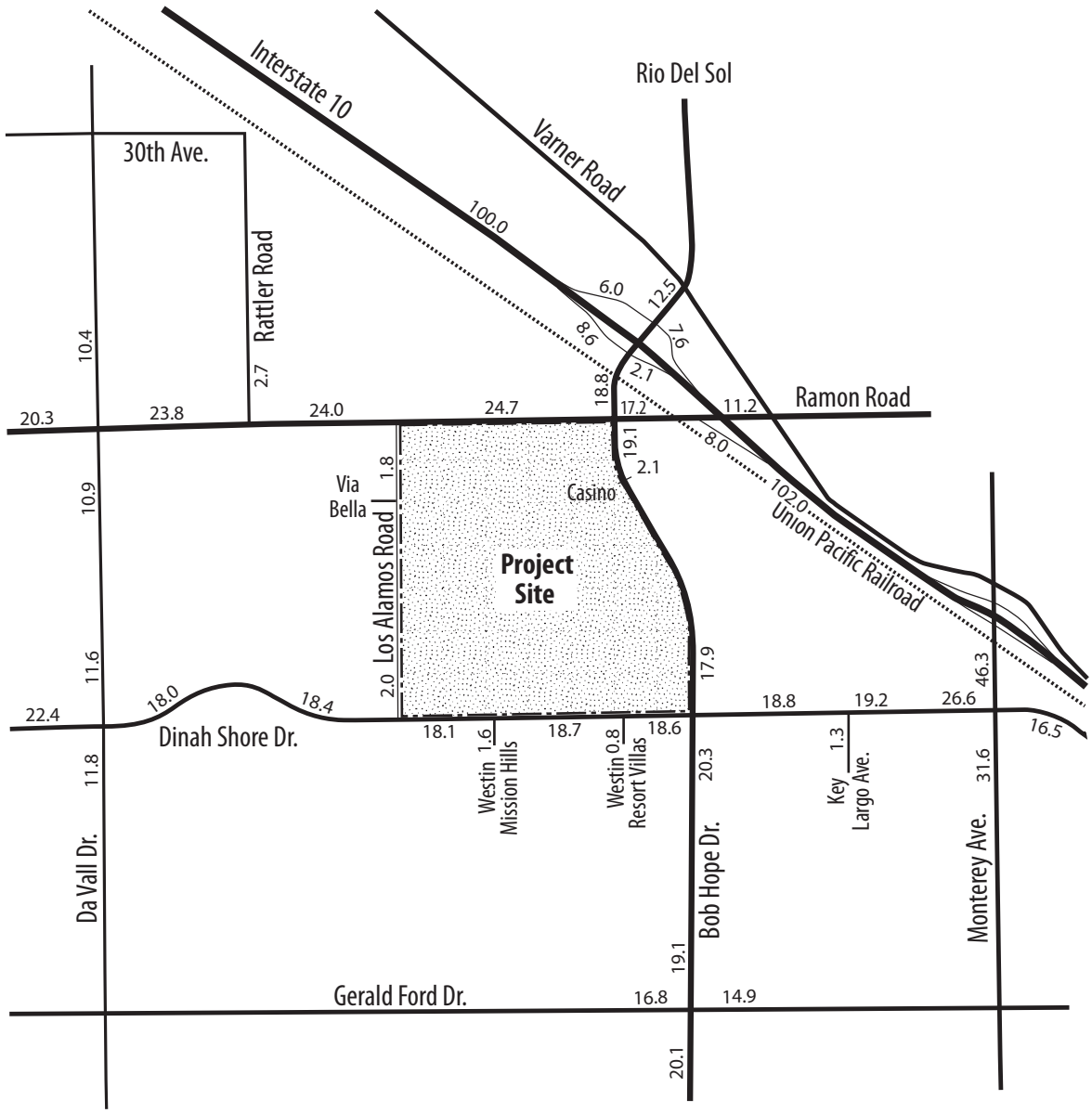
The intersection of Rattler Road and Ramon Road is signalized and provides a crosswalk on the west leg of Ramon Road for students walking to and from the Rancho Mirage High School. Based on the November 6, 2013 traffic count data, the morning peak hour occurs at this intersection between 8:00 AM and 9:00 AM. During that hour, a total of 598 vehicles were counted on Rattler Road, north of Ramon Road (263 northbound and 335 southbound). The afternoon peak hour occurred at this intersection between 2:45 PM and 3:45 PM. During that hour a total of 475 vehicles were counted on Rattler Road, north of Ramon Road (225 northbound and 250 southbound).

Pedestrian counts were made at this intersection from 7:00 AM through 9:00 AM and from 2:00 PM through 4:00 PM on November 6, 2013. Crosswalks at this intersection for students of the Rancho Mirage High School are located on the west leg of Ramon Road and on Rattler Road. The pedestrian counts for the crosswalk on Ramon Road included: three pedestrians crossing between 7:15 and 7:30 AM, nine pedestrians crossing between 8:00 and 8:15 AM, and one pedestrian crossing between 8:45 AM and 9:00 AM. No pedestrians were observed between 7:00 AM and 9:00 AM crossing Rattler Road at this intersection. The afternoon count for the Rattler Road crosswalk included one pedestrian crossing between 3:00 PM and 3:15 PM and another crossing between 3:15 PM and 3:30 PM. Sixteen pedestrians crossed Ramon Road at the crosswalk during the afternoon count period. All sixteen crossings occurred between 3:00 PM and 3:15 PM.

Truck Access and Goods Movement

Throughout California, approximately 76 percent of all inbound and outbound freight is shipped by truck. The agricultural and industrial sectors of Riverside County's economy generate a significant amount of truck traffic and depend upon the safe and efficient movement of goods. The primary means of transporting goods and consumer products in Riverside County is large trucks. Truck volumes in the region are projected to increase by forty percent between the year 2003 and the year 2020. Goods movement in the study area is expected to grow rapidly in response to the projected growth in population as well as international trade. Caltrans data for the year 2012 indicates that trucks currently represent 23.6 percent of the traffic volume on Interstate 10 within the study area.

Figure 3-3
Existing Weekday Traffic Volumes
(Year 2013 Peak Season)

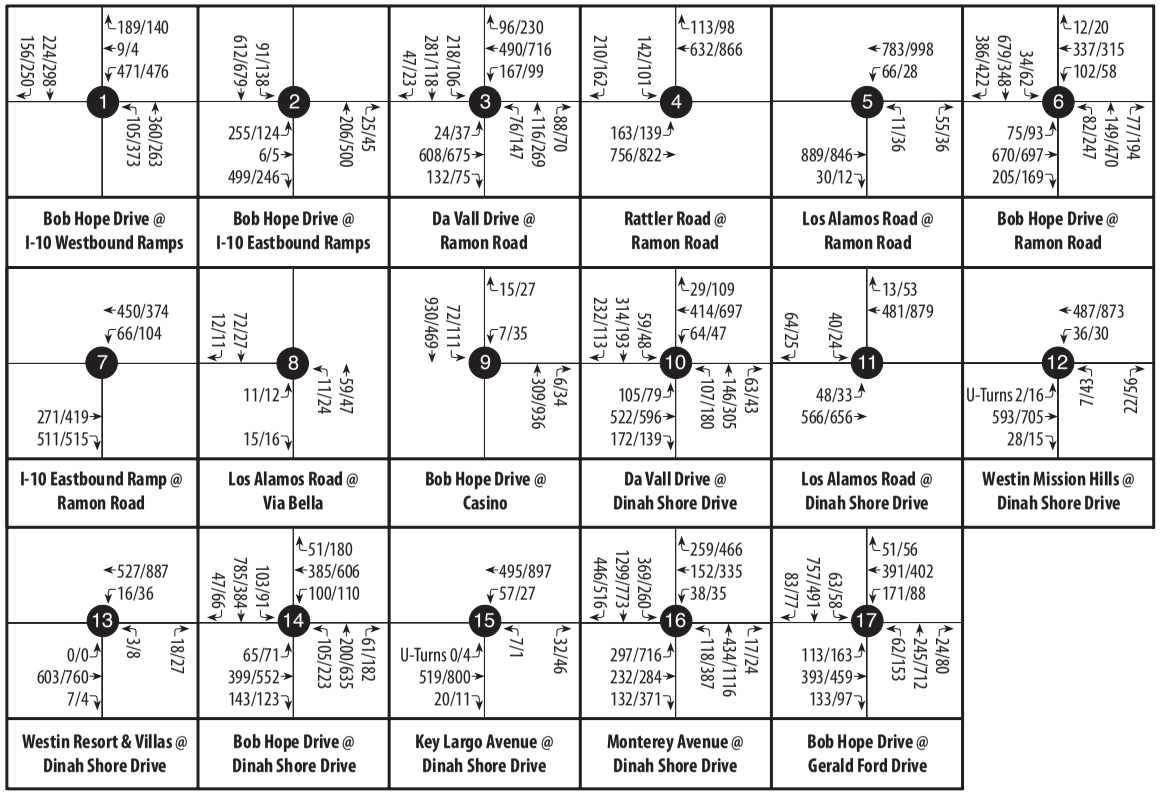


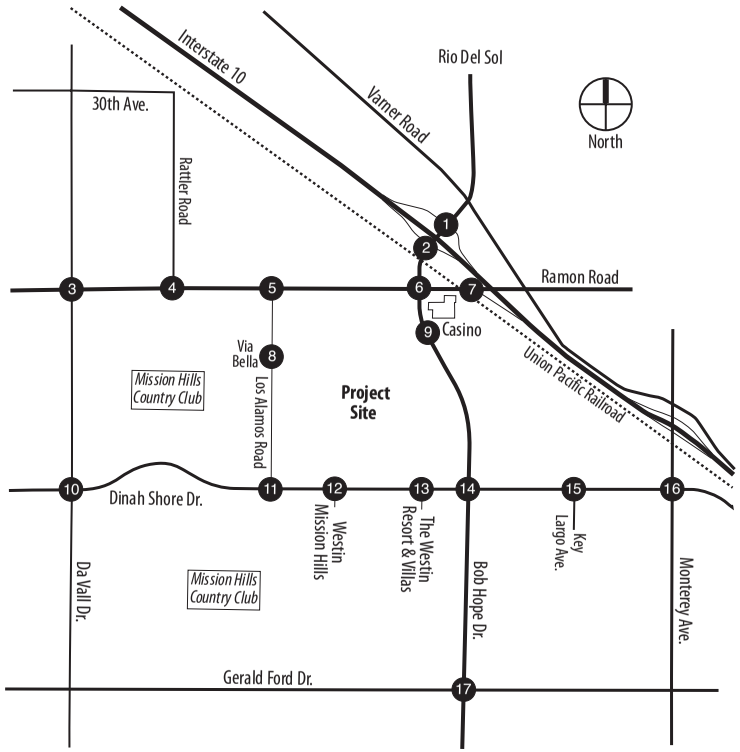
Legend
15.7 2-Way Daily Volume in Thousands

Endo Engineering

Scale: 1" = 3,200'

Figure 3-4
Existing Peak Hour Traffic Volumes
(Peak Season Weekday)





Legend

5/8 Morning/Evening Peak Hour Turning Volume

Endo Engineering

3.5 Relevant Circulation Plans

The site has frontage on four existing *Riverside County Comprehensive General Plan* roadways: Ramon Road, Bob Hope Drive, Dinah Shore Drive, and Los Alamos Road. No other *Riverside County Comprehensive General Plan* roadways are located within or adjacent to the project site.

Riverside County General Plan

The Circulation Element of the *County of Riverside General Plan* identifies the need to shape future growth patterns by moving away from random growth toward concentrated growth and increased job creation. This will require a regional and local linkage system between communities to encourage increased ridership of public transit systems and the increased use of alternative modes of transportation including bicycles and walking.

Riverside County collaborates with cities to implement and integrate right-of-way requirements and improvement standards for General Plan roadways that cross jurisdictional boundaries. For development within the Sphere of Influence of an incorporated jurisdiction, city standards should generally apply where annexation to the City will logically occur in the short to intermediate range future. Where roadways designed to differing city and County standards meet, the transitional areas should be designed on an individual basis to facilitate satisfactory operational and safety performance.

The Circulation Element of the *Riverside County General Plan* (Revised October 7, 2003) classifies the roadways in the study area as Urban Arterial, Arterial Highway, Major Highway, Secondary Highway or Collector Street, as shown in Figure 3-5. Figure 3-6 illustrates the typical Riverside County street cross-sections by roadway classification. Table 3-2 summarizes the Riverside County intersection spacing standards by roadway classification.

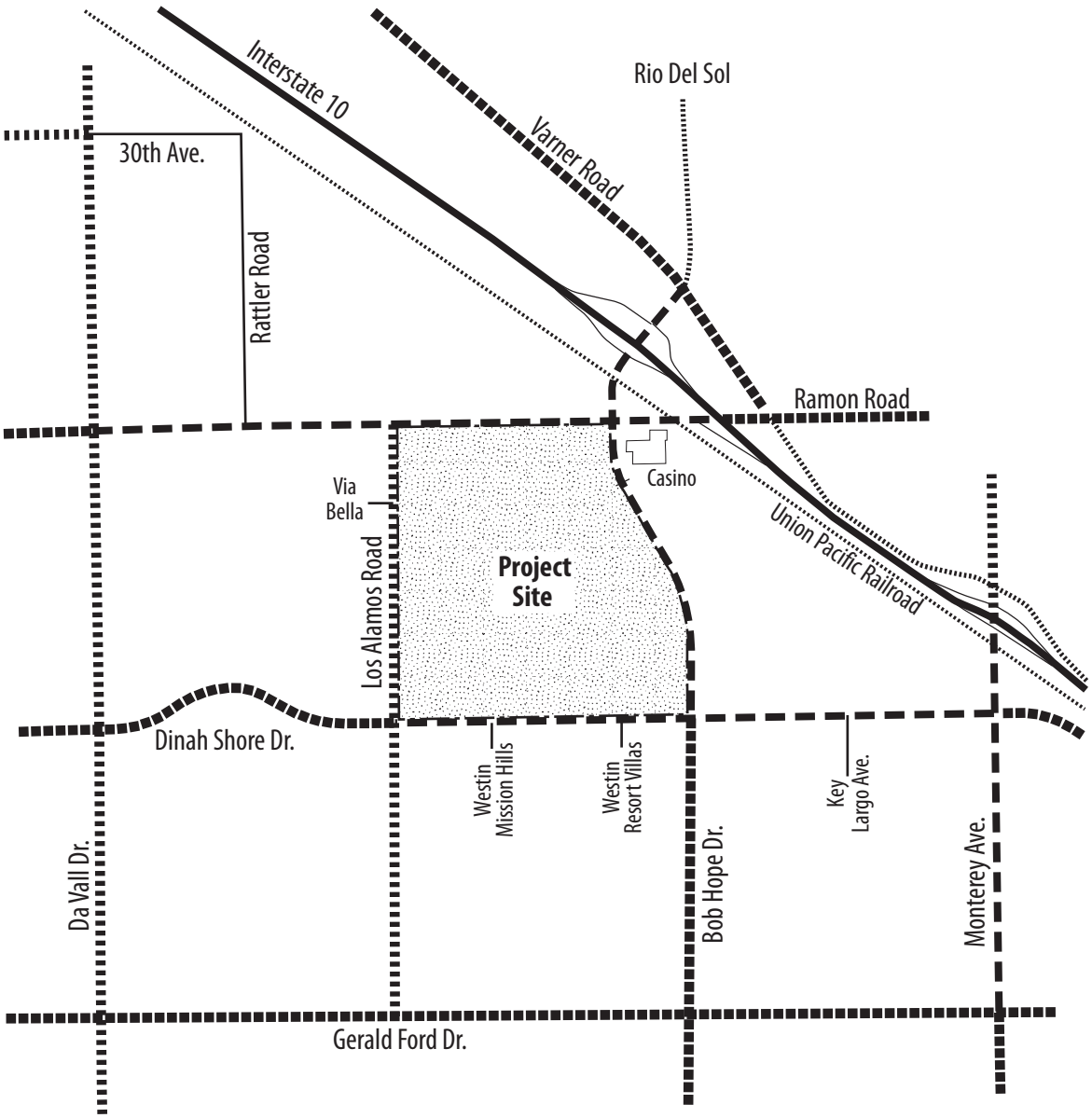
Table 3-2
Riverside County Access Standards by Corridor Classification[a]

Street Classification	Minimum Right-of-Way Width Required[b]	Number of Lanes Required[c]	Intersection Spacing Standards
Urban Arterial	152 Feet	6 or 8 Lanes	1/4 Mile Intersection Spacing
Arterial Highway	128 Feet	4 or 6 Lanes	1/4 Mile Intersection Spacing Minimal Driveway Access
Major Highway	118 Feet	4 Lanes	660-Foot Intervals
Secondary Highway	100 Feet	4 Lanes	330-Foot Intervals
Collector Street	74 Feet	2 Lanes	Parcel Access Discouraged[d]

a. Source: "County of Riverside General Plan"; Table C-1.
b. Additional right-of-way may be required at intersections.
c. Arterial highways and urban arterial highways typically have raised medians that allow dual left-turn bays and exclusive right-turn lanes at intersections with secondary or higher classification highways. Major highways typically have painted medians that allow dual left-turn bays and exclusive right-turn lanes at intersections with secondary or higher classification highways. Although no median or turn lanes are typically required on secondary highways, a single left-turn bay and exclusive right-turn lane can be accommodated at intersections with secondary or higher classification highways.
d. Parcel access may be permitted only if no local streets are present.

Urban arterials typically provide six or eight through lanes. They may provide dual left-turn lanes and a dedicated right-turn lane at intersections with secondary and higher classification roadways. A roadway with an Urban Arterial classification typically requires a 152-foot right-of-way. Riverside County has designated four Urban Arterials within the study area. They include: (1) Bob Hope Drive, between Varner Road and Dinah Shore Drive, (2) Ramon Road, west of Interstate 10 to Da Vall Drive, (3)Dinah Shore Drive, between Los Alamos Road and Monterey Avenue, and (4) Monterey Avenue, between Varner Road and Gerald Ford Drive.

Figure 3-5
Riverside County Circulation Plan



Legend

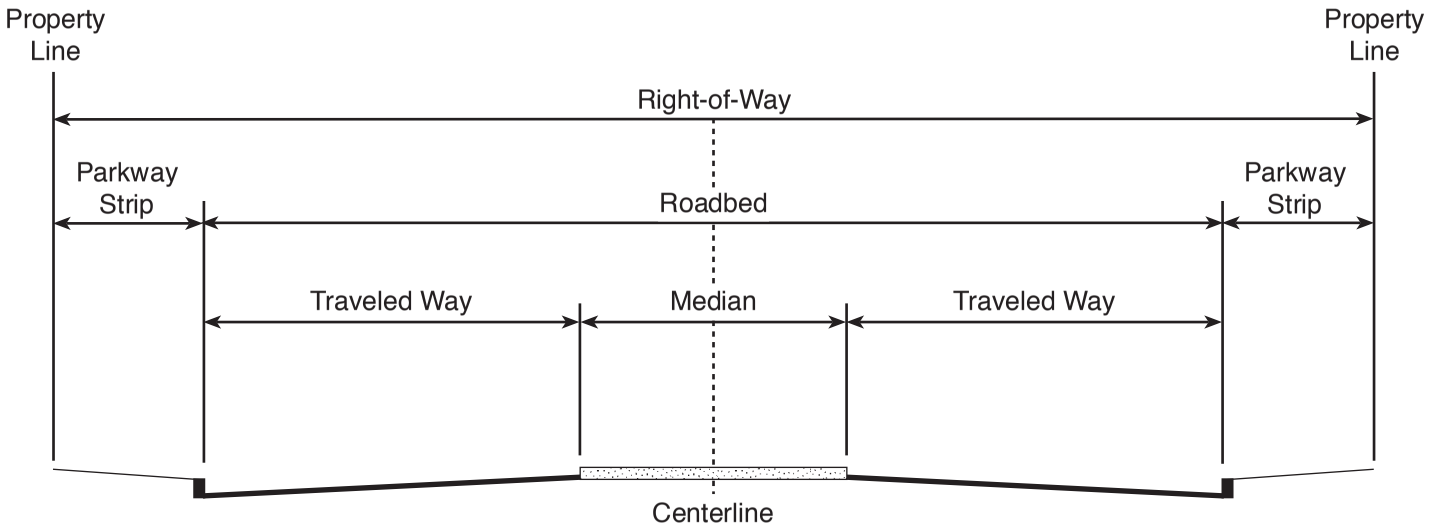
- Urban Arterial Highway (152' ROW/6-D)
- Arterial Highway (128' ROW/4-D)
- Major Highway (118' ROW/4-D)
- Secondary HIghway (100' ROW/4-U)

Endo Engineering

Source: *County of Riverside General Plan* (Revised March 2001)

Scale: 1" = 3,200'

Figure 3-6
Riverside County Typical Street Sections



Corridor Classification	Median	Traveled Way	Travel Lanes	Parkway Strip	Roadbed	R/W
Expressway	14’	60’	8	25’	134’	184’
Urban Arterial Highway	14’	48’	6-8	21’	110’	152’
Arterial Highway	18’	34’	4-6	21’	86’	128’
Major Highway	12’	32’	4	21’	76’	118’
Mountain Arterial	NA	32’	2-4	23’	64’	110’
Secondary Highway	NA	32’	4	18’	64’	100’
Industrial Collector	12’	22’	2	11’	56’	78’
Collector	NA	20’	2	17’	40’	74’

Notes: Improvements may be reconfigured to accommodate exclusive transit lanes or alternative lane requirements. Additional right-of-way may be required at intersections. Expressways, urban arterials and arterials have raised medians. Majors and industrial collectors have painted medians.

Source: *Riverside County General Plan*; December 2008.

Arterial Highways typically provide four or six through lanes and have a raised median. They may provide dual left-turn lanes and a dedicated right-turn lane at intersections with secondary and higher classification roadways. Arterial Highways typically require a 128-foot right-of-way. Six roadways in the study area are designated Arterial Highway in the Riverside County Circulation Element. They include: (1) Varner Road, northwest of Ramon Road, (2) Ramon Road, east of Varner Road, (3) Dinah Shore Drive, between Plumley Road and Los Alamos Road, (4) Gerald Ford Drive, (5) Bob Hope Drive, south of Dinah Shore Drive, and (6) Monterey Avenue, south of Gerald Ford Drive.

Major Highways require a 118-foot right-of-way and provide four through lanes with a painted median. They may provide dual left-turn lanes and a dedicated right-turn lane at intersections with secondary and higher classification roadways. Riverside County has designated three Major Highways in the study area including: (1) Da Vall Drive, south of Interstate 10, (2) Los Alamos Road, between Ramon Road and Gerald Ford Drive, and (3)Monterey Avenue, between Ramon Road and Varner Road.

Secondary Highways require a 100-foot right-of-way and provide four through lanes with no median. Two of the roadways within the study area are classified as Secondary Highways by the County of Riverside. They include: Rio Del Sol Road, north of Varner Road, and Varner Road, southeast of Ramon Road.

Riverside County has classified Rio del Sol Road, north of Vista Chino, as a Collector Street. Collector Streets provide one travel lane in each direction within a 40-foot roadbed and require a 74-foot right-of-way. Collector Streets generally are not required to provide exclusive turn lanes at intersections.

Designated Truck Routes

Interstate 10 is a primary corridor for the movement of goods within and through the Coachella Valley and the San Gorgonio Pass. I-10 and Highway 111 are part of the state highway truck route system. Both of these facilities are in the Surface Transportation Assistance Act (STAA) Network, which allows larger trucks with no maximum overall length.

Designated Scenic Corridors

Many corridors in the Coachella Valley traverse scenic resources and encourage the growth of tourism. To enhance the aesthetic experiences of residents and visitors as well as protect and maintain the unique visual features along highways located within these corridors, various scenic roadways have been officially recognized and designated. The *Western Coachella Valley Area Plan* (October 2003) identifies Bob Hope Drive, between Interstate 10 and Gerald Ford Drive, as a County Eligible Scenic Highway. Policies therein seek to protect and maintain resources in corridors along scenic highways by imposing conditions on developments within scenic highway corridors requiring the dedication of scenic easements consistent with the Scenic Highways Plan when necessary to preserve unique or special visual features. The *Riverside County General Plan* also requires trail alignments that either provide access to or link scenic corridors, schools, parks, and other natural areas.

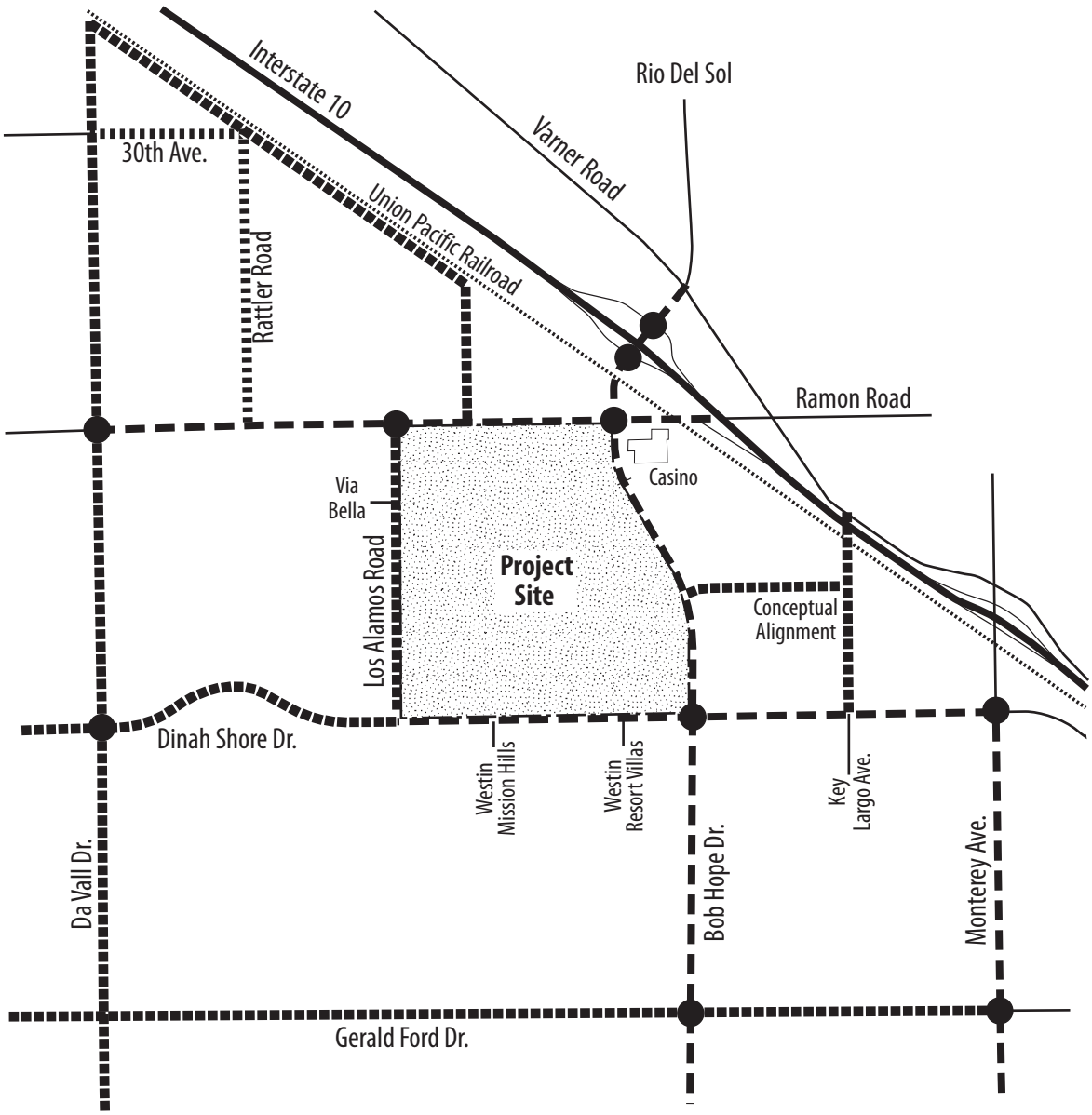
Interstate 10 is an Eligible County Scenic Highway between State Route 62 (west of the study area) and the Colorado River. To preserve the visual resources of the I-10 scenic corridor, the State Scenic Highways Land Use Standards should be applied to all projects within the I-10 scenic highway corridor. These standards include a 50-foot setback from the edge of the right-of-way for all new development where feasible. Interstate 10 is an important visual corridor that should receive special landscape treatments because so many motorists and tourists form their image of the adjacent cities from their travels along I-10. Two types of high-speed corridor treatments are possible along this route: (1) buffered edges to screen unsightly views from the freeway, and (2) landscaped edges designed to promote select views into the adjacent cities.

City of Rancho Mirage General Plan

The project site is located within the Sphere of Influence of the City of Rancho Mirage. The City of Rancho Mirage has adopted LOS D as the maximum acceptable service level for peak operating periods in the Circulation Element of the *City of Rancho Mirage 2005 General Plan*. Figure 3-7 shows the roadway classifications in the Circulation Plan and Figure 3-8 shows the typical street sections associated with each roadway classification in the *City of Rancho Mirage General Plan*.

Bob Hope Drive is classified as a Major Arterial (six-lane divided) in the *City of Rancho Mirage 2005 General Plan* to accommodate future traffic projections and be consistent with the Riverside County Integrated Project (RCIP) network designations. Bob Hope Drive was extended north of Ramon Road to Varner Road in conjunction with the recent construction of a new spread diamond Interstate 10 interchange. This new interchange replaced three of the four ramps

Figure 3-7
City of Rancho Mirage Circulation Plan



Legend

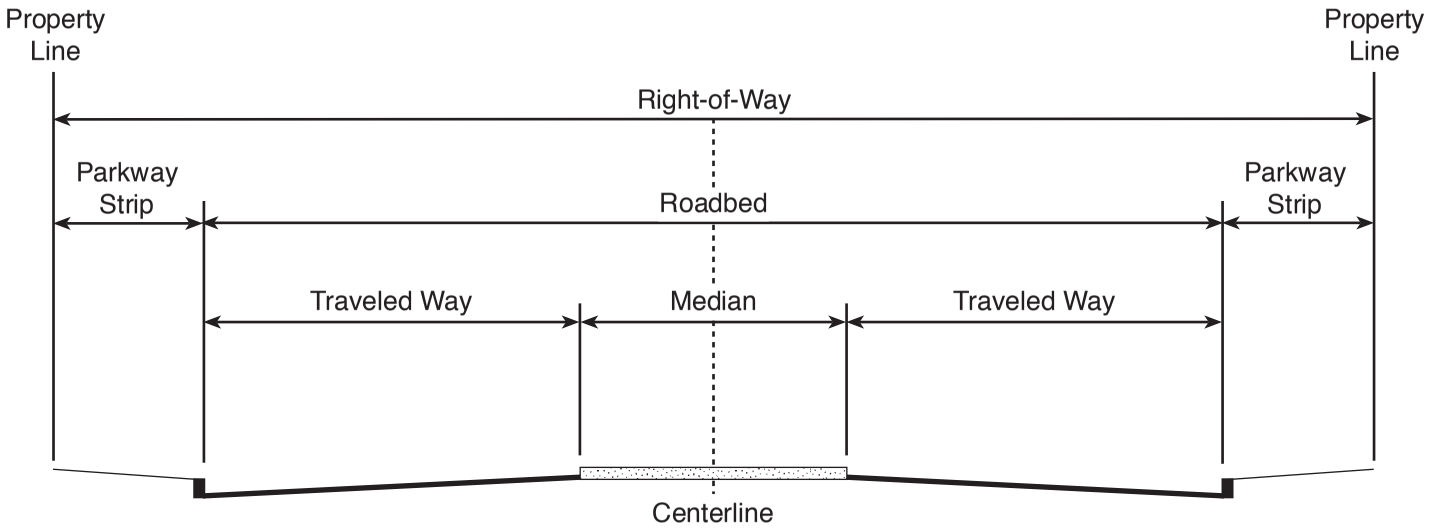
- Major Arterial (120' ROW/6-D)
- Minor Arterial (110' ROW/4-D)
- Major Collector (100' ROW/4-D)
- Critical Intersection

Endo Engineering

Source: *City of Rancho Mirage General Plan* (Revised November 2005)

Scale: 1" = 3,200'

Figure 3-8
Rancho Mirage Typical Street Sections



Corridor Classification	Median	Traveled Way	Travel Lanes	Parkway Strip	Roadbed	R/W
Primary Arterial	18’	45’	6D	13’	108’	134’
Major Arterial	16’	45’	6D	7’	106’	120’
Minor Arterial	16’	35’	4D	12’	86’	110’
Major Collector	16’	30’	4D	12’	76’	100’
Minor Collector	NA	32’	4U	12’	64’	88’
Local	NA	20’	2U	10’	40’	60’

Source: *Rancho Mirage General Plan*; November 2005.

previously located at the Ramon Road diamond interchange. Only the eastbound I-10 on-ramp from Ramon Road was retained. Five critical intersections are identified along Bob Hope Drive at the intersections of the following roadways: the Westbound I-10 Ramps, the Eastbound I-10 Ramps, Ramon Road, Dinah Shore Drive, and Gerald Ford Drive.

Ramon Road is classified as a 6-lane divided Major Arterial between Da Vall Drive and the I-10 overcrossing. A 120-foot right-of-way is typically required of facilities with a Major Arterial designation. Three critical intersections are identified along Ramon Road at the intersections of Da Vall Drive, Los Alamos Road, and Bob Hope Drive.

Dinah Shore Drive is classified as a 6-lane divided Major Arterial, between Los Alamos Road and Monterey Avenue. A 120-foot right-of-way is typically required of roadways with a Major Arterial designation. Between Plumley Road and Los Alamos Road, Dinah Shore Drive is classified as a 4-lane divided Minor Arterial, which typically requires a 110-foot right-of-way. Prior to the 2005 update of the *City of Rancho Mirage General Plan*, Dinah Shore Drive, between Los Alamos Road and Bob Hope Drive, was designated and constructed as a 4-lane divided Minor Arterial with a 110-foot right-of-way. Four critical intersections are identified along Dinah Shore Drive at the intersections of Da Vall Drive, Los Alamos Road, Bob Hope Drive, and Monterey Avenue.

Los Alamos Road is classified as a 4-lane divided Minor Arterial, which typically requires a 110-foot right-of-way. Critical intersections are identified on Los Alamos Road at Ramon Road and at Dinah Shore Drive.

Da Vall Drive, south of Interstate 10, is designated as a 4-lane divided Minor Arterial, which typically requires a 110-foot right-of-way. Critical intersections along Da Vall Drive are designated within the study area at Ramon Road and Dinah Shore Drive.

Monterey Avenue is a six-lane divided roadway, north of Dinah Shore Drive, that provides north-south access between Interstate 10 and Highway 111. It is designated as a 6-lane divided Major Arterial within the study area in the *Rancho Mirage General Plan*.

Rattler Road is designated as a four-lane divided Major Collector between Ramon Road and 30th Street. Major Collectors typically require a 100-foot right-of-way.

North of Ramon Road, a future four-lane divided Minor Arterial is shown in the Circulation Element extending across Section 13 to the Union Pacific Railroad corridor where it turns northwest and continues to Da Vall Drive. This future Minor Arterial is shown intersecting Ramon Road opposite Street "C", the future full-turn Section 24 access connection proposed between Planning Areas 1 and 2 (Intersection 18 in Figure 2-3).

A Future Minor Arterial with a four-lane divided cross-section is shown in the Circulation Element extending east of Bob Hope Drive across the Section 19 Specific Plan area to Key Largo Avenue. This Minor Arterial intersects Bob Hope Drive north of the point where the alignment of Bob Hope Drive turns west of the eastern boundary of Section 24. This location appears to be opposite the Section 24 Specific Plan future full-turn site access proposed on Bob Hope Drive at Street "D" [Intersection 20].

Truck Routes

The City of Rancho Mirage has designated the following truck routes within the study area: Ramon Road (between Da Vall Drive and the Union Pacific Railroad corridor); Dinah Shore Drive (between Plumley Road and Monterey Avenue); Bob Hope Drive (between Varner Road and Gerald Ford Drive); and Monterey Avenue (south of Dinah Shore Drive). In addition, two roadways are time-restricted truck routes where truck travel is prohibited between the hours of 9:00 PM and 6:00 AM. These roadways include: Gerald Ford Drive (between Plumley Road and Bob Hope Drive) and Bob Hope Drive (south of Gerald Ford Drive).

Scenic Routes

The Community Design Element of the *City of Rancho Mirage General Plan* identifies several policies to strengthen the image of Rancho Mirage by beautifying its arterial streets. From design guidance for entry monuments to the identification of specific landscape themes, these policies encourage quality retail development, recommend enhanced intersection treatments, provide visually distinct gateway landscaping along designated entries to the City, and preserve special view corridors. The major focus of these arterial beautification strategies will be along Bob Hope Drive, between Ramon Road and Dinah Shore Drive.

The Community Design Element of the *City of Rancho Mirage General Plan* identifies special scenic view corridors that must be preserved and enhanced. Along Ramon Road, the viewsheds to both the east and west have been identified for preservation and enhancement. Along Dinah Shore Drive, the viewshed to the west has been identified for preservation and enhancement. Unique views of mountains and other natural open spaces along these corridors would be preserved through compliance with building height restrictions, the use of low-profile median landscaping, and the provision of wide landscaped parkways.

Streetscape Plans for Scenic Roadways

Streetscape improvement plans that reflect the policies and programs identified in the Community Design Element of the *City of Rancho Mirage General Plan* would be required for all major arterials abutting the project site, prior to the initiation of future landscape or roadway improvements. Design plans exist for the City's Major Arterials at three distinct levels designated: boulevard, gateway, and special arterial streetscape plans. The implementation of these streetscape improvements is both a public and private responsibility.

As the City's primary entry, Bob Hope Drive would require a formal landscape plan incorporating community-wide design themes. The intersection of Bob Hope Drive with Ramon Road is designated as a "Primary Gateway". Given this designation, the design of this intersection should incorporate monument signage and include special paving, widened setbacks, and coordinated accent landscaped treatment at all four corners. A "Gateway Landscaping" designation applies to both sides of Bob Hope Drive, between Ramon Road and Dinah Shore Drive. The gateway landscape plan envisions a formal skyway design with decorative palms interspersed with smaller specimens to create a dynamic entry into the City.

The Community Design Map in the *City of Rancho Mirage General Plan* includes a "Special Arterial Landscaping" designation for both Ramon Road and Dinah Shore Drive within the city limits. This designation allows more design flexibility in that each roadway would take on a unique landscape theme reflecting the design character of the adjacent uses. Both formal and informal landscape treatments may be featured, depending on the character of the adjacent development. However, a more coordinated landscape treatment of these arterials and the intensification of planting at major intersections to create an "oasis" effect would be required as well as the preservation of view corridors through streetscape improvements and specialized design standards such as widened parkways and enhanced landscaping to reduce visual impacts.

Two intersections adjacent to the project site are designated as "Enhanced Intersections" in the Community Design Element of the *City of Rancho Mirage General Plan:* (1) Los Alamos Road at Ramon Road, and (2) Bob Hope Drive at Dinah Shore Drive. Enhanced intersections include coordinated planning for all four corners through widened setbacks, special crosswalk paving, accent lighting, trees, and other landscaping. Program 3C in the Community Design Element includes undergrounding utilities whenever possible and adopting lighting standards that create the minimum visual impact without compromising safety.

Goals, Policies and Programs

The City's street system shall be designed and constructed to maximize mobility, minimize congestion, and assure that all intersections and street segments shall operate at LOS "D" or better during the peak hours of traffic, as generated by buildout of the Land Use Plan. The number of access points and intersections along arterials shall be limited in order to preserve mid-block and intersection capacities and to maintain public safety. City Program 4.B facilitates the consolidation of access driveways along all arterials in a manner that minimizes conflicting turning movements and maximizes the use of existing and planned signalized intersections. City Policy 9 states that circulation and access for undeveloped parcels shall be coordinated with surrounding properties.

Per City Policy 10, streets within private planned residential areas shall be installed and maintained as private streets, and shall be developed in accordance with development standards set forth in the Zoning Ordinance and other applicable standards and guidelines. Emergency police, fire and paramedic vehicle access shall be provided with all new development to the satisfaction of the City. The City shall preserve and protect existing and future school sites, to the greatest extent practical, from excessive noise and traffic conditions and ensure compatible surrounding land uses.

Critical Intersections

At the discretion of the City Engineer, the City of Rancho Mirage shall require improvements at "critical intersections" beyond those necessary to meet the adopted level of service performance standard. The "critical intersections" identified within the *City of Rancho Mirage General Plan* represent locations where ideal roadway configurations would provide three through lanes, dual left-turn lanes, and a single dedicated right-turn lane on each approach. As a result, these intersections are expected to require additional right-of-way to accommodate full-width roadway improvements. Those "critical intersections" involving major arterials designated as scenic corridors in the *Rancho Mirage General Plan* may be required to dedicate right-of-way beyond that associated with the typical cross-section associated with the facility classification and prepare streetscape plans incorporating landscaping consistent with the standards in the Community Design Element of the *City of Rancho Mirage General Plan*.

Congestion Management Program (CMP)

The Congestion Management Program (CMP) is intended to link land use, transportation, and air quality with reasonable growth management methods, strategies and programs that effectively utilize new transportation funds to alleviate traffic congestion and related impacts. The Riverside County Transportation Commission (RCTC) is the designated Congestion Management Agency (CMA) that prepares the Riverside County Congestion Management Program updates in consultation with local agencies, the County of Riverside, transit agencies and sub-regional agencies like the Coachella Valley Association of Governments (CVAG).

The CMA provides a uniform database of traffic impacts for use in countywide transportation computer models. To analyze traffic impacts associated with development proposals or land use plans, the RCTC has recognized use of the Riverside County Traffic Analysis Model (RIVTAM) and other models. The methodology for measuring levels of service (LOS) must be that contained in the *Highway Capacity Manual*. Traffic standards must be set no lower than LOS E for any segment or intersection on the CMP system unless the current LOS is lower (i.e., LOS F).

The RCTC has designated a system of highways and roadways to include (at a minimum) all State Highway facilities within Riverside County and a system of principal arterials as the Congestion Management System (CMS). All State Highways within Riverside County have been designated as part of the CMP System of Highways and Roadways. The following facilities are designated as part of the Riverside CMP System of Highways and Roadways in the Coachella Valley:

- Interstate 10 (San Bernardino County line to State line);
- State Route 111 (Interstate 10 to Imperial County line);
- Ramon Road (Interstate 10 to State Route 111); and
- Monterey Avenue (Interstate 10 to State Route 111).

The 2011 level of service screening analysis in the CMP found that Interstate 10 is operating at LOS C with a peak hour traffic volume (in both directions) of 7,521 vehicles per hour at Date Palm Drive and 8,758 vehicles per hour between Ramon Road and Monterey Avenue. Ramon Road, west of Bob Hope Drive, was evaluated and determined to be operating at LOS C with 2,435 vehicles in the peak hour (both directions). Ramon Road, east of Bob Hope Drive, was identified as operating at LOS F with a peak hour two-way volume of 2,781 vehicles per hour. This unacceptable level of service was attributed to the construction activities associated with the Interstate 10 interchange at Bob Hope Drive.[3]

Per the adopted Level of Service standard of "E", when a Congestion Management System (CMS) segment falls to LOS F, a deficiency plan must be prepared by the local agency where the deficiency is located, following coordination with other agencies identified as contributors to the deficiency. The deficiency plan must contain mitigation measures (including TDM strategies and transit alternatives) and a schedule for mitigating the deficiency. RCTC will prepare deficiency plans when deficiencies are identified by local jurisdictions on the State Highway System.

When the I-10 interchange construction at Bob Hope Drive was completed and travel patterns returned to normal in 2012, the traffic volume on Ramon Road, east of Bob Hope Drive, decreased by 56 percent to 1,218 vehicles per hour and the peak hour LOS improved to acceptable levels. Consequently, a deficiency plan will not be required for Ramon Road, west of Bob Hope Drive.

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3 VRPA Technologies, Inc.. *2011 Riverside County Congestion Management Program;* December 14, 2012.

Transportation Uniform Mitigation Fee (TUMF) Program

The Coachella Valley Association of Governments (CVAG) has developed a Transportation Uniform Mitigation Fee (TUMF) program that compliments the objectives of the Congestion Management Program (CMP). The member agencies of CVAG collect a uniform development impact fee to help fund construction of the regional system of roads, streets, and highways (excluding state or federal highways) needed to accommodate growth in the region.

The TUMF program is a component of the Measure "A" sales tax approved by Riverside County voters in 1988 and effective through the year 2039. Measure A and the TUMF program help fund the construction of the regional system of roads, streets, and highways to accommodate growth in the region. Transportation-related improvement projects partially funded by the TUMF program include: arterial street construction, street widening, intersection enhancements, and freeway interchange improvements. Regional transportation funds are meant to supplement, not replace local revenues and/or developer contributions required for approved regional road construction projects. CVAG members that participate in the TUMF and the Multiple Species program pay 25 percent of the cost of eligible regional transportation projects while CVAG pays 75 percent.

CVAG follows the protocol outlined in the *Coachella Valley Regional Arterial Program Policy and Procedures Manual* (Updated January 27, 2014), which details the process to be followed by Lead Agencies seeking Measure "A" and TUMF revenues for eligible transportation-related improvement projects. The revenues distributed by CVAG include the Measure "A" sales tax, TUMF collected by CVAG member agencies, and state and federal funding. Lead agencies submitting projects for review and funding through the CVAG Regional Arterial Program must document the project limits, the need for the improvement, and the cost of project design and construction (including right-of-way acquisition, preliminary engineering, alignment and traffic studies, administration, and project management). The CVAG *Regional Arterial Cost Estimate* (RACE) is updated periodically for use in estimating improvement costs.

CVAG uses the ranking identified in the latest version of the *Transportation Project Prioritization Study* (TPPS) to allocate the available funding to eligible projects within the Coachella Valley that would meet demonstrated transportation needs. The four primary criteria applied to determine funding priorities include: surface road conditions, system continuity considerations, the level of service, and the accident rate. Additional criteria that may increase the priority of an improvement project include: (1) an improvement cost of less than $1 million; (2) an improvement involving a roadway segment crossing the Whitewater River or a major tributary; (3) project readiness (i.e., right-of-way available, environmental document approved, agency funds reserved, plans and specifications complete); and (4) an improvement that represents a backbone level project (i.e., it is integral to the continued and future development of an area). A lower ranked project in the TPPS receiving "outside funds" may be moved up the priority list, provided it would be of sufficient benefit to the region.

Regional Transportation Improvement Plans

SCAG is responsible for preparing the 2012 Regional Transportation Plan to address requirements set forth in SB 375. The Regional Transportation Plan (RTP) is a multi-modal long-range planning document prepared by SCAG. It involves coordination with federal, state and other regional, sub-regional, and local agencies in southern California. The RTP is prepared every three years and reflects the current future horizon based on a 20-year projection of future needs. It includes programs and policies for congestion management, transit, bicycles, pedestrians, roadways, freight, and finances. It is used as a long-range plan for federally funded transportation projects.

The Capital Improvement Program (CIP) is a 7-year program including all regional and local capital improvement projects that maintain or improve the LOS for traffic and transit and conform to transportation-related emission air quality mitigation measures. Currently, regional projects are programmed in the Riverside County Transportation Improvement Plan (TIP), while locally funded projects (off the State Highway System) are identified in local agency CIPs. To comply with CMP Statutes, CIP requirements shall be the same as and accomplished through the RCTC TIP development process. Projects in the CIP may be incorporated into the Regional Transportation Improvement Program (RTIP) for the programming of Flexible Congestion Relief (FCR) and Urban and Commuter Rail funds.

The *2010 Update CVAG Transportation Project Prioritization Study*[4] includes the Da Vall Drive interchange at I-10 as a buildable project with relatively low priority (ranked 79th). It would require roadway improvements between Vista Chino and Varner Road, including a bridge over the Union Pacific Railroad and a bridge at the Long Canyon Channel, in addition to the interchange improvements. These improvements would exceed $91,000,000 and not be initiated until 1.5 billion dollars

[4] KOA Corporation. *2010 Update CVAG Transportation Project Prioritization Study;* November 2010.

in other roadway improvements were completed by CVAG. The widening of Da Vall Drive, north of Ramon Road, to its ultimate cross-section is also a buildable project (designated B-419) in the 2010 TPPS. It is ranked 88th of 247 buildable projects and has a score of 9.3 points. The cost associated with the widening of Da Vall Drive, between Ramon Road and Vista Chino, was estimated to be $24,025,032 in the 2010 TPPS.

Existing TSM Programs

There are no Transportation System Management plans in effect in the study area at present. No transit stations or park-and-ride facilities currently exist in the vicinity.

3.6 Alternative Transportation Modes

Public Transportation

The Sunline Transit Agency provides fixed-schedule bus service (SunBus) between local communities and on-demand transportation (SunDial) for individuals with disabilities. The SunLine Transit Agency provides public transportation for 3.5 million passengers annually. A fleet of low-emission buses operate on seven days per week (excluding Thanksgiving and Christmas) along the fourteen fixed-schedule SunBus transit routes to provide public transportation service to nine cities and five communities within the Coachella Valley.

SunBus Line 32 provides service between the Palm Springs Air Museum (on Gene Autry Trail) and the Palm Desert Civic Center. Popular destinations served by Line 32 include: the Agua Caliente Casino Resort Spa, the College of the Desert, the Eisenhower Medical Center and the Westfield Palm Desert shopping center. Line 32 is located on Ramon Road, between Date Palm Drive and Monterey Avenue. This portion of SunBus Line 32 is adjacent to the northern site boundary. Buses on Line 32 operate between 5:02 AM and 10:46 PM on weekdays with 50-minute headways. On Saturdays and Sundays, the buses on Line 32 operate between 6:54 AM and 10:48 PM with one-hour headways.

Transit stops for westbound buses are currently located along the north side of Ramon Road: (1) west of Rattler Road, near Rancho Mirage High School, and (2) approximately 180 feet west of Bob Hope Drive, near the northeast corner of the project site. Transit stops for eastbound buses are also located along the south side of Ramon Road: (1) approximately 880 feet east of Da Vall Drive, at the Braille Institute, and (2) approximately 160 feet east of Bob Hope Drive, at the Agua Caliente Casino Resort Spa.

Line 32 operates along Monterey Avenue (between Ramon Road and Dinah Shore Drive), along Dinah Shore Drive (between Monterey Avenue and Bob Hope Drive), and along Bob Hope Drive (south of Dinah Shore Drive). At the intersection of Bob Hope Drive and Dinah Shore Drive, SunBus Line 32 is located closest to the southeast corner of the project site. Two existing transit stops for Line 32 are located near this intersection. For eastbound buses (i.e., those traveling from Palm Springs to the City of Palm Desert) a transit stop is located on the west side of Bob Hope Drive, approximately 120 feet south of Dinah Shore Drive. For westbound buses (i.e., those destined for the City of Palm Springs from the City of Palm Desert) a transit stop is located on the south side of Dinah Shore Drive, approximately 300 feet east of Bob Hope Drive.

SunLine Transit Agency buses are wheelchair accessible and have bicycle racks that can accommodate either two or three bicycles and are convenient for cyclists to use. Bike racks are proposed by SunLine Transit at select bus stop locations within the City of Rancho Mirage. One of these locations is within the study area, just west of the intersection of Monterey Avenue and Dinah Shore Drive (at Stop #939). Buses traveling from Palm Springs and Palm Desert on Line 32 would stop near these bicycle racks, which would be located on the far side of the intersection of Shoppers Lane and Dinah Shore Drive. No bicycle commuter showers or clothing lockers are currently located within the City of Rancho Mirage. The City currently has no requirements for bicycle amenities.[5]

No transit stations or park-and-ride facilities currently exist in the City of Rancho Mirage. The *Section 19 Specific Plan* included a potential site adjacent to the Union Pacific Railroad corridor for the future development of a multi-modal transit center. The future plans for the *Section 13 Specific Plan* area also included a possible site for a future multi-modal transit center adjacent to the Union Pacific Railroad corridor.

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5 Ryan Snyder Associates, LLC and Urban Crossroads. *Final CVAG Non-Motorized Transportation Plan Update*; September, 2010.

The SunLine Transit Agency contracts with a private provider for SunDial, a door-to-door dial-a-ride service. SunDial is a demand response service designed to serve seniors and those with disabilities on an appointment basis between 8:30 a.m. and 9:00 p.m. on weekdays, and between 8:30 a.m. and 4:00 p.m. on weekends. In addition to SunDial, a subscription-based transit service is available through agencies serving people with disabilities who need regular repetitive trips.

Golf Carts and NEVs

Residents of Rancho Mirage use golf carts for more than transportation on individual golf courses. Golf carts are used for access between residences and the golf courses in adjacent neighborhoods. They are also used for local trips made between residences and commercial and medical facilities, the City Hall, and golf cart paths in adjoining cities. Golf carts are legally restricted to designated pathways and roadways within Rancho Mirage with speed limits that do not exceed 35 mph and can be operated at no more than 20 mph. Figure 3-9 shows the existing and future City of Rancho Mirage golf cart circulation system.

The California Vehicle Code (CVC) defines golf carts as vehicles designed to operate at a maximum speed of 15 mph and states that golf carts can be driven only on roadways with posted speed limits of up to 25 mph except in cases where travel on roadways with higher speed limits is permitted by ordinance or resolution of a local authority. The CVC defines Neighborhood electric vehicles (NEVs) as vehicles that can reach speeds of 20 to 25 mph within one mile. NEVs may be operated on any roadway with a posted speed limit of 35 mph or less and may cross at intersections that have a higher speed limit than 35 mph.

Like bikeways, golf cart paths have three classifications (Class I, Class II, and Class III). Class I paths are completely separated from the roadway used by motor vehicles. Class I facilities are for shared one-way or two-way use by golf carts, bicyclists, and pedestrians and are incorporated in Class I bikeways. Class II golf cart facilities provide a striped lane on a street or highway for one-way golf cart and bicycle travel. Class III facilities are established by placing "Golf Cart Route" signs along roadways with speed limits of 25 mph or less to provide linkages to Class I or Class II facilities.

Non-Motorized Transportation

Bicycling, walking and equestrian transportation modes represent non-motorized alternatives to the automobile. Bikeways and pathways are used by a wide variety of people including children on their way to and from school, commuters riding to and from work, and people exercising, racing or touring. While recreational riders seek routes leading to parks, through areas of interest, or racing circuits, commuters want the shortest, fastest, and safest route between two points.

Bikeways

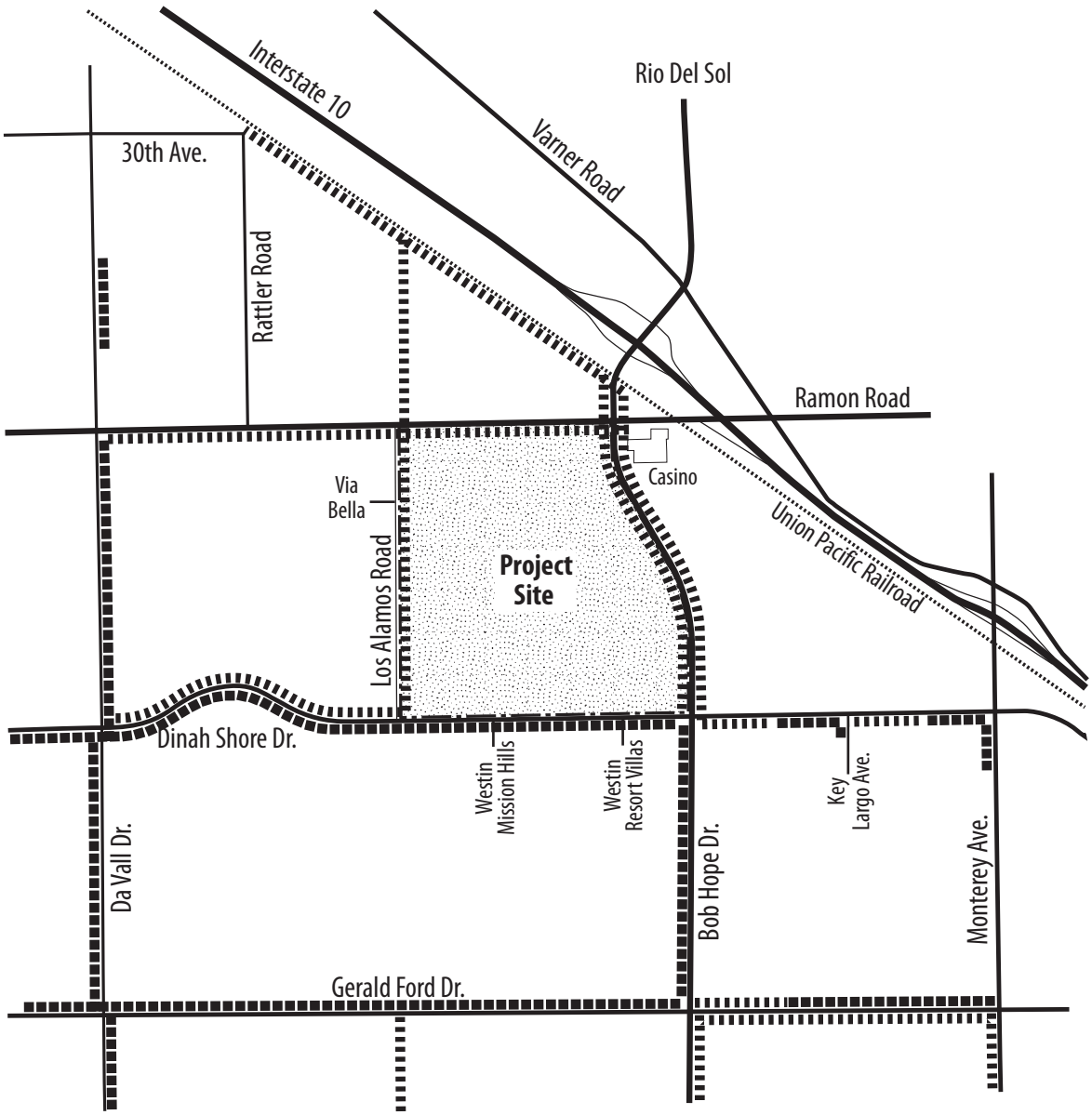
Caltrans standards are used to design bikeways by most jurisdictions throughout California. The City of Rancho Mirage adheres to Caltrans bikeway standards. Bike lanes on existing roadways should conform to Caltrans standards or be upgraded to meet Caltrans standards. These standards apply to three different classifications of bicycle facilities: Class I, Class II, and Class III bikeways.

A Class I Bikeway is a bike path that provides for bicycle travel on a right-of-way completely separated from any street or highway. The paths may be located along alignments parallel to streets or unrelated alignments as long as there is no encroachment from motor vehicle or pedestrian traffic except at grade intersections. A Class II Bikeway is a bike lane that provides a striped lane for one-way bike travel within the paved area of a street or highway. These bike lanes are within an exclusive right-of-way designated for use by bicyclists. However, cross traffic is permitted for driveway access. A Class III Bikeway is a bike route in which both bicycle and motor vehicle traffic share the same roadway surface area. The route is marked with signs or stenciled lettering on the pavement identifying the roadway as part of a bikeway system.

Existing Bikeways

Within the City of Rancho Mirage, Class I bikeways are typically a combined meandering sidewalk and bike path within the landscaped parkway along arterial streets. Most of the arterial streets within the City have a roadbed of sufficient width to allow for a four-foot wide Class II bike lane along the curb. The Conservation and Open Space Element states that Class III bike routes are not recommended for Rancho Mirage except: (1) where Class I and II facilities are not feasible and an essential regional bike route connection is desired, or (2) where Class I and Class II facilities are not warranted due to lesser roadway classifications.

Figure 3-9
City of Rancho Mirage
Bicycle/Golf Cart/Pedestrian Paths



Endo Engineering

Source: *City of Rancho Mirage General Plan* (Revised November 2005)

Scale: 1" = 3,200'

The combined length of the existing bikeways within the City of Rancho Mirage totals approximately 16.6 miles. The existing bikeways have been funded by the City with General Funds or Development Impact Fees (DIF). The following Class II bikeways exist within the study area.

- A Class II bikeway extends 4.7 miles along the east side of Bob Hope Drive, from Ramon Road south to Sunrise Drive.
- A Class II bikeway extends 2.0 miles along Gerald Ford Drive from Los Alamos Road to Monterey Avenue.
- A Class II bikeway extends 1.7 miles along Ramon Road from the western city limit to Bob Hope Drive.
- A Class II bikeway extends 0.4 miles along Los Alamos Road, south of Gerald Ford Drive to Sunny Lane.
- A Class II bikeway is located on the west side of Bob Hope Drive, south of Cherry Hills Drive to Sunrise Drive.
- A Class II bikeway is located on Monterey Avenue, between Dinah Shore Drive and Gerald Ford Drive.

The City of Rancho Mirage has bicycle parking at the following locations: the Monterey MarketPlace, the southwest corner of Monterey Avenue and Dinah Shore Drive, the City Hall, The River Shopping Center, the Library, the Eisenhower Medical Center, the Pavilions Shopping Center (southwest corner of the Bob Hope Drive/Gerald Ford Drive intersection), the southwest corner of the Monterey Avenue intersection with Country Club Drive, Whitewater Park.

A sidewalk/golf cart/bicycle path exists on Da Vall Drive, from Dinah Shore Drive north beyond Ramon Road. It terminates south of 30th Avenue. A sidewalk/golf cart/bicycle path also exists on Ramon Road, between Da Vall Drive and Los Alamos Road. A sidewalk/golf cart/bicycle path exists on the south side of Dinah Shore Drive from Plumley Road to Bob Hope Drive.

Future Bikeways

The City of Rancho Mirage has proposed ten bikeway projects for inclusion in the *CVAG Non-Motorized Transportation Plan* that would supplement the existing bikeways by a total of 11.3 new miles of bikeways. The following bikeway projects are proposed within the study area.

- A Class I bikeway project 0.7 miles in length is proposed along the Union Pacific Railroad corridor from the northern city limit to the eastern city limit. This facility is estimated to cost $700,000.
- A future one-mile long Class II bikeway project is proposed along Da Vall Drive, from Ramon Road to Dinah Shore Drive, with an estimated cost of $50,000.
- A future 3.1-mile long Class II bikeway project is proposed along Dinah Shore Drive, from Da Vall Drive to Monterey Avenue, with an estimated cost of $155,000.
- A future 1.5-mile long Class II bikeway project is proposed along Gerald Ford Drive, from Plumley Road to Los Alamos Road, with an estimated cost of $75,000.

A bicycle parking program project is proposed with an estimated cost of $25,000. New bicycle parking will be added by the property owners at the intersection of Dinah Shore Drive and Bob Hope Drive and at the Agua Caliente Casino Resort Spa (on the southeast corner of the intersection of Bob Hope Drive and Ramon Road). The Section 24 Specific Plan will be developed on the opposite side of the street from these bicycle parking areas. Bikeways proposed in conjunction with Section 24 Specific Plan (along Ramon Road, Bob Hope Drive, and Dinah Shore Drive) will make these bicycle parking areas accessible to future residents of Section 24.

The bikeway and trail system *identified in the Western Coachella Valley Area Plan* (October 2003) includes future Class I bike paths at three locations within the study area. These locations include: the north side of Interstate 10, along Ramon Road, and along Bob Hope Drive. A Class I bikeway is a bike path that provides for bicycle travel on a right-of-way completely separated from any street or highway. The paths may be located along alignments parallel to streets or unrelated alignments, as long as there is no encroachment from motor vehicle or pedestrian traffic, except at grade intersections.

Multi-Purpose Trails

The County of Riverside has pedestrian and multi-purpose trails that accommodate hikers and others as an integral part of the circulation system. These trails connect communities and activity centers and also provide recreational and leisure opportunities.

The City of Rancho Mirage encourages pedestrian and non-motorized transportation by making provisions for sidewalks, bike lanes, and multi-use trails within roadway designs and rights-of-way. Alternative transportation corridors enhance and provide a range of mobility options for residents and visitors. The City encourages developments to consider pedestrian safety and accommodate safe routes which are clearly marked and striped. They should be designed as one-way routes to flow in the same direction as the adjacent automobile traffic. Combination sidewalk/bikeway/golf cart paths require a minimum eight-foot width. Figure 3-9 shows the existing and future pedestrian path circulation system. As shown therein, future sidewalk/bikeway/golf cart paths are planned on the perimeter of the project site (along Ramon Road, Bob Hope Drive, and Los Alamos Road) in the *Rancho Mirage General Plan* that would link with the integrated system being developed throughout the study area.

The *Public Rights-of-Way Accessibility Guidelines* require that when new pedestrian facilities are planned in the United States, they must be accessible and usable by persons with disabilities (including physical, visual, hearing or cognitive impairments).[6] This includes provisions for curb ramps and sidewalks where appropriate. These guidelines consider pedestrian facilities to include: sidewalks, shared-use paths, shared streets, and off-road paths.

In accommodating pedestrians with disabilities, auditory, tactile, and kinesthetic information may be required to aid pedestrian movements at intersections and mid-block crossing locations. Treatments may include accessible pedestrian signals, audible signals, and other wayfinding cues. Ramps rather than stairs, curbs, or raised channelizing islands can enhance the mobility of people with disabilities including pedestrians with visual impairments.

3.7 Mobility for Persons With Special Needs

Older drivers may have age-related diminished capabilities with the potential to impact the safety and efficiency of the street system. To better meet the needs and capabilities of older street users, their special needs should be considered in street design, traffic control, and lighting design. Appropriate enhancements and design measures can improve their performance.

Pedestrians include a person walking, a person in a wheelchair, on skates, or on a skateboard. Long crossing distances and high vehicle speeds generally discourage pedestrians. A mix of land uses and pedestrian-scale lighting provide a sense of comfort. Pedestrian facilities include sidewalks and curb cuts; crosswalks; traffic control features (pedestrian signals); and ramps for older walkers, bicycles, and persons with mobility impairments. They may also include bus stops; passenger loading areas; amenities (benches and shelters); and stairs, escalators or elevators linked to these facilities. Audible pedestrian signals and tactile ramp and crosswalk materials to aid the visually impaired may be required for persons with disabilities.

Pedestrians tend to walk in a path that has the shortest distance between two points. They resist changes in grade or elevation when crossing roadways and tend to avoid using special underpass or overpass facilities. Pedestrians will typically not walk more than one mile to work or walk more than 0.5 mile to catch a bus. Pedestrian volumes peak at noon, rather than at the morning and evening peak commuter times. Older pedestrians may be affected by limitations in sensory, perceptual, cognitive, or motor skills. In areas where there are many older people, an average walking speed of 2.8 feet per second should be considered for use in design.

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6 *Public Rights-of-Way Accessibility Guidelines (draft)*. Washington, DC: U.S. Access Board, 2005. Accessible via www.access-board.gov/prowac/draft.htm.

4.0 PROJECTED TRAFFIC

A period of 20 years is widely used as a basis for design. Estimating traffic beyond this period is usually not justified because of probable changes in the regional economy, population, and land development along the roadways, which cannot be predicted with any degree of assurance.[1] Although no time frame has been established for development within the Section 24 Specific Plan area after the initial phase, project completion was assumed for the purposes of this analysis to occur in the horizon year 2035, the future year for which travel demand within the study area can be projected by the approved regional traffic model (RIVTAM).

4.1 Analysis Periods and Horizon Years Evaluated

To identify the potentially significant traffic impacts of a project and the corresponding design and mitigation requirements, the trip-generation rates for different days and time periods must be examined to determine when the trip generation associated with the development will peak. The peaking characteristics of the adjacent street system must also be examined to correctly identify and select the appropriate time period for analysis. The time period that should be analyzed is that in which the combination of site traffic and adjacent street traffic is at its maximum.

In most cases, the trip generation rates reflecting the morning and evening peak hours of the adjacent street system are used for the impact evaluation. These rates reflect the highest volume hour between 7:00 A.M. and 9:00 A.M. and between 4:00 P.M. and 6:00 P.M. However, some land uses generate trips that peak at different times than the adjacent streets. Examples include theaters, churches, schools, and industrial uses with shifts that end at 3:00 P.M. Hotels, construction sites, and golf course maintenance facilities often have shifts that end at 3:00 PM.

Several schools are located within the study area including two high schools. School traffic tends to exhibit a relatively sharp peak over the twenty-minute period immediately before classes begin for the day and after the school day ends. The school day begins at 8:00 A.M. on 136 days per year at the Rancho Mirage High School. On 37 Wednesdays per year, collaboration time begins at 7:45 A.M. and Period 1 begins at 9:05 A.M. These start times result in school traffic peaking during the same hours that commuter travel peaks (i.e., between 7:00 A.M. and 9:00 A.M. on weekdays). The school day ends at 2:55 P.M., before the evening commuter traffic flows on Ramon Road reach their peak.

Time Period Selected For Analysis

Site traffic volumes vary with the type and intensity of the proposed development. For example, office uses generate relatively little weekend traffic but high entering volumes in the morning and high exiting volumes during the afternoon or evening on weekdays. Residential land uses generate trips with little day-to-day variation but the opposite directional distribution, with high outbound traffic volumes during the morning and high inbound traffic volumes during the evening on weekdays. Traffic peaks occur at large regional shopping centers during the evening on weekdays but during the midday on weekends.

The development proposed would include up to 2,406 residential dwelling units and 3,138,600 feet of non-residential development. The exact scale, size, and composition of the tourist-oriented commercial, local-serving retail, office, entertainment, and hotel uses within the mixed-use non-residential areas of the Section 24 Specific Plan have not been determined but will be developed in a manner designed to promote complementary and synergistic relationships between the various uses. Each of the proposed land use types will generate trips with a unique profile that peak at slightly different times of the day, on different days of the week, and with different percentages of inbound versus outbound trips during the peak hours. Each trip involves a vehicle movement in one direction, either entering or leaving an individual land use, that must be accommodated by the surrounding street system as well as the access intersections and the internal streets.

The number of trips generated by the proposed residential and non-residential uses will vary by season and peak during the winter months, when tourists and visitors are attracted to the area by its mild climate, natural beauty, and numerous recreational opportunities. The tourist season in the Coachella Valley extends from October through May, with the peak occurring in January. The seasonal influx of part-year residents ("snow birds" from Canada and areas within the northern United States with cold climates) that begins in October reverses by April. Both the tourist population and the number of part-year seasonal residents decrease substantially after April.

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[1] AASHTO. *A Policy on Geometric Design of Highways and Streets*. 1994. pp 61.

When all of the trips generated by the various proposed land uses are combined, the composite trip-making pattern is expected to exhibit characteristics similar to the background traffic in the study area in terms of its seasonal, daily, peak hour, and directional distribution. Therefore, the conditions selected for analysis included the peak morning and evening commuter travel hours on the adjacent streets on typical weekdays during the peak season. Although commercial and residential development will also generate traffic peaks during the midday on weekends, the absence of commuter traffic on the adjacent streets at that time makes it less critical from a traffic impact perspective.

When combined, the traffic generators proposed within the Section 24 Specific Plan area are expected to generate the highest volume of traffic on the roadways abutting the site on weekday mornings (between 7:00 A.M. and 9:00 A.M.) and evenings (between 4:00 P.M. and 6:00 P.M.). Since many retail land uses are not open for business in the morning between 7:00 A.M. and 9:00 A.M., the traffic volumes generated by the site on weekdays are expected to be higher during the evening peak hour than the morning peak hour. The residential land uses for senior adults in the initial phase would generate fewer trips during the morning peak hour than conventional single-family detached residential uses for larger families, which generate more trips to school and work on weekday mornings.

Horizon Years and Development Scenarios Evaluated

The initial phase of the proposed project would include the construction of up to 1,200 single-family residential dwelling units within a gated community for active adults aged 55 and above. This phase of the development would occur over a period of six to eight years and be completed in the year 2022. Although a timeframe has not been established for implementation of the development proposed within Planning Areas 1 through 7, buildout of the entire project was assumed to occur by the horizon year 2035. Consequently, the key intersections were evaluated with and without the proposed project at three different points in time. These include: (1) the existing year 2013, (2) the near-term year 2022, when the initial phase is completed, and (3) the long-term horizon year 2035, when the site development is completed.

The peak season during the year 2013 was evaluated as the existing baseline condition, based on new traffic counts made at each of the key intersections on November 6, 2013 that were expanded by five percent to reflect peak season conditions. The near-term future year 2022 conditions were evaluated to identify potential impacts and mitigation when the initial phase of development is completed. The long-term future horizon year 2035 conditions were evaluated based on future travel demand forecasts produced by the regional transportation model developed for Riverside County in association with SCAG to determine if the future circulation system planned for the study area can accommodate site traffic as well as the cumulative travel demands generated by all future development anticipated by city and county general plans and the SCAG regional growth forecasts.

For each development scenario, peak season morning and evening peak hour conditions were evaluated to establish whether or not mitigation would be required to achieve the applicable intersection performance standards. The development scenarios assessed included the following:

- Existing Conditions;
- Existing Plus Initial Phase Conditions;
- Existing Plus Project Buildout Conditions;
- Future Year 2022 Through Traffic Conditions;
- Future Year 2022 Plus Initial Phase;
- Horizon Year 2035 Through Traffic Conditions; and
- Horizon Year 2035 Plus Project Buildout Conditions.

Existing conditions with and without site traffic volumes generated by the initial phase were evaluated to assess conditions prior to the addition of traffic generated by cumulative developments. The existing+project buildout scenario assumed no traffic growth other than the site traffic volumes. All of the future scenarios evaluated included growth in background traffic projected by RIVTAM. The near-term year 2022 scenarios also included cumulative traffic generated by two projects within the study area.

Future year 2022 (near-term) traffic conditions at the key intersections were evaluated with and without the site traffic associated with the initial phase of the proposed project. The intermediate year 2022 “through” traffic volumes were developed from the existing and horizon year 2035 “through” traffic projections by interpolation, assuming a geometric growth rate. Cumulative traffic generated by two cumulative projects within the study area identified by the City of Rancho Mirage was also added to the near-term through traffic projections.

Future horizon year 2035 traffic conditions were evaluated with and without the site traffic associated with buildout of the proposed project. RIVTAM traffic projections reflecting buildout of the proposed project were needed to determine whether the regional roadway network shown in the Circulation Plan of the *Riverside County General Plan* and the Rancho Mirage 2005 General Plan would provide acceptable levels of service with project buildout traffic volumes in the horizon year 2035.

4.2 Site Traffic Projections

Riverside County General Plan Trips

The Land Use Element of the *Riverside County General Plan* designations for the 577 gross acres within the project site are shown in Table 2-1. A total of 240 gross acres within the project site are designated Medium Density Residential (which allows 2 to 5 dwelling units per acre) in the Land Use Element of the *Riverside County General Plan.* Up to 1,200 single-family detached dwelling units would be allowed by this designation. Based upon the ITE *Trip Generation* rates for conventional single-family detached housing (Land Use Code 210) these 1,200 dwellings have the potential to generate approximately 10,230 weekday trips.

The *Riverside County General Plan* also designates 120 acres of the site as Commercial Retail (CR) and 257 gross acres as Commercial Tourist (CT). RIVTAM reduces the gross acreage by 25 percent to estimate the net acreage. With 252.75 net acres and a maximum FAR of 0.35, the maximum gross floor area (GFA) allowed for commercial land uses would be 3,853,427 square feet. RIVTAM uses the project-related population, number of households, and employment (jobs) as factors in estimating the project-related weekday trip generation. Assuming an employment density of 500 square feet per employee, the number of jobs associated with the maximum allowed non-residential development per the *Riverside County General Plan* designations would be 7,707 jobs.

The maximum proposed non-residential building floor area would be 18.6 percent less than the maximum allowed by the *Western Coachella Valley Area Plan*. Since the number of trips generated would be a function of the total size of the non-residential building floor space developed, the proposed project would be expected to generate approximately 18.6 percent fewer non-residential weekday trips than the maximum allowed by the *Riverside County General Plan*. Assuming the weekday trip-generation rate for shopping centers from the regression equation in *Trip Generation* (ITE, 2008), the commercial uses allowed within the site by the *Riverside County General Plan* could generate up to 78,330 weekday trips. The combined residential and commercial trip generation would total 88,560 weekday trips (prior to internal trip capture and pass-by trip reductions).

City of Rancho Mirage General Plan Trips

Assuming the *Rancho Mirage General Plan* average household size of 2.97 for R-M and 1.95 for R-H, the 2,007 dwelling units permitted by the 414 net acres designated R-M and the 39 acres designated R-H within the project site could add up to 5,603 new residents to the City of Rancho Mirage. Based on the trip-generation rates in ITE *Trip Generation*, 2007 dwelling units would have the potential to generate approximately 15,680 weekday trips.

The 75 net acres designated C-C would permit up to 1,143,450 square feet of GFA, assuming the maximum FAR of 0.35. With an employment density of 500 square feet per employee, a total employment of 2,287 would result from the development of the site. Based on the trip-generation rates in ITE *Trip Generation*, a community commercial shopping center with 1,143.45 TSF would have the potential to generate approximately 33,100 weekday trips.

The weekday trip generation associated with the maximum permitted residential density and the non-residential community commercial portion of the site would be 48,780 weekday trips. This total represents “unadjusted” trips, prior to reductions for internal trip making between the residential and commercial components and without pass-by trip reductions.

Site-Generated Trips With Proposed Project

The Institute of Transportation Engineers (ITE) publication *Trip Generation* (8th Edition; December 2008) is the principal source of trip-generation rates for site traffic analysis. The procedures and guiding principles outlined in *Trip Generation Handbook - An ITE Recommended Practice* (March, 2001) were employed to identify appropriate trip-generation rates, based upon the weighted averages and, where appropriate, the regression equations developed by the ITE.

While site-specific conditions like the availability of transit and walk-in traffic can result in different vehicular trip-generation rates, the practice of making adjustments to the rates for small differences in auto occupancy or transit usage is questionable, given the precision of the measurement of the ITE trip-generation rates and their day-to-day variation. Therefore, no transit usage or auto occupancy adjustments were made to the ITE trip-generation rates.

While this results in a "worst case" analysis, as required by CEQA, it is not meant to imply that alternative modes of transportation would not play an important role in future trip-making within the project site. The *2004 CVAG Origin Destination Survey* found that less than one percent of the trips in the region were completed using public transportation but residents in multi-family housing were twice as likely to use public transportation than residents of single-family housing. Approximately 4 percent of all trips made by the households surveyed were made by walking and one percent were made by bicycle. Residents of non-retired households were four times more likely to walk to their destination than residents of retired households.

Unadjusted Trip Generation

The trip-generation forecast shown in Table 4-1 was developed with the trip-generation rates developed by the Institute of Transportation Engineers (ITE) from data collected at isolated single-use stand-alone developments in suburban settings with little or no transit service and free parking. The ITE considers shopping centers a single land use, even though they may include banks, restaurants, office buildings, health clubs, movie theaters and other recreational facilities. The trip-generation data gathered at the driveways of shopping centers only includes external trips (i.e., those trips with either an origin or a destination located outside of the shopping center). Since the ITE data for shopping centers does not include any internal trips, the trip-generation forecast for a shopping center should not be "adjusted" (i.e., reduced) to reflect trip interactions between the various uses within the shopping center that do not require travel on external streets.

Table 4-1
Unadjusted Weekday Site Trip-Generation Forecast[a]
(Section 24 Specific Plan)

Land Use Category	Land Use Quantity[b]	Morning Peak Hour In	Out	Total	Evening Peak Hour In	Out	Total	Daily 2-Way
INITIAL PHASE								
Residential (Adult Single-Family)	1,200 DU	82	152	234	176	113	289	4,480
ALL SUBSEQUENT PHASES								
Non-Residential (Retail/Mixed Use Core)[c]	3,139 TSF	718	459	1,177	3,137	3,266	6,403	63,800
Residential (Multi-Family Attached)	1,206 DU	64	314	378	310	153	463	5,610
SPECIFIC PLAN BUILDOUT		864	925	1,789	3,623	3,532	7,155	73,890

a. Based upon trip-generation data published by the ITE in *Trip Generation* (8th Edition, December, 2008). The ITE Land Use Codes (LUC) assumed include: LUC 251 for Senior Adult Housing-Detached Residential Dwellings (age 55+); LUC 820 for commercial center uses; and LUC 230 for Multiple-Family Attached Residential uses. ITE trip-generation rates reflect neighborhood commercial centers, community commercial centers, regional and super regional centers with up to 2.3 million square feet of gross leasable area (GLA) in suburban areas within the United States. Some contained non-merchandising facilities such as: office buildings, movie theaters, restaurants, post offices, banks, health clubs, and recreational facilities (e.g., ice skating rinks or indoor miniature golf courses). A shopping center's composition is related to its market area in terms of size, location, and types of stores.

b. DU=Dwelling Units. TSF=Thousand Square Feet of Building Floor Area.

c. The 3,138,600 square feet of non-residential development would include a complementary mix of land uses which could include: retail commercial, entertainment, office, hotel uses within the Planning Areas designated Resort Flex, Mixed Use Core and Retail shown in Figure 2-3.

The morning peak hour trip-generation estimate was based on the rates identified for the highest volume hour between 7:00 A.M. and 9:00 A.M. The evening peak hour forecast was based upon the rates identified for the highest volume hour between 4:00 P.M. to 6:00 P.M. These rates reflect the peak hours of the adjacent street traffic within the study area.

As shown in Table 4-1, the initial phase of development would generate approximately 4,480 weekday trips when completed. Of that total, 234 trips (82 inbound and 152 outbound) are expected to occur during the morning peak hour and 289 trips (176 inbound and 113 outbound) are expected to occur during the evening peak hour. The number of unadjusted trips shown for subsequent phases and project buildout in Table 4-1 must be adjusted (reduced) to reflect trips made on-site, between the residential land uses and the non-residential land uses, that will be "captured" internally and not made on external streets. A reduction in the non-residential trip generation forecast would also be appropriate to account for pass-by trips.

Adjusted Trip Generation

The development of mixed-use projects reduces the trip generation associated with the development below that which is projected directly from the ITE trip-generation rates. When several different land use types are included in a single mixed-use development, the traffic added to the adjacent streets may be less than the sum of the individual trip generation associated with each individual land use code. The reduction is attributable to trips being made by vehicles on internal roadways that remain internal to the proposed development (e.g., between the residential and retail or entertainment uses). The internal trip interactions that occur without using streets external to the project site are counted twice when the trip generation of the individual uses is summed to establish the "unadjusted" trip generation.

Since the precise mix and size of the various non-residential land uses within the project have not been established, the trip generation was estimated by using the ITE trip-generation rates developed from data collected at more than 300 shopping centers ranging in size from neighborhood and community commercial centers to regional and super regional centers. These rates reflect data collected at commercial developments that include a range of non-merchandising facilities. The land uses in shopping centers include banks, small offices, restaurants, and retail stores. The shopping center data was deemed appropriate because it inherently eliminates internal trips made between various uses within the non-residential portion of the Specific Plan. However, adjustments to address the internal trip interactions between the non-residential component of the Specific Plan and the residential component are appropriate and can be made even though the shopping center trip-generation rates were used to develop Table 4-1.

The number of internal trips between the residential land uses and the non-residential within the multi-use site is a function of both the size of the receiving land use (the number of trips attracted to the non-residential development proposed) and the size of the originating land use (the number of trips produced and sent by the proposed residential land uses). The number of internal trips that will be captured within the site will be constrained by the smaller of these two values. An iterative balancing procedure must be utilized to constrain internal trip making estimates to realistic values, based upon the size (scale) and mix (diversity) of the various land uses within the site as well as their proximity, ease of access, and the availability of competing land uses in the surrounding area.

The internal capture rate between the proposed residential and non-residential uses on-site would be limited by the total number of residential trips. Since the residential trips would represent only 13.7 percent of the total site trip generation, a conservative internal capture rate of 15 percent of the residential trips was assumed for this analysis. While the potential exists for the internal capture rate to ultimately be higher than 15 percent, a higher rate could not be justified without more detailed information regarding the size, location, and diversity of the non-residential land uses.

Since the initial phase of development would include only residential development, no internal trip interactions would occur and the trip generation shown in Table 4-1 was assumed for the initial phase of the development. Table 4-2 shows the adjusted trip-generation forecast associated with buildout of the proposed project. The procedure used to remove the internal trips between the residential and non-residential components of the development (trips that that were counted twice in Table 4-1) is summarized in Table 4-2.

The proposed project would generate a combined total of 71,260 adjusted weekday trips (including pass-by trips on abutting roadways). Approximately 2,630 weekday trips are expected to occur between the various land uses proposed within the site using internal pathways. Approximately 68,630 weekday trips are expected to be external trips (i.e., trips with either an origin or a destination that is located off-site) that require travel on roadways that may abut the site but are not located entirely within the proposed development. During the morning peak hour on weekdays, the proposed project would generate a total of 1,677 adjusted trip-ends of which 1,565 would be external trips and 112 would be internal trips. The external trips would include 751 inbound and 812 outbound trips. During the evening peak hour, a total of 6,957 adjusted trip-ends would be generated. Approximately 6,759 would be external trips and the remaining 198 would be internal trips. The external trips would include 3,524 inbound and 3,433 outbound trips.

Table 4-2
Adjusted Weekday Site Trip-Generation Forecast
(Section 24 Specific Plan)

Internal Trip Interactions (Interval and Direction)	Unadjusted Trips[a]	Internal Trips[b]	External Trips	Adjusted Trips
RESIDENTIAL TRIPS (Single-Family Initial Phase)				
- Daily (Two-Way)	4,480	1,170	3,310	3,895
- AM Inbound	82	14	68	75
- AM Outbound	152	28	124	138
- PM Inbound	176	46	130	153
- PM Outbound	113	30	83	98
NON-RESIDENTIAL MIXED-USE TRIPS				
- Daily (Two-Way)	63,800	2,630	61,170	62,485
- AM Inbound	718	86	632	675
- AM Outbound	459	26	433	446
- PM Inbound	3,137	70	3,067	3,102
- PM Outbound	3,266	128	3,138	3,202
RESIDENTIAL TRIPS (Multi-Family Attached)				
- Daily (Two-Way)	5,610	1,460	4,150	4,880
- AM Inbound	64	12	52	58
- AM Outbound	314	58	256	285
- PM Inbound	310	82	228	269
- PM Outbound	153	40	113	133
ALL TRIPS COMBINED				
- Daily (Two-Way)	73,890	5,260	68,630	71,260
- AM Inbound	864	112	752	808
- AM Outbound	925	112	813	869
- PM Inbound	3,623	198	3,425	3,524
- PM Outbound	3,532	198	3,334	3,433

a. Unadjusted trips per Table 4-1, which have not been adjusted to remove trips captured internally that were counted twice.
b. Each value shown was counted twice. Values shown must be reduced by 50 percent, then added to the external trips to identify the adjusted trips with the internal trips included once.

Pass-By Trip Adjustment

Pass-by trips will be attracted from the traffic passing the site on adjacent streets that provide direct access to the proposed non-residential development. Although the intercepted pass-by trips would be turning in and out of the site access points, they would not be new trips on the roadway network. Consequently, they were deducted from the background traffic when the site traffic was assigned to the adjacent roadways. The pass-by trips were included in the traffic volumes entering and exiting the development at the site access points. Pass-by trips must be included in the projected traffic volumes at the site access points to ensure that the design of the access points can accommodate the total number of vehicles expected to enter and exit the site during the peak hours.

The proportion of pass-by trips has been found to decrease with the size of the shopping center. While very large shopping centers (those with more than a million square feet of GLA) have been found to attract as little as 19 percent of their trips from passing traffic, small shopping centers (those with less than 100 T.S.F.) have been found to attract between 51 and 72 percent of their trips from traffic passing on the adjacent roadways.[2] The average pass-by rate for shopping centers is 34 percent.[3]

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2 Stover, Vergil G., Frank J. Koepke. *Transportation and Land Development* (Second Edition), ITE, 2002.

3 Institute of Transportation Engineers. *Trip Generation Handbook - An ITE Recommended Practice;* March 2001. [pp 48-57].

If the non-residential uses proposed are designed to support the surrounding community, approximately 25 percent of the commercial trips could come from pass-by traffic on the adjacent roadways with site access connections. Since the commercial uses anticipated on-site have not been established, a conservative pass-by rate of 15 percent was assumed.

The 68,630 external weekday trip generation shown in Table 4-2 includes an estimated 9,180 daily pass-by trips that would be using the adjacent roadways with or without development within Section 24. Therefore, upon project buildout, the site development would add 59,450 new primary external weekday trips to the through traffic volumes on the surrounding street system. During the morning peak hour on weekdays, the 120 pass-by trips on the adjacent streets, would reduce the number of new primary external trips added to the through traffic volumes on the surrounding street system by the proposed project to 688 inbound and 749 outbound trips. The 920 pass-by trips attracted to the site from the traffic during the evening peak hour on the adjacent streets would reduce the number of new primary external trips added to the surrounding street system by the project to 2,965 inbound and 2,874 outbound trips.

Modal Split

In all neighborhoods some trips are made without using motor vehicles. School-aged children may walk to school or walk to the home of a friend in the neighborhood. Some people walk their dogs while others walk for the health benefits or just to get outside and stretch their legs. Residents may ride bicycles for recreation or to get to and from school or work.

In dense residential neighborhoods and mixed-use commercial neighborhoods, a significant number of trips are made by pedestrians, bicyclists, and motorists who combine stops for several purposes into a single trip. Consequently, mixed-use developments can reduce the number of vehicle trips made external to as well as internal to the neighborhood.

Optimizing land use and transportation planning requires development plans that address the need for homes to be provided in close proximity to schools, retail shops, business centers, and employment opportunities. The provision of complementary land uses within close proximity facilitates the use of travel modes other than private automobiles. People are more likely to walk, cycle, or use public transportation where the available transportation infrastructure makes alternative modes of travel attractive, convenient, and safe. The use of alternative travel modes reduces the demand for roadway capacity.

The trip-generation data published by the ITE is based upon counts of motor vehicle trips associated with single-use developments where virtually all access is by private automobile and all parking is accommodated within the site. The growth of transit services in suburban areas, rising energy costs, and heightened public awareness of climate change and the need to reduce greenhouse gas emissions may affect future trip-generation rates. At the present time, adjustments for modal split are required only when a traffic study is being performed for developments in urban areas like Central Business Districts, where the use of non-automobile modes is significant.

The Coachella Valley Association of Governments (CVAG) *2004 Origin Destination Survey* found that 92 percent of all trips by Coachella Valley residents were made in private passenger cars (automobiles, sport utility vehicles, and pick-up trucks). Less than one percent of the trips in the region were completed using public transportation. Four percent of the trips in the region were completed by walking. One percent of the trips were completed by riding a bicycle. The remaining trips were completed by school buses and other modes. The majority of casino visitors and shopping area visitors travel to the region by car. More than fifty percent of all trips completed by residents of the Coachella Valley region had a vehicle occupancy of one person.

Alternative transportation modes account for less than five percent of all trips generated in the vicinity of the project, and the variations from day-to-day in the future site traffic volumes would exceed five percent. Therefore, a modal split adjustment to reduce the site-generated traffic volumes was not included to ensure that the project-related impacts are not understated.

Site Trip Distribution and Traffic Assignment

The trips generated by the proposed land development are distributed to geographic origins and destinations and then assigned to specific segments of the transportation network. The directional orientation of site traffic is determined by the geographical location of the site and the land uses that will serve as trip origins and destinations. The origin of trips inbound to the site can be affected by the size and type of development attracting the trip, the existing land uses in the surrounding area, the locations of competing developments, and the surrounding population, employment, and roadway conditions.

The CVAG *2004 Origin Destination Survey* identified the following top destinations for Coachella Valley residents:

- La Quinta Wal-Mart / Lowe's / La Quinta High School (42,200 Daily Trips)
- Town Center Mall / Palm Desert College of the Desert (36,600 Daily Trips)
- Palm Desert Costco / Home Depot (19,200 Daily Trips)
- Eisenhower Medical Center (14,100 Daily Trips)
- Palm Springs International Airport (11,900 Daily Trips)

The City of Rancho Mirage attracts 46,600 weekday trips or 6.1 percent of the weekday trips generated by households located throughout the Coachella Valley region. That represents 6.1 percent of all trips generated by the households located within the Coachella Valley. The CVAG *2004 Origin Destination Survey* found that on a typical weekday, the origins of those household trips destined for Rancho Mirage included the following:

- Palm Desert (35%)
- Rancho Mirage (33.7%)
- Palm Springs (10.5%)
- Cathedral City (8.9%)
- Indio(4.3%)
- Indian Wells (3.2%)
- La Quinta (2.4%)
- Desert Hot Springs (2.3%)
- Coachella (0.7%)

The City of Rancho Mirage attracts 7.7 percent of the home-based work trips generated by households in the Coachella Valley. The City of Rancho Mirage attracts 31 percent more home-based work commute trips than the households within Rancho Mirage generate.

Households in the City of Rancho Mirage generate 5.8 percent of the shopping trips in the Coachella Valley region. The City of Rancho Mirage attracts six percent of the household shopping trips generated within the Coachella Valley. The City of Palm Desert attracts 35.4 percent of the household shopping trips. La Quinta and Cathedral City attract 12.3 percent and 12.8 percent, respectively, of the shopping trips made by households within the Coachella Valley.

The City of Rancho Mirage attracts more than twice as many recreational trips than its households generate. Indian Wells attracts 2.5 times the number of recreational trips generated by its households. Approximately 12.2 percent of all of the Coachella Valley household recreational trips are made to destinations within the City of Rancho Mirage.

The City of Rancho Mirage attracts 5.5 times the number of medical trips generated by its households. Rancho Mirage is the top medical destination in the Coachella Valley, capturing 31.9 percent of the home-based medical trips generated within the Coachella Valley.

Site Traffic Assignment

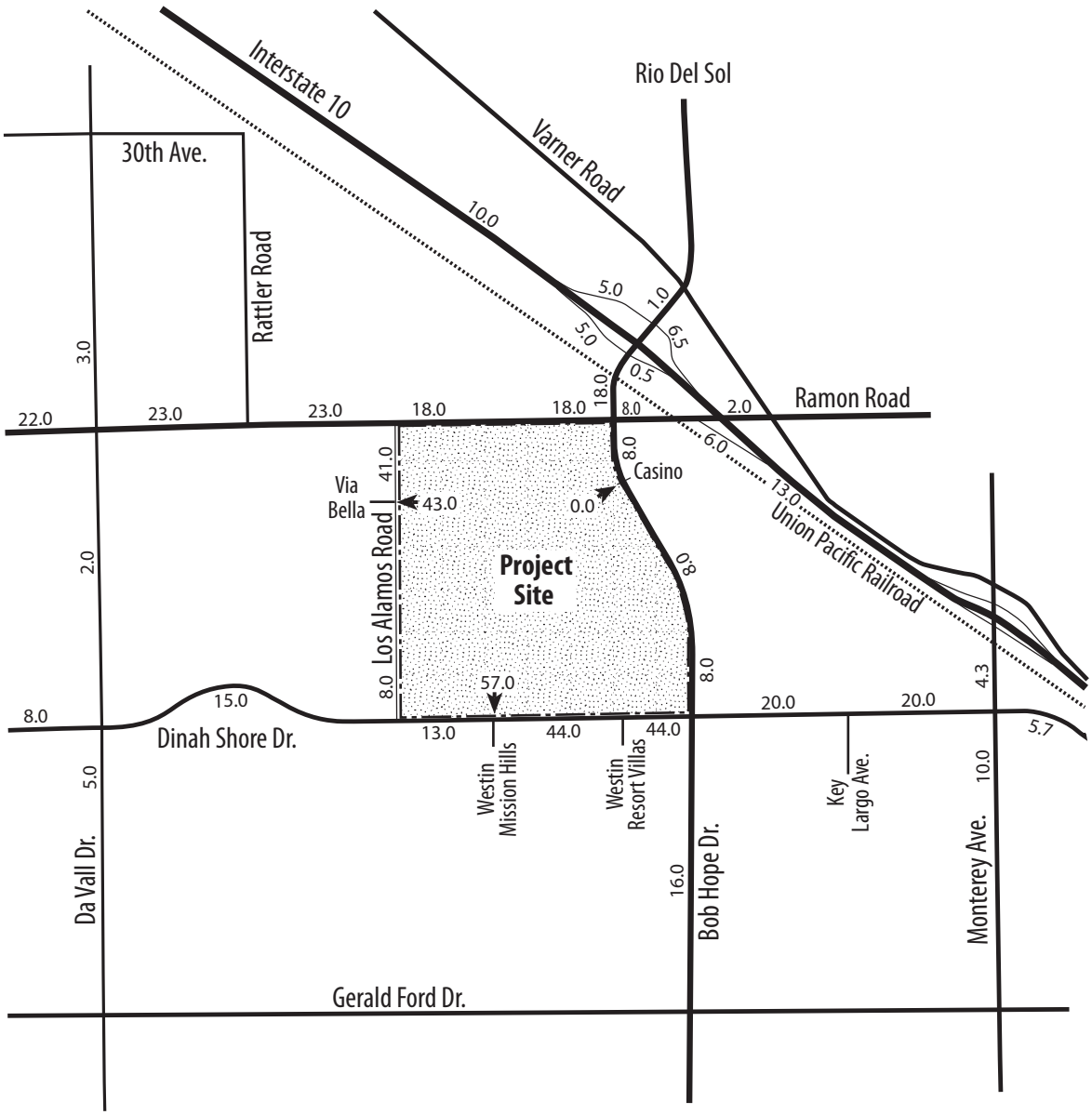
Site traffic was assigned to the surrounding street system based upon the location of the existing and future land uses that would attract site traffic and generate trips destined to the site. The proposed site access locations, any anticipated left-turn restrictions at the proposed site driveways and access to regional transportation facilities were also considered in the site traffic assignment.

The proposed initial phase of development would occur within Planning Area 8 and generate approximately 4,480 weekday trips. Planning Area 8 would be developed as a gated community with two access connections to the surrounding roadways located opposite existing intersections. The distribution of the site-generated traffic associated with the initial phase of development is shown in Figure 4-1.

The primary access for the initial phase is proposed to Dinah Shore Drive, opposite the existing signalized access to the Westin Mission Hills Golf Resort [Intersection 12]. This site access is projected to serve approximately 57 percent of the traffic generated by the initial phase (2,550 ADT). Access to Los Alamos Road would be opposite the existing unsignalized intersection at Via Bella [Intersection 8]. Approximately 43 percent of the traffic generated by the initial phase (1,930 ADT) would enter and leave Planning Area 8 via this access connection. This intersection would remain unsignalized upon completion of the initial phase of development.

The active adult community proposed in Planning Area 8 will ultimately have access to Bob Hope Drive via the westerly extension of Casino Road between Planning Areas 2 and 3 (to the north) and Planning Areas 4 and 5 (to the south). This

Figure 4-1
Site Traffic Distribution
(Initial Phase)



Legend
5.7 Percent of Primary Project-Related Trips

Endo Engineering

Scale: 1" = 3,200'

access would ultimately accommodate approximately 35 percent of the traffic generated by the initial phase (1,570 ADT) and provide the most direct connection to Interstate 10 for regional trips.

The composite directional distribution of all project-related or "site" traffic with full development of the proposed Section 24 Specific Plan is shown in Figure 4-2. The percentages shown in Figure 4-2 reflect the combination of all new inbound and outbound external project-related trips to be added to the surrounding street system. The percentages shown were determined from the combined total of 59,450 primary external weekday trips generated by the proposed project.

Figure 4-3 illustrates the distribution of the external site traffic to each of the proposed site access connections proposed along the site boundaries. It can be seen from Figure 4-3 that the land use and internal circulation plan focused the site traffic to the site access connections along Bob Hope Drive (49.1 percent of site traffic) and Ramon Road (32.7 percent of site traffic) by locating the higher intensity land uses along these two abutting arterials. The proposed land use plan and site access plan minimized the amount of site traffic that would use Los Alamos Road (6.5 percent) and Dinah Shore Drive (11.7 percent) by locating the lower intensity uses along these roadways.

Weekday Site Traffic Volumes

Table 4-3 provides the daily site-generated traffic volumes on the roadways adjacent to the key intersections on a typical weekday in the peak season. Existing peak season weekday traffic volumes are also shown in Table 4-3 that represent existing non-site ('through") traffic volumes. Site-generated traffic volumes are shown in Table 4-3 for both the initial phase of the proposed development as well as full development.

The site traffic volumes at each of the key intersections projected to occur during the morning and evening peak hours on a typical weekday in the peak season are shown in Figure 4-4. The intersection turning movement volumes shown in Figure 4-4 would be generated by the initial phase of the proposed development. The weekday peak hour turning movement volumes shown in Figure 4-4 were added to the existing non-site traffic volumes and also to the future year 2022 through traffic volumes to evaluate the impact of the initial phase of development on traffic operations at the key intersections.

Figure 4-5 shows the weekday peak hour site traffic volumes at the key intersections and the proposed full-turn site access intersections with full development of the project. These site traffic volumes were added to the existing traffic volumes and also added to the horizon year 2035 through traffic projections to assess the impact of the project on the surrounding street system. Figure 4-6 provides the site traffic volumes with full development of the Section 24 Specific Plan at the right-in/right-out driveways proposed along Ramon Road, Bob Hope Drive, and Dinah Shore Drive.

4.3 Existing Plus Site Traffic Projections

Appendix G of the CEQA Guidelines states that a project would normally have a significant effect on the environment if it could cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in the number of vehicle trips, the volume-to-capacity ratio of the streets, or congestion at intersections). With existing traffic volumes and site-generated traffic volumes, the significance of the effect of site traffic on the environment can be assessed. Evaluating the change in traffic operations at the key intersections before and after site-generated traffic is added to the existing baseline traffic can reveal the significance of project-related effects on the environment without introducing uncertainties related to cumulative developments or projected increases in background traffic volumes.

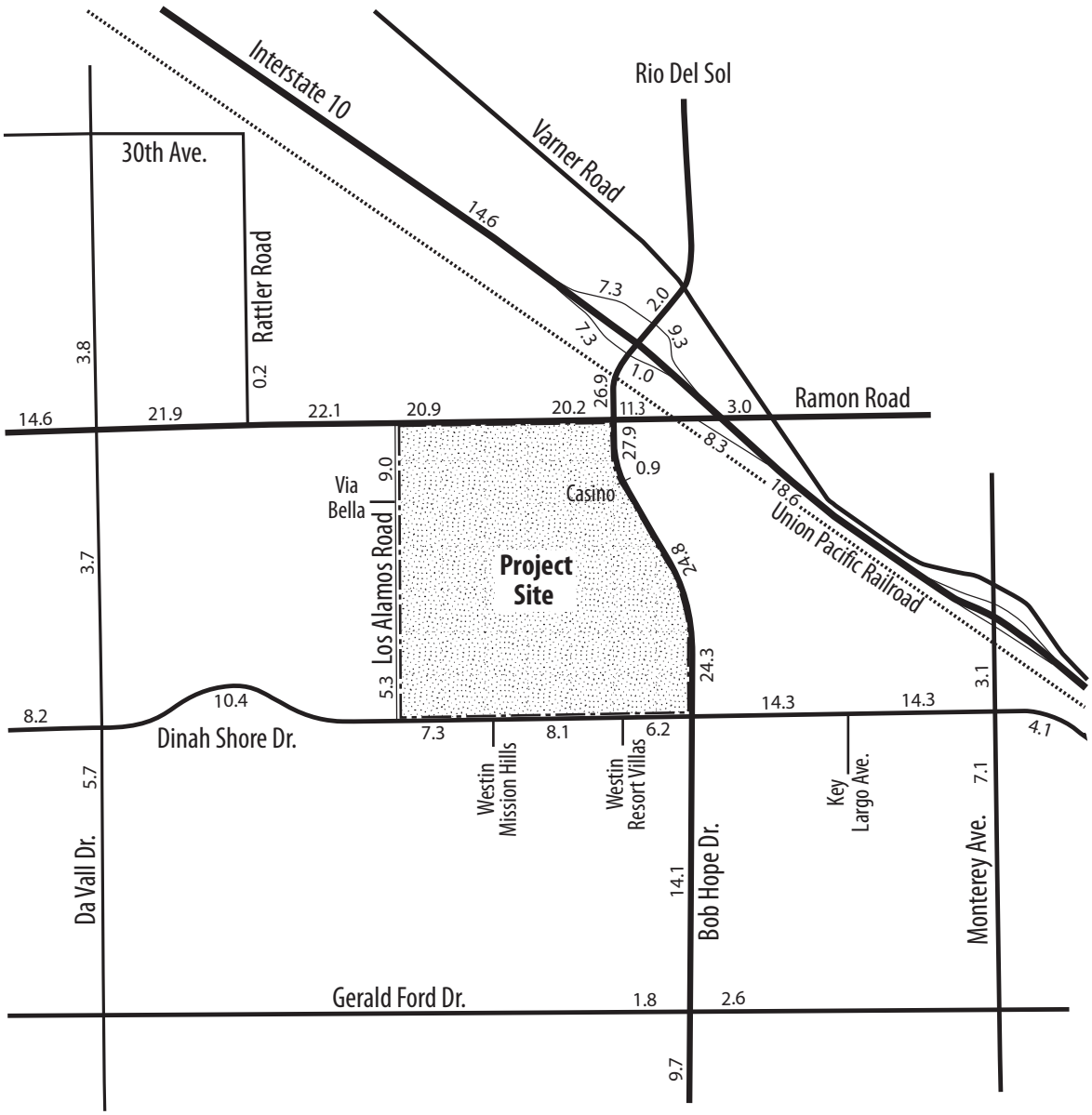
Existing Plus Initial Phase Traffic Projections

Figure 4-7 shows the existing plus initial phase peak hour traffic volumes at the key intersections. These volumes include existing traffic volumes (from Figure 3-4) as well as the site traffic volumes generated by the initial phase of the proposed project (from Figure 4-4). Table 4-3 identifies the existing plus initial phase weekday traffic volumes on area roadways.

Existing Plus Project Buildout Traffic Projections

Figure 4-8 depicts the existing plus site buildout peak hour traffic volumes at the key intersections. These volumes include existing traffic volumes (from Figure 3-4) as well as the site traffic volumes generated by buildout of the proposed project (from Figure 4-5). Table 4-3 provides the existing plus project buildout weekday traffic volumes on area roadways.

Figure 4-2
Site Traffic Distribution
(Project Buildout)



Legend
5.7 Percent of Primary Daily Trips

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Scale: 1" = 3,200'

Figure 4-3
Site Buildout Traffic Distribution
At Proposed Site Access Locations

Intersection	Site Access Location	Site Traffic (%)
8	East of Via Bella	1.4
9	West of Casino	22.9
12	North of Westin Mission Hills	2.2
13	North of Westin Resort Villas	6.4
18	Street "C" @ Ramon Road	9.9
19	Street "D" @ Ramon Road	14.5
20	Street "D" @ Bob Hope Drive	11.5
21	Street "E" @ Bob Hope Drive	6.8
22	Street "A" @ Los Alamos Road	0.7
23	Street "B" @ Los Alamos Road	4.4
Access A	Ramon Road	2.2
Access B	Ramon Road	3.5
Access C	Ramon Road	2.6
Access D	Bob Hope Drive	3.9
Access E	Bob Hope Drive	2.2
Access F	Bob Hope Drive	1.8
Access G	Dinah Shore Drive	3.1

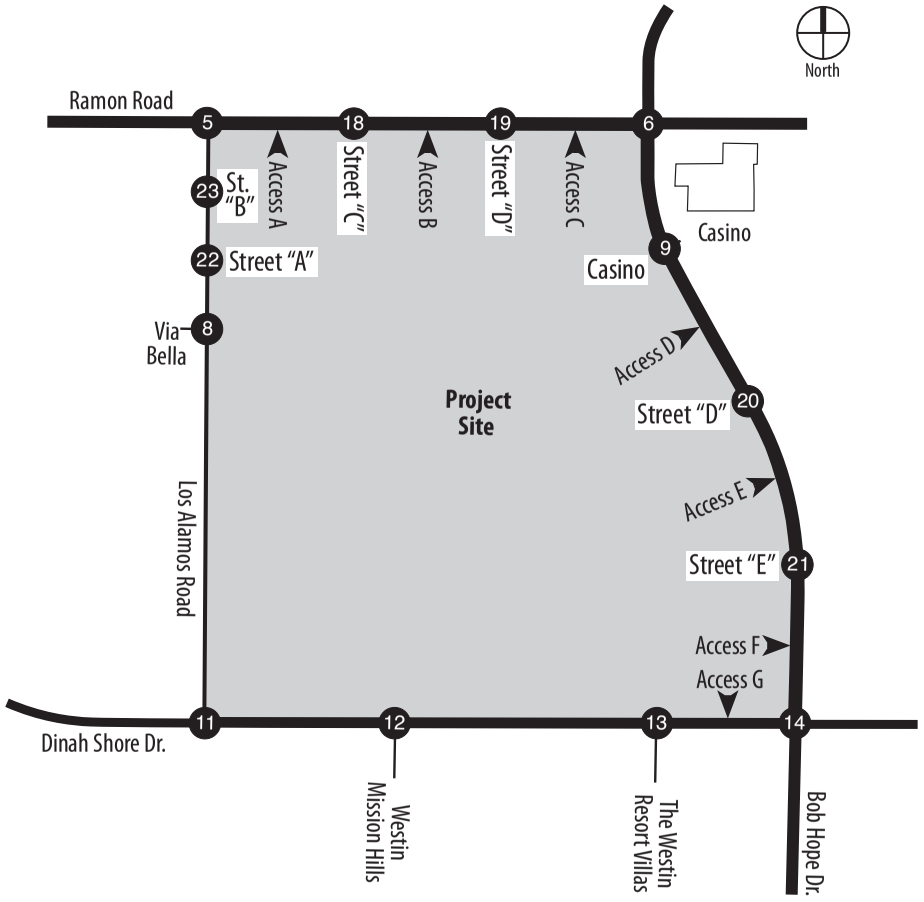

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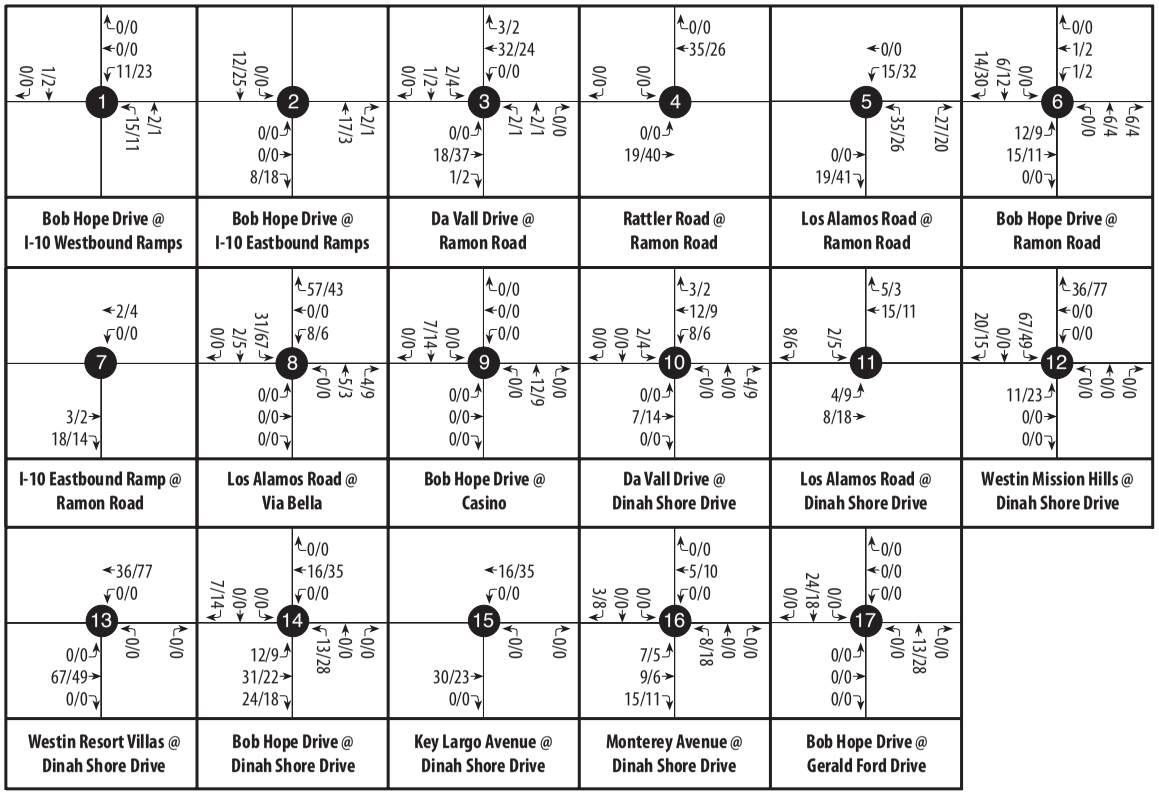
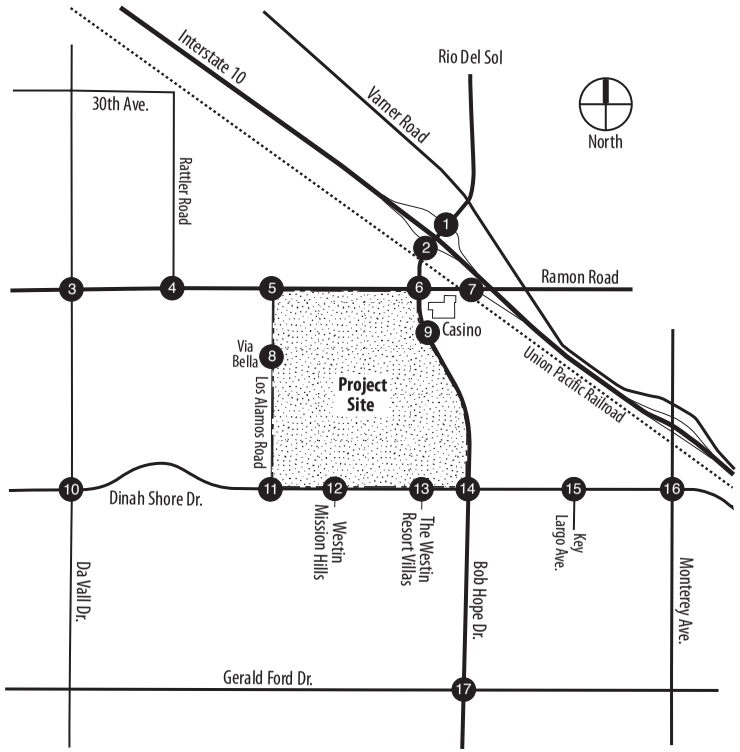
Figure 4-4
Site Traffic Volumes
Initial Phase



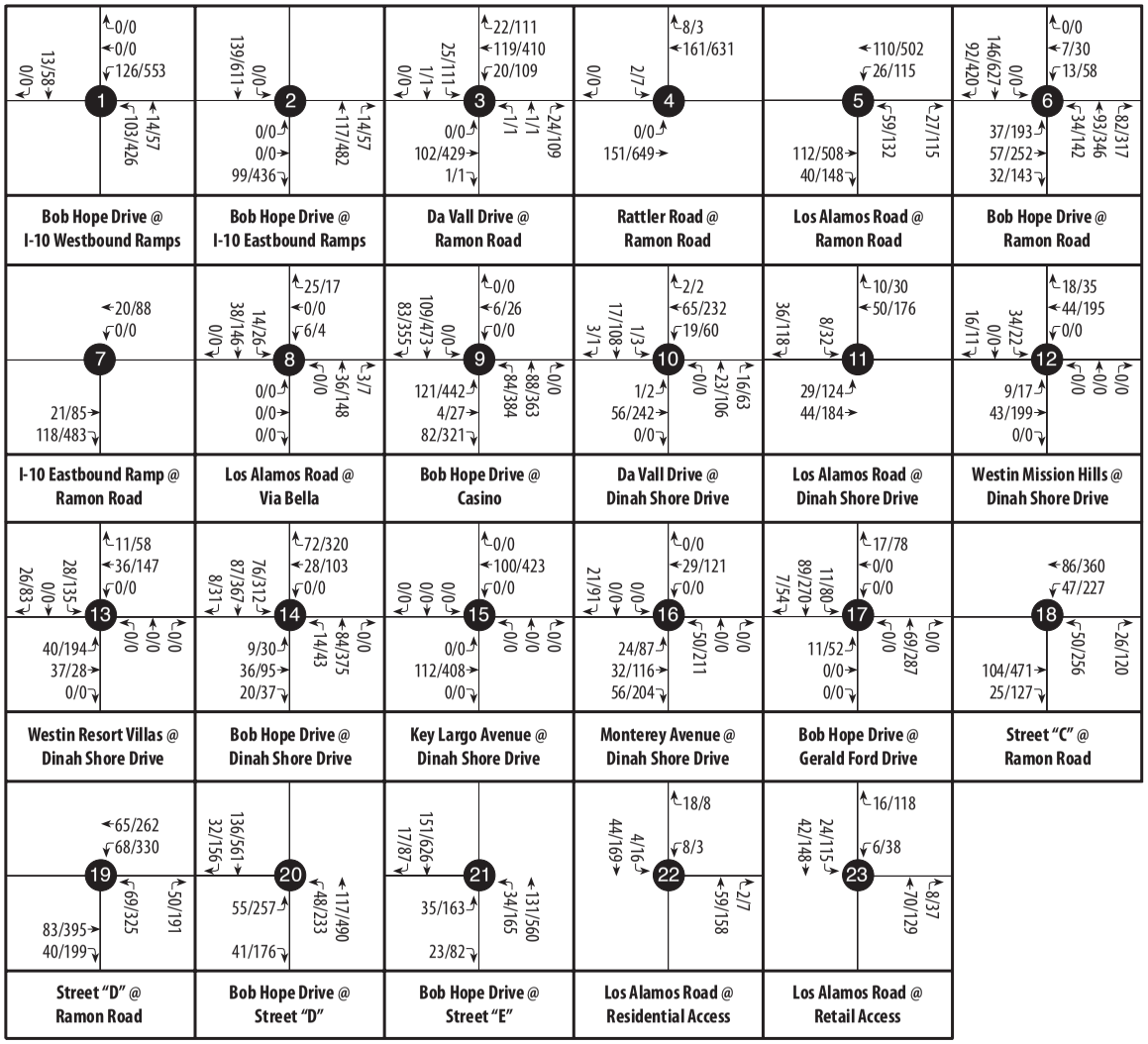


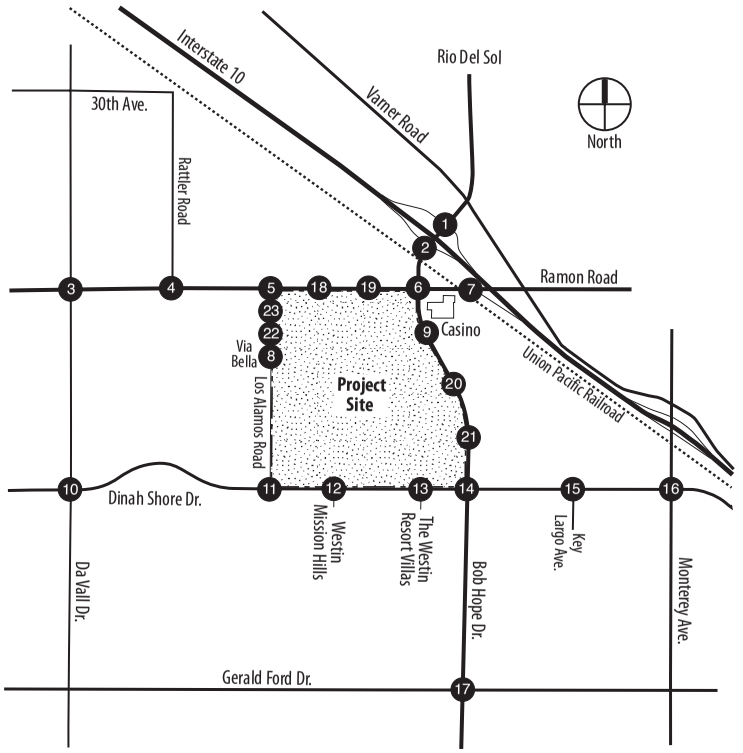
Legend

5/8 Morning/Evening Peak Hour Turning Volume

Endo Engineering

Figure 4-5
Site Traffic Volumes Upon Project Buildout



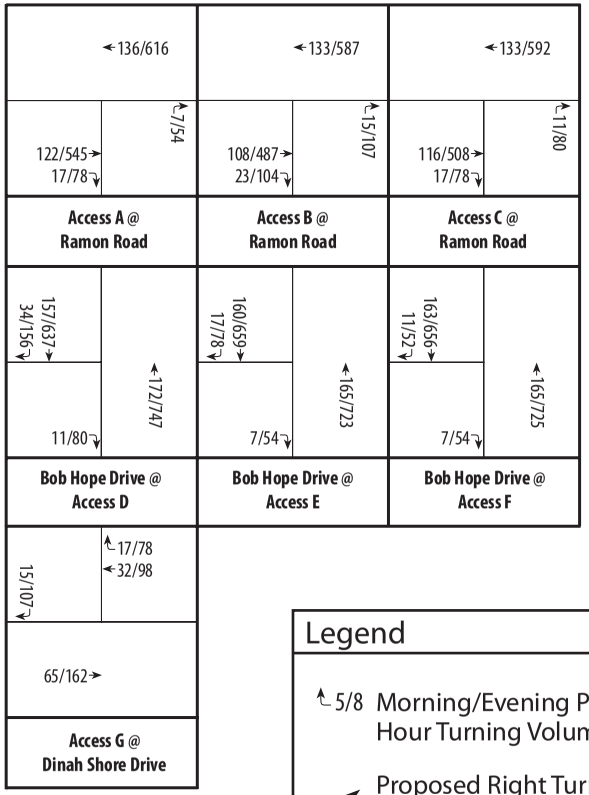


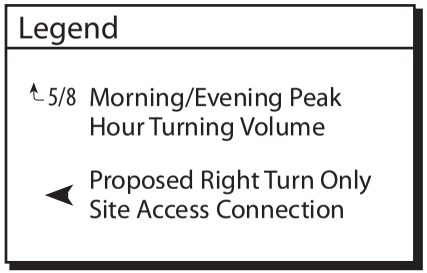
Legend

5/8 Morning/Evening Peak Hour Turning Volume

Endo Engineering

Figure 4-6
Site Traffic Volumes Upon Project Buildout
At Proposed Right Turn Only Driveways





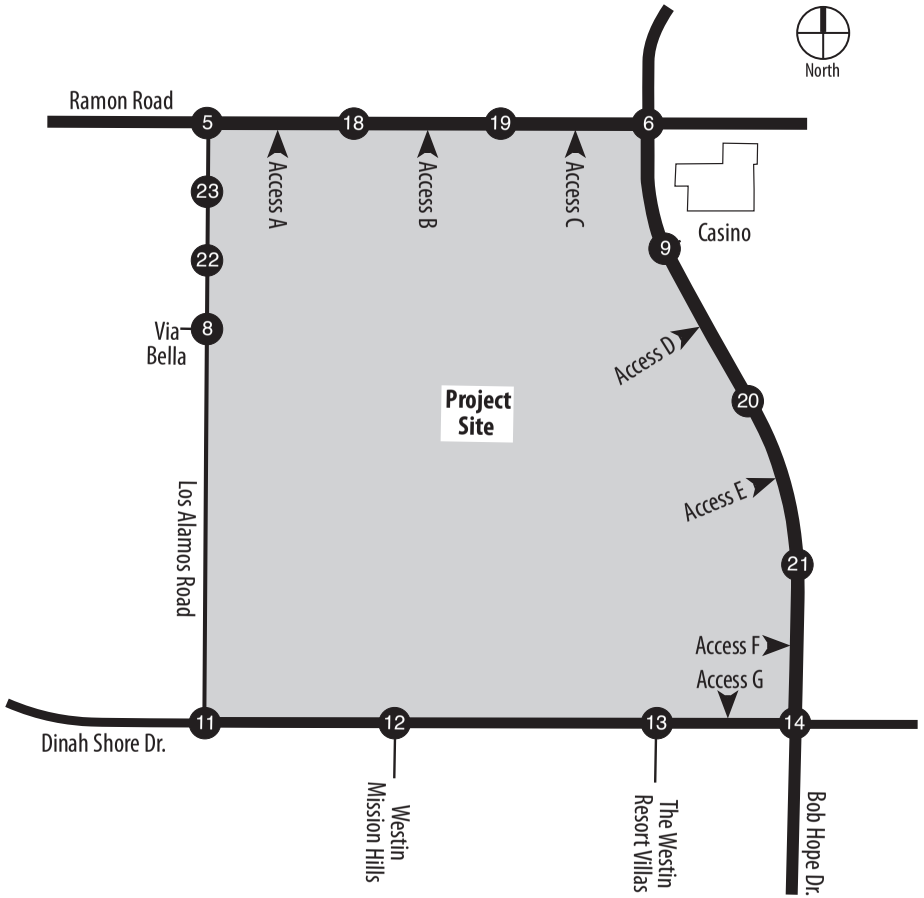


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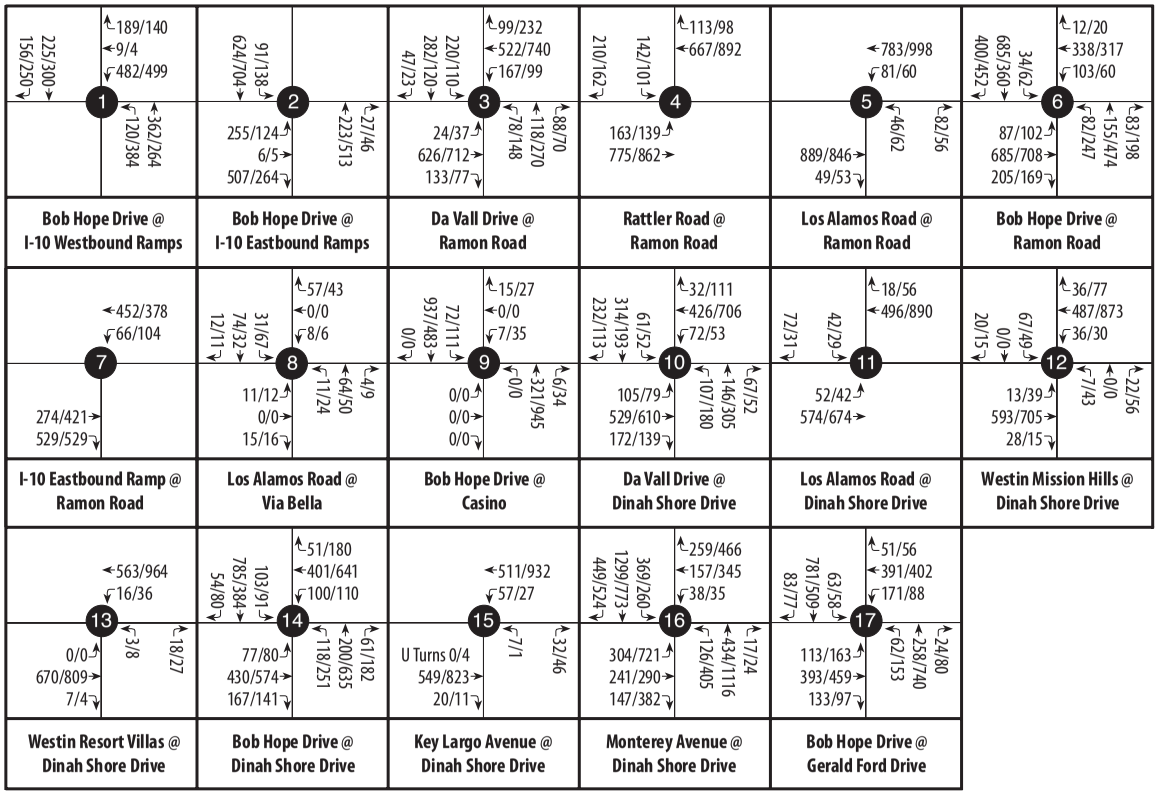
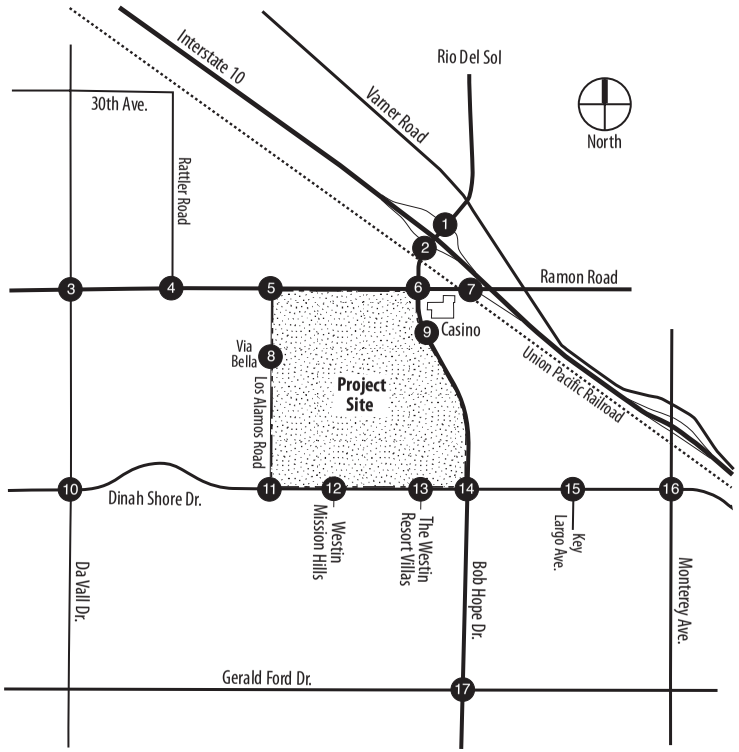
Figure 4-7
Existing Plus Initial Phase Weekday Traffic Volumes



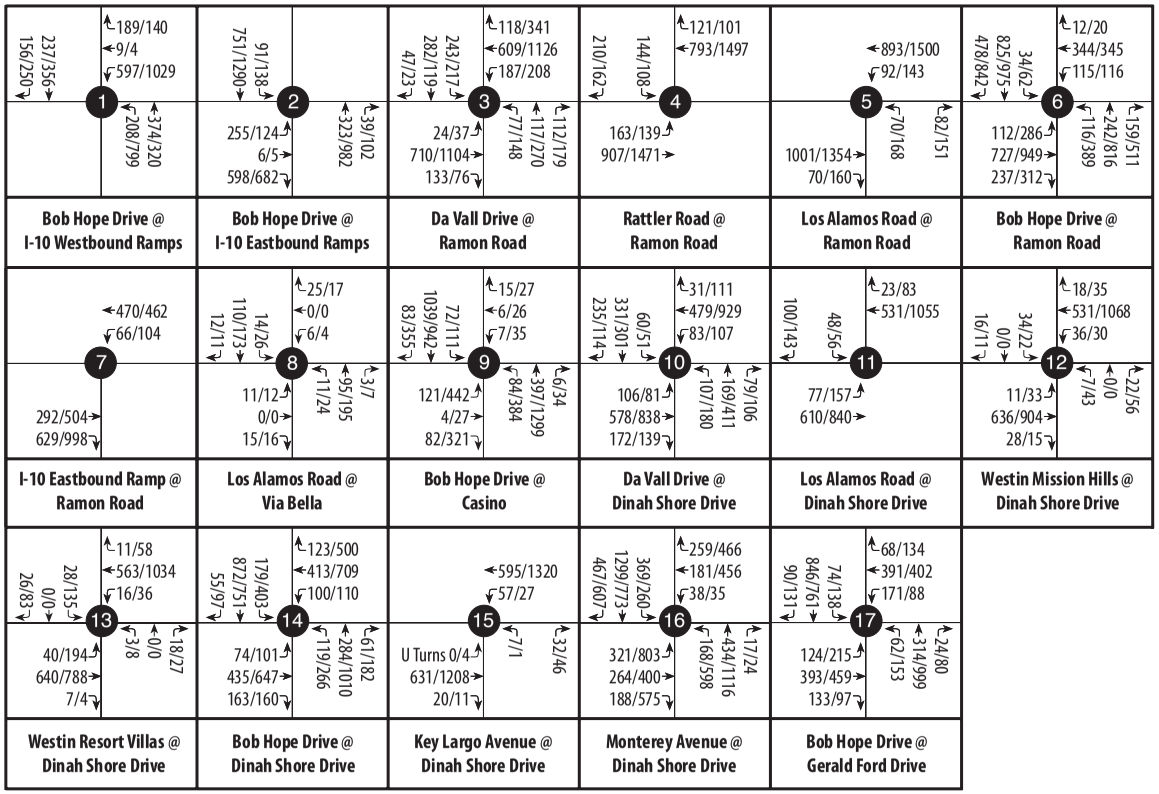


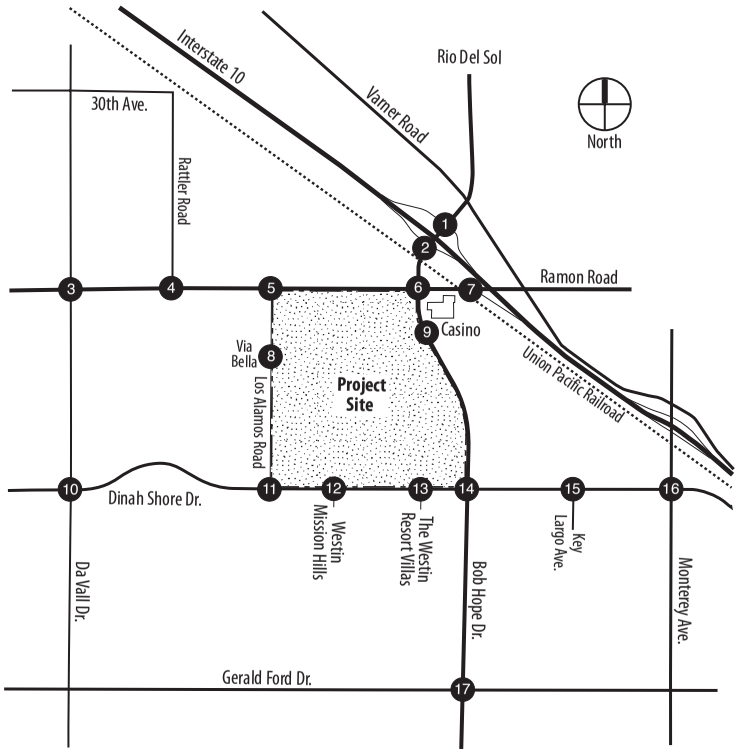
Legend

5/8 Morning/Evening Peak Hour Turning Volume

Endo Engineering

Figure 4-8
Existing Plus Project Buildout
Weekday Traffic Volumes





Legend

5/8 Morning/Evening Peak Hour Turning Volume

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Table 4-3
Existing Weekday Traffic Projections With and Without Site Traffic
(Peak Season)

Roadway Segment	Existing (2013)	Project Initial Phase	Existing+ Initial Phase	Project Buildout	Existing+Project Buildout
Da Vall Drive					
- North of Ramon Road	10,430	130	10,560	2,260	12,690
- South of Ramon Road	10,910	90	11,000	2,230	13,140
- North of Dinah Shore Drive	11,550	90	11,640	2,230	13,780
- South of Dinah Shore Drive	11,820	220	12,040	3,410	15,230
Rattler Road					
- North of Ramon Road	2,710	10	2,720	130	2,840
Los Alamos Road					
- South of Ramon Road	1,820	1,840	3,660	5,380	7,200
- North of Dinah Shore Drive	2,000	360	2,360	3,160	5,160
Bob Hope Drive					
- North of I-10 Westbound Ramps	12,530	40	12,570	1,160	13,690
- North of I-10 Eastbound Ramps	17,370	560	17,930	11,040	28,410
- North of Ramon Road	18,750	810	19,560	15,970	34,720
- South of Ramon Road	19,130	360	19,490	16,620	35,750
- North of Dinah Shore Drive	17,860	360	18,220	14,470	32,330
- South of Dinah Shore Drive	20,340	720	21,060	8,390	28,730
- North of Gerald Ford Drive	19,120	720	19,840	8,390	27,510
- South of Gerald Ford Drive	20,090	720	20,810	5,790	25,880
Key Largo					
- South of Dinah Shore Drive	1,340	0	1,340	0	1,340
Monterey Avenue					
- North of Dinah Shore Drive	46,340	190	46,530	1,830	48,170
- South of Dinah Shore Drive	31,620	450	32,070	4,260	35,880
Ramon Road					
- West of Da Vall Drive	20,340	990	21,330	8,680	29,020
- East of Da Vall Drive	23,760	1,030	24,790	13,040	36,800
- West of Los Alamos Road	24,030	1,030	25,060	13,160	37,190
- East of Los Alamos Road	24,680	810	25,490	12,410	37,090
- East of Bob Hope Drive	17,180	360	17,540	6,700	23,880
- East of EB I-10 Ramp	11,230	90	11,320	1,750	12,980
Dinah Shore Drive					
- West of Da Vall Drive	22,370	360	22,730	4,890	27,260
- East of Da Vall Drive	17,950	670	18,620	6,200	24,150
- West of Los Alamos Road	18,350	670	19,020	6,200	24,550
- East of Los Alamos Road	18,070	580	18,650	4,360	22,430
- East of Westin Mission Hills	18,680	1,970	20,650	4,820	23,500
- West of Bob Hope Drive	18,570	1,970	20,540	3,700	22,270
- East of Bob Hope Drive	18,800	900	19,700	8,520	27,320
- East of Key Largo	19,150	900	20,050	8,520	27,670
- West of Monterey Avenue	26,570	900	27,470	8,520	35,090
- East of Monterey Avenue	16,470	260	16,730	2,440	18,910
Gerald Ford Drive					
- West of Bob Hope Drive	16,840	0	16,840	1,040	17,880
- East of Bob Hope Drive	14,900	0	14,900	1,560	16,460
Interstate 10					
- West of Bob Hope Drive	100,000	440	100,440	8,720	108,720
- East of Ramon Road	102,000	580	102,580	11,060	113,060

Table 4-3 (Continued)
Existing Weekday Traffic Projections With and Without Site Traffic
(Peak Season)

Roadway Segment	Existing (2013)	Project Initial Phase	Existing+ Initial Phase	Project Buildout	Existing+Project Buildout
Bob Hope Dr. I-10 Ramps					
- Westbound On-Ramp	5,990	220	6,210	4,360	10,350
- Westbound Off-Ramp	8,600	290	8,890	5,530	14,130
- Eastbound On-Ramp	2,070	20	2,090	580	2,650
- Eastbound Off-Ramp	7,570	220	7,790	4,360	11,930
Ramon Road I-10 Ramps					
- Eastbound On-Ramp	7,970	270	8,240	4,950	12,920
Via Bella					
- West of Los Alamos Road	730	0	730	0	730
- East of Los Alamos Road	0	1,930	1,930	830	830
Casino					
- West of Bob Hope Drive	0	0	0	13,630	13,630
- East of Bob Hope Drive	2,050	0	2,050	520	2,570
Westin Mission Hills					
- North of Dinah Shore Drive	0	2,550	2,550	1,320	1,320
- South of Dinah Shore Drive	1,580	0	1,580	0	1,580
Westin Resort and Villas					
- North of Dinah Shore Drive	0	0	0	3,800	3,800
- South of Dinah Shore Drive	800	0	800	0	800
Street A					
- East of Los Alamos Road	0	0	0	420	420
Street B					
- East of Los Alamos Road	0	0	0	2,600	2,600
Street C					
- South of Ramon Road	0	0	0	5,880	5,880
Street D					
- South of Ramon Road	0	0	0	8,630	8,630
- West of Bob Hope Drive	0	0	0	6,860	6,860
Street E					
- West of Bob Hope Drive	0	0	0	4,060	4,060

4.4 Future Through Traffic Projections

Future Traffic Volume Forecast Methodology

Through (non-site) traffic volumes are made up of trips having neither an origin nor a destination within the project site. Non-site traffic includes existing traffic and future traffic generated by developments other than the proposed project. The traffic count program quantified the existing through traffic volumes. Regional and local traffic forecasting models are a good source of future traffic projections.

The assumptions used in any model must be reviewed to determine if the future projections include any future traffic associated with development within the project site that was anticipated by local and regional general plans and regional growth forecasts. If site traffic is included, it must be removed to develop future non-site traffic projections.

RIVTAM provides a source for future travel demand estimates that can be used in preparing Federal and California environmental clearance documents. The most recent socioeconomic input data was used in RIVTAM. It covers the entire six-county SCAG Region. The model was calibrated and validated using year 2007 travel statistics. The use of RIVTAM to identify the future growth in traffic demand was determined to be the most comprehensive approach and the most appropriate method of projecting future traffic volumes associated with development within the surrounding area and Riverside County for the horizon year 2035. Background traffic volumes for the year 2022 were developed by interpolating between existing traffic volumes and year 2035 non-site traffic volumes, assuming that the growth in the travel demand is geometric.

The Riverside County Transportation Commission recognizes use of the Riverside County Traffic Analysis Model to analyze traffic impacts associated with development proposals or land use plans. Riverside County and the members of CVAG have approved RIVTAM as the regional traffic model for Riverside County, including the Coachella Valley. Future traffic projections from RIVTAM represent the best available traffic projections for the study area and the horizon year 2035.

Base year 2008 and future horizon year 2035 land use forecasts were provided by individual jurisdictions and Riverside County for use in developing the socioeconomic input data required by RIVTAM. The 2035 SCAG population and employment growth projections were allocated by area, based on the existing and proposed future land use forecasts identified by each jurisdiction. Riverside County planners provided estimates for Tribal lands and unincorporated areas.

To ensure consistency with the forecasts being used for projects throughout the Coachella Valley and Riverside County, the RIVTAM was used to forecast the horizon year 2035 travel demand within for the study area.[4] The socioeconomic data (SED) used by this travel demand forecasting model were modified for the project site to reflect project buildout conditions with development at the maximum density/intensity allowed by the proposed Section 24 Specific Plan. The RIVTAM Traffic Analysis Zones and socioeconomic assumptions for the proposed project are provided in Appendix 2.

RIVTAM has a detailed zonal system, a portion of which includes the study area, as shown in Appendix 2. It uses updated household trip generation and attraction models, an expanded modal choice model, a parking-cost model and improved factors for representing peaking characteristics. Trip type variables for home-based work trips include: household size, household income, and the number of workers. Home-based non-work trip and non-home-based trip variables include: the number of adults, workers, children, income, and vehicle availability.

The boundaries for the Section 24 Specific Plan conform to RIVTAM Traffic Analysis Zone (TAZ) 4637. Prior to the SED changes made in RIVTAM to evaluate the proposed project, the SED for TAZ 4637 included: 97 households, a population of 257 residents, and a total employment of 246 (jobs). After modifications were made to reflect project completion at the maximum intensity/density allowed by the Section 24 Specific Plan, the SED for TAZ 4637 included: 2406 households, a population of 4,331 residents, and a total employment of 6,277 (jobs).

Year 2035 RIVTAM Projections

The RIVTAM horizon year 2035 daily traffic projections include both site traffic and the growth in background traffic on the roadway network. However, determining the significance of site traffic impacts requires an evaluation of the future peak hour turning movement volumes at the key intersections within the study area. To determine the future peak hour turning movement volumes, the site was modeled using data from recent peak hour traffic counts made at the key intersections and ITE trip-generation rates to estimate the future weekday and peak hour site traffic volumes as well their inbound and outbound directional distribution.

Using a detailed manual traffic assignment consistent with the distribution developed from the RIVTAM projections, peak hour and daily site traffic volumes were distributed to the surrounding street system. By subtracting the daily site traffic from the RIVTAM projections, the weekday "through" traffic volumes for the horizon year 2035 were determined for the roadway network within the study area.

Year 2035 non-site peak hour turning movement projections were developed by assuming that the increase in peak hour volumes between the year 2013 and the year 2035 would reflect the increase in the daily volumes. Each existing turning

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[4] RIVTAM was developed by Iteris, Inc. and AFSHA Consulting, Inc., for the Riverside County Transportation Department, CVAG, the Riverside County Transportation Commission (RCTC), and the Western Riverside Council of Governments. AFSHA Consulting, Inc. developed new RIVTAM projections for the horizon year 2035 with revised socioeconomic data for TAZ 4637 reflecting buildout of the project site at the maximum development intensity that would be allowed by the proposed Section 24 Specific Plan. The previous socioeconomic data and the trips associated with that data were replaced.

movement volume was multiplied by the ratio of the future year 2035 daily traffic projection divided by the current weekday traffic volume on both intersection legs associated with that turning movement. The increase in non-site peak hour turning volumes was normalized to the growth in daily traffic volumes to ensure that the future peak hour volumes would accurately reflect the overall increase in daily traffic volumes. In any instances where the current volume exceeded the future volume projection (or a future projection was not available from RIVTAM) the current volume was increased by ten percent and assumed to reflect the future year 2035 non-site traffic volume.

The daily project-related traffic volumes were subtracted from the year 2035+project daily RIVTAM projections to identify horizon year 2035 through traffic volumes. For any roadway segments not included in RIVTAM (such as Rattler Road and Key Largo Avenue) a ten percent growth in the existing traffic volumes was assumed. The through traffic volumes for the year 2022 shown in Figure 4-9 were determined by interpolation between the existing traffic volumes and the horizon year 2035 through traffic projections, assuming the traffic growth is geometric. The horizon year 2035 non-site peak hour traffic volumes are shown in Figure 4-10.

Cumulative Traffic Projections

Although the increase in travel demand associated with development throughout Southern California, Riverside County, and the cities within Coachella Valley was addressed with the RIVTAM year 2035 traffic projections, the peak hour turning volumes associated with two cumulative projects within the study area that will be completed in the near-term may not be adequately addressed at the key intersections by the RIVTAM projections. The Pelagic Residential project, Tentative Tract Map 36553, includes 122 single-family detached dwelling units and is located on the west side of Rattler Road, north of Ramon Road. The Rancho Mirage Rehabilitation Hospital (Tentative Parcel Map 31761) is located on the southeast corner of the intersection Da Vall Drive and Ramon Road, and includes an access on both Ramon Road and Da Vall Drive.

Development details related to the two cumulative projects were obtained from the City of Rancho Mirage "Development Activity Summary" dated February 5, 2014. The trips that would be generated by these two approved projects were estimated, as shown in Table 4-4. They were assigned to the surrounding street system and added to the future year 2022 non-site traffic volumes developed from the RIVTAM projections.

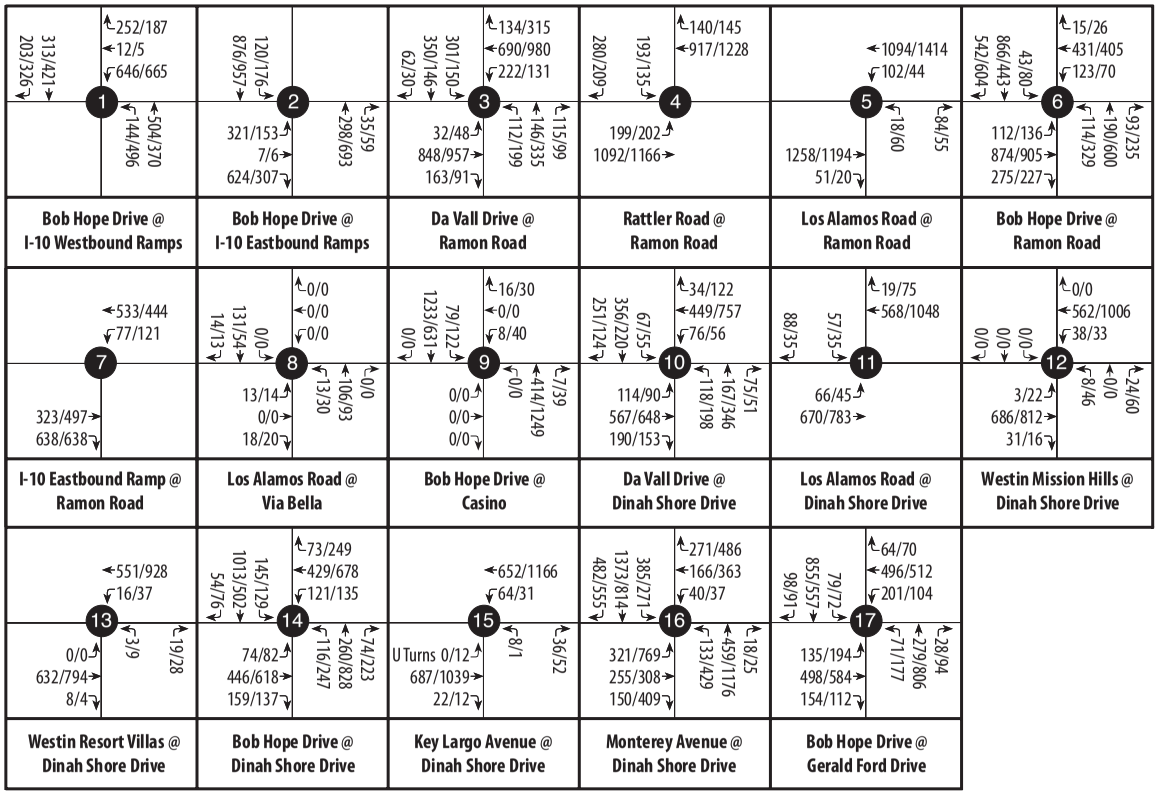
Table 4-4
Cumulative Weekday Trip-Generation Forecast[a]

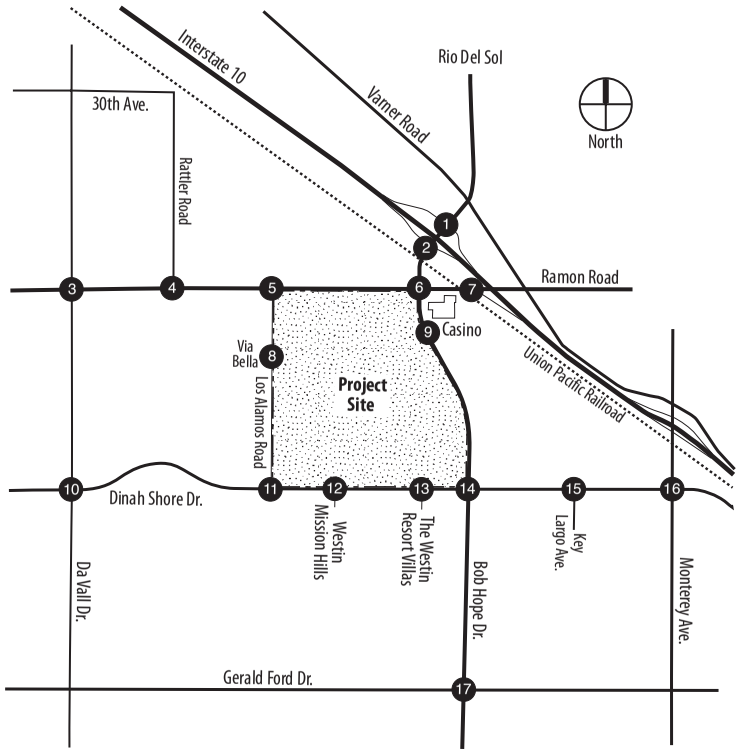
Land Use Category	Land Use Quantity[b]	Morning Peak Hour In	Out	Total	Evening Peak Hour In	Out	Total	Daily 2-Way
PELAGIC RESIDENTIAL TTM36553/PDP13005	122 DU	24	71	95	79	46	126	1,250
RANCHO MIRAGE REHAB. HOSPITAL TPM31761/PDP07012[c]	64.768 TSF	43	30	73	31	43	74	1,070
TOTAL		67	101	168	110	89	200	2,320

a. Based upon trip-generation data published by the ITE in *Trip Generation* (8th Edition, December, 2008). The ITE Land Use Codes (LUC) assumed include: LUC 210 for Single Family-Detached Residential Dwellings; LUC 610 for Hospital uses.
b. DU=Dwelling Units. TSF=Thousand Square Feet of Building Floor Area.

As shown in Table 4-4, the two cumulative projects would generate a combined total of approximately 2,320 weekday trips when completed. Of that total, 168 trips (67 inbound and 101 outbound) are expected to occur during the morning peak hour and 200 trips (110 inbound and 89 outbound) are expected to occur during the evening peak hour. The traffic volumes generated by these two cumulative projects were distributed to the adjacent streets based on the distribution of peak hour counts made at the intersection of Rattler Road and Ramon Road. Fifty-seven percent of the traffic from both cumulative projects was assigned to the west and forty-three percent of the traffic was assigned to the east. The cumulative traffic was added to the year 2022 non-site traffic volumes developed from RIVTAM to determine the year 2022 through traffic volumes.

Figure 4-9
Through Traffic Volumes
Year 2022





Legend

5/8 Morning/Evening Peak Hour Turning Volume

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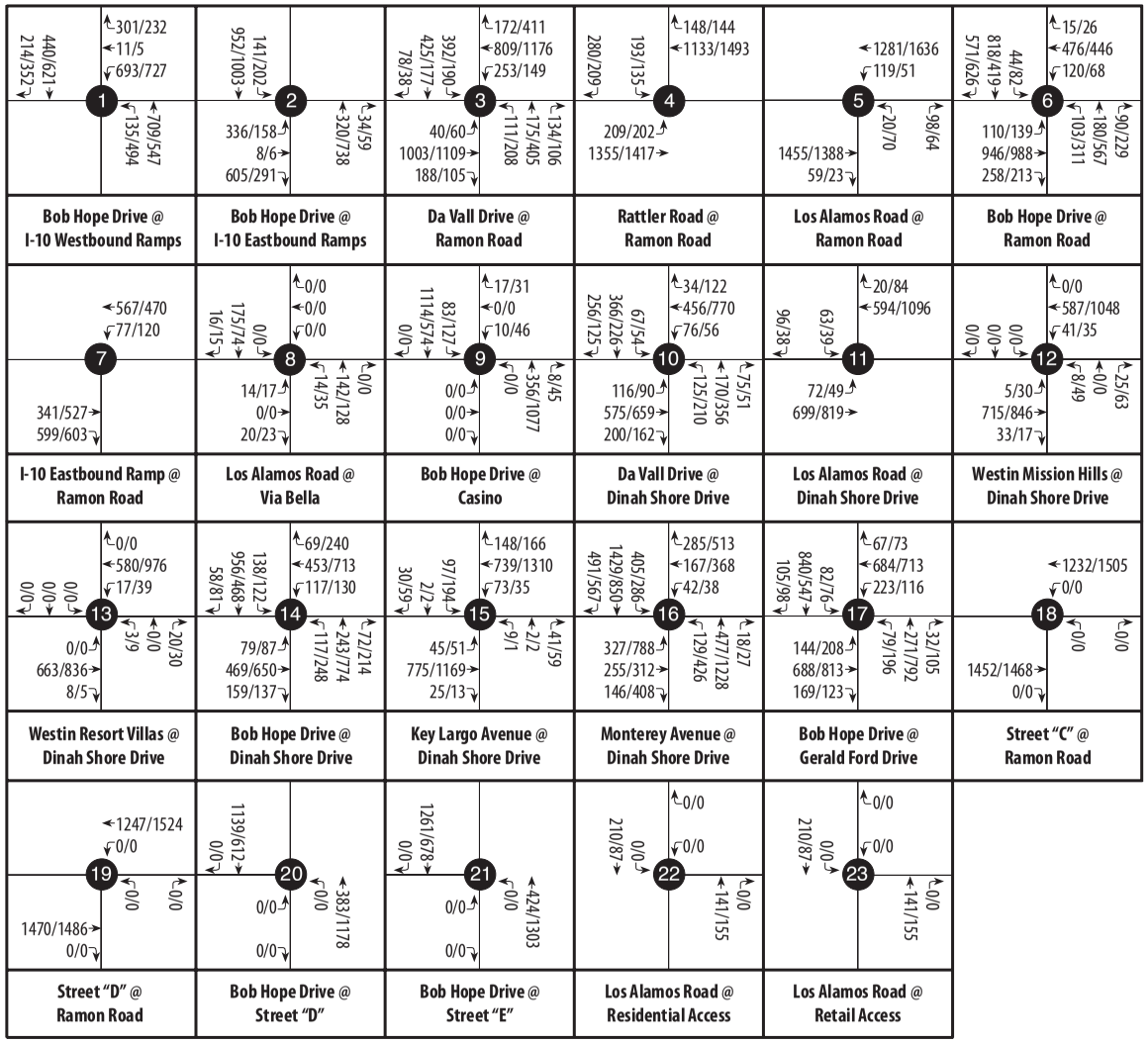
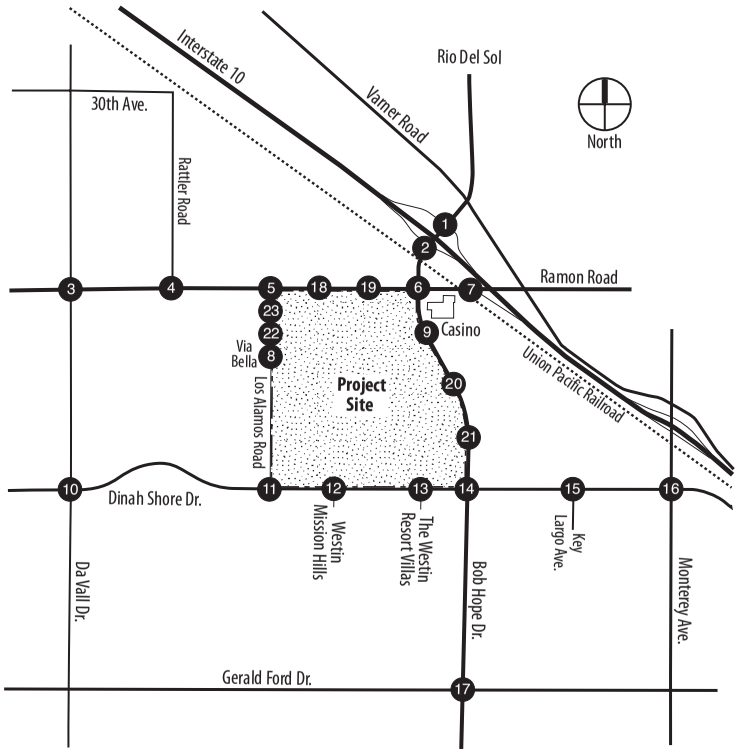
Figure 4-10
Through Traffic Volumes
Year 2035





Legend

5/8 Morning/Evening Peak Hour Turning Volume

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Any location where the year 2035 non-site traffic projection did not specifically include the traffic from the two cumulative projects was identified by comparing the 2035 non-site traffic volumes to the year 2022 plus cumulative traffic volumes. At two locations [Intersections 3 and 4] the year 2035 through traffic volumes were increased to reflect the higher year 2022+cumulative traffic volumes.

Year 2022 Through Traffic Projections

The existing peak hour turning movements were proportionately increased to reflect year 2022 peak hour through turning movement volumes, based upon the difference between the existing daily volumes and the year 2022 through daily traffic projections. Figure 4-9 presents the peak hour through traffic volumes at the key intersections, prior to the addition of site traffic generated by the initial phase of the proposed project.

Horizon Year 2035 Through Traffic Projections

The existing peak hour turning movements were proportionately increased to reflect year 2035 through peak hour turning movement volumes, based upon the difference between the existing daily volumes and the year 2035 daily through traffic projections. Figure 4-10 illustrates the peak hour through traffic volumes at the key intersections in the year 2035, prior to the addition of site traffic.

4.5 Future Total Traffic Projections

Once the through traffic volumes were projected for each of the future analysis years, the traffic volumes generated by the proposed project were added to the roadways and intersections in the study area to obtain the total future traffic volumes. This process reflected the location of each proposed land use within the site as well as the proposed internal circulation and site access plans.

Year 2022 Total Traffic Projections

Figure 4-11 depicts the year 2022 total peak hour traffic volumes at the key intersections. These volumes include through traffic volumes for the year 2022 (from Figure 4-9) as well as the site traffic volumes generated by the initial phase of the proposed project (from Figure 4-4). Since the initial phase of project development does not include shopping opportunities on-site, the site access turning volumes for the senior housing development may exceed the year 2035 volumes. Table 4-5 identifies the year 2022 weekday through traffic volumes, and total traffic volumes with the proposed project on the roadways within the study area.

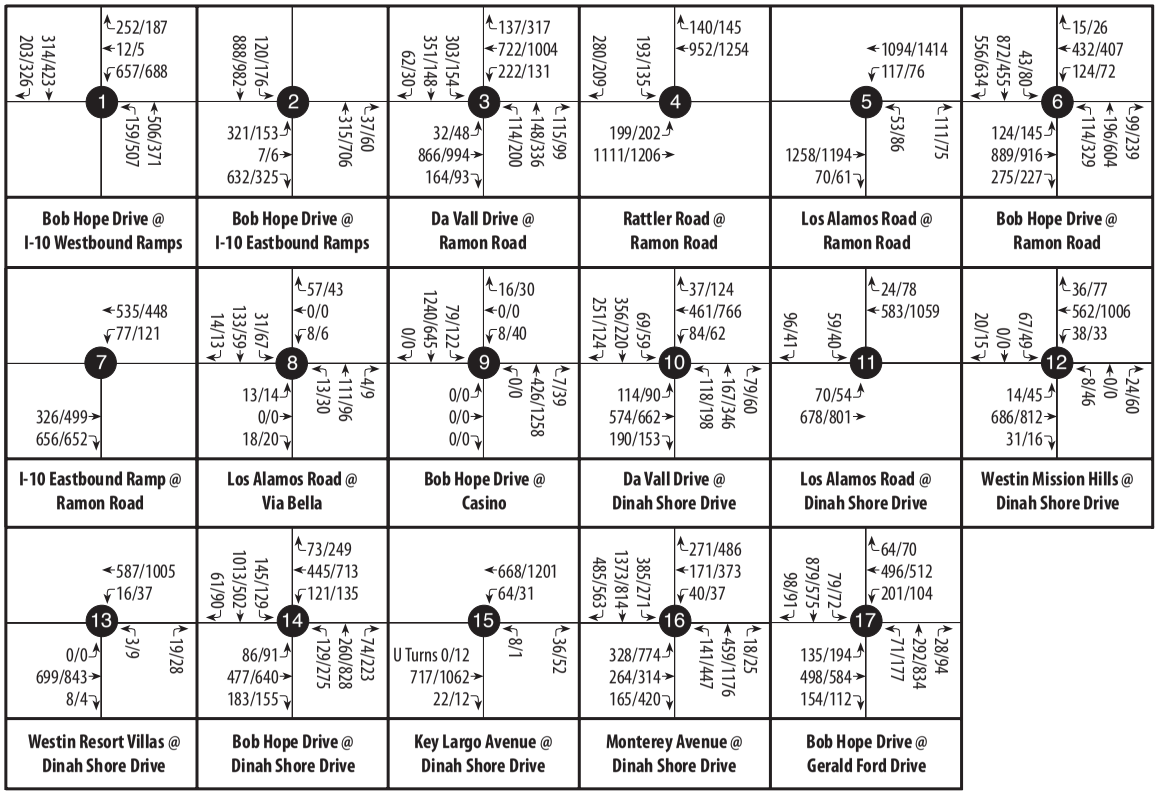
Horizon Year 2035 Total Traffic Projections

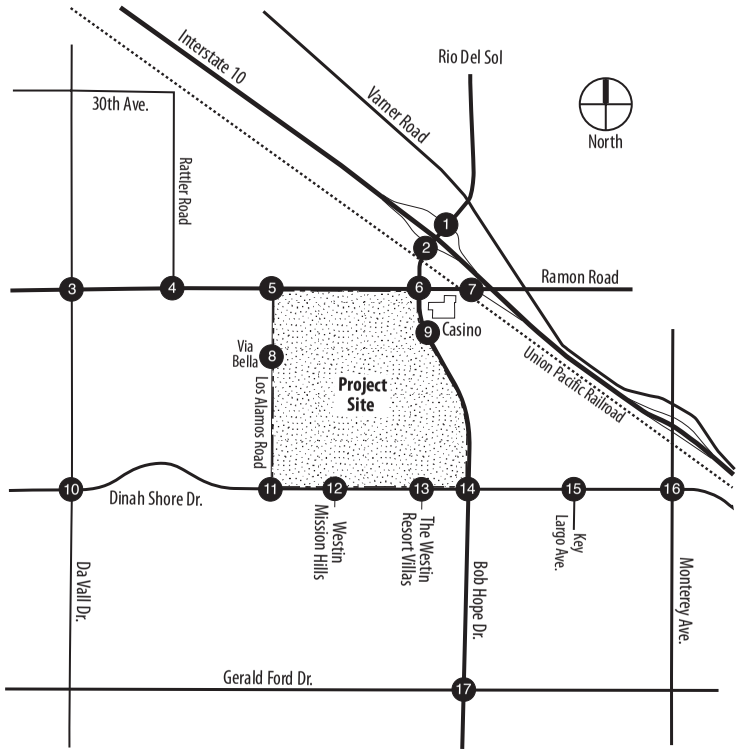
Figure 4-12 depicts the horizon year 2035 total peak hour traffic volumes at the key intersections and the site access intersections. These volumes include year 2035 through traffic volumes as well as site traffic volumes upon buildout of the proposed project (from Figure 4-5). Table 4-5 identifies the horizon year 2035 weekday through traffic volumes, and total traffic volumes with the proposed project on the roadways within the study area.

Horizon Year 2035 Total Traffic Projections By Alternative

Table 4-6 provides the total traffic projections by development alternative for various roadway segments within the study area in the horizon year 2035. In addition, ambient traffic projections for the year 2035 are shown that assume no on-site development. The traffic projections shown in Table 4-6 reflect weekday conditions during the peak season with three development alternatives other than the proposed development. These alternatives include development per: (1) the *City of Rancho Mirage General Plan* land use designations; (2) the *Riverside County General Plan* land use designations; and (3) the proposed Section 24 Specific Plan land uses with 1,200 conventional (without age restrictions) single-family detached dwelling units within Planning Area 8.

Figure 4-11
Total Traffic Volumes
Year 2022 With Initial Phase





Legend

5/8 Morning/Evening Peak Hour Turning Volume

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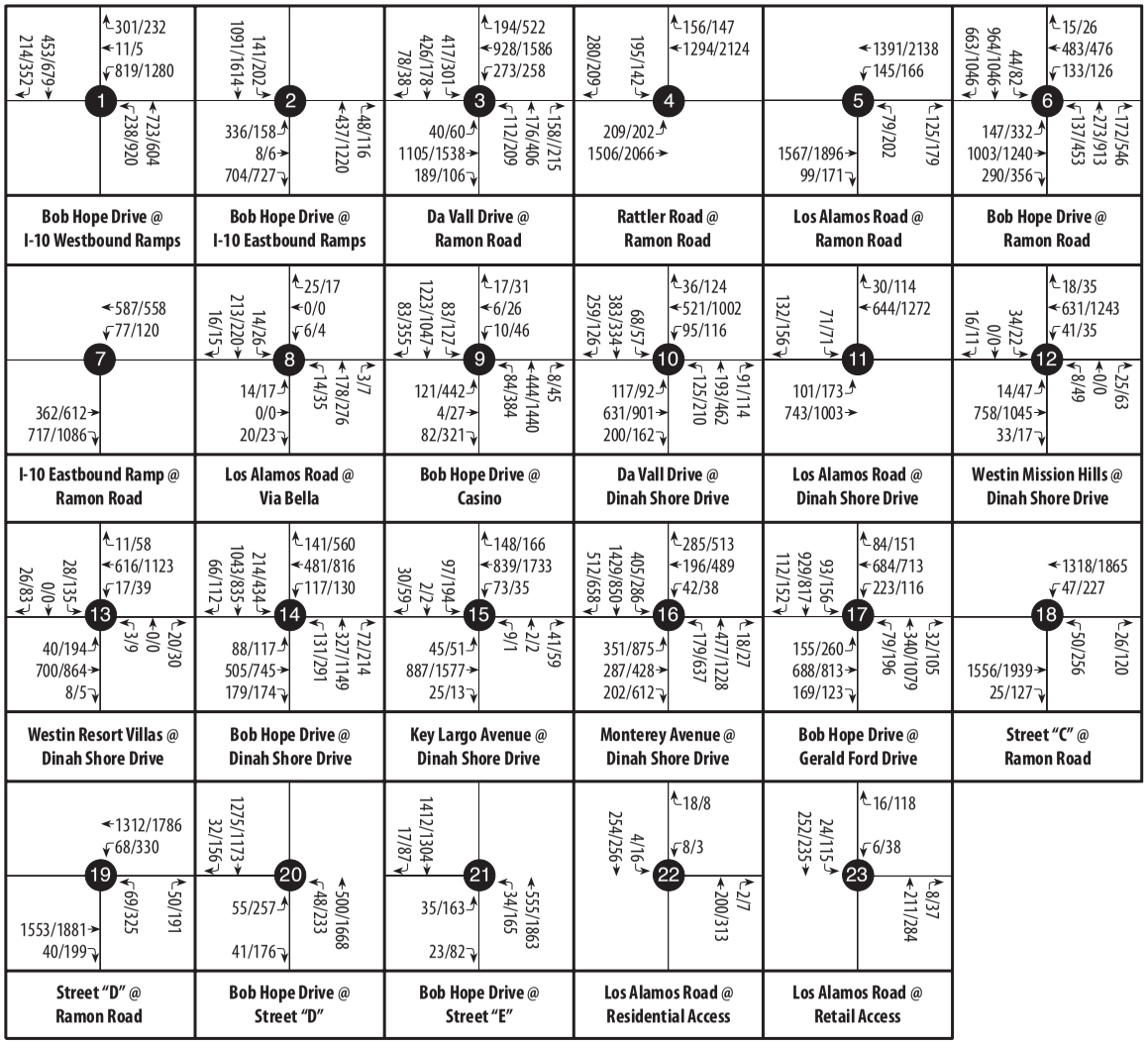
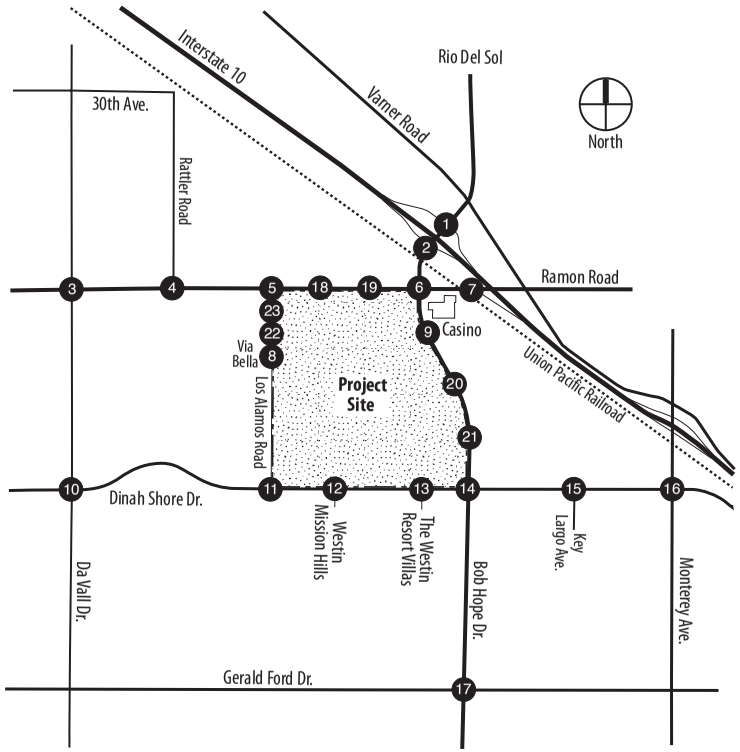
Figure 4-12
Total Traffic Volumes
Year 2035





Legend

5/8 Morning/Evening Peak Hour Turning Volume

Endo Engineering

Table 4-5
Future Weekday Traffic Projections With and Without Site Traffic
(Peak Season)

Roadway Segment	Existing (2013)	Year 2022 Ambient	Year 2022+ Initial Phase	Year 2035 Ambient	Year 2035+ Project Buildout
Da Vall Drive					
- North of Ramon Road	10,430	13,840	13,970	18,390	20,650
- South of Ramon Road	10,910	13,170	13,260	14,380	16,610
- North of Dinah Shore Drive	11,550	12,390	12,480	12,710	14,940
- South of Dinah Shore Drive	11,820	14,140	14,360	14,880	18,290
Rattler Road					
- North of Ramon Road	2,710	7,350	7,360	8,260	8,390
Los Alamos Road					
- South of Ramon Road	1,820	3,430	5,270	3,950	9,330
- North of Dinah Shore Drive	2,000	3,390	3,750	4,280	7,440
Bob Hope Drive					
- North of I-10 Westbound Ramps	12,530	17,350	17,390	26,490	27,650
- North of I-10 Eastbound Ramps	17,370	24,570	25,130	29,160	40,200
- North of Ramon Road	18,750	25,770	26,580	24,550	40,520
- South of Ramon Road	19,130	22,820	23,180	21,040	37,660
- North of Dinah Shore Drive	17,860	24,640	25,000	24,430	38,900
- South of Dinah Shore Drive	20,340	23,880	24,600	22,370	30,760
- North of Gerald Ford Drive	19,120	22,010	22,730	21,030	29,420
- South of Gerald Ford Drive	20,090	22,100	22,820	22,100	27,890
Key Largo					
- North of Dinah Shore Drive	0	0	0	5,010	5,010
- South of Dinah Shore Drive	1,340	1,390	1,390	1,470	1,470
Monterey Avenue					
- North of Dinah Shore Drive	46,340	48,210	48,400	50,970	52,800
- South of Dinah Shore Drive	31,620	33,790	34,240	34,780	39,040
Ramon Road					
- West of Da Vall Drive	20,340	27,030	28,020	30,670	39,350
- East of Da Vall Drive	23,760	34,000	35,030	42,060	55,100
- West of Los Alamos Road	24,030	34,230	35,260	41,940	55,100
- East of Los Alamos Road	24,680	33,610	34,420	37,660	50,070
- East of Bob Hope Drive	17,180	21,100	21,460	21,520	28,220
- East of Eastbound I-10 Ramp	11,230	12,830	12,920	13,760	15,510
Dinah Shore Drive					
- West of Da Vall Drive	22,370	23,380	23,740	24,610	29,500
- East of Da Vall Drive	17,950	20,310	20,980	19,750	25,950
- West of Los Alamos Road	18,350	21,670	22,340	21,910	28,110
- East of Los Alamos Road	18,070	21,190	21,770	22,720	27,080
- East of Westin Mission Hills	18,680	21,400	23,370	22,260	27,080
- West of Bob Hope Drive	18,570	19,400	21,370	20,430	24,130
- East of Bob Hope Drive	18,800	23,200	24,100	23,350	31,870
- East of Key Largo	19,150	24,660	25,560	27,400	35,920
- West of Monterey Avenue	26,570	29,900	30,800	29,230	37,750
- East of Monterey Avenue	16,470	17,210	17,470	18,120	20,560
Gerald Ford Drive					
- West of Bob Hope Drive	16,840	20,760	20,760	27,050	28,090
- East of Bob Hope Drive	14,900	19,310	19,310	26,410	27,970
Interstate 10					
- West of Bob Hope Drive	100,000	136,818	137,258	198,456	207,176
- East of Ramon Road	102,000	141,527	142,107	207,633	218,693

Table 4-5 (Continued)
Future Weekday Traffic Projections With and Without Site Traffic
(Peak Season)

Roadway Segment	Existing (2013)	Year 2022 Ambient	Year 2022+ Initial Phase	Year 2035 Ambient	Year 2035+ Project Buildout
Bob Hope Dr. I-10 Ramps					
- Westbound On-Ramp	5,990	7,430	7,650	6,590	10,950
- Westbound Off-Ramp	8,600	11,260	11,550	10,870	16,400
- Eastbound On-Ramp	2,070	2,500	2,520	2,680	3,260
- Eastbound Off-Ramp	7,570	8,660	8,880	8,330	12,690
Ramon Road I-10 Ramps					
- Eastbound On-Ramp	7,970	9,680	9,950	8,770	13,720
Via Bella					
- West of Los Alamos Road	730	760	760	800	800
- East of Los Alamos Road	0	0	1,930	0	830
Casino					
- West of Bob Hope Drive	0	0	0	0	13,630
- East of Bob Hope Drive	2,050	2,130	2,130	2,260	2,780
Westin Mission Hills					
- North of Dinah Shore Drive	0	0	2,550	0	1,320
- South of Dinah Shore Drive	1,580	1,640	1,640	1,740	1,740
Westin Resort and Villas					
- North of Dinah Shore Drive	0	0	0	0	3,800
- South of Dinah Shore Drive	800	830	830	880	880
Street A					
- East of Los Alamos Road	0	0	0	0	420
Street B					
- East of Los Alamos Road	0	0	0	0	2,600
Street C					
- South of Ramon Road	0	0	0	0	5,880
Street D					
- South of Ramon Road	0	0	0	0	8,630
- West of Bob Hope Drive	0	0	0	0	6,860
Street E					
- West of Bob Hope Drive	0	0	0	0	4,060

Table 4-6
Year 2035 Weekday Traffic Projections By Alternative
(Peak Season)

Roadway Segment	Ambient (2035)	Proposed Project	Rancho Mirage GP	Riverside County GP	Project With No Age Limit
Da Vall Drive					
- North of Ramon Road	18,390	20,650	19,730	21,130	20,740
- South of Ramon Road	14,380	16,610	15,700	17,080	16,700
- North of Dinah Shore Drive	12,710	14,940	14,030	15,410	15,030
- South of Dinah Shore Drive	14,880	18,290	16,900	19,020	18,430
Rattler Road					
- North of Ramon Road	8,260	8,390	8,340	8,420	8,400
Los Alamos Road					
- South of Ramon Road	3,950	9,330	7,130	10,480	9,540
- North of Dinah Shore Drive	4,280	7,440	6,150	8,110	7,570
Bob Hope Drive					
- North of I-10 WB Ramps	26,490	27,650	27,180	27,900	27,700
- North of I-10 EB Ramps	29,160	40,200	35,690	42,550	40,640
- North of Ramon Road	24,550	40,520	33,990	43,920	41,160
- South of Ramon Road	21,040	37,660	30,870	41,200	38,320
- North of Dinah Shore Drive	24,430	38,900	32,990	41,980	39,480
- South of Dinah Shore Drive	22,370	30,760	27,330	32,550	31,090
- North of Gerald Ford Drive	21,030	29,420	25,990	31,210	29,750
- South of Gerald Ford Drive	22,100	27,890	25,520	29,120	28,120
Key Largo					
- North of Dinah Shore Drive	5,010	5,010	5,010	5,010	5,010
- South of Dinah Shore Drive	1,470	1,470	1,470	1,470	1,470
Monterey Avenue					
- North of Dinah Shore Drive	50,970	52,800	52,050	53,190	52,870
- South of Dinah Shore Drive	34,780	39,040	37,300	39,950	39,210
Ramon Road					
- West of Da Vall Drive	30,670	39,350	35,800	41,200	39,700
- East of Da Vall Drive	42,060	55,100	49,770	57,880	55,620
- West of Los Alamos Road	41,940	55,100	49,720	57,900	55,620
- East of Los Alamos Road	37,660	50,070	45,000	52,710	50,560
- East of Bob Hope Drive	21,520	28,220	25,480	29,650	28,490
- East of EB I-10 Ramp	13,760	15,510	14,790	15,880	15,580
Dinah Shore Drive					
- West of Da Vall Drive	24,610	29,500	27,500	30,540	29,690
- East of Da Vall Drive	19,750	25,950	23,420	27,270	26,200
- West of Los Alamos Road	21,910	28,110	25,580	29,430	28,360
- East of Los Alamos Road	22,720	27,080	25,300	28,010	27,250
- East of Westin Mission Hills	22,260	27,080	25,110	28,110	27,270
- West of Bob Hope Drive	20,430	24,130	22,620	24,920	24,280
- East of Bob Hope Drive	23,350	31,870	28,390	33,680	32,210
- East of Key Largo	27,400	35,920	32,440	37,730	36,260
- West of Monterey Avenue	29,230	37,750	34,270	39,560	38,090
- East of Monterey Avenue	18,120	20,560	19,560	21,080	20,660
Gerald Ford Drive					
- West of Bob Hope Drive	27,050	28,090	27,660	28,310	28,130
- East of Bob Hope Drive	26,410	27,970	27,330	28,300	28,030
Interstate 10					
- West of Bob Hope Drive	198,456	207,176	203,616	209,036	207,526
- East of Ramon Road	207,633	218,693	214,173	221,043	219,133

Table 4-6 (Continued)
Year 2035 Weekday Traffic Projections By Alternative
(Peak Season)

Roadway Segment	Ambient (2035)	Proposed Project	Rancho Mirage GP	Riverside County GP	Project With No Age Limit
Bob Hope Dr. I-10 Ramps					
- Westbound On-Ramp	6,590	10,950	9,170	11,880	11,120
- Westbound Off-Ramp	10,870	16,400	14,140	17,580	16,620
- Eastbound On-Ramp	2,680	3,260	3,020	3,380	3,280
- Eastbound Off-Ramp	8,330	12,690	10,910	13,620	12,860
Ramon Road I-10 Ramps					
- Eastbound On-Ramp	8,770	13,720	11,700	14,770	13,920
Via Bella					
- West of Los Alamos Road	800	800	800	800	800
- East of Los Alamos Road	0	830	490	1,010	860
Casino					
- West of Bob Hope Drive	0	13,630	8,060	16,530	14,170
- East of Bob Hope Drive	2,260	2,780	2,570	2,890	2,800
Westin Mission Hills					
- North of Dinah Shore Drive	0	1,320	780	1,600	1,370
- South of Dinah Shore Drive	1,740	1,740	1,740	1,740	1,740
Westin Resort and Villas					
- North of Dinah Shore Drive	0	3,800	2,250	4,610	3,950
- South of Dinah Shore Drive	880	880	880	880	880
Street A					
- East of Los Alamos Road	0	420	250	510	440
Street B					
- East of Los Alamos Road	0	2,600	1,540	3,150	2,700
Street C					
- South of Ramon Road	0	5,880	3,480	7,130	6,110
Street D					
- South of Ramon Road	0	8,630	5,100	10,470	8,970
- West of Bob Hope Drive	0	6,860	4,060	8,320	7,130
Street E					
- West of Bob Hope Drive	0	4,060	2,400	4,920	4,220

5.0 TRAFFIC ANALYSIS

The evaluation of the change in roadway operating conditions resulting from traffic generated by the Section 24 Specific Plan is presented below. The analysis addresses existing, near-term future and long-term future conditions with and without the initial phase and full development of the uses that would be permitted by the proposed Section 24 Specific Plan. These analyses were conducted to identify the transportation-related implications of the project and any improvements necessary to ensure acceptable traffic operating conditions in the future. Peak hour capacity and level of service analyses were performed for each of the unsignalized and signalized key intersections as well as the primary full-turn site access intersections. The future peak hour traffic operations at the site access connections proposed along the perimeter of the project site that would be restricted to right-in/right-out movements were not evaluated from a control delay and level of service perspective. Evaluation of these intersections was deemed unnecessary because these intersections would have few conflicting movements and operate with relatively little control delay in the future.

The Riverside County Transportation Analysis Model (RIVTAM) horizon year 2035 traffic projections were utilized to ensure that regional development throughout Southern California would be taken into account. RIVTAM was modified to incorporate socioeconomic (SED) data reflecting full development of the land uses that would be permitted by the proposed Section 24 Specific Plan. RIVTAM assigned trips from the project site taking into account both capacity constraint and travel time considerations. This approach was used to ensure that the recommendations in Section 6 would meet the mobility needs of the proposed development as well as those of other existing and future developments generating trips that will pass through the study area in the horizon year 2035.

Other factors considered in the traffic impact evaluation included: traffic safety, traffic control needs, transit needs, pedestrian and bicycle movements, emergency vehicle and service/delivery vehicle access, and the adequacy of both on-site and off-site reservoirs for vehicle queuing. Section 5.6 (Other Considerations) includes a discussion of several special issue topics considered relevant to the potential impacts of the proposed project on transportation within the study area. These topics include:

- Future improvements of Dinah Shore Drive and Los Alamos Road adjacent to the site;
- Future improvements at the intersection of Bob Hope Drive and Ramon Road;
- Future conditions at the intersection of Bob Hope Drive and Varner Road; and
- Future conditions on Interstate 10.

5.1 Thresholds of Significance

The National Environmental Policy Act (NEPA) like the California Environmental Quality Act (CEQA) sets forth a policy of environmental protection and a protocol by which all agencies make environmental protection part of their decision-making process in their respective jurisdictions. NEPA applies only to projects receiving federal funding or approval by federal agencies, whereas CEQA applies only to projects receiving any form of state or local approval, permit, or oversight. CEQA makes environmental protection mandatory by requiring state and local agencies to follow a protocol of analysis and public disclosure of environmental impacts of proposed projects as well as adopt all feasible measures to mitigate those impacts

Under CEQA, every agency in the state of California is encouraged to develop and publish independent thresholds of significance supported by substantial evidence, against which to compare the environmental impacts of projects. A lead agency would normally consider the impacts of a project significant if, and only if, they would exceed the established thresholds. In the absence of significance thresholds developed by lead agencies, impact assessments apply the significance criteria detailed in the CEQA Guidelines: Appendix G "Environmental Checklist Form".[1]

Appendix G of CEQA Guidelines identify projects that would normally have a significant effect on transportation as those that would:

- Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections.
- Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways.

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[1] California Resources Agency. *CEQA Guidelines*: Appendix G "Environmental Checklist Form". December 1, 2005.

- Substantially increase hazards due to a design feature (such as sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
- Result in inadequate emergency access.
- Result in inadequate parking capacity.
- Conflict with adopted policies, plans or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).

Lead agencies may defer to other local or regional agencies with published guidelines for the resources they regulate. Under CEQA, if the lead agency determines that the project may have significant environmental impacts, the lead agency must prepare an environmental impact report (EIR).

The Riverside County *Traffic Impact Analysis Preparation Guide* (April, 2008) states that the following types of traffic impacts are considered to be "significant" under CEQA:

- When existing traffic conditions exceed the General Plan target LOS.
- When project traffic, when added to existing traffic, will deteriorate the LOS to below the target LOS, and impacts cannot be mitigated through project conditions of approval.
- When cumulative traffic exceeds the target LOS and impacts cannot be mitigated through the TUMF network (or other funding mechanism), project conditions of approval, or other implementation mechanisms.

5.2 Local and Regional Performance Standards

Various agencies with jurisdiction over portions of the transportation system have adopted performance standards for use in determining the future infrastructure needed to accommodate projected travel demands. The agencies with jurisdiction over the transportation facilities within the study area include: (1) the California Department of Transportation (Caltrans), (2) the Riverside County Transportation Commission (as the designated Congestion Management Agency for Riverside County), (3) the Riverside County Land Management Agency, (4) the City of Rancho Mirage, (6) the City of Cathedral City, and (7) the City of Palm Desert. Each of these agencies has adopted roadway performance standards.

Caltrans LOS Standard

Caltrans is responsible for monitoring freeway performance and developing plans and strategies to address any deficiencies on State Highways and other State-operated facilities. Caltrans is responsible for traffic operations on Interstate 10 and at the signalized intersections of the Interstate 10 freeway ramps on Bob Hope Drive and on Ramon Road. Caltrans also evaluates development projects of local and regional significance to determine if they will impact the State transportation system and work with lead agencies to develop potential mitigation measures.

Caltrans District 8 has jurisdiction over Interstate 10 and the traffic signal timing for ramps that provide access to Interstate 10. For freeway segments, Caltrans requires an operational analysis based on the methods outlined in the *Highway Capacity Manual* (HCM 2000). For basic freeway segments, the measure of effectiveness is density in terms of passenger cars per mile per lane. The truck mix is needed to expand the traffic volume on the freeway segment to passenger car equivalents (PCEs) and the performance standard throughout California is set at the transition between LOS C and LOS D.

However, the Interstate 10 Route Concept Fact Sheet (Caltrans, March 2000) which is currently being updated identified future right-of-way requirements and a design concept to accommodate buildout of the local general plans with a target of maintaining LOS "E" during the peak periods in the urbanized and urbanizing areas and LOS "C" in the rural areas. The rationale for maintaining these levels of service was "to achieve a reasonable balance between desired levels of mobility and forecasted traffic with consideration of development abutting rights of way and constrained financial transportation resources".

CMP LOS Standard

The Riverside County Transportation Commission (RCTC) has jurisdiction over all intersections and segments along the CMP System of Highways and Roadways within Riverside County. The CMP System includes all State highways (Interstate

10 and Highway 111) and the following Principal Arterials: Ramon Road (west of I-10), and Monterey Avenue (between I-10 and Highway 111). RCTC requires LOS analyses to be conducted using HCM-based methods.

The minimum level of service standard for intersections and roadway segments within the CMP System of Highways and Roadways is LOS E unless the intersection or segment had a lower level of service or LOS F in 1991 when the baseline CMP data was collected. Such facilities are exempt from CMP deficiency plan requirements. However, if the level of service is improved to LOS E or better after 1991, the LOS must then be maintained. Intersections or street segments that have dropped to LOS F since 1991 would be subject to the development of a deficiency plan prepared by the local agency where the deficiency is located, following coordination with other agencies identified as contributors to the deficiency. The deficiency plan must contain mitigation measures (including TDM strategies and transit alternatives) and a schedule for mitigating the deficiency. The Riverside County Transportation Commission prepares deficiency plans for the State Highway System when deficiencies are identified by local jurisdictions.

County of Riverside Target LOS

"The existing *Riverside County Comprehensive General Plan* establishes Level of Service C as a target for all county maintained roadways and conventional State highways, except that LOS D could be allowed in urban areas at intersections of any combination of Major Streets, Arterials, Expressways, or conventional State highways within one mile of a freeway interchange, and also at freeway ramp intersections. Current policy requires development projects to mitigate impacts on roadways based on the LOS C standard. Current General Plan policy also permits allowing development projects to mitigate to LOS D, subject to Board of Supervisors approval, in those instances where mitigation to LOS C is deemed to be impractical."[2] The *Western Coachella Valley Area Plan* states that LOS D may be allowed in Community Development areas at intersections of any combination of secondary highways, major highways, arterials, urban arterials, expressways, conventional state highways or freeway ramp intersections. LOS E may be allowed in designated community centers, to the extent that it would support transit-oriented development and walkable communities.

Riverside County policy also permits applying city standards to development within the Sphere of Influence of an incorporated jurisdiction where annexation to the city will logically occur in the short to intermediate range future. Riverside County considered the impact of the *Riverside County Comprehensive General Plan* to be significant if it would decrease the LOS on a freeway segment below LOS E. The key intersections located within unincorporated Riverside County are also within the City of Rancho Mirage Sphere of Influence. The methodology provided in the *Highway Capacity Manual* (HCM 2000) is required by Riverside County for the intersection analysis.

City of Rancho Mirage LOS Policy

The Circulation Element includes as a policy, the provision and maintenance of Level of Service D operation for the Rancho Mirage circulation network, based upon peak hour intersection operation. The City of Rancho Mirage requires individual development projects to analyze the LOS at individual intersections to ensure that development projects do not create bottlenecks at the intersections of the roadway system whose roadway widths and rights-of-way were previously examined in the year 2005 in conjunction with the *Rancho Mirage General Plan* update process. Rancho Mirage experiences significant seasonal fluctuations in traffic demand with the peak traffic flows occurring in the winter months.

Cathedral City LOS Standard

For planning and design purposes, Cathedral City has also established Level of Service "D" as minimum peak hour system performance standard for traffic volumes on the roadway system. Cathedral City experiences seasonal variations in traffic volumes associated with tourism and part-year residents. The Cathedral City General Plan addresses peak season traffic conditions.

City of Palm Desert Target LOS

The Circulation Element of the *City of Palm Desert General Plan* states that peak hour intersection operation at LOS "C" or better is generally acceptable. However, as traffic volumes in the City increase, LOS "C" represents a standard that is progressively more difficult and costly to achieve in urban areas. For peak operating periods, LOS "D" and/or a maximum

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2 RCIP *Riverside County Comprehensive General Plan Environmental Impact Report*. pp 4.16-11.

volume to capacity ratio of 0.90 is provisionally considered the generally acceptable service level. The City of Palm Desert LOS "C" goal should only be exceeded where maximum feasible intersection improvements have been implemented.

5.3 Capacity and Level of Service Analysis

Roadway Capacity

A given lane or roadway may provide a wide range of service levels, depending upon traffic volumes and speeds. Roadway capacity has been defined as the maximum number of vehicles that can pass over a given roadway during a given time period under prevailing roadway and traffic conditions. The capacity of a roadway that is used for design purposes (which is generally set at either the upper limit of LOS C or LOS D) is the level at which the facility is handling the maximum traffic volume that it can accommodate while maintaining an acceptable level of driver satisfaction.

The maximum capacity of a roadway is generally defined at the upper limit of LOS E and reflects the maximum traffic volume that a roadway can theoretically handle. The maximum capacity is determined from roadway factors (such as lane widths, lateral clearance, shoulders, surface conditions, alignment and grades) as well as traffic factors (such as vehicle composition i.e. truck and bus mixture, distribution by lane, peaking characteristics, traffic control devices, intersections, etc.).

Street geometric design features that may be less than ideal and adversely affect operating conditions include: narrow lanes and/or shoulders, street grades, constrained design speeds (sharp horizontal and vertical curves), excessive or poorly spaced intersections, private driveways for adjacent development, and a lack of turn lanes. The *Highway Capacity Manual* can be used to identify these features and determine the traffic volumes that can be served by streets with less than ideal design features.

Level of Service Criteria

Levels of service (LOS) are commonly used to describe how well a transportation facility operates from the traveler's perspective. Levels of service use a familiar scale ranging from LOS A (best) to LOS F (worst). Levels of service can be used to describe the performance of a highway segment or intersection with LOS A used to characterize essentially free flow operation and LOS F used to reflect substantial congestion, long delays and stop-and-go operation. LOS has been widely adopted as a standard or criterion on which decisions are based regarding the approval of land development, upgrading traffic control systems, and allocating costs for mitigating traffic impacts.

A change in average control delay from 35 to 55 seconds per vehicle (i.e., LOS C to LOS D) indicates that the roadway performance has transitioned from one range to another and that change would be perceived by drivers. No change in LOS indicates that the average delay may have increased, but the change would not be perceived by drivers.

Levels of service are defined by one or more measures of effectiveness such as: speed and travel time, traffic volume, geometric features, traffic interruptions, delays, the ability to move freely, driver comfort and convenience, and vehicle operating costs. For peak hour traffic operations at intersections, the six levels of service are based on relative levels of driver acceptability of delay. Since drivers are willing to accept more delay at signalized than unsignalized intersections, separate ranges of delay have been identified for LOS based on the intersection control type, as shown in Table 5-1.

The preferred method of gauging congestion is to evaluate intersection operations during the peak hours, since the approach lane configuration at intersections represents the limiting factor in the capacity of the transportation system. A peak hour intersection analysis requires more data but can more clearly define the circulation system performance characteristics. Once these characteristics are known, the intersection approach lanes and traffic control required to accommodate the travel demands and meet the applicable intersection performance standards can be determined.

Methodology Overview

The *Highway Capacity Manual* (HCM) provides the best available techniques for determining capacity, delay, and levels of service for transportation facilities.[3] A brief discussion of the *Highway Capacity Manual* operational methodologies for signalized and unsignalized intersections is provided in Appendix 3. The relationship between peak hour intersection control delay and levels of service is shown in Table 5-1.

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[3] *Highway Capacity Manual;* Fourth Edition; TRB Report 209; Transportation Research Board, National Research Council; Washington, D.C.; 2000.

Table 5-1
Intersection Level of Service Criteria

Level of Service (LOS)	Average Control Delay (Seconds/Vehicle)		Traffic Flow Characteristics
	Signalized	Unsignalized	
A	≤ 10	≤ 10	Good progression, few stops, and short cycle lengths. Most vehicles arrive during the green phase and many do not stop. Little or no delay at unsignalized intersections.
B	> 10 and ≤ 20	> 10 and ≤ 15	Good progression, short cycle lengths or both. More vehicles stop than with LOS A, causing higher levels of average delay. Short traffic delays at unsignalized intersections.
C	> 20 and ≤ 35	> 15 and ≤ 25	Satisfactory operation with fair progression, longer cycle lengths, or both. Individual cycle failures may begin to appear. Cycle failure occurs when a given green phase does not serve queued vehicles and overflow occurs. A significant number of vehicles stop but many pass through without stopping. Average traffic delays at unsignalized intersections.
D	> 35 and ≤ 55	> 25 and ≤ 35	Tolerable delay, where congestion becomes more noticeable and many vehicles stop. Individual cycle failures are noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high V/C ratios. Long traffic delays at unsignalized intersections.
E	> 55 and ≤ 80	> 35 and ≤ 50	Unstable flow with poor progression, frequent cycle failures, long cycle lengths and high V/C ratios. Individual cycle failures and long queues are frequent occurrences. This is considered the limit of acceptable delay by many agencies. Very long traffic delays at unsignalized intersections.
F	> 80	> 50	Considered unacceptable to most drivers. Arrival flow rates exceed the discharge capacity of intersection with many individual cycle failures. Poor progression and long cycle lengths as well as high V/C ratios and high delay. Unacceptable traffic delays at unsignalized intersections.

Source: *Highway Capacity Manual,* Special Report 209, Transportation Research Board, Fourth Edition, 2000; pp. 10-16.

The Highway Capacity Software (HCS+) package is a direct computerized implementation of the HCM 2000 procedures. It is prepared under FHWA sponsorship and maintained by the McTrans Center at the University of Florida Transportation Research Center. The most recent version of HCS+ (Version 5.3) was employed to assess the key intersections in the project vicinity. The computerized HCS+ worksheets are included in Appendix 3.

An eight percent truck mix was assumed for the peak hour operational analysis of existing and year 2022 conditions. A five percent truck mix was assumed for the future year 2035 operational analyses. The peak hour factors determined from the peak hour traffic counts at the existing key intersections were assumed for the existing and year 2022 operational analyses.

The horizon year 2035 analysis assumed a peak hour factor of 1.0. The existing approach lane geometrics at the key intersections are shown in Figure 6-1. Figure 6-2 illustrates the minimum lane geometrics required for the initial phase of the proposed development. Figure 6-3 illustrates the minimum required approach lane geometrics and traffic control assumed for existing plus project buildout conditions. Figure 6-4 illustrates the minimum required approach lane geometrics and traffic control assumed for conditions in the horizon year 2035. The approach lanes therein represent: (1) existing lanes; (2) lanes required to eliminate off-site intersection deficiencies; and (3) future lanes recommended to ensure adequate site access. Ultimately, the circulation system within the study area may have additional lanes beyond those shown in Figure 6-4.

Performance Standard Addressed

No scientific method exists for deciding the maximum degree of congestion that might be accepted as a basis for design. The level of congestion considered acceptable for a street or intersection will vary from one agency to another and from one community to another. The expectations of people using a street will also vary by facility type, day of the week, and time of the day. The degree of congestion that the public is willing to accept as reasonable remains a local decision.

For conditions to be tolerable, the traffic demand must not exceed the capacity of a street or highway to prevent complete stoppages or stop-and-go driving conditions. This design principle is reflected in the Congestion Management Program performance standard of LOS E. The attitude of motorists toward adverse operating conditions is influenced by their awareness of the construction and right-of-way costs necessary to provide better service. This design principle is reflected in the willingness of the City of Palm Desert to accept LOS D provisionally, in densely developed areas where facilities have been fully improved and high land values would make achieving LOS C extremely costly.

Adopting a higher level of service performance standard may be reasonable in rural areas where travel demands are relatively stable throughout the year and traffic densities and traffic congestion are relatively low. The cost of correcting deficiencies is lower in rural areas where the adjacent land is less densely developed and land values are low compared to urban and suburban areas.

The seasonal variation in travel demand within the study area is much greater than it is within Riverside County as a whole. Adopting LOS D as the minimum performance standard during the peak hours in the peak season in areas where the seasonal population is nearly equal to the number of permanent residents would result in LOS C conditions when seasonal visitors are not present. That means during more than half of the year, LOS C or better conditions would be expected during the peak hours. While all jurisdictions should strive to provide the highest level of service that is feasible, in heavily developed areas, conditions may necessitate the use of LOS D for arterials. AASHTO suggests that “For some urban and suburban highways, conditions may necessitate the use of level of service D.”[4]

All of the key intersections that have corners located within unincorporated Riverside County are also within the Sphere of Influence of Rancho Mirage. The *Riverside County Comprehensive General Plan* states that for development within the Sphere of Influence of an incorporated jurisdiction, city standards should generally apply where annexation to the city will logically occur in the short to intermediate range future. Level of Service "D" was utilized as the target intersection service level during peak hours in the peak season. This performance standard is utilized by the City of Rancho Mirage and City of Cathedral City.

Two of the key intersections are under the jurisdiction of both the City of Rancho Mirage and the City of Palm Desert. Although Palm Desert has identified LOS C as a target, for peak operating periods, LOS “D” and/or a maximum volume to capacity ratio of 0.90 is provisionally acceptable where maximum feasible intersection improvements have been implemented. Maximum feasible intersection improvements have been implemented at the intersection of Monterey Avenue and Dinah Shore Drive [Intersection16]. Therefore, LOS D was assumed as the target LOS for this intersection. The intersection of Key Largo Avenue and Dinah Shore Drive [Intersection15] is not fully improved, but not expected to exceed LOS C in the future.

Operational Analysis

Existing Conditions (Year 2013 - Peak Season)

The evaluation of peak hour traffic operations at the seventeen key intersections in terms of control delay and levels of service (LOS) is summarized in Tables 5-2 and 5-3. All of the key intersections currently provide LOS C or better operation during the peak season with the existing traffic volumes, intersection approach lane configurations, and traffic control.

As shown in Table 5-2, the unsignalized intersection of Los Alamos Road with Via Bella [Intersection 8] is providing a very high level of service (LOS A) during the peak hours for all movements. The unsignalized northbound approach at the intersection of the Westin Resort Villas access with Dinah Shore Drive [Intersection 13] currently operates at LOS B during the morning peak hour and LOS C during the evening peak hour. The northbound volumes at this intersection are substantially below the minimum peak hour traffic signal warrant and are not expected to warrant signalization in the future.

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[4] AASHTO Ibid. pp.87.

Table 5-2
Existing Weekday Peak Hour Delay and Levels of Service[a]
At the Unsignalized Key Intersections With and Without the Initial Phase of the Project

Unsignalized Intersection [Intersection Number]	Existing Without Project			Existing Plus Initial Phase			Change In	
	Major Street Left Turn[b] Delay/LOS	Minor-Street Approach[c] Move	Minor-Street Approach[c] Delay/LOS	Major Street Left Turn[b] Delay/LOS	Minor-Street Approach[c] Move	Minor-Street Approach[c] Delay/LOS	Minor-Street Approach Delay	Minor-Street Approach LOS
LOS ALAMOS ROAD @ VIA BELLA [INTERSECTION 8]								
- Morning Peak Hour [PHF=0.77]	7.5/A	EB	9.4/A	7.5/A	EB	10.3/B	0.9	A-B
- Evening Peak Hour [PHF=0.88]	7.4/A	EB	9.0/A	7.5/A	EB	10.0/B	1.0	A-B
WESTIN RESORT VILLAS @ DINAH SHORE DR. [INT. 13]								
- Morning Peak Hour [PHF=0.82]	9.5/A	NB	12.3/B	9.8/A	NB	13.0/B	0.7	No
- Evening Peak Hour [PHF=0.91]	10.2/B	NB	18.0/C	10.5/B	NB	19.9/C	1.9	No

a. Appendix 3 includes the HCS worksheets. The values shown assume an eight percent truck mix and the intersection geometrics shown in Figure 6-1 and Figure 6-2. NA=Not Applicable. The change in delay and LOS associated with site traffic is not directly comparable if an intersection is unsignalized without the proposed project but signalized with the project.

b. Delay=average control delay (seconds/vehicle) for the left-turn move from the major street onto the minor street. LOS was determined from the delay (0-10 sec./veh. = LOS A; 10-15 sec./veh. = LOS B; 15-25 sec./veh. = LOS C; 25-35 sec./veh. = LOS D; 35-50 sec./veh. = LOS E; 50+ sec./veh. = LOS F) per HCM 2000 page 17-2 and 17-32.

c. EB= Eastbound. NB=Northbound. Delay=average approach control delay (seconds/vehicle) for the minor-street approach that exhibits the most delay at this intersection. LOS was determined per the HCM 2000 (page 17-2 and 17-32).

Table 5-3
Existing Weekday Peak Hour Delay and LOS
At the Signalized Key Intersections With and Without Initial Phase of Project[a]

Signalized Intersection [Intersection Number]	Existing Without Project			Existing Plus Initial Phase			Change In	
	Delay (Sec./Veh.)	Critical V/C	LOS	Delay (Sec./Veh.)	Critical V/C	LOS	Delay (Sec./Veh.)	LOS
Bob Hope Dr. @ Westbound I-10 Ramps [Intersection 1]								
- Morning Peak Hour [PHF=0.87]	15.2	0.32	B	15.3	0.33	B	0.1	No
- Evening Peak Hour [PHF=0.91]	19.0	0.41	B	19.4	0.42	B	0.4	No
Bob Hope Dr. @ Eastbound I-10 Ramps [Intersection 2]								
- Morning Peak Hour [PHF=0.87]	10.0	0.38	A	9.9	0.39	A	-0.1	No
- Evening Peak Hour [PHF=0.97]	9.1	0.27	A	8.9	0.28	A	-0.2	No
Da Vall Drive @ Ramon Road [Intersection 3]								
- Morning Peak Hour [PHF=0.96]	28.7	0.63	C	28.7	0.63	C	0.0	No
- Evening Peak Hour [PHF=0.90]	24.8	0.52	C	25.0	0.54	C	0.2	No
Rattler Road @ Ramon Road [Intersection 4]								
- Morning Peak Hour [PHF=0.91]	8.8	0.29	A	8.7	0.30	A	-0.1	No
- Evening Peak Hour [PHF=0.86]	7.3	0.34	A	7.2	0.35	A	-0.1	No
Los Alamos Road @ Ramon Road [Intersection 5]								
- Morning Peak Hour [PHF=0.83]	5.0	0.32	A	6.2	0.36	A	1.2	No
- Evening Peak Hour [PHF=0.93]	4.2	0.27	A	5.3	0.31	A	1.1	No
Bob Hope Drive @ Ramon Road [Intersection 6]								
- Morning Peak Hour [PHF=0.86]	20.6	0.56	C	20.7	0.57	C	0.1	No
- Evening Peak Hour [PHF=0.97]	21.2	0.52	C	21.2	0.52	C	0.0	No
Eastbound I-10 Ramps @ Ramon Road [Intersection 7]								
- Morning Peak Hour [PHF=0.88]	3.6	0.48	A	3.6	0.49	A	0.0	No
- Evening Peak Hour [PHF=0.91]	5.2	0.49	A	5.2	0.50	A	0.0	No
Bob Hope Drive @ Casino [Intersection 9]								
- Morning Peak Hour [PHF=0.83]	4.7	0.37	A	4.7	0.37	A	0.0	No
- Evening Peak Hour [PHF=0.87]	7.0	0.32	A	7.0	0.32	A	0.0	No

a. Delay = Intersection Control Delay (seconds per vehicle). Assumes intersection geometrics shown in Figure 6-1 and Figure 6-2 and an eight percent truck mix. Based upon the *Highway Capacity Manual* signalized operation methodology implemented by the Highway Capacity Software (HCS+ Version 5.3). LOS is the intersection level of service. LOS was determined from the delay (≤10 sec./veh.=LOS A; >10 and ≤20 sec./veh.=LOS B; >20 and ≤35 sec./veh.=LOS C; >35 and ≤55 sec./veh.=LOS D; >55 and ≤80 sec./veh.=LOS E; >80 sec./veh. = LOS F) per 2000 HCM page 10-16. See Appendix 3 for the signalized intersection HCS worksheets.

Table 5-3 (Continued)
Existing Weekday Peak Hour Delay and LOS
At the Signalized Key Intersections With and Without Initial Phase of Project[a]

Signalized Intersection [Intersection Number]	Existing Without Project			Existing Plus Initial Phase			Change In	
	Delay (Sec./Veh.)	Critical V/C	LOS	Delay (Sec./Veh.)	Critical V/C	LOS	Delay (Sec./Veh.)	LOS
DA VALL DRIVE @ DINAH SHORE DRIVE [Intersection 10]								
- Morning Peak Hour [PHF=0.83]	27.5	0.64	C	27.8	0.64	C	0.3	No
- Evening Peak Hour [PHF=0.88]	27.5	0.69	C	27.5	0.69	C	0.0	No
LOS ALAMOS ROAD @ DINAH SHORE DRIVE [Intersection 11]								
- Morning Peak Hour [PHF=0.78]	5.7	0.30	A	5.9	0.31	A	0.2	No
- Evening Peak Hour [PHF=0.85]	5.2	0.43	A	5.5	0.44	A	0.3	No
WESTIN MISSION HILLS @ DINAH SHORE DR. [Int. 12]								
- Morning Peak Hour [PHF=0.90]	5.9	0.29	A	11.0	0.36	B	5.1	A-B
- Evening Peak Hour [PHF=0.91]	6.9	0.41	A	8.6	0.47	A	1.7	No
Bob Hope Drive @ Dinah Shore Drive [Intersection 14]								
- Morning Peak Hour [PHF=0.84]	25.9	0.56	C	26.1	0.58	C	0.2	No
- Evening Peak Hour [PHF=0.89]	25.7	0.61	C	26.3	0.64	C	0.6	No
KEY LARGO AVE. @ DINAH SHORE DRIVE [Intersection 15]								
- Morning Peak Hour [PHF=0.86]	5.1	0.20	A	5.1	0.21	A	0.0	No
- Evening Peak Hour [PHF=0.92]	5.2	0.26	A	5.2	0.26	A	0.0	No
MONTEREY AVE. @ DINAH SHORE DRIVE [Intersection 16]								
- Morning Peak Hour [PHF=0.86]	21.8	0.66	C	22.1	0.67	C	0.3	No
- Evening Peak Hour [PHF=0.95]	30.0	0.82	C	30.6	0.82	C	0.6	No
BOB HOPE DRIVE @ GERALD FORD DRIVE [Intersection 17]								
- Morning Peak Hour [PHF=0.85]	31.3	0.73	C	31.6	0.74	C	0.3	No
- Evening Peak Hour [PHF=0.96]	29.2	0.66	C	29.3	0.67	C	0.1	No

a. Delay = Intersection Control Delay (seconds per vehicle). Assumes intersection geometrics shown in Figure 6-1 and Figure 6-2 and an eight percent truck mix. Based upon the *Highway Capacity Manual* signalized operation methodology implemented by the Highway Capacity Software (HCS+ Version 5.3). LOS is the intersection level of service. LOS was determined from the delay (≤10 sec./veh.=LOS A; >10 and ≤20 sec./veh.=LOS B; >20 and ≤35 sec./veh.=LOS C; >35 and ≤55 sec./veh.=LOS D; >55 and ≤80 sec./veh.=LOS E; >80 sec./veh. = LOS F) per 2000 HCM page 10-16. See Appendix 3 for the signalized intersection HCS worksheets.

Existing Plus Project (Initial Phase) Conditions

All of the key intersections evaluated will continue to operate at acceptable levels of service during the peak hours upon completion of the initial phase of the proposed development. The traffic generated by the active adult community will change the peak hour level of service at two of the intersections evaluated. Both of these intersections would provide direct access to the active adult community proposed within Planning Area 8.

The addition of the traffic associated with the initial phase of the proposed project to existing traffic volumes would result in an increase in the average control delay during the peak hours of up to one second per vehicle traveling eastbound on Via Bella at Los Alamos Road [Intersection 8]. As shown in Table 5-2, the project-related increase in average control delay experienced by these motorists during the peak hours is expected to change the level of service on this approach from LOS A to LOS B. This increase in delay would most likely not be perceived by motorists, since the eastbound approach would continue to operate at LOS B, which is considered an acceptable level of service associated with relatively low levels of delay. Most of the vehicles passing through this intersection would be traveling northbound or southbound on Los Alamos Road, which is projected to operate with an average of 7.5 seconds per vehicle of control delay. This level of control delay is indicative of LOS A operation. Many motorists on Los Alamos Road will pass through the intersection at Via Bella during the peak hours with no control delay.

As shown in Table 5-3, the increase in the average control delay of 5.1 seconds per vehicle associated with the proposed site access connection opposite the existing signalized intersection of the Westin Mission Hills Access and Dinah Shore Drive [Intersection 12] would cause the morning peak hour level of service to drop from LOS A to LOS B. No change in the level of service at this intersection during the evening peak hour is projected to occur when the active adult community is developed.

Existing Plus Project Buildout Conditions

As shown in Table 5-4, the addition of the site traffic associated with buildout of the proposed project to existing traffic volumes would result in a potential operational deficiency at one intersection [Intersection 13]. That deficiency would be avoided through the installation of traffic control signals in conjunction with the implementation of the proposed Section 24 Specific Plan. A traffic control signal would be installed in conjunction with the site access connection proposed opposite the existing Westin Resort Villas access on Dinah Shore Drive [Intersection 13] and activated when warranted by site traffic volumes. With traffic signal control, this intersection would operate at LOS A during the morning peak hour and maintain LOS C operation during the evening peak hour.

The addition of site traffic associated with buildout of the proposed project to existing traffic volumes would result in a drop in the morning peak hour LOS at two intersections where site access connections are proposed. The eastbound approach at the unsignalized intersection of Los Alamos Road and Via Bella would experience a drop from LOS A to LOS B when site traffic is added.

As shown in Table 5-5, the addition of site traffic to existing traffic volumes at the signalized intersection of Bob Hope Drive and Casino [Intersection 9] would cause an increase in the average intersection delay of 17.6 seconds per vehicle during the morning peak hour. An increase in average control delay of this magnitude would be noticeable to motorists and decrease the level of service provided by this intersection from LOS A to LOS C.

The addition of site buildout traffic to the existing traffic volumes at the signalized key intersections would cause a drop in the evening peak hour levels of service at eight of the key intersections. The level of service is projected to drop from LOS A to LOS B at three of the key intersections including: Los Alamos Road at Ramon Road, the Eastbound I-10 Ramps at Ramon Road, and Los Alamos Road at Dinah Shore Drive. The level of service is projected to drop from LOS B to LOS C at the intersection of Bob Hope Drive with the Westbound Interstate 10 Ramps.

The level of service is projected to drop from LOS C to LOS D at three intersections including: Da Vall Drive at Ramon Road, Monterey Avenue at Dinah Shore Drive, and Bob Hope Drive at Gerald Ford Drive. The level of service is projected to drop from LOS A to LOS D at the intersection of Bob Hope Drive with Casino. Provided intersection 13 is signalized when warranted in conjunction with the implementation of the Section 24 Specific Plan, all of the key intersections would provide acceptable levels of service with existing plus project buildout traffic volumes and the site access improvements proposed at intersections 8, 9 and 13.

Table 5-4
Existing Weekday Peak Hour Delay and Levels of Service[a]
At the Unsignalized Key Intersections With and Without Project Buildout

Unsignalized Intersection [Intersection Number]	Existing Without Project			Existing Plus Project Buildout			Change In	
	Major Street Left Turn[b] Delay/LOS	Minor-Street Approach[c] Move	Delay/LOS	Major Street Left Turn[b] Delay/LOS	Minor-Street Approach[c] Move	Delay/LOS	Minor-Street Approach Delay	LOS
LOS ALAMOS ROAD @ VIA BELLA [INTERSECTION 8]								
- Morning Peak Hour [PHF=0.77]	7.5/A	EB	9.4/A	7.6/A	EB	10.3/B	0.9	A-B
- Evening Peak Hour [PHF=0.88]	7.4/A	EB	9.0/A	7.8/A	EB	11.5/B	2.5	A-B
WESTIN RESORT VILLAS @ DINAH SHORE DR. [INT. 13]				(Signal warrants met. See Table 5-5.)				
- Morning Peak Hour [PHF=0.82]	9.5/A	NB	12.3/B	NA	NA	NA	NA	NA
- Evening Peak Hour [PHF=0.88]	10.2/B	NB	18.0/C	NA	NA	NA	NA	NA

a. Appendix 3 includes the HCS worksheets. The values shown assume an eight percent truck mix and the intersection geometrics and traffic control shown in Figure 6-1 and Figure 6-3. NA=Not Applicable. The change in delay and LOS associated with site traffic is not directly comparable if an intersection is unsignalized without the proposed project but signalized with the project.

b. Delay=average control delay (seconds/vehicle) for the left-turn move from the major street onto the minor street. LOS was determined from the delay (0-10 sec./veh. = LOS A; 10-15 sec./veh. = LOS B; 15-25 sec./veh. = LOS C; 25-35 sec./veh. = LOS D; 35-50 sec./veh. = LOS E; 50+ sec./veh. = LOS F) per HCM 2000 page 17-2 and 17-32.

c. EB= Eastbound. NB=Northbound. Delay=average approach control delay (seconds/vehicle) for the minor-street approach that exhibits the most delay at this intersection. LOS was determined per the HCM 2000 (page 17-2 and 17-32).

Table 5-5
Existing Weekday Peak Hour Delay and LOS
At the Signalized Key Intersections With and Without Project Buildout[a]

Signalized Intersection [Intersection Number]	Existing Without Project			Existing Plus Project Buildout			Change In	
	Delay (Sec./Veh.)	Critical V/C	LOS	Delay (Sec./Veh.)	Critical V/C	LOS	Delay (Sec./Veh.)	LOS
Bob Hope Dr. @ Westbound I-10 Ramps [Intersection 1]								
- Morning Peak Hour [PHF=0.86]	15.2	0.32	B	17.6	0.40	B	2.4	No
- Evening Peak Hour [PHF=0.91]	19.0	0.41	B	28.1	0.80	C	9.1	B-C
Bob Hope Dr. @ Eastbound I-10 Ramps [Intersection 2]								
- Morning Peak Hour [PHF=0.87]	10.0	0.38	A	9.1	0.46	A	-0.9	No
- Evening Peak Hour [PHF=0.97]	9.1	0.27	A	5.8	0.47	A	-3.3	No
Da Vall Drive @ Ramon Road [Intersection 3]								
- Morning Peak Hour [PHF=0.96]	28.7	0.63	C	29.2	0.67	C	0.5	No
- Evening Peak Hour [PHF=0.90]	24.8	0.52	C	35.2	0.87	D	10.4	C-D
Rattler Road @ Ramon Road [Intersection 4]								
- Morning Peak Hour [PHF=0.91]	8.8	0.29	A	8.2	0.33	A	-0.6	No
- Evening Peak Hour [PHF=0.86]	7.3	0.34	A	6.6	0.52	A	-0.7	No
Los Alamos Road @ Ramon Road [Intersection 5]								
- Morning Peak Hour [PHF=0.83]	5.0	0.32	A	7.1	0.43	A	2.1	No
- Evening Peak Hour [PHF=0.93]	4.2	0.27	A	10.6	0.58	B	6.4	A-B
Bob Hope Drive @ Ramon Road [Intersection 6]								
- Morning Peak Hour [PHF=0.86]	20.6	0.56	C	21.4	0.65	C	0.8	No
- Evening Peak Hour [PHF=0.97]	21.2	0.52	C	29.7	0.87	C	8.5	No
Eastbound I-10 Ramps @ Ramon Road [Intersection 7]								
- Morning Peak Hour [PHF=0.88]	3.6	0.48	A	3.8	0.57	A	0.2	No
- Evening Peak Hour [PHF=0.91]	5.2	0.49	A	11.0	0.88	B	5.8	A-B
Bob Hope Drive @ Casino [Intersection 9]								
- Morning Peak Hour [PHF=0.83]	4.7	0.37	A	22.3	0.68	C	17.6	A-C
- Evening Peak Hour [PHF=0.87]	7.5	0.43	A	50.1	0.92	D	42.6	A-D

a. Delay = Intersection Control Delay (seconds per vehicle). Assumes intersection geometrics shown in Figure 6-1 and Figure 6-3 and a five percent truck mix. Based upon the *Highway Capacity Manual* signalized operation methodology implemented by the Highway Capacity Software (HCS+ Version 5.3). LOS is the intersection level of service. LOS was determined from the delay (≤10 sec./veh.=LOS A; >10 and ≤20 sec./veh.=LOS B; >20 and ≤35 sec./veh.=LOS C; >35 and ≤55 sec./veh.=LOS D; >55 and ≤80 sec./veh.=LOS E; >80 sec./veh. = LOS F) per 2000 HCM page 10-16. See Appendix 3 for the signalized intersection HCS worksheets.

Table 5-5 (Continued)
Existing Weekday Peak Hour Delay and LOS
At the Signalized Key Intersections With and Without Project Buildout[a]

Signalized Intersection [Intersection Number]	Existing Without Project			Existing Plus Project Buildout			Change In	
	Delay (Sec./Veh.)	Critical V/C	LOS	Delay (Sec./Veh.)	Critical V/C	LOS	Delay (Sec./Veh.)	LOS
DA VALL DRIVE @ DINAH SHORE DRIVE [Intersection 10]								
- Morning Peak Hour [PHF=0.83]	27.5	0.64	C	28.9	0.68	C	1.4	No
- Evening Peak Hour [PHF=0.88]	27.5	0.69	C	34.2	0.70	C	6.7	No
LOS ALAMOS ROAD @ DINAH SHORE DRIVE [Intersection 11]								
- Morning Peak Hour [PHF=0.78]	5.7	0.30	A	6.9	0.36	A	1.2	No
- Evening Peak Hour [PHF=0.85]	5.2	0.43	A	10.0	0.64	B	4.8	A-B
WESTIN MISSION HILLS @ DINAH SHORE DR. [Int. 12]								
- Morning Peak Hour [PHF=0.90]	5.9	0.29	A	7.1	0.34	A	1.2	No
- Evening Peak Hour [PHF=0.91]	6.9	0.41	A	7.9	0.52	A	1.0	No
WESTIN RESORT VILLAS @ DINAH SHORE DR. [Int.13]	(Unsignalized. See Table 5-2.)							
- Morning Peak Hour [PHF=0.82]	NA	NA	NA	7.1	0.33	A	NA	NA
- Evening Peak Hour [PHF=0.91]	NA	NA	NA	20.3	0.76	C	NA	NA
Bob Hope Drive @ Dinah Shore Drive [Intersection 14]								
- Morning Peak Hour [PHF=0.84]	25.9	0.56	C	26.4	0.64	C	0.5	No
- Evening Peak Hour [PHF=0.89]	25.7	0.61	C	31.8	0.84	C	6.1	No
KEY LARGO AVE. @ DINAH SHORE DRIVE [Intersection 15]								
- Morning Peak Hour [PHF=0.86]	5.1	0.20	A	4.9	0.23	A	-0.2	No
- Evening Peak Hour [PHF=0.92]	5.2	0.26	A	5.7	0.37	A	0.5	No
MONTEREY AVE. @ DINAH SHORE DRIVE [Intersection 16]								
- Morning Peak Hour [PHF=0.86]	21.8	0.66	C	23.3	0.71	C	1.5	No
- Evening Peak Hour [PHF=0.95]	30.0	0.82	C	41.9	0.93	D	11.9	C-D
BOB HOPE DRIVE @ GERALD FORD DRIVE [Intersection 17]								
- Morning Peak Hour [PHF=0.85]	31.3	0.73	C	33.3	0.79	C	2.0	No
- Evening Peak Hour [PHF=0.96]	29.2	0.66	C	36.1	0.85	D	6.9	C-D

a. Delay = Intersection Control Delay (seconds per vehicle). Assumes intersection geometrics shown in Figure 6-1 and Figure 6-3 and a five percent truck mix. Based upon the *Highway Capacity Manual* signalized operation methodology implemented by the Highway Capacity Software (HCS+ Version 5.3). LOS is the intersection level of service. LOS was determined from the delay (≤10 sec./veh.=LOS A; >10 and ≤20 sec./veh.=LOS B; >20 and ≤35 sec./veh.=LOS C; >35 and ≤55 sec./veh.=LOS D; >55 and ≤80 sec./veh.=LOS E; >80 sec./veh. = LOS F) per 2000 HCM page 10-16. See Appendix 3 for the signalized intersection HCS worksheets. NA=Not Applicable. The change in delay and LOS associated with site traffic is not directly comparable when an intersection is unsignalized without the proposed project but signalized and improved with the project.

Future Year 2022 Conditions (No Site Traffic)

Table 5-6 summarizes the future traffic operations at the two unsignalized key intersections in the year 2022, prior to the addition of the trips that would be generated by the initial phase of the proposed project. Table 5-7 provides the overall intersection delay and corresponding levels of service during the peak hours for the fifteen signalized key intersections without project traffic. All of the key intersections are projected to operate at acceptable levels or service (LOS D or better) in the year 2022 with cumulative traffic and the projected growth in background traffic, prior to the addition of site traffic.

Motorists traveling on the minor-street approaches at the two unsignalized key intersections are projected to experience LOS C or better operation with short to average traffic delays while waiting to turn onto the major streets during the peak hours in the peak season. Motorists turning left from Los Alamos Road onto Via Bella will experience an average delay of 7.5 to 7.7 seconds per vehicle (LOS A) during the peak hours. On average, motorists turning left from Dinah Shore Drive into the unsignalized Westin Resort Villas access [Intersection 13] are projected to experience a delay of 9.6 seconds per vehicle during the morning peak hour (LOS A) and 10.4 seconds per vehicle during the evening peak hour (LOS B). Based upon applicable local performance standards, these levels of service are considered acceptable.

Thirteen of the fifteen signalized key intersections are projected to operate at LOS C or better during the peak hours in the year 2022, prior to the addition of site traffic. Two of the signalized key intersections are projected to operate at LOS D during the morning peak hour and LOS C during the evening peak hour in the year 2022 without site traffic. These two intersections are: Da Vall Drive at Ramon Road [Intersection 3] and Bob Hope Drive at Gerald Ford Drive [Intersection 17]. Peak hour operation at LOS D or better is considered acceptable and consistent with the performance standards utilized by the City of Rancho Mirage and City of Cathedral City (the municipalities with jurisdiction over these intersections).

Future Year 2022 Plus Project (Initial Phase) Conditions

As shown in Table 5-6, the addition of the site traffic associated with the initial phase of the proposed project to future year 2022 plus cumulative traffic volumes would cause the peak hour level of service on the minor-street approach at one existing unsignalized key intersection to drop from LOS A to LOS B. The construction of the proposed site access on Los Alamos Road, opposite Via Bella, is projected to increase the average control delay experienced by eastbound motorists on Via Bella by up to 1.1 seconds per vehicle during the peak hours. These motorists are controlled by a stop sign on Via Bella that will remain after the project is built. The increase in delay when site traffic is added would cause the level of service for motorists on the minor-street approach (eastbound Via Bella) during the evening peak hour to drop from LOS A to LOS B. The level of delay associated with LOS B is characterized by drivers as short (see Table 5-1). This intersection would continue to provide acceptable levels of service following the addition of site traffic in the year 2022.

The projected increases in the overall average control delay at the fifteen signalized key intersections that would result when the trips generated by the initial phase of the proposed development are added are shown in Table 5-7. The overall average intersection control delay at these intersections would increase by up to 4.6 seconds per vehicle during the morning peak hour at the main access to the initial development phase in Planning Area 8. This increase would be sufficient to change the level of service at this signalized intersection [Intersection 12], from LOS A to LOS B. None of the other project-related increases in overall intersection control delay would be sufficient to change the intersection LOS at the signalized key intersections evaluated.

Future Horizon Year 2035 Conditions

A horizon year 2035 analysis was performed to determine if the applicable long-term regional and local Circulation Plans for the study area would be adequate to accommodate project traffic at acceptable levels of service or if additional mitigation would necessary. The RIVTAM traffic model projections based on model assumptions including buildout of the project site formed the basis for determining turning movement volumes for the required intersection analysis. Future horizon year 2035 conditions with no site traffic need not be evaluated to determine if the ultimate circulation system within the study area would be adequate. However, as an indicator of the relative impact of the proposed project at the key intersections, horizon year 2035 conditions with no site traffic have been evaluated and are summarized in Tables 5-8 and 5-9.

Table 5-6
Year 2022 Weekday Peak Hour Delay and Levels of Service[a]
At the Unsignalized Key Intersections With and Without the Initial Phase of the Project

Unsignalized Intersection [Intersection Number]	Year 2022 Without Project			Year 2022 Plus Initial Phase			Change In	
	Major Street Left Turn[b] Delay/LOS	Minor Street Approach[c] Move	Delay/LOS	Major Street Left Turn[b] Delay/LOS	Minor-Street Approach[c] Move	Delay/LOS	Minor-Street Approach Delay	LOS
LOS ALAMOS ROAD @ VIA BELLA [INTERSECTION 8]								
- Morning Peak Hour [PHF=0.77]	7.7/A	EB	10.3/B	7.7/A	EB	11.3/B	1.0	No
- Evening Peak Hour [PHF=0.88]	7.5/A	EB	9.5/A	7.7/A	EB	10.6/B	1.1	A-B
WESTIN RESORT VILLAS @ DINAH SHORE DR. [INT. 13]								
- Morning Peak Hour [PHF=0.82]	9.6/A	NB	12.5/B	10.0/A	NB	13.2/B	0.7	No
- Evening Peak Hour [PHF=0.88]	10.4/B	NB	19.8/C	10.7/B	NB	22.1/C	2.3	No

a. Appendix 3 includes the HCS worksheets. The values shown assume an eight percent truck mix and the intersection geometrics shown in Figure 6-2. NA=Not Applicable. The change in delay and LOS associated with site traffic is not directly comparable if an intersection is unsignalized without the proposed project but signalized with the project.
b. Delay=average control delay (seconds/vehicle) for the left-turn move from the major street onto the minor street. LOS was determined from the delay (0-10 sec./veh. = LOS A; 10-15 sec./veh. = LOS B; 15-25 sec./veh. = LOS C; 25-35 sec./veh. = LOS D; 35-50 sec./veh. = LOS E; 50+ sec./veh. = LOS F) per HCM 2000 page 17-2 and 17-32.
c. EB= Eastbound. NB=Northbound. Delay=average approach control delay (seconds/vehicle) for the minor-street approach that exhibits the most delay at this intersection. LOS was determined per the HCM 2000 (page 17-2 and 17-32).

Table 5-7
Year 2022 Weekday Peak Hour Delay and LOS
At the Signalized Key Intersections With and Without Initial Phase of Project[a]

Signalized Intersection [Intersection Number]	Year 2022 Without Project			Year 2022 With Initial Phase			Change In	
	Delay (Sec./Veh.)	Critical V/C	LOS	Delay (Sec./Veh.)	Critical V/C	LOS	Delay (Sec./Veh.)	LOS
Bob Hope Dr. @ Westbound I-10 Ramps [Intersection 1]								
- Morning Peak Hour [PHF=0.86]	16.1	0.45	B	16.6	0.45	B	0.5	No
- Evening Peak Hour [PHF=0.91]	20.5	0.56	C	20.7	0.57	C	0.2	No
Bob Hope Dr. @ Eastbound I-10 Ramps [Intersection 2]								
- Morning Peak Hour [PHF=0.87]	10.5	0.48	B	10.5	0.49	B	0.0	No
- Evening Peak Hour [PHF=0.97]	8.5	0.38	A	8.4	0.39	A	-0.1	No
Da Vall Drive @ Ramon Road [Intersection 3]								
- Morning Peak Hour [PHF=0.96]	36.5	0.83	D	37.4	0.84	D	0.9	No
- Evening Peak Hour [PHF=0.90]	28.0	0.71	C	28.4	0.72	C	0.4	No
Rattler Road @ Ramon Road [Intersection 4]								
- Morning Peak Hour [PHF=0.91]	9.1	0.40	A	9.1	0.41	A	0.0	No
- Evening Peak Hour [PHF=0.86]	8.2	0.48	A	8.2	0.49	A	0.0	No
Los Alamos Road @ Ramon Road [Intersection 5]								
- Morning Peak Hour [PHF=0.83]	6.3	0.47	A	7.1	0.51	A	0.8	No
- Evening Peak Hour [PHF=0.93]	4.8	0.39	A	6.1	0.41	A	1.3	No
Bob Hope Drive @ Ramon Road [Intersection 6]								
- Morning Peak Hour [PHF=0.86]	22.7	0.73	C	23.0	0.74	C	0.3	No
- Evening Peak Hour [PHF=0.97]	23.0	0.68	C	23.3	0.68	C	0.3	No
Eastbound I-10 Ramps @ Ramon Road [Intersection 7]								
- Morning Peak Hour [PHF=0.88]	4.3	0.59	A	4.4	0.60	A	0.1	No
- Evening Peak Hour [PHF=0.91]	5.9	0.60	A	5.9	0.61	A	0.0	No
Bob Hope Drive @ Casino [Intersection 9]								
- Morning Peak Hour [PHF=0.83]	4.7	0.49	A	4.7	0.49	A	0.0	No
- Evening Peak Hour [PHF=0.87]	6.9	0.41	A	6.9	0.41	A	0.0	No

a. Delay = Intersection Control Delay (seconds per vehicle). Assumes intersection geometrics shown in Figure 6-1 and Figure 6-2 and an eight percent truck mix. Based upon the *Highway Capacity Manual* signalized operation methodology implemented by the Highway Capacity Software (HCS+ Version 5.3). LOS is the intersection level of service. LOS was determined from the delay ≤10 sec./veh.=LOS A; >10 and ≤20 sec./veh.=LOS B; >20 and ≤35 sec./veh.=LOS C; >35 and ≤55 sec./veh.=LOS D; >55 and ≤80 sec./veh.=LOS E; >80 sec./veh. = LOS F) per 2000 HCM page 10-16. See Appendix 3 for the signalized intersection HCS worksheets.

Table 5-7 (Continued)
Year 2022 Weekday Peak Hour Delay and LOS
At the Signalized Key Intersections With and Without Initial Phase of Project[a]

Signalized Intersection [Intersection Number]	Year 2022 Without Project			Year 2022 With Initial Phase			Change In	
	Delay (Sec./Veh.)	Critical V/C	LOS	Delay (Sec./Veh.)	Critical V/C	LOS	Delay (Sec./Veh.)	LOS
DA VALL DRIVE @ DINAH SHORE DRIVE [Intersection 10]								
- Morning Peak Hour [PHF=0.83]	29.3	0.70	C	29.9	0.71	C	0.6	No
- Evening Peak Hour [PHF=0.88]	30.0	0.76	C	30.0	0.76	C	0.0	No
LOS ALAMOS ROAD @ DINAH SHORE DRIVE [Intersection 11]								
- Morning Peak Hour [PHF=0.78]	6.7	0.37	A	6.9	0.38	A	0.2	No
- Evening Peak Hour [PHF=0.85]	6.0	0.52	A	6.2	0.54	A	0.2	No
WESTIN MISSION HILLS @ DINAH SHORE DR. [Int. 12]								
- Morning Peak Hour [PHF=0.90]	6.1	0.34	A	10.7	0.40	B	4.6	A-B
- Evening Peak Hour [PHF=0.91]	7.7	0.49	A	8.8	0.53	A	1.1	No
Bob Hope Drive @ Dinah Shore Drive [Intersection 14]								
- Morning Peak Hour [PHF=0.84]	27.2	0.67	C	27.7	0.70	C	0.5	No
- Evening Peak Hour [PHF=0.89]	26.4	0.65	C	27.0	0.66	C	0.6	No
KEY LARGO AVE. @ DINAH SHORE DRIVE [Intersection 15]								
- Morning Peak Hour [PHF=0.86]	5.1	0.26	A	5.1	0.27	A	0.0	No
- Evening Peak Hour [PHF=0.92]	5.6	0.33	A	5.7	0.34	A	0.1	No
MONTEREY AVE. @ DINAH SHORE DRIVE [Intersection 16]								
- Morning Peak Hour [PHF=0.86]	21.6	0.67	C	21.8	0.68	C	0.2	No
- Evening Peak Hour [PHF=0.95]	33.2	0.87	C	33.8	0.88	C	0.6	No
BOB HOPE DRIVE @ GERALD FORD DRIVE [Intersection 17]								
- Morning Peak Hour [PHF=0.85]	38.9	0.83	D	40.0	0.84	D	1.1	No
- Evening Peak Hour [PHF=0.96]	33.4	0.79	C	33.8	0.80	C	0.4	No

a. Delay = Intersection Control Delay (seconds per vehicle). Assumes intersection geometrics shown in Figure 6-1 and Figure 6-2 and an eight percent truck mix. Based upon the *Highway Capacity Manual* signalized operation methodology implemented by the Highway Capacity Software (HCS+ Version 5.3). LOS is the intersection level of service. LOS was determined from the delay (≤10 sec./veh.=LOS A; >10 and ≤20 sec./veh.=LOS B; >20 and ≤35 sec./veh.=LOS C; >35 and ≤55 sec./veh.=LOS D; >55 and ≤80 sec./veh.=LOS E; >80 sec./veh. = LOS F) per 2000 HCM page 10-16. See Appendix 3 for the signalized intersection HCS worksheets.

Table 5-8
Horizon Year 2035 Weekday Peak Hour Delay and LOS[a]
At the Unsignalized Site Access Intersections With and Without Project Buildout

Unsignalized Intersection [Intersection Number]	Year 2035 Without Project			Year 2035 With Project Buildout			Change In	
	Major Street Left Turn[b] Delay/LOS	Minor-Street Approach[c] Move	Minor-Street Approach[c] Delay/LOS	Major Street Left Turn[b] Delay/LOS	Minor-Street Approach[c] Move	Minor-Street Approach[c] Delay/LOS	Minor-Street Approach Delay	Minor-Street Approach LOS
LOS ALAMOS ROAD @ VIA BELLA [INTERSECTION 8]								
- Morning Peak Hour	7.7/A	EB	10.2/B	7.8/A	EB	11.0/B	0.8	No
- Evening Peak Hour	7.5/A	EB	9.7/A	7.9/A	EB	12.3/B	2.6	A-B
LOS ALAMOS ROAD @ MULTI-FAMILY RESIDENTIAL ACCESS [INT. 22]	This intersection would not exist.							
- Morning Peak Hour	NA	NA	NA	7.7/A	WB	10.0/A	NA	NA
- Evening Peak Hour	NA	NA	NA	8.0/A	WB	10.5/B	NA	NA
LOS ALAMOS ROAD @ RETAIL ACCESS [INTERSECTION 23]	This intersection would not exist.							
- Morning Peak Hour	NA	NA	NA	7.8/A	WB	10.0/B	NA	NA
- Evening Peak Hour	NA	NA	NA	8.3/A	WB	12.6/B	NA	NA

a. Appendix 3 includes the HCS worksheets. The values shown assume a five percent truck mix, a peak hour factor of 1.00 and the intersection geometrics and traffic control shown in Figure 6-4. NA=Not Applicable. The change in delay and LOS associated with site traffic is not directly comparable if an intersection is unsignalized without the proposed project but signalized with the project.

b. Delay=average control delay (seconds/vehicle) for the left-turn move from the major street onto the minor street. LOS was determined from the delay (0-10 sec./veh. = LOS A; 10-15 sec./veh. = LOS B; 15-25 sec./veh. = LOS C; 25-35 sec./veh. = LOS D; 35-50 sec./veh. = LOS E; 50+ sec./veh. = LOS F) per HCM 2000 page 17-2 and 17-32. Intersection 22 has an average control delay that rounds up to 10.0 seconds per vehicle (LOS A) whereas intersection 22 has slightly more than 10.0 but less than 10.1 seconds per vehicle of delay, which corresponds to LOS B.

c. EB= Eastbound. WB=Westbound. Delay=average approach control delay (seconds/vehicle) for the minor-street approach that exhibits the most delay at this intersection. LOS was determined per the HCM 2000 (page 17-2 and 17-32).

Table 5-9
Year 2035 Weekday Peak Hour Delay and LOS
At the Signalized Key Intersections With and Without Project Buildout[a]

Signalized Intersection [Intersection Number]	Year 2035 Without Project			Year 2035 + Project Buildout			Change In	
	Delay (Sec./Veh.)	Critical V/C	LOS	Delay (Sec./Veh.)	Critical V/C	LOS	Delay (Sec./Veh.)	LOS
Bob Hope Dr. @ Westbound I-10 Ramps [Intersection 1]								
- Morning Peak Hour [PHF=1.00]	15.4	0.45	B	17.6	0.50	B	2.2	No
- Evening Peak Hour [PHF=1.00]	20.0	0.56	C	35.8	0.91	D	15.8	C-D
Bob Hope Dr. @ Eastbound I-10 Ramps [Intersection 2]								
- Morning Peak Hour [PHF=1.00]	10.8	0.39	B	10.6	0.46	B	-0.2	No
- Evening Peak Hour [PHF=1.00]	8.9	0.37	A	7.0	0.57	A	-1.9	No
Da Vall Drive @ Ramon Road [Intersection 3]	(Add second southbound left-turn lane.)			(Add second southbound left-turn lane.)				
- Morning Peak Hour [PHF=1.00]	41.0	0.90	D	47.7	0.95	D	6.7	No
- Evening Peak Hour [PHF=1.00]	27.0	0.70	C	40.5	0.93	D	13.5	C-D
Rattler Road @ Ramon Road [Intersection 4]								
- Morning Peak Hour [PHF=1.00]	8.7	0.40	A	9.1	0.44	A	0.4	No
- Evening Peak Hour [PHF=1.00]	7.3	0.47	A	7.5	0.62	A	0.2	No
Los Alamos Road @ Ramon Road [Intersection 5]								
- Morning Peak Hour [PHF=1.00]	6.0	0.42	A	7.3	0.52	A	1.3	No
- Evening Peak Hour [PHF=1.00]	4.9	0.41	A	11.5	0.69	B	6.6	A-B
Bob Hope Drive @ Ramon Road [Intersection 6]								
- Morning Peak Hour [PHF=1.00]	21.1	0.62	C	21.9	0.69	C	0.8	No
- Evening Peak Hour [PHF=1.00]	22.5	0.63	C	37.6	0.85	D	15.1	C-D
Eastbound I-10 Ramps @ Ramon Road [Intersection 7]								
- Morning Peak Hour [PHF=1.00]	3.4	0.48	A	3.6	0.56	A	0.2	No
- Evening Peak Hour [PHF=1.00]	5.1	0.51	A	9.2	0.85	A	4.1	No
Bob Hope Drive @ Casino [Intersection 9]								
- Morning Peak Hour [PHF=1.00]	12.8	0.47	B	15.9	0.59	B	3.1	No
- Evening Peak Hour [PHF=1.00]	12.2	0.37	B	30.7	0.83	C	18.7	B-C

a. Delay = Intersection Control Delay (seconds per vehicle). The values shown assume the intersection approach lanes shown in Figures 6-1 and 6-4 and a five percent truck mix. Based upon the *Highway Capacity Manual* signalized operation methodology implemented by the Highway Capacity Software (HCS+ Version 5.3). LOS is the intersection level of service. LOS was determined from the delay (≤10 sec./veh.=LOS A; >10 and ≤20 sec./veh.=LOS B; >20 and ≤35 sec./veh.=LOS C; >35 and ≤55 sec./veh.=LOS D; >55 and ≤80 sec./veh.=LOS E; >80 sec./veh. = LOS F) per 2000 HCM page 10-16. See Appendix 3 for the signalized intersection HCS worksheets. The mitigation necessary for intersection 3 to maintain LOS D or better operation was assumed both with and without site traffic to show the change in delay and LOS associated with site traffic.

Table 5-9 (Continued)
Year 2035 Weekday Peak Hour Delay and LOS
At the Signalized Key Intersections With and Without Project Buildout[a]

Signalized Intersection [Intersection Number]	Year 2035 Without Project			Year 2035 + Project Buildout			Change In	
	Delay (Sec./Veh.)	Critical V/C	LOS	Delay (Sec./Veh.)	Critical V/C	LOS	Delay (Sec./Veh.)	LOS
DA VALL DRIVE @ DINAH SHORE DRIVE [Intersection 10]								
- Morning Peak Hour [PHF=1.00]	26.4	0.58	C	27.2	0.62	C	0.8	No
- Evening Peak Hour [PHF=1.00]	27.6	0.66	C	31.6	0.79	C	4.0	No
LOS ALAMOS ROAD @ DINAH SHORE DRIVE [Intersection 11]								
- Morning Peak Hour [PHF=1.00]	6.4	0.30	A	7.2	0.34	A	0.8	No
- Evening Peak Hour [PHF=1.00]	5.6	0.46	A	9.7	0.63	A	4.1	No
WESTIN MISSION HILLS @ DINAH SHORE DR. [Int. 12]								
- Morning Peak Hour [PHF=1.00]	5.9	0.28	A	6.8	0.31	A	0.9	No
- Evening Peak Hour [PHF=1.00]	7.3	0.43	A	7.8	0.51	A	0.5	No
WESTIN RESORT VILLAS @ DINAH SHORE DR. [Int.13]								
- Morning Peak Hour [PHF=1.00]	5.1	0.24	A	6.7	0.29	A	1.6	No
- Evening Peak Hour [PHF=1.00]	6.0	0.36	A	17.0	0.65	B	11.0	A-B
Bob Hope Drive @ Dinah Shore Drive [Intersection 14]								
- Morning Peak Hour [PHF=1.00]	23.1	0.54	C	25.5	0.58	C	2.4	No
- Evening Peak Hour [PHF=1.00]	25.9	0.63	C	30.9	0.82	C	5.0	No
KEY LARGO AVE. @ DINAH SHORE DRIVE [Intersection 15]								
- Morning Peak Hour [PHF=1.00]	10.2	0.35	B	9.9	0.37	A	-0.3	B-A
- Evening Peak Hour [PHF=1.00]	13.5	0.56	B	13.9	0.66	B	0.4	No
MONTEREY AVE. @ DINAH SHORE DRIVE [Intersection 16]								
- Morning Peak Hour [PHF=1.00]	20.1	0.58	C	21.2	0.61	C	1.1	No
- Evening Peak Hour [PHF=1.00]	33.5	0.83	C	41.0	0.93	D	7.5	C-D
BOB HOPE DRIVE @ GERALD FORD DRIVE [Intersection 17][b]	(Add a second eastbound left-turn lane.)			(Add a second eastbound left-turn lane.)				
- Morning Peak Hour [PHF=1.00]	35.5	0.80	D	38.6	0.84	D	3.1	No
- Evening Peak Hour [PHF=1.00]	31.7	0.76	C	41.0	0.90	D	9.3	C-D

a. Delay = Intersection Control Delay (seconds per vehicle). Assumes intersection geometrics shown in Figure 6-1 and Figure 6-4 and a five percent truck mix. Based upon the *Highway Capacity Manual* signalized operation methodology implemented by the Highway Capacity Software (HCS+ Version 5.3). LOS is the intersection level of service. LOS was determined from the delay (≤10 sec./veh.=LOS A; >10 and ≤20 sec./veh.=LOS B; >20 and ≤35 sec./veh.=LOS C; >35 and ≤55 sec./veh.=LOS D; >55 and ≤80 sec./veh.=LOS E; >80 sec./veh. = LOS F) per 2000 HCM page 10-16. See Appendix 3 for the signalized intersection HCS worksheets.

b. The mitigation identified for intersection 17 to maintain LOS D or better operation was assumed both with and without site traffic to show the change in the delay and LOS associated with site traffic.

The overall intersection delay and levels of service shown in Tables 5-8 and 5-9 assume the approach lane geometrics at the key intersections shown in Figure 6-4. The average intersection delay shown in Table 5-9 reflects a lower projected truck mix (five percent) and a higher peak hour factor (1.00), consistent with the input parameters specified by the Riverside County Transportation Department in *Traffic Impact Analysis Preparation Guide* (April 2008). The higher peak hour factor reflects future conditions with heavier traffic volumes distributed more evenly during the peak hours.

Future Horizon Year 2035 Plus Project Buildout Conditions

As shown in Table 5-8, with site traffic, the unsignalized intersection of Los Alamos Road and Via Bella [Intersection 8] is projected to provide acceptable levels of service during the morning and evening peak hours. Motorists making left turns from Los Alamos Road will experience LOS A and those traveling eastbound on Via Bella will experience an average delay during the peak hours which is consistent with LOS B or better operation. The two site access intersections proposed on Los Alamos Road, between Ramon Road and Via Bella, are projected to operate at LOS B or better during the peak hours with two-way stop control and the intersection approach lanes shown in Figure 6-4.

As shown in Table 5-9, the traffic associated with the full development of the proposed project is expected to change the peak hour level of service by one LOS at nine of the signalized key intersections evaluated. Five of these intersections [Intersections 1, 5, 6, 15, and 16] are projected to operate at LOS D or better without mitigation. Two of these intersections [Intersections 3 and 17] would require mitigation to meet the minimum performance standard. The remaining two intersections [Intersections 9 and 13] would be improved to accommodate site access at acceptable levels of service in conjunction with the development of the proposed Section 24 Specific Plan.

As shown in Table 5-9, two of the existing key intersections [Intersection 9 and Intersection 13] would function as signalized full-turn site access intersections in the year 2035. The signalized intersection of Bob Hope Drive with Casino [Intersection 9] would operate at LOS B during the morning peak hour and LOS C during the evening peak hour with site traffic in the horizon year 2035 and the intersection approach lanes shown in Figure 6-4.

A traffic control signal would be installed in conjunction with the site access connection proposed opposite the existing Westin Resort Villas access on Dinah Shore Drive [Intersection 13]. This traffic control signal would be activated prior to buildout of the project site, when warranted by site-generated traffic. As shown in Table 5-9, with site traffic, traffic signal control, and the intersection approach lanes shown in Figure 6-4, this intersection would operate at LOS A during the morning peak hour and LOS B during the evening peak hour in the horizon year 2035.

It can be concluded from the analysis summarized in Tables 5-8 and 5-9 that the General Plan street system would accommodate the traffic associated with buildout of the proposed project in the horizon year 2035 at acceptable levels of service. Two of the off-site signalized key intersections evaluated [Intersection 3 and Intersection 17] would require localized mitigation in the form of an additional left-turn lane on one approach by the year 2035 to maintain acceptable levels of service. These required off-site improvements would be consistent with the General Plan classifications of the two roadways where mitigation would be required.

Da Vall Drive at Ramon Road

The eastern side of Da Vall Drive has been improved, between Ramon Road and a point just north of Via Del Paradiso, to provide approximately 35 feet of pavement with curbs, gutters, and a multi-use trail. The two existing southbound lanes on Da Vall Drive at this intersection include a dedicated left-turn lane and a shared through/right-turn lane. However, one additional southbound left-turn lane will be required on Da Vall Drive, at the intersection of Ramon Road, to accommodate the projected horizon year 2035 traffic volumes at acceptable levels of service.

The right-of-way reserved along Da Vall Drive, based upon its historical classification in the city and county General Plans appears to have been 100 feet. Da Vall Drive, north of Ramon Road, is currently designated as a four-lane divided Major Highway by Cathedral City, which would typically provide a 16-foot median with two 12-foot travel lanes and an 8-foot shoulder in each direction within a 112-foot right-of-way. Da Vall Drive is currently classified as a four-lane divided Minor Arterial by the City of Rancho Mirage. Minor Arterials typically provide an 86-foot roadbed and a 16-foot median within a 110-foot right-of-way. The difference between the two cross-sections would be approximately one less foot of right-of-way and three additional feet of pavement between the curb and the median on the east side of the centerline.

The alignment of any street is often governed by the existing or likely future development along it. Once a street alignment is constructed, changing its primary geometry is difficult and costly. Noticeable changes in alignment to accommodate right-of-

way conditions on opposite sides of an intersection are undesirable because the view of the road ahead is limited, and operational problems may result, especially at night. Design improvements to existing intersections are often constrained in urban areas. Since the centerline of Da Vall Drive also reflects the city limit of the adjacent cities of Rancho Mirage and Cathedral City, the ultimate improvements to Da Vall Drive, north of Ramon Road, will require coordination between these two cities to maintain the location of the centerline.

Although the centerline of Da Vall Drive has been established, the roadway improvements have been inconsistent to date because the right-of-way required and applicable standard cross-section have changed over time. The existing land uses located along both sides of Da Vall Drive limit the amount of right-of-way available. However, the existing development on the west side of Da Vall Drive (i.e., the administrative facilities at the Desert Memorial Park Cemetery) appears to represent the critical constraint with respect to the provision of dual southbound left-turn lanes on Da Vall Drive at Ramon Road in the future.

The lack of sufficient right-of-way on the west side of Da Vall Drive to accommodate three southbound lanes (dual left-turn lanes and a shared through/right lane) at the intersection of Ramon Road is an issue that will have to be addressed by Cathedral City to maintain traffic operations at this intersection in the year 2035 at levels of service consistent with the Cathedral City performance standard (LOS D). The existing southbound left-turn volume at this intersection (218 VPH during the morning peak hour) exceeds the 200 VPH criteria used by most designers considering the provision of dual left-turn lanes.

Bob Hope Drive at Gerald Ford Drive

A deficiency was identified for the horizon year 2035 conditions at the intersection of Bob Hope Drive and Gerald Ford Drive. The existing eastbound left-turn bay at this intersection is 150 feet in length and can accommodate up to seven passenger vehicles. During the peak hour in the peak season, approximately 163 vehicles per hour (VPH) currently make eastbound left turns at this intersection. From a traffic capacity and safety perspective, it is important for turn bays on arterial streets to be long enough to store all arriving vehicles during peak traffic conditions. The eastbound left-turn volume on Gerald Ford Drive at the intersection of Bob Hope Drive [Intersection 17] will require additional queue storage length in the future.

Most designers consider providing dual left-turn lanes whenever the left-turn volume approaches or exceeds 200 VPH. As shown in Figure 4-9 and Figure 4-10, the eastbound left-turn volume on Gerald Ford Drive at Bob Hope Drive is projected to increase to 194 VPH during the evening peak hour in the year 2022 and 208 VPH by the year 2035 without site traffic. The projected year 2035 plus project eastbound left-turn volume of 260 VPH would require additional queue storage length to prevent spillback into the adjacent through lane.

This deficiency was assumed to be mitigated in the year 2035 by improvements planned and funded by the City of Rancho Mirage that are scheduled to be completed during the year 2015. Although the planned improvements will provide dual left-turn lanes and a dedicated right-turn lane on all four approaches at this intersection, Table 5-9 and Figure 6-4 reflect the minimum intersection improvements required to achieve the performance standard.

Future Site Access Intersections

Following the site access improvements proposed in conjunction with the Section 24 Specific Plan, all of the future proposed full-turn site access intersections would provide acceptable levels of service upon completion of the proposed development. Future conditions at the three unsignalized site access intersections along Los Alamos Road [Intersections 8, 22, and 23] are shown in Table 5-8. As shown therein, these three unsignalized site access intersections would provide LOS B or better operation for motorists on the minor-street approaches. This LOS assumes a single-lane minor-street approach and that Los Alamos Road is improved as a two-lane roadway with a raised median and a left-turn bay at each intersection, as shown in Figure 6-4.

Future conditions at the three signalized site access intersections proposed opposite existing T-intersections on Bob Hope Drive and Dinah Shore Drive [Intersections 9, 12, and 13] are shown in Table 5-9 and assume the approach lanes shown in Figure 6-4. The project-related impact at the intersection of Bob Hope Drive with Casino [Intersection 9] appears to be slightly greater with the existing plus project buildout scenario than with the horizon 2035+project buildout scenario. Although the traffic volumes at this intersection would be higher with the horizon 2035+project buildout scenario, the existing plus project buildout scenario was evaluated with the higher existing truck mix and existing peak hour factor. The recommended intersection lane requirements would be the same for both scenarios.

Signalized full-turn site access connections are proposed at 0.25-mile spacing intervals along Ramon Road and Bob Hope Drive. Full-turn site access connections along Dinah Shore Drive are proposed opposite the existing signalized intersection providing access for the Westin Mission Hills Golf Resort and Spa (1,780 feet east of Los Alamos Road) as well as opposite the unsignalized access for the Westin Resort Villas (1,220 feet west of Bob Hope Drive). With site traffic, the peak hour traffic signal warrants would be met and new traffic control signals would be installed at the following full-turn site access intersections:

- Westin Resort Villas @ Dinah Shore Drive [Intersection 13],
- Street "C" @ Ramon Road [Intersection 18],
- Street "D" @ Ramon Road [Intersection 19],
- Bob Hope Drive @ Street "D" [Intersection 20], and
- Bob Hope Drive @ Street "E" [Intersection 21].

Table 5-10 shows the projected overall intersection average delay and levels of service during the peak hours at the proposed future full-turn signalized site access intersections along Ramon Road and Bob Hope Drive [Intersections 18, 19, 20, and 21]. As shown therein, all four of the intersections proposed along Ramon Road and Bob Hope Drive are projected to operate at acceptable levels of service during the peak hours in the horizon year 2035 with the traffic volumes generated upon buildout of the proposed project. During the peak hours the levels of service at these site access intersections are projected to be LOS C or better.

Table 5-10
Horizon Year 2035 Weekday Peak Hour Delay and LOS
At the Signalized Site Access Intersections

Signalized Intersection	Avg. Delay[a] (Sec./Veh.)	Critical V/C Ratio	LOS[b]
STREET "C" @ RAMON ROAD [INTERSECTION 18]			
- Morning Peak Hour [PHF=1.00]	5.0	0.44	LOS A
- Evening Peak Hour [PHF=1.00]	17.1	0.81	LOS B
STREET "D" @ RAMON ROAD [INTERSECTION 19]			
- Morning Peak Hour [PHF=1.00]	5.6	0.47	LOS A
- Evening Peak Hour [PHF=1.00]	28.2	0.93	LOS C
BOB HOPE DRIVE @ STREET "D" [INTERSECTION 20]			
- Morning Peak Hour [PHF=1.00]	6.8	0.51	LOS A
- Evening Peak Hour [PHF=1.00]	16.7	0.78	LOS B
BOB HOPE DRIVE @ STREET "E" [INTERSECTION 21]			
- Morning Peak Hour [PHF=1.00]	64	0.53	LOS A
- Evening Peak Hour [PHF=1.00]	11.2	0.69	LOS B

a. Average Delay = Average Control Delay (seconds per vehicle). Assumes existing intersection geometrics as shown in Figure 6-4 and a five percent truck mix. Based upon the *Highway Capacity Manual* signalized operational methodology implemented by Version 5.3 of the Highway Capacity Software (HCS+). See Appendix 3 for the signalized intersection HCS worksheets. PHF is the peak hour factor specified in the Riverside County Transportation Department *Traffic Impact Analysis Preparation Guide* (2008).

b. LOS is the intersection level of service. The LOS was determined from the delay (≤10 sec./veh.=LOS A; >10 and ≤20 sec./veh.=LOS B; >20 and ≤35 sec./veh.=LOS C; >35 and ≤55 sec./veh.=LOS D; >55 and ≤80 sec./veh.=LOS E; >80 sec./veh. = LOS F) per page 10-16 of the HCM.

5.4 Traffic Signal Warrant Analysis

When properly used, traffic control signals are valuable devices for the control of vehicular and pedestrian traffic. They assign the right-of-way to the various traffic movements and thereby profoundly influence traffic flow. The justification for the installation of a traffic signal at an intersection is based on the warrants adopted by Caltrans in the January 13, 2012 *Manual of Uniform Traffic Control Devices* (CA MUTCD) and the Federal Highway Administration. There are nine basic types of

traffic signal warrants including those for: eight-hour vehicular volume, four-hour vehicle volume, peak hour, pedestrian volume, school crossing, coordinated signal system, crash experience, roadway network, and intersection near a grade crossing.

The installation of a traffic signal should not be considered unless one or more of the factors described in the warrants is met. However, the satisfaction of a warrant is not necessarily sufficient justification in and of itself for the installation of signals.

Delay, congestion, approach conditions, driver confusion, future land use or other evidence of the need for right-of-way assignment beyond that which could be provided by stop signs must be demonstrated. Improper or unwarranted signal installations may cause: (1) excessive delay; (2) disobedience of the signal indications; (3) circuitous travel on alternate routes; and (4) increased crash frequency. Consequently, a traffic control signal should not be installed unless an engineering study indicates that installing the traffic control signal would improve the overall safety and/or operation of the intersection. A traffic control signal should not be installed if it would seriously disrupt progressive traffic flow.

Peak hour signal warrants (see Appendix 4) are used as a preliminary indication of the need for traffic signals in the future. These signal warrants should be considered in conjunction with the unsignalized intersection peak hour analysis to provide a more complete understanding of the need for signalization. The actual design and installation of signals should be based upon detailed studies that include extensive traffic counts.

Rural volume warrants (70 percent of the urban warrants) apply when the 85th percentile speed of traffic on the major street exceeds 40 mph in either an urban or a rural area, or when the intersection lies within the built-up area of an isolated community with a population under 10,000. All other areas are considered to be urban.

Rural peak hour signal volume warrants were checked for each of the unsignalized site access intersections. The signal warrant spreadsheet is included in Appendix 4. Traffic signal warrants would be met and traffic control signals are recommended to maintain acceptable peak hour levels of service at the following intersections:

- The Westin Resort Villas @ Dinah Shore Drive [Intersection 13],
- Street “C” @ Ramon Road [Intersection 18],
- Street “D” @ Ramon Road [Intersection 19],
- Bob Hope Drive @ Street “D” [Intersection 20], and
- Bob Hope Drive @ Street “E” [Intersection 21].

All five of the intersections found to warrant traffic signals with year 2035 plus project buildout traffic volumes would function as primary site access intersections. Signalization is proposed at all five of these intersections in conjunction with the implementation of the proposed Section 24 Specific Plan.

Progression Speed and Signal Spacing

Traffic volumes change over time as development and activity patterns change. Signalized intersection spacing is an essential element of a safe and efficient arterial roadway. Interconnected traffic signals that are synchronized to facilitate the progression of platoons of through traffic can increase capacity.

As arterial and cross street traffic volumes increase, longer cycle lengths are used to minimize lost time, especially when there are more than two signal phases. Cycle lengths of 80 to 120 seconds are common on major arterials is suburban areas. Closely-spaced or irregularly-spaced traffic signals on arterial roadways can result in frequent stops, and unnecessary delay. Long and uniform traffic signal spacing allows timing plans that can efficiently accommodate traffic volumes in both peak and off-peak periods as conditions change over time. The access standards applied throughout Riverside County specify 0.25-mile intersection spacing for Urban Arterials with six or eight through lanes. The Section 24 Specific Plan would be consistent with this access standard.

When a signalized intersection deviates from an established uniform interval, progression can be maintained by increasing the percentage of the cycle length devoted to the major arterial and decreasing the green time allocated to the intersecting street. The green time on Ramon Road shall be maximized by providing multiple lanes on the minor-street approaches at the site access intersections. This will facilitate the development of a traffic signal timing plan in the future that maximizes the minimum through bandwidths along Ramon Road.

5.5 Site Access and Internal Circulation Analysis

The site access points in the Section 24 Specific plan were located and designed in accordance with accepted planning principles and current traffic engineering practices. The site access and internal circulation plan would control access to more efficiently serve the mobility needs of through traffic on the adjacent arterial roadways as well as site access needs. The right-turn only access points would distribute the site traffic more evenly along key mobility corridors, thereby reducing the disruption of through traffic associated with turning movements generated by site development at the proposed new signalized site access intersections along these corridors. The internal circulation plan is designed to provide cross-parcel connections to encourage site traffic to utilize the internal roadways for internal trip making.

The site access plan would maintain adequate spacing from adjacent street and driveway intersections for the primary signalized access points along the perimeter of the project. The Riverside County access standards by corridor classification shown in Table 3-2 specify the use of one-quarter mile (1320-foot) intersection spacing along Urban Arterials and Arterial Highways. The signalized site access intersections proposed to serve the project would be located at one-quarter-mile spacing intervals along Ramon Road and Bob Hope Drive, consistent with the Riverside County standards and opposite the access connections planned to serve the Section 19 Specific Plan (to the east) and the Section 13 Specific Plan (to the north).

Adequate inbound and outbound capacity shall be provided to accommodate the site traffic volumes. The proposed traffic control type at the site access intersections appears to be appropriate. The proposed site access plan incorporates joint access (the sharing of a driveway access point by two or more planning areas), which is a desirable and effective means of minimizing the adverse impacts of site access connections on adjacent streets.

Right-Turn Deceleration Lanes

While not required to achieve acceptable levels of service at the site access intersections, right-turn lanes may be used to improve both safety and traffic operations at intersections by providing space for the deceleration and storage of right-turning vehicles. A number of factors enter into the decision regarding whether right-turn lanes should be used including: speeds, traffic volumes, truck mix, capacity, roadway type, service provided, and the arrangement and frequency of intersections.

Careful consideration should be given to the provision of right-turn deceleration lanes at the site access intersections along Bob Hope Drive, Ramon Road, and Dinah Shore Drive to minimize the disruption of platoons caused by vehicles entering and exiting the proposed access connections and maintain traffic progression on the abutting high-speed arterials. Allowing vehicles to change speeds in a right-turn lane rather than in a through-traffic lane minimizes the degree of interference with through traffic but also reduces speed differentials, thereby improving traffic safety. A right-turn lane can preclude the undesirable effects resulting from the deceleration of turning vehicles and minimize collisions between vehicles turning right and trailing vehicles, particularly on high-volume, high-speed major roads. In general, high-volume and high-speed (greater than 45 mph) roadways with access points projected to accommodate 40 or more right-turning vehicles during the peak hour (or more than 1,000 right-turning vehicles per day) would benefit from exclusive right-turn deceleration lanes. Figure 4-5 and Figure 4-6 provide the right-turn entering volumes at each site access connection proposed.

A right-turn deceleration lane may result in a reduction in intersection sight distance. Vehicles in the right-turn lane may block the sight line of drivers waiting to turn right out of a site access to through traffic approaching from the left. This can be a significant issue where right-turn-on-red movements are permitted from the site access connection onto the major street.

Another design consideration is that larger curb radii produce higher vehicle entry speeds that can negatively impact the safety of pedestrians and bicyclists. To reduce the potential severity of vehicle-pedestrian collisions, the design must minimize the curb radii while still accommodating the turning path of the design vehicle to reduce the speeds of turning vehicles and pedestrian crossing distances.

Site Distance Requirements

Providing adequate intersection sight distance at proposed site access connections ensures that drivers leaving the project site can see far enough along the roadway they are turning onto to perceive any approaching vehicles and judge their rate of closure, then enter the abutting roadway safely when a suitable gap in traffic occurs. Adequate stopping sight distance

allows drivers approaching the site access point on the major street to see a vehicle turning onto the roadway ahead of them and safely take evasive action, if necessary, by slowing down or changing lanes. Both of these sight distances are a function of the speed of vehicles on the major abutting arterial.

Elderly drivers and other drivers who are unfamiliar with an area (tourists, visitors, etc.) may require more time to recognize and react to a potential conflict ahead at an unsignalized site access point. Decision sight distance reflects the extra time required for unfamiliar drivers to recognize and safely respond to an unexpected, difficult, or unfamiliar situation. This is an important consideration when locating and designing access to land uses that may be frequented by drivers with these characteristics.

Long driveway spacing and limiting the types of movements that can be made at individual driveways can simplify the driving task and allow drivers on high-speed arterial streets to focus on one approaching intersection at a time. Where heavy trucks are likely to use an unsignalized access connection, the provision of intersection sight distance in excess of the minimum may be appropriate. Heavy vehicles require more time to complete their turns and accelerate than passenger vehicles. As a result, they require larger gaps in the approaching traffic in which to complete their turning movement out of a site and onto a high-speed arterial.

Clear sight triangles must be provided and maintained free of potential obstructions (such as buildings, perimeter walls, parked vehicles, signs, entry treatments, vegetation over 20 inches high, etc.) at the site access intersections as well as at on-site circulation intersections. On-street parking frequently obstructs sight distances and should be prohibited within the sight triangles at intersections and driveways. Inappropriate landscaping or inadequate landscape maintenance within the sight triangle can also obstruct sight distance at intersections and site driveways.

The provision of intersection sight distance in excess of the minimum would enhance traffic safety at the unsignalized right-in/right-out site access connections proposed along the high-speed arterials that border the site (particularly Bob Hope Drive). With a speed limit of 55 mph and a design speed of 60 mph, the minimum intersection sight distance would be 575 feet on Bob Hope Drive. Drivers of passenger vehicles waiting to make a right-turn from site Access "E" onto Bob Hope Drive (see Figure 4-6) will need to be able to see at least 575 feet to their left in order to judge the speed of approaching traffic and turn safely onto Bob Hope Drive when an adequate gap in the approaching traffic appears. The minimum intersection sight distance of 575 feet will influence where the site access is located along Bob Hope Drive because the roadway alignment includes a horizontal curve that reduces the stopping sight distance available for motorists approaching on Bob Hope Drive as well as the intersection sight distance for motorists exiting the site onto Bob Hope Drive inside the horizontal curve at Access "E".

The eastbound Street "E" approach to Bob Hope Drive (Intersection 21 in Figure 2-3) also appears to be located inside the horizontal curve on Bob Hope Drive. Adequate intersection sight distance will need to be provided and maintained at Intersection 21 for vehicles exiting the site on Street "E" to safely execute right-turn-on-red movements onto Bob Hope Drive.

Site Access Spacing on Los Alamos Road

The Section 24 Specific Plan includes two access intersections along Los Alamos Road within a distance of approximately 1,430 feet between Ramon Road [Intersection 5] and Via Bella [Intersection 8]. If the two access locations are evenly spaced, Intersection 22 and Intersection 23 would be approximately 475 feet apart. Driveway spacing is tied to the posted speed limit along arterials as well as the separation between the proposed access connections and adjacent roadway intersections.

Criteria used for the spacing of unsignalized access points include: (1) the distance from an intersection to the nearest driveway (corner clearance); and (2) the distance between driveways. Adequate corner clearance avoids conflicts between driveway traffic and vehicles stacking or turning at adjacent roadway intersections. The 95th-percentile back-of-queue length for the northbound left-turn movement on Los Alamos Road at Ramon Road is projected to be 12 car lengths (300 feet) during the evening peak hour in the year 2035 with site traffic. Therefore, if Street "B" intersects Los Alamos at least 300 feet south of Ramon Road, it will be outside the functional area of the adjacent intersection and provide adequate corner clearance.

The minimum standard for access spacing is frequently the same as for stopping sight distance. For example, a 35 mph roadway would require a minimum of 250 feet between site access points. This access spacing allows drivers on roadway where site access in being proposed to be prepared for entering and exiting vehicles at each site access point.

The current posted speed limit on Los Alamos Road is 50 mph. With a posted speed of 50 mph, the stopping sight distance would be 425 feet and the intersection sight distance would 590 feet. Therefore, the minimum separation between the site access points would be the stopping sight distance of 425 feet. A desirable intersection spacing would be equal to the intersection sight distance of 590 feet for a passenger car making a left turn onto Los Alamos Road from a stop. When Los Alamos Road is fully improved, it will likely have a lower posted speed limit. With a lower posted speed of 45 mph, the stopping sight distance would be 360 feet and the intersection sight distance would be 530 feet. The site access spacing along Los Alamos Road, between Via Bella and Ramon Road, should reflect the minimum stopping sight distance, based on the speed of the vehicles on Los Alamos Road. Clear sight triangles should be provided and maintained at each of the proposed site access intersections along Los Alamos Road.

5.6 Other Considerations

Future Improvement of Los Alamos Road

The year 2035 traffic volumes for Los Alamos Road, adjacent to Section 24, are projected to remain less than 10,000 ADT, and could be accommodated by a two-lane divided roadway. Without Los Alamos Road extended south of Dinah Shore Drive, the potential for growth in the non-site through traffic volumes on Los Alamos Road from the area south of Dinah Shore Drive would be limited.

The City of Rancho Mirage Sphere of Influence area, between Interstate 10 and Ramon Road, included approximately 623 acres designated R-M in the City General Plan which allows up to 4 dwelling units per acre. The Rancho Mirage General Plan Traffic Model assumed 15 weekday trips per acre for this designation based upon an average density of 3.2 dwelling per acre. This would result in 9,350 weekday trips being generated east of Da Vall Drive and west of Bob Hope Drive, between Ramon Road and Interstate 10. For north/south access, these trips could use Da Vall Drive, Rattler Road, and future roadways intersecting Ramon Road opposite Mission Hills and Section 24. The portion of these trips likely to use Los Alamos Road, to travel south of Ramon Road would be relatively small and could be accommodated by the two-lane divided cross-section proposed.

The City of Rancho Mirage annexed the portion of Section 13 located south of Interstate 10 and north of Ramon Road, on both sides of Bob Hope Drive, in 2012. The General Plan land use designation for this area is regional interstate commercial, a designation that allows mixed-use development with commercial retail, office, resort hotel and restaurant uses. The City's General Plan requires the preparation and approval of a Specific Plan prior to development of this area. Prior to approval, the Section 13 Specific Plan will be subject to environmental and development review by the City of Rancho Mirage.

The three unsignalized project access intersections (Intersection 8, 22, and 23) were evaluated with year 2035 traffic volumes (see Figure 4-12) and the lane geometrics shown in Figure 6-4. All three intersections are projected to provide LOS B or better levels of service for all movements with approach lanes consistent with a two-lane divided roadway cross-section. These lanes can be provided with the median configured as a two-way left-turn lane or as a raised or painted median with a left-turn lane at intersections.

The existing lane configuration at the intersection of Los Alamos Road and Ramon Road would be adequate to accommodate year 2035 plus project traffic volumes. If the land north of Ramon Road is developed and takes access to Ramon Road opposite Los Alamos Road, the intersection of Los Alamos Road and Ramon Road may ultimately need to be restriped to provide three northbound approach lanes (a dedicated left-turn lane, a northbound through lane, and a dedicated right-turn lane).

To provide the maximum flexibility for future development, Los Alamos Road, south of Ramon Road, should provide sufficient pavement width to accommodate at least three northbound approach lanes (with no on-street parking permitted) and one 20-foot wide southbound departure lane (a single 12-foot wide travel lane with an 8-foot wide shoulder for use in emergencies and to provide an adequate turning radius for large delivery vehicles). A future bicycle/golf cart/pedestrian path is shown along the east side of Los Alamos Road, between Dinah Shore Drive and Ramon Road, in the *City of Rancho Mirage General Plan*. This bicycle/golf cart/pedestrian path is shown continuing north of Ramon Road, opposite the intersection of Los Alamos Road.

Future Improvement of Dinah Shore Drive

The peak hour analysis of the intersections along Dinah Shore Drive indicates that with the existing approach lane geometrics, they will operate at LOS C or better in the year 2035 with project traffic. Daily traffic volumes projected by RIVTAM between Date Palm Drive and Bob Hope Drive are less than 30,000 vehicles per day. As a guideline for planning purposes, Riverside County has identified 32,300 vehicles per day as the maximum two-way daily traffic volume at the upper limit of LOS D for a typical 4-lane divided Arterial Highway. Therefore, Dinah Shore Drive has a projected horizon year 2035 plus project traffic demand that would be consistent with a four-lane divided cross-section.

Any potential benefit to be gained from widening Dinah Shore Drive to six lanes adjacent to the project site (in terms of providing additional capacity for regional through traffic) would be lost if the four-lane fully improved portion of Dinah Shore Drive west of the project site were not widened to six lanes as well. Dinah Shore Drive, from Cathedral City to Bob Hope Drive, is not expected to serve any major trip generators (other than the existing Cathedral City High School). The Cathedral City High School constrains future widening along Dinah Shore Drive. Future enrollment projections for Cathedral City High School are expected to decrease substantially now than the Rancho Mirage High School has opened. This should decrease future traffic volumes on Dinah Shore Drive, east and west of Da Vall Drive.

Although the *City of Rancho Mirage General Plan* traffic model projected much higher future traffic volumes for Dinah Shore Drive than RIVTAM , the roadbed is constrained to a four-lane cross-section (much of which is fully improved) west of Los Alamos Road. The adjacent Mission Hills resort community has completed full-width improvements along Dinah Shore Drive, including an existing underpass bridge structure to allow grade-separated access to the golf courses and homes north and south of Dinah Shore Drive. The Westin Mission Hills Golf Resort and Villas has fully improved the south side of Dinah Shore Drive, between Bob Hope Drive and Los Alamos Road. A raised median has been constructed as well as curbs and gutters on the north side of Dinah Shore Drive, adjacent to the project site.

The initial phase of the proposed Section 24 Specific Plan would occupy approximately 320 acres adjacent to the north side of Dinah Shore Drive and generate substantially less traffic than the 320 acres designated R-M in the City of *City of Rancho Mirage General Plan.* The ultimate site access plan for the Section 24 Specific Plan focuses site traffic away from Dinah Shore Drive and Los Alamos Road onto Bob Hope Drive. This should reduce future traffic demands on Dinah Shore Drive, between Bob Hope Drive and Los Alamos Road.

The RIVTAM projections conform to the SCAG 2004 Growth Forecast. While not anticipated by the year 2035, the potential exists for traffic volumes at the intersection of Bob Hope Drive and Dinah Shore Drive to exceed the RIVTAM projections after the horizon year 2035. The *Section 19 Specific Plan Traffic Study* concluded that the intersection of Bob Hope Drive and Dinah Shore Drive could require dual left-turn lanes and exclusive right-turn lanes on all four approaches, as well as a third westbound through lane. The City of Rancho Mirage General Plan identifies this intersection as a critical intersection where additional right-of-way may be required to provide dual left-turn lanes and right-turn lanes in all directions. If a third westbound through lane is ultimately required at this intersection, it would only need to extend west of Bob Hope Drive for a distance of approximately 400 feet in order to provide additional capacity at the intersection of Bob Hope Drive and Dinah Shore Drive. This westbound through lane could transition into an auxiliary right-turn deceleration lane serving the proposed right-in/right-out driveway for Planning Area 7A.

Bob Hope Drive at Ramon Road Future Improvements

When the Bob Hope Drive I-10 interchange was built, the west leg at the intersection of Bob Hope Drive and Ramon Road was constructed with only two westbound through lanes for a distance of approximately 950 feet. The east leg of the intersection includes four lanes at the intersection but narrows to the east because the bridge over the Union Pacific Railroad and Interstate 10 has a 2-lane divided cross-section. Since there are only two westbound approach lanes on Ramon Road at the intersection of Bob Hope Drive the two existing westbound departure lanes at this intersection have a minimal impact on the intersection LOS. The existing dedicated southbound right-turn lane provides sufficient capacity to accommodate the existing and future year 2035 traffic volumes without a third westbound departure lane on Ramon Road, west of Bob Hope Drive.

In view of the high existing and projected future southbound right-turn volume on Bob Hope Drive at the intersection of Ramon Road, constructing a channelized free-flow right-turn lane with a dedicated downstream acceleration lane that transitions into a third westbound through lane on Ramon Road would appear to be a logical future improvement at this intersection. However, a free-flow right-turn lane would result in only a minor improvement in the overall operation of this intersection (i.e., a reduction in the weighted average intersection control delay of approximately two seconds per vehicle

during the evening peak hour). Since this intersection is projected to operate at acceptable levels of service without mitigation, this improvement is not needed or recommended at this time.

The 95th-percentile back-of-queue length for the eastbound left-turn movement on Ramon Road at Bob Hope Drive is projected be nine vehicles per lane during the evening peak hour. Assuming 25 feet per vehicle, the queue storage length required for the year 2035 with project buildout traffic would be 225 feet per lane. Each existing eastbound left-turn lane on Ramon Road at Bob Hope Drive is 300 feet long (plus taper). Therefore, the existing eastbound dual left-turn lanes appear to provide adequate queue storage to accommodate the horizon year 2035 plus site traffic volumes.

The 95th-percentile back-of-queue length for the northbound left-turn movement on Bob Hope Drive at Ramon Road is projected be seventeen vehicles per lane during the evening peak hour. Assuming 25 feet per vehicle, the queue storage length required for the year 2035 with project buildout traffic would be 425 feet per lane. Each existing northbound left-turn lane is approximately 250 feet long (plus taper). Although, the northbound left-turn lanes appear to provide adequate queue storage currently they may ultimately require additional storage length to accommodate the queue during the peak hours. The 50th-percentile back-of-queue length in the year 2035 is projected to be 225 feet per lane.

Bob Hope Drive at Varner Road

The intersection of Bob Hope Drive with Varner Road is projected to operate at acceptable levels of service during the peak hours in the peak season with the existing intersection geometrics and the horizon year 2035 plus Section 24 Specific Plan traffic projections from RIVTAM. However, this intersection may ultimately experience greater traffic flows than projected by RIVTAM as a result of the 2014 annexation of the 591-acre North City Extended Specific Plan (NCESP) site to Cathedral City and the approval of the Specific Plan to guide the future development of that site.

The approval of the NCESP replaced the LI (Light Industrial) land use designation of this site in the *Riverside County General Plan* and the *Western Coachella Valley Area Plan* with a Specific Plan designation. With the approved NCESP a mixed-use development with retail/commercial uses, restaurants, offices and service uses, light industrial uses, hotels, and residential land uses would be developed north of I-10.

Because of its proximity to the I-10 interchange at Bob Hope Drive, the intersection of Bob Hope Drive and Varner Road will function as the primary access intersection for the NCESP. If the ultimate traffic volumes generated by the future land uses within the NCESP site approach the projections in the traffic impact study prepared by Endo Engineering (which reflect the maximum allowed development intensity) improvements will be required at the intersection of Bob Hope Drive and Varner Road to maintain acceptable levels of service with or without traffic generated by the future development of the Section 24 Specific Plan.

Two percent of the daily Section 24 Specific Plan trip generation (1,160 daily trips) was assigned to Bob Hope Drive, south of Varner Road. The NCESP traffic impact study included 6,850 daily trips representing the future growth in background traffic on Bob Hope Drive, south of Varner Road. The 1,160 daily trips associated with buildout of the Section 24 Specific Plan would represent 17 percent of the daily increase in background traffic volumes evaluated in the *North City Extended Specific Plan Traffic Impact Study*. Some of the future residents of the Section 24 Specific Plan may use Bob Hope Drive and Varner Road to access the future employment opportunities and retail developments within the NCESP.

The NCESP traffic impact study was completed in the year 2013, prior to the development of a land use plan for the Section 24 project. Although that study did not explicitly address the Section 24 Specific Plan, the NCESP traffic study identified mitigation to accommodate a future growth in non-site traffic volumes on Bob Hope Drive (south of Varner Road) nearly six times the future traffic volume projected to result from the Section 24 Specific Plan.

Future development within the NCESP will be phased. As specific development plans are processed for individual planning areas within the NCESP, a focused traffic impact study may be required by Cathedral City to address site-specific issues and concerns including any future deficiencies in the operation of the intersection of Bob Hope Drive and Varner Road. A focused traffic impact study should evaluate any operational deficiencies and identify necessary improvements, prior to the construction of future phases of the NCESP development.

Future Conditions On Interstate 10

The existing ramps at the interchanges in the study area appear to provide adequate capacity to accommodate future traffic volumes in the horizon year 2035 with project buildout. The proposed project would increase the future traffic volumes on

Interstate 10 as shown in Figure 4-5, Figure 4-12, Table 4-3, and Table 4-5. Upon project buildout, approximately 8,720 vehicles per day are projected to be added to I-10 west of Bob Hope Drive and 11,060 vehicles per day are projected to use I-10 east of Ramon Road. The year 2035 plus project weekday traffic projections for Interstate 10 from RIVTAM included 207,176 ADT (west of Bob Hope Drive) and 218,693 ADT (east of Ramon Road). A single-lane freeway ramp can accommodate approximately 16,000 ADT at the upper limit of LOS C and 18,000 ADT at the upper limit of LOS D.[5] The future daily ramp volumes (see Table 4-5) are projected to range from 3,260 to 16,400 vehicles per day.

The *2000 Route Concept Fact Sheet Interstate Route 10* (March 29, 2000) developed by the Caltrans District 8 Division of Planning is currently being updated, but provides relevant data for historical purposes. I-10 is a major east/west urban corridor and commuter route between Los Angeles and Riverside County. It connects the urban centers in Los Angeles County (to the west) to the rural areas in eastern Riverside County. It provides for the safe and efficient interstate and inter-regional movement of people and goods. In doing so, it also connects commerce, industry, agriculture, mineral wealth, and recreation spatially and economically to ports, airports, rail yards, and other states.

I-10 is included in the State Freeway and Expressway System and the State Interregional Road System. It is classified as a "High Emphasis" and "Gateway" route. Within District 8, I-10 is included in the National Highway System, the Department of Defense Priority Network and the Strategic Highway Corridor Network. The March 2000 route concept was to maintain LOS "E" during the peak periods in the urbanized and urbanizing areas and LOS "C" in the rural areas. The rationale for maintaining these levels of service was "to achieve a reasonable balance between desired levels of mobility and forecasted traffic with consideration of development abutting rights of way and constrained financial transportation resources". Implementation of intelligent transportation system, TDM, and TSM strategies are central to achieving the desired LOS.

Improvements previously identified as necessary to achieve the desirable LOS through the year 2015 included eight mixed-flow freeway lanes from State Route 62 (on the west) to Jefferson Street (on the east). That would require two additional mixed-flow lanes between Monterey Avenue and Jefferson Street. The long-term right-of-way needs for I-10, considering buildout of the development portrayed in the surrounding local general plans as of the year 2000, included a ten-lane freeway (8 mixed-flow lanes plus 2 HOV lanes) through the urbanized and urbanizing areas from the Los Angeles County line to State Route 86. Four mixed-flow lanes were identified for the rural areas between SR-86 and the Arizona State Line.

Caltrans is responsible for the planning, design, construction, operation and maintenance of the State highway system. State Transportation Improvement funds are used for highway system improvements and apportioned with 25 percent from Caltrans and 75 percent from regional transportation planning agencies. The ultimate transportation corridor and long-term right-of-way needs associated with Interstate 10 in the Coachella Valley will be identified in the updated Interstate 10 Route Concept Report so that adequate right of way can be preserved for the ultimate route concept.

RIVTAM distributes regional "through" traffic among the major east-west arterials located between I-10 and Highway 111. It also assigns regional through traffic to Interstate 10, which is the major continuous high-speed transportation artery extending from the metropolitan areas in western Riverside County, Los Angeles County and Orange County through the Coachella Valley. The continued development of the arterial grid system in conjunction with the improvement of Interstate 10 freeway access points is expected to eventually reduce the overwhelming reliance on Highway 111 for inter-city travel in the Coachella Valley and increase the relative importance of Interstate 10. The future development between Interstate 10 and Highway 111 affords a unique opportunity to alter the balance of population and employment in the region. Future growth planned for the Coachella Valley must provide a better balance between jobs and the labor force to help the region remain a self-contained community. Consistent with this goal, the proposed project would create thousands of employment opportunities in close proximity to I-10 and residential development at a density sufficient to support public transit.

The proposed Section 24 Specific Plan would improve the balance between local jobs and the local labor force within the Coachella Valley. The employment opportunities would be located near a major transit center being planned between the project site and Interstate 10. The land use types and intensities proposed are generally consistent with the *Riverside County General Plan* and the *Western Coachella Valley Area Plan* (Commercial Retail, Commercial Tourist, Medium Density Residential). The total number of weekday trips generated by the proposed project would be 16.4 percent less than the weekday trips associated with development of the site at the maximum development intensity permitted by the *Riverside County General Plan* land use designations.

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5 Riverside County Integrated Project. *Riverside County General Plan*. Circulation Element Figure C-3. Revised: March 2001.

The Interstate 10 freeway and the arterial street network within the study area have been designed to accommodate traffic demands upon buildout of the *Riverside County General Plan* and the surrounding local general plans. Although the Interstate 10 freeway is currently operating at LOS C during the peak hour, the traffic volume is projected to double by the year 2035. The updated route concept plan for Interstate 10 currently being developed by Caltrans, will identify an ultimate design for I-10 that accommodates development within the study area, including project site. The proposed Section 24 Specific Plan should not have a significant adverse impact on Interstate 10 in the year 2022 or in the year 2035.

6.0 FINDINGS AND RECOMMENDATIONS

The objective of this traffic analysis was to determine and disclose all significant impacts of the proposed project and identify the mitigation measures necessary to reduce the impacts to acceptable levels. The Section 24 Specific Plan EIS will contain a series of measures that reflect design features incorporated in the Specific Plan and measures that will be imposed on subsequent projects within the Specific Plan area via conditions of project approvals.

The recommendations below are intended to provide safe and efficient traffic movements to/from within and past the proposed Specific Plan development while minimizing potential impacts to through traffic on the adjacent arterials. Acceptable levels of service are required after the completion of each phase of development as well as upon completion of the entire Specific Plan. Mitigation strategies have been identified that would respond best to the site-specific transportation needs of the project and the adjacent area.

Mitigation has been identified to address the impacts associated with the initial phase of development to facilitate the identification of equitable assessments to fund improvements. Recommended network improvements recognize that individual developments and increasing traffic volumes are part of the long-term growth projected for the study area. Consequently, some improvements are necessary to address both site specific and area-wide mobility needs.

6.1 Thresholds of Significance

The minimum LOS performance standards vary by agency with jurisdiction over the transportation facility and remain a local decision. Caltrans has developed future right-of-way requirements for Interstate 10 in the study area to maintain LOS E during peak periods. The Congestion Management Plan also identifies LOS E as the minimum level of service standard for intersections and roadway segments within the CMP System of Highways and Roadways, including Ramon Road and Monterey Avenue.

The City of Rancho Mirage and the City of Cathedral City have identified Level of Service D as the minimum performance standard for the circulation network, based upon peak hour intersection operation. Both cities experience seasonal variations in traffic demand, which must be addressed in maintaining LOS D. For peak operating periods, LOS D and/or a maximum volume-to-capacity ratio of 0.90 is provisionally considered the generally acceptable service level by the City of Palm Desert, provided the target LOS "C" goal is only exceeded where maximum feasible intersection improvements have been implemented.

6.2 Traffic Impact Findings

Existing Baseline Conditions

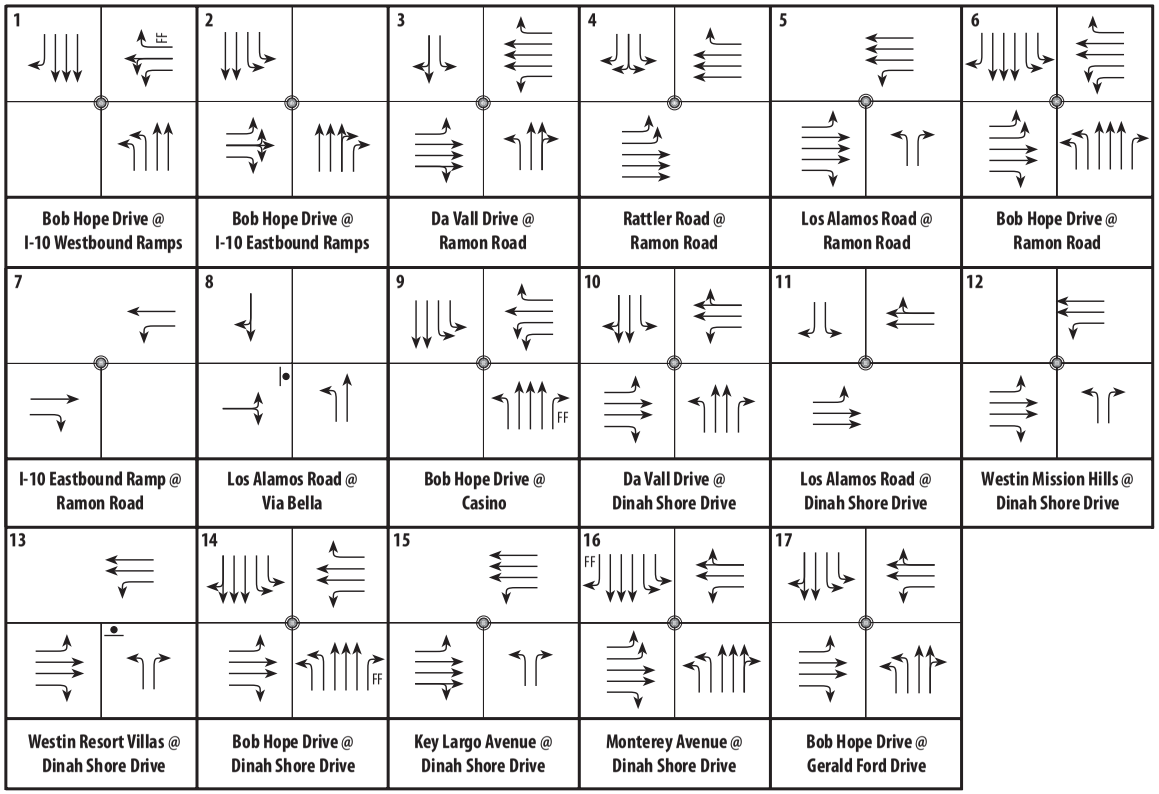
All of the key intersections are currently providing acceptable levels of service in the peak hours of the peak season with the existing traffic controls and approach lane geometrics shown in Figure 6-1. Peak hour traffic volumes do not currently warrant traffic control signals at the unsignalized key intersection of Los Alamos Road with Via Bella or the intersection of the Westin Resort Villas access with Dinah Shore Drive. The project site has adequate access for the land uses proposed.

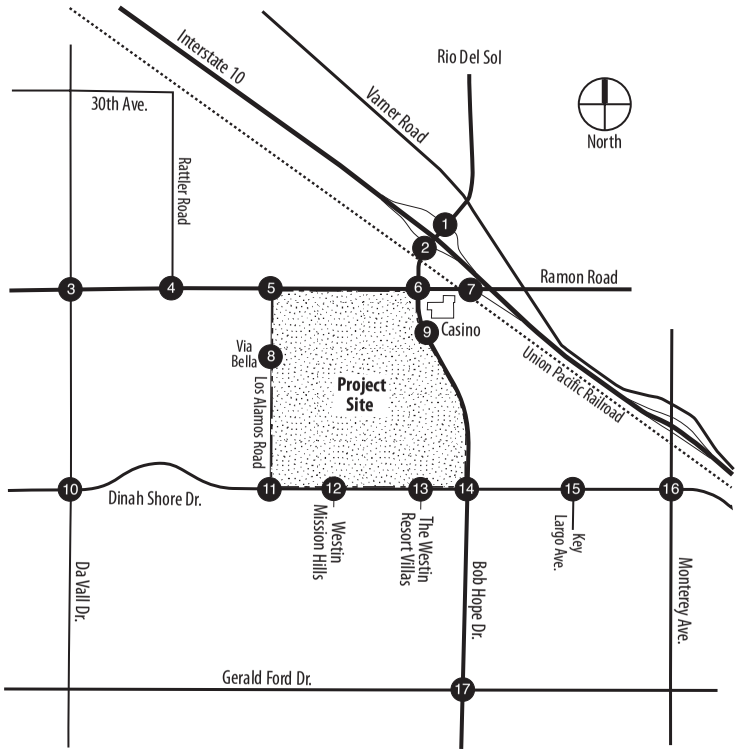
Conditions With Initial Phase

As shown in Table 4-1, the initial phase of the proposed development would generate approximately 4,480 weekday trips of which 234 would occur during the morning peak hour and 289 would occur during the evening peak hour on weekdays. Although site traffic generated by the initial phase of development would degrade the peak hour LOS at one intersection from LOS A to LOS B, this impact would not be significant. All of the key intersections and site access intersections would provide acceptable levels of service upon completion of the initial phase, provided the three site access intersections are improved as shown in Figure 6-2. No new traffic signals would be warranted or required by the initial phase of development.

The analysis of the initial phase assumed that access would be provided to the active adult community in the year 2022 via connections to two perimeter streets: (1) Los Alamos Road, opposite Via Bella, and (2) Dinah Shore Drive, opposite the Westin Mission Hills Access. Multiple access points to residential subdivisions are desirable to minimize circuitous travel, provide alternate access during roadway maintenance activities, and enhance emergency access.

Figure 6-1
Existing Lane Geometrics





Legend

1	Intersection Number		Exclusive Right-Turn Lane
◎	Signalized Intersection	←	Through Lane
•|	Stop Sign Control		Exclusive Left-Turn Lane
FF	Free-Flow Right-Turn		Right/Left Lane
	Right/Through/Left Lane		Through/Right Lane
			Through/Left Lane

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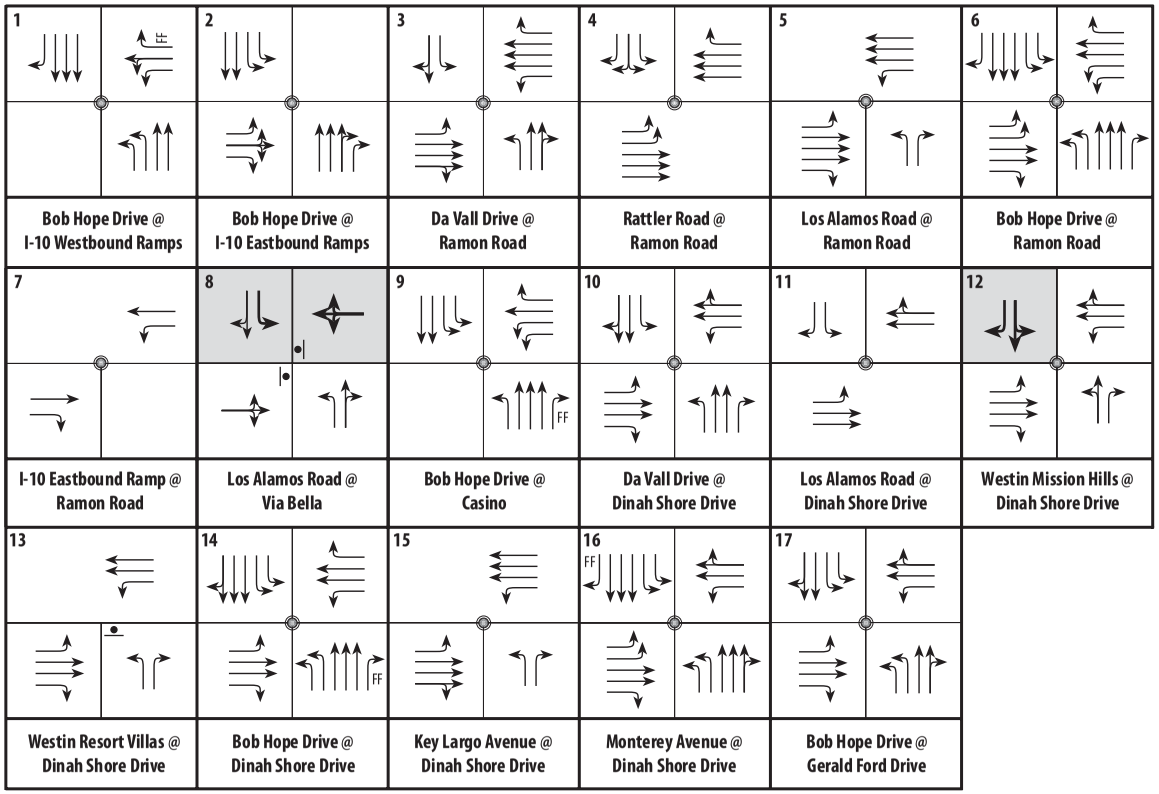
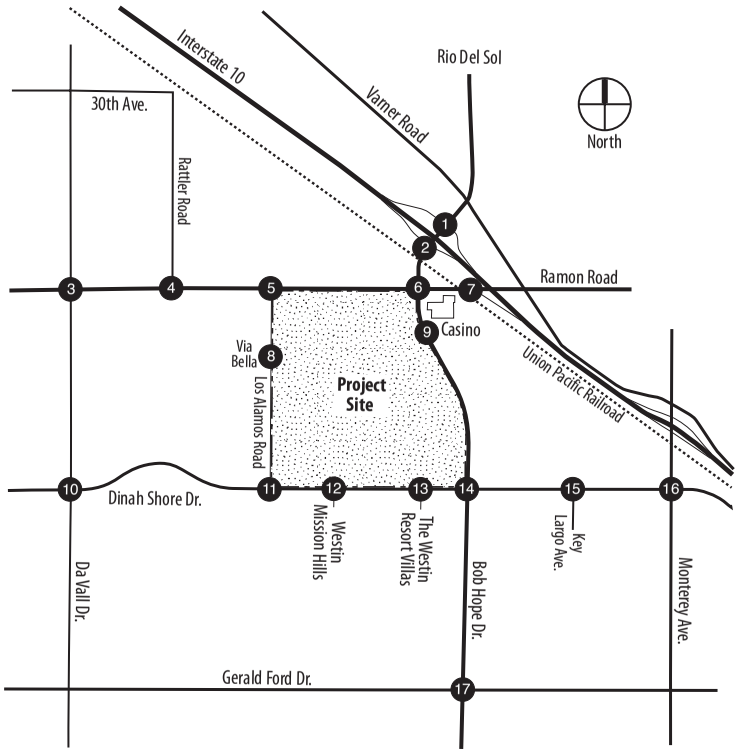
Figure 6-2
Minimum Lane Geometrics Required for Initial Phase of Project





Legend

1 Intersection Number	Exclusive Right-Turn Lane
Signalized Intersection	Through Lane
Stop Sign Control	Exclusive Left-Turn Lane
FF Free-Flow Right-Turn	Right/Left Lane
Right/Through/Left Lane	Through/Right Lane
	Through/Left Lane

Note: Bolded arrows in shaded approaches represent new traffic lanes.

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A third access to the active adult community is planned via the westerly extension of Casino Road, from Bob Hope Drive to Planning Area 8. Access to the active adult community via Casino Road is not required from a capacity perspective but would increase internal trip interactions between the residential land uses within Planning Area 8 and future developments within Planning Areas 1 through 7. The extension of Casino Road will not be constructed by Pulte Homes as part of the improvements associated with the development of the active adult community in the initial phase of development. The extension of Casino Road from Bob Hope Drive to Planning Area 8 may not occur until adjacent land within Planning Areas 2, 3, 4, and/or 5 is developed.

Existing Plus Project Buildout Conditions

Full development of the project site at the maximum intensity/density permitted would add 59,450 weekday trips to the surrounding street system. Of that total, approximately 2,965 trips would be inbound to the site and 2,874 trips would be outbound from the site during the evening peak hour on a typical weekday. Site traffic would cause the rural peak hour traffic signal warrants to be met at five intersections where site access is proposed including: two future intersections proposed on Ramon Road, two future intersections proposed on Bob Hope Drive, and one existing unsignalized intersection on Dinah Shore Drive, where a site access connection is proposed. All of these intersections would be signalized in conjunction with the proposed project. All of the key intersections are projected to provide acceptable levels of service in the peak hours on weekdays with existing plus project buildout traffic volumes, provided the proposed site access improvements and traffic control signals (shown in Figure 6-3) are constructed when necessary to accommodate the traffic generated by the proposed development. No improvements would be required for existing plus project buildout traffic volumes, other than those improvements proposed to facilitate site access.

Horizon Year 2035 Plus Project Buildout

Mitigation that would eliminate deficiencies in the peak hour traffic operations was identified for two off-site key intersections with horizon year 2035 plus project buildout traffic volumes, as shown in Figure 6-4. Improvements that would eliminate one of the deficiencies identified are funded and scheduled for completion by the City of Rancho Mirage in the year 2015. The other deficiency was identified at the intersection of Da Vall Drive and Ramon Road, where three corners are under the jurisdiction of the City of Cathedral City and one corner is under the jurisdiction of the City of Rancho Mirage. The improvement necessary to eliminate this deficiency would require the City of Cathedral City to obtain additional right-of-way on a corner where an existing development encroaches on the ultimate right-of-way of Da Vall Drive.

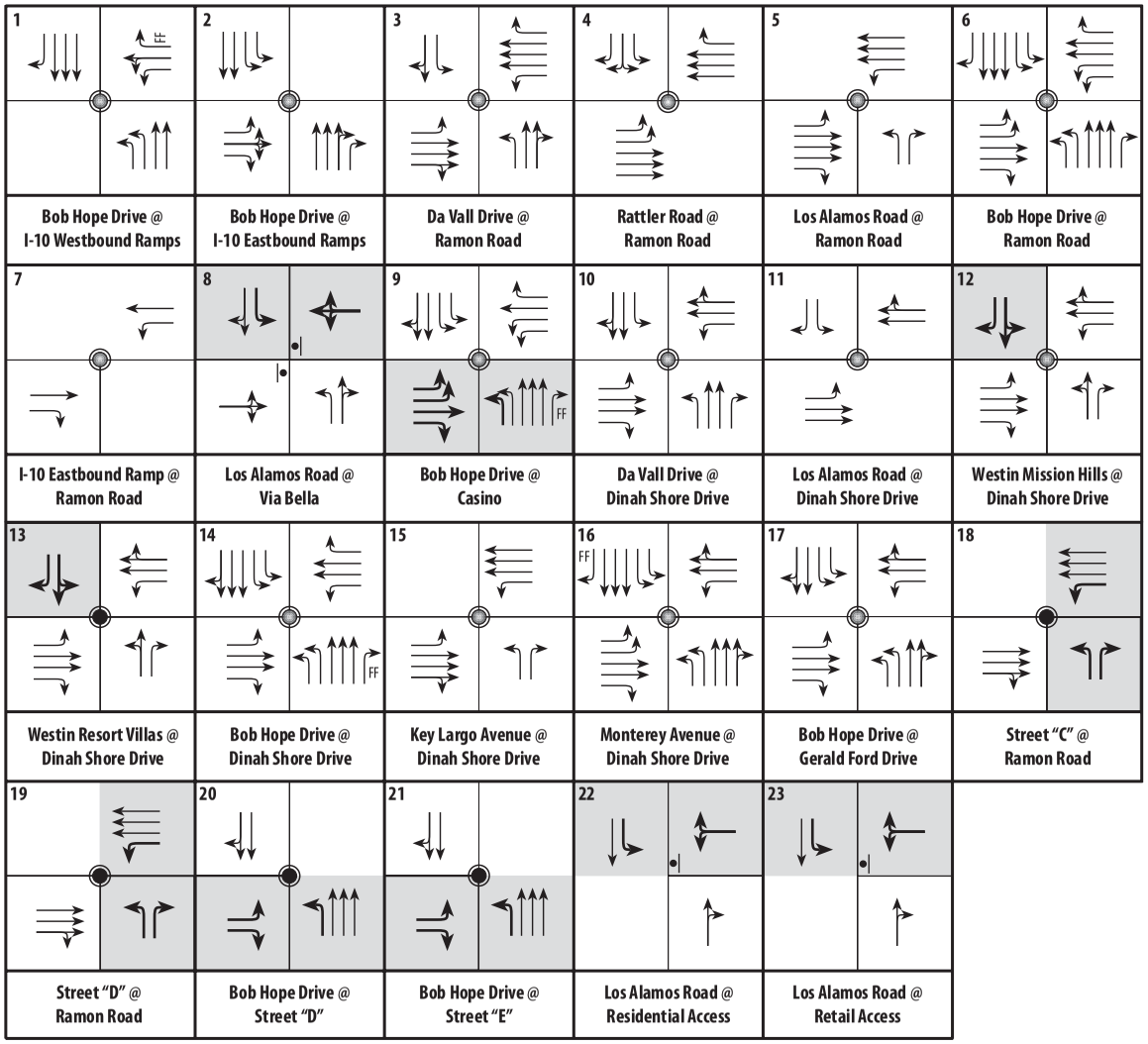
Da Vall Drive is classified as a four-lane divided roadway in the *Riverside County General Plan* as well as the General Plans of both the City of Rancho Mirage and the City of Cathedral City. With a second southbound left-turn lane on Da Vall Drive at Ramon Road the 95th-percentile back-of-queue length in each of the left-turn lanes is projected to extend twelve car lengths (300 feet) north of Ramon Road in the year 2035. This would require the acquisition of right-of-way in a developed area that appears to be functioning as an administrative area within the Desert Memorial Park Cemetery.

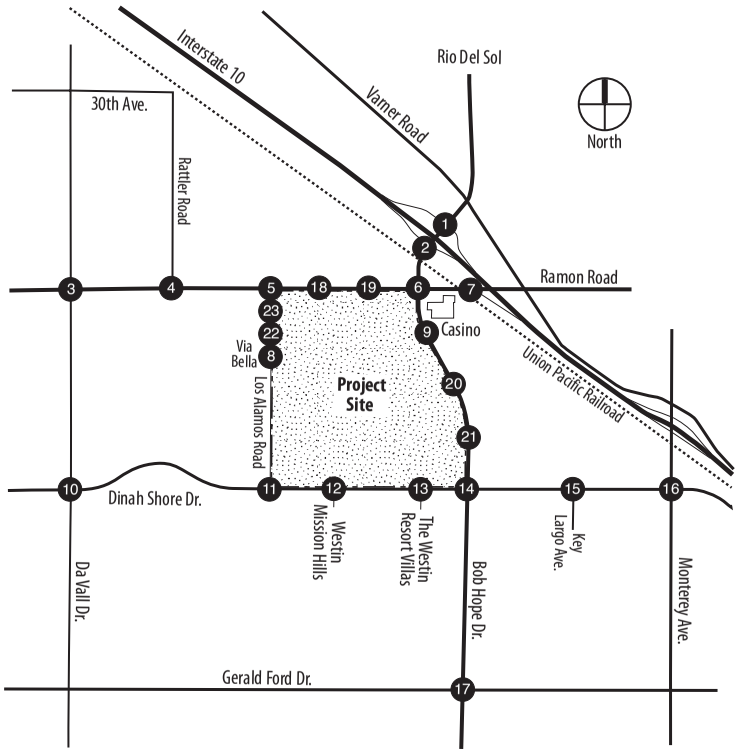
The additional southbound left-turn lane required on Da Vall Drive at Ramon Road would be consistent with the improvements typically required for a four-lane divided Minor Arterial roadway designated as a critical intersection in the *City of Rancho Mirage General Plan*. Therefore, the ultimate circulation system in the *City of Rancho Mirage General Plan* would be adequate to serve project-related traffic upon buildout of the site.

CVAG distributes funds to help fund the construction of the regional system of roads, streets, and highways to accommodate growth in the region for transportation improvement projects within the Coachella Valley. These funds are associated with Measure A (sales tax), the TUMF program, and other state and federal sources. Transportation-related improvement projects partially funded by the TUMF program include: arterial street construction, street widening, intersection enhancements, and freeway interchange improvements. Regional transportation funds are meant to supplement, not replace local revenues and/or developer contributions required for approved regional road construction projects. CVAG members that participate in the TUMF and the Multiple Species program pay 25 percent of the cost of eligible regional transportation projects while CVAG pays 75 percent.

The widening of Da Vall Drive, between Ramon Road and Vista Chino, to its ultimate cross-section is included as an eligible buildable project (designated B-419) in the 2010 *Transportation Project Prioritization Study* (TPPS) and the CVAG Regional Arterial Program. It is ranked 88th of 247 buildable projects with a score of 9.3 points. The cost associated with the widening of Da Vall Drive, between Ramon Road and Vista Chino, was estimated to be $24,025,032 in the 2010 TPPS. This cost

Figure 6-3
Minimum Lane Geometrics Required for Existing+Project Buildout





Legend

1 Intersection Number	Exclusive Right-Turn Lane
Signalized Intersection	Through Lane
Stop Sign Control	Exclusive Left-Turn Lane
FF Free-Flow Right-Turn	Right/Left Lane
Right/Through/Left Lane	Through/Right Lane
Proposed Traffic Signal	Through/Left Lane

Note: Bolded arrows in shaded approaches represent new traffic lanes.

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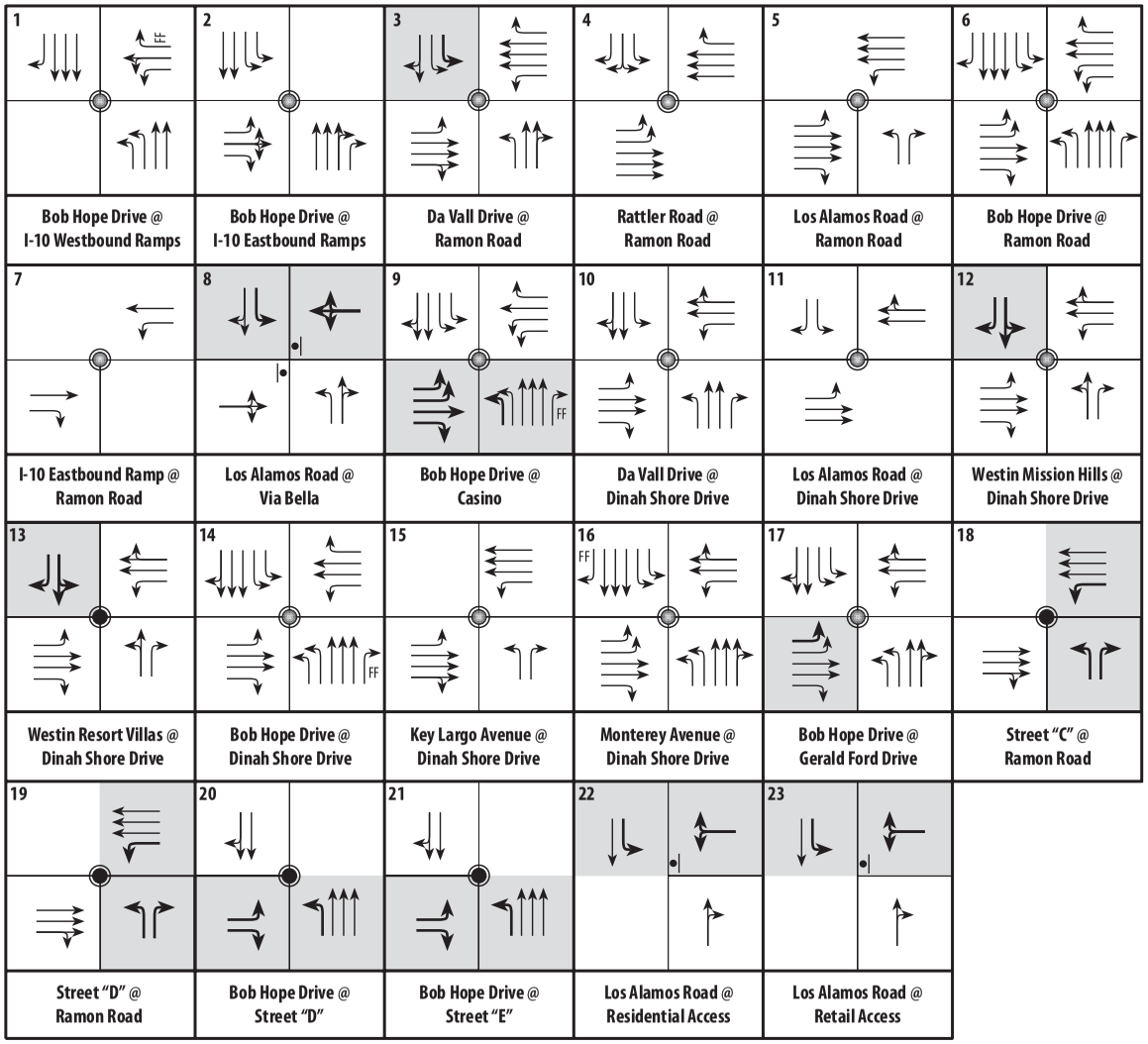
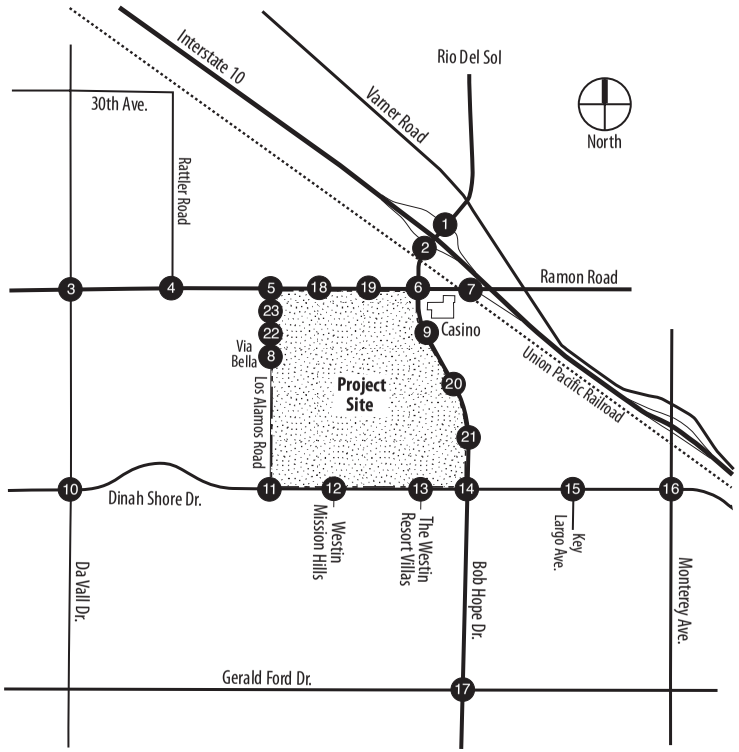
Figure 6-4
Minimum Lane Geometrics Required for Year 2035 Plus Project Buildout





Legend

1	Intersection Number		Exclusive Right-Turn Lane
	Signalized Intersection		Through Lane
	Stop Sign Control		Exclusive Left-Turn Lane
FF	Free-Flow Right-Turn		Right/Left Lane
	Right/Through/Left Lane		Through/Right Lane
	Proposed Traffic Signal		Through/Left Lane

Note: Bolded arrows in shaded approaches represent new traffic lanes.

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reflects improvements to Da Vall Drive within project limits that extend substantially beyond the first 300 feet north of Ramon Road.

An improvement that represents a backbone level project (i.e., is integral to the continued and future development of an area) may be eligible for bonus points which can increase its priority ranking in the TPPS. Since Ramon Road is a TUMF facility, if the priority of the I-10 Da Vall Drive Interchange project increases in the future, the widening of Da Vall Drive, between Vista Chino and Ramon Road, may become a backbone level project. By participating in the TUMF program or contributing on a fair-share basis to roadway improvements of area-wide benefit, individual project proponents will mitigate the cumulative impact of their traffic on the future deficiency projected to occur at the intersection of Da Vall Drive and Ramon Road.

6.3 Site Access and Internal Circulation Findings

Street "C" at Ramon Road [Intersection 18]

The northbound left-turn queue on Street "C" at Ramon Road is projected to include 15 vehicles and extend 375 feet with a single left-turn lane. These vehicles on Street "C" will block access to Planning Area 1A and Planning Area 2A. The minimum distance to the first access connection to these Planning Areas should be determined by the length of the back-to-back left-turn lanes needed on Street "C", south of Ramon Road. Providing northbound dual left-turn lanes on Street "C" at Ramon Road can reduce the northbound left-turn queue length to less than 175 feet. While not required to improve the level of service, consideration should be given to providing dual northbound left-turn lanes on Street "C" at Ramon Road to reduce the separation required between Ramon Road and the first internal street access for the adjacent planning areas.

Street "D" at Ramon Road [Intersection 19]

The proposed improvements for Street "D" are shown in Figure 12 of the *Section 24 Specific Plan*, where Street "D" is referred to as "A" Street Boulevard. It is recommended that dual left-turn lanes be provided on the westbound and northbound approaches at the intersection of Street "D" and Ramon Road. While not required to achieve acceptable levels of service, dual left-turn lanes would substantially benefit the project by improving access to Planning Areas 2 and 3.

This intersection will serve the second highest volume of site traffic. During the peak hour, both the northbound and the westbound left-turn volumes at this intersection are projected to exceed 300 vehicles per hour upon project buildout. Although not required at this intersection to achieve LOS D (as shown in Table 5-10 and Figure 6-4) dual left-turn lanes are typically provided where left-turn volumes exceed 300 vehicles per hour. The proposed four-lane cross-section of Street "D" would provide the two southbound departure lanes required with dual westbound left-turn lanes.

In addition to improving the overall intersection LOS, dual left-turn lanes would reduce the length of the left-turn queue of vehicles that forms each signal cycle by approximately 50 percent. This is important on Ramon Road, where the median will have to accommodate back-to-back left-turn lanes with sufficient space to store the left-turning vehicles that will accumulate each signal cycle.

The northbound left-turn queue on Street "D" at Ramon Road is projected to include 23 vehicles and extend 575 feet with a single left-turn lane. These vehicles on Street "D" will block access to Planning Area 2A and Planning Area 3. The minimum distance to the first access connection to these Planning Areas should be determined by the length of the back-to-back left-turn lanes needed on Street "D", south of Ramon Road. Providing northbound dual left-turn lanes on Street "D" at Ramon Road can reduce the northbound left-turn queue length to less than 300 feet.

All signalized intersections should provide at least two approach lanes on each approach. If a single northbound left-turn lane is provided on Street "D", a dedicated northbound right-turn lane should be provided as the second approach lane. Even if dual northbound right-turn lanes are provided, a dedicated northbound right-turn lane would be required to allow a right-turn on red movement to accommodate the right-turn volume (191 vehicles per hour) on Street "D" at Ramon Road.

Casino West of Bob Hope Drive [Intersection 9]

The eastbound approach on Casino at the intersection of Bob Hope Drive should provide a through lane and a dedicated right-turn lane to accommodate the projected right-turn volume during the peak hour (in excess of 300 vehicles per hour) at LOS D. A single shared through/right lane would result in the approach operating at LOS F upon project completion. Dual

eastbound left-turn lanes would be required on Casino at Bob Hope Drive to achieve acceptable levels of service during the peak hours. The dual eastbound left-turn lanes required on Casino are projected to have vehicles waiting to turn left onto Bob Hope Drive extending 300 to 400 feet in each left-turn lane. This queue length will increase the minimum setback necessary between Bob Hope Drive and the first access connection on Casino for Planning Area 3 and Planning Area 4.

In view of the projected volumes on Casino, between Bob Hope Drive and Street "D", this roadway should be constructed as a four-lane divided facility. A nontraversable landscape median would enhance traffic safety and control access to the adjacent planning areas. The first planning area access on Casino should be located approximately 660 feet west of Bob Hope Drive to accommodate back-to-back left-turn lanes between Bob Hope Drive and the left-turn access for Planning Area 4. This setback would also apply to the first access connection to Planning Area 3 that would permit southbound left-turns across Casino. The number of lanes required on Casino, west of Street "D", cannot be determined without additional information regarding access to/from Planning Area 2B and Planning Area 5.

Street "D" at Bob Hope Drive [Intersection 20]

Site traffic will warrant signalization in conjunction with adjacent development at the intersection of Street "D" and Bob Hope Drive. As shown in Figure 6-4, a single eastbound left-turn lane and right-turn lane would provide acceptable levels of service. A northbound left-turn lane would be required on Bob Hope Drive with 350 feet of queue storage length. The eastbound approach would require 375 feet of left-turn storage with a single left-turn lane.

With a single left-turn lane, the eastbound left-turn queue on Street "D" at Bob Hope Drive is projected to include 14 vehicles and extend 350 feet. This 350-foot long queue of vehicles on Street "D" could block access to Planning Area 4 and Planning Area 6A. The minimum distance to the first access connection to these Planning Areas should be determined by the length of the back-to-back left-turn lanes needed on Street "D", west of Bob Hope Drive. Providing eastbound dual left-turn lanes on Street "D" at Bob Hope Drive can reduce the eastbound left-turn queue length to less than 175 feet. While not required to improve the level of service, consideration should be given to providing dual eastbound left-turn lanes on Street "D" at Bob Hope Drive to reduce the separation required between Bob Hope Drive and the first internal street access for the adjacent planning areas.

Street "E" at Bob Hope Drive [Intersection 21]

Site traffic will warrant signalization in conjunction with adjacent development at the intersection of Street "E" and Bob Hope Drive. As shown in Figure 6-4, a single eastbound left-turn lane and right-turn lane would provide acceptable levels of service. A northbound left-turn lane would be required on Bob Hope Drive with 225 feet of queue storage length. The eastbound approach would require 250 feet of left-turn storage with a single left-turn lane.

Street "D" at Casino

Assuming both Street "D" and Casino are four lane roadways where they intersect, this internal intersection is not projected to meet signal warrants upon project buildout. Street "D" (designated Street "A" Boulevard in the Specific Plan) and Casino will function as the two principal internal vehicular circulation facilities within Specific Plan 24. Street "D" lies adjacent to four of the commercial parcels and three of the multi-family parcels. This internal multi-modal corridor would extend from its signalized intersection with Ramon Road to its signalized intersection with Bob Hope Drive. Street "D" would connect the commercial and multi-family residential parcels located in the eastern portion of Section 24 west of Bob Hope Drive with the commercial and multi-family residential parcels located in the northern portion of Section 24 south of Ramon Road.

Street "D" would provide a two travel lanes in each direction, separated by a raised landscape median 16 feet in width within a 110-foot right-of-way. Street "D" would be accessible to automobiles, service vehicles, emergency vehicles, neighborhood electric vehicles (NEVs), golf carts, and neighborhood circulator vehicles. A 5-foot wide sidewalk and a Class II striped on-street 5-foot wide bicycle lane would be provided on both sides of Street "D". A two-foot buffer would be provided between the on-street bike lane and the adjacent outer travel lane on Street "D".

Ultimately, Casino will be extended west of Bob Hope Drive to connect the active adult residential community in Planning Area 8 with the Agua Caliente Casino Resort Spa located east of Bob Hope Drive. Casino will be extended between and provide access to the future Retail development proposed within Planning Area 3 and the future Resort development proposed in Planning Area 4. With three non-residential Planning Areas to the northwest and three more to the south, the existing intersection of Bob Hope Drive and Casino will become the most centralized site access intersection for non-residential trips.

The ultimate traffic volumes through the intersection of Street "D" and Casino will be largely the result of external residential site access trips and internal trips between the commercial parcels and between the commercial and residential parcels. The magnitude of these traffic volumes will depend upon the strength of the interaction between the various land uses and the locations of the internal access points along Street "D".

Preliminary estimates of the potential traffic volumes for the intersection of Street "D" at Casino indicate that it is unlikely for this intersection to meet traffic signal warrants upon project buildout, since Street "D" would be a four-lane roadway and Casino will require at least two approach lanes at the intersection of Street "D". At the present level of site planning, it appears that the intersection of Street "D" and Casino should be unsignalized (TWSC, AWSC, or roundabout). The appropriate traffic control type should be reviewed at a future time, when more detailed development plans are available.

6.4 Standard Mitigation for Individual Development Projects

1. The property owners shall dedicate appropriate right-of-way to accommodate the ultimate improvement of the abutting General Plan roadways and fully improve those roadways in conjunction with adjacent development.

2. To ensure compliance with applicable roadway and access design standards when individual development projects are processed, their final layout and site access design may be subject to review and approval and a focused traffic impact study may be required to evaluate site-specific access and circulation issues as well as the timing of required improvements. Entry drives, the internal circulation design, and other features may require additional street widths. A traffic signing and striping plan may be required for review and approval in conjunction with detailed construction plans for the project site.

3. To ensure that motorists can enter and exit the site with minimum hazard and disruption of "through" traffic, clear unobstructed sight distances shall be provided at all site access points as well as at all internal intersections. When individual development projects are processed, sight distances shall be reviewed at the project access points (based upon AASHTO sight distance standards) when final grading, landscape and street improvement plans are prepared.

4. Clear sight triangles shall be provided and maintained at each of the proposed site access intersections.

5. Individual project proponents shall comply with applicable requirements in the Section 24 Specific Plan and construct the future combination sidewalk/bikeway/golf cart paths (with a minimum eight-foot width) along Ramon Road, Bob Hope Drive, Dinah Shore Drive, and Los Alamos Road, as shown in the *City of Rancho Mirage General Plan*.

6. Individual project proponents shall provide sufficient off-street parking shall be provided on-site as detailed in the Section 24 Specific Plan (Table 8) to meet the requirements of the applicable jurisdiction and the Uniform Federal Accessibility Standards.

7. Individual project proponents shall coordinate with the SunLine Transit Agency regarding the need for public transit facilities on and adjacent to the project site. At bus stops, the *Americans with Disabilities Act Accessibility Guidelines* require a minimum paved area depth of 8 feet.

8. Individual project proponents shall pay development impact fees and/or participate in a traffic mitigation fee program developed to ensure that a fair-share contribution is made to future roadway infrastructure improvements of benefit to all developments within the Section 24 Specific Plan.

9. Individual project proponents may be required to contribute a traffic mitigation fee to ensure that a fair-share contribution is made to future roadway infrastructure improvements of area-wide benefit prior to the issuance of building permits, equivalent to the Traffic Uniform Mitigation Fee.

10. A series of utility poles are located close to the curb along the north side of Dinah Shore Drive. Undergrounding these transmission lines is desirable from a traffic safety and aesthetic perspective. The proponents of individual developments adjacent to Dinah Shore Drive shall coordinate with the utility company to proactively address potential strategies to reduce risks posed by the utility poles. The proponents of individual developments within the Section 24 Specific Plan may be required to contribute Development Impact Fees, as outlined in the City of

Rancho Mirage Municipal Code Section 3.29.130, which provides a mechanism for funding the undergrounding of utility facilities including electrical transmission lines.

6.5 Roadway Improvements Needed

The streets within the initial phase of development shall be constructed and maintained as private streets, as shown in the Section 24 Specific Plan. The Institute of Transportation Engineers recommends that private streets be developed in accordance with the same guidelines established for public neighborhood streets. The City of Rancho Mirage typically requires private streets to provide a 37-foot minimum right-of-way. Figure 15 within the Section 24 Specific Plan illustrates the improvements proposed for local interior roadways with a 37-foot right-of way within the active adult community. These improvements include one travel lane in each direction, an on-street parking lane, and a five-foot wide sidewalk adjacent to the curb along one side of the roadway.

Initial Phase Improvements

1. The developer of the initial phase shall provide, at a minimum, the lane geometrics shown in Figure 6-2 at the site access points in conjunction with the development of the initial phase.

    - A "STOP" sign shall be installed facing westbound vehicles at the site access proposed on Los Alamos Road, opposite Via Bella [Intersection 8] and a northbound and southbound left-turn bay shall be provided in the median on Los Alamos Road at the intersection of Via Bella.

    - The existing traffic control signal and approach lane geometrics shall be modified at the intersection of the Westin Mission Hills Golf Resort Access with Dinah Shore Drive [Intersection 12] to provide access to the initial phase of development. Two southbound exit lanes shall be provided, including a dedicated right-turn lane and a shared through/left lane. Two northbound entry lanes shall be provided to permit residents to enter while a visitor is awaiting authorization for entry.

2. Adequate stacking distance (100 feet) shall be provided on the approach to each of the three proposed gated entries to store vehicles entering the initial phase. The pavement in advance of the gate shall be wide enough to allow non-accepted vehicles to turn around in advance of the gate. Any gated entry that allows visitor access should provide two entry lanes to allow residents to bypass the vehicles of visitors awaiting entry authorization.

3. The controlled primary entryways to the initial phase of development may be required to include provisions to facilitate access by emergency vehicles. If required, all power-operated controlled access devices shall have a radio-controlled override system capable of opening the gate or barrier when activated by a special transmitter located in emergency vehicles and be equipped to facilitate opening in the event of a power failure.

4. An adequate supply of off-street parking in appropriate locations is an essential component of a balanced neighborhood and should be provided within the initial phase to meet the needs of residents and visitors. Regular use of on-street parking should be expected and accommodated because visitor parking will be heavy at times.

Project Buildout Improvements

1. The minimum required site access improvements shown in Figure 6-4, including the intersection approach lane geometrics, "STOP " signs, and new traffic control signals, should be provided when necessary to accommodate the traffic generated by the development of the Section 24 Specific Plan.

2. Traffic signals will be warranted and shall be installed when warranted along Ramon Road and Bob Hope Drive at the following five site access intersections to maintain acceptable levels of service in conjunction with adjacent development:

    - The Westin Resort Villas @ Dinah Shore Drive [Intersection 13],
    - Street "C" @ Ramon Road [Intersection 18],
    - Street "D" @ Ramon Road [Intersection 19],
    - Bob Hope Drive @ Street "D" [Intersection 20], and
    - Bob Hope Drive @ Street "E" [Intersection 21].

3. Each of the proposed full-turn site access intersections that will be signalized shall provide a minimum of two approach lanes on the minor-street approaches to minimize the disruption of through traffic on the major street.

4. The locations of the proposed right-in/right-out site access points shall provide adequate stopping sight distance, and intersection sight distance as well as corner clearance (to avoid conflicts between driveway traffic and vehicles stacking or turning at adjacent roadway intersections). Corner clearance will be particularly important where the queue lengths in the through lanes on Ramon Road and Bob Hope Drive may extend more than 600 feet (i.e., Access "C" and Access "F" as shown in Figure 4-3).

5. Clear unobstructed sight distances shall be provided at the site access points on Ramon Road and Bob Hope Drive as well as at all internal intersections to ensure that motorists can enter, exit, and traverse the site safely with minimal disruption to through traffic on the abutting arterial roadways. The intersection of Bob Hope Drive with Street "E" [Intersection 21] and the right-turn only access intersection proposed on Bob Hope Drive, immediately north of Intersection 21, are located on the inside of a horizontal curve that may limit both stopping sight distance and intersection sight distance.

6. While not required to achieve acceptable levels of service, careful consideration should be given to the provision of a right-turn deceleration lane at those site access intersections along Bob Hope Drive, Ramon Road, and Dinah Shore Drive where 40 or more vehicles are projected to turn right into the site during the peak hour.

7. The minimum standard for access spacing is frequently the same as for stopping sight distance. The site access spacing along Los Alamos Road, between Via Bella and Ramon Road, should reflect the minimum stopping sight distance, based on the future speed limit on Los Alamos Road, which is expected to be lower than the current design speed.

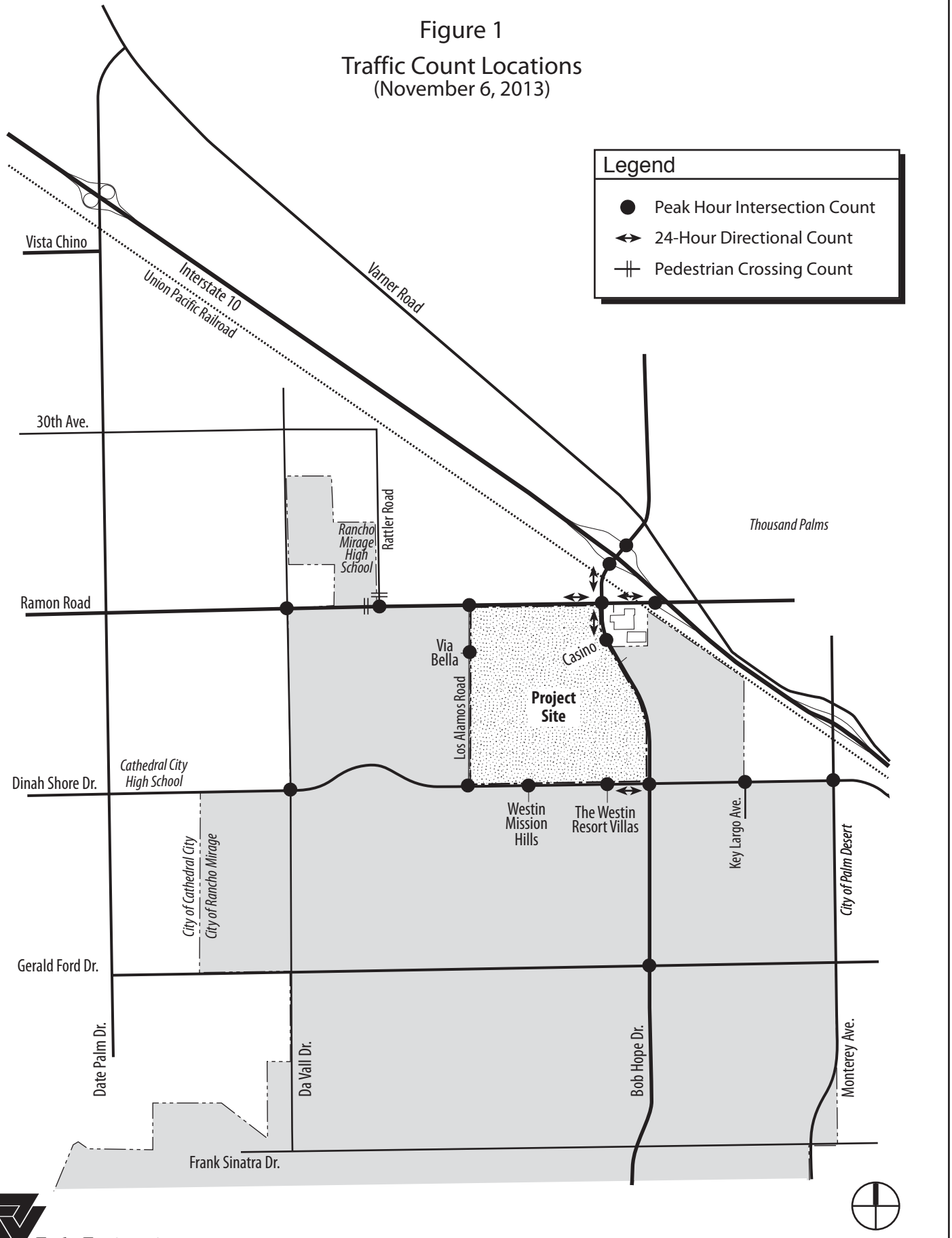
Appendices

1. Traffic Count Locations and Data
2. RIVTAM TAZ Map, Modifications, and Socioeconomic Data
3. HCM Intersection Analysis Methodology and Worksheets
4. Traffic Signal Warrants
5. List of Acronyms and Traffic Glossary
6. City of Rancho Mirage Review Comments and Responses

Appendix 1

TRAFFIC COUNT LOCATIONS
24-HOUR MACHINE COUNT DATA
PEAK HOUR TURNING MOVEMENT COUNTS

Figure 1
Traffic Count Locations
(November 6, 2013)



Endo Engineering

Scale: 1" = 3,800'

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Rancho Mirage
Bob Hope Drive
N/ Ramon Road
24 Hour Directional Volume Counts

RNM001
Site Code: 009-13453
Date Start: 06-Nov-13
Date End: 06-Nov-13

Start Time	06-Nov-13 Wed	Northbound		Hour Totals		Southbound		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		7	89			12	153				
12:15		17	87			17	161				
12:30		11	105			7	163				
12:45		9	76	44	357	5	169	41	646	85	1003
01:00		12	102			8	180				
01:15		8	69			13	193				
01:30		5	87			15	185				
01:45		4	114	29	372	9	166	45	724	74	1096
02:00		4	106			9	143				
02:15		8	109			10	182				
02:30		6	137			13	222				
02:45		7	104	25	456	13	183	45	730	70	1186
03:00		3	107			7	203				
03:15		2	**152**			17	193				
03:30		7	**147**			8	206				
03:45		4	**155**	16	561	15	205	47	807	63	1368
04:00		3	**117**			16	201				
04:15		8	137			33	**201**				
04:30		10	123			34	**229**				
04:45		6	117	27	494	29	**213**	112	844	139	1338
05:00		14	111			42	**218**				
05:15		7	153			62	191				
05:30		10	125			119	188				
05:45		22	102	53	491	86	143	309	740	362	1231
06:00		20	94			121	123				
06:15		51	76			154	132				
06:30		48	47			233	113				
06:45		38	48	157	265	151	86	659	454	816	719
07:00		40	58			212	95				
07:15		52	60			**295**	82				
07:30		57	41			**321**	79				
07:45		63	46	212	205	**242**	90	1070	346	1282	551
08:00		51	41			**228**	89				
08:15		62	45			244	85				
08:30		54	51			213	73				
08:45		79	37	246	174	177	63	862	310	1108	484
09:00		87	30			199	74				
09:15		73	36			178	69				
09:30		74	43			188	74				
09:45		**89**	25	323	134	186	61	751	278	1074	412
10:00		**85**	35			167	57				
10:15		**70**	24			202	54				
10:30		**98**	28			174	55				
10:45		75	27	328	114	164	37	707	203	1035	317
11:00		76	29			187	39				
11:15		91	30			157	17				
11:30		70	19			175	26				
11:45		98	10	335	88	174	24	693	106	1028	194
Total		1795	3711	1795	3711	5341	6188	5341	6188	7136	9899
Combined Total		5506		5506		11529		11529		17035	
AM Peak		09:45				07:15					
Vol.		342				1086					
P.H.F.		0.872				0.846					
PM Peak			03:15				04:15				
Vol.			571				861				
P.H.F.			0.921				0.940				
Percentage		32.6%	67.4%			46.3%	53.7%				
ADT/AADT		ADT 17,035		AADT 17,035							

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Rancho Mirage
Bob Hope Drive
S/ Ramon Road
24 Hour Directional Volume Counts

RNM002
Site Code: 009-13453
Date Start: 07-Nov-13
Date End: 07-Nov-13

Start Time	07-Nov-13 Thu	Northbound		Hour Totals		Southbound		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		43	156			12	143				
12:15		43	174			11	161				
12:30		50	138			6	144				
12:45		33	152	169	620	5	**155**	34	603	203	1223
01:00		38	126			7	**158**				
01:15		39	149			12	**156**				
01:30		39	161			4	**170**				
01:45		23	180	139	616	9	134	32	618	171	1234
02:00		18	173			7	163				
02:15		30	183			7	135				
02:30		23	175			11	161				
02:45		13	194	84	725	6	139	31	598	115	1323
03:00		16	183			9	143				
03:15		19	203			11	129				
03:30		15	210			9	122				
03:45		11	262	61	858	11	133	40	527	101	1385
04:00		17	193			8	124				
04:15		12	190			24	122				
04:30		13	223			25	143				
04:45		14	**187**	56	793	23	135	80	524	136	1317
05:00		19	**238**			41	123				
05:15		18	**268**			55	129				
05:30		21	**239**			90	116				
05:45		17	165	75	910	49	96	235	464	310	1374
06:00		26	141			96	81				
06:15		29	136			128	101				
06:30		60	115			197	89				
06:45		40	104	155	496	145	77	566	348	721	844
07:00		57	91			180	70				
07:15		77	104			**230**	52				
07:30		71	114			**322**	61				
07:45		107	91	312	400	**186**	38	918	221	1230	621
08:00		83	77			**215**	56				
08:15		88	99			186	44				
08:30		105	80			208	47				
08:45		78	76	354	332	177	38	786	185	1140	517
09:00		100	79			152	41				
09:15		90	88			145	47				
09:30		94	63			153	42				
09:45		122	75	406	305	142	28	592	158	998	463
10:00		110	68			132	33				
10:15		115	76			141	36				
10:30		110	64			153	24				
10:45		107	64	442	272	164	28	590	121	1032	393
11:00		**124**	57			132	21				
11:15		**134**	51			130	16				
11:30		**128**	58			156	10				
11:45		**152**	58	538	224	151	14	569	61	1107	285
Total		2791	6551	2791	6551	4473	4428	4473	4428	7264	10979
Combined Total		9342		9342		8901		8901		18243	
AM Peak		11:00				07:15					
Vol.		538				953					
P.H.F.		0.885				0.740					
PM Peak			04:45				00:45				
Vol.			932				639				
P.H.F.			0.869				0.940				
Percentage		29.9%	70.1%			50.3%	49.7%				
ADT/AADT		ADT 18,243		AADT 18,243							

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Rancho Mirage
Ramon Road
W/ Bob Hope Drive
24 Hour Directional Volume Counts

RNM004
Site Code: 009-13453
Date Start: 06-Nov-13
Date End: 06-Nov-13

Start Time	06-Nov-13 Wed	Eastbound		Hour Totals		Westbound		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		15	136			14	134				
12:15		20	173			18	98				
12:30		11	147			17	100				
12:45		9	193	55	649	8	107	57	439	112	1088
01:00		14	185			7	106				
01:15		12	152			5	102				
01:30		11	145			8	122				
01:45		6	170	43	652	8	119	28	449	71	1101
02:00		7	196			6	102				
02:15		10	182			9	130				
02:30		4	190			4	131				
02:45		16	197	37	765	7	173	26	536	63	1301
03:00		4	**213**			11	163				
03:15		7	**204**			5	166				
03:30		14	**217**			8	173				
03:45		12	**211**	37	845	6	168	30	670	67	1515
04:00		9	182			9	203				
04:15		16	191			9	200				
04:30		36	201			19	199				
04:45		48	187	109	761	20	209	57	811	166	1572
05:00		43	196			23	**232**				
05:15		60	219			21	**241**				
05:30		77	218			39	**237**				
05:45		94	191	274	824	68	**216**	151	926	425	1750
06:00		92	186			71	161				
06:15		151	135			83	139				
06:30		182	167			90	159				
06:45		179	144	604	632	179	121	423	580	1027	1212
07:00		161	101			142	91				
07:15		185	110			**184**	107				
07:30		**212**	95			**235**	88				
07:45		**234**	121	792	427	**185**	81	746	367	1538	794
08:00		**215**	92			**156**	100				
08:15		**189**	109			137	104				
08:30		198	97			194	94				
08:45		221	67	823	365	162	81	649	379	1472	744
09:00		146	82			119	87				
09:15		150	89			119	85				
09:30		182	60			109	61				
09:45		186	64	664	295	119	81	466	314	1130	609
10:00		170	57			106	82				
10:15		165	78			87	69				
10:30		140	51			140	41				
10:45		164	39	639	225	85	36	418	228	1057	453
11:00		145	26			105	22				
11:15		171	48			121	31				
11:30		168	31			96	31				
11:45		158	14	642	119	103	20	425	104	1067	223
Total		4719	6559	4719	6559	3476	5803	3476	5803	8195	12362
Combined Total		11278		11278		9279		9279		20557	
AM Peak		07:30				07:15					
Vol.		850				760					
P.H.F.		0.908				0.809					
PM Peak			03:00				05:00				
Vol.			845				926				
P.H.F.			0.974				0.961				
Percentage		41.8%	58.2%			37.5%	62.5%				
ADT/AADT		ADT 20,557		AADT 20,557							

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Rancho Mirage
Ramon Road
E/ Bob Hope Drive
24 Hour Directional Volume Count

RNM003
Site Code: 009-13453
Date Start: 06-Nov-13
Date End: 06-Nov-13

Start Time	06-Nov-13 Wed	Eastbound		Hour Totals		Westbound		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		26	156			5	73				
12:15		25	154			10	81				
12:30		25	145			10	69				
12:45		20	199	96	654	6	63	31	286	127	940
01:00		28	166			7	70				
01:15		23	142			5	60				
01:30		15	150			5	76				
01:45		20	156	86	614	3	78	20	284	106	898
02:00		18	173			5	79				
02:15		16	171			9	90				
02:30		14	196			3	83				
02:45		16	175	64	715	8	97	25	349	89	1064
03:00		6	**262**			3	92				
03:15		16	**206**			3	116				
03:30		18	**235**			5	83				
03:45		12	**195**	52	898	5	93	16	384	68	1282
04:00		16	173			4	99				
04:15		22	185			7	92				
04:30		38	221			8	**98**				
04:45		33	192	109	771	13	**97**	32	386	141	1157
05:00		56	213			29	**95**				
05:15		40	236			14	**102**				
05:30		84	245			33	78				
05:45		81	169	261	863	26	82	102	357	363	1220
06:00		86	180			45	74				
06:15		121	160			66	73				
06:30		168	159			78	80				
06:45		146	148	521	647	**103**	52	292	279	813	926
07:00		141	115			**100**	56				
07:15		**178**	99			**125**	38				
07:30		**211**	99			**155**	36				
07:45		**178**	125	708	438	90	38	470	168	1178	606
08:00		**190**	103			90	38				
08:15		160	113			87	52				
08:30		175	103			130	37				
08:45		165	81	690	400	86	48	393	175	1083	575
09:00		119	93			53	40				
09:15		145	110			70	42				
09:30		155	88			61	32				
09:45		157	74	576	365	63	41	247	155	823	520
10:00		134	66			59	33				
10:15		155	76			45	24				
10:30		121	77			84	32				
10:45		153	58	563	277	64	15	252	104	815	381
11:00		125	56			76	15				
11:15		155	41			63	11				
11:30		170	42			63	13				
11:45		150	27	600	166	85	13	287	52	887	218
Total		4326	6808	4326	6808	2167	2979	2167	2979	6493	9787
Combined Total		11134		11134		5146		5146		16280	
AM Peak		07:15				06:45					
Vol.		757				483					
P.H.F.		0.897				0.779					
PM Peak			03:00				04:30				
Vol.			898				392				
P.H.F.			0.857				0.961				
Percentage		38.9%	61.1%			42.1%	57.9%				
ADT/AADT		ADT 16,280		AADT 16,280							

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Rancho Mirage
Dinah Shore Drive
W/ Bob Hope Drive
24 Hour Directional Volume Counts

RNM005
Site Code: 009-13453
Date Start: 06-Nov-13
Date End: 06-Nov-13

Start Time	06-Nov-13 Wed	Eastbound		Hour Totals		Westbound		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		9	159			10	164				
12:15		6	141			8	178				
12:30		13	151			9	173				
12:45		8	155	36	606	9	147	36	662	72	1268
01:00		10	166			6	182				
01:15		4	150			5	141				
01:30		2	160			12	170				
01:45		1	135	17	611	2	147	25	640	42	1251
02:00		2	154			10	169				
02:15		1	153			5	177				
02:30		8	151			4	175				
02:45		2	142	13	600	3	192	22	713	35	1313
03:00		0	**180**			2	171				
03:15		3	**187**			6	195				
03:30		6	**166**			3	201				
03:45		7	**181**	16	714	3	177	14	744	30	1458
04:00		5	154			13	199				
04:15		6	136			10	**205**				
04:30		15	171			24	**193**				
04:45		21	166	47	627	26	**194**	73	791	120	1418
05:00		19	159			22	**259**				
05:15		11	197			17	187				
05:30		31	169			42	152				
05:45		31	139	92	664	38	143	119	741	211	1405
06:00		37	117			62	125				
06:15		41	112			60	132				
06:30		67	103			105	109				
06:45		77	84	222	416	103	129	330	495	552	911
07:00		85	63			121	116				
07:15		90	54			141	91				
07:30		127	68			150	87				
07:45		170	60	472	245	115	89	527	383	999	628
08:00		148	50			101	86				
08:15		133	61			111	81				
08:30		132	48			114	90				
08:45		147	54	560	213	104	68	430	325	990	538
09:00		106	64			98	69				
09:15		136	126			110	58				
09:30		138	114			115	54				
09:45		130	45	510	349	115	45	438	226	948	575
10:00		141	42			110	48				
10:15		135	30			124	40				
10:30		159	29			151	30				
10:45		140	25	575	126	137	22	522	140	1097	266
11:00		**145**	24			**151**	9				
11:15		**160**	16			**141**	14				
11:30		**166**	13			**178**	17				
11:45		**156**	7	627	60	**144**	13	614	53	1241	113
Total		3187	5231	3187	5231	3150	5913	3150	5913	6337	11144
Combined Total		8418		8418		9063		9063		17481	
AM Peak		11:00				11:00					
Vol.		627				614					
P.H.F.		0.944				0.862					
PM Peak			03:00				04:15				
Vol.			714				851				
P.H.F.			0.955				0.821				
Percentage		37.9%	62.1%			34.8%	65.2%				
ADT/AADT		ADT 17,481		AADT 17,481							

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Rancho Mirage
N/S: Bob Hope Drive
E/W: I-10 Westbound Ramps
Weather: Sunny

File Name : RNMBH10WAM
Site Code : 00913453
Start Date : 11/6/2013
Page No : 1

Groups Printed- Total Volume

	Bob Hope Drive Southbound				I-10 Westbound Off Ramp Westbound				Bob Hope Drive Northbound				I-10 Westbound On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	39	32	71	69	4	30	103	32	60	0	92	0	0	0	0	266
07:15 AM	0	54	41	95	91	2	39	132	20	85	0	105	0	0	0	0	332
07:30 AM	0	55	37	92	132	3	39	174	30	67	0	97	0	0	0	0	363
07:45 AM	0	55	42	97	131	1	58	190	23	110	0	133	0	0	0	0	420
Total	0	203	152	355	423	10	166	599	105	322	0	427	0	0	0	0	1381
08:00 AM	0	49	29	78	95	3	44	142	27	81	0	108	0	0	0	0	328
08:15 AM	0	55	32	87	88	1	42	131	31	46	0	77	0	0	0	0	295
08:30 AM	0	63	29	92	101	5	28	134	39	41	0	80	0	0	0	0	306
08:45 AM	0	43	32	75	88	1	32	121	40	66	0	106	0	0	0	0	302
Total	0	210	122	332	372	10	146	528	137	234	0	371	0	0	0	0	1231
Grand Total	0	413	274	687	795	20	312	1127	242	556	0	798	0	0	0	0	2612
Apprch %	0	60.1	39.9		70.5	1.8	27.7		30.3	69.7	0		0	0	0		
Total %	0	15.8	10.5	26.3	30.4	0.8	11.9	43.1	9.3	21.3	0	30.6	0	0	0	0	

	Bob Hope Drive Southbound				I-10 Westbound Off Ramp Westbound				Bob Hope Drive Northbound				I-10 Westbound On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	54	41	95	91	2	39	132	20	85	0	105	0	0	0	0	332
07:30 AM	0	**55**	37	92	**132**	**3**	39	174	**30**	67	0	97	0	0	0	0	363
07:45 AM	0	55	**42**	**97**	131	1	**58**	**190**	23	**110**	0	**133**	0	0	0	0	**420**
08:00 AM	0	49	29	78	95	3	44	142	27	81	0	108	0	0	0	0	328
Total Volume	0	213	149	362	449	9	180	638	100	343	0	443	0	0	0	0	1443
% App. Total	0	58.8	41.2		70.4	1.4	28.2		22.6	77.4	0		0	0	0		
PHF	.000	.968	.887	.933	.850	.750	.776	.839	.833	.780	.000	.833	.000	.000	.000	.000	.859

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City of Rancho Mirage
N/S: Bob Hope Drive
E/W: I-10 Westbound Ramps
Weather: Sunny

File Name : RNMBH10WAM
Site Code : 00913453
Start Date : 11/6/2013
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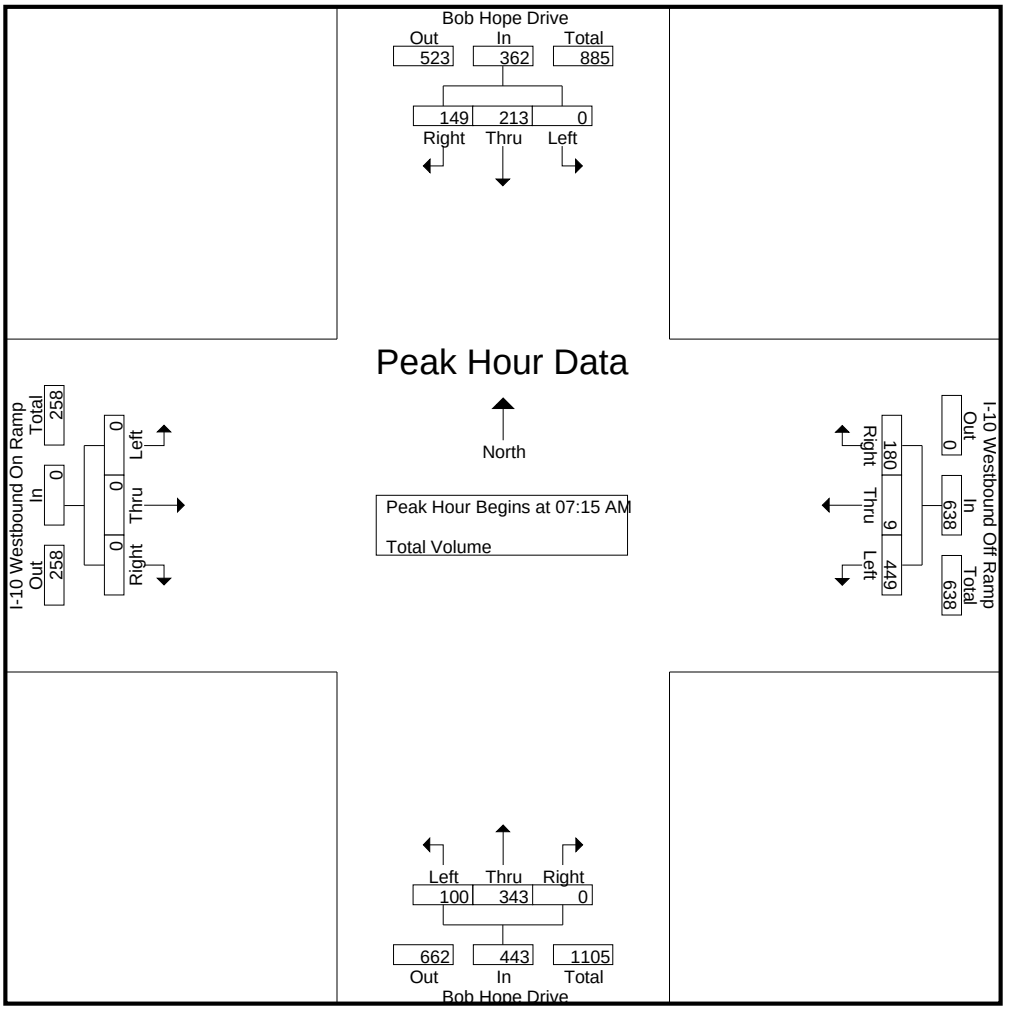

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:00 AM			
+0 mins.	0	54	41	95	91	2	39	132	20	85	0	105	0	0	0	0
+15 mins.	0	**55**	37	92	**132**	**3**	39	174	**30**	67	0	97	0	0	0	0
+30 mins.	0	55	**42**	**97**	131	1	**58**	**190**	23	**110**	0	**133**	0	0	0	0
+45 mins.	0	49	29	78	95	3	44	142	27	81	0	108	0	0	0	0
Total Volume	0	213	149	362	449	9	180	638	100	343	0	443	0	0	0	0
% App. Total	0	58.8	41.2		70.4	1.4	28.2		22.6	77.4	0		0	0	0	
PHF	.000	.968	.887	.933	.850	.750	.776	.839	.833	.780	.000	.833	.000	.000	.000	.000

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City of Rancho Mirage
N/S: Bob Hope Drive
E/W: I-10 Westbound Ramps
Weather: Sunny

File Name : RNMBH10WPM
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Groups Printed- Total Volume

	Bob Hope Drive Southbound				I-10 Westbound Off Ramp Westbound				Bob Hope Drive Northbound				I-10 Westbound On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	78	75	153	122	1	39	162	86	71	0	157	0	0	0	0	472
04:15 PM	0	54	53	107	99	0	33	132	100	70	0	170	0	0	0	0	409
04:30 PM	0	84	57	141	100	3	37	140	81	67	0	148	0	0	0	0	429
04:45 PM	0	68	53	121	132	0	24	156	88	42	0	130	0	0	0	0	407
Total	0	284	238	522	453	4	133	590	355	250	0	605	0	0	0	0	1717
05:00 PM	0	71	77	148	119	0	24	143	94	43	0	137	0	0	0	0	428
05:15 PM	0	40	54	94	145	1	28	174	121	56	0	177	0	0	0	0	445
05:30 PM	0	29	59	88	130	1	20	151	105	62	0	167	0	0	0	0	406
05:45 PM	0	18	47	65	100	1	18	119	70	33	0	103	0	0	0	0	287
Total	0	158	237	395	494	3	90	587	390	194	0	584	0	0	0	0	1566
Grand Total	0	442	475	917	947	7	223	1177	745	444	0	1189	0	0	0	0	3283
Apprch %	0	48.2	51.8		80.5	0.6	18.9		62.7	37.3	0		0	0	0		
Total %	0	13.5	14.5	27.9	28.8	0.2	6.8	35.9	22.7	13.5	0	36.2	0	0	0	0	

	Bob Hope Drive Southbound				I-10 Westbound Off Ramp Westbound				Bob Hope Drive Northbound				I-10 Westbound On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	78	**75**	**153**	122	1	**39**	**162**	86	**71**	0	157	0	0	0	0	**472**
04:15 PM	0	54	53	107	99	0	33	132	**100**	70	0	**170**	0	0	0	0	409
04:30 PM	0	**84**	57	141	100	**3**	37	140	81	67	0	148	0	0	0	0	429
04:45 PM	0	68	53	121	**132**	0	24	156	88	42	0	130	0	0	0	0	407
Total Volume	0	284	238	522	453	4	133	590	355	250	0	605	0	0	0	0	1717
% App. Total	0	54.4	45.6		76.8	0.7	22.5		58.7	41.3	0		0	0	0		
PHF	.000	.845	.793	.853	.858	.333	.853	.910	.888	.880	.000	.890	.000	.000	.000	.000	.909

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City of Rancho Mirage
N/S: Bob Hope Drive
E/W: I-10 Westbound Ramps
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File Name : RNMBH10WPM
Site Code : 00913453
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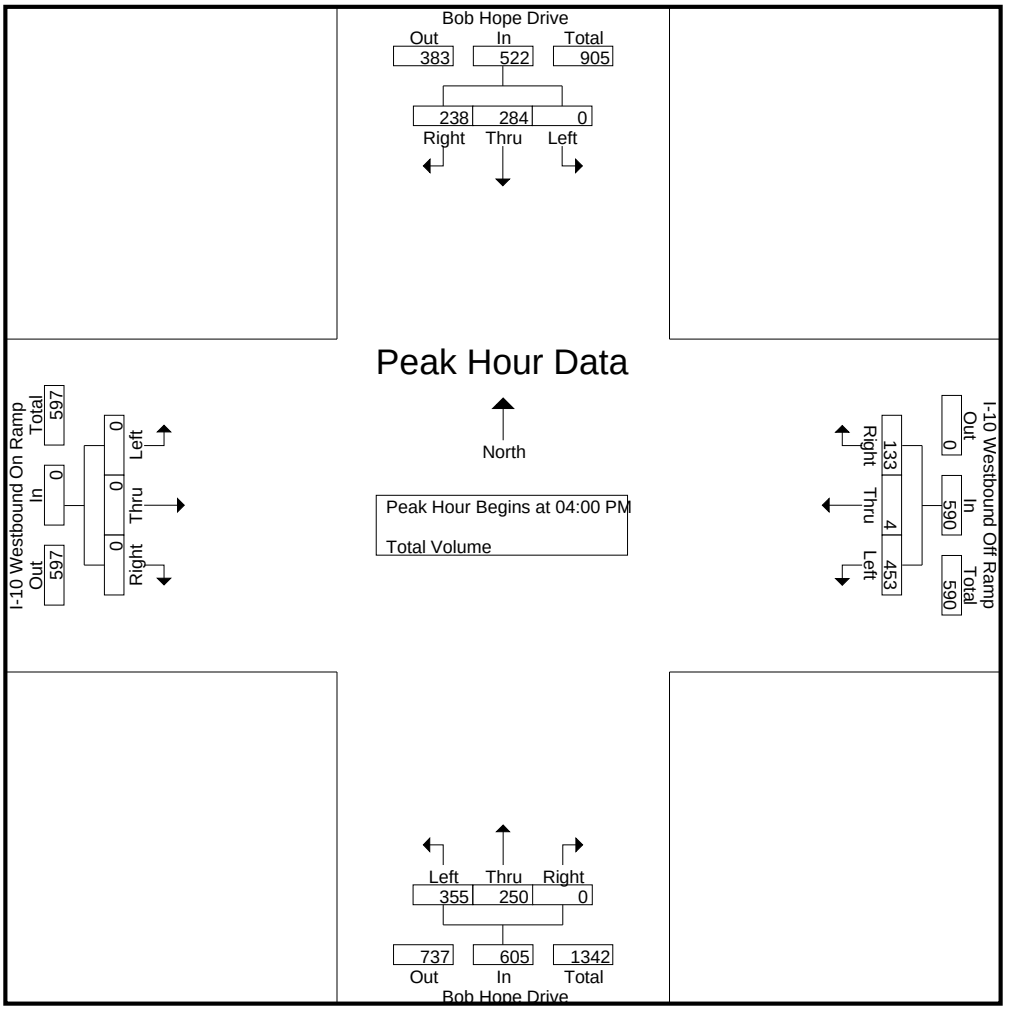

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:45 PM				04:45 PM				04:00 PM			
+0 mins.	0	78	**75**	**153**	132	0	24	156	88	42	0	130	0	0	0	0
+15 mins.	0	54	53	107	119	0	24	143	94	43	0	137	0	0	0	0
+30 mins.	0	**84**	57	141	**145**	**1**	**28**	**174**	**121**	56	0	**177**	0	0	0	0
+45 mins.	0	68	53	121	130	1	20	151	105	**62**	0	167	0	0	0	0
Total Volume	0	284	238	522	526	2	96	624	408	203	0	611	0	0	0	0
% App. Total	0	54.4	45.6		84.3	0.3	15.4		66.8	33.2	0		0	0	0	
PHF	.000	.845	.793	.853	.907	.500	.857	.897	.843	.819	.000	.863	.000	.000	.000	.000

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City of Rancho Mirage
N/S: Bob Hope Drive
E/W: I-10 Eastbound Ramps
Weather: Sunny

File Name : RNMBH10EAM
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Groups Printed- Total Volume

	Bob Hope Drive Southbound				I-10 Eastbound On Ramp Westbound				Bob Hope Drive Northbound				I-10 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	15	91	0	106	0	0	0	0	0	46	2	48	43	2	72	117	271
07:15 AM	22	126	0	148	0	0	0	0	0	35	3	38	67	4	93	164	350
07:30 AM	26	170	0	196	0	0	0	0	0	53	8	61	48	1	135	184	441
07:45 AM	17	160	0	177	0	0	0	0	0	54	8	62	78	0	148	226	465
Total	80	547	0	627	0	0	0	0	0	188	21	209	236	7	448	691	1527
08:00 AM	22	127	0	149	0	0	0	0	0	54	5	59	50	1	99	150	358
08:15 AM	15	136	0	151	0	0	0	0	0	52	6	58	30	0	105	135	344
08:30 AM	24	141	0	165	0	0	0	0	0	54	5	59	29	0	84	113	337
08:45 AM	19	119	0	138	0	0	0	0	0	69	10	79	37	0	88	125	342
Total	80	523	0	603	0	0	0	0	0	229	26	255	146	1	376	523	1381
Grand Total	160	1070	0	1230	0	0	0	0	0	417	47	464	382	8	824	1214	2908
Apprch %	13	87	0		0	0	0		0	89.9	10.1		31.5	0.7	67.9		
Total %	5.5	36.8	0	42.3	0	0	0	0	0	14.3	1.6	16	13.1	0.3	28.3	41.7	

	Bob Hope Drive Southbound				I-10 Eastbound On Ramp Westbound				Bob Hope Drive Northbound				I-10 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	22	126	0	148	0	0	0	0	0	35	3	38	67	**4**	93	164	350
07:30 AM	**26**	**170**	0	**196**	0	0	0	0	0	53	**8**	61	48	1	135	184	441
07:45 AM	17	160	0	177	0	0	0	0	0	**54**	8	**62**	**78**	0	**148**	**226**	**465**
08:00 AM	22	127	0	149	0	0	0	0	0	54	5	59	50	1	99	150	358
Total Volume	87	583	0	670	0	0	0	0	0	196	24	220	243	6	475	724	1614
% App. Total	13	87	0		0	0	0		0	89.1	10.9		33.6	0.8	65.6		
PHF	.837	.857	.000	.855	.000	.000	.000	.000	.000	.907	.750	.887	.779	.375	.802	.801	.868

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City of Rancho Mirage
N/S: Bob Hope Drive
E/W: I-10 Eastbound Ramps
Weather: Sunny

File Name : RNMBH10EAM
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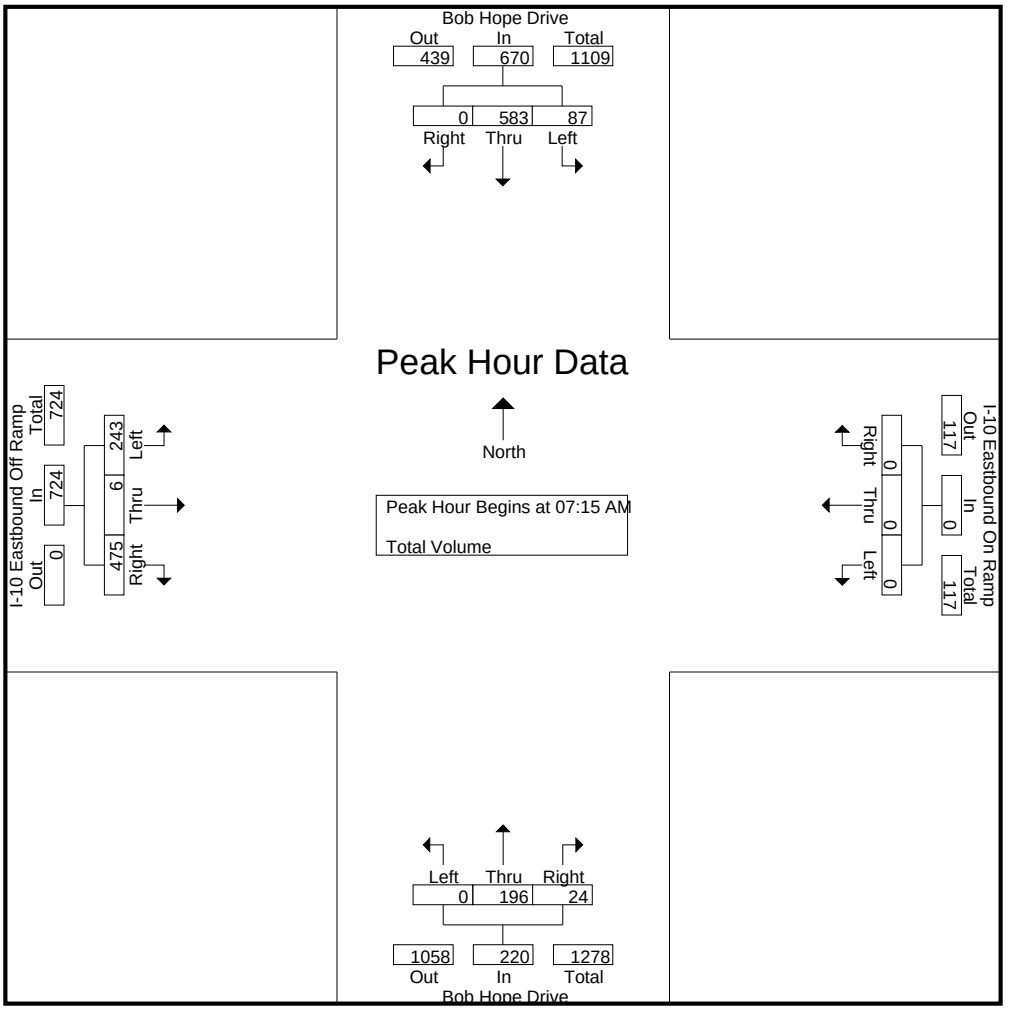

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:00 AM				08:00 AM				07:15 AM			
+0 mins.	**26**	**170**	0	**196**	0	0	0	0	0	54	5	59	67	**4**	93	164
+15 mins.	17	160	0	177	0	0	0	0	0	52	6	58	48	1	135	184
+30 mins.	22	127	0	149	0	0	0	0	0	54	5	59	**78**	0	**148**	**226**
+45 mins.	15	136	0	151	0	0	0	0	0	**69**	**10**	**79**	50	1	99	150
Total Volume	80	593	0	673	0	0	0	0	0	229	26	255	243	6	475	724
% App. Total	11.9	88.1	0		0	0	0		0	89.8	10.2		33.6	0.8	65.6	
PHF	.769	.872	.000	.858	.000	.000	.000	.000	.000	.830	.650	.807	.779	.375	.802	.801

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City of Rancho Mirage
N/S: Bob Hope Drive
E/W: I-10 Eastbound Ramps
Weather: Sunny

File Name : RNMBH10EPM
Site Code : 00913453
Start Date : 11/6/2013
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Groups Printed- Total Volume

	Bob Hope Drive Southbound				I-10 Eastbound On Ramp Westbound				Bob Hope Drive Northbound				I-10 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	31	165	0	196	0	0	0	0	0	128	14	142	38	0	62	100	438
04:15 PM	33	125	0	158	0	0	0	0	0	111	4	115	33	0	48	81	354
04:30 PM	27	169	0	196	0	0	0	0	0	119	11	130	38	2	58	98	424
04:45 PM	41	168	0	209	0	0	0	0	0	96	15	111	27	1	63	91	411
Total	132	627	0	759	0	0	0	0	0	454	44	498	136	3	231	370	1627
05:00 PM	39	156	0	195	0	0	0	0	0	114	10	124	21	0	52	73	392
05:15 PM	24	154	0	178	0	0	0	0	0	147	7	154	32	2	61	95	427
05:30 PM	19	145	0	164	0	0	0	0	0	114	10	124	41	1	55	97	385
05:45 PM	11	111	0	122	0	0	0	0	0	82	7	89	21	0	60	81	292
Total	93	566	0	659	0	0	0	0	0	457	34	491	115	3	228	346	1496
Grand Total	225	1193	0	1418	0	0	0	0	0	911	78	989	251	6	459	716	3123
Apprch %	15.9	84.1	0		0	0	0		0	92.1	7.9		35.1	0.8	64.1		
Total %	7.2	38.2	0	45.4	0	0	0	0	0	29.2	2.5	31.7	8	0.2	14.7	22.9	

	Bob Hope Drive Southbound				I-10 Eastbound On Ramp Westbound				Bob Hope Drive Northbound				I-10 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	27	**169**	0	196	0	0	0	0	0	119	11	130	**38**	**2**	58	**98**	424
04:45 PM	**41**	168	0	**209**	0	0	0	0	0	96	**15**	111	27	1	**63**	91	411
05:00 PM	39	156	0	195	0	0	0	0	0	114	10	124	21	0	52	73	392
05:15 PM	24	154	0	178	0	0	0	0	0	**147**	7	**154**	32	2	61	95	**427**
Total Volume	131	647	0	778	0	0	0	0	0	476	43	519	118	5	234	357	1654
% App. Total	16.8	83.2	0		0	0	0		0	91.7	8.3		33.1	1.4	65.5		
PHF	.799	.957	.000	.931	.000	.000	.000	.000	.000	.810	.717	.843	.776	.625	.929	.911	.968

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City of Rancho Mirage
N/S: Bob Hope Drive
E/W: I-10 Eastbound Ramps
Weather: Sunny

File Name : RNMBH10EPM
Site Code : 00913453
Start Date : 11/6/2013
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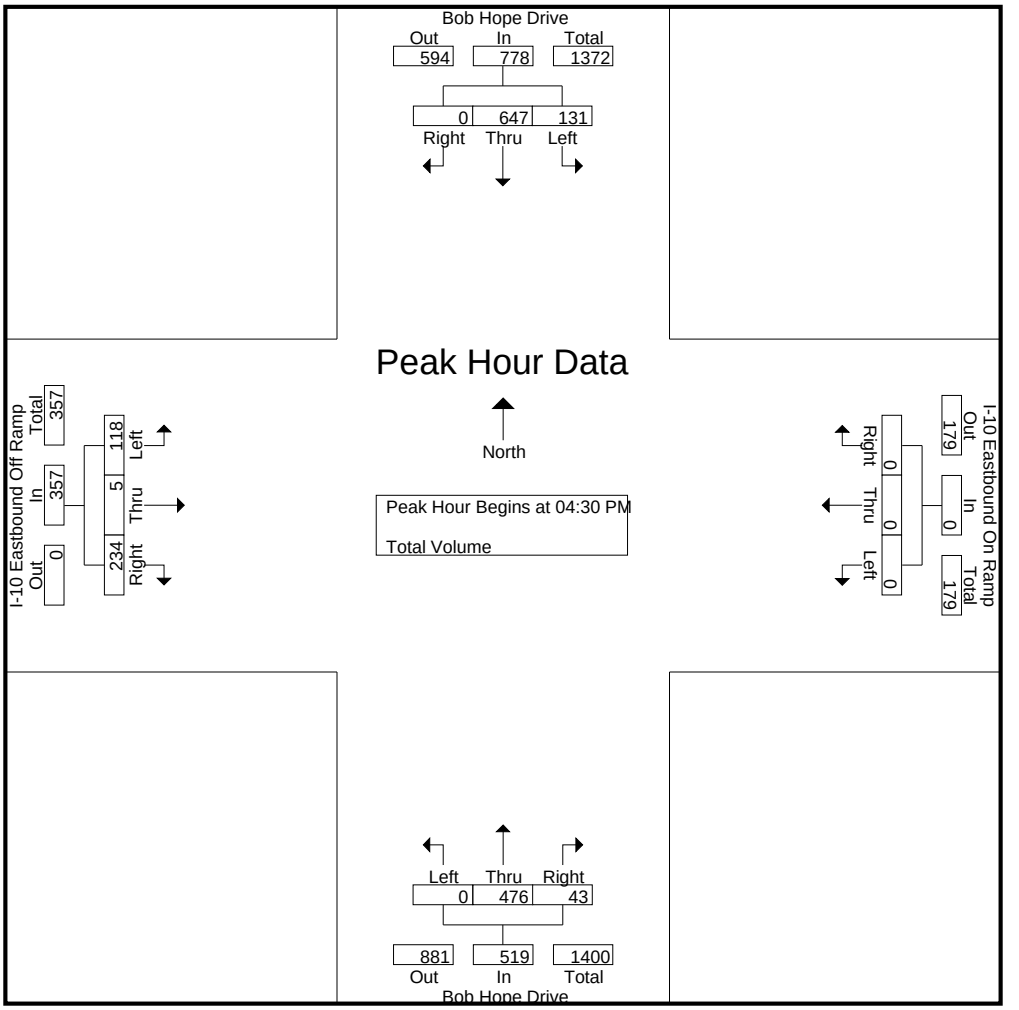

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:00 PM				04:30 PM				04:00 PM			
+0 mins.	27	**169**	0	196	0	0	0	0	0	119	11	130	**38**	0	62	**100**
+15 mins.	**41**	168	0	**209**	0	0	0	0	0	96	**15**	111	33	0	48	81
+30 mins.	39	156	0	195	0	0	0	0	0	114	10	124	38	**2**	58	98
+45 mins.	24	154	0	178	0	0	0	0	0	**147**	7	**154**	27	1	**63**	91
Total Volume	131	647	0	778	0	0	0	0	0	476	43	519	136	3	231	370
% App. Total	16.8	83.2	0		0	0	0		0	91.7	8.3		36.8	0.8	62.4	
PHF	.799	.957	.000	.931	.000	.000	.000	.000	.000	.810	.717	.843	.895	.375	.917	.925

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City of Rancho Mirage
N/S: Da Vall Drive
E/W: Ramon Road
Weather: Sunny

File Name : RNMDVRAAM
Site Code : 00913453
Start Date : 11/6/2013
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Groups Printed- Total Volume

	Da Vall Drive Southbound				Ramon Road Westbound				Da Vall Drive Northbound				Ramon Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	55	36	5	96	28	92	21	141	8	13	9	30	5	96	24	125	392
07:15 AM	51	46	15	112	43	95	36	174	14	23	19	56	6	149	29	184	526
07:30 AM	68	90	8	166	45	142	24	211	11	23	19	53	4	147	37	188	618
07:45 AM	51	87	12	150	47	122	15	184	25	31	25	81	7	139	38	184	599
Total	225	259	40	524	163	451	96	710	58	90	72	220	22	531	128	681	2135
08:00 AM	38	45	10	93	24	108	16	148	22	33	21	76	6	144	22	172	489
08:15 AM	30	41	5	76	18	142	14	174	16	15	13	44	3	169	24	196	490
08:30 AM	46	47	5	98	36	160	20	216	21	16	27	64	7	156	26	189	567
08:45 AM	43	49	7	99	30	178	27	235	27	15	24	66	4	161	30	195	595
Total	157	182	27	366	108	588	77	773	86	79	85	250	20	630	102	752	2141
Grand Total	382	441	67	890	271	1039	173	1483	144	169	157	470	42	1161	230	1433	4276
Apprch %	42.9	49.6	7.5		18.3	70.1	11.7		30.6	36	33.4		2.9	81	16.1		
Total %	8.9	10.3	1.6	20.8	6.3	24.3	4	34.7	3.4	4	3.7	11	1	27.2	5.4	33.5	

	Da Vall Drive Southbound				Ramon Road Westbound				Da Vall Drive Northbound				Ramon Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	51	46	**15**	112	43	95	**36**	174	14	23	19	56	6	**149**	29	184	526
07:30 AM	**68**	**90**	8	**166**	45	**142**	24	**211**	11	23	19	53	4	147	37	**188**	**618**
07:45 AM	51	87	12	150	**47**	122	15	184	**25**	31	**25**	**81**	**7**	139	**38**	184	599
08:00 AM	38	45	10	93	24	108	16	148	22	**33**	21	76	6	144	22	172	489
Total Volume	208	268	45	521	159	467	91	717	72	110	84	266	23	579	126	728	2232
% App. Total	39.9	51.4	8.6		22.2	65.1	12.7		27.1	41.4	31.6		3.2	79.5	17.3		
PHF	.765	.744	.750	.785	.846	.822	.632	.850	.720	.833	.840	.821	.821	.971	.829	.968	.903

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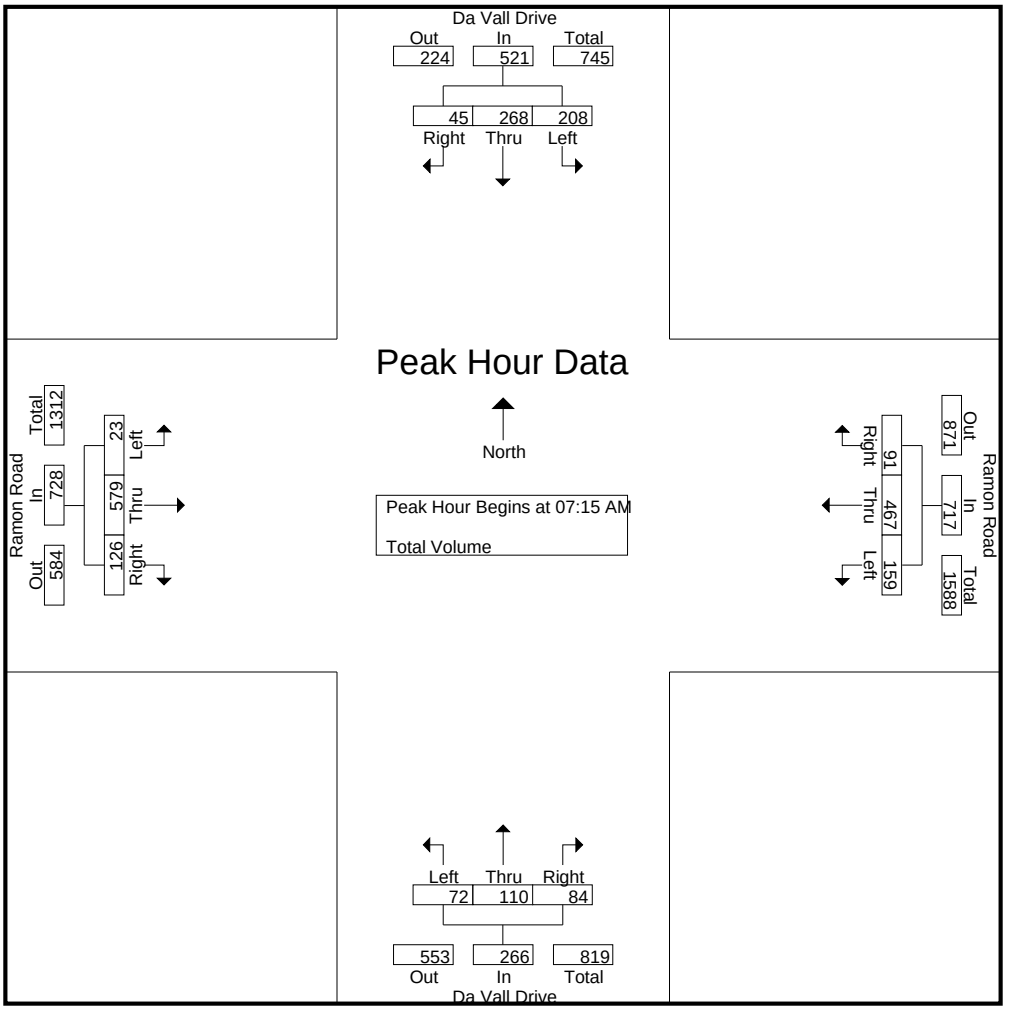
City of Rancho Mirage
N/S: Da Vall Drive
E/W: Ramon Road
Weather: Sunny

File Name : RNMDVRAAM
Site Code : 00913453
Start Date : 11/6/2013
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				08:00 AM				07:15 AM				08:00 AM			
+0 mins.	55	36	5	96	24	108	16	148	14	23	19	56	6	144	22	172
+15 mins.	51	46	**15**	112	18	142	14	174	11	23	19	53	3	**169**	24	**196**
+30 mins.	**68**	**90**	8	**166**	**36**	160	20	216	**25**	31	**25**	**81**	**7**	156	26	189
+45 mins.	51	87	12	150	30	**178**	**27**	**235**	22	**33**	21	76	4	161	**30**	195
Total Volume	225	259	40	524	108	588	77	773	72	110	84	266	20	630	102	752
% App. Total	42.9	49.4	7.6		14	76.1	10		27.1	41.4	31.6		2.7	83.8	13.6	
PHF	.827	.719	.667	.789	.750	.826	.713	.822	.720	.833	.840	.821	.714	.932	.850	.959

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City of Rancho Mirage
N/S: Da Vall Drive
E/W: Ramon Road
Weather: Sunny

File Name : RNMDVRAPM
Site Code : 00913453
Start Date : 11/6/2013
Page No : 1

Groups Printed- Total Volume

	Da Vall Drive Southbound				Ramon Road Westbound				Da Vall Drive Northbound				Ramon Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	15	27	1	43	24	202	45	271	31	53	14	98	10	147	23	180	592
04:15 PM	26	30	2	58	20	167	45	232	39	40	15	94	7	151	23	181	565
04:30 PM	18	38	3	59	25	157	45	227	35	59	19	113	10	164	25	199	598
04:45 PM	26	26	5	57	19	171	52	242	33	68	14	115	10	146	19	175	589
Total	85	121	11	217	88	697	187	972	138	220	62	420	37	608	90	735	2344
05:00 PM	18	34	5	57	23	170	57	250	31	73	17	121	6	151	22	179	607
05:15 PM	27	25	4	56	25	177	54	256	35	61	16	112	14	181	17	212	636
05:30 PM	30	27	8	65	27	164	56	247	41	54	20	115	5	165	13	183	610
05:45 PM	25	23	6	54	22	159	56	237	22	39	8	69	9	144	22	175	535
Total	100	109	23	232	97	670	223	990	129	227	61	417	34	641	74	749	2388
Grand Total	185	230	34	449	185	1367	410	1962	267	447	123	837	71	1249	164	1484	4732
Apprch %	41.2	51.2	7.6		9.4	69.7	20.9		31.9	53.4	14.7		4.8	84.2	11.1		
Total %	3.9	4.9	0.7	9.5	3.9	28.9	8.7	41.5	5.6	9.4	2.6	17.7	1.5	26.4	3.5	31.4	

	Da Vall Drive Southbound				Ramon Road Westbound				Da Vall Drive Northbound				Ramon Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	26	26	5	57	19	171	52	242	33	68	14	115	10	146	19	175	589
05:00 PM	18	**34**	5	57	23	170	**57**	250	31	**73**	17	**121**	6	151	**22**	179	607
05:15 PM	27	25	4	56	25	**177**	54	**256**	35	61	16	112	**14**	**181**	17	**212**	**636**
05:30 PM	**30**	27	**8**	**65**	**27**	164	56	247	**41**	54	**20**	115	5	165	13	183	610
Total Volume	101	112	22	235	94	682	219	995	140	256	67	463	35	643	71	749	2442
% App. Total	43	47.7	9.4		9.4	68.5	22		30.2	55.3	14.5		4.7	85.8	9.5		
PHF	.842	.824	.688	.904	.870	.963	.961	.972	.854	.877	.838	.957	.625	.888	.807	.883	.960

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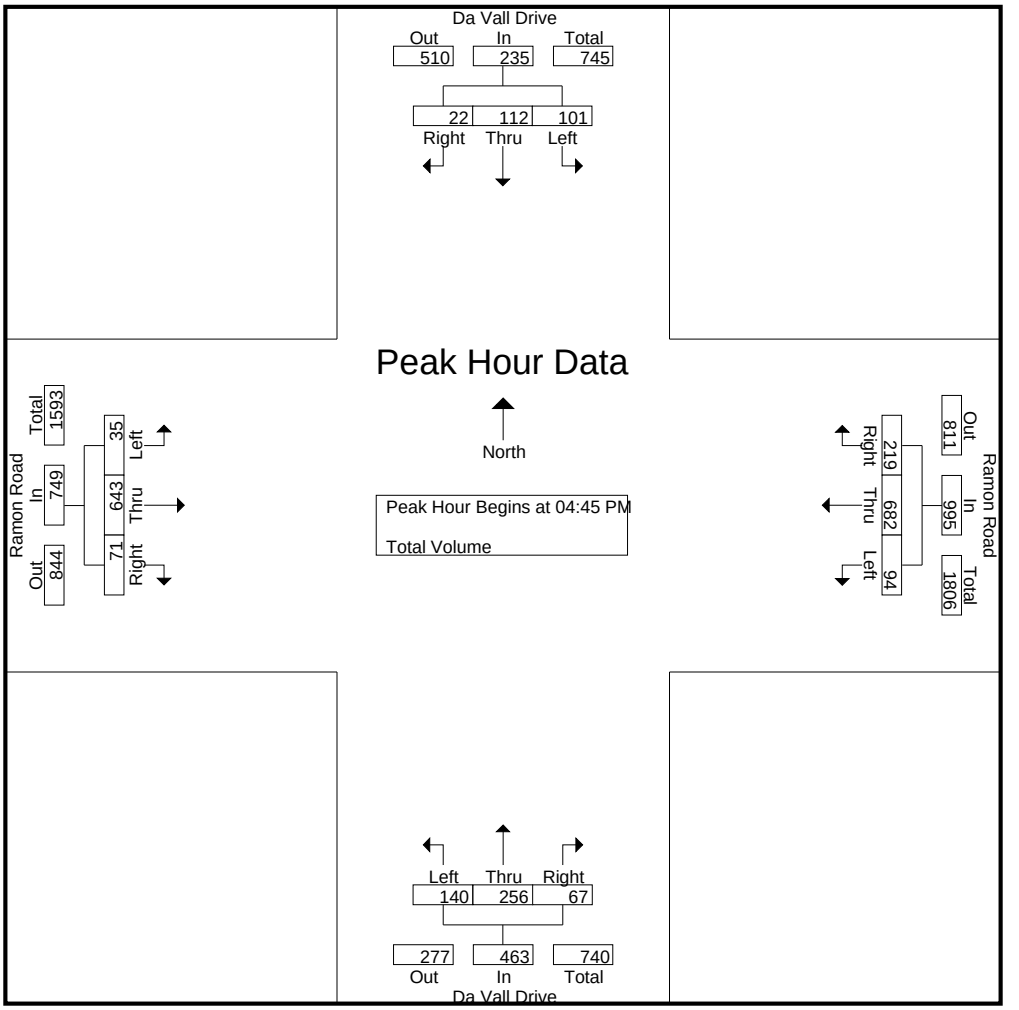
City of Rancho Mirage
N/S: Da Vall Drive
E/W: Ramon Road
Weather: Sunny

File Name : RNMDVRAPM
Site Code : 00913453
Start Date : 11/6/2013
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM				04:45 PM				04:30 PM			
+0 mins.	26	26	5	57	19	171	52	242	33	68	14	115	10	164	**25**	199
+15 mins.	18	**34**	5	57	23	170	**57**	250	31	**73**	17	**121**	10	146	19	175
+30 mins.	27	25	4	56	25	**177**	54	**256**	35	61	16	112	6	151	22	179
+45 mins.	**30**	27	**8**	**65**	**27**	164	56	247	**41**	54	**20**	115	**14**	**181**	17	**212**
Total Volume	101	112	22	235	94	682	219	995	140	256	67	463	40	642	83	765
% App. Total	43	47.7	9.4		9.4	68.5	22		30.2	55.3	14.5		5.2	83.9	10.8	
PHF	.842	.824	.688	.904	.870	.963	.961	.972	.854	.877	.838	.957	.714	.887	.830	.902

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City of Rancho Mirage
N/S: Rattler Road
E/W: Ramon Road
Weather: Sunny

File Name : RNMRARAAM
Site Code : 00913453
Start Date : 11/6/2013
Page No : 1

Groups Printed- Total Volume

	Rattler Road Southbound			Ramon Road Westbound			Ramon Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:00 AM	6	4	10	133	12	145	7	155	162	317
07:15 AM	6	10	16	167	11	178	13	200	213	407
07:30 AM	19	8	27	210	14	224	6	234	240	491
07:45 AM	12	16	28	179	9	188	10	201	211	427
Total	43	38	81	689	46	735	36	790	826	1642
08:00 AM	15	13	28	134	12	146	16	189	205	379
08:15 AM	20	36	56	141	17	158	22	186	208	422
08:30 AM	49	59	108	166	45	211	54	168	222	541
08:45 AM	51	92	143	161	34	195	63	177	240	578
Total	135	200	335	602	108	710	155	720	875	1920
Grand Total	178	238	416	1291	154	1445	191	1510	1701	3562
Apprch %	42.8	57.2		89.3	10.7		11.2	88.8		
Total %	5	6.7	11.7	36.2	4.3	40.6	5.4	42.4	47.8	

	Rattler Road Southbound			Ramon Road Westbound			Ramon Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:00 AM										
08:00 AM	15	13	28	134	12	146	16	**189**	205	379
08:15 AM	20	36	56	141	17	158	22	186	208	422
08:30 AM	49	59	108	**166**	**45**	**211**	54	168	222	541
08:45 AM	**51**	**92**	**143**	161	34	195	**63**	177	**240**	**578**
Total Volume	135	200	335	602	108	710	155	720	875	1920
% App. Total	40.3	59.7		84.8	15.2		17.7	82.3		
PHF	.662	.543	.586	.907	.600	.841	.615	.952	.911	.830

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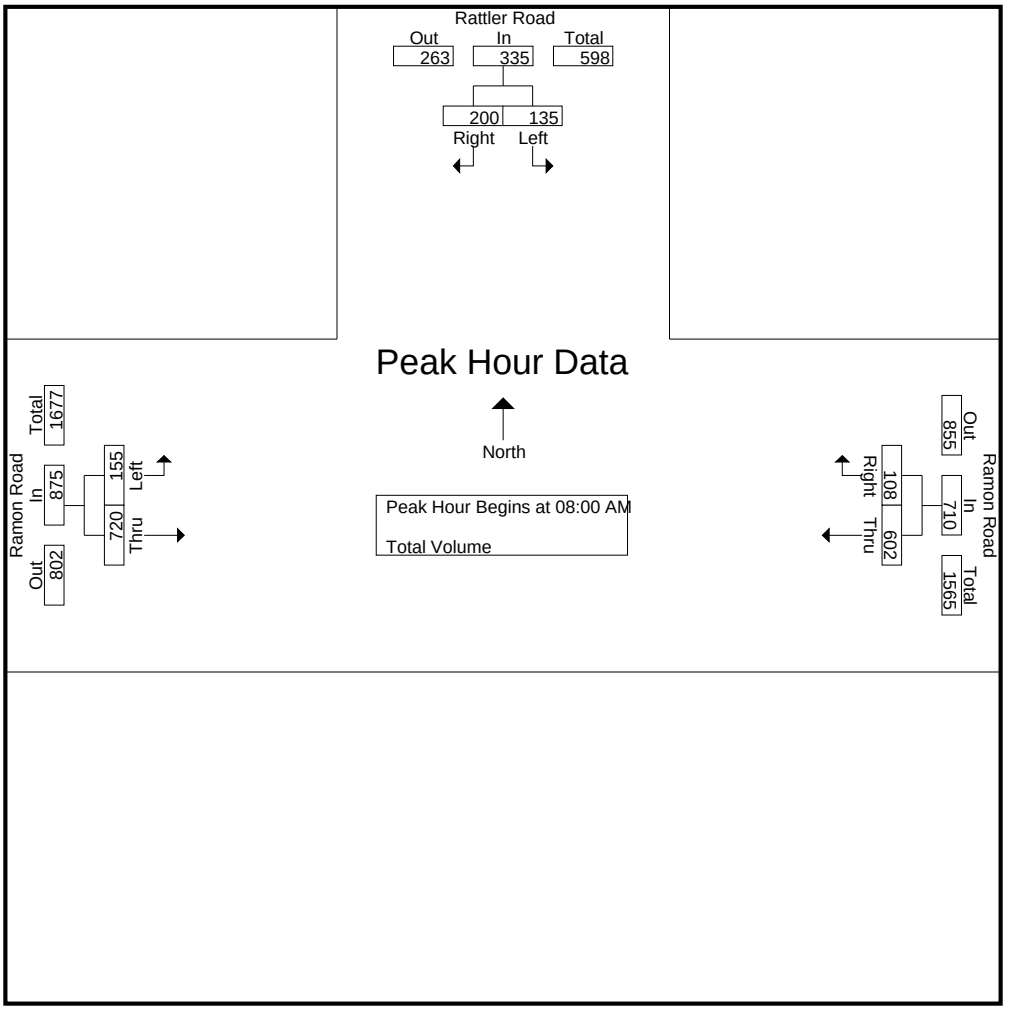
City of Rancho Mirage
N/S: Rattler Road
E/W: Ramon Road
Weather: Sunny

File Name : RNMRARAAM
Site Code : 00913453
Start Date : 11/6/2013
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	08:00 AM			07:15 AM			08:00 AM		
+0 mins.	15	13	28	167	11	178	16	**189**	205
+15 mins.	20	36	56	**210**	**14**	**224**	22	186	208
+30 mins.	49	59	108	179	9	188	54	168	222
+45 mins.	**51**	**92**	**143**	134	12	146	**63**	177	**240**
Total Volume	135	200	335	690	46	736	155	720	875
% App. Total	40.3	59.7		93.8	6.2		17.7	82.3	
PHF	.662	.543	.586	.821	.821	.821	.615	.952	.911

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City of Rancho Mirage
N/S: Rattler Road
E/W: Ramon Road
Weather: Sunny

File Name : RNMRARAPM
Site Code : 00913453
Start Date : 11/6/2013
Page No : 1

Groups Printed- Total Volume

	Rattler Road Southbound			Ramon Road Westbound			Ramon Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
02:00 PM	7	3	10	145	6	151	3	167	170	331
02:15 PM	2	1	3	177	4	181	4	195	199	383
02:30 PM	8	5	13	164	11	175	17	186	203	391
02:45 PM	11	11	22	196	33	229	34	180	214	465
Total	28	20	48	682	54	736	58	728	786	1570
03:00 PM	53	103	156	179	32	211	67	200	267	634
03:15 PM	18	33	51	227	18	245	24	186	210	506
03:30 PM	14	7	21	223	10	233	7	217	224	478
03:45 PM	8	9	17	237	11	248	6	188	194	459
Total	93	152	245	866	71	937	104	791	895	2077
Grand Total	121	172	293	1548	125	1673	162	1519	1681	3647
Apprch %	41.3	58.7		92.5	7.5		9.6	90.4		
Total %	3.3	4.7	8	42.4	3.4	45.9	4.4	41.7	46.1	

	Rattler Road Southbound			Ramon Road Westbound			Ramon Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 03:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 02:45 PM										
02:45 PM	11	11	22	196	**33**	229	34	180	214	465
03:00 PM	**53**	**103**	**156**	179	32	211	**67**	200	**267**	**634**
03:15 PM	18	33	51	**227**	18	**245**	24	186	210	506
03:30 PM	14	7	21	223	10	233	7	**217**	224	478
Total Volume	96	154	250	825	93	918	132	783	915	2083
% App. Total	38.4	61.6		89.9	10.1		14.4	85.6		
PHF	.453	.374	.401	.909	.705	.937	.493	.902	.857	.821

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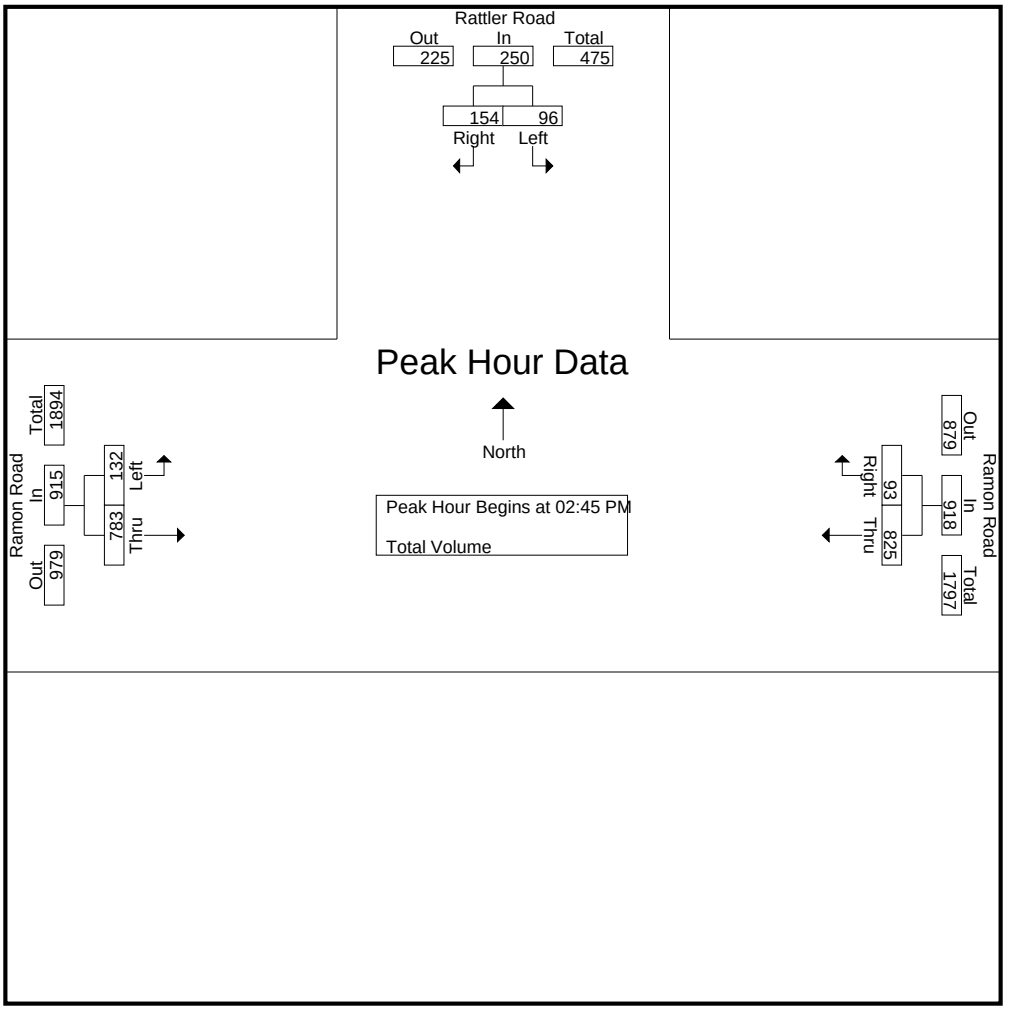
City of Rancho Mirage
N/S: Rattler Road
E/W: Ramon Road
Weather: Sunny

File Name : RNMRARAPM
Site Code : 00913453
Start Date : 11/6/2013
Page No : 2



Peak Hour Analysis From 02:00 PM to 03:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	02:45 PM			03:00 PM			02:45 PM		
+0 mins.	11	11	22	179	**32**	211	34	180	214
+15 mins.	**53**	**103**	**156**	227	18	245	**67**	200	**267**
+30 mins.	18	33	51	223	10	233	24	186	210
+45 mins.	14	7	21	**237**	11	**248**	7	**217**	224
Total Volume	96	154	250	866	71	937	132	783	915
% App. Total	38.4	61.6		92.4	7.6		14.4	85.6	
PHF	.453	.374	.401	.914	.555	.945	.493	.902	.857

Location: Rancho Mirage
N/S: Rattler Road
E/W: Ramon Road

Date: 11/6/2013
File : RNMRARA

WEEKDAY

	North Leg Ramon Road	East Leg Rattler Road	South Leg Ramon Road	West Leg Rattler Road	
	Pedestrians	**Pedestrians**	**Pedestrians**	**Pedestrians**	TOTAL
7:00 AM	0	0		0	0
7:15 AM	0	0		3	3
7:30 AM	0	0		0	0
7:45 AM	0	0		0	0
8:00 AM	0	0		9	9
8:15 AM	0	0		0	0
8:30 AM	0	0		0	0
8:45 AM	0	0		1	1
TOTAL VOLUMES:	0	0	0	13	13

	North Leg Ramon Road	East Leg Rattler Road	South Leg Ramon Road	West Leg Rattler Road	
	Pedestrians	**Pedestrians**	**Pedestrians**	**Pedestrians**	TOTAL
2:00 PM	0	0		0	0
2:15 PM	0	0		0	0
2:30 PM	0	0		0	0
2:45 PM	0	0		0	0
3:00 PM	1	0		16	17
3:00 PM	1	0		0	1
3:30 PM	0	0		0	0
3:45 PM	0	0		0	0
TOTAL VOLUMES:	2	0	0	16	18

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City of Rancho Mirage
N/S: Los Alamos Road
E/W: Ramon Road
Weather: Sunny

File Name : RNMLARAAM
Site Code : 00913453
Start Date : 11/6/2013
Page No : 1

Groups Printed- Total Volume

	Ramon Road Westbound			Los Alamos Road Northbound			Ramon Road Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	7	147	154	3	4	7	148	7	155	316
07:15 AM	18	181	199	2	3	5	209	2	211	415
07:30 AM	23	232	255	4	17	21	238	13	251	527
07:45 AM	15	175	190	3	22	25	190	8	198	413
Total	63	735	798	12	46	58	785	30	815	1671
08:00 AM	7	158	165	1	10	11	210	6	216	392
08:15 AM	5	139	144	3	5	8	205	6	211	363
08:30 AM	8	192	200	7	5	12	213	3	216	428
08:45 AM	4	171	175	8	6	14	214	1	215	404
Total	24	660	684	19	26	45	842	16	858	1587
Grand Total	87	1395	1482	31	72	103	1627	46	1673	3258
Apprch %	5.9	94.1		30.1	69.9		97.3	2.7		
Total %	2.7	42.8	45.5	1	2.2	3.2	49.9	1.4	51.4	

	Ramon Road Westbound			Los Alamos Road Northbound			Ramon Road Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	18	181	199	2	3	5	209	2	211	415
07:30 AM	**23**	**232**	**255**	**4**	17	21	**238**	**13**	**251**	**527**
07:45 AM	15	175	190	3	**22**	**25**	190	8	198	413
08:00 AM	7	158	165	1	10	11	210	6	216	392
Total Volume	63	746	809	10	52	62	847	29	876	1747
% App. Total	7.8	92.2		16.1	83.9		96.7	3.3		
PHF	.685	.804	.793	.625	.591	.620	.890	.558	.873	.829

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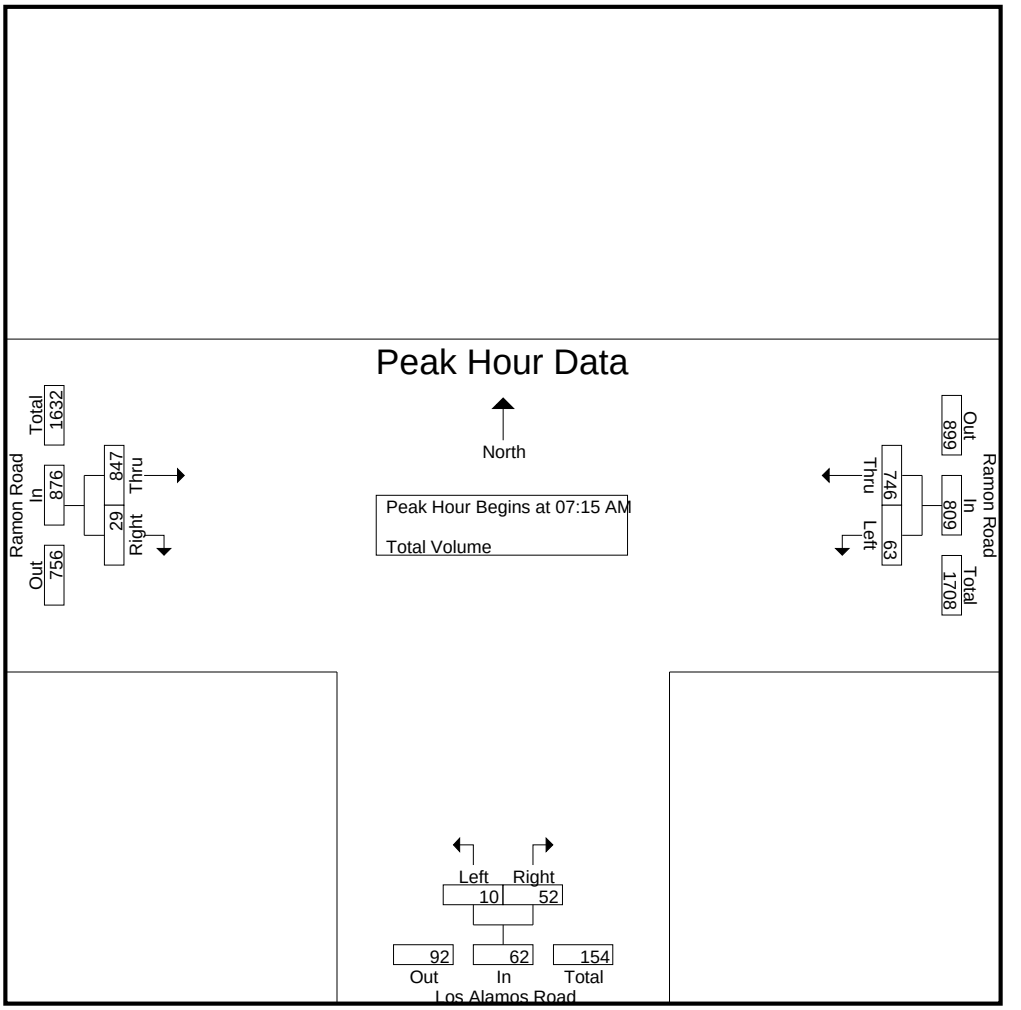
City of Rancho Mirage
N/S: Los Alamos Road
E/W: Ramon Road
Weather: Sunny

File Name : RNMLARAAM
Site Code : 00913453
Start Date : 11/6/2013
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM			07:30 AM			07:15 AM		
+0 mins.	18	181	199	**4**	17	21	209	2	211
+15 mins.	**23**	**232**	**255**	3	**22**	**25**	**238**	**13**	**251**
+30 mins.	15	175	190	1	10	11	190	8	198
+45 mins.	7	158	165	3	5	8	210	6	216
Total Volume	63	746	809	11	54	65	847	29	876
% App. Total	7.8	92.2		16.9	83.1		96.7	3.3	
PHF	.685	.804	.793	.688	.614	.650	.890	.558	.873

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City of Rancho Mirage
N/S: Los Alamos Road
E/W: Ramon Road
Weather: Sunny

File Name : RNMLARAPM
Site Code : 00913453
Start Date : 11/6/2013

Groups Printed- Total Volume

	Ramon Road Westbound			Los Alamos Road Northbound			Ramon Road Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	7	216	223	6	3	9	179	2	181	413
04:15 PM	7	212	219	4	8	12	182	4	186	417
04:30 PM	5	214	219	6	7	13	191	1	192	424
04:45 PM	9	221	230	12	3	15	196	1	197	442
Total	28	863	891	28	21	49	748	8	756	1696
05:00 PM	6	231	237	9	13	22	191	5	196	455
05:15 PM	5	263	268	4	12	16	213	3	216	500
05:30 PM	7	235	242	9	6	15	206	2	208	465
05:45 PM	1	201	202	2	7	9	181	4	185	396
Total	19	930	949	24	38	62	791	14	805	1816
Grand Total	47	1793	1840	52	59	111	1539	22	1561	3512
Apprch %	2.6	97.4		46.8	53.2		98.6	1.4		
Total %	1.3	51.1	52.4	1.5	1.7	3.2	43.8	0.6	44.4	

	Ramon Road Westbound			Los Alamos Road Northbound			Ramon Road Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	**9**	221	230	**12**	3	15	196	1	197	442
05:00 PM	6	231	237	9	**13**	**22**	191	**5**	196	455
05:15 PM	5	**263**	**268**	4	12	16	**213**	3	**216**	**500**
05:30 PM	7	235	242	9	6	15	206	2	208	465
Total Volume	27	950	977	34	34	68	806	11	817	1862
% App. Total	2.8	97.2		50	50		98.7	1.3		
PHF	.750	.903	.911	.708	.654	.773	.946	.550	.946	.931

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City of Rancho Mirage
N/S: Los Alamos Road
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File Name : RNMLARAPM
Site Code : 00913453
Start Date : 11/6/2013
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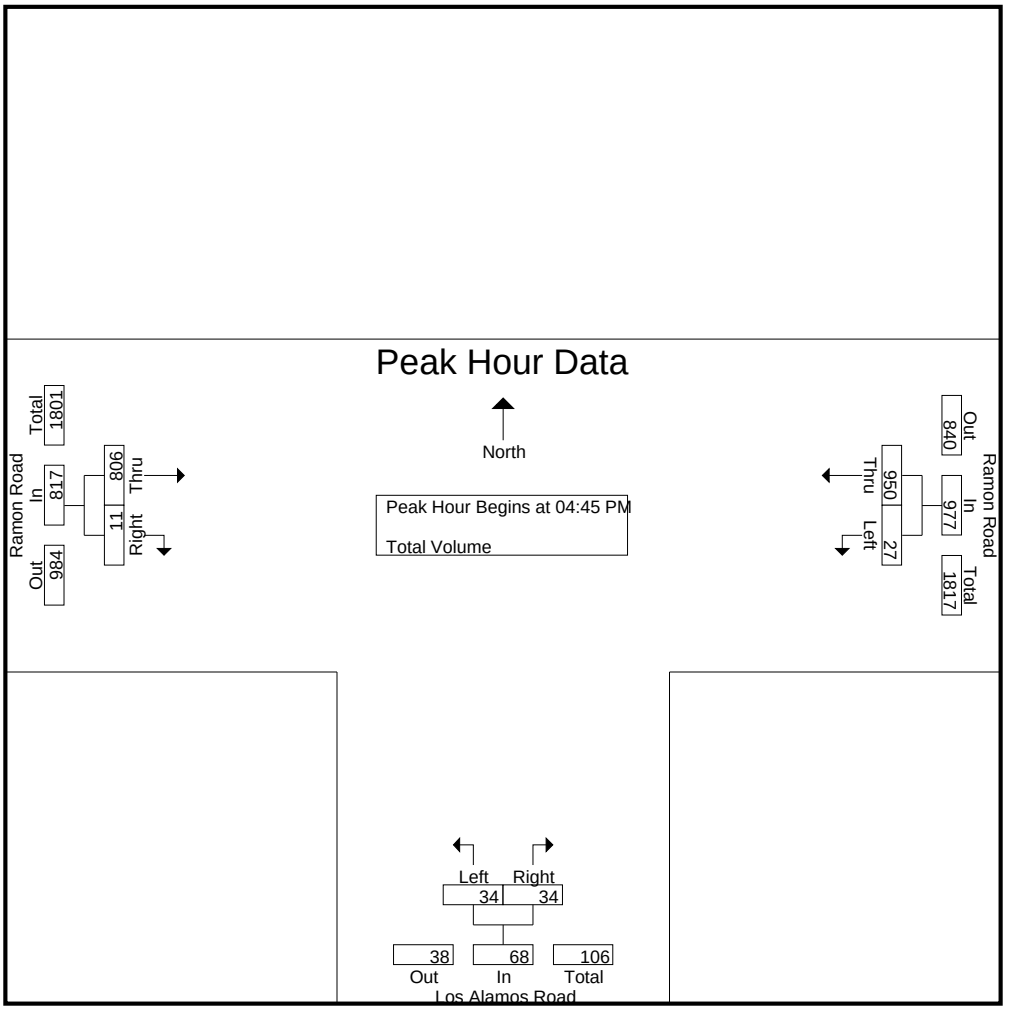

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	**9**	221	230	**12**	3	15	196	1	197
+15 mins.	6	231	237	9	**13**	**22**	191	**5**	196
+30 mins.	5	**263**	**268**	4	12	16	**213**	3	**216**
+45 mins.	7	235	242	9	6	15	206	2	208
Total Volume	27	950	977	34	34	68	806	11	817
% App. Total	2.8	97.2		50	50		98.7	1.3	
PHF	.750	.903	.911	.708	.654	.773	.946	.550	.946

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City of Rancho Mirage
N/S: Bob Hope Drive
E/W: Ramon Road
Weather: Sunny

File Name : RNMBHRAAM
Site Code : 00913453
Start Date : 11/6/2013
Page No : 1

Groups Printed- Total Volume

	Bob Hope Drive Southbound				Ramon Road Westbound				Bob Hope Drive Northbound				Ramon Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	8	89	70	167	16	73	1	90	11	39	10	60	13	118	23	154	471
07:15 AM	10	115	88	213	18	89	1	108	16	23	14	53	17	144	36	197	571
07:30 AM	6	190	101	297	29	116	5	150	26	38	18	82	22	178	51	251	780
07:45 AM	8	203	102	313	28	64	2	94	13	42	27	82	17	146	50	213	702
Total	32	597	361	990	91	342	9	442	66	142	69	277	69	586	160	815	2524
08:00 AM	8	139	77	224	22	52	3	77	23	39	14	76	15	170	58	243	620
08:15 AM	7	147	79	233	11	63	1	75	16	37	16	69	13	123	46	182	559
08:30 AM	10	133	94	237	18	91	18	127	26	42	14	82	14	160	45	219	665
08:45 AM	9	117	85	211	21	55	15	91	27	50	19	96	23	143	61	227	625
Total	34	536	335	905	72	261	37	370	92	168	63	323	65	596	210	871	2469
Grand Total	66	1133	696	1895	163	603	46	812	158	310	132	600	134	1182	370	1686	4993
Apprch %	3.5	59.8	36.7		20.1	74.3	5.7		26.3	51.7	22		7.9	70.1	21.9		
Total %	1.3	22.7	13.9	38	3.3	12.1	0.9	16.3	3.2	6.2	2.6	12	2.7	23.7	7.4	33.8	

	Bob Hope Drive Southbound				Ramon Road Westbound				Bob Hope Drive Northbound				Ramon Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	**10**	115	88	213	18	89	1	108	16	23	14	53	17	144	36	197	571
07:30 AM	6	190	101	297	**29**	**116**	**5**	**150**	**26**	38	18	**82**	**22**	**178**	51	**251**	**780**
07:45 AM	8	**203**	**102**	**313**	28	64	2	94	13	**42**	**27**	82	17	146	50	213	702
08:00 AM	8	139	77	224	22	52	3	77	23	39	14	76	15	170	**58**	243	620
Total Volume	32	647	368	1047	97	321	11	429	78	142	73	293	71	638	195	904	2673
% App. Total	3.1	61.8	35.1		22.6	74.8	2.6		26.6	48.5	24.9		7.9	70.6	21.6		
PHF	.800	.797	.902	.836	.836	.692	.550	.715	.750	.845	.676	.893	.807	.896	.841	.900	.857

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City of Rancho Mirage
N/S: Bob Hope Drive
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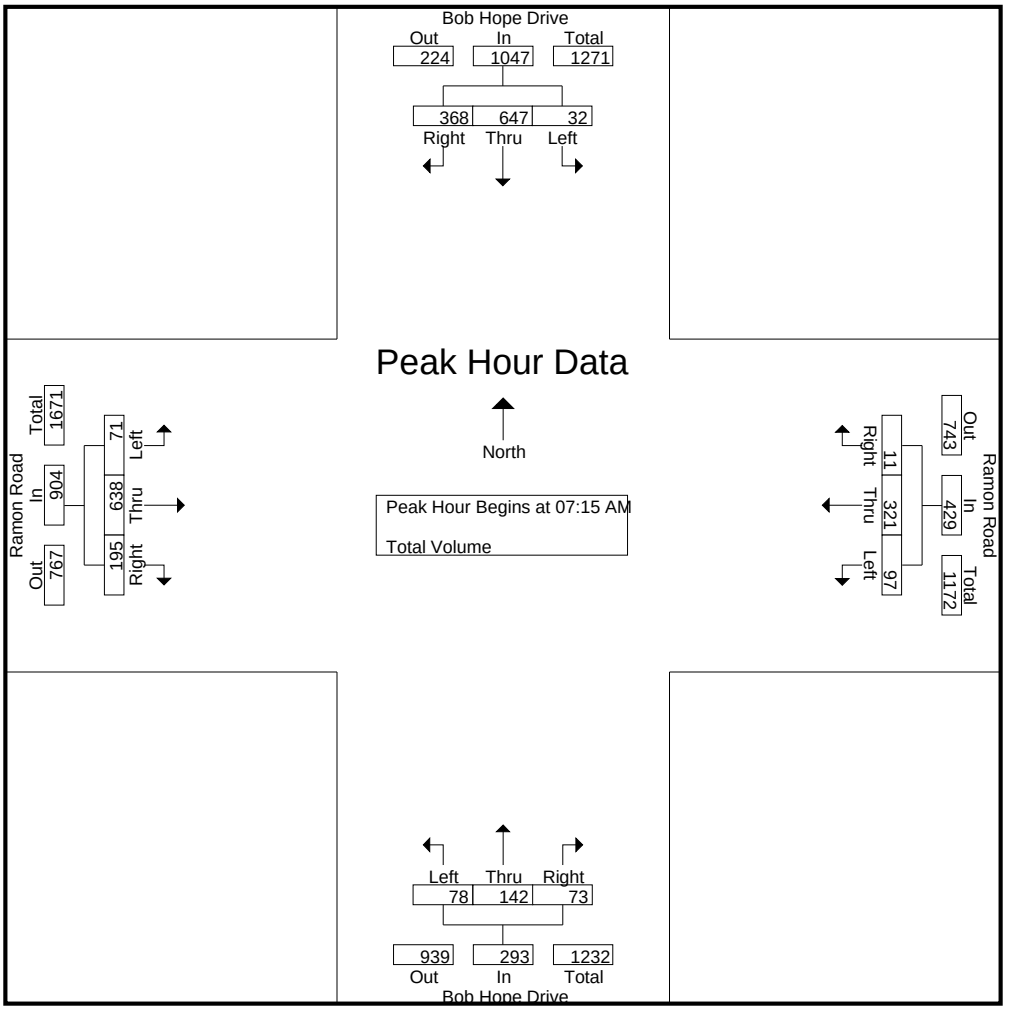
File Name : RNMBHRAAM
Site Code : 00913453
Start Date : 11/6/2013
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:00 AM				08:00 AM				07:15 AM			
+0 mins.	6	190	101	297	16	73	1	90	23	39	14	76	17	144	36	197
+15 mins.	**8**	**203**	**102**	**313**	18	89	1	108	16	37	16	69	**22**	**178**	51	**251**
+30 mins.	8	139	77	224	**29**	**116**	**5**	**150**	26	42	14	82	17	146	50	213
+45 mins.	7	147	79	233	28	64	2	94	**27**	**50**	**19**	**96**	15	170	**58**	243
Total Volume	29	679	359	1067	91	342	9	442	92	168	63	323	71	638	195	904
% App. Total	2.7	63.6	33.6		20.6	77.4	2		28.5	52	19.5		7.9	70.6	21.6	
PHF	.906	.836	.880	.852	.784	.737	.450	.737	.852	.840	.829	.841	.807	.896	.841	.900

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City of Rancho Mirage
N/S: Bob Hope Drive
E/W: Ramon Road
Weather: Sunny

File Name : RNMBHRAPM
Site Code : 00913453
Start Date : 11/6/2013
Page No : 1

Groups Printed- Total Volume

	Bob Hope Drive Southbound				Ramon Road Westbound				Bob Hope Drive Northbound				Ramon Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
03:00 PM	13	78	87	178	12	77	3	92	59	111	56	226	15	198	46	259	755
03:15 PM	20	77	101	198	14	92	5	111	55	107	46	208	22	151	29	202	719
03:30 PM	11	103	95	209	14	57	7	78	66	121	52	239	27	167	42	236	762
03:45 PM	15	73	119	207	15	74	4	93	55	109	31	195	25	148	44	217	712
Total	59	331	402	792	55	300	19	374	235	448	185	868	89	664	161	914	2948
04:00 PM	4	93	114	211	10	83	6	99	59	108	38	205	23	115	33	171	686
04:15 PM	10	85	100	195	15	62	7	84	65	98	35	198	15	137	50	202	679
04:30 PM	13	93	118	224	22	69	4	95	53	111	49	213	19	155	28	202	734
04:45 PM	9	95	115	219	22	62	2	86	53	105	36	194	12	142	38	192	691
Total	36	366	447	849	69	276	19	364	230	422	158	810	69	549	149	767	2790
05:00 PM	18	81	113	212	12	82	3	97	56	108	53	217	9	154	33	196	722
05:15 PM	17	94	98	209	12	70	6	88	78	152	47	277	6	178	33	217	791
05:30 PM	17	67	111	195	10	65	3	78	59	104	47	210	13	184	33	230	713
05:45 PM	10	82	79	171	14	53	5	72	68	86	32	186	5	131	34	170	599
Total	62	324	401	787	48	270	17	335	261	450	179	890	33	647	133	813	2825
Grand Total	157	1021	1250	2428	172	846	55	1073	726	1320	522	2568	191	1860	443	2494	8563
Apprch %	6.5	42.1	51.5		16	78.8	5.1		28.3	51.4	20.3		7.7	74.6	17.8		
Total %	1.8	11.9	14.6	28.4	2	9.9	0.6	12.5	8.5	15.4	6.1	30	2.2	21.7	5.2	29.1	

	Bob Hope Drive Southbound				Ramon Road Westbound				Bob Hope Drive Northbound				Ramon Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:00 PM																	
03:00 PM	13	78	87	178	12	77	3	92	59	111	**56**	226	15	**198**	**46**	**259**	755
03:15 PM	**20**	77	101	198	14	**92**	5	**111**	55	107	46	208	22	151	29	202	719
03:30 PM	11	**103**	95	**209**	14	57	**7**	78	**66**	**121**	52	**239**	**27**	167	42	236	**762**
03:45 PM	15	73	**119**	207	**15**	74	4	93	55	109	31	195	25	148	44	217	712
Total Volume	59	331	402	792	55	300	19	374	235	448	185	868	89	664	161	914	2948
% App. Total	7.4	41.8	50.8		14.7	80.2	5.1		27.1	51.6	21.3		9.7	72.6	17.6		
PHF	.738	.803	.845	.947	.917	.815	.679	.842	.890	.926	.826	.908	.824	.838	.875	.882	.967

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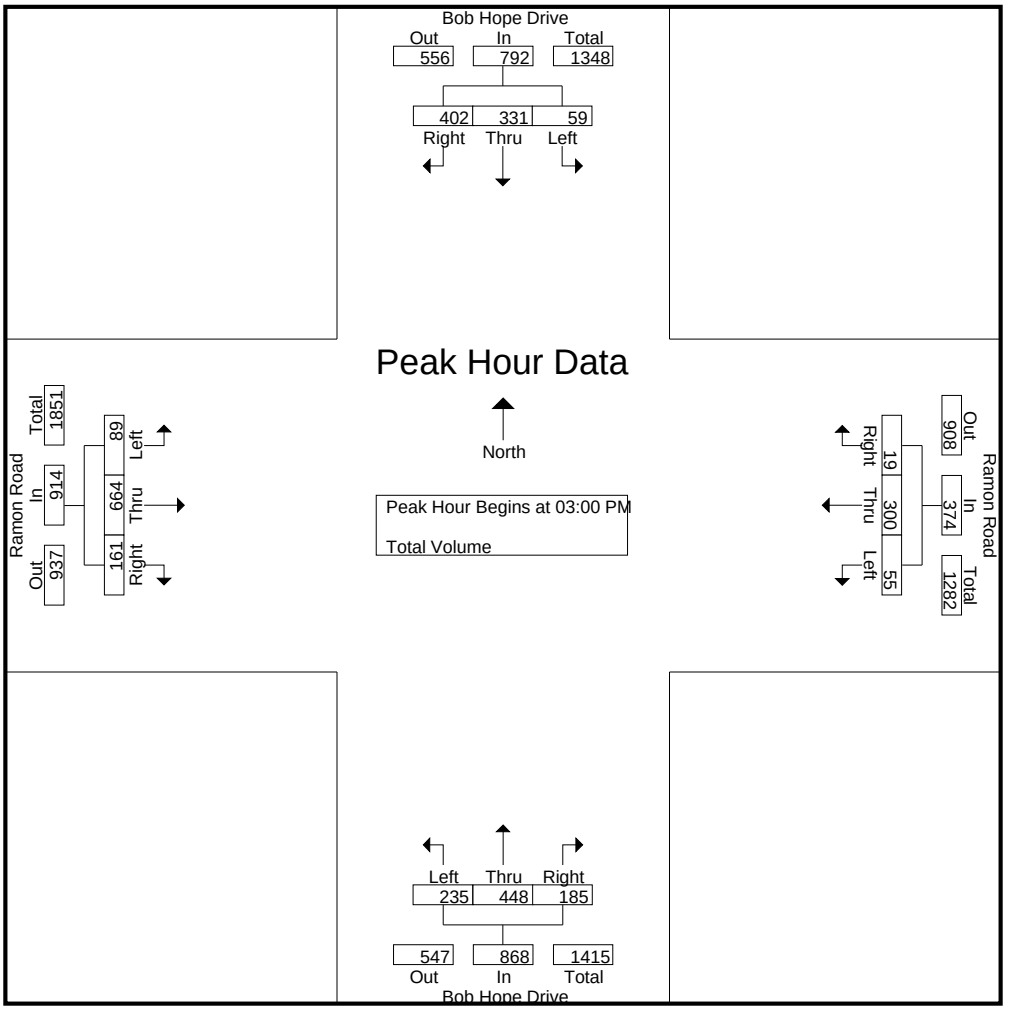
City of Rancho Mirage
N/S: Bob Hope Drive
E/W: Ramon Road
Weather: Sunny

File Name : RNMBHRAPM
Site Code : 00913453
Start Date : 11/6/2013
Page No : 2



Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				03:15 PM				04:30 PM				03:00 PM			
+0 mins.	13	93	**118**	**224**	14	**92**	5	**111**	53	111	49	213	15	**198**	**46**	**259**
+15 mins.	9	**95**	115	219	14	57	**7**	78	53	105	36	194	22	151	29	202
+30 mins.	**18**	81	113	212	**15**	74	4	93	56	108	**53**	217	**27**	167	42	236
+45 mins.	17	94	98	209	10	83	6	99	**78**	**152**	47	**277**	25	148	44	217
Total Volume	57	363	444	864	53	306	22	381	240	476	185	901	89	664	161	914
% App. Total	6.6	42	51.4		13.9	80.3	5.8		26.6	52.8	20.5		9.7	72.6	17.6	
PHF	.792	.955	.941	.964	.883	.832	.786	.858	.769	.783	.873	.813	.824	.838	.875	.882

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City of Rancho Mirage
N/S: I-10 Eastbound Ramps
E/W: Ramon Road
Weather: Sunny

File Name : RNM10ERAAM
Site Code : 00913453
Start Date : 11/6/2013

Groups Printed- Total Volume

	Ramon Road Westbound			Northbound			Ramon Road Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	11	92	103	0	0	0	43	98	141	244
07:15 AM	14	113	127	0	0	0	55	116	171	298
07:30 AM	9	151	160	0	0	0	55	138	193	353
07:45 AM	20	84	104	0	0	0	86	111	197	301
Total	54	440	494	0	0	0	239	463	702	1196
08:00 AM	20	81	101	0	0	0	62	122	184	285
08:15 AM	13	81	94	0	0	0	57	95	152	246
08:30 AM	15	120	135	0	0	0	60	100	160	295
08:45 AM	18	85	103	0	0	0	63	115	178	281
Total	66	367	433	0	0	0	242	432	674	1107
Grand Total	120	807	927	0	0	0	481	895	1376	2303
Apprch %	12.9	87.1		0	0		35	65		
Total %	5.2	35	40.3	0	0	0	20.9	38.9	59.7	

	Ramon Road Westbound			Northbound			Ramon Road Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	14	113	127	0	0	0	55	116	171	298
07:30 AM	9	**151**	**160**	0	0	0	55	**138**	193	**353**
07:45 AM	**20**	84	104	0	0	0	**86**	111	**197**	301
08:00 AM	20	81	101	0	0	0	62	122	184	285
Total Volume	63	429	492	0	0	0	258	487	745	1237
% App. Total	12.8	87.2		0	0		34.6	65.4		
PHF	.788	.710	.769	.000	.000	.000	.750	.882	.945	.876

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City of Rancho Mirage
N/S: I-10 Eastbound Ramps
E/W: Ramon Road
Weather: Sunny

File Name : RNM10ERAAM
Site Code : 00913453
Start Date : 11/6/2013
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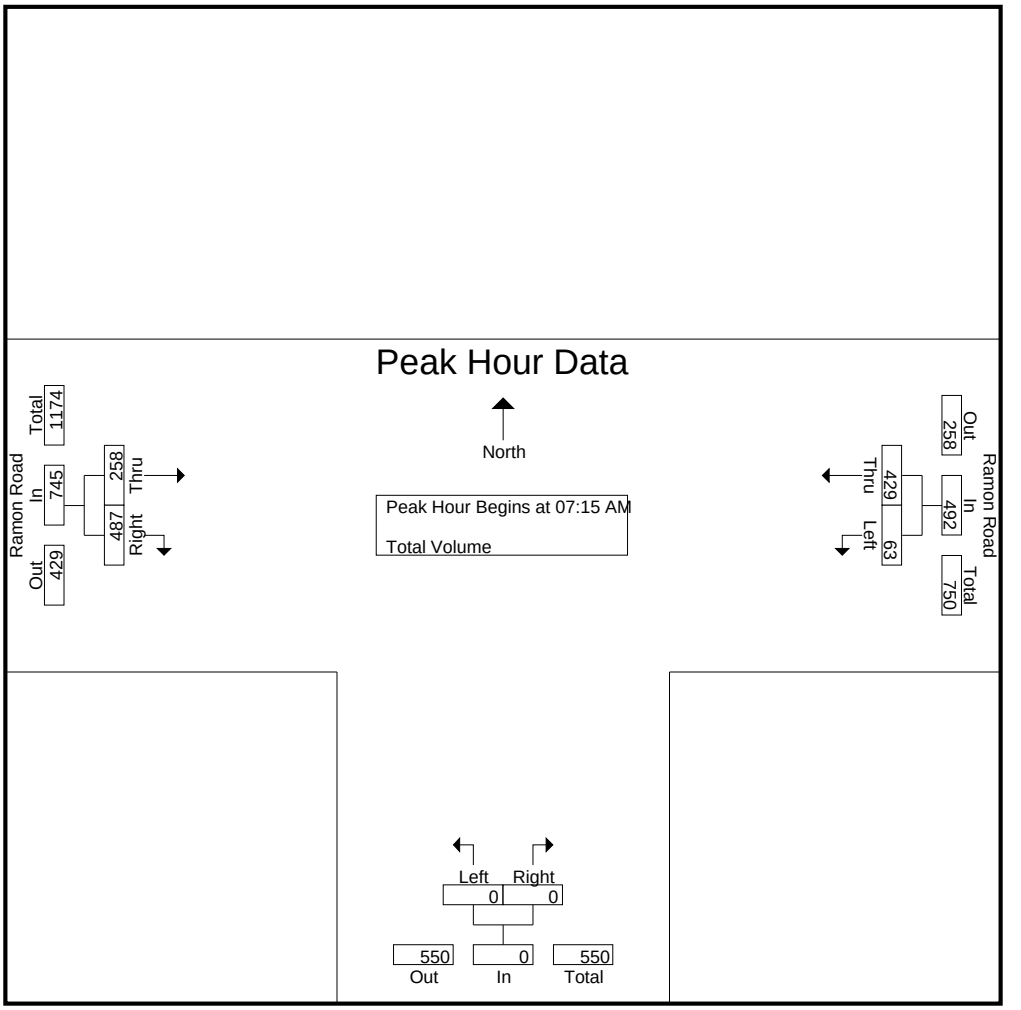

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:15 AM		
+0 mins.	11	92	103	0	0	0	55	116	171
+15 mins.	14	113	127	0	0	0	55	**138**	193
+30 mins.	9	**151**	**160**	0	0	0	**86**	111	**197**
+45 mins.	**20**	84	104	0	0	0	62	122	184
Total Volume	54	440	494	0	0	0	258	487	745
% App. Total	10.9	89.1		0	0		34.6	65.4	
PHF	.675	.728	.772	.000	.000	.000	.750	.882	.945

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City of Rancho Mirage
N/S: I-10 Eastbound Ramps
E/W: Ramon Road
Weather: Sunny

File Name : RNM10ERAPM
Site Code : 00913453
Start Date : 11/6/2013
Page No : 1

Groups Printed- Total Volume

	Ramon Road Westbound			Northbound			Ramon Road Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	23	97	120	0	0	0	62	114	176	296
04:15 PM	22	91	113	0	0	0	75	115	190	303
04:30 PM	31	92	123	0	0	0	83	122	205	328
04:45 PM	23	89	112	0	0	0	101	102	203	315
Total	99	369	468	0	0	0	321	453	774	1242
05:00 PM	26	96	122	0	0	0	96	110	206	328
05:15 PM	23	95	118	0	0	0	107	146	253	371
05:30 PM	27	76	103	0	0	0	95	132	227	330
05:45 PM	17	79	96	0	0	0	76	112	188	284
Total	93	346	439	0	0	0	374	500	874	1313
Grand Total	192	715	907	0	0	0	695	953	1648	2555
Apprch %	21.2	78.8		0	0		42.2	57.8		
Total %	7.5	28	35.5	0	0	0	27.2	37.3	64.5	

	Ramon Road Westbound			Northbound			Ramon Road Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	23	89	112	0	0	0	101	102	203	315
05:00 PM	26	**96**	**122**	0	0	0	96	110	206	328
05:15 PM	23	95	118	0	0	0	**107**	**146**	**253**	**371**
05:30 PM	**27**	76	103	0	0	0	95	132	227	330
Total Volume	99	356	455	0	0	0	399	490	889	1344
% App. Total	21.8	78.2		0	0		44.9	55.1		
PHF	.917	.927	.932	.000	.000	.000	.932	.839	.878	.906

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City of Rancho Mirage
N/S: I-10 Eastbound Ramps
E/W: Ramon Road
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File Name : RNM10ERAPM
Site Code : 00913453
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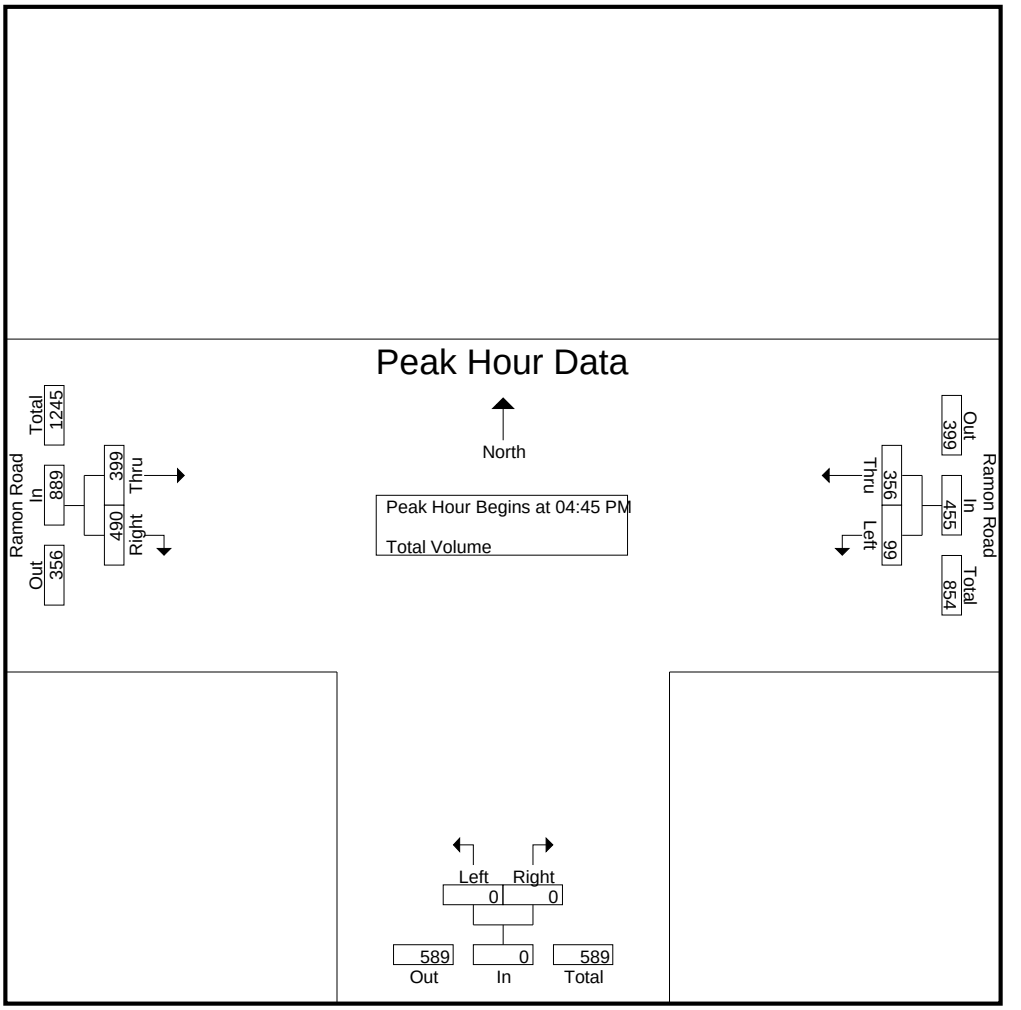

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM			04:00 PM			04:45 PM		
+0 mins.	**31**	92	**123**	0	0	0	101	102	203
+15 mins.	23	89	112	0	0	0	96	110	206
+30 mins.	26	**96**	122	0	0	0	**107**	**146**	**253**
+45 mins.	23	95	118	0	0	0	95	132	227
Total Volume	103	372	475	0	0	0	399	490	889
% App. Total	21.7	78.3		0	0		44.9	55.1	
PHF	.831	.969	.965	.000	.000	.000	.932	.839	.878

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City of Rancho Mirage
N/S: Los Alamos Road
E/W: Via Bella
Weather: Sunny

File Name : RNMLAVBAM
Site Code : 00913453
Start Date : 11/6/2013
Page No : 1

Groups Printed- Total Volume

	Los Alamos Road Southbound			Los Alamos Road Northbound			Via Bella Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
07:00 AM	6	5	11	2	6	8	1	1	2	21
07:15 AM	20	2	22	0	6	6	0	2	2	30
07:30 AM	30	1	31	0	19	19	2	3	5	55
07:45 AM	16	4	20	2	22	24	0	3	3	47
Total	72	12	84	4	53	57	3	9	12	153
08:00 AM	11	4	15	3	6	9	5	2	7	31
08:15 AM	12	2	14	5	9	14	3	6	9	37
08:30 AM	13	3	16	6	7	13	3	6	9	38
08:45 AM	8	2	10	4	10	14	7	4	11	35
Total	44	11	55	18	32	50	18	18	36	141
Grand Total	116	23	139	22	85	107	21	27	48	294
Apprch %	83.5	16.5		20.6	79.4		43.8	56.2		
Total %	39.5	7.8	47.3	7.5	28.9	36.4	7.1	9.2	16.3	

	Los Alamos Road Southbound			Los Alamos Road Northbound			Via Bella Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	**30**	1	**31**	0	19	19	2	3	5	**55**
07:45 AM	16	**4**	20	2	**22**	**24**	0	3	3	47
08:00 AM	11	4	15	3	6	9	**5**	2	7	31
08:15 AM	12	2	14	**5**	9	14	3	**6**	**9**	37
Total Volume	69	11	80	10	56	66	10	14	24	170
% App. Total	86.2	13.8		15.2	84.8		41.7	58.3		
PHF	.575	.688	.645	.500	.636	.688	.500	.583	.667	.773

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City of Rancho Mirage
N/S: Los Alamos Road
E/W: Via Bella
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File Name : RNMLAVBAM
Site Code : 00913453
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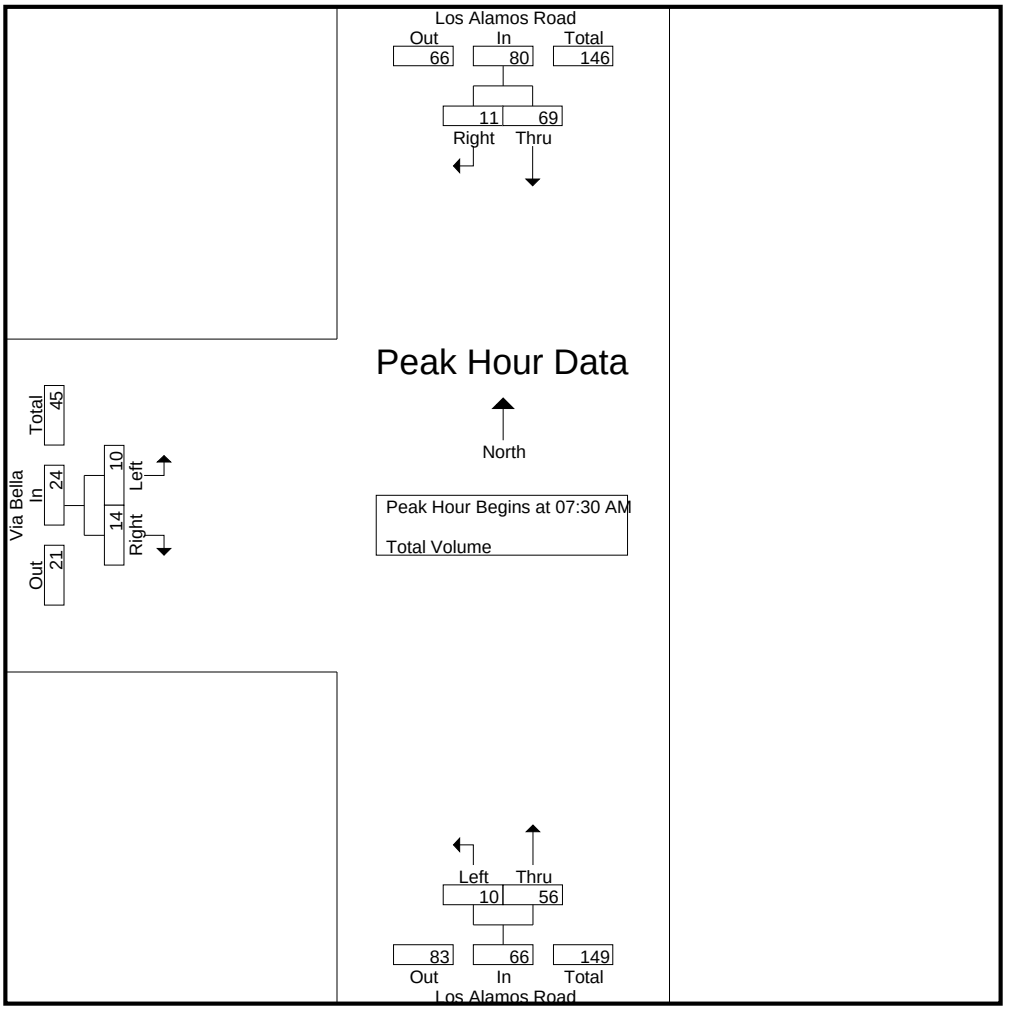

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM			07:30 AM			08:00 AM		
+0 mins.	20	2	22	0	19	19	5	2	7
+15 mins.	**30**	1	**31**	2	**22**	**24**	3	**6**	9
+30 mins.	16	**4**	20	3	6	9	3	6	9
+45 mins.	11	4	15	**5**	9	14	**7**	4	**11**
Total Volume	77	11	88	10	56	66	18	18	36
% App. Total	87.5	12.5		15.2	84.8		50	50	
PHF	.642	.688	.710	.500	.636	.688	.643	.750	.818

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City of Rancho Mirage
N/S: Los Alamos Road
E/W: Via Bella
Weather: Sunny

File Name : RNMLAVBPM
Site Code : 00913453
Start Date : 11/6/2013
Page No : 1

Groups Printed- Total Volume

	Los Alamos Road Southbound			Los Alamos Road Northbound			Via Bella Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
04:00 PM	6	2	8	9	12	21	0	6	6	35
04:15 PM	9	1	10	5	8	13	3	3	6	29
04:30 PM	4	3	7	9	13	22	4	4	8	37
04:45 PM	7	4	11	0	12	12	4	2	6	29
Total	26	10	36	23	45	68	11	15	26	130
05:00 PM	6	1	7	1	9	10	6	3	9	26
05:15 PM	9	0	9	2	22	24	1	1	2	35
05:30 PM	8	0	8	7	3	10	0	3	3	21
05:45 PM	4	3	7	5	15	20	0	2	2	29
Total	27	4	31	15	49	64	7	9	16	111
Grand Total	53	14	67	38	94	132	18	24	42	241
Apprch %	79.1	20.9		28.8	71.2		42.9	57.1		
Total %	22	5.8	27.8	15.8	39	54.8	7.5	10	17.4	

	Los Alamos Road Southbound			Los Alamos Road Northbound			Via Bella Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	6	2	8	**9**	12	21	0	**6**	6	35
04:15 PM	**9**	1	10	5	8	13	3	3	6	29
04:30 PM	4	3	7	9	**13**	**22**	**4**	4	**8**	**37**
04:45 PM	7	**4**	**11**	0	12	12	4	2	6	29
Total Volume	26	10	36	23	45	68	11	15	26	130
% App. Total	72.2	27.8		33.8	66.2		42.3	57.7		
PHF	.722	.625	.818	.639	.865	.773	.688	.625	.813	.878

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City of Rancho Mirage
N/S: Los Alamos Road
E/W: Via Bella
Weather: Sunny

File Name : RNMLAVBPM
Site Code : 00913453
Start Date : 11/6/2013
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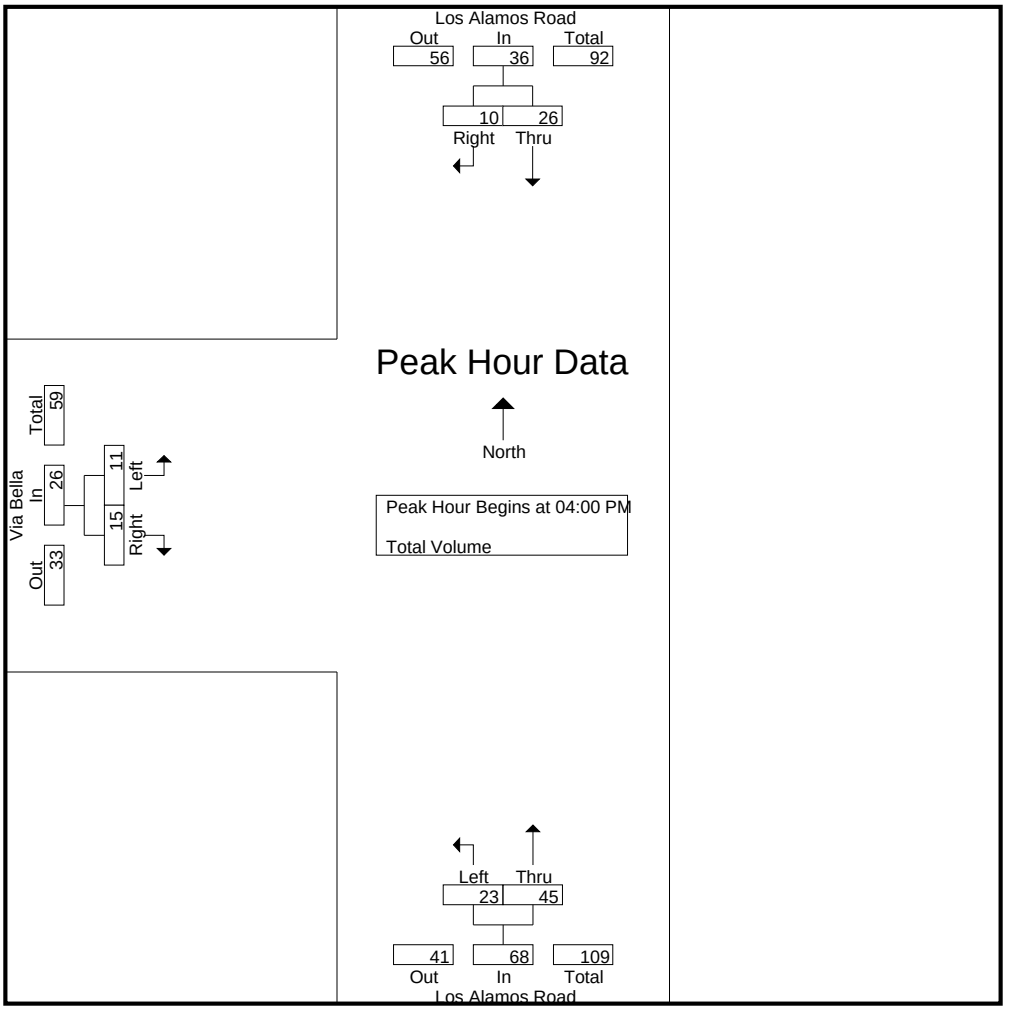

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:15 PM		
+0 mins.	6	2	8	**9**	12	21	3	3	6
+15 mins.	**9**	1	10	5	8	13	4	**4**	8
+30 mins.	4	3	7	9	**13**	**22**	4	2	6
+45 mins.	7	**4**	**11**	0	12	12	**6**	3	**9**
Total Volume	26	10	36	23	45	68	17	12	29
% App. Total	72.2	27.8		33.8	66.2		58.6	41.4	
PHF	.722	.625	.818	.639	.865	.773	.708	.750	.806

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City of Rancho Mirage
N/S: Bob Hope Drive
E/W: Casino Drive
Weather: Sunny

File Name : RNMBHCAAM
Site Code : 00913453
Start Date : 11/6/2013
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Groups Printed- Total Volume

	Bob Hope Drive Southbound			Casino Drive Westbound			Bob Hope Drive Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	11	113	124	2	1	3	54	2	56	183
07:15 AM	13	158	171	3	2	5	52	4	56	232
07:30 AM	14	238	252	2	5	7	76	0	76	335
07:45 AM	13	282	295	2	4	6	79	4	83	384
Total	51	791	842	9	12	21	261	10	271	1134
08:00 AM	18	192	210	3	1	4	71	1	72	286
08:15 AM	24	174	198	0	4	4	68	1	69	271
08:30 AM	17	189	206	3	4	7	85	2	87	300
08:45 AM	23	183	206	2	2	4	90	4	94	304
Total	82	738	820	8	11	19	314	8	322	1161
Grand Total	133	1529	1662	17	23	40	575	18	593	2295
Apprch %	8	92		42.5	57.5		97	3		
Total %	5.8	66.6	72.4	0.7	1	1.7	25.1	0.8	25.8	

	Bob Hope Drive Southbound			Casino Drive Westbound			Bob Hope Drive Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	14	238	252	2	**5**	**7**	76	0	76	335
07:45 AM	13	**282**	**295**	2	4	6	**79**	**4**	**83**	**384**
08:00 AM	18	192	210	**3**	1	4	71	1	72	286
08:15 AM	**24**	174	198	0	4	4	68	1	69	271
Total Volume	69	886	955	7	14	21	294	6	300	1276
% App. Total	7.2	92.8		33.3	66.7		98	2		
PHF	.719	.785	.809	.583	.700	.750	.930	.375	.904	.831

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City of Rancho Mirage
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File Name : RNMBHCAAM
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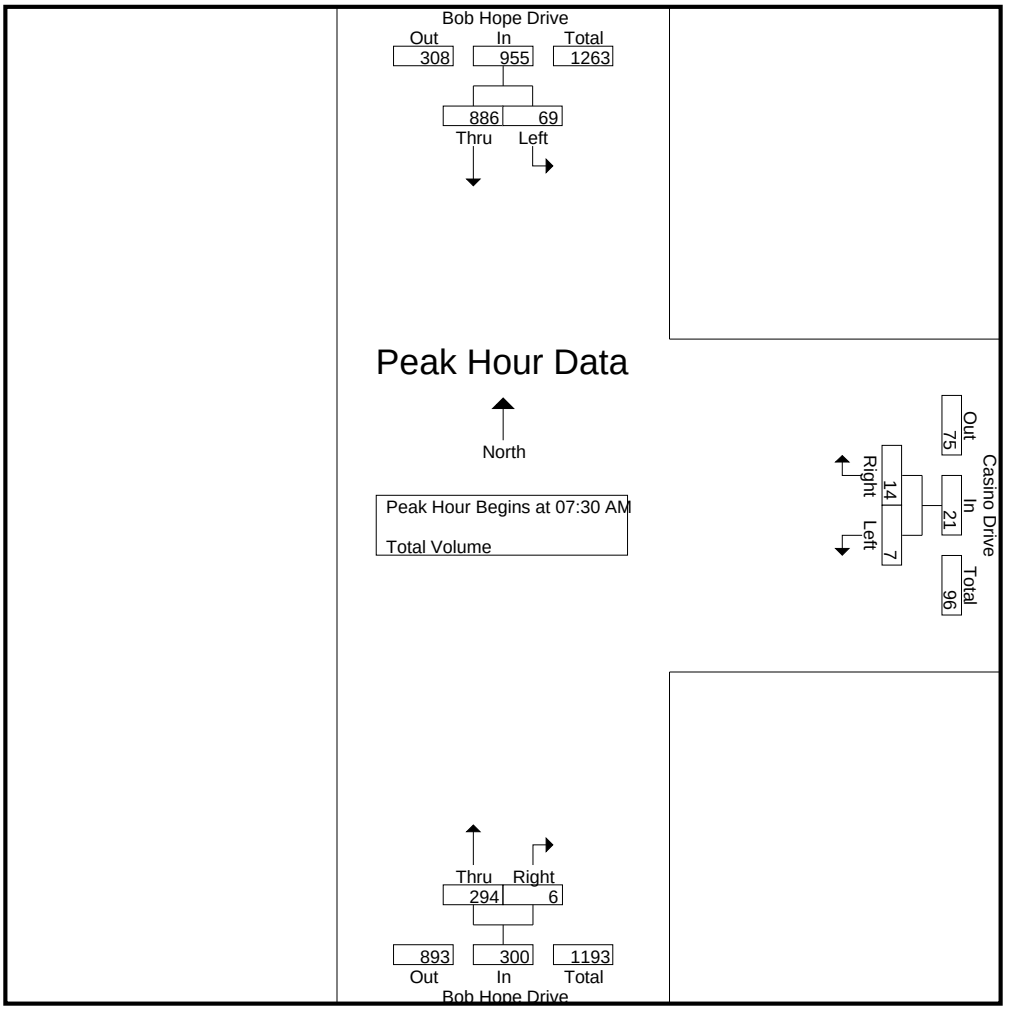

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM			07:15 AM			08:00 AM		
+0 mins.	14	238	252	**3**	2	5	71	1	72
+15 mins.	13	**282**	**295**	2	**5**	**7**	68	1	69
+30 mins.	18	192	210	2	4	6	85	2	87
+45 mins.	**24**	174	198	3	1	4	**90**	**4**	**94**
Total Volume	69	886	955	10	12	22	314	8	322
% App. Total	7.2	92.8		45.5	54.5		97.5	2.5	
PHF	.719	.785	.809	.833	.600	.786	.872	.500	.856

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City of Rancho Mirage
N/S: Bob Hope Drive
E/W: Casino Drive
Weather: Sunny

File Name : RNMBHCAPM
Site Code : 00913453
Start Date : 11/6/2013
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Groups Printed- Total Volume

	Bob Hope Drive Southbound			Casino Drive Westbound			Bob Hope Drive Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	23	117	140	7	8	15	201	1	202	357
04:15 PM	32	106	138	3	4	7	188	2	190	335
04:30 PM	23	116	139	6	13	19	202	10	212	370
04:45 PM	19	130	149	7	4	11	186	7	193	353
Total	97	469	566	23	29	52	777	20	797	1415
05:00 PM	30	90	120	10	7	17	227	6	233	370
05:15 PM	34	111	145	10	2	12	276	9	285	442
05:30 PM	14	94	108	3	2	5	210	10	220	333
05:45 PM	38	100	138	4	9	13	177	13	190	341
Total	116	395	511	27	20	47	890	38	928	1486
Grand Total	213	864	1077	50	49	99	1667	58	1725	2901
Apprch %	19.8	80.2		50.5	49.5		96.6	3.4		
Total %	7.3	29.8	37.1	1.7	1.7	3.4	57.5	2	59.5	

	Bob Hope Drive Southbound			Casino Drive Westbound			Bob Hope Drive Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	23	116	139	6	**13**	**19**	202	**10**	212	370
04:45 PM	19	**130**	**149**	7	4	11	186	7	193	353
05:00 PM	30	90	120	**10**	7	17	227	6	233	370
05:15 PM	**34**	111	145	10	2	12	**276**	9	**285**	**442**
Total Volume	106	447	553	33	26	59	891	32	923	1535
% App. Total	19.2	80.8		55.9	44.1		96.5	3.5		
PHF	.779	.860	.928	.825	.500	.776	.807	.800	.810	.868

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City of Rancho Mirage
N/S: Bob Hope Drive
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Weather: Sunny

File Name : RNMBHCAPM
Site Code : 00913453
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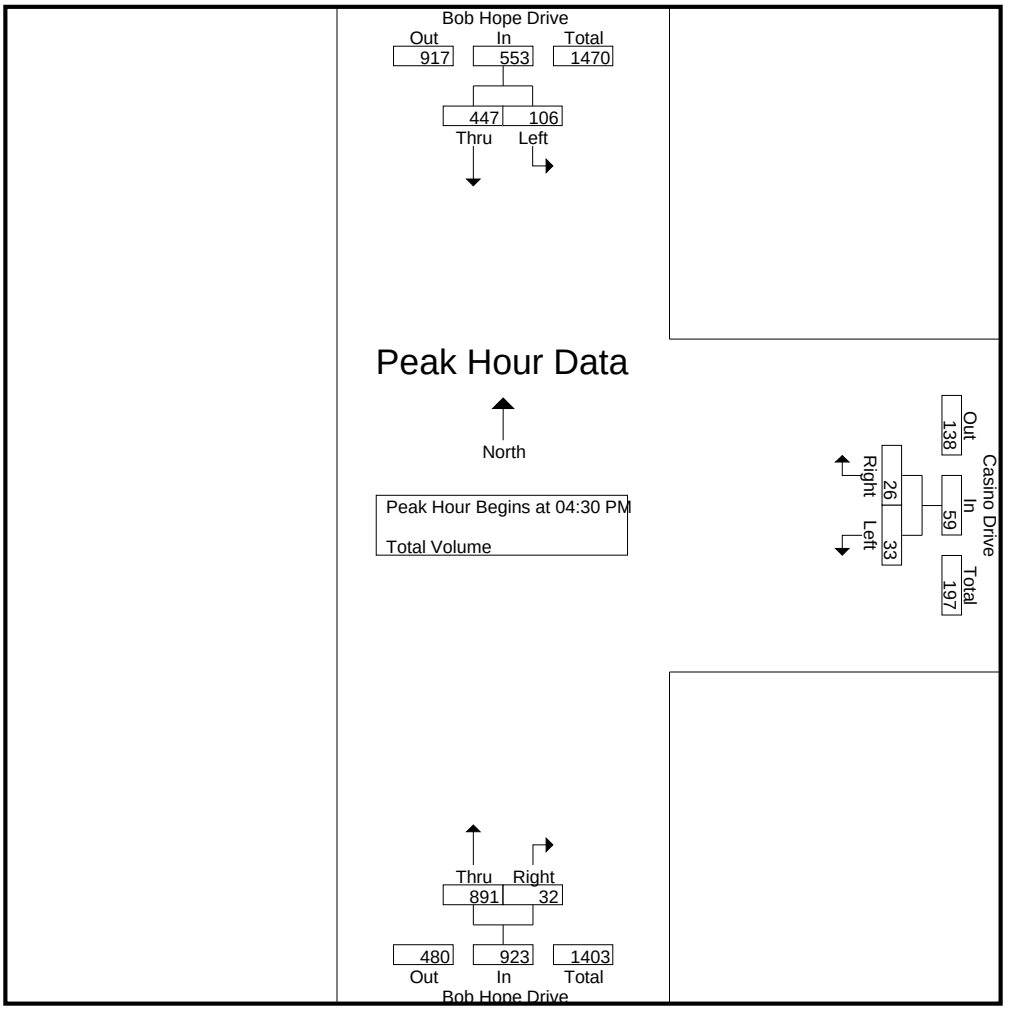

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:30 PM			04:45 PM		
+0 mins.	23	117	140	6	**13**	**19**	186	7	193
+15 mins.	**32**	106	138	7	4	11	227	6	233
+30 mins.	23	116	139	**10**	7	17	**276**	9	**285**
+45 mins.	19	**130**	**149**	10	2	12	210	**10**	220
Total Volume	97	469	566	33	26	59	899	32	931
% App. Total	17.1	82.9		55.9	44.1		96.6	3.4	
PHF	.758	.902	.950	.825	.500	.776	.814	.800	.817

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City of Rancho Mirage
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Weather: Sunny

File Name : RNMDVDSAM
Site Code : 00913453
Start Date : 11/6/2013
Page No : 1

Groups Printed- Total Volume

	Da Vall Drive Southbound				Dinah Shore Drive Westbound				Da Vall Drive Northbound				Dinah Shore Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	8	48	38	94	13	62	3	78	18	16	7	41	17	62	31	110	323
07:15 AM	14	51	47	112	9	93	9	111	15	31	13	59	18	104	26	148	430
07:30 AM	15	70	84	169	16	108	4	128	30	20	11	61	31	148	40	219	577
07:45 AM	19	110	74	203	27	112	10	149	25	41	18	84	35	143	51	229	665
Total	56	279	243	578	65	375	26	466	88	108	49	245	101	457	148	706	1995
08:00 AM	8	68	16	92	9	81	5	95	32	47	18	97	16	102	47	165	449
08:15 AM	10	76	11	97	10	71	6	87	20	23	21	64	10	102	28	140	388
08:30 AM	14	70	25	109	6	91	9	106	26	37	20	83	18	101	39	158	456
08:45 AM	22	72	22	116	6	90	4	100	31	35	11	77	11	93	39	143	436
Total	54	286	74	414	31	333	24	388	109	142	70	321	55	398	153	606	1729
Grand Total	110	565	317	992	96	708	50	854	197	250	119	566	156	855	301	1312	3724
Apprch %	11.1	57	32		11.2	82.9	5.9		34.8	44.2	21		11.9	65.2	22.9		
Total %	3	15.2	8.5	26.6	2.6	19	1.3	22.9	5.3	6.7	3.2	15.2	4.2	23	8.1	35.2	

	Da Vall Drive Southbound				Dinah Shore Drive Westbound				Da Vall Drive Northbound				Dinah Shore Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	14	51	47	112	9	93	9	111	15	31	13	59	18	104	26	148	430
07:30 AM	15	70	**84**	169	16	108	4	128	30	20	11	61	31	**148**	40	219	577
07:45 AM	**19**	**110**	74	**203**	**27**	**112**	**10**	**149**	25	41	**18**	84	**35**	143	**51**	**229**	**665**
08:00 AM	8	68	16	92	9	81	5	95	**32**	**47**	18	**97**	16	102	47	165	449
Total Volume	56	299	221	576	61	394	28	483	102	139	60	301	100	497	164	761	2121
% App. Total	9.7	51.9	38.4		12.6	81.6	5.8		33.9	46.2	19.9		13.1	65.3	21.6		
PHF	.737	.680	.658	.709	.565	.879	.700	.810	.797	.739	.833	.776	.714	.840	.804	.831	.797

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File Name : RNMDVDSAM
Site Code : 00913453
Start Date : 11/6/2013
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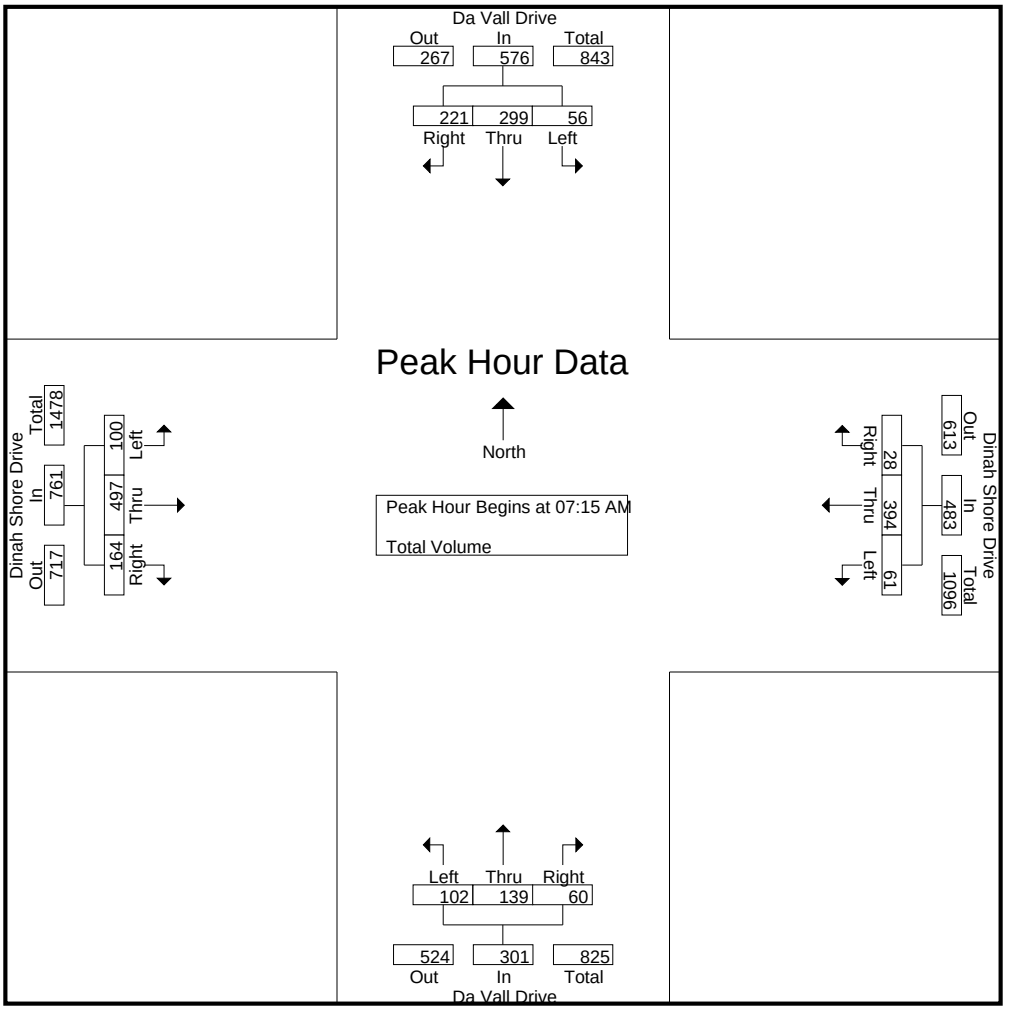

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:15 AM				07:45 AM				07:15 AM			
+0 mins.	8	48	38	94	9	93	9	111	25	41	18	84	18	104	26	148
+15 mins.	14	51	47	112	16	108	4	128	**32**	**47**	18	**97**	31	**148**	40	219
+30 mins.	15	70	**84**	169	**27**	**112**	**10**	**149**	20	23	**21**	64	**35**	143	**51**	**229**
+45 mins.	**19**	**110**	74	**203**	9	81	5	95	26	37	20	83	16	102	47	165
Total Volume	56	279	243	578	61	394	28	483	103	148	77	328	100	497	164	761
% App. Total	9.7	48.3	42		12.6	81.6	5.8		31.4	45.1	23.5		13.1	65.3	21.6	
PHF	.737	.634	.723	.712	.565	.879	.700	.810	.805	.787	.917	.845	.714	.840	.804	.831

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City of Rancho Mirage
N/S: Da Vall Drive
E/W: Dinah Shore Drive
Weather: Sunny

File Name : RNMDVDSPM
Site Code : 00913453
Start Date : 11/6/2013
Page No : 1

Groups Printed- Total Volume

	Da Vall Drive Southbound				Dinah Shore Drive Westbound				Da Vall Drive Northbound				Dinah Shore Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	10	41	24	75	18	124	26	168	45	66	10	121	13	107	39	159	523
04:15 PM	3	40	25	68	14	164	27	205	50	61	5	116	10	112	23	145	534
04:30 PM	14	53	30	97	7	151	26	184	34	74	16	124	21	140	35	196	601
04:45 PM	14	38	24	76	12	174	24	210	48	64	8	120	16	125	32	173	579
Total	41	172	103	316	51	613	103	767	177	265	39	481	60	484	129	673	2237
05:00 PM	10	49	25	84	13	141	25	179	36	72	6	114	22	133	30	185	562
05:15 PM	8	44	29	81	13	198	29	240	53	80	11	144	16	170	35	221	686
05:30 PM	11	33	27	71	8	172	27	207	50	59	4	113	17	123	25	165	556
05:45 PM	5	33	33	71	14	127	5	146	36	45	5	86	18	89	22	129	432
Total	34	159	114	307	48	638	86	772	175	256	26	457	73	515	112	700	2236
Grand Total	75	331	217	623	99	1251	189	1539	352	521	65	938	133	999	241	1373	4473
Apprch %	12	53.1	34.8		6.4	81.3	12.3		37.5	55.5	6.9		9.7	72.8	17.6		
Total %	1.7	7.4	4.9	13.9	2.2	28	4.2	34.4	7.9	11.6	1.5	21	3	22.3	5.4	30.7	

	Da Vall Drive Southbound				Dinah Shore Drive Westbound				Da Vall Drive Northbound				Dinah Shore Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	**14**	**53**	**30**	**97**	7	151	26	184	34	74	**16**	124	21	140	**35**	196	601
04:45 PM	14	38	24	76	12	174	24	210	48	64	8	120	16	125	32	173	579
05:00 PM	10	49	25	84	**13**	141	25	179	36	72	6	114	**22**	133	30	185	562
05:15 PM	8	44	29	81	13	**198**	**29**	**240**	**53**	**80**	11	**144**	16	**170**	35	**221**	**686**
Total Volume	46	184	108	338	45	664	104	813	171	290	41	502	75	568	132	775	2428
% App. Total	13.6	54.4	32		5.5	81.7	12.8		34.1	57.8	8.2		9.7	73.3	17		
PHF	.821	.868	.900	.871	.865	.838	.897	.847	.807	.906	.641	.872	.852	.835	.943	.877	.885

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File Name : RNMDVDSPM
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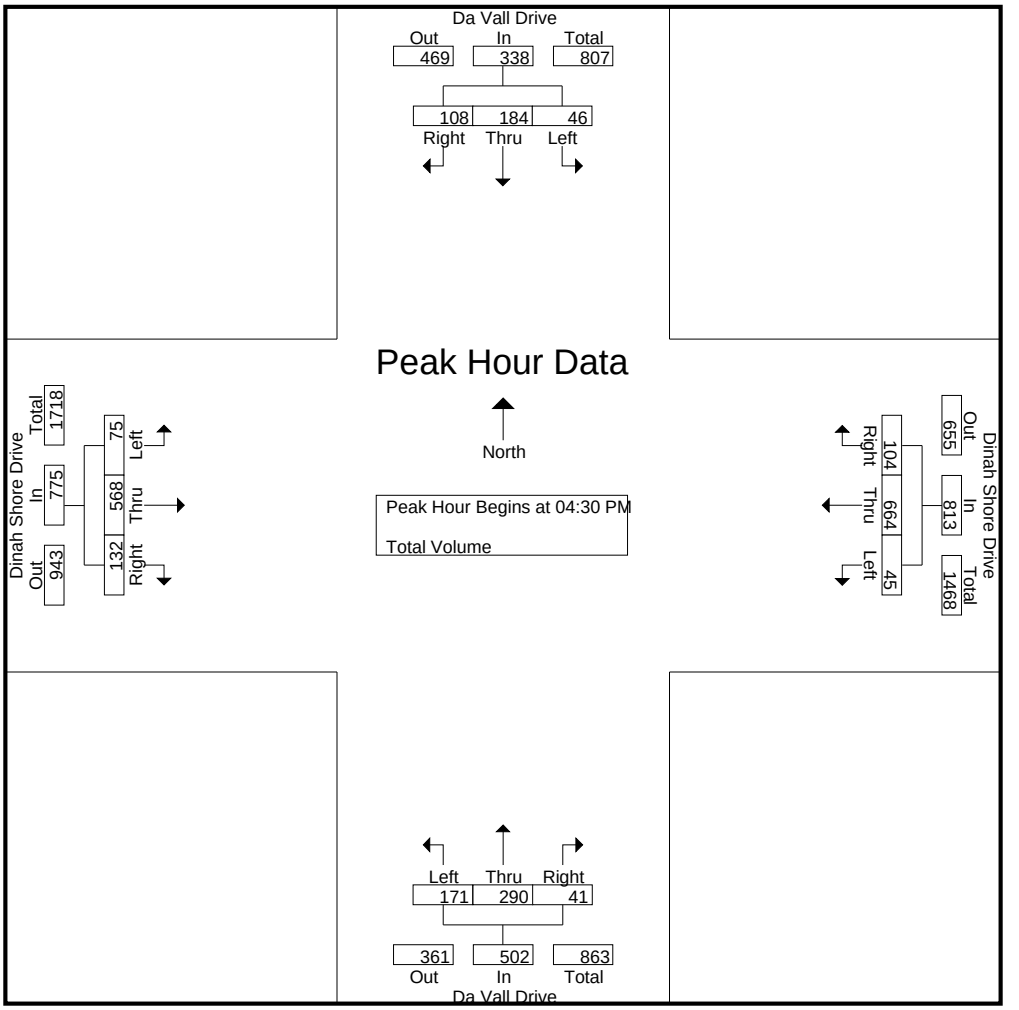

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:45 PM				04:30 PM				04:30 PM			
+0 mins.	**14**	**53**	**30**	**97**	12	174	24	210	34	74	**16**	124	21	140	**35**	196
+15 mins.	14	38	24	76	**13**	141	25	179	48	64	8	120	16	125	32	173
+30 mins.	10	49	25	84	13	**198**	**29**	**240**	36	72	6	114	**22**	133	30	185
+45 mins.	8	44	29	81	8	172	27	207	**53**	**80**	11	**144**	16	**170**	35	**221**
Total Volume	46	184	108	338	46	685	105	836	171	290	41	502	75	568	132	775
% App. Total	13.6	54.4	32		5.5	81.9	12.6		34.1	57.8	8.2		9.7	73.3	17	
PHF	.821	.868	.900	.871	.885	.865	.905	.871	.807	.906	.641	.872	.852	.835	.943	.877

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City of Rancho Mirage
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Weather: Sunny

File Name : RNMLADSAM
Site Code : 00913453
Start Date : 11/6/2013
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Groups Printed- Total Volume

	Los Alamos Road Southbound			Dinah Shore Drive Westbound			Dinah Shore Drive Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:00 AM	5	3	8	86	5	91	2	72	74	173
07:15 AM	2	19	21	107	2	109	4	103	107	237
07:30 AM	13	21	34	129	3	132	16	144	160	326
07:45 AM	16	14	30	138	5	143	20	176	196	369
Total	36	57	93	460	15	475	42	495	537	1105
08:00 AM	7	7	14	84	2	86	6	116	122	222
08:15 AM	14	3	17	76	7	83	7	120	127	227
08:30 AM	14	10	24	107	12	119	5	121	126	269
08:45 AM	12	5	17	98	8	106	5	127	132	255
Total	47	25	72	365	29	394	23	484	507	973
Grand Total	83	82	165	825	44	869	65	979	1044	2078
Apprch %	50.3	49.7		94.9	5.1		6.2	93.8		
Total %	4	3.9	7.9	39.7	2.1	41.8	3.1	47.1	50.2	

	Los Alamos Road Southbound			Dinah Shore Drive Westbound			Dinah Shore Drive Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	2	19	21	107	2	109	4	103	107	237
07:30 AM	13	**21**	**34**	129	3	132	16	144	160	326
07:45 AM	**16**	14	30	**138**	**5**	**143**	**20**	**176**	**196**	**369**
08:00 AM	7	7	14	84	2	86	6	116	122	222
Total Volume	38	61	99	458	12	470	46	539	585	1154
% App. Total	38.4	61.6		97.4	2.6		7.9	92.1		
PHF	.594	.726	.728	.830	.600	.822	.575	.766	.746	.782

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City of Rancho Mirage
N/S: Los Alamos Road
E/W: Dinah Shore Drive
Weather: Sunny

File Name : RNMLADSAM
Site Code : 00913453
Start Date : 11/6/2013
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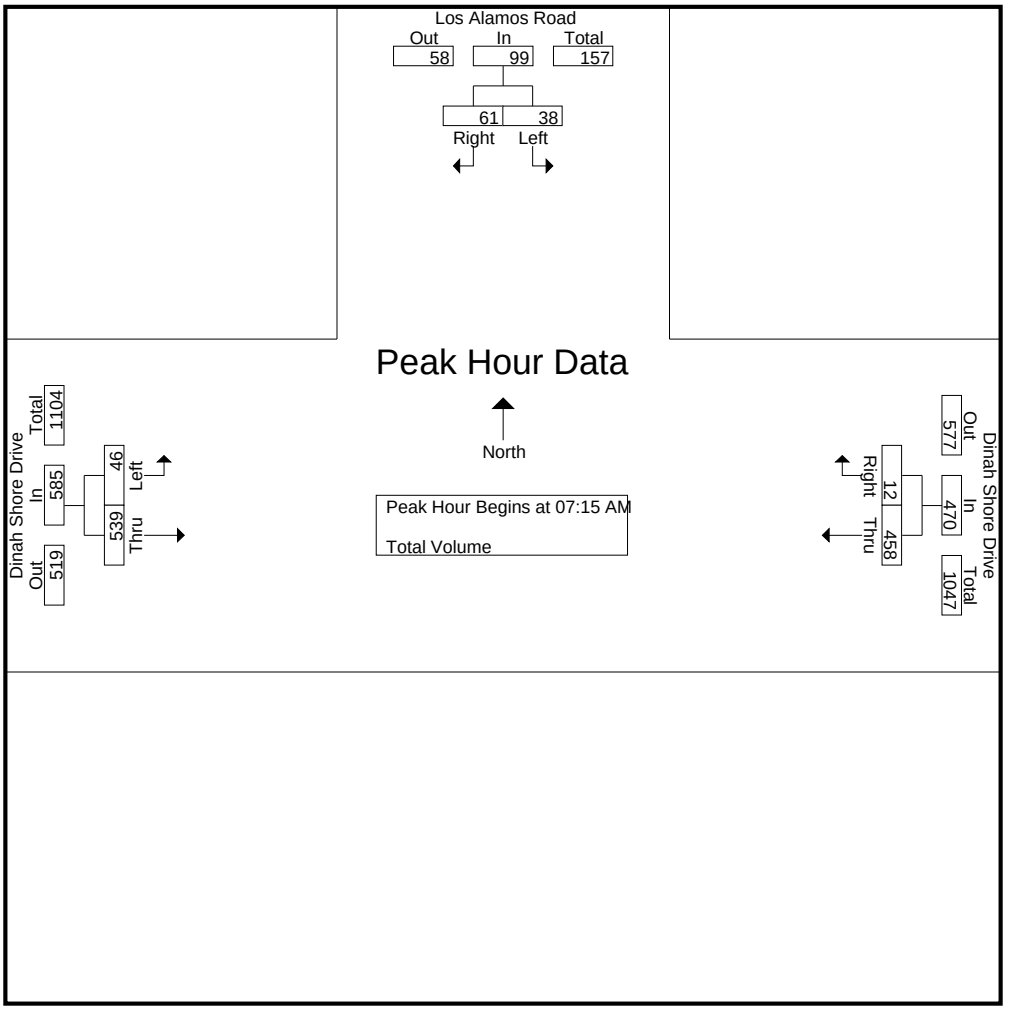

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM			07:00 AM			07:30 AM		
+0 mins.	2	19	21	86	**5**	91	16	144	160
+15 mins.	13	**21**	**34**	107	2	109	**20**	**176**	**196**
+30 mins.	**16**	14	30	129	3	132	6	116	122
+45 mins.	7	7	14	**138**	5	**143**	7	120	127
Total Volume	38	61	99	460	15	475	49	556	605
% App. Total	38.4	61.6		96.8	3.2		8.1	91.9	
PHF	.594	.726	.728	.833	.750	.830	.613	.790	.772

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City of Rancho Mirage
N/S: Los Alamos Road
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Weather: Sunny

File Name : RNMLADSPM
Site Code : 00913453
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Groups Printed- Total Volume

	Los Alamos Road Southbound			Dinah Shore Drive Westbound			Dinah Shore Drive Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	5	9	14	168	15	183	5	134	139	336
04:15 PM	6	7	13	190	7	197	7	117	124	334
04:30 PM	4	4	8	202	19	221	4	148	152	381
04:45 PM	4	9	13	197	9	206	5	149	154	373
Total	19	29	48	757	50	807	21	548	569	1424
05:00 PM	7	6	13	190	9	199	10	148	158	370
05:15 PM	8	5	13	248	13	261	12	180	192	466
05:30 PM	6	7	13	177	9	186	3	135	138	337
05:45 PM	7	4	11	130	15	145	8	106	114	270
Total	28	22	50	745	46	791	33	569	602	1443
Grand Total	47	51	98	1502	96	1598	54	1117	1171	2867
Apprch %	48	52		94	6		4.6	95.4		
Total %	1.6	1.8	3.4	52.4	3.3	55.7	1.9	39	40.8	

	Los Alamos Road Southbound			Dinah Shore Drive Westbound			Dinah Shore Drive Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	4	4	8	202	**19**	221	4	148	152	381
04:45 PM	4	**9**	**13**	197	9	206	5	149	154	373
05:00 PM	7	6	13	190	9	199	10	148	158	370
05:15 PM	**8**	5	13	**248**	13	**261**	**12**	**180**	**192**	**466**
Total Volume	23	24	47	837	50	887	31	625	656	1590
% App. Total	48.9	51.1		94.4	5.6		4.7	95.3		
PHF	.719	.667	.904	.844	.658	.850	.646	.868	.854	.853

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File Name : RNMLADSPM
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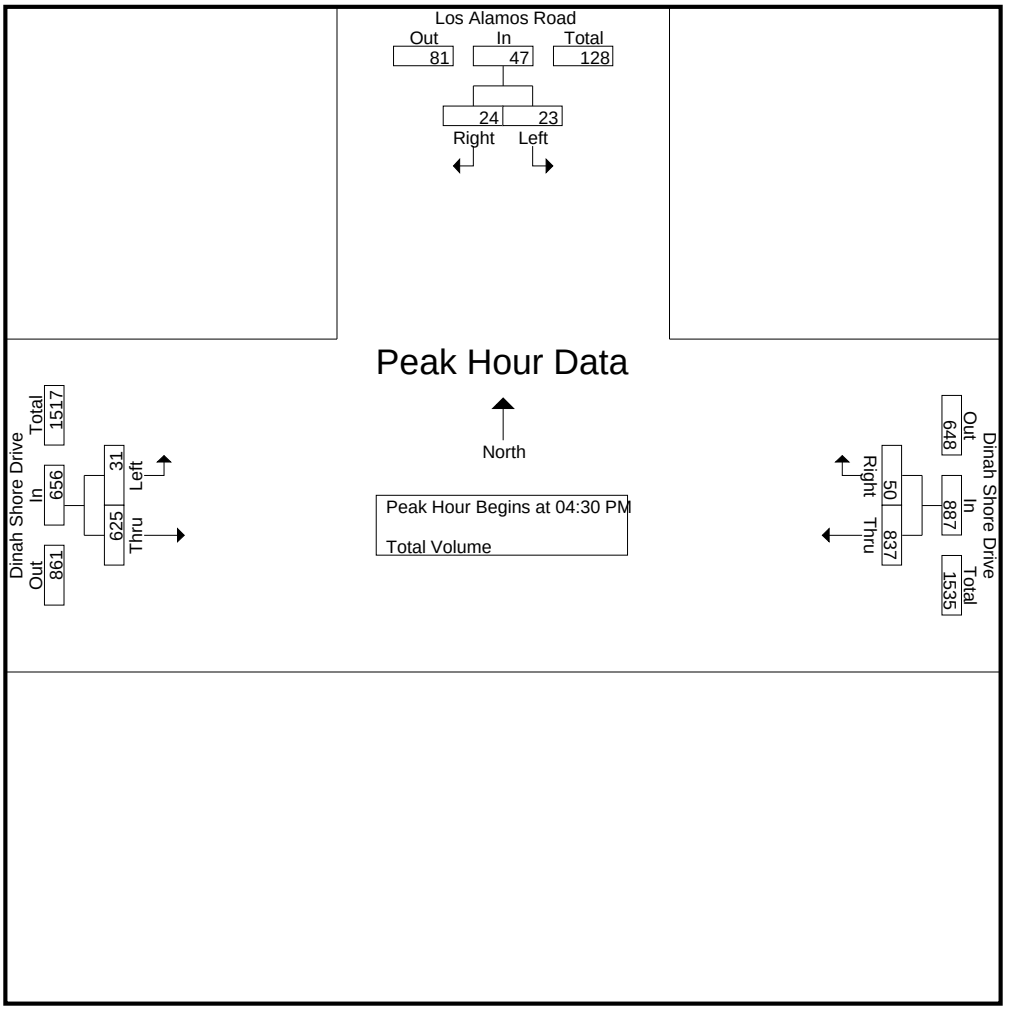

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:30 PM			04:30 PM		
+0 mins.	4	**9**	**13**	202	**19**	221	4	148	152
+15 mins.	7	6	13	197	9	206	5	149	154
+30 mins.	**8**	5	13	190	9	199	10	148	158
+45 mins.	6	7	13	**248**	13	**261**	**12**	**180**	**192**
Total Volume	25	27	52	837	50	887	31	625	656
% App. Total	48.1	51.9		94.4	5.6		4.7	95.3	
PHF	.781	.750	1.000	.844	.658	.850	.646	.868	.854

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City of Rancho Mirage
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Weather: Sunny

File Name : RNMWMDSAM
Site Code : 00913453
Start Date : 11/6/2013
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Groups Printed- Total Volume

	Southbound				Dinah Shore Drive Westbound				Westin Mission Hills Northbound				Dinah Shore Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	103	0	103	2	0	7	9	0	71	3	74	186
07:15 AM	0	0	0	0	0	115	0	115	2	0	5	7	1	97	5	103	225
07:30 AM	0	0	0	0	0	133	0	133	2	0	6	8	0	144	7	151	292
07:45 AM	0	0	0	0	8	153	0	161	1	0	4	5	0	174	7	181	347
Total	0	0	0	0	8	504	0	512	7	0	22	29	1	486	22	509	1050
08:00 AM	0	0	0	0	16	84	0	100	3	0	6	9	2	118	6	126	235
08:15 AM	0	0	0	0	10	94	0	104	1	0	5	6	0	129	7	136	246
08:30 AM	0	0	0	0	9	118	0	127	3	0	3	6	0	141	3	144	277
08:45 AM	0	0	0	0	15	104	0	119	2	0	6	8	2	128	7	137	264
Total	0	0	0	0	50	400	0	450	9	0	20	29	4	516	23	543	1022
Grand Total	0	0	0	0	58	904	0	962	16	0	42	58	5	1002	45	1052	2072
Apprch %	0	0	0		6	94	0		27.6	0	72.4		0.5	95.2	4.3		
Total %	0	0	0	0	2.8	43.6	0	46.4	0.8	0	2	2.8	0.2	48.4	2.2	50.8	

	Southbound				Dinah Shore Drive Westbound				Westin Mission Hills Northbound				Dinah Shore Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	0	0	0	0	133	0	133	2	0	**6**	8	0	144	**7**	151	292
07:45 AM	0	0	0	0	8	**153**	0	**161**	1	0	4	5	0	**174**	7	**181**	**347**
08:00 AM	0	0	0	0	**16**	84	0	100	**3**	0	6	**9**	**2**	118	6	126	235
08:15 AM	0	0	0	0	10	94	0	104	1	0	5	6	0	129	7	136	246
Total Volume	0	0	0	0	34	464	0	498	7	0	21	28	2	565	27	594	1120
% App. Total	0	0	0		6.8	93.2	0		25	0	75		0.3	95.1	4.5		
PHF	.000	.000	.000	.000	.531	.758	.000	.773	.583	.000	.875	.778	.250	.812	.964	.820	.807

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File Name : RNMWMDSAM
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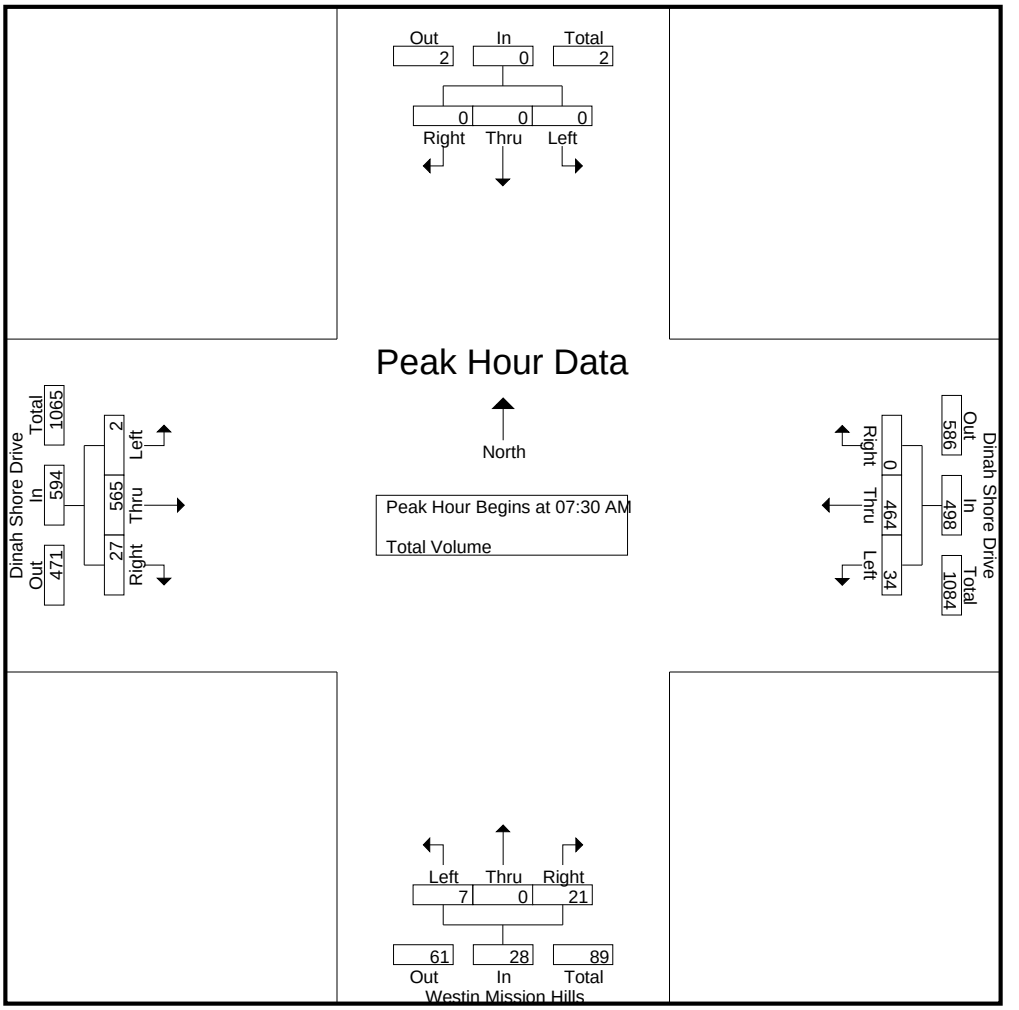

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:30 AM			
+0 mins.	0	0	0	0	0	103	0	103	**2**	0	**7**	**9**	0	144	**7**	151
+15 mins.	0	0	0	0	0	115	0	115	2	0	5	7	0	**174**	7	**181**
+30 mins.	0	0	0	0	0	133	0	133	2	0	6	8	**2**	118	6	126
+45 mins.	0	0	0	0	**8**	**153**	0	**161**	1	0	4	5	0	129	7	136
Total Volume	0	0	0	0	8	504	0	512	7	0	22	29	2	565	27	594
% App. Total	0	0	0		1.6	98.4	0		24.1	0	75.9		0.3	95.1	4.5	
PHF	.000	.000	.000	.000	.250	.824	.000	.795	.875	.000	.786	.806	.250	.812	.964	.820

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City of Rancho Mirage
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File Name : RNMWMDSPM
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Groups Printed- Total Volume

	Southbound				Dinah Shore Drive Westbound				Westin Mission Hills Northbound				Dinah Shore Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	1	178	0	179	2	0	12	14	2	142	3	147	340
04:15 PM	0	0	0	0	8	192	0	200	7	0	5	12	0	124	0	124	336
04:30 PM	0	0	0	0	7	194	0	201	16	0	17	33	12	166	2	180	414
04:45 PM	0	0	0	0	3	187	0	190	9	0	13	22	1	159	3	163	375
Total	0	0	0	0	19	751	0	770	34	0	47	81	15	591	8	614	1465
05:00 PM	0	0	0	0	6	196	0	202	8	0	15	23	1	150	7	158	383
05:15 PM	0	0	0	0	13	254	0	267	8	0	8	16	1	196	2	199	482
05:30 PM	0	0	0	0	3	172	0	175	3	0	13	16	1	133	2	136	327
05:45 PM	0	0	0	0	6	140	0	146	2	0	9	11	2	113	3	118	275
Total	0	0	0	0	28	762	0	790	21	0	45	66	5	592	14	611	1467
Grand Total	0	0	0	0	47	1513	0	1560	55	0	92	147	20	1183	22	1225	2932
Apprch %	0	0	0		3	97	0		37.4	0	62.6		1.6	96.6	1.8		
Total %	0	0	0	0	1.6	51.6	0	53.2	1.9	0	3.1	5	0.7	40.3	0.8	41.8	

	Southbound				Dinah Shore Drive Westbound				Westin Mission Hills Northbound				Dinah Shore Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	7	194	0	201	**16**	0	**17**	**33**	**12**	166	2	180	414
04:45 PM	0	0	0	0	3	187	0	190	9	0	13	22	1	159	3	163	375
05:00 PM	0	0	0	0	6	196	0	202	8	0	15	23	1	150	**7**	158	383
05:15 PM	0	0	0	0	**13**	**254**	0	**267**	8	0	8	16	1	**196**	2	**199**	**482**
Total Volume	0	0	0	0	29	831	0	860	41	0	53	94	15	671	14	700	1654
% App. Total	0	0	0		3.4	96.6	0		43.6	0	56.4		2.1	95.9	2		
PHF	.000	.000	.000	.000	.558	.818	.000	.805	.641	.000	.779	.712	.313	.856	.500	.879	.858

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File Name : RNMWMDSPM
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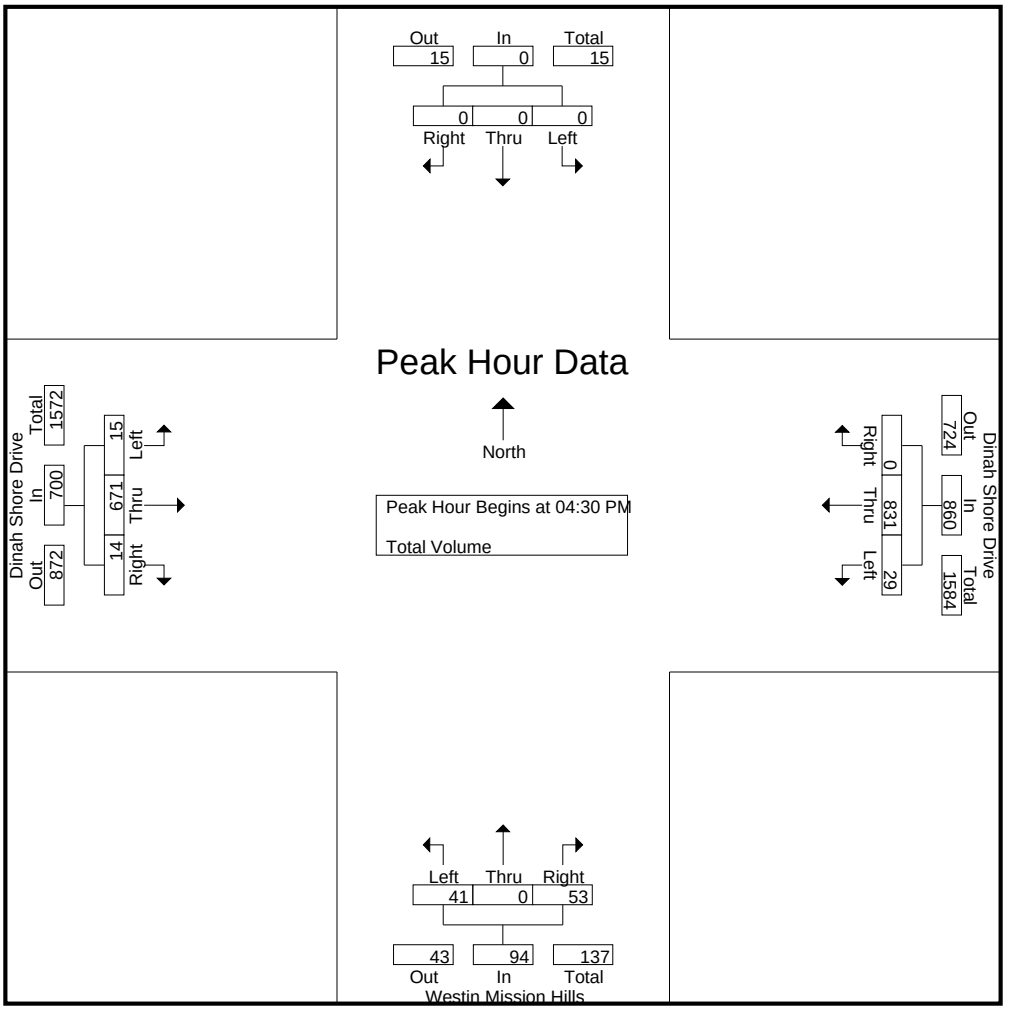

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	0	0	0	7	194	0	201	**16**	0	**17**	**33**	**12**	166	2	180
+15 mins.	0	0	0	0	3	187	0	190	9	0	13	22	1	159	3	163
+30 mins.	0	0	0	0	6	196	0	202	8	0	15	23	1	150	**7**	158
+45 mins.	0	0	0	0	**13**	**254**	0	**267**	8	0	8	16	1	**196**	2	**199**
Total Volume	0	0	0	0	29	831	0	860	41	0	53	94	15	671	14	700
% App. Total	0	0	0		3.4	96.6	0		43.6	0	56.4		2.1	95.9	2	
PHF	.000	.000	.000	.000	.558	.818	.000	.805	.641	.000	.779	.712	.313	.856	.500	.879

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City of Rancho Mirage
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E/W: Dinah Shore Drive
Weather: Sunny

File Name : RNMWRDSAM
Site Code : 00913453
Start Date : 11/6/2013
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Groups Printed- Total Volume

	Dinah Shore Drive Westbound			Westin Resort & Villas Northbound			Dinah Shore Drive Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	2	110	112	0	4	4	73	4	77	193
07:15 AM	6	121	127	0	5	5	100	3	103	235
07:30 AM	3	139	142	2	2	4	139	4	143	289
07:45 AM	5	155	160	1	3	4	178	0	178	342
Total	16	525	541	3	14	17	490	11	501	1059
08:00 AM	2	102	104	0	6	6	123	1	124	234
08:15 AM	5	106	111	0	6	6	134	2	136	253
08:30 AM	1	124	125	2	7	9	146	0	146	280
08:45 AM	3	123	126	2	8	10	131	1	132	268
Total	11	455	466	4	27	31	534	4	538	1035
Grand Total	27	980	1007	7	41	48	1024	15	1039	2094
Apprch %	2.7	97.3		14.6	85.4		98.6	1.4		
Total %	1.3	46.8	48.1	0.3	2	2.3	48.9	0.7	49.6	

	Dinah Shore Drive Westbound			Westin Resort & Villas Northbound			Dinah Shore Drive Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	3	139	142	**2**	2	4	139	**4**	143	289
07:45 AM	**5**	**155**	**160**	1	3	4	**178**	0	**178**	**342**
08:00 AM	2	102	104	0	**6**	**6**	123	1	124	234
08:15 AM	5	106	111	0	6	6	134	2	136	253
Total Volume	15	502	517	3	17	20	574	7	581	1118
% App. Total	2.9	97.1		15	85		98.8	1.2		
PHF	.750	.810	.808	.375	.708	.833	.806	.438	.816	.817

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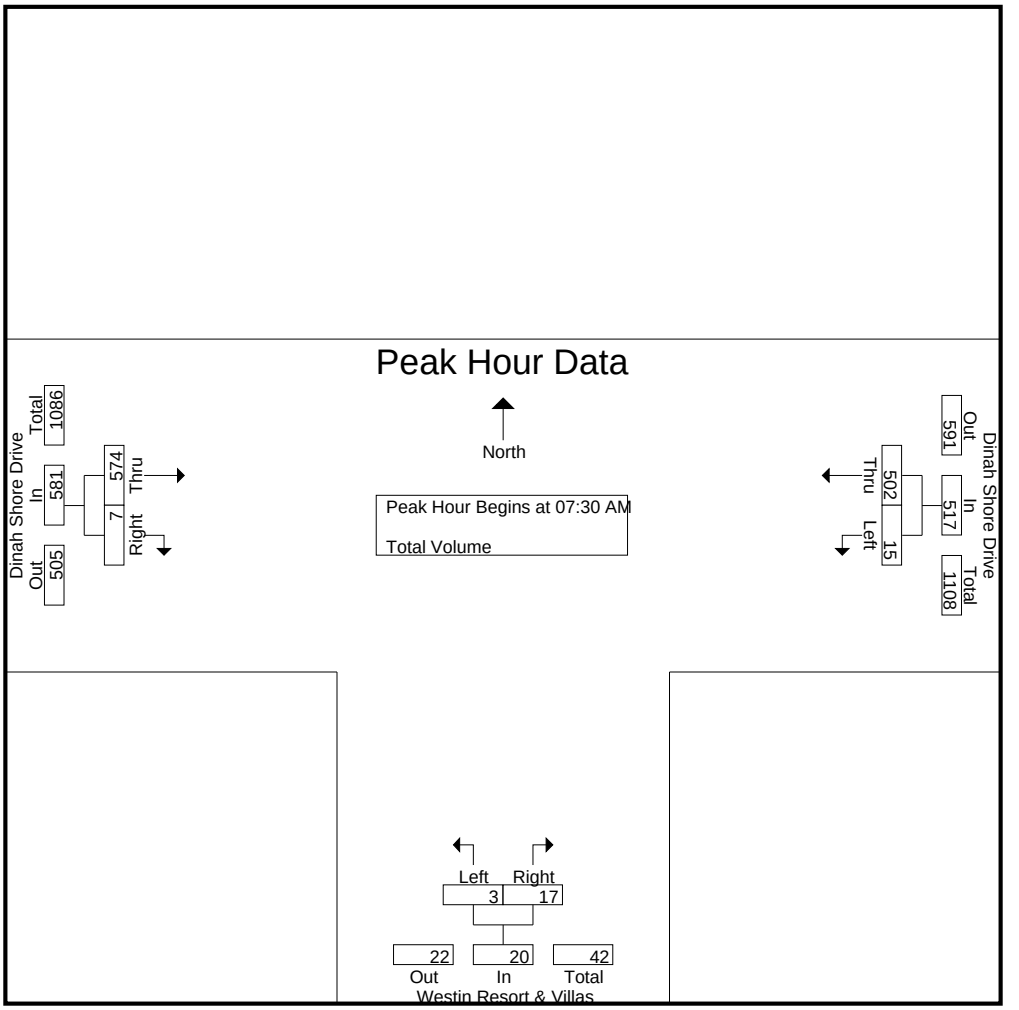

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			08:00 AM			07:45 AM		
+0 mins.	2	110	112	0	6	6	**178**	0	**178**
+15 mins.	**6**	121	127	0	6	6	123	1	124
+30 mins.	3	139	142	**2**	7	9	134	**2**	136
+45 mins.	5	**155**	**160**	2	**8**	**10**	146	0	146
Total Volume	16	525	541	4	27	31	581	3	584
% App. Total	3	97		12.9	87.1		99.5	0.5	
PHF	.667	.847	.845	.500	.844	.775	.816	.375	.820

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City of Rancho Mirage
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E/W: Dinah Shore Drive
Weather: Sunny

File Name : RNMWRDSPM
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Groups Printed- Total Volume

	Dinah Shore Drive Westbound			Westin Resort & Villas Northbound			Dinah Shore Drive Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	8	181	189	4	5	9	147	4	151	349
04:15 PM	8	202	210	0	7	7	129	2	131	348
04:30 PM	12	204	216	4	12	16	181	1	182	414
04:45 PM	9	187	196	0	5	5	171	2	173	374
Total	37	774	811	8	29	37	628	9	637	1485
05:00 PM	8	204	212	1	4	5	171	0	171	388
05:15 PM	5	250	255	3	5	8	201	1	202	465
05:30 PM	6	186	192	2	9	11	151	2	153	356
05:45 PM	5	140	145	1	8	9	125	1	126	280
Total	24	780	804	7	26	33	648	4	652	1489
Grand Total	61	1554	1615	15	55	70	1276	13	1289	2974
Apprch %	3.8	96.2		21.4	78.6		99	1		
Total %	2.1	52.3	54.3	0.5	1.8	2.4	42.9	0.4	43.3	

	Dinah Shore Drive Westbound			Westin Resort & Villas Northbound			Dinah Shore Drive Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	**12**	204	216	**4**	**12**	**16**	181	1	182	414
04:45 PM	9	187	196	0	5	5	171	**2**	173	374
05:00 PM	8	204	212	1	4	5	171	0	171	388
05:15 PM	5	**250**	**255**	3	5	8	**201**	1	**202**	**465**
Total Volume	34	845	879	8	26	34	724	4	728	1641
% App. Total	3.9	96.1		23.5	76.5		99.5	0.5		
PHF	.708	.845	.862	.500	.542	.531	.900	.500	.901	.882

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City of Rancho Mirage
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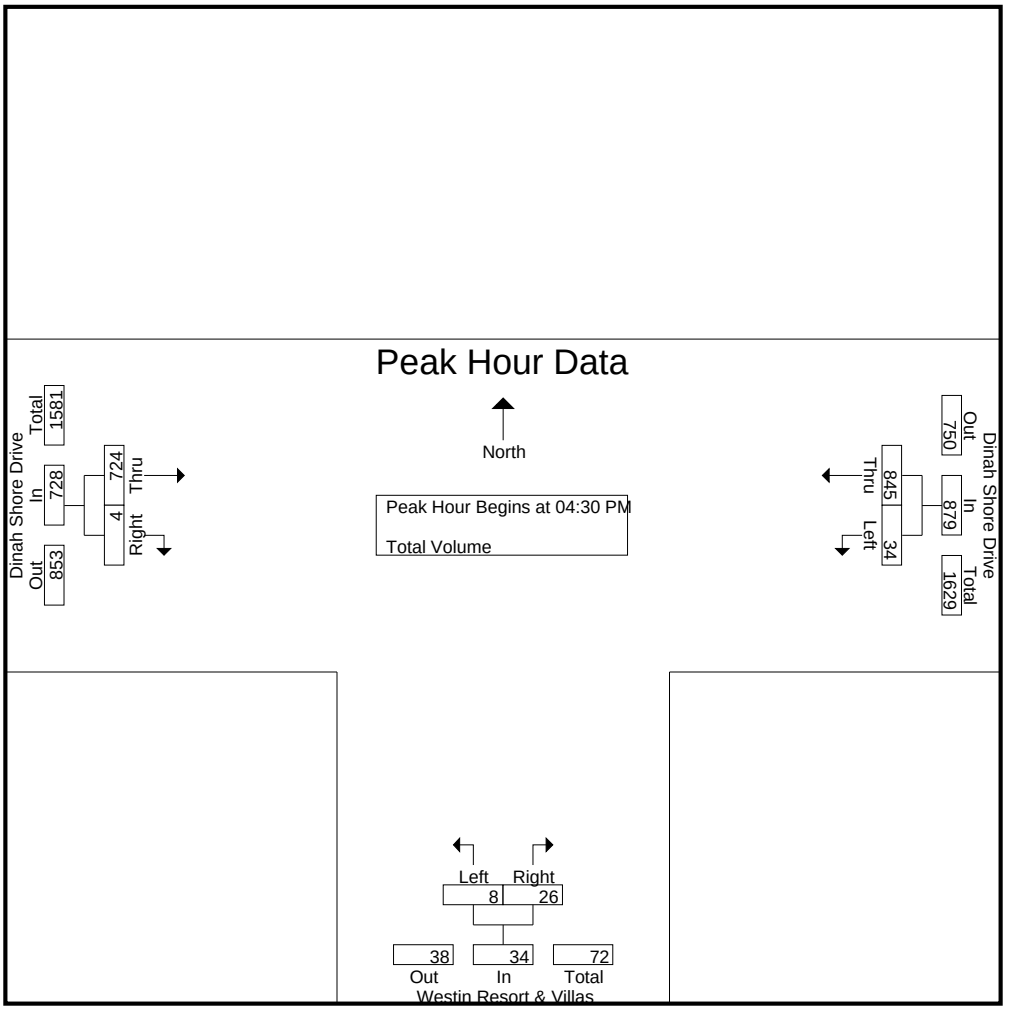

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM			04:00 PM			04:30 PM		
+0 mins.	**12**	204	216	**4**	5	9	181	1	182
+15 mins.	9	187	196	0	7	7	171	**2**	173
+30 mins.	8	204	212	4	**12**	**16**	171	0	171
+45 mins.	5	**250**	**255**	0	5	5	**201**	1	**202**
Total Volume	34	845	879	8	29	37	724	4	728
% App. Total	3.9	96.1		21.6	78.4		99.5	0.5	
PHF	.708	.845	.862	.500	.604	.578	.900	.500	.901

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City of Rancho Mirage
N/S: Bob Hope Drive
E/W: Dinah Shore Drive
Weather: Sunny

File Name : RNMBHDSAM
Site Code : 00913453
Start Date : 11/6/2013
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Groups Printed- Total Volume

	Bob Hope Drive Southbound				Dinah Shore Drive Westbound				Bob Hope Drive Northbound				Dinah Shore Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	9	89	13	111	14	84	5	103	15	31	10	56	14	53	10	77	347
07:15 AM	11	124	13	148	12	95	9	116	18	34	11	63	11	70	16	97	424
07:30 AM	19	199	12	230	21	101	6	128	26	52	13	91	13	103	29	145	594
07:45 AM	32	237	18	287	31	118	14	163	24	51	13	88	19	110	30	159	697
Total	71	649	56	776	78	398	34	510	83	168	47	298	57	336	85	478	2062
08:00 AM	21	160	9	190	29	76	13	118	25	46	15	86	15	84	46	145	539
08:15 AM	26	152	6	184	14	72	16	102	25	41	17	83	15	83	31	129	498
08:30 AM	20	132	11	163	21	87	28	136	23	54	18	95	16	89	34	139	533
08:45 AM	35	144	9	188	26	73	26	125	26	66	26	118	19	80	41	140	571
Total	102	588	35	725	90	308	83	481	99	207	76	382	65	336	152	553	2141
Grand Total	173	1237	91	1501	168	706	117	991	182	375	123	680	122	672	237	1031	4203
Apprch %	11.5	82.4	6.1		17	71.2	11.8		26.8	55.1	18.1		11.8	65.2	23		
Total %	4.1	29.4	2.2	35.7	4	16.8	2.8	23.6	4.3	8.9	2.9	16.2	2.9	16	5.6	24.5	

	Bob Hope Drive Southbound				Dinah Shore Drive Westbound				Bob Hope Drive Northbound				Dinah Shore Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	19	199	12	230	21	101	6	128	**26**	**52**	13	**91**	13	103	29	145	594
07:45 AM	**32**	**237**	**18**	**287**	**31**	**118**	14	**163**	24	51	13	88	**19**	**110**	30	**159**	**697**
08:00 AM	21	160	9	190	29	76	13	118	25	46	15	86	15	84	**46**	145	539
08:15 AM	26	152	6	184	14	72	**16**	102	25	41	**17**	83	15	83	31	129	498
Total Volume	98	748	45	891	95	367	49	511	100	190	58	348	62	380	136	578	2328
% App. Total	11	84	5.1		18.6	71.8	9.6		28.7	54.6	16.7		10.7	65.7	23.5		
PHF	.766	.789	.625	.776	.766	.778	.766	.784	.962	.913	.853	.956	.816	.864	.739	.909	.835

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City of Rancho Mirage
N/S: Bob Hope Drive
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File Name : RNMBHDSAM
Site Code : 00913453
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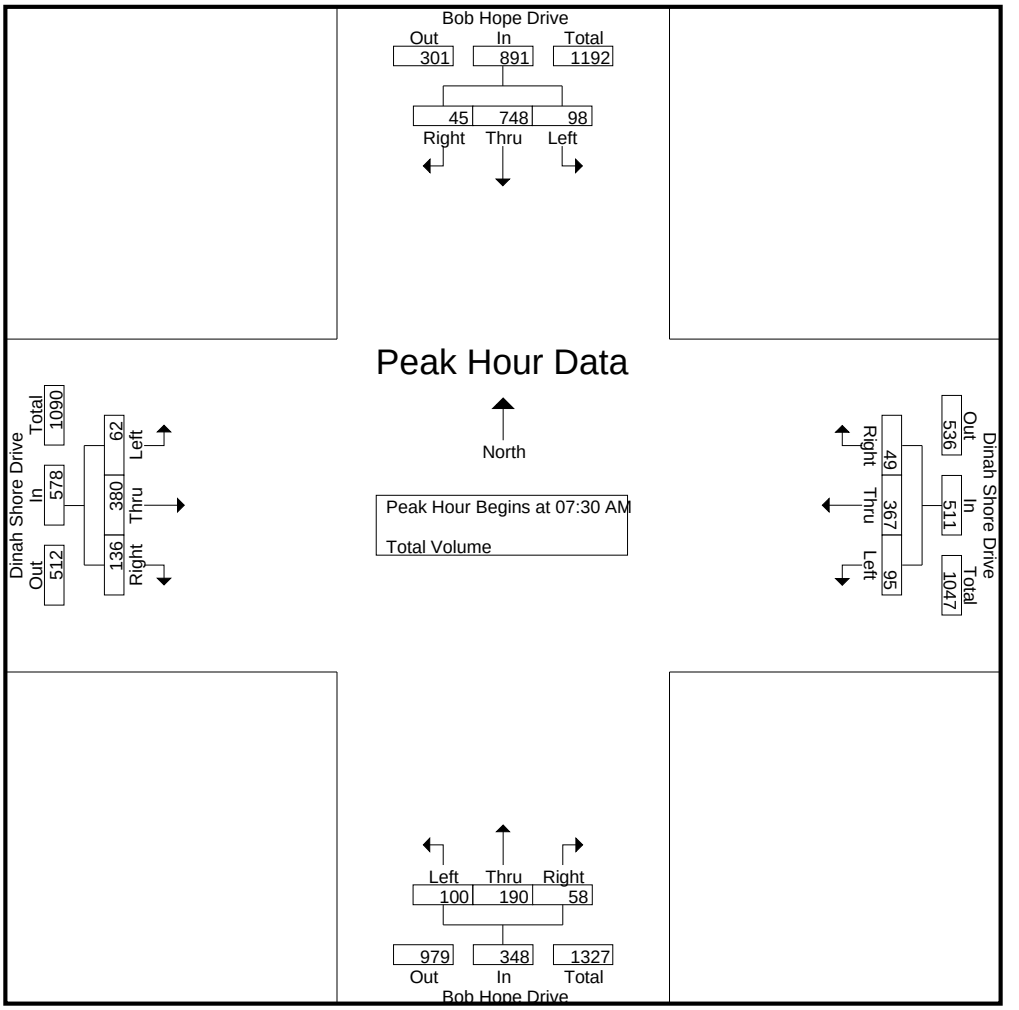

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:15 AM				08:00 AM				07:30 AM			
+0 mins.	19	199	12	230	12	95	9	116	25	46	15	86	13	103	29	145
+15 mins.	**32**	**237**	**18**	**287**	21	101	6	128	25	41	17	83	**19**	**110**	30	**159**
+30 mins.	21	160	9	190	**31**	**118**	**14**	**163**	23	54	18	95	15	84	**46**	145
+45 mins.	26	152	6	184	29	76	13	118	**26**	**66**	**26**	**118**	15	83	31	129
Total Volume	98	748	45	891	93	390	42	525	99	207	76	382	62	380	136	578
% App. Total	11	84	5.1		17.7	74.3	8		25.9	54.2	19.9		10.7	65.7	23.5	
PHF	.766	.789	.625	.776	.750	.826	.750	.805	.952	.784	.731	.809	.816	.864	.739	.909

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City of Rancho Mirage
N/S: Bob Hope Drive
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Weather: Sunny

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Groups Printed- Total Volume

	Bob Hope Drive Southbound				Dinah Shore Drive Westbound				Bob Hope Drive Northbound				Dinah Shore Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	22	101	9	132	38	130	44	212	49	127	44	220	17	109	24	150	714
04:15 PM	15	97	11	123	28	141	40	209	48	131	45	224	11	87	33	131	687
04:30 PM	17	91	16	124	25	143	36	204	52	117	52	221	22	138	29	189	738
04:45 PM	28	105	9	142	32	131	35	198	53	125	36	214	12	123	24	159	713
Total	82	394	45	521	123	545	155	823	202	500	177	879	62	457	110	629	2852
05:00 PM	20	77	18	115	27	123	57	207	51	167	38	256	18	121	35	174	752
05:15 PM	22	93	20	135	21	180	43	244	56	196	47	299	16	144	29	189	867
05:30 PM	18	75	5	98	26	135	42	203	41	146	24	211	24	116	33	173	685
05:45 PM	29	74	9	112	20	103	42	165	34	108	34	176	13	90	29	132	585
Total	89	319	52	460	94	541	184	819	182	617	143	942	71	471	126	668	2889
Grand Total	171	713	97	981	217	1086	339	1642	384	1117	320	1821	133	928	236	1297	5741
Apprch %	17.4	72.7	9.9		13.2	66.1	20.6		21.1	61.3	17.6		10.3	71.5	18.2		
Total %	3	12.4	1.7	17.1	3.8	18.9	5.9	28.6	6.7	19.5	5.6	31.7	2.3	16.2	4.1	22.6	

	Bob Hope Drive Southbound				Dinah Shore Drive Westbound				Bob Hope Drive Northbound				Dinah Shore Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	17	91	16	124	25	143	36	204	52	117	**52**	221	**22**	138	29	**189**	738
04:45 PM	**28**	**105**	9	**142**	**32**	131	35	198	53	125	36	214	12	123	24	159	713
05:00 PM	20	77	18	115	27	123	**57**	207	51	167	38	256	18	121	**35**	174	752
05:15 PM	22	93	**20**	135	21	**180**	43	**244**	**56**	**196**	47	**299**	16	**144**	29	189	**867**
Total Volume	87	366	63	516	105	577	171	853	212	605	173	990	68	526	117	711	3070
% App. Total	16.9	70.9	12.2		12.3	67.6	20		21.4	61.1	17.5		9.6	74	16.5		
PHF	.777	.871	.788	.908	.820	.801	.750	.874	.946	.772	.832	.828	.773	.913	.836	.940	.885

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City of Rancho Mirage
N/S: Bob Hope Drive
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File Name : RNMBHDSPM
Site Code : 00913453
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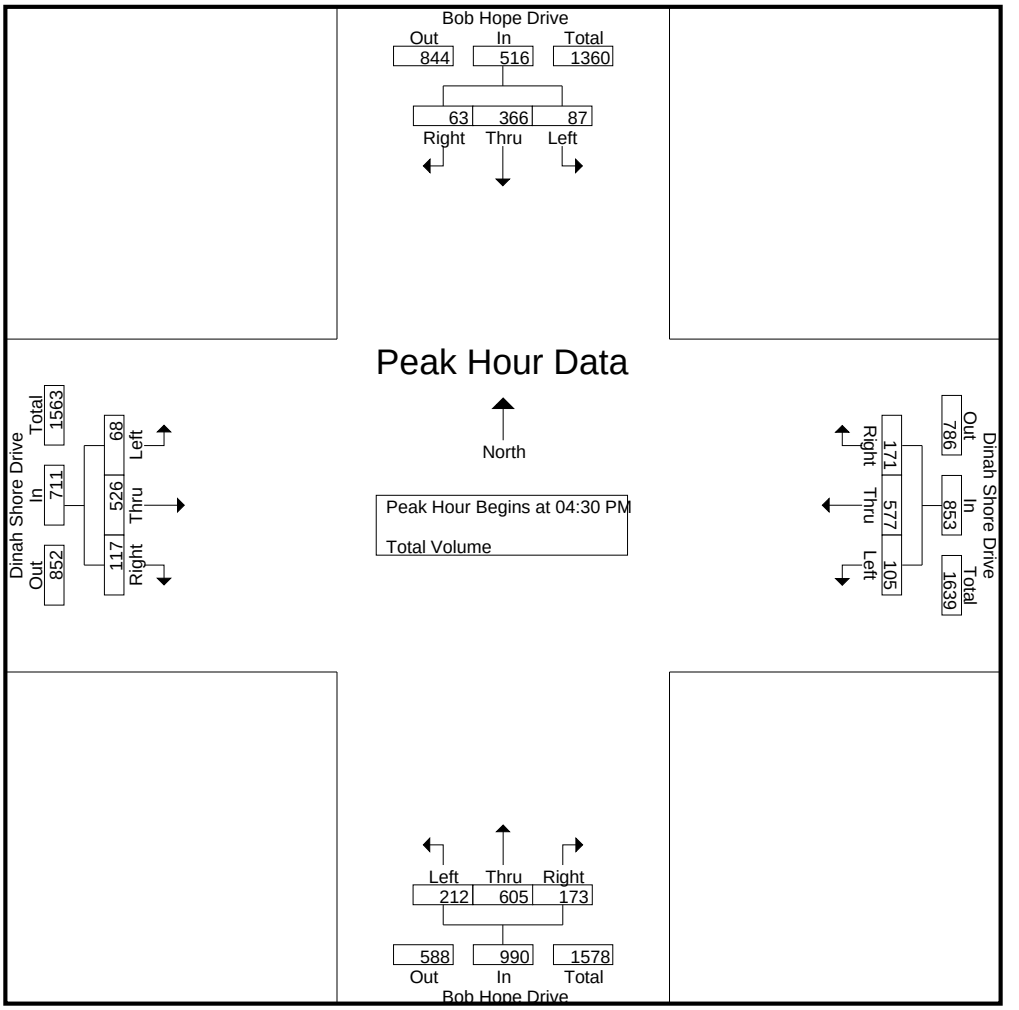

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	22	101	9	132	25	143	36	204	52	117	**52**	221	**22**	138	29	**189**
+15 mins.	15	97	11	123	**32**	131	35	198	53	125	36	214	12	123	24	159
+30 mins.	17	91	**16**	124	27	123	**57**	207	51	167	38	256	18	121	**35**	174
+45 mins.	**28**	**105**	9	**142**	21	**180**	43	**244**	**56**	**196**	47	**299**	16	**144**	29	189
Total Volume	82	394	45	521	105	577	171	853	212	605	173	990	68	526	117	711
% App. Total	15.7	75.6	8.6		12.3	67.6	20		21.4	61.1	17.5		9.6	74	16.5	
PHF	.732	.938	.703	.917	.820	.801	.750	.874	.946	.772	.832	.828	.773	.913	.836	.940

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City of Rancho Mirage
N/S: Key Largo
E/W: Dinah Shore Drive
Weather: Sunny

File Name : RNMKLDSAM
Site Code : 00913453
Start Date : 11/6/2013
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Groups Printed- Total Volume

	Southbound				Dinah Shore Drive Westbound				Key Largo Northbound				Dinah Shore Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	10	111	0	121	0	0	6	6	1	69	4	74	201
07:15 AM	0	0	0	0	5	120	0	125	2	0	7	9	0	99	3	102	236
07:30 AM	0	0	0	0	12	122	0	134	1	0	10	11	0	126	2	128	273
07:45 AM	0	0	0	0	14	141	0	155	2	0	9	11	0	132	3	135	301
Total	0	0	0	0	41	494	0	535	5	0	32	37	1	426	12	439	1011
08:00 AM	0	0	0	0	14	104	0	118	1	0	7	8	0	98	4	102	228
08:15 AM	0	0	0	0	12	114	0	126	1	0	4	5	0	119	7	126	257
08:30 AM	0	0	0	0	14	112	0	126	3	0	10	13	0	145	5	150	289
08:45 AM	0	0	0	0	18	118	0	136	2	0	7	9	0	118	5	123	268
Total	0	0	0	0	58	448	0	506	7	0	28	35	0	480	21	501	1042
Grand Total	0	0	0	0	99	942	0	1041	12	0	60	72	1	906	33	940	2053
Apprch %	0	0	0		9.5	90.5	0		16.7	0	83.3		0.1	96.4	3.5		
Total %	0	0	0	0	4.8	45.9	0	50.7	0.6	0	2.9	3.5	0	44.1	1.6	45.8	

	Southbound				Dinah Shore Drive Westbound				Key Largo Northbound				Dinah Shore Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	**14**	**141**	0	**155**	2	0	9	11	0	132	3	135	**301**
08:00 AM	0	0	0	0	14	104	0	118	1	0	7	8	0	98	4	102	228
08:15 AM	0	0	0	0	12	114	0	126	1	0	4	5	0	119	**7**	126	257
08:30 AM	0	0	0	0	14	112	0	126	**3**	0	**10**	**13**	0	**145**	5	**150**	289
Total Volume	0	0	0	0	54	471	0	525	7	0	30	37	0	494	19	513	1075
% App. Total	0	0	0		10.3	89.7	0		18.9	0	81.1		0	96.3	3.7		
PHF	.000	.000	.000	.000	.964	.835	.000	.847	.583	.000	.750	.712	.000	.852	.679	.855	.893

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City of Rancho Mirage
N/S: Key Largo
E/W: Dinah Shore Drive
Weather: Sunny

File Name : RNMKLDSAM
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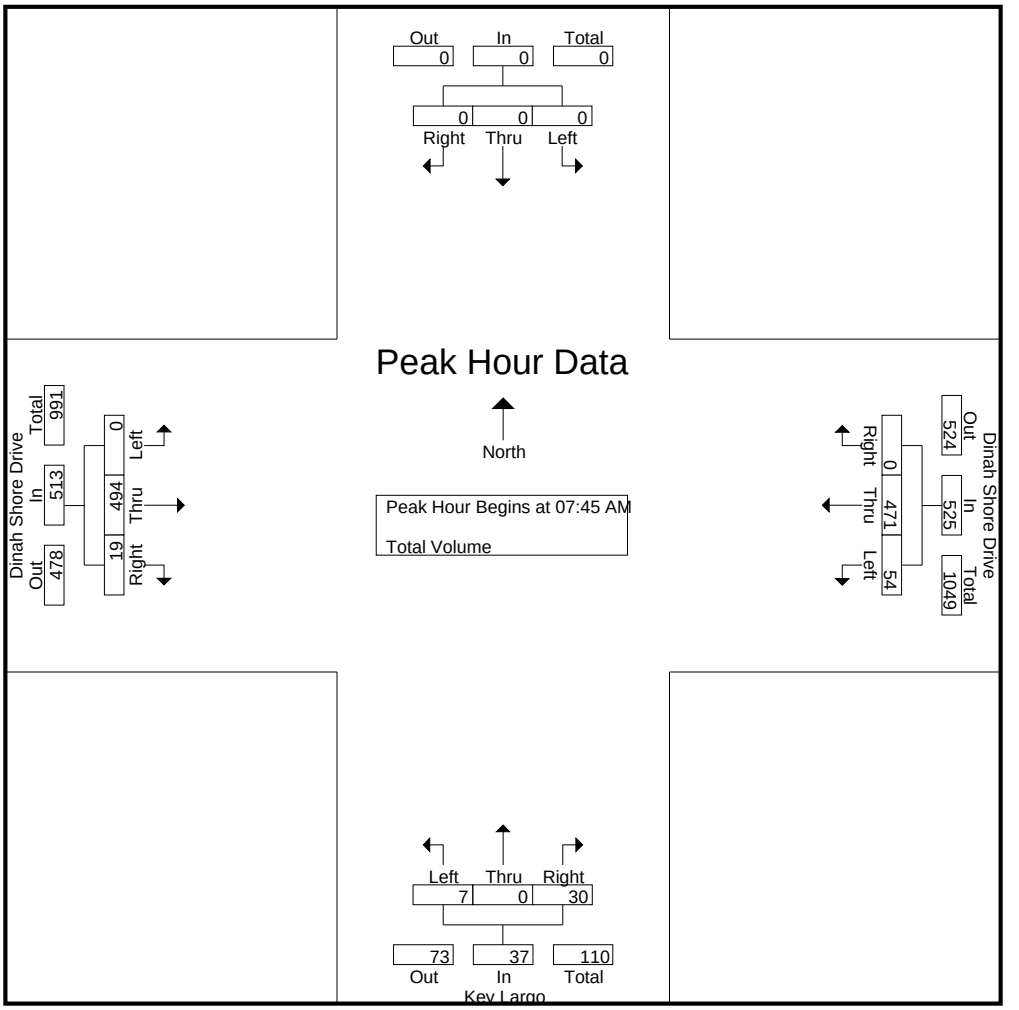

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:15 AM				07:45 AM			
+0 mins.	0	0	0	0	10	111	0	121	**2**	0	7	9	0	132	3	135
+15 mins.	0	0	0	0	5	120	0	125	1	0	**10**	**11**	0	98	4	102
+30 mins.	0	0	0	0	12	122	0	134	2	0	9	11	0	119	**7**	126
+45 mins.	0	0	0	0	**14**	**141**	0	**155**	1	0	7	8	0	**145**	5	**150**
Total Volume	0	0	0	0	41	494	0	535	6	0	33	39	0	494	19	513
% App. Total	0	0	0		7.7	92.3	0		15.4	0	84.6		0	96.3	3.7	
PHF	.000	.000	.000	.000	.732	.876	.000	.863	.750	.000	.825	.886	.000	.852	.679	.855

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City of Rancho Mirage
N/S: Key Largo
E/W: Dinah Shore Drive
Weather: Sunny

File Name : RNMKLDSPM
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Groups Printed- Total Volume

	Southbound				Dinah Shore Drive Westbound				Key Largo Northbound				Dinah Shore Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	9	223	0	232	0	0	14	14	1	185	2	188	434
04:15 PM	0	0	0	0	9	215	0	224	2	0	8	10	1	157	3	161	395
04:30 PM	0	0	0	0	6	204	0	210	0	0	6	6	1	206	3	210	426
04:45 PM	0	0	0	0	11	203	0	214	0	0	7	7	1	183	1	185	406
Total	0	0	0	0	35	845	0	880	2	0	35	37	4	731	9	744	1661
05:00 PM	0	0	0	0	5	219	0	224	1	0	25	26	1	170	6	177	427
05:15 PM	0	0	0	0	4	228	0	232	0	0	6	6	1	203	0	204	442
05:30 PM	0	0	0	0	6	204	0	210	0	0	4	4	0	168	2	170	384
05:45 PM	0	0	0	0	1	187	0	188	0	0	0	0	0	159	0	159	347
Total	0	0	0	0	16	838	0	854	1	0	35	36	2	700	8	710	1600
Grand Total	0	0	0	0	51	1683	0	1734	3	0	70	73	6	1431	17	1454	3261
Apprch %	0	0	0		2.9	97.1	0		4.1	0	95.9		0.4	98.4	1.2		
Total %	0	0	0	0	1.6	51.6	0	53.2	0.1	0	2.1	2.2	0.2	43.9	0.5	44.6	

	Southbound				Dinah Shore Drive Westbound				Key Largo Northbound				Dinah Shore Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	6	204	0	210	0	0	6	6	**1**	**206**	3	**210**	426
04:45 PM	0	0	0	0	**11**	203	0	214	0	0	7	7	1	183	1	185	406
05:00 PM	0	0	0	0	5	219	0	224	**1**	0	**25**	**26**	1	170	**6**	177	427
05:15 PM	0	0	0	0	4	**228**	0	**232**	0	0	6	6	1	203	0	204	**442**
Total Volume	0	0	0	0	26	854	0	880	1	0	44	45	4	762	10	776	1701
% App. Total	0	0	0		3	97	0		2.2	0	97.8		0.5	98.2	1.3		
PHF	.000	.000	.000	.000	.591	.936	.000	.948	.250	.000	.440	.433	1.00	.925	.417	.924	.962

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City of Rancho Mirage
N/S: Key Largo
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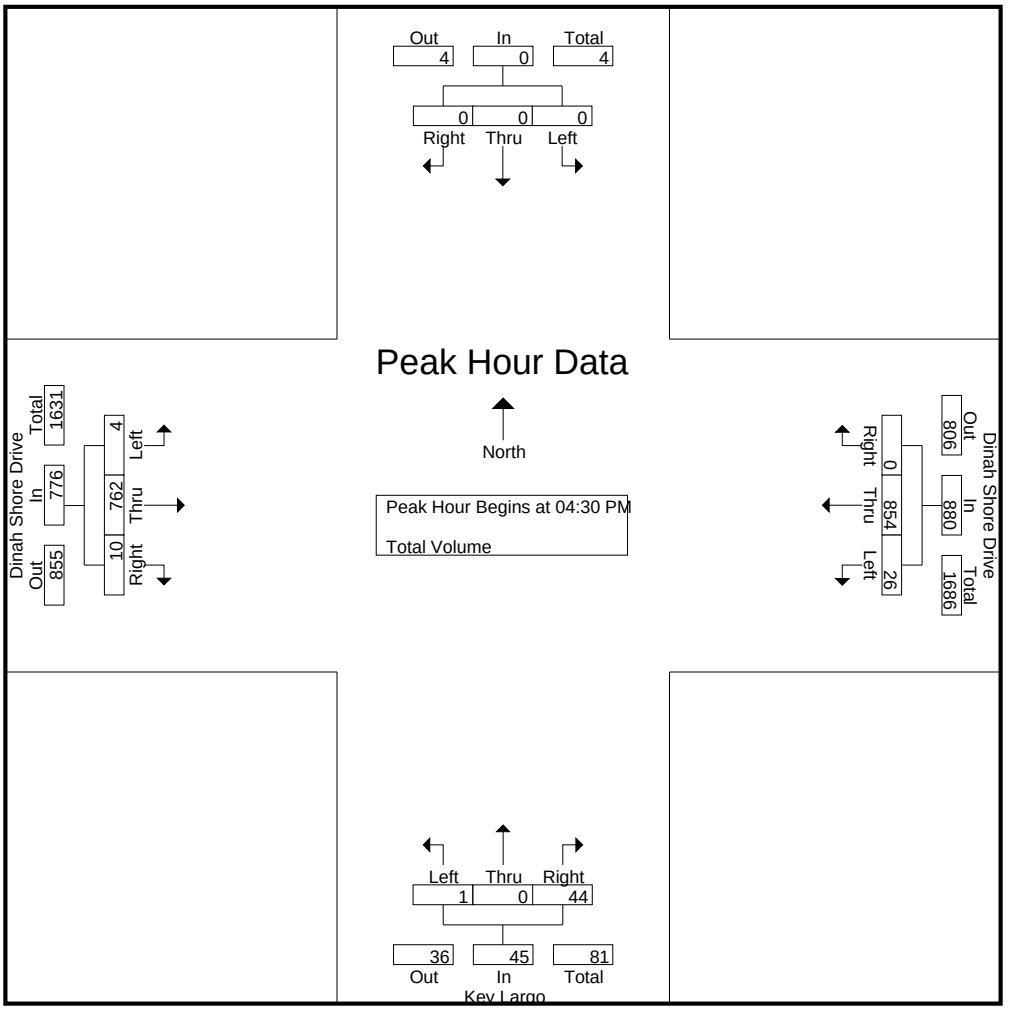

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:15 PM				04:30 PM			
+0 mins.	0	0	0	0	9	**223**	0	**232**	**2**	0	8	10	**1**	**206**	3	**210**
+15 mins.	0	0	0	0	9	215	0	224	0	0	6	6	1	183	1	185
+30 mins.	0	0	0	0	6	204	0	210	0	0	7	7	1	170	**6**	177
+45 mins.	0	0	0	0	**11**	203	0	214	1	0	**25**	**26**	1	203	0	204
Total Volume	0	0	0	0	35	845	0	880	3	0	46	49	4	762	10	776
% App. Total	0	0	0		4	96	0		6.1	0	93.9		0.5	98.2	1.3	
PHF	.000	.000	.000	.000	.795	.947	.000	.948	.375	.000	.460	.471	1.000	.925	.417	.924

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City of Rancho Mirage
N/S: Monterey Avenue
E/W: Dinah Shore Drive
Weather: Sunny

File Name : RNMMODSAM
Site Code : 00913453
Start Date : 11/6/2013
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Groups Printed- Total Volume

	Monterey Avenue Southbound				Dinah Shore Drive Westbound				Monterey Avenue Northbound				Dinah Shore Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	84	220	76	380	6	29	45	80	20	86	4	110	46	30	17	93	663
07:15 AM	80	249	90	419	10	38	47	95	19	91	2	112	55	48	14	117	743
07:30 AM	113	345	110	568	7	47	55	109	17	83	3	103	84	43	27	154	934
07:45 AM	106	396	128	630	9	37	61	107	43	108	3	154	71	77	38	186	1077
Total	383	1210	404	1997	32	151	208	391	99	368	12	479	256	198	96	550	3417
08:00 AM	76	285	93	454	5	35	61	101	23	116	3	142	54	50	26	130	827
08:15 AM	56	211	94	361	15	26	70	111	29	106	7	142	74	51	35	160	774
08:30 AM	79	314	74	467	10	54	37	101	43	105	7	155	77	44	42	163	886
08:45 AM	62	278	107	447	9	53	44	106	53	120	5	178	68	52	45	165	896
Total	273	1088	368	1729	39	168	212	419	148	447	22	617	273	197	148	618	3383
Grand Total	656	2298	772	3726	71	319	420	810	247	815	34	1096	529	395	244	1168	6800
Apprch %	17.6	61.7	20.7		8.8	39.4	51.9		22.5	74.4	3.1		45.3	33.8	20.9		
Total %	9.6	33.8	11.4	54.8	1	4.7	6.2	11.9	3.6	12	0.5	16.1	7.8	5.8	3.6	17.2	

	Monterey Avenue Southbound				Dinah Shore Drive Westbound				Monterey Avenue Northbound				Dinah Shore Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	**113**	345	110	568	7	**47**	55	109	17	83	3	103	**84**	43	27	154	934
07:45 AM	106	**396**	**128**	**630**	9	37	61	107	**43**	108	3	**154**	71	**77**	**38**	**186**	**1077**
08:00 AM	76	285	93	454	5	35	61	101	23	**116**	3	142	54	50	26	130	827
08:15 AM	56	211	94	361	**15**	26	**70**	**111**	29	106	**7**	142	74	51	35	160	774
Total Volume	351	1237	425	2013	36	145	247	428	112	413	16	541	283	221	126	630	3612
% App. Total	17.4	61.5	21.1		8.4	33.9	57.7		20.7	76.3	3		44.9	35.1	20		
PHF	.777	.781	.830	.799	.600	.771	.882	.964	.651	.890	.571	.878	.842	.718	.829	.847	.838

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File Name : RNMMODSAM
Site Code : 00913453
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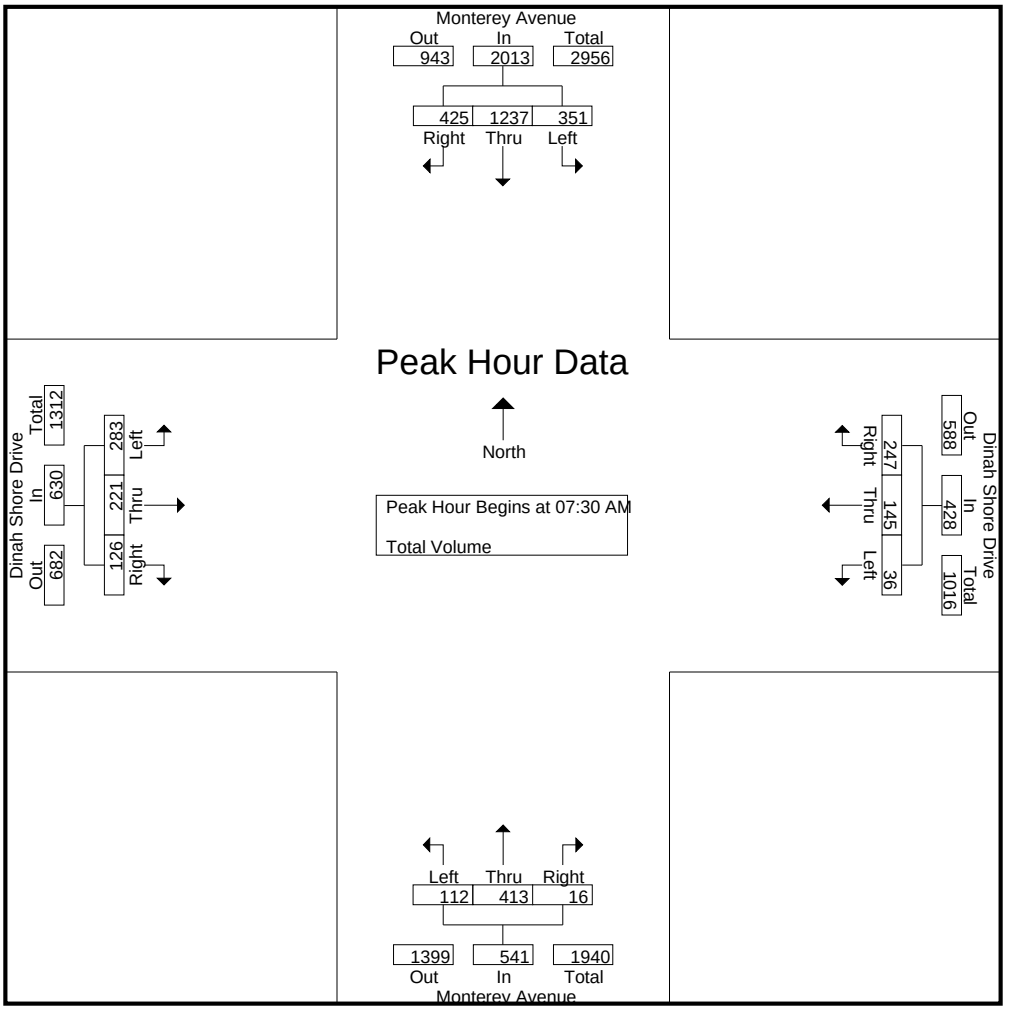

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:30 AM				08:00 AM				07:45 AM			
+0 mins.	80	249	90	419	7	**47**	55	109	23	116	3	142	71	**77**	38	**186**
+15 mins.	**113**	345	110	568	9	37	61	107	29	106	**7**	142	54	50	26	130
+30 mins.	106	**396**	**128**	**630**	5	35	61	101	43	105	7	155	74	51	35	160
+45 mins.	76	285	93	454	**15**	26	**70**	**111**	**53**	**120**	5	**178**	**77**	44	**42**	163
Total Volume	375	1275	421	2071	36	145	247	428	148	447	22	617	276	222	141	639
% App. Total	18.1	61.6	20.3		8.4	33.9	57.7		24	72.4	3.6		43.2	34.7	22.1	
PHF	.830	.805	.822	.822	.600	.771	.882	.964	.698	.931	.786	.867	.896	.721	.839	.859

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File Name : RNMMODSPM
Site Code : 00913453
Start Date : 11/6/2013
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Groups Printed- Total Volume

	Monterey Avenue Southbound				Dinah Shore Drive Westbound				Monterey Avenue Northbound				Dinah Shore Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	52	175	101	328	11	99	128	238	83	246	2	331	150	55	65	270	1167
04:15 PM	76	183	131	390	8	71	110	189	112	275	9	396	159	60	68	287	1262
04:30 PM	63	210	128	401	8	87	132	227	62	265	9	336	178	56	89	323	1287
04:45 PM	57	192	120	369	9	69	106	184	80	228	2	310	160	83	90	333	1196
Total	248	760	480	1488	36	326	476	838	337	1014	22	1373	647	254	312	1213	4912
05:00 PM	44	180	93	317	6	91	108	205	109	298	4	411	164	58	84	306	1239
05:15 PM	84	154	150	388	10	72	98	180	118	272	8	398	180	73	90	343	1309
05:30 PM	65	199	117	381	6	85	86	177	78	226	7	311	127	59	71	257	1126
05:45 PM	62	134	85	281	10	55	86	151	78	198	8	284	128	52	54	234	950
Total	255	667	445	1367	32	303	378	713	383	994	27	1404	599	242	299	1140	4624
Grand Total	503	1427	925	2855	68	629	854	1551	720	2008	49	2777	1246	496	611	2353	9536
Apprch %	17.6	50	32.4		4.4	40.6	55.1		25.9	72.3	1.8		53	21.1	26		
Total %	5.3	15	9.7	29.9	0.7	6.6	9	16.3	7.6	21.1	0.5	29.1	13.1	5.2	6.4	24.7	

	Monterey Avenue Southbound				Dinah Shore Drive Westbound				Monterey Avenue Northbound				Dinah Shore Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	63	**210**	128	**401**	8	87	**132**	**227**	62	265	**9**	336	178	56	89	323	1287
04:45 PM	57	192	120	369	9	69	106	184	80	228	2	310	160	**83**	**90**	333	1196
05:00 PM	44	180	93	317	6	**91**	108	205	109	**298**	4	**411**	164	58	84	306	1239
05:15 PM	**84**	154	**150**	388	**10**	72	98	180	**118**	272	8	398	**180**	73	90	**343**	**1309**
Total Volume	248	736	491	1475	33	319	444	796	369	1063	23	1455	682	270	353	1305	5031
% App. Total	16.8	49.9	33.3		4.1	40.1	55.8		25.4	73.1	1.6		52.3	20.7	27		
PHF	.738	.876	.818	.920	.825	.876	.841	.877	.782	.892	.639	.885	.947	.813	.981	.951	.961

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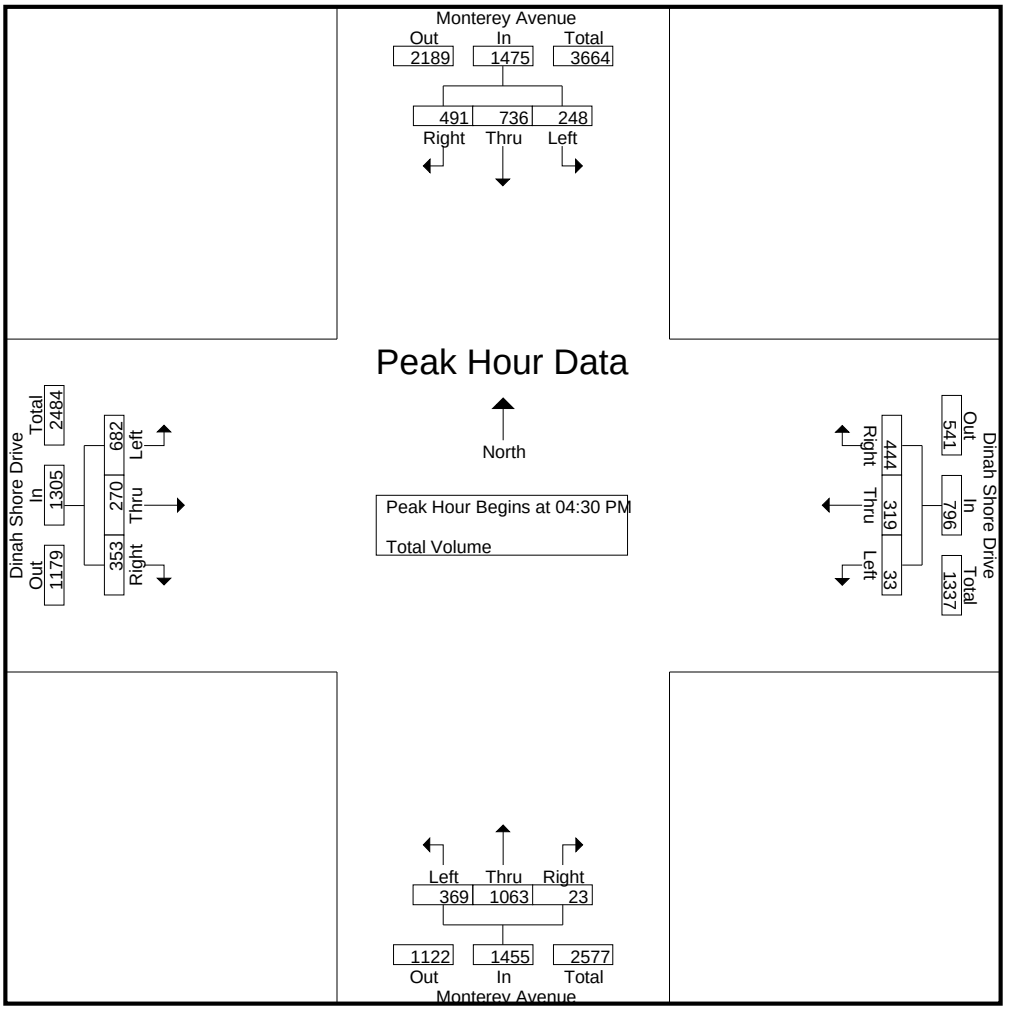

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:30 PM				04:30 PM			
+0 mins.	52	175	101	328	**11**	**99**	128	**238**	62	265	**9**	336	178	56	89	323
+15 mins.	**76**	183	**131**	390	8	71	110	189	80	228	2	310	160	**83**	**90**	333
+30 mins.	63	**210**	128	**401**	8	87	**132**	227	109	**298**	4	**411**	164	58	84	306
+45 mins.	57	192	120	369	9	69	106	184	**118**	272	8	398	**180**	73	90	**343**
Total Volume	248	760	480	1488	36	326	476	838	369	1063	23	1455	682	270	353	1305
% App. Total	16.7	51.1	32.3		4.3	38.9	56.8		25.4	73.1	1.6		52.3	20.7	27	
PHF	.816	.905	.916	.928	.818	.823	.902	.880	.782	.892	.639	.885	.947	.813	.981	.951

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City of Rancho Mirage
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E/W: Gerald Ford Drive
Weather: Sunny

File Name : RNMBHGFAM
Site Code : 00001111
Start Date : 11/6/2013
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Groups Printed- Total Volume

	Bob Hope Drive Southbound				Gerald Ford Drive Westbound				Bob Hope Drive Northbound				Gerald Ford Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	5	101	9	115	13	67	7	87	5	53	4	62	12	64	10	86	350
07:15 AM	12	131	12	155	20	84	9	113	13	55	2	70	20	100	33	153	491
07:30 AM	6	203	14	223	72	110	11	193	11	50	3	64	16	117	36	169	649
07:45 AM	22	235	25	282	35	102	17	154	21	61	9	91	28	109	33	170	697
Total	45	670	60	775	140	363	44	547	50	219	18	287	76	390	112	578	2187
08:00 AM	21	104	21	146	30	83	14	127	18	51	7	76	20	64	30	114	463
08:15 AM	11	179	19	209	26	77	7	110	9	71	4	84	44	84	28	156	559
08:30 AM	24	154	16	194	29	69	19	117	16	84	11	111	33	96	41	170	592
08:45 AM	16	159	14	189	36	79	25	140	8	41	2	51	12	64	19	95	475
Total	72	596	70	738	121	308	65	494	51	247	24	322	109	308	118	535	2089
Grand Total	117	1266	130	1513	261	671	109	1041	101	466	42	609	185	698	230	1113	4276
Apprch %	7.7	83.7	8.6		25.1	64.5	10.5		16.6	76.5	6.9		16.6	62.7	20.7		
Total %	2.7	29.6	3	35.4	6.1	15.7	2.5	24.3	2.4	10.9	1	14.2	4.3	16.3	5.4	26	

	Bob Hope Drive Southbound				Gerald Ford Drive Westbound				Bob Hope Drive Northbound				Gerald Ford Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	6	203	14	223	**72**	**110**	11	**193**	11	50	3	64	16	**117**	**36**	169	649
07:45 AM	**22**	**235**	**25**	**282**	35	102	**17**	154	**21**	61	**9**	**91**	28	109	33	**170**	**697**
08:00 AM	21	104	21	146	30	83	14	127	18	51	7	76	20	64	30	114	463
08:15 AM	11	179	19	209	26	77	7	110	9	**71**	4	84	**44**	84	28	156	559
Total Volume	60	721	79	860	163	372	49	584	59	233	23	315	108	374	127	609	2368
% App. Total	7	83.8	9.2		27.9	63.7	8.4		18.7	74	7.3		17.7	61.4	20.9		
PHF	.682	.767	.790	.762	.566	.845	.721	.756	.702	.820	.639	.865	.614	.799	.882	.896	.849

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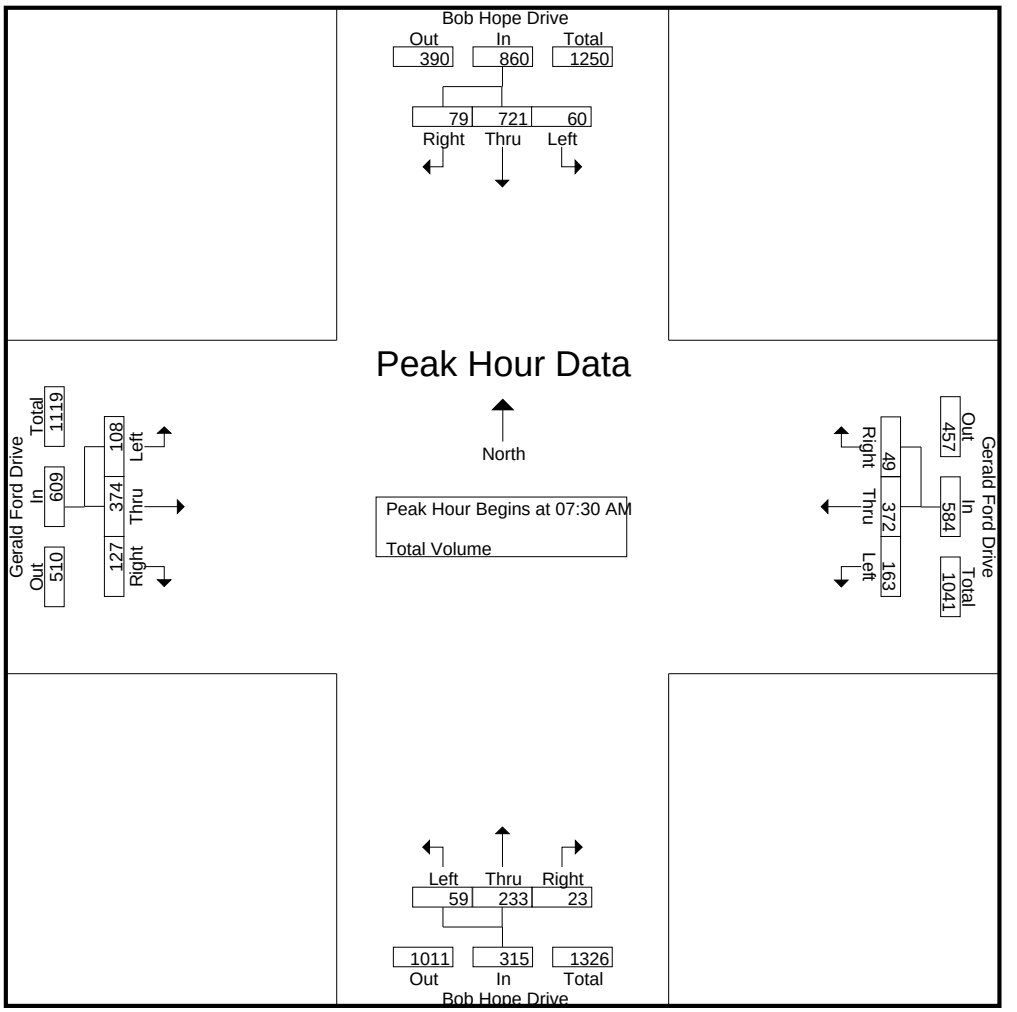

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:15 AM				07:45 AM				07:45 AM			
+0 mins.	6	203	14	223	20	84	9	113	**21**	61	9	91	28	**109**	33	**170**
+15 mins.	**22**	**235**	**25**	**282**	**72**	**110**	11	**193**	18	51	7	76	20	64	30	114
+30 mins.	21	104	21	146	35	102	**17**	154	9	71	4	84	**44**	84	28	156
+45 mins.	11	179	19	209	30	83	14	127	16	**84**	**11**	**111**	33	96	**41**	170
Total Volume	60	721	79	860	157	379	51	587	64	267	31	362	125	353	132	610
% App. Total	7	83.8	9.2		26.7	64.6	8.7		17.7	73.8	8.6		20.5	57.9	21.6	
PHF	.682	.767	.790	.762	.545	.861	.750	.760	.762	.795	.705	.815	.710	.810	.805	.897

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File Name : RNMBHGFPM
Site Code : 00001111
Start Date : 11/6/2013
Page No : 1

Groups Printed- Total Volume

	Bob Hope Drive Southbound				Gerald Ford Drive Westbound				Bob Hope Drive Northbound				Gerald Ford Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	25	113	19	157	26	63	17	106	33	160	12	205	42	94	34	170	638
04:15 PM	15	128	20	163	23	85	13	121	28	159	11	198	34	84	24	142	624
04:30 PM	15	116	26	157	20	96	10	126	38	164	25	227	43	102	27	172	682
04:45 PM	12	137	16	165	28	95	7	130	24	142	11	177	49	109	27	185	657
Total	67	494	81	642	97	339	47	483	123	625	59	807	168	389	112	669	2601
05:00 PM	16	103	15	134	18	96	17	131	51	192	21	264	38	112	21	171	700
05:15 PM	12	112	16	140	18	96	19	133	33	180	19	232	25	114	17	156	661
05:30 PM	8	121	16	145	16	93	17	126	17	135	18	170	41	97	24	162	603
05:45 PM	9	102	12	123	16	70	5	91	17	118	9	144	38	74	19	131	489
Total	45	438	59	542	68	355	58	481	118	625	67	810	142	397	81	620	2453
Grand Total	112	932	140	1184	165	694	105	964	241	1250	126	1617	310	786	193	1289	5054
Apprch %	9.5	78.7	11.8		17.1	72	10.9		14.9	77.3	7.8		24	61	15		
Total %	2.2	18.4	2.8	23.4	3.3	13.7	2.1	19.1	4.8	24.7	2.5	32	6.1	15.6	3.8	25.5	

	Bob Hope Drive Southbound				Gerald Ford Drive Westbound				Bob Hope Drive Northbound				Gerald Ford Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	15	116	**26**	157	20	**96**	10	126	38	164	**25**	227	43	102	**27**	172	682
04:45 PM	12	**137**	16	**165**	**28**	95	7	130	24	142	11	177	**49**	109	27	**185**	657
05:00 PM	**16**	103	15	134	18	96	17	131	**51**	**192**	21	**264**	38	112	21	171	**700**
05:15 PM	12	112	16	140	18	96	**19**	**133**	33	180	19	232	25	**114**	17	156	661
Total Volume	55	468	73	596	84	383	53	520	146	678	76	900	155	437	92	684	2700
% App. Total	9.2	78.5	12.2		16.2	73.7	10.2		16.2	75.3	8.4		22.7	63.9	13.5		
PHF	.859	.854	.702	.903	.750	.997	.697	.977	.716	.883	.760	.852	.791	.958	.852	.924	.964

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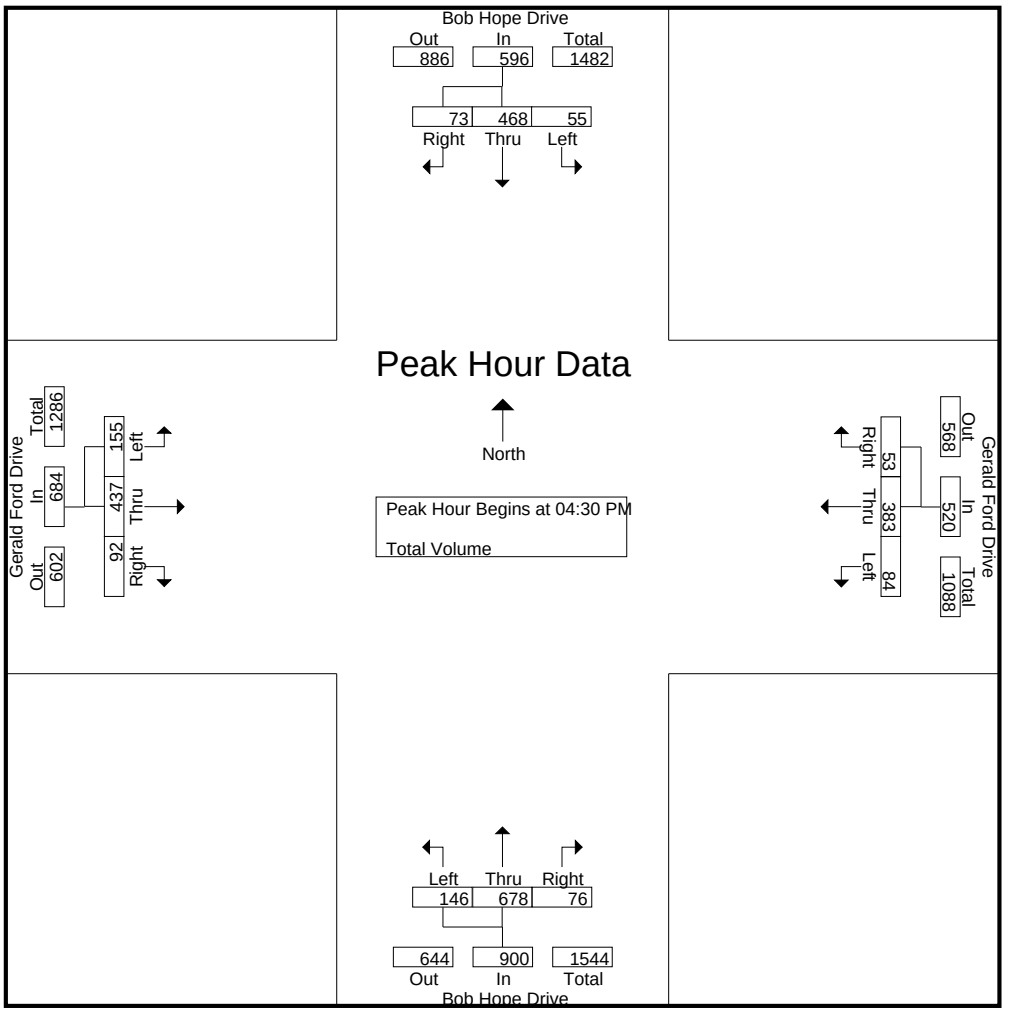


Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	**25**	113	19	157	20	**96**	10	126	38	164	**25**	227	43	102	**27**	172
+15 mins.	15	128	20	163	**28**	95	7	130	24	142	11	177	**49**	109	27	**185**
+30 mins.	15	116	**26**	157	18	96	17	131	**51**	**192**	21	**264**	38	112	21	171
+45 mins.	12	**137**	16	**165**	18	96	**19**	**133**	33	180	19	232	25	**114**	17	156
Total Volume	67	494	81	642	84	383	53	520	146	678	76	900	155	437	92	684
% App. Total	10.4	76.9	12.6		16.2	73.7	10.2		16.2	75.3	8.4		22.7	63.9	13.5	
PHF	.670	.901	.779	.973	.750	.997	.697	.977	.716	.883	.760	.852	.791	.958	.852	.924

Appendix 2

RIVTAM TAZ MAP
MODIFICATIONS TO RIVTAM
SOCIOECONOMIC DATA

Figure 2
RIVTAM TAZ Locations

Endo Engineering

Scale: 1" = 3,800'

Appendix 2
RIVTAM Modifications

RIVTAM Circulation Network Prior To Modifications

The extension of Bob Hope Drive, north of Ramon Road to Varner Road, and the construction of a new diamond interchange at Interstate 10 were completed in 2012. The RIVTAM network reflected this improvement. Bob Hope Drive, from Dinah Shore Drive northward, was upgraded from its Minor Arterial (four-lane divided) classification to a Major Arterial (six-lane divided) classification. The RIVTAM network incorporated this change.

Dinah Shore Drive, between Bob Hope Drive and Los Alamos Road, was upgraded from its Minor Arterial (four-lane divided) classification to a Major Arterial (six-lane divided) classification in the *Rancho Mirage 2005 General Plan*. This reclassification was included in RIVTAM.

Although Key Largo Avenue was extended north of Dinah Shore Drive and over Interstate 10 to Ramon Road as a four-lane divided Minor Arterial in the *Rancho Mirage 2005 General Plan,* it was not in the RIVTAM street network. Although a new east/west four-lane divided Minor Arterial was added to the *Rancho Mirage 2005 General Plan* north of Dinah Shore Drive, between Bob Hope Drive and Key Largo Avenue ("B Street" in the Section 19 Specific Plan) this new roadway was not included in RIVTAM.

Modifications Incorporated in RIVTAM

Los Alamos Road was deleted from RIVTAM between Dinah Shore Drive and Gerald Ford Drive but retained adjacent to the western boundary of Section 24. The existing Westin Mission Hills Golf Resort and the Mission Hills Country Club development would preclude the construction of Los Alamos Road, south of Dinah Shore Drive.

Dinah Shore Drive was downgraded from a six-lane divided to a four-lane divided facility, between Bob Hope Drive and Los Alamos Road. This change was made to quantify the future traffic projections for parallel facilities to identify appropriate mitigation for any significant impacts that might result from downgrading Dinah Shore Drive.

The Agua Caliente Casino was moved from west of Bob Hope Drive to east of Bob Hope Drive. The Rancho Mirage High School was added north of Ramon Road, between Los Alamos Road and Da Vall Drive, with a year 2035 enrollment of 2000 assumed. The data for the project site were replaced with SED reflecting the ultimate maximum development intensity/density that would be allowed by the proposed Section 24 Specific Plan. The nodal connectors within the project site were modified to more accurately reflect the proposed internal circulation and site access plan.

Through coordination with AFSHA Consulting, Inc., the socioeconomic data in RIVTAM for TAZ 4637 were replaced with data reflecting buildout of the proposed land uses within the Section 24 Specific Plan. The new SED assumed for TAZ 4637 included 2,406 households, a population of 4,331, and a total employment of 6,277 for buildout with the proposed project. The SED for the 1,200 senior adult dwelling units were adjusted to reflect the age-restricted housing for active adults proposed by increasing the assumed age of the homeowner and assuming that nearly one-half of the occupants would be retired. The SED for the 3,138,600 square feet of non-residential building area associated with the proposed project was converted to employment by assuming the employment density factor used in RIVTAM for areas designated C-R and C-T (500 square feet of building area per employee). This factor was also assumed for the Riverside County Integrated Project (RCIP) modeling.

RIVTAM Socioeconomic Data for Section 24

Project	POP	RES	HH	GN	HHSize_1	HHSize_2	HHSize_3	HHSize_4plu	HHSize_4E	age5_17	age18_24	age 25_64	age65_over	ho18_24	ho25_44	ho45_64	ho65_over
Alt 3	4331	4331	2406	0	1203	674	349	180	162	234	65	1832	2200	38	383	658	1327
															917	509	407

HH_w0	HH_w1	HH_w2	HH_w3	K12	COLLEGE	median	HO<$25k	median25k	25k<HO<$5(	median25_50	0k<HO<$10	nedian50_10	HO>$100k	median_100	LINC_WRK	MINC_WRK	HINC_WRK
1140	804	404	58	0	0	57357	673	13890	626	41077	673	83142	434	165011	910	505	404

Tot_emp	TotLow_emp	TotMed_emp	TotHig_emp	Ag_emp	Const_emp	Manu_emp	Whole_emp	Ret_emp	Trans_emp	Infor_emp	FIRE_emp	Prof_emp	Educ_emp	ArtEnt_emp	OthSer_emp	PubAdm_emp
6277	3444	1659	1174	0	0	0	0	2511	0	0	627	627	0	1256	1256	

DailyPark	HourlyPark	CBD	RSA
0	0	0	45

Appendix 3

HCM INTERSECTION ANALYSIS METHODOLOGY AND WORKSHEETS

Appendix 3
Highway Capacity Manual 2000 Methodology

Unsignalized Intersections

Some of the key intersections in the study area are unsignalized and controlled by stop signs on one or more of the approaches. Unsignalized intersections are typically categorized as either two-way stop-controlled (TWSC) or all-way stop-controlled (AWSC) intersections. At TWSC intersections, the approaches controlled by the stop sign are referred to as the minor street approaches. Minor street approaches can be either public streets or private driveways. The intersection approaches that are not controlled by stop signs are called the major street approaches.

To evaluate the ability of these intersections to serve traffic demands during peak hours, the capacity is determined for each minor approach movement and the left-turn movements from the major street onto the minor street, and then compared to the demand for each movement. The methodology utilized to determine the maximum capacity of the minor approach movements and the left turn onto the minor street (in passenger car equivalents per hour or PCPH) accounts for approach grade and speed, heavy vehicle mix, lane configuration, and type of traffic control. It allows the maximum potential capacity to be determined from the conflicting volumes and the critical gap associated with each type of vehicle maneuver. Once the capacity of each of the critical movements is calculated, the anticipated delay and the level of service for each of the intersection movements and each minor approach can be evaluated.

Typically, the movement with the longest average control delay or worst level or service defines the overall intersection evaluation; however, this may be tempered by engineering judgment, when conditions warrant it. Although the level of service is primarily related to the average control delay, which is given in terms of seconds of delay per vehicle by minor movement and intersection approach, other performance measures for TWSC and AWSC intersections include: delay to major street through vehicles, queue length, and volume-to-capacity ratio.

For example, left turns from the minor leg may experience delay consistent with LOS F operation, while the major street through movements experience little or no delay and LOS A. Since the major-street through movements typically accommodate the majority of the traffic demand at the intersection, the overall intersection LOS would most likely be LOS A or LOS B. If the delay for the traffic on the minor leg is reduced by installing a traffic signal, the overall intersection delay will increase, as large numbers of vehicles on the major through moves are delayed by the new signal. The increase in total delay may lower the overall intersection LOS. For this reason, excessive delays on the minor legs of two-way stop intersections are only mitigated with a traffic signal when the minor street can no longer effectively provide access, as evidenced by traffic signal warrants being met. This eliminates situations where a large number of motorists are delayed for the benefit of only a few cars.

Capacity Considerations

A two-way left-turn lane (TWLTL) or a raised or striped median allows a minor stream vehicle to cross one major traffic stream at a time. It results in two-stage gap acceptance, provided that sufficient storage space is available in the median or TWLTL to store vehicles. It reduces the critical gap (the minimum gap that would be acceptable to a driver on the minor approach) in the stream of traffic on the major street and increases the capacity of the minor approach.

The grade of the approach directly affects the capacity of each minor movement. Compared to a level approach, downgrades increase capacity and upgrades decrease the approach capacity.

A flared approach on the minor street increases the capacity of the minor street approach. It allows more vehicles to be served simultaneously. Increasing the length of the flared pavement improves access to the additional lane. Even with a flared approach, vehicles seeking to use the flared lane may be delayed by queued vehicles blocking access to the additional lane. Therefore, flaring does not increase the capacity of the approach to the extent that an additional lane would.

The presence of traffic signals upstream from the intersection on the major street will produce platoons and affect the capacity of the minor street approaches if the signal is located within 0.25 mile of the intersection. Four flow regimes can result: no platoons, platoons from the left only, platoons from the right only and platoons from both directions.

Signalized Intersections

The *Highway Capacity Manual* (HCM 2000) signalized intersection capacity and level of service methodology addresses the capacity and level of service of intersection approach land groups as well as the level of service of the intersection as a whole. The analysis is undertaken in terms of the ratio of demand flow rate to capacity (V/C ratio) for individual movements during a peak 15-minute interval and the composite V/C ratio for the sum of critical movements or lane groups within the intersection. The level of service is determined based upon average control delay per vehicle.

HCS Worksheets

The HCS Worksheets are lengthy and available under separate cover by request.

Appendix 4

TRAFFIC SIGNAL WARRANTS

Peak Hour Signal Warrants

Signal Warrants Spreadsheet

Appendix 4
MUTCD Traffic Control Signal Warrants

The Federal Highway Administration (FHWA) publishes the *Manual on Uniform Traffic Control Devices* (MUTCD), which contains all national design, application, and placement standards for traffic control devices. The purpose of these devices, which include signs, signals, and pavement markings, is to promote highway safety, efficiency, and uniformity so that traffic can move efficiently on the Nation's streets and highways. All traffic control devices nationwide must conform to the MUTCD. Although the FHWA adopts the standards, the individual State and local highway agencies, not the FHWA, select, install, operate, and maintain traffic control devices on all roadways (including the Interstate and the U.S. numbered systems) nationwide.

A traffic signal assigns intersection right-of-way and promotes the orderly movement of pedestrians and vehicles. However, improper signal controls sometimes lead to intentional violations, unnecessary delays and traffic diversion to less desirable routes.

The selection and use of traffic control signals should be based on an engineering study of roadway, traffic, and other conditions. A careful analysis of traffic operations, pedestrian and bicyclist needs, and other factors at a large number of signalized and unsignalized intersections, coupled with engineering judgment, has provided a series of signal warrants detailed in the FHWA's MUTCD (2009 Edition)[1] that define the minimum conditions under which installing traffic control signals might be justified. As of January 13, 2012, Caltrans has adopted the *California Manual on Uniform Traffic Control Devices* (California MUTCD 2012) to include FHWA's 2009 MUTCD to prescribe uniform standards for traffic control devices in California.

In order to justify the installation of a traffic control signal, a traffic control signal needs study is required that demonstrates delay, congestion, approach conditions, driver confusion, future land use, physical characteristics of the location, the factors contained in the traffic signal warrants, and/or other evidence of the need for right-of-way assignment beyond that which could be provided by a STOP sign. The FHWA's MUTCD (2009 Edition)[2] and the California MUTCD 2012 provide guidance and signal warrant sheets for use in developing traffic control signal needs studies.

The following are warrants for installation of a traffic control signal.

Warrant 1 - Eight Hour Vehicular Volume (including minimum vehicle volume and interruption of continuous traffic warrants)

Warrant 2 - Four-Hour Vehicular Volume

Warrant 3 - Peak Hour

Warrant 4 - Pedestrian Volume

Warrant 5 - School Crossing

Warrant 6 - Coordinated Signal System

Warrant 7 - Crash Experience

Warrant 8 - Roadway Network

Warrant 9 - Intersection Near A Grade Crossing

Disadvantages of Signalization

Improperly designed or installed traffic signals, those that are poorly maintained, and unjustified traffic signals can result in one or more of the following disadvantages:

- Excessive delay;
- Excessive disobedience of the signal indications;
- Increased use of less adequate routes (as road users attempt to avoid traffic signals); and
- Significant increases in the frequency of collisions (especially rear-end collisions).

1 U.S. Department of Transportation, Federal Highway Administration, *Manual on Uniform Traffic Control Devices for Streets and Highways,* (2009 Edition).
2 Ibid.

Advantages of Signalization

Traffic signals that are properly designed, located, operated, and maintained have one or more of the following advantages:

- They provide for the orderly movement of vehicular and pedestrian traffic.
- They increase the traffic handling capacity of the intersection (if the signal operational parameters are reviewed and updated on a regular basis and when land use changes have occurred).
- They reduce the frequency and severity of certain types of crashes (especially right- angle collisions).
- They are coordinated to provide for continuous or nearly continuous movement of traffic at a definite speed along a given route under favorable conditions.
- They interrupt heavy traffic at intervals to permit other traffic (vehicular or pedestrian) to cross.

Alternatives to Signalization

Since vehicular delay and the frequency of some types of collisions can be greater under traffic signal control than under STOP sign control, consideration should be given to providing alternatives to traffic signals even if one or more of the signal warrants has been satisfied.

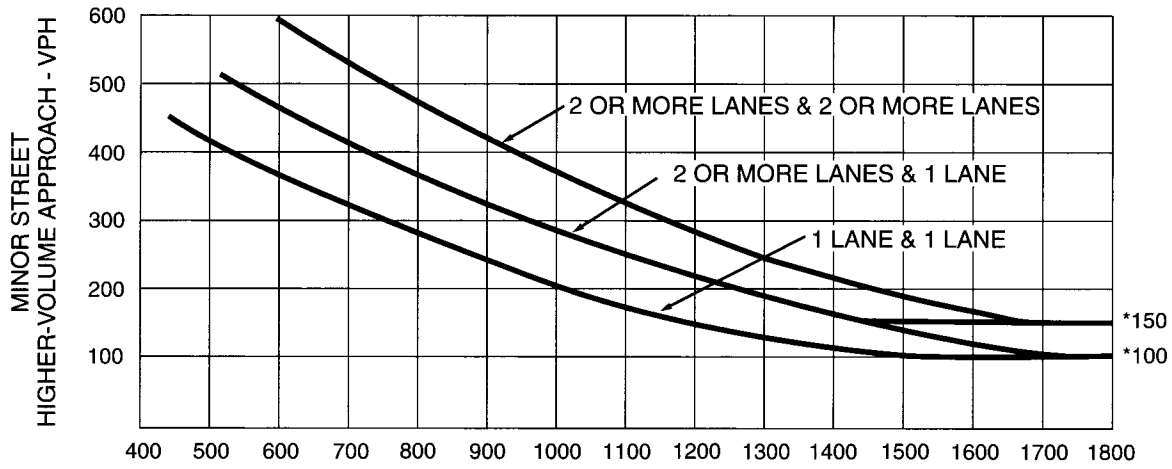
Alternatives for consideration may include:

- Improving the sight distance at the intersection by moving the stop line(s) and making other changes;
- Adding one or more lanes on a minor street approach to reduce the number of vehicles per lane on the approach;
- Channelizing vehicular movements;
- Installing roadway lighting if a disproportionate number of collisions occur at night;
- Restricting one or more turning movements, perhaps on a time-of-day basis, if alternative routes are available;
- Installing multiway STOP sign control if the warrant is satisfied;
- Installing a roundabout intersection;
- Installing warning signs on the major street regarding the approaching intersection;
- Installing flashing beacons on warning signs in advance of the intersection or at the intersection; and
- Installing measures designed to reduce speeds on the approaches.

General Notes

1. The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.
2. A traffic control signal should not be installed unless an engineering study indicates that installing a traffic control signal will improve the overall safety and/or operation of the intersection.
3. A signal should not be installed if it will seriously disrupt progressive traffic flow.
4. Bicycles may be counted as either vehicles or pedestrians for signal warrant analysis.
5. Pedestrian volume counts should be taken on each crosswalk during the same periods as the vehicular counts and during the hours of highest pedestrian volume.
6. Quantify pedestrian delay time for at least two 30 minute peak pedestrian delay periods of an average weekday or like periods of a Saturday or Sunday.
7. The posted or statutory speed limit or the 85th-percentile speed on the uncontrolled approaches to the location should be noted.
8. The distance to the nearest traffic control signals should be noted.
9. Where feasible, note the queue length on stop-controlled approaches.
10. For signal warrant analysis, a location with a wide median (even if the median is greater than 30 feet) should be considered as one intersection.
11. For detailed guidance regarding the application of signal warrants refer to the California MUTCD 2012.

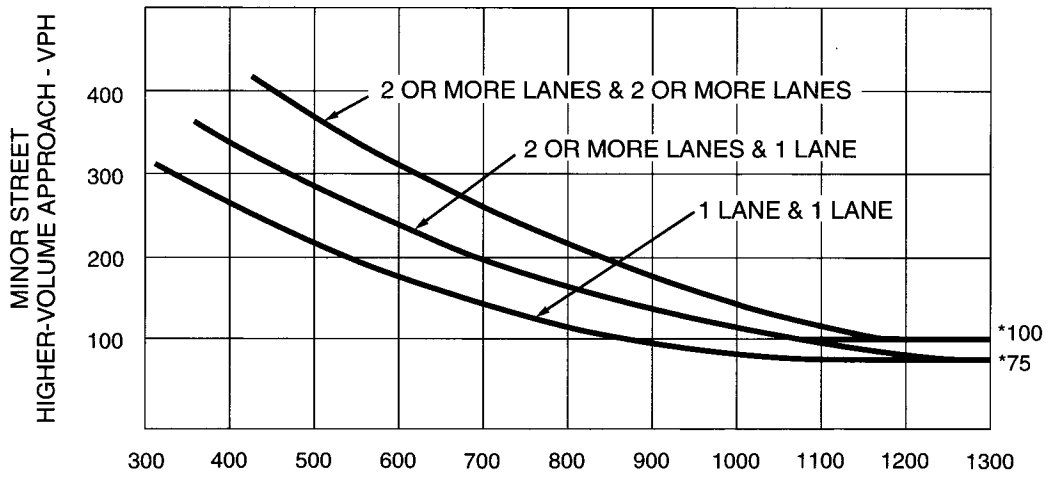
Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h OR ABOVE 40 mph ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Peak Hour Volume Warrant

Intersection: Los Alamos Road @ Via Bella (Intersection 8)

Major Approach: 2 Lanes+ Minor Approach: 1 Lane Rural Warrants

Approach	AM Pk Hr Existing	2022 Ambient	2022 +Project	2035 Ambient	2035 +Project		PM Pk Hr Existing	2022 Ambient	2022 +Project	2035 Ambient	2035 +Project
Northbound	69	119	128	157	196		71	123	135	92	247
Southbound	84	145	164	191	243		38	67	107	49	221
East/Westbound	25	30	38	35	35		27	34	34	31	31
Meets 1-Hr. Warrant	No	No	No	No	No		No	No	No	No	No

Intersection: Westin Resort Villas @ Dinah Shore Drive (Intersection 13)

Major Approach: 2 Lanes+ Minor Approach: 2 Lanes+ Rural Warrants

Approach	AM Pk Hr Existing	2022 Ambient	2022 +Project	2035 Ambient	2035 +Project		PM Pk Hr Existing	2022 Ambient	2022 +Project	2035 Ambient	2035 +Project
Eastbound	610	639	680	671	748		764	799	829	841	1063
Westbound	543	568	590	597	644		923	965	1012	1015	1220
North/Southbound	21	22	22	23	54		36	37	37	39	218
Meets 1-Hr. Warrant	No	No	No	No	No		No	No	No	No	Yes

Intersection: Street C @ Ramon Road (Intesection 18)

Major Approach: 2 Lanes+ Minor Approach: 2 Lanes+ Rural Warrants

Approach	AM Pk Hr		2035 Ambient	2035 +Project		PM Pk Hr		2035 Ambient	2035 +Project
Northbound				1581					2066
Southbound				1365					2092
Eastbound				76					376
Meets 1-Hr. Warrant				No					Yes

Intersection: Street D @ Ramon Road (Intesection 19)

Major Approach: 2 Lanes+ Minor Approach: 2 Lanes+ Rural Warrants

Approach	AM Pk Hr		2035 Ambient	2035 +Project		PM Pk Hr		2035 Ambient	2035 +Project
Eastbound				1593					2080
Westbound				1380					2116
Northbound				119					516
Meets 1-Hr. Warrant				Yes					Yes

Intersection: Bob Hope Drive @ Street D (Intersection 20)

Major Approach: 2 Lanes+ Minor Approach: 2 Lanes+ Rural Warrants

Approach	AM Pk Hr		2035 Ambient	2035 +Project		PM Pk Hr		2035 Ambient	2035 +Project
Northbound				548					1901
Southbound				1307					1329
Eastbound				96					433
Meets 1-Hr. Warrant				No					Yes

Intersection: Bob Hope Drive @ Street E (Intersection 21)

Major Approach: 2 Lanes+ Minor Approach: 2 Lanes+ Rural Warrants

Approach	AM Pk Hr		2035 Ambient	2035 +Project		PM Pk Hr		2035 Ambient	2035 +Project
Northbound				589					2028
Southbound				1429					1391
Eastbound				58					245
Meets 1-Hr. Warrant				No					Yes

Peak Hour Volume Warrant

Intersection: Los Alamos Road @ Street "A" (Intersection 22)

Major Approach: 2 Lanes+ Minor Approach: 1 Lane Rural Warrants

Approach	AM Pk Hr		2035 Ambient	2035 +Project		PM Pk Hr		2035 Ambient	2035 +Project
Northbound				202					320
Southbound				258					272
Westbound				26					11
Meets 1-Hr. Warrant				No					No

Intersection: Los Alamos Road @ Street "B" (Intersection 23)

Major Approach: 2 Lanes+ Minor Approach: 1 Lane Rural Warrants

Approach	AM Pk Hr		2035 Ambient	2035 +Project		PM Pk Hr		2035 Ambient	2035 +Project
Northbound				219					321
Southbound				276					350
Westbound				22					156
Meets 1-Hr. Warrant				No					No

Appendix 5

LIST OF ACRONYMS AND TRAFFIC GLOSSARY

List of Acronyms

AB	Assembly Bill
AADT	Annual Average Daily Traffic
AASHTO	American Association of State Highway and Transportation Officials
ADT	Average Daily Traffic
AVO	Average Vehicle Occupancy
AWSC	All-Way Stop Control
CEQA	California Environmental Quality Act
CIP	Capital Improvement Program
CMA	Congestion Management Agency
CMP	Congestion Management Program
CVAG	Coachella Valley Association of Governments
DU	Dwelling Units
FAR	Floor Area Ratio
FHWA	Federal Highway Administration
GFA	Gross Floor Area
GLA	Gross Leasable Area
HCM	Highway Capacity Manual
HCS	Highway Capacity Software
HOV	High Occupancy Vehicles
I-10	Interstate 10
ITE	Institute of Transportation Engineers
MPO	Metropolitan Planning Organization
MUTCD	Manual on Uniform Traffic Control Devices
NCV	Neighborhood Circulating Vehicle
NEPA	National Environmental Policy Act
NEV	Neighborhood Electric Vehicle
PHF	Peak Hour Factor
RCTC	Riverside County Transportation Commission
RIVTAM	Riverside County Transportation Analysis Model
ROW	Right-Of-Way
RTP	Regional Transportation Plan
SCAG	Southern California Association of Governments
SR	State Route
TAZ	Traffic Analysis Zone
TDM	Transportation Demand Management
TEPA	Tribal Environmental Policy Act
TIP	Transportation Improvement Program
TRB	Transportation Research Board
TSF	Thousand Square Feet
TSM	Transportation Systems Management
TWLTL	Two-Way Left-Turn Lane
TWSC	Two-Way Stop Control
ULI	Urban Land Institute
VMT	Vehicle Miles Traveled
VPD	Vehicles Per Day
VPH	Vehicles Per Hour
TDM	Transportation Demand Management
TSM	Transportation Systems Management

Appendix 5 - Traffic Glossary

Access point -- An intersection, driveway, or opening on the right-hand side of a roadway. An entry on the opposite side of a roadway or a median opening also can be considered as an access point if it is expected to influence traffic flow significantly in the direction of interest.

All-way stop controlled -- An intersection with stop signs at all approaches. The driver's decision to proceed is based on the rules of the road (e.g., the driver on the right has the right-of-way) and also on the traffic conditions of the other approaches.

Annual Average Daily Traffic (AADT) -- The total volume passing a point or segment of a highway facility in both directions for one year divided by the number of days in the year.

Average Daily Traffic (ADT) -- The total volume passing a point or segment of a highway facility in both directions on an average day during a specified interval (which can be the peak month or weekdays etc.).

Average Day -- A day representing traffic volumes normally and repeatedly found at a location, typically a weekday when volumes are influenced by employment or a weekend day when volumes are influenced by entertainment or recreation.

Approach -- All lanes of traffic moving towards an intersection of a midblock location from one direction including any adjacent parking lanes.

Arterial -- Signalized streets that serve primarily through traffic and provide access to abutting properties as a secondary function, having signal spacing of 2 miles or less and turn movements at intersections that usually do not exceed 20 percent of total traffic.

Average approach delay -- Average stopped-time delay at a signalized intersection plus average time lost because of deceleration to and acceleration from a stop, generally estimated as 1.3 times the average stopped time delay.

Average control delay -- the total time vehicles are stopped in an intersection approach during a specified time interval divided by the volume departing from the approach during the same time period. It does not include queue follow-up time (i.e. the time required for the vehicle to travel from the last-in-queue position to the first-in-queue position).

Average stopped-time delay -- The total time vehicles are stopped in an intersection approach or lane group during a specified time interval divided by the volume departing from the approach or lane group during the same time period, in seconds per vehicle.

Average total delay -- The total additional travel time experienced by drivers, passengers, or pedestrians as a result of control measures and interaction with other users of the facility divided by the volume departing from the corresponding cross section of the facility.

AWSC intersection -- an all-way stop-controlled intersection, which can be a three-way stop if the intersection has only three legs or a four-way stop if the intersection has four legs.

Bike lane -- A portion of a roadway that has been designated by striping, signing, and pavement markings for the preferential or exclusive use of bicycles.

Bike path -- A bikeway physically separated from motorized traffic by an open space or barrier, either within the highway right-of-way or within an independent right-of-way.

Bikeway -- Any road, path, or way that in some manner is specifically designated as being open to bicycle travel, regardless of whether such facilities are designated for the exclusive use of bicyclists or are to be shared with other vehicles.

Capacity -- The maximum rate of flow at which persons or vehicles can be reasonable expected to traverse a point or uniform segment of a lane or roadway during a specified time period under prevailing roadway, traffic, and control conditions, usually expressed as vehicles per hour or persons per hour.

Clearance lost time -- The minimum possible time interval between the departure of one bus from a bus berth and the entrance of another.

Clearance time -- The time, in seconds, between signal phases during which an intersection is not used by any traffic.

Conflicting approach -- The approach at approximately 90 degrees to the subject approach at an all-way stop-controlled (AWSC) intersection.

Conflicting traffic volume -- The volume of traffic that conflicts with a specific movement at an unsignalized intersection.

Control delay -- The component of delay that results when a control signal causes a lane group to reduce speed or to stop; it is measured by comparison with the uncontrolled condition.

CMP -- Congestion Management Program, designed to ensure that a balanced transportation system is developed that relates population growth, traffic growth, and land use decisions to transportation system level of service performance standards to help reduce traffic congestion and improve air quality.

Constrained operation -- An operating condition in a weaving area in which, because of geometric constraints, weaving vehicles are unable to occupy as large a portion of available lanes as required to achieve balanced operation.

Critical gap -- The minimum time interval between vehicles in a major traffic stream that permits side-street vehicles in a stop-controlled approach to enter the intersection under prevailing traffic and roadway conditions, in seconds.

Critical lane group -- The lane groups that have the highest flow ratio for a given signal phase.

Critical volume-to-capacity ratio -- The proportion of available intersection capacity used by vehicles in critical lane groups.

Crosswalk -- That part of a roadway at an intersection included within the connections of the lateral lines of the sidewalks on opposite sides of the highway measured from the curbs (or in the absence of curbs, from the edges of the traversable roadway) and in the absence of a sidewalk on one side of the roadway, the part of a roadway included within the extension of the lateral lines of the sidewalk at right angles to the centerline. Any portion of a roadway at an intersection or elsewhere distinctly indicated as a pedestrian crossing by lines on the surface, which may be supplemented by a contrasting pavement texture, style or color.

Cycle -- Any complete sequence of signal indications.

Cycle length -- The total time required for one complete sequence of signal indications.

Deceleration lane -- A paved auxiliary lane, including tapered areas, allowing vehicles leaving the through-traffic lane of the roadway to decelerate.

Delay -- Additional travel time experienced by a driver, passenger, or pedestrian beyond what would reasonably be desired for a given trip.

Demand volume -- The traffic volume expected to desire service past a point or segment of the highway system at some future time, or the traffic currently arriving or desiring service past such a point, usually expressed as vehicles per hour.

Effective green time -- The time allocated for a given traffic movement (green plus yellow) at a signalized intersection less the start-up and clearance lost times for the movement.

Exclusive turn lane -- A designated left- or right-turn lane or lanes used only by vehicles making those turns.

Expressway -- An arterial which increases vehicular capacity by reducing at-grade access and increased signal spacing.

Flared approach -- A shared right-turn lane that allows right-turning vehicles to complete their movement while other vehicles are occupying the lane.

Free flow speed -- (1) The theoretical speed of traffic when density is zero, that is, when no vehicles are present; (2) the average speed of vehicles over an arterial segment not close to signalized intersections under conditions of low volume.

Gap acceptance -- The process by which a minor-street vehicle accepts an available gap to maneuver.

Green time -- The actual length of the green indication for a given movement at a signalized intersection.

HCM -- Highway Capacity Manual

HCS -- Highway Capacity Software implementing the Highway Capacity Manual procedures.

Ideal conditions-- Characteristics for a given type of facility that are assumed to be the best possible from the point of view of capacity, that is, characteristics that if further improved would not result increased capacity.

Intersection -- The area embraced within the prolongation or connection of the lateral curb lines, or if none the lateral boundary lines of the roadways of two highways that join one another at, or approximately at right angles, or the area within which vehicles traveling on different highways that join at any other angle might come into conflict. The junction of an alley or driveway with a roadway or highway does not constitute an intersection.

Intersection delay -- The total additional travel time experienced by drivers, passengers, or pedestrians as a result of control measures and interaction with other users of the facility, divided by the volume departing from the corresponding cross section of the facility.

Interval -- The part of a signal cycle during which signal indications do not change.

Level of service (LOS) -- A qualitative measure describing operational conditions within a traffic stream, generally described in terms of such factors as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience, and safety.

Lost time -- The time during which the intersection is not effectively used by any movement. Clearance lost time plus start-up lost time.

Major street -- The street not controlled by stop signs at a two-way stop-controlled intersection. The street normally carrying the higher volume of vehicular traffic.

Maximum service flow rate -- The highest 15-minute rate of flow that can be accommodated on a highway facility under ideal conditions while maintaining the operating characteristics for a stated level of service, expressed as passenger cars per hour per lane.

Minor Street -- The street controlled by stop signs at a two-way stop-controlled intersection; also referred to as a side street. The street normally carrying the lower volume of vehicular traffic.

Passenger car equivalent -- The number of passenger cars that are displaced by a single heavy vehicle of a particular type under prevailing roadway, traffic, and control conditions.

Peak hour -- The hour during which the greatest number of vehicles are traveling on a given facility.

Peak hour factor -- The hourly volume during the maximum volume hour of the day divided by the peak 15-minute rate of flow within the peak hour; a measure of traffic demand fluctuation within the peak hour.

Pedestrian Clearance Time -- The time provided for a pedestrian crossing in a crosswalk, after leaving the curb or shoulder, to travel to the far side of the traveled way or to a median.

Performance measure -- A quantitative or qualitative characteristic describing the quality of service provided by a transportation facility or service.

Permitted plus protected -- Compound left-turn protection that displays the permitted phase before the protected phase.

Permitted turns -- Left or right turns at a signalized intersection that are made against an opposing or conflicting vehicular or pedestrian flow.

Phase -- The part of a signal cycle allocated to any combination of traffic movements receiving the right-of-way simultaneously during one or more intervals.

Planning analysis -- A use of capacity analysis procedures to estimate the number of lanes required by a facility in order to provide for a specified level of service based on approximate and general planning data in the early stages of project development.

Platoon -- A group of vehicles or pedestrians traveling together as a group, either voluntarily or involuntarily because of signal control, geometrics, or other factors.

Platoon -- A group of vehicles or pedestrians traveling together as a group, either voluntarily or involuntarily, because of traffic signal controls, geometrics, or other factors.

Protected turns -- Left or right turns at a signalized intersection made with no opposing or conflicting vehicular or pedestrian flow.

Queue -- A line of vehicles or persons waiting to be served by the system in which the rate of low from the front of the queue determines the average speed within the queue. Slowly moving vehicles or people joining the rear of the queue are usually considered a part of the queue. The internal queue dynamics may involve a series of starts and stops. A faster-moving line of vehicles is often referred to as a moving queue or a platoon.

Red Clearance Interval -- An optional interval that follows a yellow change interval and precedes the next conflicting green interval.

Right-of-Way Assignment -- The permitting of vehicles and/or pedestrians to proceed in a lawful manner in preference to other vehicles or pedestrians by the display of signal indications.

Roadway Network -- A geographical arrangement of intersecting roadways.

RTIP -- Regional Transportation Improvement Program is a list of transportation projects, their costs and projected funding sources, and their anticipated date of completion.

RTP -- Regional Transportation Plan is a plan adopted for the region's transit, highways, bicycle programs, commuter and inter-city rail lines.

Shared lane capacity -- The capacity of a lane at an unsignalized intersection that is shared by two or three movements, in passenger cars per hour.

Signal Coordination -- The establishment of timed relationships between adjacent traffic control signals.

Signal Phase -- the right-of-way, yellow change, and red clearance intervals in a cycle that are assigned to an independent traffic movement or combination of movements.

Signal System -- two or more traffic control signals operating in signal coordination.

Signal Timing -- the amount of time allocated for the display of a signal indication.

Signal Warrant -- a threshold condition that, if found to be satisfied as part of an engineering study, shall result in analysis of other traffic conditions or factors to determine whether a traffic control signal or other improvement is justified.

TDM -- Transportation Demand Management is a program designed to decrease the demand for peak hour commute and truck travel and increase the use of alternative transportation modes.

TIS -- Traffic Impact Study A Congestion Management Program (TIS) analysis is required for all large projects.

Total delay -- The sum of all components of delay for any lane group, including control delay, traffic delay, geometric delay, and incident delay.

Trip-end -- one end of a trip at either the origin or the destination; i.e. each trip has two trip-ends.

Traffic -- pedestrians, bicyclists, ridden or herded animals, vehicles, streetcars, and other conveyances either singularly or together while using any highway for purposes of travel.

Traffic Control Signal -- any highway traffic signal by which traffic is alternately directed to stop and permitted to proceed.

Travel speed -- The average speed, in miles per hour, of a traffic stream computed as the length of a highway segment divided by the average travel time of the vehicles traversing the segment.

Travel time -- The average time spent by vehicles traversing a highway segment, including control delay, in seconds per vehicle or minutes per vehicle.

TSM -- Transportation Systems Management is a program to facilitate low cost traffic flow improvements like coordinating traffic signals, metering freeway ramps and incident management.

Two-way left-turn lane (TWLTL) -- The center lane on a three-lane or multi-lane highway that is used continuously for vehicles turning left in either direction of flow at mid-block locations.

Two-way stop-controlled -- The type of traffic control at an intersection where drivers on the minor street or a driver turning left from the major street wait for a gap in the major-street traffic to complete a maneuver.

Unconstrained Operation -- An operating condition in a weaving area where geometric constraints do not limit the ability of weaving vehicles to achieve balanced operation.

Unsignalized intersection -- Any intersection not controlled by traffic signals.

V/C ratio -- The ratio of demand flow rate to capacity for a traffic facility.

Volume -- The number of persons or vehicles passing a point on a lane, roadway, sidewalk etc. during some time interval, often taken to be one hour, expressed in vehicles.

VMT -- Vehicle miles traveled.

Yellow Change Interval -- the first interval following the green interval during which the yellow signal indication is displayed.

Appendix 6

CITY OF RANCHO MIRAGE REVIEW COMMENTS AND RESPONSES

October 6, 2014
City of Rancho Mirage Comments
Comments on the Section 24 Traffic Impact Study

Comment 1 – Sole Reliance on RivTAM Traffic Model

The Endo study projects much lower traffic numbers than the approved 2005 General Plan in the vicinity of the project as shown in the table below.

Location	2035 Section 24 T.S.	RM GP Buildout	% of RM GP Buildout
Bob Hope Drive n/o Ramon Rd.	40,520	67,700	60%
Bob Hope Drive s/o Ramon Rd.	37,660	55,300	68%
Ramon Road w/o Bob Hope Dr.	50,070	74,800	67%
Dinah Shore Drive w/o Bob Hope Dr.	27,080	49,400	55%

The Endo study has relied entirely on the RivTAM traffic model and considers it an adequate evaluation of the projects long term cumulative traffic impacts. The RivTAM model is not intended to represent General Plan buildout, but rather buildout at a target horizon year (i.e. 2035), and it is not known if the model that was used included the known cumulative development Specific Plans in the vicinity. The City will require that infrastructure facilities accommodate full buildout of the City and the study should use the City provided data for analysis of General Plan infrastructure needs.

Response to Comment 1:

As explained in more detail below, the RivTAM model used in the Section 24 Specific Plan Traffic Study is a more sophisticated, comprehensive and current model than the 2005 City of Rancho Mirage General Plan Traffic Model (RMTM) and reflects the full amount of population and housing projected in the City's General Plan. For this reason, the traffic volumes projected by the RivTAM model are more reliable than the volumes in the City's 2005 model for these roadways.

Based on the RivTAM forecasts, the City's General Plan Circulation System can accommodate the proposed Section 24 Specific Plan project and the other residential and population growth allowed by the City's General Plan as well as the employment growth forecast for the year 2035 in the SCAG *2004 Growth Forecast*. In other words, the RivTAM 2035 forecasts include the growth allowed by the City's General Plan.

Section 24 is located within unincorporated Riverside County and the Sphere of Influence of the City of Rancho Mirage. Two subregional travel demand models were considered for use in forecasting long-term traffic projections for the *Section 24 Specific Plan Traffic Impact Study*. The Riverside County Traffic Analysis Model (RivTAM), completed in May 2009, was developed with the cooperative efforts of the Riverside County Transportation Department (RCTD), Western Riverside Council· of Governments (WRCOG), Coachella Valley Association of Governments (CVAG), Riverside County Transportation Commission (RCTC), Southern California Association of Governments (SCAG), and California Department of Transportation (Caltrans). The RivTAM incorporates a detailed description of Riverside County, while maintaining consistency with the SCAG Regional Model.

The RivTAM provides long-term traffic projections for the horizon year 2035 and is intended for use for transportation planning purposes throughout Riverside County by all levels of governmental jurisdiction and by private entities and as a tool to determine potential impacts of large development proposals, General Plan land use changes, and forecasting for transportation projects.

The RMTM, developed in 2005, was based on the Coachella Valley Area Transportation Study (CVATS) model, which was the best available regional model at that time. The CVATS model is no longer supported by CVAG or SCAG. The CVATS model did not include recently completed and planned improvements to the circulation system in the vicinity of the Section 24 Project Site, including six of the existing I-10 interchanges in the Coachella Valley. It did not reflect the existing configuration at the Bob Hope Drive and Ramon Road interchanges or the planned Da Vall Road Interchange to the east of Section 24.

The RMTM was used to develop buildout projections for the 2005 update of the Rancho Mirage General Plan. It was used to model the 15,796 acres within the City of Rancho Mirage as well as 4,084 acres within the Northern Sphere of Influence (SOI) and 1,465 acres within the Southern SOI. While it included development within the Section 19 Specific Plan area, it did not reflect all of the land uses subsequently approved for the Section 19 Specific Plan in 2009.

In 2009, CVATS was superceded by RivTAM, which is a more sophisticated capacity-restrained gravity flow model, with land uses reflecting Tribal lands and all local general plans and the roadway network in the Circulation Element of the Riverside County General Plan. RivTAM includes regional cumulative development anticipated in the horizon year 2035 per the SCAG 2004 Growth Forecast for six southern California counties.

The RMTM future traffic projections overstate the development potential and future traffic volumes that the circulation network within the City of Rancho Mirage will be required to accommodate from buildout of the uses currently allowed by the City's General Plan. As shown in the table below, the 2005 City traffic model evaluated 18 percent more housing, 2 percent more population and 61 percent more employment

than projected from buildout of the 2005 *Rancho Mirage General Plan*. By comparison, RivTAM includes 100 percent of the housing and population growth anticipated upon buildout of the 2005 *Rancho Mirage General Plan* as well as approximately 70 percent of the employment anticipated by the 2005 *Rancho Mirage General Plan.*

Future Growth Projections

Projection	Rancho Mirage[a] General Plan Buildout	SCAG/RIVTAM[a] Evaluated	City Traffic Model[b] Evaluated
Housing	16,612	16,917	19,522
Population	32,393	32,541	33,130
Employment	25,029	17,249	40,323

a. Source: The Planning Center, *Section 19 Specific Plan EIR,* May 2009 (page 5.10-13).
b. Source: Urban Crossroads; *City of Rancho Mirage General Plan Traffic Study*, March 2005 (page 3-3.

It should be noted that the RMTM included 4,084 acres north of Interstate 10 (I-10) that were 99% vacant and projected to generate 133,134 daily trips, primarily as a result of future employment, most of which was the result of 12,000 future jobs associated with non-residential land uses assumed in this area.

Much of this area will never be developed and very little, if any, of the area north of I-10 is expected to be annexed to the City of Rancho Mirage, based on the current Riverside County LAFCo Spheres of Influence for the Cities of Rancho Mirage and Cathedral City north of the I-10. Approximately 1,200 acres of this area is Tribal (Allottee) land. More than 1,500 acres of this area was subsequently been included in the Multiple Species Habitat Conservation Area and other conservation areas that will never be developed. Approximately 591 acres in this area have been annexed to Cathedral City in conjunction with the approval of the North City Extended Specific Plan. The land uses for this area are not the same as assumed in the 2005 Rancho Mirage General Plan designations for the Northern SOI and will result is substantially less employment, and daily trips, than were assumed in the 2005 RMTM. This assumed future growth is reflected in the higher employment projections used in the RMTM and the higher projected traffic volumes on roads in this portion of the City's planning area.

RivTAM includes 100 percent of the households and population identified to result from buildout of the 2005 Rancho Mirage General Plan. RivTAM also reflects approximately 70 percent of the employment projected for buildout of the 2005 Rancho Mirage General Plan. Since RivTAM is a 20-year horizon model, not a General plan buildout model, it constrained the employment with Rancho Mirage by the year 2035 to reflect the SCAG 2004 Growth Forecast. The SCAG 2012 Growth Forecast currently being used to update RivTAM anticipates 7 to 8 percent less growth than the SCAG 2004

Growth Forecast and, for this reason, the estimate of employment growth is conservative, and more up to date and realistic than the amount of employment assumed in the 2005 RMTM, which assumed a large amount of employment growth on the City's SOI area north of the I-10 that will not occur, as discussed above.

The Riverside County Traffic Analysis Model (RivTAM) was determined to be the most appropriate model based on the following considerations:

- RivTAM is the approved subregional transportation model that includes socioeconomic data from six counties in Southern California.
- RivTAM provides horizon year 2035 traffic projections based on 52 socio-economic input parameters per TAZ, consistent with the 2008 SCAG Travel Demand Model and the SCAG 2004 Growth Forecast.
- RivTAM was approved by Riverside County, RCTC, CVAG, as well as all of the cities in the Coachella Valley and the Agua Caliente Band of Cahuilla Indians for use as the subregional model for the Coachella Valley.
- RivTAM was released in November 2010, updated in August 2013, and is updated periodically as new information is available. The August 2013 version was used to prepare the Section 24 Traffic Impact Study.
- RivTAM superseded the CVATS travel demand model, which is no longer supported by CVAG or SCAG.

The Rancho Mirage Traffic Model (RMTM) was not utilized based on the following considerations, which indicate that this model is not as up to date or accurate as the RivTAM model.

- The RMTM was based on the now outdated CVATS 2030 traffic model, which was never adopted by and is no longer supported by CVAG or SCAG. The CVATS projections were modified in March 2005 to address 2,910 more households, 737 more residents and 15,294 more employment than buildout per the 2005 Rancho Mirage General Plan.
- The RMTM assumptions for the area north of Interstate 10 (within the Northern Sphere of Influence) generated 133,134 daily trips and substantially overstated the future traffic demands that would need to be served by the Rancho Mirage circulation system.
- The RMTM is an older model that does not reflect changes to the circulation system that have occurred since 2005, such as the completion of the improvements to six key I-10 interchanges in this portion of the Coachella Valley, including the final configuration of the major recent improvements to the Bob Hope Drive/Ramon Road interchange. For this

reason, the 2005 City model projected substantially more trips on arterial streets parallel to I-10 such as Ramon Road.

The Section 24 traffic study used RivTAM to develop long-term traffic projections because it incorporates a much larger area, uniformly addresses all cities and unincorporated Riverside County, incorporates more recent data, and is regularly updated. RivTAM is especially useful for development in areas involving multiple jurisdictions.

The socioeconomic data in the City's 2005 General Plan, in the General Plan Traffic Model and in RivTAM for the City of Rancho Mirage was reviewed. This review revealed that the RivTAM 2035 growth forecasts include 100% of the population and housing growth projected for full buildout of the City's General Plan. The RivTAM growth forecast includes approximately 70% of the employment growth projected in the City's 2005 traffic model and do not assume development of the 1,500 acres within conservation areas established north of I-10 that will never be developed. This difference partially explains the difference in the future forecasted traffic volumes on Bob Hope Drive, Ramon Road, and Dinah Shore Drive. The other major factor discussed above is that the City's 2005 model does not reflect the future planned circulation system as accurately as the RivTAM model. These are the primary reasons why the RivTAM model provides more reliable future forecasts that more accurately reflect the likely buildout of the City's General Plan.

Section 7.2 of the *Riverside County TIA Preparation Guide* states: *"Development proposals that also include a General Plan Amendment, Specific Plan, Zone Change or other approval that increases traffic beyond what was approved in the [County] General Plan will also be required to perform a Build-out Analysis to assess long-term impacts. This analysis will determine if the Circulation Element of the General Plan is adequate to accommodate projected traffic at the target LOS, or if additional mitigation is necessary."* Table 2-1 of the traffic study shows that the Section 24 Specific Plan would not increase traffic beyond the amount generated by the land uses allowed by the Riverside County General Plan. Therefore, a General Plan buildout analysis is not required to assess long-term impacts. The *Section 24 Specific Plan Traffic Impact Study* exceeded the traffic modeling requirements outlined in Section 8.2 of the *Riverside County TIA Preparation Guide*.

Section 15130 (b) of the CEQA Guidelines identify two approaches to produce an adequate discussion of cumulative impacts. The first method involved considering a list of related projects while the second involves the use of projections in a regional planning document, such as a regional transportation plan. As discussed above, RivTAM is the approved sub-regional transportation model that addresses regionwide cumulative development projected for the year 2035 and is consistent with the second method identified in the CEQA Guidelines. The use of RivTAM as the source for the long-term traffic projections in the Section 24 was discussed with City of Rancho Mirage

staff at a meeting in January 2014 to discuss the methodology and scope of the Section 24 Traffic Study. City staff agreed at this meeting that RivTAM was the most appropriate model to use for this study.

Comment 2 – Insufficient Study Area

The study area limits used by the Endo traffic study extended 1 mile from the project site. For a project of this size and scope, Mr. Waters recommends that the study limits be expanded up to a 5 mile radius that includes all intersections where the project contributes 50 or more peak hour trips as required by Riverside County. This is typical Riverside County process and has been adhered to by numerous large Specific Plans in the Coachella Valley and elsewhere in the County.

Endo argues that the Riverside County Traffic Study Impact Analysis Preparation Guide requires a buildout analysis for projects that would increase traffic beyond levels associated with the County General Plan, however, this project is decreasing the land use intensity from the County Plan and therefore should not be held to the higher standard. Endo argues that because significant impacts have not been identified in the intersections studied (within 1 mile), there is no need to analyze more distant intersections. Mr. Waters points out that the project is using existing excess capacity at intersections close to the project, while other intersections further from the site currently operating at, or near, capacity may decrease level of service significantly by the added traffic. Mr. Waters indicates that large specific plans do in fact require extensive analysis for a large study area up to 5 miles from the study site. We anticipate that this may be an issue especially for adjoining municipalities.

Response to Comment 2:

In determining the scope of study, the *Riverside County TIA Preparation Guide* was reviewed and the scope of the study was discussed with City staff at the January 9, 2014 traffic scoping study meeting. The project site is located in unincorporated Riverside County. The Riverside County Circulation Element roadway classifications were designed specifically to accommodate the land uses in the Riverside County Land Use Element. The proposed land uses are consistent, but less intense than the uses shown in the Riverside County General Plan. Therefore, the project would be using the roadway capacity that was incorporated in the Riverside County Circulation Element to accommodate the land uses for this site designated in the Land Use Element.

In addition, the City of Rancho Mirage submitted a letter to dated February 12, 2004 in response to the Notice of Intent to prepare the Section 24 Specific Plan EIS issued by the Tribe that included comments on Transportation and Traffic. Specifically, these comments recommended that “all intersections and road segments within a mile of the project site should be studied including the impact on the newly constructed Bob Hope freeway bridge and Ramon Road.”

Specific plans that generate more trips than the Riverside County General Plan land uses may need improvements beyond the General Plan Circulation Element road classifications and require a larger study area. Similarly, specific plans in undeveloped areas with interim roadway improvements may require a larger study area to evaluate the timing of future roadway widening. In addition, specific plans with rapid development schedules may result in near-term impacts over a larger area and require an extended study area. However, the Section 24 Specific Plan has none of these characteristics. The proposed Section 24 Specific Plan would generate fewer trips than the development that would be allowed by the Riverside County General Plan land use designations for Section 24. Most of the streets serving the development are fully widened. The area is centrally located with development in all directions and regional access is provided by I-10. The project will be phased over a long development period with only six percent of the total trip generation occurring by the year 2022, which is the year identified for full development of the active adult residential community in Phase I of the project.

At the traffic study scoping meeting held at the Rancho Mirage City offices on January 9, 2014, City staff requested that the study area be expanded to extend one mile from the perimeter of the project site and the number of intersections studied be expanded from 12 to 17 intersections. The traffic study addressed 17 existing and 23 future key intersections, covering the entire study area requested by City staff. Although project traffic would travel on roadways beyond the study area, the potential incremental contribution of traffic from the Section 24 project to cumulative impacts on streets outside the study area will be mitigated through payment of TUMF fees, which fund improvements to roads throughout the Coachella Valley, consistent with the Riverside County General Plan Circulation Element.

In addition, it should be noted that the study area requested by Rancho Mirage City staff for the Section 24 Traffic Study covers more than three times the area evaluated by the City in the *Traffic Impact Study for the Section 19 Specific Plan*, even though the two projects would generate similar amounts of traffic. The Section 19 Specific Plan would generate 75,054 unadjusted weekday trips while the Section 24 Specific Plan would generate 73,890 unadjusted weekday trips. The *Traffic Impact Study for the Section 19 Specific Plan* evaluated 9 existing and 19 future key intersections, none of which were west of Bob Hope Drive, which is the western boundary of the Section 19 Specific Plan area. The scope of the Section 24 traffic study is consistent with the *Riverside County TIA Preparation Guide,* addresses the study area requested by the City in January 2014, and is larger and more comprehensive than the study area the City used in the Section 19 Specific Plan Study for project that generates a similar amount of traffic.

Comment 3 – Lack of Information regarding Cumulative Projects

Endo has relied on the RivTAM model to project City of Palm Desert and Cathedral City traffic for near term cumulative development. It appears that these cities were not contacted. RivTAM input data shall be updated to include known cumulative development, including Specific Plans, in Cathedral City and Palm Desert.

Response to Comment 3:

At the January 2014 traffic study scoping meeting, the City of Rancho Mirage staff identified two near-term cumulative developments that were addressed in the traffic study. The year 2022 near-term traffic scenario in the *Section 24 Specific Plan Traffic Impact Study* included these two cumulative projects, as well as background traffic growth determined by interpolating between existing and year 2035 traffic volumes. The traffic impacts from the *Section 24 Specific Plan* development would be very limited in the year 2022, since the initial phase only represents six percent of the total project trip generation. This initial phase of development reflects the full development of the proposed 320-acre active adult community. For the year 2035 long-term traffic scenario, the *Section 24 Specific Plan Traffic Impact Study* used RivTAM to address all cumulative traffic impacts from growth projected throughout six Southern California counties. All cumulative development through the year 2035 in Rancho Mirage, unincorporated Riverside County, Tribal lands, as well as the neighboring cities was included in RivTAM. As discussed above, the use of the RivTAM model to assess long-term cumulative impacts is consistent with the CEQA Guidelines requirements for analysis of cumulative impacts, and includes the most current and realistic assumptions for cumulative traffic growth. The amount of development assumed for the year 2035 was identified by each jurisdiction, but constrained by the 2004 SCAG Growth Forecast. When RivTAM is updated in the near future, the horizon year growth forecast is expected to decrease by approximately seven percent to reflect the slower growth during the recent recession. As a result, the current version of RivTAM provides a conservative estimate of projected growth and likely cumulative traffic impacts from this growth.

October 6, 2014
Urban Crossroads
(City of Rancho Mirage Traffic Review Consultant)
Comments on the Section 24 Traffic Impact Study

Urban Crossroads Comment 1

No mention is made regarding consistency of the proposed project with the County of Riverside or City of Rancho Mirage General Plan and Zoning. A General Plan amendment (GPA) is required, long range analysis addressing General Plan conditions should be included in the report.

Response to Comment 1

A traffic study scoping meeting was held with the City in January 2014 to discuss the scope and methodology of the traffic study. Based on the discussion at this meeting, it was determined that the Riverside County Transportation Analysis Model (RivTAM) model for 2035 was the most appropriate analysis tool, as RivTAM is the most complete, accurate, and up to date growth model available to assess long-term cumulative traffic impacts. The City participated in the development of RivTAM, which was developed for use for transportation planning purposes through Riverside County by all levels of governmental jurisdiction and to assist in determining potential impacts of large development proposals and General Plan land use changes.

The traffic study identifies the land uses allowed by both the County and City General Plans in relation to the uses that would be permitted by the proposed Section 24 Specific Plan. The intensity of the land uses that would be permitted by the Section 24 Specific Plan and the amount of traffic that would be generated is compared to the uses that would be allowed by the City's General Plan and the County General Plan in Table 2-1. While the Section 24 Specific Plan would generate more traffic than the mix of residential and commercial uses allowed by the City's General Plan, the amount of traffic generated by the Section 24 Specific Plan project would be 16.5 percent less than the amount generated by the Riverside County General Plan land use designations for Section 24, and the RivTAM projections reflect the intensity of development allowed by the County General Plan. To evaluate the impact of the proposed project on the circulation system in the study area, RivTAM was modified to include socio-economic (SED) data representing full development of the uses that would be permitted by the proposed Section 24 Specific Plan.

As described in further detail below, the SED in RivTAM for the 2035 analysis year in RivTAM was reviewed and compared to the buildout projections in the Rancho Mirage General Plan. Through this review it was determined that the RivTAM 2035 growth projections include over 100% of the population and housing growth in the City's General Plan buildout growth projections and 70% of the projected employment. Through further review of the employment projections in the City's General Plan and 2005 General Plan Traffic Model it was determined that the General Plan Traffic Model included a large amount of projected employment north of the I-10 in areas that will not be annexed to the City or developed as assumed in the City's model. Since the RivTAM projections are consistent with updated SCAG growth forecasts, the RivTAM employment projections for the City are considered to be more up to date and reliable than the projection in the 2005 General Plan. This indicates that the RivTAM model considers appropriate long range analysis for the City of Rancho Mirage and the rest of Riverside County.

Urban Crossroads Review of Response to Comment 1

The comment response suggests repeatedly that the RivTAM data used to evaluate project impacts is similar to or exceeds the City of Rancho Mirage General Plan allowable land use. Table 1 below has been prepared based on the data included in the traffic impact study report (Table 4-5) and data extracted from the City of Rancho Mirage General Plan Traffic Study (Urban Crossroads, Inc., 2005). General Plan Traffic Study excerpts

are included as Attachment B to this letter for ease of reference. Table 1 compares the daily traffic volumes at a limited number of locations in the immediate vicinity of the project site, including 2 locations on Bob Hope Drive and one location each on Dinah Shore Drive and Ramon Road.

Table 1
Volume Comparison

Location	2035 Sect 24	RM GP Buildout	Difference	% Difference
Bob Hope Drive n/o Ramon Road	40,520	67,700	27,180	67%
Bob Hope Drive s/o Ramon Road	37,660	55,300	17,640	47%
Ramon Road w/o Bob Hope Drive	50,Q70	74,800	24,730	49%
Dinah Shore Drive w/o Bob Hope Drive	27,080	49,400	22,320	82%

As shown on Table 1, the Section 24 traffic study 2035 With Project Buildout daily volumes range from 27,080 to 50,070 vehicles per day (VPO), while the General Plan buildout daily traffic volumes range from 49,400 to 74,800 VPD. Further investigation of these large daily volume differences is required to explain how the RivTAM data can be considered representative of buildout traffic conditions in the study area.

Response

The information and assumptions in both the 2005 Rancho Mirage Traffic Model (RMTM) and the current RivTAM model were reviewed to identify the differences that resulted in the differenced in traffic volumes noted in this comment. To clarify the differences in the socioeconomic assumptions between the two models, Table A includes the future growth projections associated with each model. The future population growth, housing forecast, and employment forecast shown in Table A include: (1) buildout of the 2005 Rancho Mirage General Plan, (2) the SCAG Growth Forecast used to develop RivTAM, and (3) the socioeconomic input data used in the 2005 Rancho Mirage General Plan traffic model.

Table A
Future Growth Projections

Projection	Rancho Mirage[a] General Plan Buildout	SCAG/RivTAM[a] Evaluated	City Traffic Model[b] Evaluated
Housing	16,612	16,917	19,522
Population	32,393	32,541	33,130
Employment	25,029	17,249	40,323

a. Source: The Planning Center, *Section 19 Specific Plan EIR,* May 2009 (page 5.10-13).
b. Source: Urban Crossroads; *City of Rancho Mirage General Plan Traffic Study*, March 2005 (page 3-3.

As shown in Table A, the 2005 City traffic model evaluated 18 percent more housing, 2 percent more population and 61 percent more employment than anticipated upon buildout of the 2005 *Rancho Mirage General Plan*. By comparison, RivTAM included all of the housing and population growth projected for full development of the uses allowed by 2005 *Rancho Mirage General Plan* as well as approximately 70 percent of the projected employment.

The higher employment number in the RMTM results primarily appears to result from the City's model evaluating 4,084 acres north of Interstate 10 that were 99% vacant and projected to generate 133,134 daily trips, primarily as a result of future employment. This area was in the City's Sphere of Influence in 2005. Much of this area will never be developed and very little, if any, of the area north of I-10 is now expected to be

annexed to the City of Rancho Mirage. Approximately 1,200 acres of this area is Aqua Caliente Tribal (Allottee) land. More than 1,500 acres of this area was subsequently included in the Multiple Species Habitat Conservation Area and other conservation areas that will never be developed. Approximately 591 acres in this area has been annexed to Cathedral City in conjunction with the approval of the North City Extended Specific Plan. The future employment modeled for this area by the RMTM substantially increased the future traffic generation loading on the circulation network in this area and partially explains the discrepancies in the future projections between RivTAM and the RMTM.

The differences in the traffic volumes shown in Table 1 do not necessarily result only from the difference in the employment levels for the City of Rancho Mirage in RMTM and RivTAM. The RMTM is an older model that does not reflect changes to the circulation system that have occurred since 2005, such as the completion of the improvements to six key I-10 interchanges in this portion of the Coachella Valley, including the final configuration of the major recent improvements to the Bob Hope Drive/Ramon Road interchange. For this reason, the 2005 City model retained more trips on arterial streets parallel to Interstate 10 such as Ramon Road. The RMTM did not consider the same planned future circulation improvements that are included in the more up to date RivTAM model. For example, the RMTM did not include the Da Vall Drive interchange, which is now included in the Riverside County General Plan and the Cathedral City General Plan. Three of the four future traffic projections shown in Table 1 are for roadways in the immediate vicinity of the recent Interstate 10 interchange modifications at Bob Hope Drive/Ramon Road, and would have higher projected traffic in the RMTM as a result.

The employment growth assumed in the RMTM for the area north of I-10 exceeded the future increase in employment assumed for the entire City. This difference partially explains the difference in the future forecasted traffic volumes on Bob Hope Drive, Ramon Road, and Dinah Shore Drive. The other major factor discussed above is that the City's 2005 model does not reflect the future planned circulation system as accurately as the RivTAM model. These are the primary reasons why the RivTAM model provides more reliable future forecasts that more accurately reflect the likely buildout of the City's General Plan than the RMTM.

Table 2-1 of the Section 24 Specific Plan Traffic Impact Study shows the type and intensity of land uses that would be allowed by the proposed Section 24 Specific Plan in relation to both the adopted Riverside County General Plan and the 2005 Rancho Mirage General Plan. The land uses allowed for the site by the current County of Riverside General Plan would be more intense than would be allowed by the proposed Section 24 Specific Plan. The land use designations for the site shown in the 2005 City of Rancho Mirage General Plan would be less intense than the proposed Section 24 Specific Plan land uses. The RivTAM SED for the project site were modified to reflect buildout of the proposed Section 24 Specific Plan land uses.

The Riverside County TIA Preparation Guide (Section 7.2) states: "Development proposals that also include a General Plan Amendment, Specific Plan, Zone Change or other approval that increases traffic beyond what was approved in the General Plan will also be required to perform a Build-out Analysis to assess long-term impacts". The Section 24 Specific Plan is located within unincorporated Riverside County and would not increase traffic beyond what was approved in the Riverside County General Plan. Consequently, a General Plan buildout analysis is not required to assess long-term impacts of the proposed project under the standard in the Riverside County TIA Preparation Guide.

The Riverside County Travel Demand Model Socio-Economic Data (SED) inputs were developed based on the Riverside County Projections 2006 (RCP-06) approved by CVAG on January 29, 2007. Population and housing growth was allocated to each partial census tract based on the overall county growth trend, the land use, specific plan, general plan, zoning, and most recently adopted SCAG growth forecast distribution. The RivTAM model future SED input for year 2035 development throughout the City Rancho Mirage was developed for Riverside County through coordination with City representatives, based on the 2005 Rancho Mirage General

Plan. That data was reviewed and approved by the City of Rancho Mirage, as was RivTAM. As discussed above, RivTAM includes 100% of the population and housing growth identified in the City's General Plan and a more updated and realistic projection of the amount of employment that would be generated by the City's General Plan.

For these reasons, RivTAM provides the most reliable forecasts of traffic from projected future growth in the area, including the growth permitted by the City's 2005 General Plan.

Urban Crossroads Comment 2

The project vicinity map presents numerous planned developments, including the North City Specific Plan, the North City Extended Specific Plan, the Section 13 Specific Plan, and the Section 19 Specific Plan. Further discussion of the near term development potential for these planned developments shall be included in the traffic study report.

Response to Comment 2

Additional discussion of the status of these projects has been be added to the traffic study. Near-term development is not anticipated in any of these areas. Please note that City of Rancho Mirage General Plan land use designation for Section 13 requires that a specific plan be approved prior to development of this area. No application for approval of a specific plan has been submitted to the City of Rancho Mirage. The City of Rancho Mirage has also not received any applications for development projects in Section 19 and the City of Cathedral City has also not received any applications for development projects in the North City or North City Extended Specific Plan Areas located north of the I-10.

The near-term and long-term cumulative developments are discussed on pages 3-3 to 3-5. The traffic study included all known near-term cumulative projects within the study area. As discussed above, the other major specific plan projects in the vicinity of Section 24 are not anticipated to result in near-term growth. These other specific plan projects will result in long-term growth. The RivTAM 2035 projections were used to evaluate future cumulative impacts from projections of long-term development and growth throughout the Coachella Valley and Southern California.

Urban Crossroads Review of Response to Comment 2

The response notes that the RivTAM 2035 projections were used to evaluate future cumulative impacts from projections of long-term development and growth throughout the Coachella Valley and Southern California. It is necessary to demonstrate that the RivTAM represents buildout of the known cumulative development Specific Plans in the vicinity of the proposed project to ensure that roadways are properly sized to serve ultimate travel demand in the study area.

Response

As stated in the traffic study, RivTAM is the approved subregional travel demand model developed by Riverside County for use by local jurisdictions to evaluate cumulative traffic impacts. RivTAM provides the best projections available of cumulative traffic volumes for the year 2035, which was evaluated as the project buildout year.

RivTAM is a 20-year planning horizon model developed to forecast year 2035 traffic volumes. The traffic study evaluating the Section 24 Specific Plan evaluated a proposed development within Riverside County that would be consistent with the *Riverside County General Plan* and, for this reason, does not require a General Plan buildout analysis. No further analysis of long-term cumulative traffic impacts is required under CEQA for a project that is consistent with the general plan as the cumulative impact was adequately addressed in the previously certified EIR for the Riverside County General Plan. Per the CEQA Guidelines, a project's contribution to a significant cumulative impact is rendered less than cumulatively considerable, and thus not

significant, if the project funds its fair share of the mitigation designed to alleviate the cumulative impact. The future developments within the Section 24 Specific Plan will pay their fair share of the cost of mitigation through the contribution of fees equivalent to those required by participation in the TUMF program, which funds the improvements to the regional arterial roadway system required to accommodate planned land uses, including the development of the uses allowed by the *Riverside County General Plan* and other jurisdictions as reflected in RivTAM.

Urban Crossroads Comment 3

The project description section of the report presents trip generation totals and comparisons for and to the Riverside County General Plan and the City of Rancho Mirage General Plan that are insufficiently detailed to verify the basis for the data presented. The basis of these trip generation figures needs to be presented in the report. For instance, the report appears to allocate the "High Density Residential" use for Rancho Mirage to multi-family development. The maximum allowable density for this use is 9 dwelling units per acre, which corresponds to single-family detached residential development.

Response to Comment 3

Footnotes a-f to Table 2-1on page 2-4 of the Project Description section present detailed information on the assumptions used to develop the trip generation estimates in this table. Only assumptions documented in the City of Rancho Mirage General Plan EIR, and the Riverside County Integrated Plan (General Plan) assumptions used in the RivTAM were used to develop Table 2-1. The City of Rancho Mirage General Plan High Density Residential land use designation allows 5 to 9 dwelling units per acre. Although this designation was generally assumed to result in approximately 50 percent single-family residential and 50 percent multiple-family residential for in Rancho Mirage General Plan Update traffic model, the area with this designation within the Traffic Analysis Zone (TAZ) that includes the project site, was assumed to be all multiple family residential.

Urban Crossroads Review of Response to Comment 3

Based on the response, it appears that the traffic study is only entitling multiple family residential dwelling units within the project site. Please confirm that this is the intent.

Response

As shown in Table 2-1 of the traffic study, the project includes both non-residential and residential land uses. The 2005 City of Rancho Mirage General Plan designates the 39 acres of Section 24 located adjacent to the intersection of Los Alamos Road and Ramon Road as High Density Residential, a land use designation that would allow the 351 multiple-family residential units identified in Table 2-1. The traffic study includes a detailed description of the land uses proposed in the Section 24 Specific Plan. The Initial Phase would include only single-family dwelling units in the 320 acres proposed for development as an Active Adult (age restricted) Community.

Urban Crossroads Comment 4

The "Consistency with General Plan Land Use Designations" section of the report concludes by stating that the project would generate substantially more non-residential trips than would be allowed under the City of Rancho Mirage General Plan, suggesting that a General Plan buildout analysis shall be (and is not) included in the report. This is also supported by Table 2-1, which indicates that the proposed project would generate 73,890 daily trips, compared to 48,780 daily trips for the City of Rancho Mirage General Plan.

Response to Comment 4

The traffic study included a project buildout analysis prepared in accordance with the methodology in the Riverside County TIA Preparation Guide, which states that project buildout analysis should be conducted using an approved model. This Guide states that if a proposed project is large enough to have the potential to create impacts significantly greater than the Riverside County General Plan land uses, additional modeling may be

required. As described above, the Section 24 Specific Plan project will generate less traffic than the uses allowed by the County General Plan land use designations. Nonetheless, due to the size of the proposed Section 24 Specific Plan Project, additional modeling was completed using RivTAM to analyze the impacts of the project. The proposed land uses were added to the RivTAM model and the results from this additional modeling were used in the analysis.

Examination of the 2035 socio-economic data (SED) in RivTAM showed that the level of growth for Rancho Mirage in these projections equates to 100% of the City's General Plan buildout projections for both population and housing and 70% of the employment projection. The RivTAM employment forecast, which is based on more recent SCAG growth forecasts, is more up to date and reliable than the employment projection in the City's 2005 General Plan. In this regard the RivTAM 2035 growth projections are generally representative of buildout of the City's General Plan.

Urban Crossroads Review of Response to Comment 4

For purposes of modeling General Plan buildout conditions, it is typically necessary to update the RivTAM data to reflect General Plan buildout throughout the jurisdiction under consideration. A recent example is the General Plan traffic study performed for the City of Coachella. The proximity of the proposed project to the City of Rancho Mirage boundary with adjacent jurisdictions indicates the need to ensure that buildout of vacant land in the adjacent areas is also considered.

The tables that are attached to the response to comments document do not include any information related to employment. The majority of the development potential in the City of Rancho Mirage is non-residential. Therefore, employment data is critical to assessing the adequacy of the traffic impact study.

Response

As discussed above, further review of the RivTAM SED indicates that the model includes approximately 70% of the employment projection in the City's 2005 General Plan. The RivTAM employment forecast reflects the SCAG 2004 Growth Forecast for the horizon year 2035 and is more up to date and reliable than the employment projection in the City's 2005 General Plan. Each local jurisdiction, including the City of Rancho Mirage, provided employment, housing, and population data based on their General Plans for incorporation in RivTAM. Only the employment data reflecting buildout of the Section 24 Specific Plan site was modified in RivTAM, as documented in the traffic study appendix. Table 2-1 of the traffic study includes the employment associated with the proposed project as well as the land uses designated in the City and County General Plan for the project site.

The 2005 Rancho Mirage General Plan includes approximately 3,200 jobs for the 75 acres designated C-C within the project site plus the 36 acres designated Rest-H occupied by the Agua Caliente Casino Resort Spa. The maximum employment for the project site under the City General Plan would include 2,287 jobs (based on an assumed FAR of 0.35). The proposed project would have an employment of 6,277 jobs upon project buildout.

The RMTM assumed employment of 40,323 in the City's Planning Area, which exceeds by 61 percent the 25,029 employment projection in the 2005 Rancho Mirage General Plan. The employment assumed in the RMTM included buildout of the Northern and Southern Sphere of Influence areas as defined in the City's General Plan. The development of 4,084 acres north of Interstate 10 was assumed to generate a future employment in excess of 12,000. Much of the area north of I-10 (approximately 1,500 acres) has been included in conservation areas that will never be developed. Cathedral City also annexed 591 acres of this area. It is unlikely that any of the remaining area north of I-10 will be annexed to the City of Rancho Mirage. The potential for the remaining developable area north of I-10 to generate 133,134 trips, as forecast by the RMTM, is very remote.

As stated above, the RivTAM employment forecast, which is based on recent SCAG growth forecasts, is more up to date and reliable than the employment projection in the City's 2005 General Plan. In this regard the RivTAM 2035 growth projections are generally representative of buildout of the City's General Plan.

Urban Crossroads Comment 5

Study area limits for traffic studies prepared in the County of Riverside generally adhere to the requirements of Riverside County and include all intersections within a five (5) mile radius of the project where the project contributes 50 or more peak hour trips. Why was this not performed?

Response to Comment 5

The Riverside County Transportation Department TIA Preparation Guide requires a buildout analysis for all General Plan Amendments and Specific Plans that would increase the amount of traffic generated beyond the amount that would be generated by the land uses allowed by the Riverside County General Plan assumed in RivTAM. If the Section 24 Specific Plan would generate more traffic than the uses allowed by the Riverside County General Plan then the study area would need to be large enough to determine if the General Plan circulation network could support the travel demands generated by the proposed land uses. However, as discussed above, the land uses included in the Section 24 Specific Plan represent a decrease in the land use intensity when compared to the Riverside County General Plan and would result in approximately 16.5 percent fewer weekday trips than the land uses allowed by the Riverside County General Plan. Therefore, the Section 24 Specific Plan should not result in traffic impacts that would require circulation network improvements beyond those already considered in RivTAM based on the County General Plan land use designations for the site.

The City of Rancho Mirage generally examines intersections within one mile of a site and, in this case, the City reviewed the scope of this traffic study and all intersections identified by the City were analyzed.

The scope of the traffic impact analysis in the traffic study was determined based on a review of initial RivTAM model runs, which were reviewed to determine the amount of traffic the project contributed in relation to the capacity of the regional roads and intersections analyzed in the model. Most of the roadways serving the Project Site are high-volume regional arterial streets. Except for the proposed site access intersections, most of the intersections near the Project Site are fully improved to General Plan standards.

In addition, the study area for the traffic study was developed in response to comments from the City of Rancho Mirage provided in a letter to dated February 12, 2004 submitted in response to the Notice of Intent to prepare the Section 24 Specific Plan EIS issued by the Tribe that included comments on Transportation and Traffic. Specifically, these comments recommended that "all intersections and road segments within a mile of the project site should be studied including the impact on the newly constructed Bob Hope freeway bridge and Ramon Road."

City staff requested that the study area be expanded to extend one mile from the perimeter of the project site and the number of intersections studied be expanded from 12 to 17 intersections. The traffic study addressed 17 existing and 23 future key intersections, covering the entire study area requested by City staff. Although project traffic would travel on roadways beyond the study area, the potential incremental contribution of traffic from the Section 24 project to cumulative impacts on streets outside the study area will be mitigated through payment of TUMF fees, which fund improvements to roads throughout the Coachella Valley.

The developers of future projects within the Section 24 Specific Plan will improve the site access intersections and make contributions equivalent to the CVAG TUMF prior to the issuance of building permits. These funds will be used to fund regional transportation improvements, including future improvements to the regional road network to accommodate the traffic volumes identified in the RivTAM traffic model. The traffic study identified that the Section 24 Project would not result in significant impacts to the major arterial intersections analyzed. As

these are the intersections that would be most impacted by the Project, examination of more distant intersections is not necessary as the proposed project has a very long development horizon and may not be completed for fifty years. Any analysis of distant intersections that far in the future would, at best, be speculative. Future traffic volumes at these intersections will depend on the density and intensity actually achieved within the site as well as on all undeveloped land in the surrounding areas. Many variables could change the trip generation of the land uses in the area over time such as the price of gasoline, and the availability of public transportation, and the future Jobs/Housing balance would not result in significant impacts at these intersections.

Urban Crossroads Review of Response to Comment 5

The project site is currently vacant. California Environmental Quality Act (CEQA) guidelines require the evaluation of project impacts compared to the existing (vacant) condition. Large Specific Plans do in fact require extensive analysis for a large study area extending up to (and in some cases beyond) five miles from the project site. A relatively recent example is the Travertine Point Specific Plan project located in the eastern Coachella Valley.

Response

As required by the CEQA, the traffic study includes a detailed evaluation of existing and existing plus project conditions, as well as near-term conditions (including specific cumulative developments) and project buildout conditions. The project buildout analysis included the use of the adopted subregional transportation model to forecast the growth in background traffic associated with cumulative development throughout the Coachella Valley for the horizon year 2035.

Proposed specific plan projects that would increase the intensity of future development within a site and generate more trips than anticipated by the Riverside County General Plan land use designations may require transportation improvements beyond the General Plan Circulation Element classifications and justify a larger study area. Similarly, specific plans in undeveloped areas with interim roadway improvements may require a larger study area to evaluate the timing of future roadway widening. Specific plans with rapid development schedules may result in near-term impacts over a larger area and require an extended study area. The proposed Section 24 Specific Plan has none of these characteristics. The proposed land uses would generate less traffic than anticipated in the Riverside County General Plan. Most of the streets serving the development have already been widened by others and have the available capacity to accommodate the proposed Initial Phase of development without improvements other than proposed for site access. The area is centrally located in the Coachella Valley and regional access is provided by I-10. The project would be constructed over a long development period with only six percent of the total trip generation occurring by the year 2022.

The study area was based on the guidance provided in the Riverside County TIA Preparation Guide and coordination with the City of Rancho Mirage, prior to the initiation of the traffic study. The project site is in unincorporated Riverside County and the Riverside County General Plan Circulation Element roadway classifications were established to be consistent with the land uses in the Land Use Element of the Riverside County General Plan. The proposed land uses are consistent, and less intense than the uses shown in the Riverside County General Plan. The future travel demands associated with the land uses in the Riverside County General Plan have been evaluated in the Riverside County Comprehensive General Plan EIR. In addition, as discussed above, the RivTAM reflects the growth permitted by the City's General Plan as well as the General Plans of other jurisdictions in the County, including the City of Rancho Mirage. For these reasons, the future transportation system required to accommodate those travel demands is shown in the Circulation Element of the Riverside County General Plan and not reflected in RivTAM. The RivTAM forecasts are also used as the basis for the Coachella Valley Regional Arterial Program administered by the Coachella Valley

Association of Governments, which allocates funding for improvements to regional arterial roadways from the TUMF program and Measure A, the sales tax initiative approved by Riverside County voters to fund transportation system improvements through the year 2039.

Urban Crossroads Comment 6

The area conditions section indicates that only the City of Rancho Mirage was contacted regarding potential near term cumulative development. The Cities of Palm Desert and Cathedral City are located in close proximity to the project site and should have also been contacted. Why not?

Response to Comment 6

The City of Rancho Mirage was contacted regarding the potential for near-term cumulative development within the study area, and cumulative development from the Cities of Palm Desert and Cathedral City was addressed by the projected increase in through traffic volumes on the roadways studied in the RivTAM growth projections. Both the near-term and horizon year scenarios included cumulative traffic from the Cities of Palm Desert and Cathedral City based on RivTAM projections.

Urban Crossroads Review of Response to Comment 6

The response to this comment suggests that nearby cumulative development was adequately addressed in the traffic impact study report. This statement cannot be verified in the absence of a list of known cumulative projects from the adjacent jurisdictions.

Response

The City of Rancho Mirage identified two near-term cumulative development projects that were addressed in the traffic study. The year 2022 near-term traffic scenario in the Section 24 Specific Plan Traffic Impact Study included these two cumulative projects, as well as background traffic growth determined by interpolating between existing and year 2035 traffic volumes developed using RivTAM. The traffic impacts from the Section 24 Specific Plan development would be very limited in the year 2022, since the Initial Phase would generate only six percent of the total project-related trip generation. For the horizon year 2035 traffic scenario, the Section 24 Specific Plan Traffic Impact Study used RivTAM to address all cumulative traffic demands associated with development throughout six Southern California counties. RivTAM was developed for use by local jurisdictions and planning agencies in evaluating cumulative development expected to occur by the year 2035 in Rancho Mirage, unincorporated Riverside County, Tribal lands, as well as the neighboring cities.

Urban Crossroads Comment 7

The traffic study (pg. 3-4) identifies the Riverside Traffic Analysis Model (RivTAM) as the basis for establishing project buildout (full occupancy) horizon year conditions. This is appropriate for valuating project buildout impacts, but does not address overall General Plan buildout conditions and transportation infrastructure needs in the study area. The report shall address General Plan buildout conditions and transportation infrastructure needs in the study area.

Response to Comment 7

The Section 24 Specific Plan Traffic Study uses the Riverside County Transportation Analysis Model (RivTAM) model to evaluate the horizon year 2035. The City participated in the development of RivTAM, which was developed for use for transportation planning purposes through Riverside County by all levels of governmental jurisdiction and by private entities and to assist in determining the potential impacts of large development proposals and General Plan land use changes. As described in the 2011 Riverside County Congestion Management Plan, the RivTAM model is based on the SCAG 2008 model (which was updated to include new growth forecasts for the Year 2035) with refinements to reflect local conditions within Riverside County. The RivTAM model is more current than the RMTM and the Coachella Valley Area Traffic Study (CVATS) model, more current than the SCAG Regional Transportation Model, and incorporates the best available growth

forecasts, taking into account both existing and planned land uses and demographic projections. For these reasons, RivTAM is the most complete and accurate growth model available to assess the long-term cumulative traffic impacts of uses allowed by the City's General Plan.

Urban Crossroads Review of Response to Comment 7

As discussed in the response to Comment 4 and the review of this response, it is acknowledged that modifications to the RivTAM input data are necessary to accurately represent General Plan buildout conditions. Based on the traffic volume comparison previously presented in this review letter, it does not appear that General Plan buildout conditions are adequately represented.

Response

As discussed above and summarized below, RivTAM does reflect the growth allowed by the City's General Plan. Since the project is consistent with the Riverside County General Plan, no General Plan buildout analysis is required. RivTAM is not a General Plan buildout model, but rather a 20-year planning horizon model. As discussed above, the RivTAM 2035 projections reflect all of the population and housing anticipated by the City's General Plan and includes future employment based upon the SCAG 2004 Growth Forecast. Since the RivTAM projections are consistent with updated SCAG growth forecasts, the RivTAM employment projections for the City are considered to be more up to date and reliable than the projection in the 2005 General Plan, which as discussed above, assume more employment will be generated in the City's Sphere of Influence than is now anticipated.

The Riverside County General Plan includes a Land Use Element and Circulation Element. The proposed project is consistent with both the Land Use Element and the Circulation Element. The Riverside County General Plan roadway network and City of Rancho Mirage General Plan roadway network would be adequate to provide acceptable levels of service upon buildout of the proposed Section 24 Specific Plan Project as well as the residential and population growth anticipated by the City's General Plan and 70 percent of the City General Plan employment growth. The traffic model was not modified to be a Rancho Mirage General Plan buildout model and the horizon year 2035 traffic projections developed are not intended for use in updating the Rancho Mirage General Plan.

Urban Crossroads Comment 8

The report (pg. 3-4) discusses various Specific Plan developments in this section of the report. The report shall discuss whether these developments are adequately represented in the RivTAM forecasting tool. If they are not adequately represented, additional analysis should be completed that includes these known cumulative developments to adequately address overall long term transportation infrastructure requirements in the study area.

Response to Comment 8

The Section 19 Specific Plan in Rancho Mirage and the North City and North City Extended Specific Plans in Cathedral City are large specific plan areas that will be developed over decades in response to market conditions. As mentioned above, no specific plan has been proposed yet for Section 13. The latest version of RivTAM was obtained from Riverside County at the start of the traffic study in August 2013. RivTAM was developed to be the source of future travel demand estimates for use in Federal and California environmental documents. RivTAM is periodically modified to be consistent with the most recent SCAG Growth Forecast. The demographic assumptions in the traffic analysis zones containing Section 13 and Section 19 Specific Plans were reviewed with the City and determined to be sufficient for the purposes of analyzing potential cumulative impacts in this study as RivTAM is based on adopted local and regional growth projections through the year 2035 and based on review of the SED in RivTAM, this model reflects the growth allowed by both the City and County General Plans.

Urban Crossroads Review of Response to Comment 8

A quantitative comparison of the RivTAM data and the buildout potential of the various Specific Plans is necessary to assess the validity of this response.

Response

Riverside County requires projects that propose an increase in the currently approved density and intensity land use to evaluate the long-term impacts of the project to demonstrate that the planned roadway system can support the proposed project and those land uses already allowed in the area. Since the proposed project would not increase the currently intensity of land uses allowed by the Riverside County General Plan, this long-term buildout analysis is not required.

RivTAM was developed by Riverside County with input from all local jurisdictions and to provide horizon year 2035 travel demand estimates for use in environmental documents. RivTAM represents the best available source for cumulative traffic projections from future development throughout six Southern California counties as it reflects regional growth forecasts from SCAG. The latest available RivTAM update (August 2013) was obtained from Riverside County immediately prior to the initiation of the traffic study. RivTAM includes that portion of the other Specific Plans projected to be developed by the year 2035, based on local projections and the SCAG 2004 Growth Forecast.

Urban Crossroads Comment 9

Chapter 4 of the report begins with a discussion of the use of a 20 year time frame for analysis purposes. Although appropriate for evaluating off-site project impacts, it is important to recognize the buildout infrastructure requirements of the transportation system and ensure that adequate right of way is allocated and that the development project constructs appropriate on-site improvements in accordance with the subdivision map act.

Response to Comment 9

As discussed above, the best long range forecasting tool available for analysis of traffic impacts is the RivTAM 2035 model, which is the basis of the 20-year timeframe mentioned in this comment. The project land uses were added to the model to verify that the City's General Plan Circulation Element street sections were adequate to accommodate the traffic from the Section 24 project. The analysis determined the City's General Plan circulation system can accommodate the traffic from the Section 24 project and the project will dedicate the ROW to develop the adjacent streets consistent with the City's Circulation Element.

As discussed above, Table 2-1 in the traffic study shows the Section 24 Specific Plan would generate less traffic than buildout of the site under the Riverside County General Plan. The roadways as planned in the County Circulation Element and City of Rancho Mirage General Plan Circulation Element would, therefore, provide acceptable levels of service with the addition of traffic from the Section 24 Specific Plan.

Urban Crossroads Review of Response to Comment 9

Please refer to previous review of Responses 1, 2, 4 and 7.

Response

Future traffic conditions at the theoretical build out of Riverside County (including a cumulative analysis of buildout of the cities within the County) were analyzed previously when the proposed General Plan build out circulation system and Circulation Element were adopted in conjunction with the Riverside County General Plan. The comprehensive planned roadway system for Riverside County described in the Circulation Element was evaluated to ensure adequate roadway rights-of-way within the unincorporated territory as needed to enhance the arterial network to respond to anticipated growth and mobility needs. The LOS thresholds and analyses in the EIR addressed segment-level operations to identify deficiencies on the roadway system at build

out and provide for future expansion and improvements based upon travel demand. The certified EIR for the Riverside County General Plan analyzed the overall adequacy of the proposed roadway and highway system in the Circulation Element. Since the proposed project would generate less traffic than the land use designations for the site in the *Riverside County General Plan* and, as discussed in detail above, RivTAM also reflects the growth allowed by the City's General Plan, the transportation system would be adequate and sufficient right-of-way to accommodate future transportation improvements shall be dedicated, as appropriate.

In Riverside County, any individual development project may be required to provide a traffic analysis to assess peak hour impacts at affected intersections to identify needed mitigation measures to achieve or maintain the target level of service. This ensures that individual development projects do not create bottlenecks at the intersections of the roadway system whose roadway widths and rights-of-way were previously examined as part of the General Plan and its environmental analysis. The Section 24 Specific Plan Traffic Impact Study assessed the peak hour impacts at intersections identified for study by the Tribe and the City of Rancho Mirage based upon their familiarity with conditions within the study area.

Urban Crossroads Comment 10

The report discusses the unique peaking characteristics associated with various land uses within the study area. The report also notes the likelihood that the proposed senior adult residential uses would generate traffic during unique time frames (other than the typical AM and PM peak hour peaks of commuter traffic). The study shall therefore include analysis of additional time frames at intersections located in close proximity to uses that generate unusual peak conditions (e.g., schools).

Response to Comment 10

The intersection of Rattler Road and Ramon Road was studied in the Section 24 Traffic Study to address the potential for impacts associated with traffic from Rancho Mirage High School. Pedestrian and motor vehicle volumes were counted at this intersection during the hours of 2 PM to 4 PM to include the peak exiting traffic from the high school. As shown in Table S-7, this intersection was projected to operate at LOS A with the critical movements using 49 percent of the intersection capacity. The addition of Phase 1 of the project utilized approximately one percent of the intersection capacity.

As shown in Table 5-7 of the traffic study, the first phase of the Section 24 Project, which consists of the Active Adult residential housing generated traffic that would utilize up to 2 percent of the capacity at any off-site intersections with existing off-site lane configurations. With a maximum volume-to-capacity of 84 percent, none of the off-site key intersections were close to requiring mitigation with year 2022+Phase 1traffic volumes. Even with higher off-peak traffic generation from the senior housing development, none of the off-site key intersections would require mitigation, especially with the reduced commuter travel during these off-peak hours.

Review of Response to Comment 10

The discussion of the measures taken to ensure that local peak conditions related to schools presented in the response should be incorporated into the environmental documentation to clearly document the defensibility of the document.

Response

All of the information provided above in the response to this comment is included in the traffic study. Details regarding the traffic counts are discussed in the baseline and impact sections and the count locations and actual count data are included in Appendix 1 of the traffic study. A detailed discussion of the time periods selected for analysis is provided on pages 4-1 and 4-2 of the traffic study. The potential impacts of the residential community designed for active seniors are addressed separately as the Initial Phase and shown in the peak hour intersection level of service analysis. The number of trips generated by the Initial Phase would represent only six percent of the trips generated upon project build out.

Urban Crossroads Comment 11

The report (pg. 4-2) includes a section describing the "Horizon Years and Development Scenarios Evaluated". Given the increase of trips compared to the City of Rancho Mirage General Plan, additional analyses addressing General Plan buildout conditions shall be included in the analysis.

Response to Comment 11

As discussed above in detail, the RivTAM model was determined to be the best analysis tool available to consider long term cumulative impacts, including the growth allowed by the City's General Plan.

Urban Crossroads Review of Response to Comment 11

Please refer to previous review of Responses 1, 2, 4, and 7. The response requires further investigation and documentation to verify defensibility.

Response

Please refer to earlier responses, especially the response to comment 5. A General Plan buildout analysis is not required because the project is located in Riverside County and consistent with the Riverside County General Plan. In addition, as discussed above, RivTAM 2035 growth forecasts include all of the population and housing growth identified in the City's General Plan and an updated employment projection.

Urban Crossroads Comment 12

Trip generation assumptions and estimates presented in the traffic study report (pp. 4-4 through 4-7) have been reviewed. Additional data pertaining to the land use categories and trip rates used in the analysis shall be presented in the report. Only summary information is presented, which is inadequate to determine the accuracy and defensibility of the traffic study assumptions.

Response to Comment 12

The footnotes to Table 4-1 identify the land use codes used. The trip generation estimates in this table were developed from the regression equations and weighted average rates (when appropriate) in the ITE Trip Generation Manual as described in the text on pages 4-3 to 4-7.

Urban Crossroads Review of Response to Comment 12

The response to comment 14 refers to very detailed adjustments reflecting the on-site circulation and numerous site access points. This detailed information and the resulting adjustments should be included in traffic study report.

Response

The traffic study includes five tables, twelve figures, and seven pages of narrative detailing the trip generation forecast and the methodology utilized to develop the site traffic volumes at the site access points. Appendix 2 provides a map of the RivTAM TAZs and includes the modifications made to the RivTAM SED and circulation network. This documentation is extensive and adequate to justify the assumptions made. The RivTAM modifications were all made by an approved Riverside County consultant, in accordance with the County's procedures for use of the RivTAM model. Endo Engineering does not have direct access to RivTAM and requested no modifications other than the correction of obvious deficiencies, as documented in Appendix 2 of the traffic study.

Urban Crossroads Comment 13

Using the standard Riverside County criteria of 50 peak hour trips representing the threshold for requiring peak hour intersection analysis, the project impacts shall be evaluated at all intersections within a five mile radius where the project trip distribution is higher than 0.7%.

Response to Comment 13

As discussed above the scope of the traffic impact analysis was determined based on a review of initial RivTAM model runs and consultation with the City to include all intersections where the proposed Project would be likely to result in any potentially significant impacts. As the Project did not result in significant impacts at the study intersections, analysis of more distant intersections is not warranted or necessary to determine the impacts of the Project.

Urban Crossroads Review of Response to Comment 13

The project is located in a relatively undeveloped area of the City of Rancho Mirage. It is inaccurate to assume that more distant intersections in more developed areas of Rancho Mirage and the adjacent jurisdictions are not nearing capacity and will not be potentially impacted by the proposed project.

Response

It should be noted that the Section 24 Specific Plan area is not located within the City of Rancho Mirage. It is located entirely within unincorporated Riverside County territory. As discussed above, the Tribe has the discretionary authority to determine the scope of the traffic study, the study area, the key intersections to be evaluated, and the scenarios to be analyzed. Prior to the preparation of the traffic study, the guidelines in the Riverside County TIA Preparation Guide were carefully considered and coordination with the City of Rancho Mirage was undertaken and consensus was achieved at that meeting. The traffic study reflects that consensus in that it utilized RivTAM to develop the future traffic projections for the year 2035, expanded the study area as requested by City of Rancho Mirage staff, evaluated the additional key intersections requested, and included two near-term cumulative developments identified by City representatives.

Future individual development projects within the Section 24 Specific Plan area will contribute on a fair-share basis to the cost of mitigating any potential incremental regional traffic impacts by contributing impact fees equivalent to those required by the TUMF program. These contributions will be made prior to the issuance of building permits.

The Riverside County General Plan Circulation Element roadway classifications were established to accommodate the land uses in the Land Use Element, which are similar to but more intense than the proposed project. Since the proposed land uses are consistent with, and less intense than the uses shown in the Riverside County General Plan, the study area extends over an area of 7.5 square miles and includes 23 key intersections (including intersections in Cathedral City and Palm Desert as well as Rancho Mirage and unincorporated Riverside County). The future travel demands associated with the land uses in the Riverside County General Plan have been evaluated in the Riverside County Comprehensive General Plan EIR. The future transportation system required to accommodate those travel demands is shown in the Circulation Element of the Riverside County General Plan.

Urban Crossroads Comment 14

The project trip distribution discussion appears to be primarily based on the CVAG 2004 Origin Destination survey. Data from the RivTAM forecasting tool shall also be included in the traffic study report. RivTAM is based on a calibration to conditions more recent (2008) than the CVAG study.

Response to Comment 14

Although the CVAG 2004 Origin Destination Survey was used to develop RivTAM, the RivTAM projections were used as the basis for impact analysis of future conditions. The trip distribution was verified by the traffic counts at the key intersections. The proposed Section 24 Specific Plan Project includes seventeen access points with different components of the project sharing the access locations. The project traffic distribution was adjusted to reflect the detailed access and internal circulation plan associated with proposed project.

Urban Crossroads Review of Response to Comment 14

This additional information regarding how the project trip distribution was developed should be included in the traffic study report to enhance defensibility.

Response

No RivTAM calibrations were modified. The intent was to avoid making modifications beyond the project boundaries to maintain consistency with the approved subregional travel demand model.

Urban Crossroads Comment 15

Standard accepted practice is to evaluate project impacts at all intersections within a five (5) mile radius of the project where the project contributes more than SO peak hour trips. This corresponds to less than 1% of the project traffic as presented in the report for adjusted project trip generation.

The study area must be expanded in accordance with this criterion to ensure defensibility. The trip distribution is substantially higher than 1% at the edges of the study area on the 1-10 Freeway to the northwest (9.8%), the I-10 Freeway to the southeast (12.9%), Ramon Road to the east (22%), Bob Hope Drive to the south (16.1%), etc. Subsequent data (for instance, Figure 4-S) confirm this issue.

The Riverside County TIA Preparation Guide reads as follows:

In general, the minimum area to be studied shall include any intersection of "Collector" or higher classification street, with "Collector" or higher classification streets, at which the proposed project will add 50 or more peak hour trips, not exceeding a 5-mile radius from the project site.

Response to Comment 15

As discussed above, the Project does not result in significant impacts at any of the intersections studied, where the Project will contribute a greater percentage of traffic. Study of additional high capacity major arterial intersections that are more distant from the site is, therefore, not warranted.

Urban Crossroads Review of Response to Comment 15

Please refer to the review of Responses 5 and 13.

Response

As discussed above, the scope of the traffic study was based on the Riverside County TIA Preparation Guide and coordinated with the City of Rancho Mirage, prior to preparation of the traffic study. The circulation network was designed and approved by Riverside County to accommodate land uses consistent with the proposed project. The traffic study identifies, discloses and focuses on those impacts that were determined to be potentially significant.

As discussed above, prior to the preparation of the traffic study, the guidelines in the Riverside County TIA Preparation Guide were carefully considered and coordination with the City of Rancho Mirage was undertaken and consensus was achieved at that meeting. The traffic study reflects that consensus in that it utilized RivTAM to develop the future traffic projections for the year 2035, expanded the study area as requested, evaluated the additional key intersections identified, and included two near-term cumulative developments identified by City representatives. The traffic study identifies, discloses and focuses on those impacts that were determined to be potentially significant.

Urban Crossroads Comment 16

The traffic study report does not include sufficient information regarding the development of future 203S traffic volumes. The RivTAM forecasting tool is based on peak period traffic volume projections. These projections

should be used to develop 2035 conditions peak hour forecasts. The report forecasts do not appear to utilize this RivTAM data and are based instead on daily projections obtained from the RivTAM forecasting tool.

Response to Comment 16

As specified in the Riverside County Transportation Department TIA Preparation Guide, future traffic forecasts in the Section 24 Specific Plan traffic study used the RivTAM year 2035 traffic projections as the basis for determining turning movement volumes for the intersection analysis. The RivTAM daily forecast was used to establish the projected growth in the study area. New peak hour and daily traffic counts were combined with the RivTAM projections to identify future peak hour traffic volume projections. This methodology was discussed and accepted during the meeting with City staff in Rancho Mirage.

Urban Crossroads Review of Response to Comment 16

The methodology and supporting data (RivTAM plots, etc.) should be included in the Appendices to the traffic study report to the extent necessary to allow the reviewer to confirm /replicate the forecasting process.

Response

Consistent with Riverside County approved procedures, the RivTAM forecast was prepared by AFSHA Consulting, Inc., one of the consulting firms approved by the County to conduct modeling using the RivTAM. A TAZ map and the horizon year 2035 SED inputs used to address project buildout are provided in Appendix 2 of the traffic study.

Urban Crossroads Comment 17

All of the analysis scenarios shall be expanded to include all additional intersections where the project is anticipated to contribute more than 50 peak hour trips.

Response to Comment 17

Please see the responses above on the scope of the analysis in the traffic impact study.

Urban Crossroads Review of Response to Comment 17

Please refer to the review of Responses 5 and 13.

Response

Please refer to earlier responses. As discussed above, the scope of the traffic study was based on the Riverside County TIA Preparation Guide and coordinated with the City of Rancho Mirage, prior to preparation of the traffic study.

Urban Crossroads Comment 18

Analysis of General Plan Buildout conditions shall be included in the traffic study report, as an intensification in use compared to the City of Rancho Mirage General Plan is contemplated.

Response to Comment 18

As discussed above, the RivTAM 2035 traffic projections reflect the housing and population growth anticipated by the City's General Plan as well as the an updated employment growth forecast for the City, and the proposed Section 24 Specific Plan would generate less traffic than the uses allowed on the site by the Riverside County General Plan that are assumed in RivTAM. For these reasons, RivTAM reflects all growth that would be allowed by both the City and County General Plans.

Urban Crossroads Review of Response to Comment 18

Please refer to previous review of Responses 1, 2, 4, and 7.

Response

Please refer to earlier responses. As noted previously, a General Plan buildout analysis is not required for the proposed project by the Riverside County TIA Preparation Guide. The project is located in unincorporated Riverside County and would be less intense than the land use designations in the Riverside County General Plan which are reflected in the RivTAM model. In addition, as noted above, in addition, as noted above, the RivTAM 2035 traffic projections reflect the housing and population growth anticipated by the City's General Plan as well as the employment growth per the SCAG 2004 Growth Forecast.

Urban Crossroads Comment 19

The recommendations state (pg. 6-4) that the project proponent shall dedicate appropriate right-of-way to accommodate the ultimate improvement of the abutting General Plan roadways and full improve those roadway in conjunction with adjacent development. The project shall therefore be required to dedicate right-of-way and construct half-section improvements on Ramon Road, Bob Hope Drive, Dinah Shore Drive, and Los Alamos Road in accordance with the City of Rancho Mirage General Plan Circulation Plan.

Response to Comment 19

Based on discussions with the City, appropriate right-of-way will be dedicated as development of the areas adjacent to the surrounding streets occurs and appropriate improvements will also be constructed.

Urban Crossroads Review of Response to Comment 19

The response acknowledges the role of the City in determining the appropriate right-of-way and improvements in accordance with CEQA and the subdivision map act.

Response

All roadways within and adjacent to the project site will be improved consistent with the Section 24 Specific Plan.

APPENDIX H

Water Supply Assessment/Water Supply Verification

RESOLUTION OF THE BOARD OF DIRECTORS OF
COACHELLA VALLEY WATER DISTRICT

RESOLUTION NO. 2014-226

BE IT RESOLVED by the Board of Directors of the Coachella Valley Water District assembled in regular meeting this 12th day of November, 2014, that it hereby approves the Water Supply Assessment and Water Supply Verification for the Proposed Section 24 Specific Plan.

* * * * * * * * * * *

STATE OF CALIFORNIA)
COACHELLA VALLEY WATER DISTRICT) ss.
OFFICE OF THE SECRETARY)

I, JULIA FERNANDEZ, Secretary of the Board of Directors of the Coachella Valley Water District, DO HEREBY CERTIFY that the foregoing is a full, true and correct copy of Resolution No. 2014-226 adopted by the Board of Directors of said District at a regular meeting thereof duly held and convened on the 12th day of November, 2014, at which meeting a quorum of said Board was present and acting throughout. The Resolution was adopted by the following vote:

Ayes:	Four
Directors:	Powell, De Klotz, Nelson, Livesay
Noes:	None
Absent:	Pack

Dated this 12th day of November, 2014.

(SEAL)

Julia Fernandez
Board Secretary

COACHELLA VALLEY WATER DISTRICT

Board Action Item

Board Meeting Date: November 12, 2014

TO: Board of Directors

SUBJECT: Water Supply Assessment and Water Supply Verification for Proposed Section 24 Specific Plan

---

Description and Location

The proposed Section 24 Specific Plan (Section 24) consists of approximately 577 acres of land on the Agua Caliente Indian Reservation and is bounded by Ramon Road on the north, Bob Hope Drive on the east, Dinah Shore Drive on the south and Los Alamos Road on the west. It is surrounded by the City of Rancho Mirage on all four sides.

The proposed development includes 2,406 residential units and up to 3 million square feet of commercial space including retail, office, restaurant, hotel and entertainment uses.

Please see the attached map.

Purpose and Benefit of Project

The requirements for the preparation of a Water Supply Assessment (WSA) are set forth in Section 10910 of the California Water Code in accordance with SB 610, which was enacted in 2001 and became effective January 1, 2002. The Code requires that a WSA be prepared for any project, which would consist of one or more of the following:

- A proposed residential development of more than 500 dwelling units;
- A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space;
- A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space;
- A mixed-use project that includes one or more of the projects specified above;
- A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project.

Requirements for preparation of a Water Supply Verification (WSV) are set forth in Section 11010 of the Business and Professional Code and Sections 66455.3, 66473.7 and 65867.5 of the Government Code, as amended by SB 221, which was enacted in 2001 and became effective as of January 1, 2002. SB 221 established the relationship between the WSV for the project and the project approval under the Subdivision Map Act. Pursuant to California Code Section 66473.7, a Public Water System (PWS) must provide a written verification of sufficient water supplies prior

to the approval of a new subdivision. The WSV provides the legislative body of a city, or county with written verification from the PWS that a sufficient water supply is available for the project.

The Section 24 project requires a WSA/WSV because it proposes over 500 housing units and has over 250,000 square feet of commercial floor space.

The Section 24 WSA/WSV estimates total project water demand to be 1,780 acre-feet per year, or about 3.1 acre-feet per acre. Based on the projects proposed occupancy rates, it will have an average water demand of approximately 270 gallons per capita per day (gpcd) which is below CVWD's 20 by 2020 urban water use target of 473 gallons per capita per day.

This project will incorporate the elements of the 2010 Coachella Valley Water Management Plan Update (2010 CVWMP Update) and the 2010 Urban Water Management Plan (2010 UWMP). The urban water supply will come from the Whitewater River Subbasin for indoor and outdoor use. The project will be required to participate in all CVWD's water management programs, including the most current landscape ordinance, conservation programs, outreach and education programs, and tiered water pricing in place at the time of development. If additional supplies such as treated Colorado River water are available for use, the project will use these additional supplies.

The attached Section 24 WSA/WSV analyzes demand and supply based on the 2010 CVWMP Update, 2014 Status Report, and 2010 UWMP. These documents evaluate future supplies with and without Quantification Settlement Agreement in place and with long term reliability of State Water Project supplies at 50 percent.

Until the project begins construction, this WSA/WSV will be reviewed every five years or in the event that the 2010 CVWMP Update assumptions have changed. The project applicant shall notify the District before construction begins. The reviews will ensure that the information included in this WSA/WSV remains accurate and no significant changes to either the project or the District's water supply have occurred. If neither the project applicant nor the lead agency contacts the District within five years of approval of this WSA/WSV, the water supply assessment provided by this document will become invalid.

Procurement and Expenditures

This project does not utilize CVWD funds.

Environmental Impact

☐ No, this item is not a "project" as defined by CEQA; therefore, approval does not require any CEQA action.
☒ Yes, see below.

This project is defined as a subdivision in accordance with the Subdivision Map Act. The Agua Caliente Band of Cahuilla Indians is the Lead Agency for planning and environmental review of the project and is preparing an Environmental Impact Statement in compliance with both the Agua Caliente Tribal Environmental Policy Act (TEPA) and CEQA. As the Public Water Supplier (PWS) CVWD has determined that a WSA/WSV is necessary to complete CEQA compliance. However approval of this WSA/WSV does not require CVWD to take any additional CEQA action.

Legal Review

☒ Reviewed by Counsel
☐ N/A

Fiscal Impact

This project does not utilize CVWD funds and therefore has no negative fiscal impact on the Budget.

Prior Authorizations

☐ Yes, see attachment.
☒ N/A

Staff Recommendation

District staff has thoroughly reviewed this WSA/WSV and has determined that it demonstrates that sufficient water supplies exist to meet the demands of the project, and the project commits to participating in CVWD's 2010 CVWMP Update programs. It is recommended that the Board of Directors approve the Water Supply Assessment and Water Supply Verification for the proposed Section 24 Specific Plan.

Please see the attached proposed resolution.

Prepared by: Patti Reyes
Planning and Special Programs Manager

Submitted by: Mark Johnson
Director of Engineering

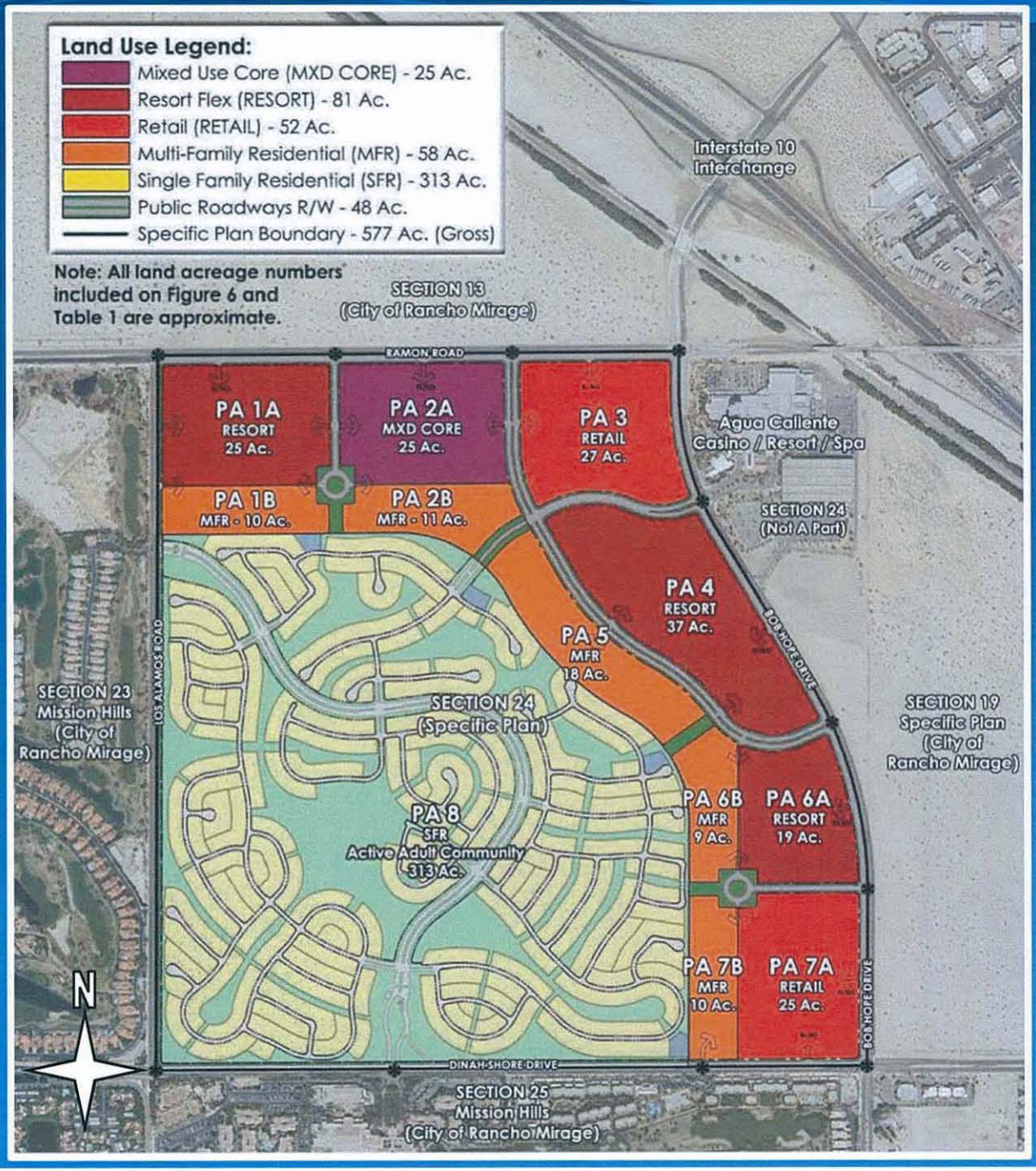
Approved by:

J. M. Barrett
General Manager

Attachments/as

FILE: 0483.05 and 0421.2

Request Board Adoption of Water Supply Assessment/Water Supply Verification for Proposed Section 24 Specific Plan



Water Supply Assessment

and

Water Supply Verification

For the Proposed

Section 24 Specific Plan

Prepared for:

Coachella Valley Water District
P.O. Box 1508
Coachella, California 92236

Prepared by:

Meridian Consultants, LLC
860 Hampshire Road, Suite P
Westlake Village, California 91361

November 2014

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EXECUTIVE SUMMARY

The Section 24 Specific Plan (proposed Project) is proposed to consist of up to 3,138,600 square feet of commercial retail, office, restaurant, hotel, and entertainment uses, and up to 2,406 residential units on approximately 577 acres of land on the Agua Caliente Indian Reservation (Reservation). The overall vision for the Section 24 Specific Plan is to create a master planned, mixed-land use community. The proposed Project will accommodate a higher density mix of retail, entertainment, office, hotel, and residential land uses within a commercial and mixed use development, in combination with a lower density active adult community in accordance with the objectives of the Agua Caliente Band of Cahuilla Indians (Tribe).

The Section 24 Specific Plan area (Project Site) is surrounded by the City of Rancho Mirage on all sides and is bound by the following roadways: 1) Ramon Road on the north; 2) Bob Hope Drive on the east; 3) Dinah Shore Drive on the south; and 4) Los Alamos Road on the west.

The public water supplier for the Project Site is the Coachella Valley Water District (CVWD). The domestic water supply (potable) for all water users of the Project will be groundwater from the western portion of the Whitewater River Subbasin in the Coachella Valley. This water supply assessment/water supply verification (WSA/WSV) commits to implementing the 2010 Coachella Valley Water Management Plan Update (2010 CVWMP Update) activities that apply to this development, including following the CVWD landscape ordinance in effect at the time of development.

This WSA/WSV relies on the water supply and demand planning considerations established in the 2010 CVWMP Update, the 2014 CVWMP Status Report, the CVWD 2010 Urban Water Management Plan (2010 UWMP), and the State of California, Department of Water Resources, Delivery Reliability Report 2011, Draft Delivery Reliability Report 2013 (Draft Delivery Reliability Report 2013).

As discussed in the 2010 CVWMP Update, the 2014 CVWMP Status Report, the 2010 UWMP, and this WSA/WSV, CVWD has implemented many programs to ensure a long-term sustainable water supply, including use of its Colorado River and SWP supplies, recycled wastewater, desalinated agricultural drain water, conversion of groundwater users to canal water users, and water conservation including tiered water rates, a landscaping ordinance, and outreach and education.

The proposed Project incorporates a number of features that reduce the overall water demand and provide for a reduction in use. These features include a number of water conservation measures for both indoor and outdoor use for both residential and commercial development. The proposed Project's total water demand estimate is approximately 1,780 acre-feet per year (afy); this total water demand corresponds to approximately 3.1 afy per acre which is within the average future water use per acre

estimated in the 2010 CVWMP Update. The Project's total urban water use would be 277 gallons per capita per day (gpcd), or 0.74 afy per residential dwelling unit. CVWD's 20 by 2020 urban water use target for urban water use is 473 gpcd. The Project's demand of 277 gpcd is below the 20 by 2020 per capita target of 473 gpcd. The Project is consistent with the application of the conservation requirements of the CVWD regulations including the Landscape Ordinance 1302.1, which requires reduced water allowances for landscaped and recreational areas. Similarly, the Project is consistent with the Agua Caliente Land Use Ordinance. Specifically, Article VII of the Tribal Land Use Ordinance, Landscaping Standards, ensures maximum water efficiency in comprehensive landscaping plans, irrigation plans, plant materials, and decorative water features. The Project is also consistent with the County of Riverside Ordinance No. 859, Water Efficient Landscape Requirements Ordinance, which establishes provisions for water management practices and water waste prevention for new and rehabilitated landscapes.

The proposed Project is required to secure approval of a WSA (Senate Bill [SB] 610) and a WSV (SB 221). In compliance with these legislated requirements, this WSA/WSV examines the current condition of the Coachella Valley groundwater basin (aquifer) and finds the water supply from the aquifer, the SWP, the Colorado River, and other sources are adequate to supply the proposed Project in accordance with California Water Code Section 10910 *et seq*. This WSA/WSV also verifies the ability of the water supplies from the aquifer, the SWP, the Colorado River, and other sources are available to serve the proposed Project in accordance with the California Government Code Section 66473.7.

This WSA/WSV will be reviewed every five years, or if CVWD determines that the planning assumptions of this document are no longer valid, until the Project begins construction. Each individual Project proponent shall notify CVWD when construction has begun. The review will insure that the information included in this WSA/WSV remains accurate and no significant changes to either the proposed Project or CVWD's water supply have occurred. If neither the individual Project proponent nor the lead agency contacts CVWD within five years of approval of this WSA/WSV, it will be assumed that the proposed Project no longer requires the estimated water demand calculated and the water supply assessment and water supply verification provided by this document will become invalid.

1.0 INTRODUCTION

1.1 BACKGROUND

The environmental review of the proposed Project is being prepared in compliance with both the Agua Caliente Tribal Environmental Policy Act (TEPA) (Tribal Ordinance No. 28) and the California Environmental Quality Act (CEQA) process and is a subdivision as defined by the California Government Code Section 66473.7 as consisting of 500 or more dwellings. The Coachella Valley Water District (CVWD), the Public Water System (PWS) for the proposed Project, has determined that a water supply assessment (WSA) is necessary to complete the proposed Project's TEPA and CEQA process and that a written water supply verification (WSV) is needed as a condition of any necessary County of Riverside (County) and/or City of Rancho Mirage (City) approvals for the proposed Project.

The Agua Caliente Band of Cahuilla Indians (Tribe), acting as the Lead Agency for the planning and environmental review of this proposed Project, has decided to prepare an Environmental Impact Statement (EIS) in compliance with the both TEPA and CEQA, and CEQA Guidelines (California Code of Regulations Title 14 Section 15000 et seq.) in order to minimize the duplication of environmental studies and documentation by other public agencies involved with the review and approval of actions related to the proposed Project that are required to comply with TEPA and CEQA, including the City and the Riverside County Local Agency Formation Commission (LAFCo). The Tribe has ultimate jurisdiction over land use decisions in Planning Areas 1 to 7, as discussed below. The City will have jurisdiction over land use decisions if Planning Area 8 is annexed into the City, and the County will have jurisdiction if Planning Area 8 is not annexed into the City.

CVWD prepared and adopted the 2010 CVWMP Update and the 2010 UWMP to manage water supplies and eliminate overdraft. These Plans identify programs necessary to ensure reliable water supplies. The proposed Project will participate in the CVWMP programs that are available to it including compliance with the most current landscape ordinance in place at the time of development, conservation programs, outreach and education programs and budget based tiered water rates. This WSA outlines how these programs eliminate overdraft and how the proposed Project will support the CVWMP programs.

1.1.1 Tribal Water History

The Reservation was established in 1876, and expanded in 1877. Documented reports by Federal Indian Agents in the Valley in the mid-1890s confirmed substantial ongoing Cahuilla agricultural activities, as well as the presence of an elaborate system of irrigation ditches and dams developing the water from the Whitewater River system, including a more than one mile long irrigation conveyance ditch from Tahquitz Canyon constructed around 1830.

In 1910, the United States Indian Irrigation Service (IIS) initiated a systematic effort to provide the Tribe with water resource development in support of the Tribe's irrigation as well as household and other water needs. In 1922, the Division of Water of the California Department of Public Works began the process of determining rights to the Whitewater River system, including tributaries of Andreas Creek and Tahquitz Creek. Further discussion on tribal information can be found in **Appendix A, Water Resource Litigation and Other Actions**.

1.2 PROJECT DESCRIPTION

1.2.1 Location

Regional Setting

The Section 24 Specific Plan area is surrounded by the City of Rancho Mirage which is considered to be in the heart of the Coachella Valley in Riverside County, nestled at the base of the Santa Rosa Mountains and conveniently located to utilize the southern California freeway system via Interstate 10 (I-10), as shown in **Figure 1, Regional Location Map**. The majority of future development in this area of the Coachella Valley is expected to occur near the I-10 corridor.

Community Setting

The Project consists of the development of a Specific Plan for a portion of Section 24, an approximately 577-acre area of the Reservation located within unincorporated Riverside County (Project Site), which is surrounded on all four of its sides by the City as illustrated on **Figure 2, Project Location Map**. The Project Site is bounded by the following roadways: 1) Ramon Road on the north; 2) Bob Hope Drive on the east; 3) Dinah Shore Drive on the south; and 4) Los Alamos Road on the west. The Section 19 Specific Plan is located directly east across Bob Hope Drive from the Project Site and directly southeast of the Agua Caliente Casino/ Resort/ Spa.

1.2.2 Specific Plan Overview

The Section 24 Specific Plan provides for approximately 577 acres of the Reservation, located within the City Sphere of Influence designated as Section 24, Township 4 South, Range 5 East of the San Bernardino Meridian, as illustrated on **Figure 2.** The Section 24 Specific Plan would be approved and adopted by the Tribal Council and serve as the zoning for the Project Site. The City would subsequently adopt the Specific Plan and approve any request(s) for annexation into the City. The Specific Plan would establish the necessary plans, development standards, regulations, infrastructure requirements, design guidelines, and implementation programs on which subsequent project-related development activities would be founded.

It is intended that local public works projects, design review plans, detailed site plans, grading and building permits, water use plans, or any other action requiring ministerial or discretionary approval applicable to the Project Site would be consistent with the Specific Plan.

1.2.3 Land Use Plan

The proposed Project would provide a potential mix of up to 3,138,600 square feet of commercial, retail, office, restaurant, hotel and entertainment uses, up to 1,206 medium density multifamily/single family attached residential units and up to 1,200 single family age restricted residential units. The proposed Project is designed to accommodate these uses through the creation of seven land use categories and eight Planning Areas that cover approximately 529 acres, as shown in **Figure 3, Conceptual Land Use Plan**. These Planning Areas, in addition to approximately 48 acres for public street rights-of-way, would total approximately 577 acres for the Project Site. The land use categories and Planning Areas would allow for a greater variety and flexibility of land uses and development standards, as shown in **Table 1.0-1, Land Use Plan Summary**.

The **Mixed-Use Core** (MXD CORE) land use category would provide the most intense and compact component of the Project Site, supporting the potential vertical integration of housing with ground floor retail commercial uses and services. Located within an approximately 25-acre area of the Project Site, the mix of uses is intended to produce a unique and walkable shopping, working, and living experience. This land use category allows a maximum of 1,090,000 square feet of mixed retail, restaurant, office, business campus, and hospitality-oriented indoor amusement/entertainment uses. Flexibility is also provided for possible hotel, multifamily, single family attached residential units within this category with a possible maximum Floor Area Ratio (FAR) of 1.0. Although this category would allow for various land uses, it does not require a specified mix of uses.

The **Resort Flex** (RESORT) land use category would permit uses such as retail, restaurants, resort hotels, and regional entertainment to create a lively and comfortable atmosphere for business and leisure travelers. The Resort Flex category accounts for approximately 81 acres of the Project Site with a maximum FAR of 0.40.

The **Retail** (RETAIL) land use category would provide the Project's primary shopping destination and would offer a range of commercial, office/ service, entertainment, and eating establishments on approximately 52 acres. These uses would be located at the northeast and southeast corners of the Project Site and would be exposed to the high volumes of traffic along Ramon Road, Bob Hope Drive and Dinah Shore Drive. A maximum FAR of 0.35 is specified for these areas.

The **Multi-Family Residential** (MFR) land use category would provide a more urbanized style of residential living on approximately 58 acres adjacent to the Mixed-Use Core, Retail, and Resort Flex land use areas. Permitted uses would include single and multi-family residential developments. Buildings of two stories in height could contain dwelling units at densities up to a maximum of 18 units per acre. These residential uses would serve as a transition between the higher intensity commercial areas and the low-density single-family residential area, which is planned as an Active Adult Community.

The **Single Family Residential** (SFR) land use category would accommodate an approximately 313-acre Active Adult Community up to 1,200 single-family dwelling units at an overall density of 3.8 units per acre. Building heights would be primarily one story with some potential for two story units within the interior of the Active Adult Community. Approximately 85 acres, or 27 percent, of the Active Adult Community would be devoted to Private Open Space, consisting of a system of pedestrian, bicycle and golf cart trail linkages, neighborhood parks, water features, community clubhouse/ pool/spa and associated amenities.

A total of eight Planning Areas delineate and describe the amount, type, and distribution of development throughout the Project Site. The Planning Areas have also been constructed to recognize the current ownership patterns, thus enabling the Project to be constructed in an incremental fashion while still achieving a unified development. Each Planning Area is subject to a distinct list of allowed uses and development standards. Planning Areas 1 to 7 (Tribal Planning Areas) and Planning Area 8 (the Active Adult Community) are proposed within the Project Site.

Planning Area 1 is approximately 35-acres in size and would be located at the northwest corner of the Project Site at the Ramon Road and Los Alamos Road intersection. This Planning Area would allow up to a maximum of 435,600 square feet of retail, restaurant and office/ services and hotel uses, or any combination thereof, in a planned Resort Flex development along Ramon Road and up to a maximum of 180 residential dwelling units accessible from Los Alamos Road and a planned local street.

Planning Area 2 is approximately 36-acres in size and would be located along the south side of Ramon Road and would allow up to a maximum of 1,090,000 square feet of mixed retail, restaurant, office, business campus and hospitality-oriented indoor amusement/ entertainment uses. This Planning Area would also allow up to a maximum of 180 residential dwelling units. Flexibility is also provided for possible hotel, multi-and single-family attached residential uses within this area.

Planning Area 3 is approximately 27-acres in size and would be located at the northeast corner of the Project Site, would be a gateway planning area accessible from three signalized intersections on Ramon Road and Bob Hope Drive, and would allow up to a maximum of 396,000 square feet of commercial retail, restaurant and entertainment uses around a planned “Main Street” village center.

Planning Area 4 is approximately 37-acres in size and would be located immediately south of Planning Area 3 along the west frontage of Bob Hope Drive, and represents a Resort Flex land use opportunity for commercial retail, restaurant, and hospitality-oriented indoor amusement/ entertainment uses which would allow up to a maximum of 505,000 square feet of mixed-use commercial development.

Planning Area 5 is approximately 18-acres in size and would allow up to a maximum of 486 residential dwelling units. This area would be located directly west of Planning Area 4 and would provide a land use-to-land use transition buffer from the more intense commercial uses in Planning Area 4 to the east and the lower density Active Adult Community in Planning Area 8 to the west.

Planning Area 6 is approximately 28-acres in size and would be located immediately south of Planning Areas 4 and 5 along the west frontage of Bob Hope Drive and would consist of two subareas: Planning Area 6A and Planning Area 6B. Planning Area 6A would consist of an approximately 19 acre Resort Flex land use for. Two signalized intersections on Bob Hope Drive would provide access to this sub planning area along with a mid-point right-in/ right-out turning lane. This Planning Area would allow up to a maximum of 331,000 square feet of mixed use commercial development, including a combination of commercial retail, restaurant, and hospitality-oriented indoor amusement/ entertainment uses, and would allow up to a maximum of 180 residential dwelling units.

Planning Area 7 is approximately 35-acres in size and would be located at the southeast corner of the Project Site. This Planning Area would allow up to a maximum of 381,000 square feet of mixed use commercial development, including neighborhood-scale retail, restaurant and office/ services center, and would allow up to a maximum of 180 residential dwelling units.

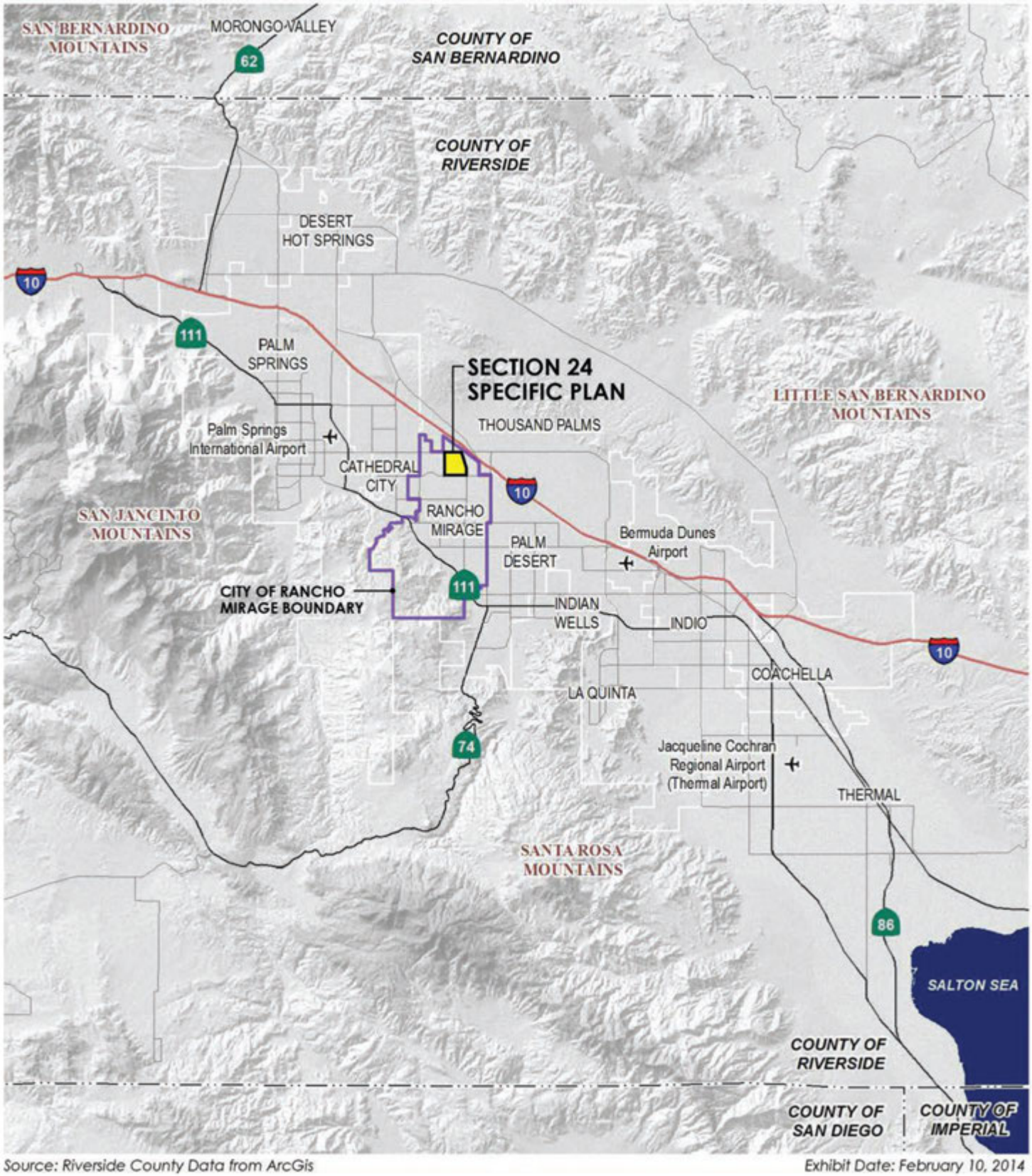
Planning Area 8 is approximately 313 acres in size and is planned for the development of a master planned Active Adult Community of up to a maximum of 1,200 single family dwelling units. The gated Active Adult Community would be master planned consisting of four neighborhoods accessed by a system of private streets and recreational open space amenities located in neighborhood parks and trail linkages.

The proposed Section 24 Specific Plan includes lists of permitted uses including those permitted without any conditions and those that require conditional use permits (CUPs) and public use permits.

Table 1.0-1
Land Use Plan Summary

Planning Area	Land Use Category	Typical Permitted Uses							Net Land Area (Acres)	Non-Residential Square Footage	Dwelling Units
		Community Retail	Restaurants	Office /Service	Resort Hotel	Multi-Family Residential	Single Family Residential	Mixed-Use			
1A	RESORT	X	X		X				25	435,600	-
1B	MFR					X	X		10	-	180
2A	MXD CORE	X	X	X	X	X	X	X	25	1,090,000	-
2B	MFR					X	X		11	-	180
3	RETAIL	X	X	X					27	396,000	-
4	RESORT	X	X		X				37	505,000	-
5	MFR					X	X		18	-	486
6A	RESORT	X	X		X				19	331,000	-
6B	MFR					X	X		9	-	180
7A	RETAIL	X	X	X					25	381,000	-
7B	MFR					X	X		10	-	180
8	SFR						X		313	-	1,200
Right-of-Way									48	-	-
Total									**577**	**3,138,600**	**2,406**

Abbreviations: RESORT = Resort Flex; MFR = Multi-Family Residential; MXD CORE = Mixed Use Core; RETAIL = Retail; SFR = Single Family Residential.

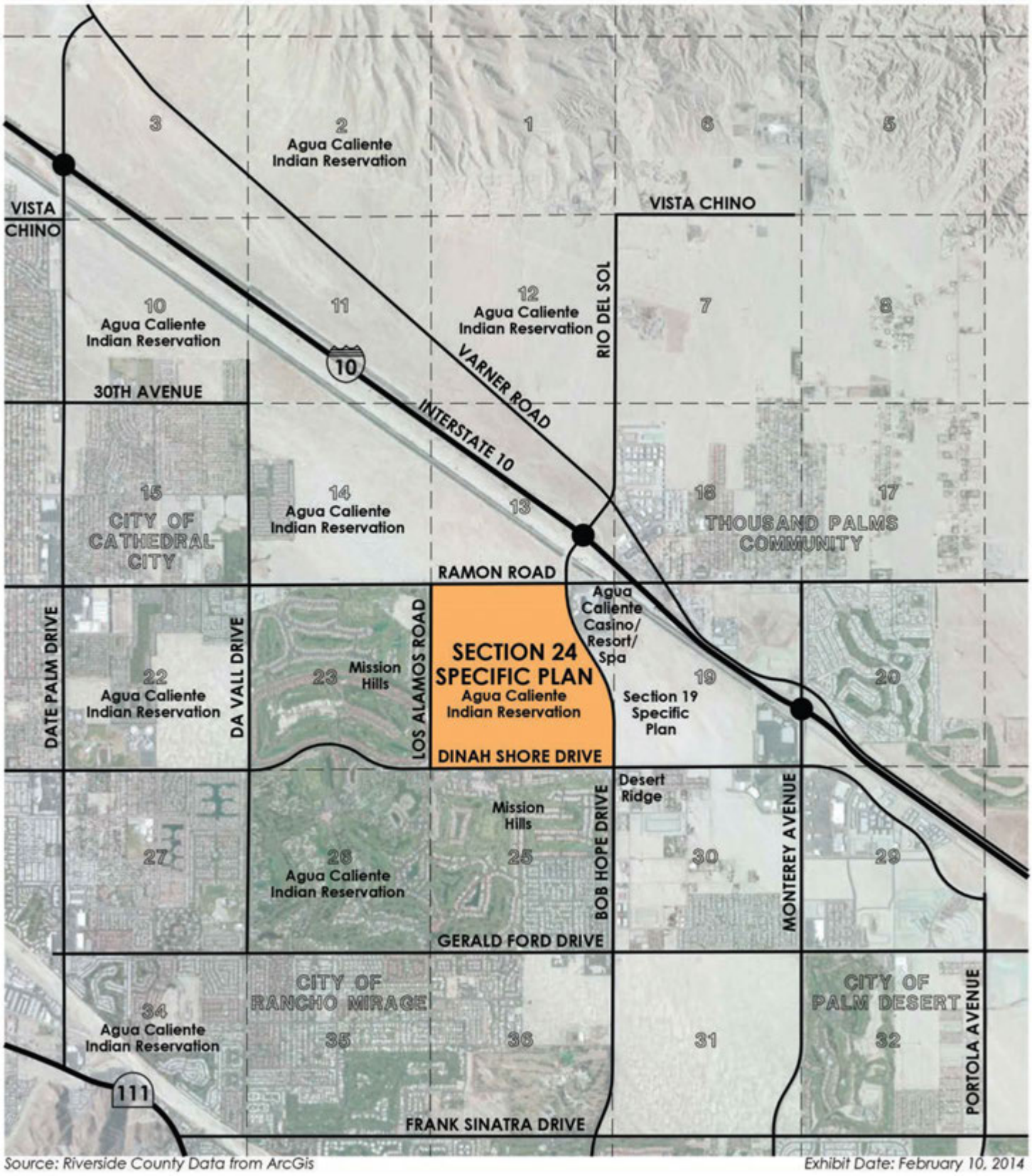


SOURCE: MSA Consulting Inc. - October 2014.

FIGURE **1**

Regional Location Map

044-001-13

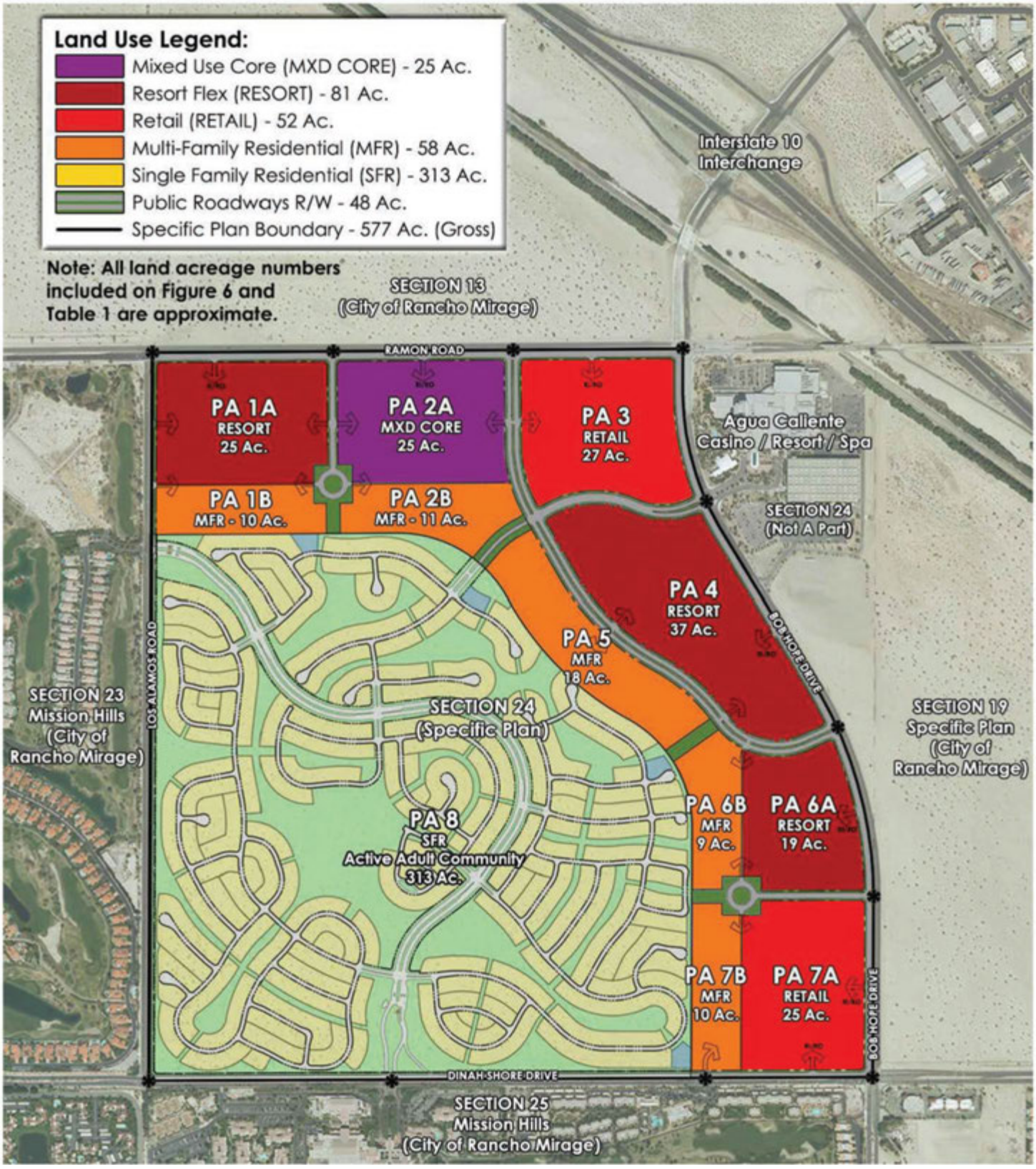


SOURCE: MSA Consulting, Inc. - October 2014

FIGURE **2**

Project Location Map

044-001-13



SOURCE: MSA Consulting, Inc. - October 2014

FIGURE **3**

Conceptual Land Use Plan

1.3 REGULATORY REQUIREMENTS

The Project is subject to the CEQA process and is a subdivision as defined by the California Government Code Section 66473.7. The CVWD, as the PWS for the Project, has determined that a WSA is necessary to complete CEQA compliance, and that a written WSV is required pursuant to the Subdivision Map Act.

CVWD completed its 2010 UWMP in compliance with the Urban Water Management Planning Act established in 1983 and most recently amended by SBx7-7 which requires a 20 percent reduction in per-capita water use by 2020. The CVWD also maintains a separate water management planning document, the 2010 Coachella Valley Water Management Plan (2010 CVWMP Update). The two planning documents are considered the primary reference documents for this WSA/WSV. The 2010 CVWMP Update discusses the Quantification Settlement Agreement (QSA). The QSA and related agreements were signed in 2003. A number of lawsuits have unsuccessfully challenged the QSA in state and federal courts. Both the 2010 UWMP and the 2010 CVWMP Update evaluate the water supplies under the QSA and prior to the implementation of the QSA.

The State of California Department of Water Resources (DWR) issues its final State Water Project Reliability Report every two years. The 2009 report was utilized in the 2010 UWMP and the 2010 CVWMP Updates; however, the Draft Delivery Reliability Report 2013 contains the most recent information. This report accounts for the impacts to water delivery reliability through 2029 associated with climate change and recent federal litigation. Based on information from the draft 2013 report, the average reliability of SWP Table A deliveries through 2029 is projected to be 62 percent of Table A amounts after taking into consideration the effects of climate change. In order to anticipate future reductions in reliability, the 2010 CVWMP Update and 2010 UWMP assumed an even lower long term reliability of 50 percent.

1.4 PURPOSE OF DOCUMENT

CVWD, as a PWS, is required by law to provide a WSA/WSV during the CEQA process and is required by law to provide a WSV following approval of the Tentative Map for the residential portion of the Project. This information is included in the CEQA documentation and it becomes evidence used in the approval process for the proposed development. It should be noted that this WSA/WSV addresses the overall water supply available to the CVWD to meet the demands of existing customers and other future demands. The WSA/WSV does not address the water delivery system within the CVWD's system since the focus is on the overall water supply. Adequacy of water supplies is addressed via CVWD's water master planning efforts. The WSA/WSV reviews and makes a finding of reasonable sufficiency of water supplies that either are available or will be available to CVWD to meet future demands. The

California Water Code requires a determination for a 20-year period (2017–2036) from the start of project construction.

The WSA/WSV must be reviewed every five years or in the event the water planning assumptions have changed, until the Project begins construction. The Project applicant shall notify CVWD when construction has begun. The review will insure that the information included in the WSA/WSV remains accurate and no significant changes to either the Project or CVWD's water supply have occurred. If neither the Project applicant nor the lead agency contacts CVWD within five years of approval of this WSA/WSV, it will be assumed that the Project no longer exists, and the water supply assessment and verification provided by this document will become invalid.

1.4.1 Water Supply Assessment

Requirements for the preparation of a WSA are set forth in Senate Bill 610 (SB 610), which was enacted in 2001 and became effective January 1, 2002. SB 610 amended Section 21151.9 of the Public Resource Code. It requires cities and counties to request specific information on water supplies from the PWS that would serve any project that is subject to CEQA and is defined as a Project in Water Code Section 10912. This information is to be incorporated into the environmental review documents prepared pursuant to CEQA.

State Water Code Section 10912 defines a Project as any of the following:

- A proposed residential development of more than 500 dwelling units
- A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space
- A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space
- A proposed hotel or motel, or both, having more than 500 rooms
- A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area
- A mixed-use project that includes one or more of the projects specified above
- A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project

The proposed development is a project, as defined by Water Code Section 10912, and requires a WSA because it proposes over 500 housing units; more than 500,000 square feet of commercial space; and would employ more than 1,000 people.

1.4.2 Water Supply Verification

Senate Bill (SB) 221 was enacted in 2001 and became effective as of January 1, 2002. SB 221 amends Section 11010 of the Business and Professional Code, and Sections 66455.3 and 66473.7, and Section 65867.5 of the Government Code. SB 221 establishes the relationship between the WSA prepared for a project and the project approval under the Subdivision Map Act. Pursuant to California Government Code Section 65865.5 and 66473.7, the approval of a development agreement or tentative map that includes a subdivision, as defined, shall be conditioned on obtaining a WSV.

The purpose of the WSV is to provide the legislative body of a city, county, or the designated advisory agency with written verification from the applicable public water purveyor that a sufficient water supply is available or, in addition, a specified finding is made by the local agency that sufficient water supplies are, or will be, available prior to completion of the project. Therefore, a WSV is required since this proposed Project has over 500 housing units, more than 500,000 square feet of commercial space, would employ more than 1,000 people, and is a subdivision, as defined by Government Code Section 66473.7.

1.5 WATER SYSTEM AND SUPPLY

1.5.1 Water System

The proposed potable water master plan is the backbone system for the Project. All of the in-tract water distribution facilities will be shown on subsequent improvement plans and will be designed and constructed in accordance with CVWD requirements.

CVWD's existing water supply and conveyance systems include, or will include, adequate capacity for daily demands and emergency fire protection. This includes groundwater pumping, transmission pipelines, distribution storage and surface pumping within internal roadways or other rights-of-way to provide domestic service to each residential and commercial tenant within the Project. In the future, CVWD's supply and conveyance system may also include delivery of Colorado River water treated for municipal use.

1.5.2 Water Supply

CVWD is the PWS for the area in which the Project Site is located. CVWD provides services for domestic water, irrigation water, sanitation sewerage collection, wastewater reclamation and recycling, imported water, stormwater protection and agricultural drainage.

CVWD currently has approximately 108,050 domestic water connections[1] and pumped approximately 115,800 acre-feet of groundwater in 2013.[2] However, the annual pumping capacity is approximately 300,000 afy. Areas served with domestic water by CVWD include portions of land near Desert Hot Springs, the Indio Hills area, and a portion of Cathedral City. CVWD serves all of Rancho Mirage, Thousand Palms, Palm Desert, Indian Wells, La Quinta, and a portion of Indio and Coachella. CVWD also serves other rural communities, including Thermal, Mecca, Oasis, Desert Shores, Salton Sea Beach, Salton City, North Shore, Bombay Beach, and Hot Mineral Springs and other portions of unincorporated Riverside County.

CVWD service area encompasses 639,857 acres, mostly within Riverside County, but also extends into northern Imperial and San Diego counties. The Coachella Valley is bordered on the west and north by high mountains, which provide an effective barrier against coastal storms, and which greatly reduce the contribution of direct precipitation to recharge the valley's groundwater basin. The majority of natural recharge comes from runoff from the adjacent mountains.

Development throughout the Coachella Valley has been dependent on groundwater as a source of supply. The demand for groundwater has annually exceeded the limited natural recharge of the groundwater basin. Therefore, imported water is used to recharge the aquifer and reduce groundwater overdraft. CVWD and the Desert Water Agency (DWA) work in conjunction as State Water Project Contractors to import State Water Project water supplies for recharge in the Western Coachella Valley.

1.5.3 Historical Context

The need to enhance the public water supply in the Coachella Valley has been recognized for many years. The formation of CVWD in 1918 was a direct result of the concern of local residents about a plan to export water from the Whitewater River to Imperial County. Early on, valley residents also recognized that action was needed to stem the decline of the water table, which was occurring as a result of local pumping in the eastern Coachella Valley. As a result, CVWD entered into an agreement for the construction of the Coachella Branch of the All-American Canal in order to bring Colorado River water to the Coachella Valley. Since 1949, the Coachella Canal has been providing water for irrigation use in the area that generally encompasses Indio and La Quinta southerly to the Salton Sea. Colorado River water is delivered to the Coachella Valley via the All American and Coachella Canals and distributed through an underground irrigation distribution piping system to farms and a

1 Coachella Valley Water District, *2013 Operations Production Consumption Totals,* (September 2014).
2 Coachella Valley Water District, *2013 Operations Production Consumption Totals,* (September 2014).

growing number of golf courses in the Coachella Valley. In recent years, CVWD has begun a program of recharging the Aquifer in the eastern Coachella Valley with this source.

The need for additional water supplies was recognized due to the onset of development in the western Coachella Valley. As a result, in 1963 CVWD and DWA, which serves water to the Palm Springs area and a portion of Cathedral City and imports water for these areas and the Desert Hot Springs area, entered into separate contracts with the State of California in order to ensure that SWP water would be available. Because a direct pipeline from the SWP system to the Coachella Valley does not exist, CVWD and DWA entered into an exchange agreement with the Metropolitan Water District of Southern California (MWD) to receive water from the MWD Colorado River Aqueduct, which crosses the upper portion of the Coachella Valley near Whitewater. In exchange, CVWD and DWA have their SWP water allotment delivered to MWD. Since 1973, in exchange for their SWP water, CVWD and DWA have been receiving Colorado River water from MWD's Colorado River Aqueduct turnout located at Whitewater Canyon to replenish groundwater in the Coachella Valley.

In addition, CVWD has recognized the need to provide other sources of water to supplement its water supplies. CVWD has been recycling reclaimed wastewater since 1967 and operates six water reclamation plants, three of which currently recycle water. Recycled water is currently used for golf course and greenbelt irrigation in the cities of Palm Desert, Indian Wells, and Indio, thereby reducing demand on groundwater in the basin.

1.6 EXISTING WATER MANAGEMENT PLANS

1.6.1 2010 Coachella Valley Water Management Plan Update

CVWD initiated the first water management planning process in the early 1990s to address the overdraft conditions in the Aquifer and to ensure that there would be adequate water supplies in the future. The plan is a 35-year blueprint for wise water management and the basis for all the Districts efforts to preserve the Valley's groundwater source.

The Coachella Valley Water Management Plan was adopted by the CVWD Board of Directors (Board) in September, 2002. A Programmatic Environmental Impact Report was prepared for the plan and certified under the California Environmental Quality Act. The goal of the Water Management Plan is to reliably meet current and future water demands in a cost effective and sustainable manner, by achieving the following objectives:

- Meet current and future water demands with a 10 percent supply buffer
- Eliminate long term groundwater overdraft
- Manage and protect water quality

- Comply with state and federal laws and regulations
- Mange future costs
- Minimize adverse environmental impacts.

The Board recognized the need to update the Water Management Plan periodically to respond to changing external and internal conditions. The 2010 CVWMP Update meets that need. It defines how the goal will be met given changing conditions and new uncertainties regarding water supplies, water demands, and evolving federal and state regulations.

The Plan calls for a multifaceted approach including:

- increased water conservation by all types of water users;
- increasing the imported water supply from the Coachella Canal and State Water Project;
- increasing the use of the imported supply and recycled water, instead of groundwater, for irrigation; and
- expanded groundwater replenishment and source substitution efforts.

The 2010 CVWMP Update identifies several water conservation measures with the overall goal to reduce urban water consumption by 20 percent by 2020, and the overall goal to maintain this level of reduction through 2045. These measures include water efficient landscaping and irrigation controls, water efficient plumbing, tiered or seasonal water pricing, public information and education programs, alternative water supplies, water restrictive municipal development policies, appointing a CVWD conservation coordinator and refining the maximum water allowance budget for landscaped and recreational areas. The 2010 CVWMP Update reduces reliance on groundwater sources by fully utilizing Colorado River water, SWP water and recycled water supplies and implementing more conservation over the long term. For reference, the Executive Summary of the 2010 CVWMP Update is provided in **Appendix C**.

The 2010 CVWMP Update emphasizes cooperation with municipalities, local water agencies, and tribes in regional planning and implementation. The following are among some of the recommended conservation measures and activities outlined in the 2010 CVWMP Update for the Board to consider over the next 35 years:

- Provide incentives and support to agricultural customers to conserve water, such as through converting from flood/sprinkler irrigation to more efficient micro-sprinkler/drip systems.
- Encourage existing golf courses to convert landscaping to meet the most current Landscape Ordinance, requiring no more than 4 acres of grass per hole and 10 acres of grass per practice area.

- Expand landscape conversion rebates for domestic customers to encourage less grass and more desert appropriate landscaping
- Complete construction of subsequent phases of the Mid-Valley Pipeline system to provide a blend of recycled and Colorado River water for up to 50 golf courses in lieu of groundwater.

The 2010 CVWMP Update recognizes that groundwater storage makes up the difference between supply and demand. Other than canal water for irrigation, recycled water and desalinated drain water, all water delivered to the end users is obtained from the groundwater basin. The groundwater basin has a capacity of approximately 28.8 million acre-feet. It is capable of meeting the water demands of the Coachella Valley for extended periods.

The 2010 CVWMP Update discusses that CVWD has many programs to maximize the water resources available including:

- Recharge of Colorado River and SWP supplies
- Recycled wastewater, desalinated agricultural drain water, conversion of groundwater uses to Canal water
- Water conservation including tiered water rates, landscaping ordinance, outreach and education.

The 2010 CVWMP Update and CVWD's replenishment assessment programs establish a comprehensive and managed effort to eliminate the overdraft. These programs allow CVWD to maintain the groundwater basin as its primary water supply and to recharge the groundwater basin as its other supplies are available.

CVWD recently prepared a 2014 CVWMP Status Report to evaluate the effectiveness of the 2010 CVWMP Update including progress on eliminating overdraft. The 2014 CVWMP Status Report demonstrated that the 2010 CVWMP Update is working and continued implementation of the programs in the 2010 CVWMP Update ensures that overdraft will be eliminated by 2021 as shown in **Figure 4, Status of the Overdraft – Annual Change in Storage**. Over the last ten-year period there has been no overdraft mainly as a result of increases in urban conservation and increases in imported water deliveries to the Coachella Valley. Water levels have increased in the Palm Springs area and in the East Valley. However water levels are still declining in the Mid-Valley areas near Rancho Mirage, Palm Desert and Indian Wells. Groundwater levels in this area will continue to decline until full implementation of Mid Valley programs that reduce pumping. These Mid-Valley Programs include urban conservation to reduced urban demand 20% by 2020; source substitution programs including non-potable water system expansion to golf courses, Colorado River water treatment for municipal use; and additional recharge. The 2014 CVWMP Status Report is included in **Appendix D.**

1.6.2 CVWD 2010 Urban Water Management Plan, SBX7-7, and Water Shortage Contingency Ordinance

The 2010 CVWD Urban Water Management Plan (UWMP) was approved by the State on November 10, 2011. Water Code Section 10910 (c)(2) states that if demand from potential future growth is accounted for in the most recently adopted 2010 UWMP, the water supplier may incorporate the requested information from the 2010 UWMP in preparing the WSA/WSV. CVWD demand projections contained in the 2010 UWMP take into account the increased growth throughout its service area.

In November 2009, SBx7-7 was approved and adopted by the State. DWR provides alternative water use reduction targets for urban water suppliers to select, and guidance to achieve the target goal. The legislation includes requirements to improve the management of CVWD water resources by monitoring groundwater basins, developing agricultural water management plans, reducing statewide per capita water consumption by 2015 and 2020, and reporting water diversions and uses in the Delta.

SBx7-7 creates a framework of future planning and actions by urban and agricultural water suppliers to reduce California's water use. This bill requires the development of agricultural water management plans and requires urban per capita water consumption to be reduced by 20 percent by the year 2020.

Water Shortage Contingency

The CVWD developed its Water Shortage Contingency Plan during the 1986-92 drought pursuant to the requirements of the Government Code 10632. The key element of CVWD's water shortage contingency plan is an ordinance with phased water use restrictions and a drought rate structure. The Water Shortage Contingency Plan provides the stages and action levels shown in **Table 1.0-2, Water Shortage Contingency Plan.**

Table 1.0-2
Water Shortage Contingency Plan

Stage	Action	Water Use Reduction Goal
1	Voluntary	10%
2	Mandatory	10%
3	Mandatory	20%
4	Mandatory	50%

Source: Coachella Valley Water District, 2010 Urban Water Management Plan, *(2011).Table 5-17.*

The trigger levels (to move from one state to the next) depend on the State-wide and local water situation. Based on voluntary response during Stage 1, CVWD's General Manager-Chief Engineer can determine that it is necessary to implement Stage 2 to protect the public welfare and safety. Also, in the case of a State-wide water shortage declaration, the Governor can determine that it is necessary it implement Stage 2. Prior to the implementation of each mandatory phase, CVWD will hold a public hearing for the purpose of determining whether a shortage exists and which measures should be implemented. The public will be informed of the public hearing at least ten days prior to the hearing and CVWD will notify the public of its determination by public proclamations.

California Drought Update

On January 17, 2014, Governor Jerry Brown Issued a Drought Declaration and requested a voluntary 20 percent reduction in urban water use Statewide. At that same time he also directed the State Water Resources Control Board (SWRCB) to adopt Emergency Regulations. As a result, on July 15, 2014, the SWRCB adopted Emergency Regulations for Statewide Urban Water Conservation. They became effective on July 28, 2014 and were documented in Title 23, Sections 863-865, of the California Code of Regulations. The regulations will remain effective for 9 months and could be extended if drought conditions persist.

The regulations prohibit applying water to outdoor landscapes in a manner that causes runoff such that water flows onto adjacent property, non-irrigated areas, private and public walkways, roadways, parking lots, or structures; using a hose to wash an automobile except where the hose is equipped with a shut-off nozzle; applying water to any hard surface including, but not limited to, driveways, sidewalks, and asphalt; and using potable water in a fountain or other decorative water feature, except where the water is part of a recirculating system.

The regulations also require that Urban Water Suppliers must move to the first mandatory level of water reduction designated in their 2010 Urban Water Management Plan. For CVWD this is Stage 2 which requires a mandatory 10 percent reduction in water use.

In response to the Governors Drought Declaration and the SWRCB's emergency regulations, CVWD Adopted a Water Shortage Contingency Ordinance implementing Stage 2 of its Water Shortage Contingency Plan, and implemented the following restrictions:

- Outdoor irrigation is limited to between 10:00 AM and sunset
- Customers should follow the CVWD drought watering guide which reduces irrigation demand 20%
- Broken sprinklers should be repaired within 24 hours of notice
- Water should be served in restaurants only upon request

- Hotels should maintain messaging in hotel rooms asking guests to conserve water

Allowances are provided for essential maintenance and overseeding.

1.6.3 Integrated Regional Water Management Plan

Integrated Regional Water Management Planning is a collaborative approach to managing all aspects of water resources in a region and is encouraged by the DWR. It involves multiple agencies, stakeholders, individuals and groups; and attempts to address the issues and differing perspectives of all the entities involved through mutually beneficial solutions. In 2008 the five public water agencies in the Coachella Valley formed the Coachella Valley Regional Water Management Group (CVRWMG); in 2010 they adopted the Coachella Valley Integrated Regional Water Management Plan (IRWMP.) These efforts insure that the Coachella Valley as a whole will focus on sustainable water resources. All water agencies in the valley work together, share information discuss concerns and viewpoints and build consensus in supporting future projects that benefit the entire region. Since its formation the CVRWMG has added members and is working toward adding the Agua Caliente Tribe as its newest member.

1.6.4 Agua Caliente Cahuilla Band of Indians

The purpose of the Agua Caliente Band of Cahuilla Indians Land Use Ordinance (Tribal Land Use Ordinance) is to provide standards and regulations to control land uses on Indian Reservation Lands, maintain and protect the Reservation's unique natural and cultural resources, and to preserve the natural environment. Article VII, Landscaping Standards, of the Tribe's Land Use Ordinance promotes the use of native, desert, and other drought tolerant plants to reduce water demand on the Reservation. The landscape management practices identified in this article of the Tribal Land Use Ordinance ensure maximum water efficiency in comprehensive landscaping plans, irrigation plans, plant materials, decorative water features, and places limitations on turf material.

1.6.5 City of Rancho Mirage

The City of Rancho Mirage has adopted by reference the CVWD Ordinance No. 1302.1 and incorporates CVWD's water management planning efforts in the City's General Plan Updates.

1.6.6 County of Riverside

The County of Riverside Ordinance No. 859, Water Efficient Landscape Requirements Ordinance, establishes provisions for water management practices and water waste prevention for new and rehabilitated landscapes and to implement the requirements of the California Water Conservation in Landscaping Act 2006 and the California Code of Regulations Title 23, Division 2, Chapter 2.7. The County also incorporates CVWD's water management planning efforts in its General Plan Updates.

2.0 WATER DEMANDS

2.1 PROJECT SPECIFIC WATER DEMAND

2.1.1 Project Specific Water Demand Estimate

The unit water usage for this WSA/WSV are based on indoor water use performance standard as provided in the California Water Code for residential water demand; the American Water Works Association Research Foundation for commercial water demands; and the CVWD's Landscape Ordinance No. 1302.1[3] which meets the water conservation goals of the DWR Model Water Efficient Landscape Ordinance (MWELO). The overall goal of the ordinance is to reduce landscape water use, reduce or eliminate runoff in streets, and limit turf. Specific landscape design for the project is unknown at this time. CVWD's Maximum Applied Water Allowance (MAWA), as outlined in Appendix D of the District's Ordinance No. 1302.1 is used to estimate outdoor irrigation usage. The MAWA complies with Division 2, Title 23, California Code or Regulation, Chapter 7, Section 702.

The Project planning area includes a total of 577 acres within the Reservation. In order to provide a more accurate estimate of the proposed Project's water demand, a site-specific analysis was completed. Potable water demand was calculated for all indoor uses based on Project-specific estimates.

The following factors are pertinent to the proposed Project:

- Indoor Residential (Multifamily) = 55 gallons per day (gpd)/person
- Active Adult Community density per home is 1.8 people per home[4]
- Multifamily residential density per home is 2.97 people per home[5]
- Outdoor irrigation based on CVWD's MAWA
- Indoor non-residential (commercial/retail, office, restaurant) based on American Water Works Association (AWWA)
  - Clubhouse 0.096 gallons per square foot
  - Restaurant 0.907 gallons per square foot
- Common Area landscape (parks/catchment/medians) based on MAWA

3 Assembly Bill 1881, "Water Conservation" (September 28, 2006).

4 Based on the Riverside Traffic Analysis Model (RivTAM) which is within a negligible margin of error for the City of Rancho Mirage's open space calculation.

5 Based on the Riverside County General Plan Land Use Element for Medium Density Residential land uses.

Residential

The projected water demands are distinguished between indoor and outdoor usage. **Table 2.0-1, Indoor Residential Water Demands,** summarizes the indoor water demands of the residential portion of the Project.

Table 2.0-1
Indoor Residential Water Demands

Planning Area	Land Use	Units	gpd/unit	Demand (gpd)	Indoor Residential Annual Demand (afy)
1	Multifamily Residential[1]	180	163.35	29,403	32.94
2	Multifamily Residential[1]	180	163.35	29,403	32.94
5	Multifamily Residential[1]	486	163.35	79,388	88.93
6	Multifamily Residential[1]	180	163.35	29,403	32.94
7	Multifamily Residential[1]	180	163.35	29,403	32.94
8	Single Family Residential[2]	1,200	99.0	118,800	133.07
Total		**2,406**		**315,800**	**353.76**

1 0.55 gpd/person x 2.97 person/unit = 163.35 gpd/unit
2 0.55 gpd/person x 1.80 person/unit = 99.0 gpd/unit
Abbreviations: gpd = gallons per day; afy = acre-feet per year

Nonresidential

For the purposes of this WSA/WSV, the AWWA Research Foundation's Commercial and Institutional End Uses of Water (2000), the most recent AWWARF document, was used to estimate indoor non-residential water use. In the absence of documented local indoor non-residential usage factors that would accurately represent water use trends, the AWWARF document provides water use data applicable to mixed use commercial/industrial development projects of desert areas within southern California and Arizona, and sets water efficiency benchmarks for specific commercial uses. Based on these benchmarks, usage factors for the distinct uses of Retail, Restaurant, and Office were developed for the Project. **Table 2.0-2, Indoor Nonresidential Water Demands**, summarizes nonresidential water demands.

Table 2.0-2
Indoor Nonresidential Water Demands

Planning Area	Land Use	Building Area (sq. ft.)	gpd/sq. ft.	Demand (gpd)	Annual Demand (afy)
1	Mixed Use Commercial	217,800	0.096	20,909	23.42
1	Mixed Use Restaurant	108,900	0.907	98,772	110.64
1	Mixed Use Office	108,900	0.096	10,454	11.71
2	Mixed Use Retail/Commercial	817,500	0.096	78,480	87.91
2	Mixed Use Restaurant	272,500	0.907	247,158	276.85
3	Mixed Use Retail/Commercial	297,000	0.096	28,512	31.94
3	Mixed Use Restaurant	99,000	0.907	89,793	100.58
4	Mixed Use Retail/Commercial	378,750	0.096	36,360	40.73
4	Mixed Use Restaurant	126,250	0.907	114,509	128.27
6	Mixed Use Retail/Commercial	165,500	0.096	15,888	17.80
6	Mixed Use Restaurant	82,750	0.907	75,054	84.07
6	Mixed Use Office	82,750	0.096	7,944	8.90
7	Mixed Use Retail/Commercial	190,500	0.096	18,288	20.49
7	Mixed Use Restaurant	95,250	0.907	86,392	96.77
7	Mixed Use Office	95,250	0.096	9,144	10.24
8	Clubhouse	12,000	0.096	1,152	1.29
8	Clubhouse Restaurant	3,000	0.907	2,721	3.05
Total				**941,530**	**1,054.66**

Source: Demand factors from the American Water Works Association Research Foundation for commercial, office, and restaurant demand.
Abbreviations: sq. ft. = square feet; gpd = gallons per day; afy = acre-feet per year.

Landscape Irrigation Demand

The Coachella Valley receives annual rainfall between 1.5 and 3.0 inches and experiences extremely high temperatures and large daily temperature ranges. Annual rainfall is normally less than 5.5 inches during the period and several maximum monthly average temperatures reached above 100 degrees Fahrenheit.

The total potential evapotranspiration is well above the total rainfall, and is due to the high temperatures and the great amount of sun. The Coachella Valley never experiences a water surplus

condition with respect to precipitation versus evapotranspiration. Prime evapotranspiration sites in the valley are the well-watered lawns and golf courses.

A formula called MAWA is based on the Project area's reference evapotranspiration, ET adjustment factor, and the size of the Project's landscape area. This calculation determines the upper limit of irrigation water allowed for the project. To meet the requirements of MAWA, a landscape design must use highly water efficient plant material laid out in a spare manner, and irrigated with efficient irrigation technology including drip emitters and smart controllers.

Landscape water demand for the Project is based on the estimated landscape irrigation area and water usage equations of the Districts Landscape Ordinance 1302.1. Although the landscape design is unknown, this method ensures that a sufficient budget is provided to have a sustainable landscape that meets the criteria established in CVWD's ordinance. Therefore, the MAWA equation for the Project was used to project irrigation demand. The equation uses an evapotranspiration rate of 93.9 inches per year (CVWD Zone 5) and a plant factor to irrigation efficiency ratio of 0.5. The following demand characteristics apply to the proposed Project:

- Demand of 3.89 acre feet/year/acre is applied to the landscaped area (10 percent for Planning Areas 1 through 7 and 100 percent for Planning Area 8 of the Net Land Area is used to reflect desert scape type landscaping).
- CVWD's Maximum Water Allotment per CVWD table is 3.89 acre feet/year/acre.
- Retention Basins are minimally landscaped (5 percent of Net Land Area).

Adherence to the MAWA requirements as outlined in the CVWD ordinance assures compliance with CVWD water conservation goals and requirements.

Open space for the proposed Project includes a system of pedestrian, bicycle and golf cart trail linkages, neighborhood parks, plazas, courtyards, lawn areas, water features, community club house/pool/spa and associated amenities. The CVWD Maximum Water Allotment of 3.89 afy/acre is inclusive of varying types of open space/landscaping uses, including all uses included in the proposed Project. Planning Area 8, which includes 1,200 residential units and 15,000 square feet of clubhouse/restaurant uses, also includes the largest net area of open space. Planning Area 8 provides a variety of outdoor amenities including neighborhood parks, trail linkages, water features, fitness trail, gathering areas, garden plots, and a golf putting green. For this reason, it is assumed that 100 percent of the open space area would be irrigated, using the standard water allotment of 3.89 afy/acre.

Table 2.0-3, Outdoor – Open Space Water Demands, estimates the water use for the Project's common area landscaping.

Table 2.0-3
Outdoor – Open Space Water Demands

Planning Area	Net Total Outdoor Acreage	Landscaped Acreage	Percent Irrigated	Water Allotment (afy/acre)[2]	Annual Demand (afy)
1	27.5	2.75	10	3.89	10.70
2	28.7	2.87	10	3.89	11.16
3	26.6	2.66	10	3.89	10.35
4	29.6	2.96	10	3.89	11.51
5	19.7	1.97	10	3.89	7.66
6	22.8	2.28	10	3.89	8.87
7	29.1	2.91	10	3.89	11.32
8	77.0	77.0	100	3.89	299.53
Total	**261.0**				**371.11**

1 Based on CVWD Maximum Water Allotment from Landscape Ordinance. This generation rate is inclusive of the varying types of open space uses associated with the proposed Project.

Summary

Table 2.0-4, Summary of Project Demands, provides a summary of the water demand that would need to be provided to the Section 24 Specific Plan.

Table 2.0-4
Summary of Project Demands

Planning Area	Land Use	Total Estimated Demand (afy)
1	Multifamily residential	32.94
	Non-residential	145.77
	Open Space	10.7
	Subtotal	***189.41***
2	Multifamily residential	32.94
	Non-residential	364.76
	Open space	11.16
	Subtotal	***408.86***
3	Non-residential	132.52
	Open space	10.35
	Subtotal	***142.87***
4	Non-residential	169.00
	Open space	11.51

Planning Area	Land Use	Total Estimated Demand (afy)
	Subtotal	***180.51***
5	Multifamily residential	88.93
	Open space	7.66
	Subtotal	***96.59***
6	Multifamily residential	32.94
	Non-residential	110.77
	Open space	8.87
	Subtotal	***134.72***
7	Multifamily residential	32.94
	Non-residential	127.50
	Open space	11.32
	Subtotal	***171.76***
8	Single family residential	133.07
	Non-residential	4.34
	Open space	299.53
	Subtotal	***436.94***
	Total Project Demand	**1,779.53**

Note: Based on totals from ***Table 2.0-1, Table 2.0-2,*** and ***Table 2.0-3.***

The Section 24 Specific Plan Project would require approximately 1,780 afy using the Project-specific demand factors. A detailed year by year projection is provided in **Appendix B, Water Demand Calculations**. This estimation includes indoor and outdoor use for the Residential and Nonresidential areas. This quantity is approximately 1.5 percent of CVWD's 2013 total urban water production.[6]

2.2 WATER CONSERVATION MEASURES

CVWD has made significant effort to provide private and public consumers of local water resources with information to help conserve these resources through the use of drought tolerant desert plants and efficient irrigation systems. As discussed in **Section 1.6.4**, the Tribe has adopted landscaping standards similar to CVWD's landscape ordinance. In addition, the City of Rancho Mirage has adopted the landscape ordinance and requires that development within the City be water efficient.

6 Coachella Valley Water District, *2010 Urban Water Management Plan (2011) Table 3-10*.

The 2010 CVWMP Update identifies several conservation measures with the goal of reducing urban water demand by 20 percent by 2020. The 2010 CVWMP Update includes water efficient landscaping and irrigation, water efficient plumbing and appliances, tiered or budget based water pricing, public information and education programs, alternative water supplies, water restrictive municipal development policies and maximum water allowance for landscaped and recreational areas. CVWD employs a full-time conservation coordinator with sufficient staffing to review all new landscape plans for compliance with the CVWD's Landscape Ordinance.

2.2.1 Desert Landscaping: Native and Other Drought Tolerant Plants

The need for progressive water conservation and control of landscape maintenance costs has also prompted the greater use of native and other drought-tolerant planting materials within the Project Site. The Coachella Valley and CVWD have been a leader in the promotion of these desert landscape materials and design themes, most notably in Landscape Ordinance 1302.1. As a result, thoughtful and conservative management and use of water resources have guided development of the conceptual Project landscape plan.

2.2.2 Project-Specific Water Conservation and Groundwater Reduction Measures

A broad range of Project Design Features have been included in the Section 24 Specific Plan to address the Project's potential impacts on water resources.

Project developers shall be required to implement the following features to assure the most efficient use of water resources and to meet and maintain the Tribe's and the 2010 CVWMP Update goals throughout the life of the Project:

1. The Project will require use of xeriscape planting principles and establishes a palette of drought-tolerant trees, shrubs and plants that require little irrigation.

2. Turf is restricted to active outdoor recreation areas only in compliance with the Landscape Ordinance in effect at that time.

3. The Specific Plan allows the use of grey water recycled water infrastructure and rainwater collection systems.

4. Decorative water features shall be designed to recirculate water to minimize water consumption and evaporation.

5. New development will meet CVWD water efficiency goals and will be strongly encouraged to incorporate creative designs that exceed those goals.

6. The Active Adult Community incorporates many sustainable and water saving features:

    a. Reduced width streets (32 foot) that reduce impervious surfaces that generate run-off.

    b. Retains and treats all stormwater on site from up to a 100-year storm event.

    c. Low flow toilets and low gallon per minute (gpm) plumbing fixtures in compliance with the City, Tribe, and California Plumbing Code.

    d. Tankless water heaters.

    e. Timed irrigation watering systems and irrigation rain sensors for maximum efficiency

3.0 WATER SUPPLY ASSESSMENT

3.1 GENERAL

Having established that the 2010 CVWMP Update and 2010 UWMP are applicable to this Project, the next requirement of a WSA is to identify and describe the water supply sources of the PWS that will serve the Project. State Water Code Section 10910(d) requires a WSA to include identification of any existing water supply Table A amounts, water rights, or water service contracts relevant to the identified water supply for the proposed Project. The WSA shall also include a description of the quantities of water received in prior years by the PWS. According to the 2010 UWMP, the aquifer and other sources of supply are adequate for an average year, single dry year, and multiple dry years for a 20-year period.

3.2 IDENTIFICATION OF WATER SOURCE

3.2.1 Primary Water Sources

The primary source of water supply for this Project is groundwater. The groundwater basin is recharged by Colorado River Water, reclaimed water, SWP supplies and potentially desalinated agricultural drain water. Colorado River water is also available for potential domestic use if treated. Colorado River water via the Coachella Canal supplies water for irrigation of the eastern valley. The proposed Project is located in the western portion of the Coachella Valley which does not currently have access to this water.

3.2.2 Additional Water Sources

In addition to Colorado River water and groundwater, CVWD and the Coachella Valley have additional water sources, including the Colorado River, imported SWP water, recycled water and a limited amount of surface water. These sources are described in the following analysis in **Section 3.3, Analysis of Water Supply**. In the future, drainage water from the shallow, semi-perched groundwater zone, which is collected by CVWD's drainage system, will be treated and used to meet non-potable uses as described in the 2010 CVWMP Update. The area within the Specific Plan is planned for access to grey water and recycled water. Potential sources of grey water include dual plumbing fixtures for large commercial projects to capture commercial dishwasher water and capturing runoff water from roofs and parking structures. Grey water would irrigate landscapes within the Specific Plan Area. The Project could also utilize storm water contained on site for reuse.

3.3 ANALYSIS OF WATER SUPPLY

3.3.1 Groundwater

Since the early part of the 20th century, the Coachella Valley has been dependent primarily on groundwater as a source of domestic water supply. Groundwater is also used to supply water for crop irrigation, fish farms, duck clubs, golf courses, greenhouses, and industrial uses in the Coachella Valley.

Water Code Section 10910 (f) requires additional information when a groundwater basin is cited as the water supply source for a project including a description of the basin, the rights of the PWS to use the basin, the overdraft status of the basin, any past or planned overdraft mitigation efforts, historical use of the basin by the PWS, projected use of the basin by the project, and a sufficiency analysis of the basin that is to supply the Project.

3.3.2 Description of the Aquifer

Groundwater is the principal source of municipal water supply in the Coachella Valley.[7] CVWD serves domestic water to most of the developed portions of the Coachella Valley and along both sides of the Salton Sea in Imperial Valley. CVWD obtains water from both the West and East Whitewater River subbasins and the Mission Creek subbasin. A common groundwater source, the Whitewater River subbasin, is shared by CVWD, DWA, the cities of Indio and Coachella, Myoma Dunes Water Company and numerous private groundwater users.

The Coachella Valley Groundwater Basin, as described by the California Department of Water Resources (DWR), is bounded on the north and east by non-water bearing crystalline rocks of the San Bernardino and Little San Bernardino Mountains and on the west by the crystalline rocks of the Santa Rosa and San Jacinto Mountains.[8] At the west end of the San Gorgonio Pass, between Beaumont and Banning, the basin boundary is defined by a surface drainage divide separating the Coachella Valley Groundwater Basin from the Beaumont Groundwater Basin of the Upper Santa Ana drainage area.

The Coachella Valley Groundwater Basin can be described as a giant tilted bathtub full of sand, with the high end at the northwest edge of the Coachella Valley near the community of Whitewater and the low end at the Salton Sea. The aquifer underlies the cities of Palm Springs, Cathedral City, Rancho Mirage, Palm Desert, Indian Wells, La Quinta, Indio, and Coachella, and the unincorporated communities of Thousand Palms, Thermal, Bermuda Dunes, Oasis, and Mecca.

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7 Coachella Valley Water District, *2010 Urban Water Management Plan,* (June 2011). 4-4.

8 Coachella Valley Water District, *2010 Urban Water Management Plan*, (June 2011). 4-9. CVWD, *Coachella Valley WMP 2010 Update,* (January 2012). 4-1.

The Subbasins present in the Valley are Mission Creek, Desert Hot Springs, Garnet Hill, and Whitewater River (Indio) Subbasins. The Whitewater Subbasin includes four subareas: Palm Springs, Thermal, Thousand Palms, and Oasis.[9] The Palm Springs Subarea is the forebay or main area of recharge to the subbasin, and the Thermal Subarea comprises the pressure or confined area within the basin. The Thousand Palms and Oasis subareas are peripheral areas having unconfined groundwater conditions. The subbasins with their groundwater storage reservoirs are defined without regard to water quantity or quality. They delineate areas underlain by formations, which readily yield the stored water through water wells and offer natural reservoirs for the regulation of water supplies. From a management perspective, the Whitewater River (Indio) Subbasin is commonly divided into a west and east portion, with the dividing line extending from Point Happy in La Quinta to the northeast, terminating at the San Andreas Fault and the Indio Hills at Jefferson Street. The west portion of the Whitewater River (Indio) Subbasin is defined generally as that portion of the Thermal Subarea west of this line including the Palm Springs Subarea, and the Thousand Palms Subarea.

The Whitewater River Subbasin comprises the major portion of the floor of the Coachella Valley and encompasses approximately 400 square miles. Historical fluctuations of groundwater levels within the Whitewater River Subbasin indicate a steady decline in the levels throughout the Subbasin prior to 1949. With the importation of Colorado River water from the Coachella Canal after 1949, the demand on the groundwater basin declined in East Valley (generally east and south of Washington Street) below Point Happy, and the groundwater levels rose sharply[10] although water levels continued to decline in the western portions of the subbasin. Water levels in the deeper aquifers of the East Valley rose from 1950 to 1980. However, since the early 1980s, water levels in this area have again declined, at least partly due to increasing urbanization and groundwater usage.

The Whitewater Subbasin is located northwest of the Salton Sea and receives low precipitation, averaging about 6 inches per year, and a wide range of temperatures.[11] The Banning fault bounds the subbasin on the north and the semi-permeable rocks of the Indio Hills mark the northeast boundary. Impermeable rocks of the San Jacinto and Santa Rosa Mountains bound the subbasin on the south. A bedrock constriction separates the Indio Subbasin from the San Gorgonio Pass Subbasin on the northwest. The Salton Sea is the eastern boundary and the subbasin's primary discharge area. A low drainage divide forms a short boundary with the West Salton Sea Groundwater Basin in the southeast.

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9 Coachella Valley Water District, *2010 Urban Water Management Plan*, (June 2011). 4-9. CVWD, *Coachella Valley WMP 2010 Update,* (January 2012). 4-3.

10 Coachella Valley Water District, *2010 Urban Water Management Plan,* (June 2011). 4-9.

11 Department of Water Resources, *California Groundwater,* Bulletin 118, Coachella Valley Groundwater Basin, Indio Subbasin (2004).

In the upper part of the Whitewater Subbasin, groundwater is unconfined, whereas to the south and southeast groundwater is mostly confined except on the edges of the subbasin where unconfined conditions are found. Depth to groundwater varies widely in the southeast part of the subbasin and some wells historically delivered artesian flow.

As shown in **Table, 3.0-1, Groundwater Storage Capacity of the Coachella Valley Groundwater Basin**, DWR estimated that the Coachella Valley Groundwater Basin contained a total of approximately 39.2 million acre-feet of water in the first 1,000 feet below the ground surface, much of which originated from runoff from adjacent mountains. However, the amount of water in the aquifer has decreased over the years due to pumpage to serve urban, rural, and agricultural development in the Coachella Valley, which has withdrawn water from the aquifer at a rate faster than its natural rate of recharge.

Table 3.0-1
Groundwater Storage Capacity of the Coachella Valley Groundwater Basin

Area	Storage (AF)
San Gorgonio Pass Subbasin	2,700,000
Mission Creek Subbasin	2,600,000
Desert Hot Springs Subbasin	4,100,000
Garnet Hill Subbasin	1,000,000
Subtotal	**10,400,000**
Whitewater River (Indio) Subbasin	
Palm Springs Subarea	4,600,000
Thousand Palms Subarea	1,800,000
Oasis Subarea	3,000,000
Thermal Subarea	19,400,000
Subtotal Whitewater River Subbasin	**28,800,000**
Total all Subbasins	**39,200,000**

Source: Coachella Valley Water District, Engineer's Report on Water Supply and Replenishment Assessment, West Whitewater River Subbasin Area of Benefit 2040-2015. *Coachella, California (April 2014).Table 1.*

Although water levels have been declining throughout most of the Subbasins since 1945, water levels in the southeastern portion of the Valley had risen until the early 1980s because of the use of imported water from the Coachella Canal and the resulting decreased pumpage in that area.[12] The rate of

12 Coachella Valley Water District, *Engineer's Report on Water Supply and Replenishment Assessment, West Whitewater River Subbasin Area of Benefit 2040-2015.* Coachella, California. (April 2014). 14.

groundwater level decline increased from the early 1980s until about 2010 due to increased urbanization and increased groundwater use by domestic water purveyors, local farmers, golf courses and fish farms. Since 2010 groundwater levels in the eastern portion of the Coachella Valley have risen due to recharge of Colorado River water at the Thomas E. Levy Recharge Facility.

The historic declining water table in the Whitewater River Subbasin led to a determination by CVWD and DWA that a management program is required to stabilize water levels and prevent other adverse effects such as water quality degradation and land subsidence. CVWD's East and West Whitewater River Subbasin Groundwater Replenishment Programs are reducing declining water levels in this subbasin. Groundwater recharge in the West Whitewater River Subbasin began in 1973 and the benefits of recharge can be seen in recent groundwater level measurements.

As presented in the 2010 CVWMP Update, total groundwater production within the West Whitewater River Subbasin Area of benefit from all producers was estimated to be 208,439 afy in 1999. The reported production for 2013 was 181,994 afy.[13] Groundwater production within the East Whitewater River Subbasin Area of Benefit was estimated to be 168,300 afy during 1999. The reported production for 2013 was 119,194 afy.[14]

Surface runoff and subsurface inflow are significant sources of recharge to the Indio Subbasin. In addition, the Whitewater River spreading grounds northwest of Palm Springs receives Colorado River Aqueduct water and has a maximum capacity of 300,000 afy.[15] Although the Whitewater River spreading grounds recharged only 26,620 afy in 2013, annual recharge has averaged 70,500 afy since 1973. Annual water quantities delivered vary as a result of varying State Water Project delivery reliability, drought and advance deliveries associated with the exchange agreement. Average historical natural recharge is approximately 49,000 afy. Colorado River water is conveyed into the West subbasin via the Coachella Canal, which also supplies recharge project facilities located in the southwestern part of the subbasin.[16] DWR has calculated the storage capacity of the subbasin to be 28.8 million acre-feet.

The annual amounts of water delivered for recharge are shown in **Table 3.0-2, West Whitewater River Subbasin Annual Recharge Deliveries.**

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13 Coachella Valley Water District, *Engineer's Report on Water Supply and Replenishment Assessment, West Whitewater River Subbasin Area of Benefit 2040-2015.* Coachella, California. (April 2014).

14 Coachella Valley Water District, *Engineer's Report on Water Supply and Replenishment Assessment, East Whitewater River Subbasin Area of Benefit 2040-2015.* Coachella, California. (April 2014). Table 2.

15 Department of Water Resources, *California's Groundwater,* Bulletin 118, Coachella Valley Groundwater Basin, Indio Subbasin, (February 27, 2004).

16 Coachella Valley Water District, *Coachella Valley Water Management Plan 2010 Update* (January, 2012).

Table 3.0-2
West Whitewater River Subbasin Annual Recharge Deliveries

Calendar Year	Replenishment Delivery (afy)	Calendar Year	Replenishment Delivery (afy)
1973	7,475	1994	36,763
1974	15,396	1995	61,318
1975	20,126	1996	188,266
1976	13,206	1997	113,677
1977	0	1998	132,455
1978	0	1999	90,601
1979	25,192	2000	72,450
1980	26,341	2001	707
1981	35,251	2002	33,435
1982	27,020	2003	902
1983	53,732	2004	13,244
1984	83,708	2005	165,554
1985	251,994	2006	98,959
1986	298,201	2007	16,009
1987	104,334	2008	8,008
1988	1,096	2009	57,024
1989	12,478	2010	228,330
1990	31,721	2011	232,214
1991	14	2012	257,267
1992	40,870	2013	26,620
1993	60,153	**Total**	**2,884,111**

Source: Coachella Valley Water District, Engineer's Report on Water Supply and Replenishment Assessment, West Whitewater River Subbasin Area of Benefit 2040-2015. *Coachella, California (April 2014).Table 5.*
Note: Delivered water quantities vary as a result of varying State Water Project delivery reliability, drought, and advance deliveries associated with the exchange agreement.

Aquifer Adjudication

The groundwater basin has not been adjudicated. CVWD shares a common groundwater source with other PWS's, including DWA, the Mission Springs Water District (MSWD), the City of Coachella, the City of Indio, and the Myoma Dunes Mutual Water Company. Other groundwater users include some individual residents mostly in rural areas, farmers, golf courses, businesses, and commercial facilities. DWA and CVWD both operate groundwater replenishment programs whereby groundwater pumpers

(other than minimal pumpers) pay a per acre-foot charge that is used to pay the cost of importing and recharging the aquifer.

Status of the Aquifer

The groundwater supply of the Whitewater River Subbasin consists of a combination of natural runoff, inflows from adjacent basins, returns from groundwater, recycled water and imported water use. The supply is supplemented with artificial recharge with imported SWP Exchange and Colorado River Water. The long-term average of natural inflow from mountain-front runoff is about 46,000 afy. Runoff varies from about 8,000 afy in very dry years to over 200,000 afy in extremely wet years. For the 10 year period of 2000 through 2009, natural inflow from mountain-front runoff was below normal averaging about 29,000 afy. Subsurface inflow from adjacent groundwater basins averages about 11,000 afy and is relatively consistent from year to year. Returns from use vary with water demand. From 2000 to 2009 returns from use are estimated to average about 240,000 afy. During this same period, about 51,000 afy of imported water was recharged into the basin. Total inflows are estimated to be about 331,000 afy.[17]

Outflows from the basin consist of pumping, flows to the agricultural drainage system, evapotranspiration by native vegetation, and subsurface outflow to the Salton Sea. For the 2000 through 2009 period, groundwater pumping averaged about 389,000 afy. Drain flows are estimated to be about 48,000 afy while evapotranspiration and subsurface outflow averaged about 4,000 afy. Total basin outflows for this period averaged 441,000 afy. Average net outflow from storage for this period was 110,000 afy.

California DWR Bulletin 108 and Bulletin 118 are the most current bulletins published by the DWR that characterize the condition of the aquifer as a whole.[18,19] In 1964, Bulletin 108, DWR noted that the amount of usable supply in the overdrafted aquifer was decreasing. CVWD estimates the annual water balance in its Engineer's Reports on Water Supply and Replenishment Assessment. These reports estimated the annual change in storage for the Coachella Valley to be approximately 62,700 afy in 2013.

Over the last ten year period urban per capita water use has decreased as a result of ongoing conservation programs. In addition imported water supplies have increased. As a result, the 2014 CVWMP Status Report showed that overdraft has not occurred between 2003 and 2013, and with continued implementation of 2010 CVWMP Update Programs overdraft will be eliminated by 2021.

17 Coachella Valley Water District, *2010 Urban Water Management Plan,* (June 2011). Table 4-3.
18 California Department of Water Resources, Bulletin 108 (1964).
19 California Department of Water Resources, Bulletin 118 (2003).

The historical overdraft in the Coachella Valley has caused groundwater levels to decrease in portions of the Coachella Valley particularly in Mid-Valley region of Rancho Mirage, Palm Desert, and Indian Wells and raised concerns about water quality degradation and land subsidence. Groundwater overdraft is manifested not only as a prolonged decline in groundwater storage, but also through secondary adverse effects including decreased well yields, increased energy costs, water quality degradation and land subsidence. Groundwater levels in the West Valley from Palm Springs to La Quinta have also decreased historically. However, in the last ten years groundwater level increases have been seen in the Palm Springs area where artificial recharge has successfully raised water levels.

The effectiveness of the groundwater replenishment program has been demonstrated by rising water levels in Palm Springs area and by slowing water level declines in some wells of the upper portion of the Whitewater River Subbasin.[20]

Overdraft Mitigation Efforts

Coachella Valley Water Management Plan Update

In addition to the requirements for the 2010 UWMP, as previously mentioned, CVWD maintains water management policies within its 2010 CVWMP Update to comprehensively protect and augment the groundwater supply. As defined in the 2010 CVWMP Update, CVWD is reducing reliance on groundwater sources by utilizing more Colorado River water, SWP water and recycled water. Per this plan, CVWD also implements source substitution and conservation measures to reduce demands on the aquifer. The goal is to reduce the urban water demand by 20 percent by 2020 pursuant to SB7-7. The CVWD anticipates this water use reduction level will be permanent.

CVWD Landscape Ordinance

CVWD Landscape Ordinance 1302.1 requires a series of reduction methods, including requirements that new developments install weather-based irrigation controllers that automatically adjust water allocation.[21] Additional requirements include setbacks of spray emitters from impervious surfaces, as well as use of porous rock and gravel buffers between grass and curbs to eliminate runoff onto streets. With the exception of turf, all landscaping, including groundcover and shrubbery, must be irrigated with a drip system. In addition, the maximum water allowance for landscaped areas throughout the CVWD

20 Coachella Valley Water District, *2014 Status Report for the 2010 Coachella Valley Water Management Plan Update*, 2014.
21 Coachella Valley Water District, *Landscape and Irrigation System Design Criteria,* November, 2009.

service area has been reduced.[22] This new reduction goal requires that developers maximize the use of native and other drought-tolerant landscape materials, and to minimize use of more water-intensive landscape features, including turf and fountains.

Source Substitution

Source substitution is the delivery of an alternate source of water to users currently pumping groundwater. The substitution of an alternate water source reduces groundwater extraction and allows the groundwater to remain in storage, thus reducing overdraft. Alternative sources of water include municipal recycled water from Water Reclamation Plant (WRP)-7, WRP-9, WRP-10, and the City of Palm Springs Wastewater Treatment Plant; Colorado River water, desalinated agricultural drain water, grey water, and re-use of water used in aquaculture.

Source substitution projects include:

- Conversion of existing and future golf courses in the East Valley from groundwater to Colorado River Water
- Conversion of existing and future golf courses in the West Valley from groundwater to recycled water and/or Colorado River water via SWP Exchange Water
- Conversion of existing and future golf courses in the East Valley from groundwater to Colorado River Water via the Mid-Valley Pipeline
- Conversion of agricultural irrigation from groundwater to Colorado River water, in both the Oasis area and Mecca area
- Conversion of some municipal use from groundwater to treated Colorado River Water

Examples of effective alternative source substitution efforts include the following:

- CVWD has a non-potable water system that delivers treated recycled water from three water reclamation plants, blends it with canal water and delivers it to golf courses, schools, and open spaces for irrigation. Approximately 8,750 acre feet of recycled water was delivered in 2013.
- CVWD has completed construction of a 54-inch diameter pipeline to deliver Colorado River water to the Mid-Valley area for use with CVWD's recycled water for golf course and open space irrigation. A total of 45 golf courses within CVWD’s service area now use either recycled or canal water or a combination of both. This reduces the pumping from the groundwater basin for these uses.

22 For design purposes, the upper limit of annual applied water for the established landscape area as identified in Division 2, Title 23, California Code of Regulations, Chapter 7, Section 702. It is based on an area's calculated evapotranspiration rate. The estimated applied water for landscaping shall not exceed the maximum applied water allowance.

- CVWD has secured rights to the Colorado River and participated in the construction of the All-American Canal and the Coachella Canal. Beginning in the late 1940's, CVWD worked with the U.S. Bureau of Reclamation (USBR) and constructed a distribution system to deliver Colorado River water to the farms in the Lower Coachella Valley. This system delivered 245,894 acre-feet of Colorado River water in 2006, and increased deliveries to approximately 331,000 acre-feet in 2013.
- CVWD recharges the Coachella Valley groundwater basin with Colorado River water at three locations. The largest recharge program is operated at the Whitewater River Recharge Facility. The Thomas E. Levy Groundwater Replenishment Facility recharges up to 40,000 afy in the East Valley.
- CVWD has secured rights to SWP water and negotiated exchange and advanced delivery agreements with the MWD to exchange CVWD's SWP water for MWD's Colorado River water source. The SWP exchange water is used to recharge the aquifer in the West Coachella Valley. This recharge program was started in 1972 and has replenished the aquifer with almost three million acre-feet of water. CVWD plans to utilize treated agricultural drainage water for irrigation purposes. A desalination pilot study was completed in 2007.
- CVWD has worked with an aquaculture farm and developed water efficiency programs that include water treatment and reuse.
- CVWD intends to implement expansion of the Oasis area irrigation system. This project will reduce groundwater pumping by extending Colorado River water delivery to the Oasis Slope. The Oasis system would deliver Canal and desalinated drain water to serve urban non-potable water uses such as irrigation.

Conservation Programs

CVWD continues to work with the cities in its service area to limit the amount of water that can be used for outdoor landscaping, and maintains an ongoing turf rebate program to encourage homeowners to replace turf areas with desert friendly landscaping. As the result of the adoption of statewide indoor water conservation measures requiring low flush toilets, shower and faucet flow restrictors and other devices, the amount of water used inside homes has been significantly reduced. In addition, in 2010 CVWD adopted water budget-based tiered rates to discourage excessive water us, and implemented a 20 by 2020 urban water use reduction target. CVWD is also working with the golf course industry to reduce their water use. In 2014 CVWD began a partnership with the Southern California Golf Association and formed the Golf and Water Task Force to reduce overall golf course water use by 10 percent. Key activities being implemented are the establishment of water budgets to limit golf course groundwater pumping and a region wide golf course turf reduction program. With the large number of new communities constructed, these conservation programs have reduced impacts of new development on the Aquifer.

The Section 24 Specific Plan would be required to implement the CVWD conservation measures in order to assure the most efficient use of water resources and to meet and maintain the CVWMP goals throughout the life of the project. In addition, the Project will strictly adhere to CVWD's landscape ordinance and the Tribe's landscape ordinance, which mirrors CVWD's landscape ordinance.

Historical Groundwater Use

The CVWD's annual Engineer's Report on Water Supply and Replenishment Assessment for each of the groundwater basins reviews the historical use of groundwater in the Coachella Valley. In 1936, groundwater use was 92,400 afy and increased continually to about 376,000 afy in 1999. The groundwater use in 2009 dropped to about 359,000afy due to a combination of water conservation efforts, source substitution projects and the effects of the ongoing economic recession. In 2013, as a continued result of conservation and source substitution programs total groundwater use dropped even further to approximately 301,000 afy. This more than a 20 percent reduction in reported Coachella Valley groundwater pumping since 2007.

Groundwater Sufficiency Analysis

The 2010 UWMP reported CVWD's 2010 urban water demand at 109,488 afy. CVWD's projected urban water demand in the 2010 UWMP for the year 2035 is 242,700 afy. When adding groundwater recharge and non-potable water demands (agriculture, golf course and municipal), these CVWD UWMP demand estimates are 588,700 afy in 2010 and 689,400 afy in 2035.

The proposed Project would begin construction in 2016. Total water demand of the Project is estimated to be 1780 afy, which represents approximately 1.6 percent of CVWD's 2010 UWMP urban demand and approximately 0.3 percent of CVWD's total potable and non-potable 2010 demand. With a total of 577 acres, buildout of the proposed Project would result in a total demand of 3.08 afy/acre. The remaining development of the higher-density mix of retail, entertainment, office, hotel and residential land uses will begin construction at a later date following the completion of the Active Adult Community component and occur over a longer period of time.

With almost 30 million acre-feet of combined storage and the groundwater management planning in the 2010 UWMP and 2010 CVWMP Update, the aquifer is sufficient to supply the Project and other present and anticipated needs for normal year, as well as single dry and multiple dry years, over the next 20 years.

3.3.3 Additional Water Sources

Groundwater provides the main water supply for the Project. This WSA/WSV focuses on the adequacy of these sources and other alternative water sources to supply sufficient amounts of water to meet the

water demands of this Project. Additional water sources are considered as a supplement to groundwater in that they are used to recharge the aquifer, serve as a source substitution for groundwater, or are used for irrigation in other locations in the subbasin.

If it becomes available to the Project Site, the proposed Project will utilize recycled water on site to supplement non-potable water demands. Additionally, the project may also use drainage water (storm water) contained on site for landscape irrigation and to recharge the groundwater basin.

Colorado River Water

The Coachella Canal is a branch of the All-American Canal, which brings Colorado River water into the Imperial and Coachella valleys. Under the 1931 California Seven Party Agreement, CVWD has water rights to Colorado River water as part of the first 3.85 million acre-feet allocated to California. CVWD is in the third priority position along with the Imperial Irrigation District. This priority is ahead of the 550,000 acre-feet allocation to the MWD, which has the lowest priority of the California Seven Party.

California's Colorado River supply is protected by the 1968 Colorado River Basin Project Act, which provides that certain Colorado River supplies to Arizona and Nevada after 1968 shall be reduced to zero before California will be reduced below 4.4 million acre-feet in any year. It is estimated that this reduction is about 1.5 million acre-feet. This reduction together with the reduction by California agencies with lower priorities than CVWD results in reduction in excess of 2 million acre-feet in Colorado River water available to the Lower Basin States before the Colorado River supply available to CVWD are impacted. This assumes that the California agricultural agencies with rights to Colorado River water are using less than 3.85 million acre-feet.

Historically, CVWD has received approximately 330,000 afy of Priority 3a Colorado River water. **Table 3.0-3, Annual CVWD Colorado River Diversions at Imperial Dam – 1964 to 2013 (after Measured Returns),** contains the diversions of Colorado River water after measured returns at Imperial Dam to CVWD for the period 1964-2013. The 2003 QSA, among some of the California Colorado River contractors, resulted in a firm contractual obligation for the supply to CVWD. A number of lawsuits have unsuccessfully challenged the QSA agreements and transfers in state and federal courts.

Table 3.0-3
Annual CVWD Colorado River Diversions at Imperial Dam – 1964 to 2013
(after measured Returns)

Year	Diversion Volume (acre-feet)	Year	Diversion Volume (acre-feet)
1964	526,417	1989	359,419
1965	524,686	1990	322,625
1966	489,429	1991	331,821
1967	465,053	1992	359,419
1698	449,263	1993	369,685
1969	470,683	1994	317,563
1970	511,476	1995	309,367
1971	522,356	1996	318,990
1972	558,864	1997	326,102
1973	522,356	1998	326,697
1974	558,864	1999	333,810
1975	570,987	2000	342,871
1976	524,800	2001	329,367
1977	508,635	2002	331,107
1978	509,491	2003	296,808
1979	530,733	2004	318,616
1980	531,791	2005	304,768
1981	452,260	2006	329,322
1982	424,868	2007	311,971
1983	362,266	2008	299,064
1984	355,789	2009	308,560
1985	337,002	2010	306,141
1986	339,702	2011	309,348
1987	322,625	2012	329,576
1988	331,821	2013	331,137

Source: Records of releases of water through regulatory structures in accordance with Article V(A) of the Decree of the Supreme Court of the United States in Arizona v. California dated March 9, 1964.

The 2003 QSA was entered into and between CVWD, Imperial Irrigation District (IID) and the San Diego County Water Authority (SDCWA). The QSA quantifies distribution allotments of Colorado River water rights in California, including CVWD's Colorado River Rights, for the next 75 years. The agreements provide for additional transfer of Colorado River allocations to CVWD from the IID and MWD. Under the QSA, CVWD will receive up to 459,000 afy of Colorado River water as shown in **Table 3.0-4, Colorado River Deliveries to CVWD under the Quantification Settlement Agreement (QSA).**

Table 3.0-4
Colorado River Deliveries to CVWD under the QSA

Component	2010 Amount (afy)	2045 Amount (afy)
Base Entitlement	330,000	330,000
1998 MWD/IID Approval Agreement	20,000	20,000
Coachella Canal Lining (to SDCWA)	-26,000	-26,000
To Miscellaneous/Indian PPR's	-3,000	-3,000
IID/CVWD First Transfer	50,000	50,000
IID/CVWD Second Transfer	53,000	53,000
Metropolitan/SWP Transfer	35,000	35,000
Total Diversion at Imperial Dam	**368,000**	**459,000**
Less Conveyance Losses	-31,000	-31,000
Total Deliveries to CVWD	**337,000**	**428,000**

Source: Coachella Valley Water District, Coachella Valley Water Management Plan 2010 Update *(January, 2012).Table ES-1.*
afy = acre-feet per year

Water from the Coachella Canal provides a significant supply source for the East Valley. In 1999, the Coachella Canal supplied over 60 percent of the water used in the East Valley, but provided less than 1 percent of the water supply to the West Valley. Most of the canal water was used for crop irrigation in the East Valley.

In 1995, CVWD began operating the Dike No. 4 pilot recharge facility in La Quinta. This facility has successfully demonstrated the adequacy of this site to recharge the aquifer. This facility was expanded in 1998. This site, the Levy Facility at the Dike 4 site was expanded in 2009 and put into full operation.

Future development and associated increases in water demand, as well as quality concerns, are expected to increase use of Colorado River water for domestic purposes. Determining the best way to treat this water in order to substitute for and decrease the area's dependency on groundwater is an important objective of the 2010 CVWMP Update and the 2010 UWMP. 2010 CVWMP Update calls for

the treatment and distribution of as much as 62,000 acre-feet of Colorado River water for domestic use annually.

State Water Project Water

CVWD and DWA are SWP contractors for the Whitewater River basin aquifer. The SWP includes 660 miles of aqueduct and conveyance facilities extending from Lake Oroville in the north to Lake Perris in the south. The SWP has contracts to deliver 4.1 million afy to 29 contracting agencies. CVWD's original SWP water right (Table A Amount) was 23,100 afy and DWA's original SWP Table A Amount was 38,100 afy—for a combined Table A Amount of 61,200 afy. In 2004, CVWD purchased an additional 9,900 afy of SWP water from the Tulare Lake Basin Water Storage District, which brought CVWD's SWP allotment to 33,000 afy.

In addition, CVWD and DWA have also negotiated an exchange agreement with MWD for 100,000 afy of SWP Table A Amount. MWD has permanently transferred 88,100 afy and 11,900 afy of its SWP Table A Amounts to CVWD and DWA, respectively. This exchange agreement increases the total SWP Table A Amount for CVWD and DWA to 178,100 afy, with CVWD's portion equal to 126,350 afy. This agreement provides that CVWD and DWA generally receive this water from the SWP during wet years, which allows the two agencies to recharge the groundwater basin and operate a conjunctive use program, storing water in wet years and pumping the groundwater basin in dry years.

In 2007, CVWD and DWA made a second purchase of SWP water from the Tulare Lake Basin Water Storage District. CVWD purchased 5,250 afy and DWA purchased 1,750 afy. In 2007, CVWD and DWA completed the transfer of 12,000 afy and 4,000 afy, respectively, from the Berrenda Mesa Water District for a total Table A amount of 16,000 afy. Therefore, the total SWP Table A Amount for CVWD and DWA is 194,100 afy, with CVWD's portion equal to 138,350 afy. **Table 3.0-5, State Water Project Water Sources**, summarizes CVWD and DWA total allocations of Table A SWP water to be delivered when available.

Table 3.0-5
State Water Project Water Sources (afy)

	Original SWP Table A	Tulare Lake Basin 2004 Transfer	Metropolitan 2003 Transfer	Tulare Lake Basin 2007 Transfer	Berrenda Mesa 2007 Transfer	Total
CVWD	23,100	9,900	88,100	5,250	12,000	138,350
DWA	38,100	--	11,900	1,750	4,000	55,750
Total	61,200	9,900	100,000	7,000	160,000	194,100

Source: Coachella Valley Water District, Coachella Valley Water Management Plan 2010 Update *(January, 2012).Table 4-4.*

SWP contractors make annual requests to the DWR for water allocations and DWR makes an initial SWP Table A allocation for planning purposes, typically in the last month before the next water delivery year. Throughout the year, as additional information regarding water availability becomes available to DWR, its allocation/delivery estimates are updated. **Table 3.0-6, Department of Water Resources Table A Water Allocations,** outlines the historic reliability of SWP deliveries, including their initial and final allocations since 1988. The 2014 initial allocation of SWP water for CVWD is 6,918 acre-feet and DWA is 2,778 acre-feet, for a combined total of 9,696 acre-feet or 5 percent of the requested total.[23]

Table 3.0-6
Department of Water Resources Table A Water Allocations

Year	Initial Allocation	Final Allocation
1988	100%	100%
1989	100%	100%
1990	100%	100%
1991	85%	30%
1992	20%	45%
1993	10%	100%
1994	50%	50%
1995	40%	100%
1996	40%	100%
1997	70%	100%
1998	40%	100%
1999	55%	100%
2000	50%	90%
2001	40%	39%
2002	20%	90%
2003	20%	90%
2004	35%	65%
2005	40%	90%
2006	55%	100%
2007	60%	60%
2008	25%	35%
2009	15%	40%

23 Department of Water Resources, State Water Project, *Notice to State Water Project Contractors 14-08,* May 30, 2014.

Year	Initial Allocation	Final Allocation
2010	5%	50%
2011	25%	80%
2012	60%	65%
2013	30%	35%
2014	5%	5%
Average	44%	75%

Source: California Department of Water Resources, Notice to State Water Project Contractors (2014).

As noted previously, CVWD and DWA do not directly receive SWP water. Rather, CVWD and DWA have entered into an exchange agreement with MWD that allows MWD to take delivery of CVWD and DWA SWP Table A water. In exchange, MWD provides an equal amount of Colorado River water that MWD transports through its Colorado River Aqueduct, which crosses the Coachella Valley near Whitewater. The exchange agreement allows for advanced delivery and storage of water, thereby providing better and more efficient water management. Water is recharged when SWP and exchange waters are available. The large storage capacity of the Coachella Valley aquifer and the large volume of water in storage allow CVWD and DWA to pump from the aquifer for a number of years without recharging and to recharge large amounts of water to refill the aquifer when the water is available.

Factors Potentially Impacting SWP Delivery Reliability

DWR issues the State Water Project Delivery Reliability Report every two years, with the 2013 draft report currently available for public review. This updated report accounts for impacts to water delivery reliability associated with climate change and recent federal litigation (see **Appendix A**). Based on information in the Draft 2013 State Water Project Delivery Reliability Report, the average long term reliability of future SWP Table A deliveries through 2029 is projected to be 62 percent.[24]

This allocation percentage is based on computer modeling of the state's watersheds, and past hydrology adjusted for factors that affect reliability. In considering future water supply needs in the 2010 CVWMP Update, CVWD considered an even lower SWP delivery reliability to allow for the uncertainty of future court decisions, Water Resources Control Board actions, ESA and other restrictions, modeling error, levee failure and relaxation in the biological opinions (BO) as the result of better science.

24 California Department of Water Resources, Bay-Delta Office, Draft *State Water Project Delivery Reliability Report 2013.*

There are three significant factors contributing to uncertainty in the delivery reliability of the SWP: 1) possible effect from climate change and sea level rise; 2) the vulnerability of the Delta levees to failure, and 3) greater operation restrictions imposed by the United States Fish and Wildlife Service (USFWS) and National Marine Fisheries (NMFS) in response to decreasing population of endangered fish species. Each of these uncertainties is discussed in **Appendix A**.

CVWD considers purchases of additional Table A Amounts from SWP contractors as they become available.

Surface Water

Surface water supplies come from several local rivers and streams, including the Whitewater River, Snow Creek, Falls Creek, and Chino Creek, as well as a number of smaller creeks and washes. In 1999, surface water supplied approximately three percent of the total water supply to the West Coachella Valley to meet municipal demand, and none to the East Coachella Valley. Because surface water supplies are affected by variations in annual precipitation, the annual supply is highly variable. Since 1936, the estimated historical surface water supply has ranged from approximately 4,000 to 9,000 afy.

Recycled Water

Wastewater that has been highly treated and disinfected can be reused for landscape irrigation and other purposes; however, treated wastewater is not suitable for direct potable use. Recycled wastewater has historically been used for irrigation of golf courses and municipal landscaping in the Coachella Valley since the early 1960s. In addition, fish farm effluent is available in certain localized areas of the East Valley and is being recycled for reuse. Although recycled water is not planned for use in the project vicinity, the project will utilize recycled water if it becomes available in the future.

Desalinated Drain Water

The 2010 CVWMP Update identifies desalinated agricultural drain water as a future additional local water supply available for use in the Upper and Lower Whitewater River subbasins. CVWD plans to use treated agricultural drainage water for irrigation purposes. It is planned that agricultural drain water from the CVWD will be desalted to a quality equivalent to Canal water for irrigation use with an initial rate of 4,000 afy in 2013, increasing to 11,000 afy capacity by 2023. The amount of drain water that would be treated and recycled depends on supply availability (the amount of drain flow occurring), the overall supply mix (the amount of additional water needed), and the cost of treatment and brine disposal. According to the 2010 CVWMP Update the amount of water recovered through drain water desalination will range from 55,000 afy to 85,000 afy by 2045.

Treated drain water could be delivered to the Canal water distribution system and used as a non-potable supply for agricultural, golf course and landscape irrigation and potentially for potable water supply. Since the desalinated drain water is local water, it could be used anywhere within the CVWD service area.

A brackish groundwater treatment pilot study and feasibility study was completed in 2008 (Malcolm-Pirnie, 2008a and 2008b). The 2008 study recommended a combined source water strategy involving wells and direct connection to the open drain outfalls. Such a combined approach will provide additional flexibility and reliability to this new water supply. This study concluded that agricultural drainage water can be treated for reuse as non-potable water and potentially as new potable water.

Permanent Water Purchases

CVWD purchases Table A Amounts from SWP contractors as they have become available and meet CVWD's needs. Additional purchases from the SWP and from others with water rights, mainly in the Central Valley of California, will be evaluated as they become available to determine whether they meet CVWD's needs. If they do, CVWD may purchase additional SWP water rights.

Summary of Primary and Additional Water Sources

Table 3.0-7, Existing CVWD Water Supply Table A Amounts Water Rights and Water Service Contracts, shows CVWD's existing water supply entitlements, rights and service contracts.

The 2010 UWMP projects that the percentage of water from each of the current water supply sources will change significantly by 2035, relative to 2010 conditions.

To provide an estimate of the proposed Project's contribution to CVWD water demand, the proposed Project is assumed to build out in a 20-year span between 2017 and 2036[25] with an average annual increase in demand of 254.4 afy for the Active Adult Community, and 137.6 afy for the Tribal Planning Areas.

25 The proposed Project anticipates the first residential units occupied in 2017. To meet the requirements of SB610, this WSA uses a 20-year buildout period. However, it should be noted that the actual project development schedule is for a 6-year period for the Active Adult Community, and for an unspecified period following the construction of the Active Adult Community to complete development of the retail, entertainment, and hotel uses on the Tribal Planning Areas. The 20-year scenario is used to illustrate total project demand within the required 20-year WSA time frame established by SB610. As the actual development will occur over a longer period of time, the 20-year demand forecast is considered conservative.

Table 3.0-7
Existing CVWD Water Supply Table A Amounts
Water Rights and Water Service Contracts

Supply	Existing Supplies (afy)	Entitlement	Right	Contract	Other	Ever Utilized?
Groundwater	Unspecified[1]				X	Yes
Coachella Canal	459,000[2]			X		Yes
SWP Exchange Water[3]	138,350[4]	X	Yes			
Recycled Water	14,000				X	Yes

1 CVWD shares a common groundwater source that has not been adjudicated
2 As quantified in the Quantification Settlement Agreement between IID, MWD, and DVWD, October, 2003.
3 Imported SWP Exchange Water is not used as a direct water supply source, but rather is used to recharge groundwater supplies in the Coachella Valley.
4 Includes Original Table A Amount, Tulare Agreement, Berrenda Mesa Agreement and MWD Agreement.
afy = acre-feet per year

As shown in **Table 3.0-8, Current and Projected Average Urban Water Supply (afy),** the 2010 UWMP projects that the percentage of water from each of the current water supply sources will change significantly by 2035, relative to 2010 conditions.

Table 3.0-8
Current and Projected Average Urban Water Supply (afy)

Water Supply Source	2010	2015	2020	2025	2030	2035
Supplier-Produced Groundwater	109,488	118,700	125,600	129,900	133,500	128,700
Treated Colorado River Water	0	5,700	19,300	31,400	39,500	49,100
Untreated Colorado River Water	0	1,300	11,100	26,300	39,000	54,800
Desalinated Agricultural Drain Water	0	0	0	0	0	10,000
Total	**109,488**	**125,700**	**156,000**	**187,600**	**212,000**	**242,600**

Source: Coachella Valley Water District, 2010 Urban Water Management Plan, (June 2011). Table 4-1.

3.4 ANALYSIS OF WATER SUPPLY AND DEMAND

The analysis of supplies and water demands for the Section 24 Specific Plan WSA/WSV is based on the 2010 UWMP and the 2010 CVWMP Update. The 2010 UWMP was prepared in accordance with the

Urban Water Management Planning Act as most recently amended by SBx7-7 which required a state-wide 20 percent reduction in per capita water use by the year 2020. The purpose of the 2010 UWMP is to document CVWD's projected water demands and its plans for delivering water supplies to CVWD's service area through 2035. In accordance with SBx7-7, CVWD's 2010 UWMP sets interim and final urban water use targets for complying with California's 2020 conservation program based on DWRs defined Target Method No. 1 which provides for an agency goal of 80 percent of baseline demands. The 2010 UWMP relies on and summarizes the water supplies and water supply programs detailed in the 2010 CVWMP Update.

The 2010 CVWMP Update is a 35 year plan to reliably meet current and future water demands in a cost effective and sustainable manner. The planning areas for the 2010 CVWMP Update are the Whitewater River Subbasin including Salton City and areas north of the Banning Fault that are within the service areas in Indio and Coachella. The 2010 CVWMP Update evaluates all of the water demand and supplies in the planning area through 2045, for all water users including urban, agricultural and golf and provides a preferred alternative water supply plan for meeting demands. The 2010 CVWMP Update evaluates long-term risks to water supplies such as reduced SWP reliability and reduced Colorado River supplies and provides contingencies for addressing these risks. The elements of the preferred alternative are imported water supplies, recharge, source substitution and conservation. The preferred alternative identifies projects and programs that implement these plan elements.

Both the 2010 UWMP and the 2010 CVWMP Update rely on the Riverside County Population Projections 2006 (RCP-06). In 2005, Riverside County was experiencing rapid growth. Recognizing the need for more accurate growth forecasts the Riverside County Center for Demographic Research (RCCDR) was established under the joint efforts of the County of Riverside, the Western Riverside Council Governments, the Coachella Valley Association of Governments, and the University of California Riverside for the development of demographic data and related support products to serve all of Riverside County. The RCCDR was tasked with developing the RCP-2006 growth forecast to provide agencies with a consistent and standard set of population, housing, and employment forecasts. The RCP-06 was adopted by Southern California Association of Governments for use in their regional growth forecasts.

Although the growth forecast indicated significant future growth for the Coachella Valley, these forecasts were based on potential development that had not yet been approved by the cities and county within the Coachella Valley. Prior to 2008, there was substantial development pressure to transition from agricultural to urban land uses. As agricultural land converts to urban uses, the characteristic of its water demands and infrastructure will change. The 2010 CVWMP Update reflects these changes in its water demand projections and the ways that water is used in this area. As urban development occurs,

land that currently is irrigated with untreated Coachella Canal water could begin using groundwater replenished with the canal water, or use treated canal water for indoor use and untreated canal water for outdoor use.

Tribal land in the Coachella Valley makes up over 49,000 acres. While much tribal land in the West Coachella Valley has been developed to varying degrees, a substantial amount of tribal land in the East Coachella Valley is undeveloped. An understanding of the timing and degree of development on tribal lands is important. All of the Coachella Valley tribes have developed one or more casinos, which have provided them important economic opportunities. As development continues in the Coachella Valley, it is expected that additional growth will occur on the remaining tribal lands.

In other portions of the Coachella Valley, development of tribal land is closely coordinated with the Coachella Valley cities where they are located. RCP-2006 and RCP-2010 growth forecasts are assumed to include development of these lands.

Riverside County has been hit particularly hard by the past economic downturn. The County has some of the highest rates of foreclosures and unemployment in the country. Due to this economic downturn, growth in the County has significantly decreased over the last two to three years. The Riverside County Planning growth forecasts were developed and adopted in late 2006 and early 2007, before the onset of the widespread recession. Therefore, the slowdown in the housing market, which was one of the primary components of the recession, was not accounted for in the forecasts.

Some economists and real estate professionals who have been studying the effects of the recession on the County predict that economic recovery rate in the County will be slow. This would result in a lower than projected growth rate for the Coachella Valley. The timing and extent of this reduced growth rate cannot be accurately predicted. Because the planning period for the 2010 CVWMP Update is through 2045, it is expected that the effect of the recession on growth in the Coachella Valley will attenuate over the long term.

In CVWD's 2014 CVWMP Status Report the RCP 2010 population projections were considered and future water demands were re-evaluated. Using RCP 2010 results in an estimated 22 percent lower urban water demand in 2035 and a 13 percent higher agricultural water demand. Overall demand would be about 14 percent lower in 2035. It is important to note that this is not an elimination of demand but a deferral of demand to later years. Growth will continue but at a slightly slower rate.

Water conservation is a major component of future water management. CVWD is committed to reducing its urban water use to 20 percent by 2020. In the 2010 UWMP, CVWD's baseline water use was derived by calculating the highest ten-year average per-capita water use. Per-capita water use for any

given year is defined as gross water production divided by the 2000 US Census based population. Using this method the highest average baseline water use was calculated to be 591 gpcd. CVWD's 2020 target is 80 percent of this average, 473 gpcd, which indicates that CVWD has already met 90 percent of its 2020 target.

The golf industry represents a significant water demand sector in the Coachella Valley and is expected to remain so in the future. Estimates developed for the 2010 CVWMP Update indicate that up to 75 new golf courses could potentially be constructed within the Whitewater River Subbasin boundary area by 2045. Since most of the future growth is anticipated to occur in the East Coachella Valley, this estimate is based on a ratio of the total number of existing golf courses in the East Coachella Valley to the East Coachella Valley population. This ratio is then applied to future population growth in the Coachella Valley. This method assumes that the existing pattern of development (golf course acres per acre of urban development) within the Coachella Valley will continue into the future.

The 2010 CVWMP Update assumes that the fish farm and duck club growth will be much lower than projected in the 2002 CVWMP. Some of the large fish farms have moved from the traditional fish farming business. The replacement use at these farms is suspected to significantly reduce the water demand. Based on the available information at this time, further fish farm demand of 8,500 afy and duck club demand of 2,000 afy is assumed.

It is assumed that the growth that occurs on tribal land will be similar to the Coachella Valley as a whole and land uses will be proportional to the growth that occurs on non-tribal land in the East Coachella Valley. Corresponding water demands are calculated based on this growth assumption.

The 2010 CVWMP Update increases the water conservation requirement during the next 35 years. A 14 percent reduction in agricultural water use is targeted by 2020. Urban water use is targeted for a 20 percent reduction by 2020. CVWD's Landscape Ordinance will govern the irrigation demands of new golf courses as well as reduce the demands of existing golf courses by 10 percent.

2010 CVWMP Update water demand projections for the Whitewater Subbasin increase from 678,600 afy in 2010 to 783,300 afy in 2030, or 15 percent. During this same period, the population in the Coachella Valley is estimated to increase by almost 100 percent, or about four percent per year, according to CVWD's 2010 UWMP. In the 2014 Status report RCP 2010 projections were used and this water demand was revised to 691,500 in 2030, a 12 percent reduction.

Groundwater and Groundwater Storage

As supply and demand changes, the amount of groundwater in storage changes to make up the difference between the demand and the supply. Other than Canal water, recycled wastewater and

desalinated agricultural drain water, all water delivered to the end users is obtained from the groundwater basin. The groundwater basin has the capacity of approximately 28.8 million acre feet. It currently contains about 25 million acre feet and acts as a very large reservoir. It is capable of meeting the water demands of the Coachella Valley for extended periods.

As discussed in the 2010 CVWMP Update, CVWD has many programs to maximize the water resources available to it including recharge of its Colorado River and SWP supplies, recycled wastewater, desalinated agricultural drain water, conversion of groundwater uses to Canal water and conservation including tiered water rates, a landscaping ordinance, outreach and education. The 2010 CVWMP Update and CVWD replenishment assessment programs establish a comprehensive and managed effort to eliminate the overdraft. These programs allow CVWD to maintain the groundwater basin as its primary water supply and to recharge the groundwater basin, as its other supplies are available.

Coachella Canal Water

Colorado River supplies available to CVWD under the 1931 Seven Party Water Priority 43 Agreement and other agreements and savings are considered in the 2010 UWMP and 2010 CVWMP Update. The annual CVWD Colorado Diversions at Imperial Dam for the period 1964 to 2008 were prepared as required by the U.S. Supreme Court decree. CVWD average annual diversion for said 45 years was 475,662 afy. CVWD average annual diversion for the period 1983 to 2008 (last 26 years of decree records) was 330,286 afy. The difference of 145,375 afy is the result of the water conserved by the lining of the first 49 miles of the Coachella Canal by the USBR under repayment contract with CVWD. The Section 24 Specific Plan is not geographically located to enable it to rely on canal water for outdoor use.

Additional Table A Amounts

DWA and CVWD have increased their SWP supplies from a total of 61,000 afy in 2002 to 194,100 afy currently.

State Water Project Reliability

SWP reliability projections are the result of computer modeling by DWR and reflect the results of adjusting 82 years of hydrology to incorporate the results of climate change models. SWP reliability projections also take into account the existing physical facilities and the regulatory restrictions, including the restriction on the SWP and Central Valley Project (CVP) operations in accordance with the biological opinions of the USFS and NMFS issued on December 15, 2008 and June 4, 2009 respectively. Modeled SWP deliveries were divided by the Table A amount requests for each year (maximum Table A amount of 4.132 million acre feet) to obtain the reliability percentage for each year. This data was then ranked and the long term average demand for 2009 and 2029 was determined. The 2013 percentage values

determined using this method results in a long term delivery reliability of 62 percent for both wet year and dry year models.

This reliability was adjusted to allow for the uncertainty of future court decisions, Water Resources Control Board actions, ESA and other restrictions, modeling error, levee failure and relaxation in the biological opinions as the result of better science. Linear proration was used to obtain the reliability for years 2010 to 2030.

The 2010 CVWMP uses an even more conservative long term reliability of 50 percent to compensate for the additional uncertainty of a 35-year planning period.

Metropolitan Water District Callback

In 1984, MWD and CVWD entered into an advanced delivery agreement, which allowed MWD to store water from its Colorado River Aqueduct in the Coachella Valley. Prior to this agreement, DWA and CVWD were exchanging their annual SWP Table A amount with MWD for the same amount of water from MWD's Colorado River Aqueduct. This was done because the SWP does not extend into the Coachella Valley. This 1984 agreement allows MWD to deliver more water into the Coachella Valley during wet periods or periods when it has excess water and to build a credit that it can use to provide the water to exchange for DWA and CVWD's Table A amounts during dry periods. This creates a conjunctive use program among the three agencies.

In 2003, MWD, DWA and CVWD entered into an exchange agreement whereby MWD transferred title to 100,000 acre-feet of its SWP Maximum Table A amount to DWA and CVWD. Under the agreement, MWD obtained the right to callback the SWP water for its use for a maximum number of times in a given period of years. The 100,000 acre-feet was divided into two 50,000 acre-foot blocks. The 2010 UWMP assumes that MWD will exercise its option to callback the 100,000 afy in four wet years out of every 10 years. This is also in accordance with the 2010 CVWMP Update. The actual callback would depend on availability of MWD's supplies to meet their demands. Since 2003, MWD exercised its callback option once in 2005.

Data from DWR’s State Water Project Reliability Report 2009 was used to determine the average water deliveries in the 50 percent driest years and the 75 percent driest years. Linear proration was used to obtain the yearly values for years 2010 through 2029. This data was used to obtain the MWD callback water for the first and second 50,000 acre-feet, and they were summed to obtain the total MWD callback for each year. The reliability percentage and the DWA and CVWD Maximum Table A amount without the MWD 100,000 acre feet transfer were used to obtain the amount of SWP water deliveries for DWA and CVWD after the total MWD callback was deducted. These values were multiplied by the

share that CVWD obtained for its use based on the ratios from the 2005 UWMP. The ratios were linearly prorated to obtain the values for each year.

Long Term Average SWP Deliveries

The amount of SWP supply that is available to CVWD for its own use was considered as the long-term average SWP supply.

The published reliability of the SWP water has decreased over time. The 2005 SWP Delivery Reliability Report (DRR) estimated a reliability of 77 percent in 2025; the 2007 DRR estimates a reliability of 66 to 69 percent in 2027, and the 2011 draft DRR estimates a reliability of 58 percent in 2029. There are additional uncertainties related to SWP reliability in the future, which further reduce the reliability factor. The factors that could affect the SWP reliability considered in the 2010 UWMP and the 2010 CVWMP update are:

- Uncertainty in modeling restrictions associated with biological opinions,
- Risk of levee failure in the Delta,
- Additional pumping restrictions resulting from biological opinions on new species or revisions to existing biological opinions,
- Impacts associated with litigation such as the California ESA lawsuit, and
- Climate Change impacts.

Because of these factors and the need to plan for higher contingency, the planning assumption in the 2010 CVWMP Update and the 2010 UWMP is that the long-term future average SWP reliability is 50 percent until successful completion of the Bay-Delta conservation Plan and delta conveyance facilities.

Groundwater basin recharge through direct and in-lieu recharge is a major element of CVWD's water management activities. CVWD has spent over $43.5 million on the construction of the Thomas E. Levy Replenishment Facility in the Lower Valley and over $42 million on the construction of the Mid-Valley Pipeline to move Canal water into the Upper Valley for source substitution for groundwater. The protection of the aquifer storage will be addressed through additional water supply purchases, water conservation, and source substitution similar to the ones described in the 2010 CVWMP Update.

The available supplies and water demands for CVWD's service area were analyzed in the water supply conditions of the 2010 UWMP to assess the region's ability to satisfy demands for current and future demands, including the Section 24 Specific Plan, under three scenarios: a normal water year, a single dry year, and multiple dry years. According to the CVWD 2010 UWMP, the urban water demands of the CVWD are estimated to grow from 109,488 afy in 2010 to 242,800 afy in 2035. The estimated Project

demands of 1,780 afy represent approximately 1.6 percent of the 2010 demand, 0.7 percent of the 2035 demand, and 1.3 percent of the growth.

Tables 3.0-9, 3.0-10, and **3.0-11** outline the water supply and demand scenarios for normal, single-dry, and multiple-dry years respectively.

Table 3.0-9
Supply and Demand Comparison – Normal Water Years 2015-2035 (afy)

	2015	2020	2025	2030	2035
Water Supply Sources					
Supplier-Produced Groundwater	118,700	125,600	129,900	133,500	128,700
Treated Colorado River Water	5,700	19,300	31,400	39,500	49,100
Untreated Colorado River Water	1,300	11,100	26,300	39,000	54,800
Desalinated Agricultural Drain Water	0	0	0	0	10,000
Supply Totals	**125,800**	**156,100**	**187,700**	**212,000**	**242,700**
Water Demand					
Total Urban Water Deliveries[1]	121,700	151,000	181,600	205,100	234,800
Sales to Other Water Agencies	0	0	0	0	0
Domestic System Losses[2]	4,100	5,100	6,100	6,900	7,900
Demand Totals	**125,800**	**156,100**	**187,700**	**212,000**	**242,700**

Source: Coachella Valley Water District, 2010 Urban Water Management Plan, *(June 2011). Table 5-14.*
1 Total urban deliveries calculated from CVWD 2010 UWMP Table 3-8 through Table 3-12.
2 Domestic system losses are assumed to be 3.2 percent of total water production, which is the average system water loss from 2006-2010.

Table 3.0-10
Supply and Demand Comparison – Single Dry Years 2015-2035 (afy)

	2015	2020	2025	2030	2035
Water Supply Sources					
Supplier-Produced Groundwater	118,700	125,600	129,900	133,500	128,700
Treated Colorado River Water	5,700	19,300	31,400	39,500	49,100
Untreated Colorado River Water	1,300	11,100	26,300	39,000	54,800
Desalinated Agricultural Drain Water	0	0	0	0	10,000
Supply Totals	**125,800**	**156,100**	**187,700**	**212,000**	**242,700**
Water Demand					
Total Urban Water Deliveries[1]	121,700	151,000	181,600	205,100	234,800
Sales to Other Water Agencies	0	0	0	0	0
Domestic System Losses[2]	4,100	5,100	6,100	6,900	7,900
Demand Totals	**125,800**	**156,100**	**187,700**	**212,000**	**242,700**

Source: Coachella Valley Water District, 2010 Urban Water Management Plan, *(June 2011). Table 5-15.*
1 Total urban deliveries calculated from CVWD 2010 UWMP Table 3-8 through Table 3-12.
2 Domestic system losses are assumed to be 3.2 percent of total water production, which is the average system water loss from 2006-2010.

Table 3.0-11
Supply and Demand Comparison – Multiple Dry-Years 2015-2035 (afy)

		2015	2020	2025	2030	2035
Multiple-Dry Year First Year Supply	Supply Totals	125,800	156,100	187,700	212,000	242,700
	Demand Totals	125,800	156,100	187,700	212,000	242,700
	Difference	0	0	0	0	0
Multiple-Dry Year Second Year Supply	Supply Totals	125,800	156,100	187,700	212,000	242,700
	Demand Totals	125,800	156,100	187,700	212,000	242,700
	Difference	0	0	0	0	0
Multiple-Dry Year Third Year Supply	Supply Totals	125,800	156,100	187,700	212,000	242,700
	Demand Totals	125,800	156,100	187,700	212,000	242,700
	Difference	0	0	0	0	0

Source: Coachella Valley Water District, 2010 Urban Water Management Plan, *(June 2011). Table 5-16.*

Multiple Dry Year Period Supply and Demand

Since groundwater production is driven by demand, the 2010 UWMP report assumes supplies are equal to demand. This is a result of the large amount of water stored in the underground aquifer as described in **Section 3.3.2 Description of the Aquifer**. However, with implementation of the 2010 UWMP and 2010 CVWMP Update programs described in detail in this WSA, long-term groundwater overdraft will be eliminated, and this supply is considered reliable in single dry and multiple dry water years.

Summary

Table 3.0-12, Project Supply and Demand Comparison, shows the proposed Project water demand as a percent of total supply throughout various milestones in the build-out schedule. By 2020, the Project is estimated to demand 356 afy of water. This amount translates to 147 gpcd, or 0.3 afy per residential dwelling unit, which is within the CVWD 20 by 2020 per capita target of 473 gpcd water use. Projected water demand associated with the Project represents 0.71 percent of CVWD's total projected urban water demand at full buildout in 2035. By 2036, the Project's total urban water use would be 277 gpcd, or 0.74 afy per residential dwelling unit.

Table 3.0-12
Project Supply and Demand Comparison (afy)

	2020	2022[1]	2025	2035	2036[2]
Total Supply	156,100	168,059	187,700	242,700	249,329
Project Demand	356	534	801	1,691	1,780
Percent of Supply	0.23	0.32	0.43	0.70	0.71

*Source: Total supply extrapolated from data in **Table 3.0-11.** Project demand extrapolated from data **Table 2.0-4,** based on a 20 year build-out.*
[1] *2022 is the final buildout year of the Active Adult Community with buildout of the Tribal Planning Area expected to begin in this same year.*
[2] *2036 is the final buildout year for the Tribal Planning Areas and completion of the Project.*

The 2010 CVWMP Update, projects total water demands for the Coachella Valley through 2035 and demonstrates that supplies are sufficient to meet demands without long term overdraft. The projected demand for the Project will account for only a small fraction of the projected demands.

3.5 CONCLUSIONS

Coachella Valley Water District Service Area

Based on the information, analysis, and findings documented in this WSA/WSV there is substantial evidence to support a determination that there will be sufficient water supplies to meet the current and future demands of the Project in addition to all forecasted demands in In the Whitewater subbasin the

next 20 years. This is based on the volume of water available in the aquifer, CVWD's Colorado River contract supply, SWP Table A Amounts, and water rights and water supply contracts. CVWD has committed sufficient resources to further implement the primary elements of the 2010 CVWMP Update and the 2010 UWMP, which include the purchase of additional water supplies, water conservation, and source substitution.

The domestic water supply (potable) for the Project will be the West Whitewater River Subbasin in the Coachella Valley. Groundwater storage will be used in dry years to make up the difference between supply and demand. The groundwater basin has a capacity of approximately 28.8 million acre-feet and currently contains about 25 million acre-feet and acts as a very large reservoir. It is capable of meeting the water demands of the Coachella Valley for extended normal and drought periods.

As discussed in the 2010 CVWMP Update, the 2010 UWMP, and this WSA/WSV, CVWD has many programs to eliminate overdraft and maximize the water resources including recharge of Colorado River and SWP supplies, recycled wastewater, desalinated agricultural drain water, conversion of groundwater uses to Canal water and water conservation including tiered water rates, landscaping ordinance, outreach and education.

Project Water Requirements

As shown in this WSA/WSV analysis, the projected demand for the proposed Project is 1,780 afy, or approximately 3.1 afy per acre which is within the average future water use per acre estimated in the 2010 CVWMP Update, and accounts for approximately 1.6 percent of the total projected growth in CVWD urban water demands presented in the 2010 UWMP for 2035. By 2036, the Project's water demand equates to 367 gpcd, or 0.74 afy per residential dwelling unit, and is within CVWD's 20 by 2020 urban water use target of 473 gpcd.

It is anticipated that the Project will incorporate the elements of CVWD's water conservation plan as required by SBx7-7. These include conservation elements for indoor and outdoor use for both multi-family residential and commercial developments. This may further reduce the ultimate project demands.

4.0 WATER SUPPLY VERIFICATION

4.1 GENERAL

The residential component of the Section 24 Specific Plan development Project will be subject to the requirements of Senate Bill 221 pursuant to the Subdivision Map Act since more than 500 residential dwelling units are proposed.

4.2 WATER SOURCE

Project domestic water supplies and associated landscape irrigation supplies will be provided from groundwater. The WSV addresses: (1) information included in CVWD's 2010 Coachella Valley Water Management Plan Update and the 2010 Urban Water Management Plan; (2) information related to groundwater recharge of non-groundwater sources, namely Colorado River water and SWP water; and (3) consideration of historical litigation regarding the Quantification Settlement Agreement.

4.3 SUPPORTING DOCUMENTATION

This WSA/WSV relies on CVWD's 2010 CVWMP Update, the 2014 CVWMP Status Report (see **Appendix D**), the Subsequent Program Environmental Impact Report (EIR) for the CVWMP Update (see **Appendix C** for the Executive Summary), and the Final Subsequent Program EIR for the CVWMP Update and are incorporated by reference. The 2010 UWMP contains specific details regarding the Water Shortage Contingency Plan which discusses phased water use restrictions and a drought rate structure to minimize water use during a multiple dry year period. Supporting information is also used from the 2010 UWMP, as permitted by Government Code Section 66473.7.

4.4 FACTORS OF RELIABILITY

4.4.1 General

Government Code Section 66473.7(a) requires that all of the following factors be considered: (1) the availability of the supply over 20 years, (2) the applicability of CVWD's urban water shortage contingency analysis found in the 2010 UWMP, (3) the reduction of water supply to a specific user by ordinance or resolution, and (4) the reasonable amount of groundwater supply that can be relied upon, considering natural sources as well as the supporting recharge sources within agreements for Colorado River water and SWP water.

4.4.2 Historical Availability of Supply

The Coachella Valley has been primarily dependent on groundwater as a source of domestic water supply for several decades. The 2010 CVWMP Update and the CVWD 2010 UWMP review the historical

use of water in the Coachella Valley. In 1936, groundwater use was 92,400 afy. Current use is at approximately 301,188 afy. Deliveries of Colorado River water and MWD SWP transfer water help offset the groundwater use. The Colorado River water deliveries have averaged approximately 300,000 afy over the past five years with MWD deliveries to the Coachella Valley expected to average 60,000 afy.

4.4.3 Reduction of Water Supply

No reduction of water supply is expected to any user due to the Project's use of water resources, or due to CVWD's ongoing management of water resources and planning for growth within their service area and throughout the Coachella Valley.

4.4.4 SWP and Colorado River Water

CVWD's Colorado River water rights and SWP Table A allotments will provide supplemental water for direct use and groundwater recharge to the Coachella Valley. CVWD proposes to develop direct treatment of Colorado River water for potable uses in the future. The Coachella Valley Groundwater Basin has the capacity to meet future demands. Based on the information provided in the 2013 draft State Water Reliability Report, CVWD's Colorado River water rights, recycled water, desalinated drain water and CVWD's water conservation program, water supplies will be sufficient to meet the Project's demands and CVWD's existing and future demands. In the event that additional conservation and/or limitations are necessary, the Project would adhere to any and all limitations associated with this potential reduction in supply.

In addition, the USBR has developed interim surplus and shortage guidelines for management of the Colorado River water supplies.[26] The USBR preferred alternative provides flexibility for the potential storage of additional conserved Colorado River or non-Colorado River water in Lake Mead. The guidelines that were adopted by USBR have been updated and extended through 2026. The revised guidelines address the operation of Lake Mead at relatively full elevations, and determine when surplus water supplies would be available to water users in Southern California, including the Coachella Valley. As currently drafted, the guidelines indicate that water shortages will not negatively impact the Colorado River water supply for the Coachella Valley. CVWD is part of the California agricultural agencies' Colorado River entitlement and is protected by over two million acre-feet of Lower Basin Colorado River entitlement that has a lower priority. The lower priority water would be used to meet shortages before the agricultural entitlements would begin to be impacted.

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26 US Department of the Interior Bureau of Reclamation, *Colorado River Interim Guidelines for Lower Basin Shortages, Final Environmental Impact Statement* (November, 2007).

4.5 IMPACTS ON OTHER PROJECTS

The Project is within the goals of the 2010 CVWMP Update and the 2014 CVMWP Status Report, and should not have a significant impact on agricultural, potable, or industrial users. CVWD's 20 by 2020 urban water use target for urban water use is 473 gpcd.[27] As previously indicated, the Project's urban water demand of 277 gpcd is below the 20 by 2020 per capita target of 473 gpcd necessary to manage the groundwater basin. In addition, this Project should not affect the water supply for future lower-income housing projects.

The Project will adhere to the Tribe's Land Use Ordinance which regulates landscape irrigation and CVWD Landscape Ordinance 1302.1. The proposed Project's potential groundwater demand would be reduced due to the future use of grey and recycled water for landscape irrigation when made available to the Project Site. The Project may be responsible for funding the purchase of additional imported water supplies to support its projected demands on the PWS. Based on the findings of the WSV, it is expected that the impacts to the groundwater basin will be fully mitigated.

4.6 RIGHTS TO GROUNDWATER

The Coachella Valley groundwater basin has been the principal source of water for the Valley since the early 1900s in the West Valley, urban development relies mainly on groundwater. CVWD, DWA, Indo Water Authority and Coachella Water Agency are the 4 public water purveyors in the Indio Sub basin. CVWD has the legal authority to manage the groundwater basins within its service area under the County Water District Law (California Water Code, Division 12). The Coachella Valley Groundwater Basin has not been adjudicated. CVWD has the right to extract the groundwater as needed to supply this project. CVWD recognizes the need to responsibly and reliably manage the groundwater basin and adopted the 2002 CVWMP, and the 2010 CVWMP Update to reliably meet current and future water demands in a cost effective and sustainable manner.

4.7 VERIFICATION

This document verifies the water supply for the proposed Project as required by California Government Code Section 66473.7 is available.

27 Coachella Valley Water District, *2010 Urban Water Management Plan,* (June 2011). Table 3-7.

5.0 LIST OF ACRONYMS

ac	acre
af	acre-feet, equal to approximately 325,851 gallons
afy	acre-feet per year
BO	Biological Opinion
CEQA	California Environmental Quality Act
cfs	cubic feet per second
CVWD	Coachella Valley Water District
CVP	Central Valley Project
DWA	Desert Water Agency
DWR	California Department of Water Resources
ESA	Endangered Species Act
gpd	gallons per day
gpm	gallons per minute
IRP	Integrated Resources Program
MWD	Metropolitan Water District of Southern California
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries
PWS	public water system
QSA	Quantification Settlement Agreement
SDCWA	San Diego County Water Authority
SB	Senate Bill
SCAG	Southern California Association of Governments
SWP	State Water Project
USBR	U.S. Bureau of Reclamation
USFWS	U.S. Fish and Wildlife Service
UWMP	Urban Water Management Plan
WSA	Water Supply Assessment
WSV	Water Supply Verification

APPENDIX A

Water Litigation and Other Water Issues

1. Quantification Settlement Agreement (b)

On October 10, 2003, a series of agreements were signed by various parties including CVWD, Imperial Irrigation District (IID), San Diego County Water Authority (SDCWA), The Metropolitan Water District of Southern California (Metropolitan), The State of California and the U.S. Department of the Interior to quantify water distribution allotments of the Colorado River water in California. The agreements further provide for additional transfer of Colorado River water to CVWD from shares of IID and Metropolitan. The total ultimately available to CVWD is 459, 000 acre-feet/ year during the lifetime (75 years) of the agreements collectively known as Quantification Settlement Agreement (QSA). The QSA includes:

- Capping IID and CVWD Priority 3 water at 3.1 million acre-feet and 330,000 acre-feet, respectively
- Modification of the 1988 IID/Metropolitan Water Conservation Agreement
- Amendment of the 1989 Metropolitan/IID/CVWD/PVID Approval Agreement and transferring 20,000 acre-feet/year to CVWD
- Conservation and transfer of200,000 acre-feet/year from IID to SDCWA
- Exchange Agreement between SDCWA and Metropolitan
- Conservation and transfer of 103,000 acre-feet/year from IID to CVWD
- Lining the All-American Canal and the Coachella Canal and transfer of conserved water to Metropolitan less 16,000 acre-feet/year for the San Luis Rey Indian Water Rights Settlement
- Sharing obligations to provide 14,500 acre-feet/year from IID and CVWD for miscellaneous present perfected rights
- Transfer of35,000 acre-feet/year of SWP water from Metropolitan to CVWD
- Potential water transfers between 25,000 and 111,000 acre-feet annually from the Palo Verde Irrigation District to Metropolitan
- Quantifications of surplus water available under Priority 6 and 7
- Sharing of shortages between CVWD and IID when there is less that 3.85 million acre- feet/year available to Priorities 1, 2, 3a, and 3b

After the QSA was executed, a number of lawsuits were filed including, but not limited to, actions seeking vaIIDation of the agreements and CEQA challenges. To date the QSA has been successfully upheld in several state and federal Courts against challenges to the CEQA process and other issues.

2. Intentionally Created Surplus on Colorado River (f)(g)

Intentionally Created Surplus (ICS), a new type of surplus water, was created by the Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations for Lake Powell and Lake Mead in December 2007. There are four ICS categories:

- Tributary Conservation: Allows a water user to fallow water rights in tributaries of the Colorado River that were in use prior to the effective date of the 1928 Boulder Canyon Project Act and transport this water to the Colorado River for credit.

- Imported ICS: Allows a Colorado River contract holder to convey non-Colorado River water for credit.

- System Efficiency: Allows a user to fund a system efficiency project that would conserve Colorado River water. The project must increase the amount of water available in the United States and a portion of the saved water would be credited to the user funding the project.

- Extraordinary Conservation: Allows a water user to implement a project, such as land fallowing or canal lining, to conserve water through extraordinary measures which would increase Lake Mead levels

ICS allows agencies with contracts for Colorado River water to develop some water resources that were formerly identified as "in-state water" by conveying them to the Colorado River and receive credits.

If this water is not used in the year it is created, it converts to extraordinary conservation ICS credits, which can be used like a bank account and can be stored in Lake Mead for multiple years for future use.

The Yuma Desalting Plant was constructed under authority of the Colorado River Basin Salinity Control Act of 1974 to treat saline agricultural return flows from the Wellton-Mohawk Irrigation and Drainage District. The treated water is intended for inclusion in water deliveries to Mexico thereby preserving the like amount of water in Lake Mead. Construction of the plant was completed in 1992 and it has operated on two occasions since then. The plant has been maintained, but largely not operated due to surplus and then normal water supply conditions on the Colorado River.

In 2009, Reclamation developed a plan for a Pilot Run of the plant. The Pilot Run is being funded by a consortium of municipal utilities which agreed to provide the funding in exchange for receiving ICS for the water created during the Pilot Run. The Pilot Run operations started in May 2010.

The Drop 2 Reservoir project captures United States' Colorado River water that would otherwise go unused in the Lower Basin and pass into Mexico and not be counted as part of Mexico’s entitlement. A

consortium of municipal utilities has agreed to fund the construction of the Drop 2 Reservoir storage project along the All-American Canal in California in exchange for receiving ICS credits for the water saved. The Drop 2 Reservoir was renamed the Warren H. Brock Reservoir and was completed in 2010. Mr. Brock was a prominent, innovative Imperial Valley farmer who participated in numerous commercial ventures as well as experimental farming with different varieties of crops and arid and semi-arid farming methods.

The Pilot Run project and the Warren H. Brock Reservoir project are two examples of the type of projects that CVWD can undertake to increase its water supply to help resolve the overdraft.

3. Colorado River Augmentation (i)

Recognizing the importance of a reliable water supply for the entire Southwest, the seven Colorado River Basin States agreed to conduct an analysis of potential measures that could be used to augment the water supply provided by the river.

Colorado River Water Consultants, a project-specific partnership between engineering firms CH2MHill and Black & Veatch, undertook the task of evaluating potential concepts based upon several key parameters and developed a report for the basin states.

Twelve augmentation options analyzed as part of this study as follows:

- Brackish water desalination
- Coal bed methane production water
- Ocean water desalination
- Power plant reduction of consumptive use
- Reservoir evaporation control
- River basin imports
- Stormwater storage
- Vegetation management (salt cedar and forest management)
- Water imports using ocean routes
- Water reuse

- Weather modification

It is important to note that the augmentation study is intended to provide technical information to water managers; thus, it does not include specific recommendations, prioritization of options or timelines. The report recognizes the legal, political and environmental issues associated with options, but does not attempt to provide guidance related to how they may be addressed.

4. Bay Delta Conservation Plan (a)

The Bay Delta Conservation Plan (BDCP) is being developed to promote the recovery of endangered, threatened and sensitive fish and wildlife species and their habitats in the Sacramento-San Joaquin Delta in a way that will also protect and restore water supplies.

Key provisions of the BDCP include:

- Identify conservation strategies to improve the overall ecological health of the Delta
- Identify ecologically friendly ways to move fresh water through and/or around the Delta
- Address toxic pollutants, invasive species, and impairments to water quality
- Establish a framework and funding to implement the Plan overtime

In July 2012, the governor and U.S. Interior Secretary outlined revisions and alternative proposals to the proposed Bay Delta Conservation Plan (BDCP). Subsequently, the California Natural Resources Agency released four draft chapters of the BDCP in March 2013. On December 9, 2013, the State released an updated BDCP, along with a draft EIR/Environmental Impact Statement (EIS) for formal public review. The formal public review and comment period for the draft EIR/EIS was from December 13, 2013 through July 29, 2014.

5. Biological Opinions on Effects of Coordinated SWP and CVP Operations (a)

Several fish species listed under the federal Endangered Species Act (ESA) as endangered or threatened are found in the Delta. The continued viability of populations of these species in the Delta depends in part on Delta flow levels. For this reason, the U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) have issued several Biological Opinions (BOs) since the 1990s on the effects of coordinated SWP/CVP operations on several species.

These BOs affect the SWP's water delivery reliability for two reasons. Most obviously, they include terms that specifically restrict SWP pumping levels in the Delta at certain times under certain

conditions. In addition, the BOs' requirements are based on physical and biological phenomena that occur daily while DWR's water supply models are based on monthly data.

The first BOs on the effects of SWP (and CVP) operations were issued in February 1993 (NMFS BO on effects of project operations on winter-run Chinook salmon) and March 1995 (USFWS BO on project effects on delta smelt and split tail). Among other things, the BOs contained requirements for Delta inflow, Delta outflow, and reduced export pumping to meet specified incidental take limits. These fish protection requirements imposed substantial constraints on Delta water supply operations. Many were incorporated into the 1995 Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta (1995 WQCP), as described in the "Water Quality Objectives" section later in this chapter.

The terms of the USFWS and NMFS BOs have become increasingly restrictive in recent years. In December 2008, USFWS issued a new BO covering effects of the SWP and CVP on delta smelt, and in June 2009, NMFS issued a BO covering effects on the winter-run and spring-run Chinook salmon, steelhead, green sturgeon, and killer whales. These BOs replaced BOs issued earlier by the federal agencies.

The USFWS BO includes additional requirements in all but 2 months of the year. The BO calls for "adaptively managed" (adjusted as necessary based on the results of monitoring) flow restrictions in the Delta intended to protect delta smelt at various life stages. USFWS determines the required target flow, with the reductions accomplished primarily by reducing SWP and CVP exports. Because this flow restriction is determined based on fish location and decisions by USFWS staff, predicting the flow restriction and corresponding effects on export pumping with any great certainty poses a challenge. The USFWS BO also includes an additional salinity requirement in the Delta for September and October in wet and above- normal water years, calling for increased releases from SWP and CVP reservoirs to reduce salinity. Among other provisions included in the NMFS BO, limits on total Delta exports have been established for the months of April and May. These limits are mandated for all but extremely wet years.

The 2008 and 2009 BOs were issued shortly before and shortly after the Governor proclaimed a statewide water shortage state of emergency in February 2009, amid the threat of a third consecutive dry year. NMFS calculated that implementing its BO would reduce SWP and CVP Delta exports by a combined 5% to 7%, but DWR's initial estimates showed an impact on exports closer to 10% in average years, combined with the effects of pumping restrictions imposed by BOs to protect delta smelt and other species. The 2008 USFWS and 2009 NMFS BOs have been subject to considerable litigation. Recent decisions by the U.S. District Judge Oliver Wanger changed specific operational rules for the fall/ winter of 2011-2012, and both the USFWS BO and NMFS BO have been remanded to the agencies for further review and analysis. However, the operational rules specified in the 2008 and 2009 BOs

continue to be legally required and are the rules used in the analyses presented in Chapters 5, 6, and 7 of this report. Chapter 5 presents a comparison of monthly Delta exports as estimated for this 2011 Report with those estimated for the 2005 Report, illustrating how the 2008 and 2009 BOs have affected export levels from the Delta.

The final judgment remands the 2009 salmon biological opinion to the NMFS and directs that a new draft salmon biological opinion be issued by October 1, 2014, and that a final biological opinion be issued by February 1, 2016, after completion of environmental impact review under NEPA.

The California Department of Fish and Game (DFG) issued consistency determinations for both BOs under Section 2080.1 of the California Fish and Game Code. The consistency determinations stated that the USFWS BO and the NMFS BO would be consistent with the California Endangered Species Act (CESA). Thus, DFG allowed incidental take of the species listed under bother the federal ESA and CESA to occur during SWP and CVP operations without requiring DWR or the U.S. Bureau of Reclamation to obtain a separate State-issued permit.

6. Delta Water Quality Objectives for Salinity (a)

Because the Delta is an estuary, salinity is a particular concern. In the 1995 WQCP, the State Water Board set water quality objectives to protect beneficial uses of water in the Delta and Suisun Bay. The objectives must be met by the SWP (and federal CVP), as specified in the water Delta outflows, limits on SWP and CVP Delta exports, and maximum allowable salinity levels are enforced through the provisions of the State Water Board's Water Right Decision 1641 (D-1641), issued in December 1999 and updated in March 2000. DWR and Reclamation must monitor the effects of diversions and SWP and CVP operations to ensure compliance with existing water quality standards.

Among the objectives established in the 1995 WQCP and D-1641 are the "X2" objectives. D-1641 mandates the X2 objectives so that the State Water Board can regulate the locations of the Delta estuary's salinity gradient during the months of February-June. X2 is the position in the Delta where the electrical conductivity (EC) level, or salinity, of Delta water is 2 parts per thousand. The location of X2 is used as a surrogate measure of Delta ecosystem health. For the X2 objective to be achieved, the X2 position must remain downstream of Collinsville in the Delta (shown in figure 4-1) for the entire 5-month period, and downstream of the other specific locations in the Delta outflow must be at certain specified levels at certain times-which can limit the amount of water the SWP may pump at those times at its Harvey 0. Banks Pumping Plant in the Delta. Because of the relationship between seawater intrusion and interior-Delta water quality, meeting the X2 objective also improves water quality at Delta drinking-water intakes; however, meeting the X2 objectives can require a relatively large volume of water for outflow during dry months that follow months with large storms.

The 1995 WQCP and D-1641 also established and export/inflow (E/I) ratio. The E/I ratio, resented in Table 3 of the 1995 WQCP (SWRCB 1995:18-22), is designed to provide protection for the fish and wildlife beneficial uses in the Bay-Delta estuary (SWRCB 1995:15). The E/I ratio limits the fraction of Delta inflows that are exported. When other restrictions are not controlling, Delta exports are limited to 35% of the total Delta inflow from February through June and 65% of inflow from July through January.

7. Ongoing Environmental and Policy Planning Efforts (a)

The Delta is an essential part of the conveyance system for the SWP. SWP pumping at the Banks Pumping Plant is regulated to protect the many uses of the Delta. However, today's uses in the Delta are not sustainable over the long term under current management practices and regulatory requirements. Two large-scale plans for the Delta that are in development could affect SWP water delivery reliability: the Delta Plan and the Bay Delta Conservation Plan (BDCP).

After years of concern about the Delta amid rising water demand and habitat degradation, the Delta Stewardship Council was created in legislation to achieve State-mandated coequal goals for the Delta. As specified in Section 85054 of the California Water Code:

"Coequal goals" means the two goals of providing more reliable water supply for California and protecting, restoring, and enhancing the Delta ecosystem. The coequal goals shall be achieved in a manner that protects and enhances the unique cultural, recreational, natural resource, and agriculture values of the Delta as an evolving place.

The draft Delta Plan seeks to reduce reliance on Delta water supplies. In a series of policies and recommendations, the draft plan aims to encourage farms and cities to increase conservation and become more self-sufficient, particularly in the event of a disaster in the Delta. It calls for agriculture water agencies to change pricing to encourage conservation. It also urges the State Water Board to set enforceable flow objectives for the Delta and its tributaries that take into account wildlife and habitat need. In the future, government projects in the Delta must prove they are consistent with the Delta Plan. The Delta Stewardship Council is preparing the draft Delta Plan and environmental impact report. Scheduled for adoption and implementation in 2012, the Delta Plan is intended to serve as California's guiding policy document for the Delta and Suisun Marsh for the next 88 years (that is, through the year 2099), with frequent updates.

8. Delta Levee Failure (a)

Delta levees provide constant protection from flooding because most lands in the Delta are below sea level. Most Delta levees, however, do not meet modem engineering standards and are highly susceptible to failure. Levees are subject to failure at times of high flood flows, but also at any time of

the year due to seepage or the piping of water through the levee, slippage or sloughing of levee material, or sudden failure due to an earthquake. According to the URS Corp./Jack R. Benjamin & Associates report, *Report; Phase l:RiskAnalysis, Delta Risk Management Strategy (DRMS),* December 2008, the risk of levee failure in the Delta is significant, as shown by the fact that most islands in the Delta have flooded at least once over the past 100 years, with many flooding at least twice. Since 1900 there have been 158 levee failures.

A breach of one or more levees and island flooding may affect Delta water quality and water operations. Depending on the hydrology and the size and locations of the breaches and flooded islands, a significant amount of saline water may be drawn into the interior Delta from Suisun and San Pablo bays. At the time of island flooding, exports may be drastically reduced or ceased to evaluate the salinity distribution in the Delta and to avoid drawing higher saline water toward the pumps. The introduced salinity then could become dispersed and degrade Delta water quality for a prolonged period because of complex relationships between Delta inflows, tidal mixing, and the time taken to repair the breaches.

A large earthquake in the Delta causing significant levee failures and island flooding could lead to multiyear disruptions in water supply, significant water quality degradation, as well as permanent flooding of several islands. Such permanent multi-island flooding would probably lead to increased salt water intrusion into the Delta during seasonal low inflows. Maintaining Delta water quality when several islands are flooded and breaches are open would require additional Delta inflow because the volume of water coming into the Delta on the flood tide would increase, requiring more fresh water from the rivers to prevent the saline water from extending into the Delta. When SWP and CVP pumping are restarted, Delta inflow would need to increase again beyond the pumping amount in order to prevent water quality degradation in the Delta. This chain of events would significantly affect water supply reliability.

A worst case scenario for water supply effects would be a moderate or large earthquake causing extensive levee failure in the late summer or fall of a dry year. A strong earthquake affecting the Delta could cause simultaneous levee failures on several islands, with these islands flooding simultaneously. Preliminary analysis indicates that some water may not be treatable by municipal agencies for many months due to high organic carbon concentrations. This would extend the period that Delta water supply would be unavailable for urban users.

Possible effects on SWP deliveries due to earthquakes are:

- There is about a 40% chance of 27 or more islands simultaneously failing during a major earthquake in the next 25 years
- A moderate to large earthquake capable of causing multiple levee failures could happen in the next 25 years. Under such an earthquake, extensive levee failure would most likely occur in the west and central Delta. Levee repairs could take more than 2.5 years and exports from the Delta could be disrupted for about a year with a loss of up to 8 million acre feet of water
- By 2050, the risk of island flooding from seismic events is expected to increase by 35%over 2005 conditions, if a seismic event has not occurred

9. Monterey Amendment Environmental Impact Report (d)

The Monterey EIR is aimed at identifying potential environmental impacts resulting from modifications to SWP water supply contracts. In 1994, DWR and some of the SWP contractors, meeting in Monterey, executed the Monterey Agreement to modify the long- term water supply contracts. These modifications were incorporated into the long-term water supply contracts in what became known as the Monterey Amendment.

An EIR for the Monterey Amendment was prepared by the Central Coast Water Authority (CCWA), a joint powers agency representing several Central Coast contractors. After the EIR was certified in 1995, the Planning and Conservation League challenged the adequacy of the EIR. Later, the Citizen's Planning Association of Santa Barbara and Plumas County Flood Control and Water Conservation District joined the action as plaintiffs. In 2000, the committee ruled that the EIR was inadequate because it failed to analyze invocation of Article 18(b) of the then-existing SWP contracts as a no-project alternative, and that DWR must serve as the lead agency for a new EIR. Following the court's ruling, DWR, the SWP contractors and the plaintiffs executed the Settlement Agreement in 2003. The Settlement Agreement specifies a process for the plaintiffs and the contractors to advise DWR in preparation of the new EIR, sets forth some specific items to be included in the content of the new EIR, and establishes a process for mediation of CEQA issues raised by either the plaintiffs or contractors. The Settlement Agreement also requires DWR to carry out various actions and modify some of its administrative practices.

In June 2010, Central Delta Water Agency, South Delta Water Agency, California Water Impact Network, California Sportfishing Protection Alliance, Center for Biological Diversity, Carolee Krieger and James Crenshaw filed a lawsuit challenging (1) the validity of the Monterey Amendment and the contract amendments executed as part of the settlement agreement and (2) challenging the EIR. A second

lawsuit challenging the EIR was filed by Rosedale-Rio Bravo Water Storage District and Buena Vista Water Storage District. The trial court has ruled that the challenge to the validity of the Monterey Amendment and settlement agreement amendments is baited by the statute of limitations. The challenges to the EIR are set for hearing in January 2014.

10. State Water Bond

The 2014 water bond is the product of a comprehensive legislative package crafted in 2009 by Governor Schwarzenegger and state lawmakers to meet California's growing water challenges. This package represented a major step toward ensuring a reliable water supply for future generations, as well as restoring the Sacramento-San Joaquin Delta and other ecologically sensitive areas. The package was composed of four policy bills and an $11.14 billion bond.

The water bond measure was originally set to be on the state's 2010 ballot and was later moved to the 2012 ballot. The California State Legislature, on July 5, 2012, approved a bill to take the measure off the 2012 ballot and put it on the 2014 ballot to provide a public cost share for elements of the package that benefit the public.

The Safe, Clean and Reliable Drinking Water Supply Act of2014 is a multi-billion dollar general obligation bond proposal that would provide funding for California's aging water infrastructure and for projects and programs to address the ecosystem and water supply issues in California.

In its current form, the bond would allocate roughly funds for local resources development, ecosystem restoration and public benefits associated with new surface and groundwater storage projects. It is planned that every $1 authorized as pmi of the bond would leverage $3 to $4 in other funds, for a total of up to $40 billion for needed investments.

The vast majority of public funds allocated by the bond would be awarded via competitive process to ensure dollars go to a public benefit. There would also be careful review of dollars targeted for ecosystem restoration and a competitive process to determine the highest value investments.

11. Salton Sea (e)(g)

The Salton Sea is a saline terminal lake located at the east end of the Coachella Valley. It is California's largest lake and is a main stop on Pacific Flyway for migratory birds. Over 400 bird species have been documented there. The Sea is about 35 miles long and 9-15 miles wide with approximately 360 square miles of water surface and 105 miles of shoreline. The surface of the Sea currently lies approximately 232 feet below mean sea level (MSL). One of the major functions of the Salton Sea is to serve as a sump for agricultural wastewater from the Imperial and Coachella Valleys. Executive Order of Withdrawal (Public Water Reserve No. 114, California No. 26), signed by President Coolidge in 1928, designated lands within the Salton Basin below elevation 220 feet below MSL as storage for wastes and seepage from imitated lands in the Imperial Valley. Approximately 90 percent of the freshwater inflow to the Sea is agricultural drain water from Imperial Valley, Coachella Valley and Mexicali Valley (Salton Sea Authority website, 2010). Because the Sea has no outlet, salts concentrate in it by evaporation and concentrated nutrients increase the formation of eutrophic conditions. Salt concentrations in the Sea are currently about 51,000 mg/L or about 45 percent higher than ocean water, with salinity increasing at approximately 1 percent per year.

The Salton Sea Reclamation Act of 1998 (Public Law 105-372) directed the Secretary of the Interior, through Reclamation, to study options for managing the salinity and elevation of the Sea to preserve fish and wildlife health and to enhance opportunities for recreation use and economic development while continuing the Sea's use as a reservoir for irrigation drainage.

In January 2003, a status report was released by the Secretary of the Interior about the Salton Sea Restoration Project. The legislation directed DWR to prepare an ecosystem restoration study and programmatic environmental document. The study, conducted in consultation with a legislatively mandated advisory committee and with the Authority, included a proposed funding plan for implementing the preferred alternative.

The California State Legislature, by legislation enacted in 2003 and 2004, directed the Secretary of the California Resources Agency (CRA) to prepare a restoration plan for the Salton Sea ecosystem, and an accompanying Environmental Impact Report. In September 2003, legislation was passed in which the State of California accepted responsibilities for ecosystem restoration at the Sea. The Secretary has established an Advisory Committee to provide recommendations to assist in the preparation of the Ecosystem Restoration Plan, including consultation throughout all stages of the alternative selection process. DWR and CDFG are leading the effort to develop a preferred alternative for the restoration of the Salton Sea ecosystem and the protection of wildlife dependent on that ecosystem.

In June 2006, the Salton Sea Authority (SSA) published a study entitled "Salton Sea Authority Plan for Multi-Purpose Project". As part of this study, the SSA developed a combined, multi- purpose revitalization/restoration project. The preferred project design resulting from this study included components such as in-sea circulation channels, water treatment facilities, habitat enhancement features, Colorado River water storage reservoir, park, and open space and wildlife areas.

In May 2007, the State published the "Salton Sea Ecosystem Restoration Program Preferred Alternative Report and Funding Plan". The Plan and the accompanying PEIR/EIS considered eight restoration alternatives along with a no project alternative. The preferred alternative includes Saline Habitat Complex in the northern and southern sea bed, a Marine Sea that extends around the northern shoreline from San Felipe Creek to Bombay Beach in a "horseshoe" shape, Air Quality Management facilities to reduce particulate emissions from the exposed playa, Brine Sink for discharge of salts, and Sedimentation/Distribution facilities.

On January 24, 2008, the California Legislative Analysis Office released a report entitled "Saving the Salton Sea." The preferred alternative outlined within this draft plan calls for spending a total of almost $9 billion over 25 years and proposes a smaller but more manageable Salton Sea. The amount of water available for use by humans and wildlife would be reduced by 60 percent from 365 square miles (945 square kilometers) to about 147 square miles (381 square kilometers). Fifty-two miles (84 km) of perimeter dikes- constructed most likely out of boulders, gravel and stone columns - would be erected along with earthen beams to corral the water into a horseshoe shape along the shoreline of the sea from San Felipe Creek on the west shore to Bombay Beach on the east shore. The central portion of the sea would be allowed to almost completely evaporate and would serve as a brine sink, while the southern portion of the sea would be constructed into a saline habitat complex. If approved, construction on this project is slated to begin in 2011 and would be completed by 2035.

Salton Sea Restoration Project- SB 187 was approved by Governor Arnold Schwarzenegger on September 27, 2008 and chaptered by the Secretary of State (Chapter 374, Statutes of2008). SB 187 limits expenditures of funds from Proposition 84, upon appropriation by the Legislature, to those activities to be completed in the first five years (Period I) identified in the Resources Agency's report entitled "Salton Sea Ecosystem Restoration Program Preferred Alternative Report and Funding Plan." Activities identified for completion in Period I included a demonstration project, early start habitat, and additional biological, inflow, sediment, water and air quality investigations.

In 2010 in response to inaction by the legislature, SB 51 was passed creating the Salton Sea Restoration Council. To lead restoration efforts, The Council was never formed, members were never appointed and in 2012, Governor Brown eliminated the council by executive action. In late 2013, Governor Brown

signed AB 71 the Salton Sea restoration plan authored by Coachella Democratic Assemblymru1 V. Manuel Perez. The law gives local stakeholders greater say in the revitalization of the Salton Sea and aims to have the local Salton Sea Authority work directly on a plan with the state's Natural Resources Agency. It also authorizes those agencies to study "short- and long-term funding opportunities to help determine a financially sustainable restoration project.

The draft 2010 Water Management Plru1 Update (201 0 WMP) projects that in order to meet the 2045 demand conditions in the Coachella Valley, up to 85,000 AFY of drain flow to the Salton

Sea could be captured and desalinated for urban use. This might result in a significant reduction of projected flow to the Salton Sea from the Coachella Valley. However, it is predicted that these reductions will be offset by higher drainage flow to the sea from the Coachella Valley Aquifer as a result of overdraft reduction. The impacts associated with flow to the Salton Sea are evaluated in the 2010 WMP Update Subsequent Programmatic Environmental Impact Report.

12. Climate Change and Sea Level Rise (a)(l)(g)

State Water Protect:

California's climate is expected to continue to change into the future. Mean temperatures are predicted to increase by 1.5 degrees to 5.0 degrees Fahrenheit by mid-century and 3.5 degrees to 11 degrees by the end of the century. These rising air temperatures are expected to continue to reduce snowpack, especially in low elevation watersheds where more precipitation may fall as rain rather than snow. Reduced snow pack is expected to lead to higher winter runoff and lower spring runoff. This could increase flooding during the winter and reduce river flows in the spring and summer, which may require water managers to evaluate the tradeoffs between flood protection and water supply. Future sea level rise estimates range from 4 to 16 inches by mid- century and 7 to 55 inches by the end of the century. Higher sea levels could threaten the existing levee system in the Sacramento-San Joaquin Delta. Salinity intrusion into the Delta could also require increased releases of freshwater from upstream reservoirs to maintain compliance with water quality standards.

For the SWP, these climate changes have the potential to simultaneously affect the availability of source water, the ability to convey water, and users' demands for water. This may exacerbate the existing mismatch in California between where and when precipitation occurs and where and when people use water.

Colorado River:

Recent studies suggesting substantial changes in runoff may occur over the next century in the Colorado River Basin are of great concern to the region's water managers. The range of estimated impacts on Colorado River discharge has been from slight increases to a 45% decrease by mid-century. While this range of projections and associated hypotheses may be of intellectual interest and stimulate scientific debate, to users and decision makers at the federal level, in the seven basin states, and internationally, providing conflicting information on future conditions is a serious impediment to drought and climate change planning.

Given the wide range of projected flows, the four NOAA Regional Integrated Sciences and Assessments in the western US (RISAs: Western Water Assessment, Climate Assessment for the Southwest, Climate Impacts Group of the Pacific Northwest, California Applications Program), Bureau of Reclamation and NOAA engaged in a coping with drought study to reconcile the range of estimates for future Colorado River flows. A secondary goal was to inform the National Integrated Drought Information System (NIDIS) on the process needed to convey to policy and decision makers the nature of the uncertainties associated with projections of future climate impact.

An intercomparison was initiated to assess how the methodological approaches and models used to generate estimates of Colorado River flow in 2050 reflect actual uncertainty with associated risks, and how much uncertainty is due to differences in the methodological approaches and model biases. First, the various approaches simulated the 20th century record of Colorado River stream flow due to shifts in the average and seasonality of temperature and precipitation, snow pack development and decline, and antecedent soil moisture conditions were examined. Precipitation elasticities and temperature sensitivities of these approaches to simulate stream flow were evaluated by imposing a 10 percent reduction of precipitation and

1°C and 2 °C increases in temperature. The elevation dependency of runoff contributing to stream flow among the simulations and in comparison to the observed record was also examined.

An initial result of the intercomparison is a narrowing of the range of projected Colorado River flows at 2050 to decreases between -6% and -20%. Precipitation elasticity across the approaches for annual flows at Lees Ferry is on the order 2, whereas temperature sensitivity for annual flows at Lees Ferry ranges from 2%/°C to -9%/°C. In addition, differences in gridded time series of precipitation and temperature (Oregon State University PRISM approach versus University of Washington Maurer approach) were found to impact the simulated 20th century flows and sensitivity of future flows to climate change at 2050.

Extended droughts in the southwestern United States are believed to have occurred a number of times in the past 1,200 years. A study published in 2007 reconstructed Upper Colorado River flows at Lee Ferry (below Lake Powell) using tree-ring data for the period A.D. 762 to

2005. This study indicated that the Colorado River basin may have experienced two droughts extending for 60 to 80 years during the Medieval period, including a drought in the mid-11OOs where the average flow over a 25-year period decreased by 15 percent. One of these droughts is believed to have caused the decline of the Anasazi culture in the Southwest. Several droughts lasting 20 to 30 years are also inferred from the tree-ring data. Although basin-wide inflows have exceeded water use over the past 100 years, the reconstructed hydrology suggests that the average flow at Lee Ferry might be 14.65 million AFY, which is significantly lower than the 16.5 million AFY allocated to Colorado River users.

CVWD will continue to monitor the supply conditions on the Colorado River, make adjustments to its operations as appropriate, and actively participate in efforts to augment the water supplies of Colorado River. For the 20 year period that the Water Supply Assessment looks into the future and assuming a linear relationship, these studies would have a decrease in runoff in 2030 of between -35 to -10%. As discussed under the "Law of the River", reductions of these magnitudes would not impact CVWD's rights to Colorado River water.

13. Law of the River (h)

The Colorado River is managed and operated under numerous compacts, federal laws, court decisions and decrees, contracts, and regulatory guidelines collectively known as the "Law of the River." This collection of documents apportions the water and regulates the use and management of the Colorado River among the seven basin states and Mexico. Following is a synopsis of the most significant documents:

The Colorado River Compact of 1922- The cornerstone of the "Law of the River", this Compact was negotiated by the seven Colorado River Basin states and the federal government in 1922. It defined the relationship between the upper basin states, where most of the river's water supply originates, and the lower basin states, where most of the water demands were developing. At the time, the upper basin states were concerned that plans for Hoover Dam and other water development projects in the lower basin would, under the Western water law doctrine of prior appropriation, deprive them of their ability to use the river's flows in the future.

The states could not agree on how the waters of the Colorado River Basin should be allocated among them, so the Secretary of Commerce Herbert Hoover suggested the basin be divided into an upper and lower half, with each basin having the right to develop and use 7.5 million acre-feet (mat) of river water

annually. This approach reserved water for future upper basin development and allowed planning and development in the lower basin to proceed.

The Boulder Canyon Project Act of 1928 - This act: (1) ratified the 1922 Compact; (2) authorized the construction of Hoover Dam and related irrigation facilities in the lower Basin; (3) apportioned the lower basin's 7 million acre-feet (maf) among the states of Arizona (2.8 mat), California (4.4 mat) and Nevada (0.3 mat); and (4) authorized and directed the Secretary of the Interior to function as the sole contracting authority for Colorado River water use in the lower basin.

California Seven Party Agreement of 1931- This agreement helped settle the long- standing conflict between California agricultural and municipal interests over Colorado River water priorities. The seven principal claimants Palo Verde Irrigation District, Yuma Project, Imperial Irrigation District, Coachella Valley Irrigation District, Metropolitan Water District, and the City and County of San Diego- reached consensus in the amounts of water to be allocated on an annual basis to each entity. Although the agreement did not resolve all priority issues, these regulations were also incorporated in the major California water delivery contracts.

The agreement provides for the following priorities:

- First Priority- Palo Verde litigation District for beneficial use exclusively upon lands in said District as it now exists and upon lands between said District and the Colorado River, aggregating a gross are of 104,500 acres, such waters as may be required by said lands.

- Second Priority- Yuma Project of United States Bureau of Reclamation for beneficial use upon not exceeding a gross area of 25,000 acres of land located in said project in California, such waters as may be required by said lands.

- Third Priority (a) Imperial Irrigation District and other lands under or that will be served for the All American Canal in Imperial and Coachella Valleys, and (b) Palo Verde Irrigation District for use exclusively on 16,000 acres in that area known as the "Lower Palo Verde Mesa", adjacent to Palo Verde Irrigation District, for beneficial consumptive use, 3,850,000 acre feet of water per annum less the beneficial consumptive use under the priorities designated in Section 1 and 2 above.

- The total beneficial consumptive use under priorities stated in Sections 1, 2 and 3 of this article shall not exceed 3,850,000 acre feet per annum.

- Fourth Priority- The Metropolitan Water District of Southern California and/or the City of Los Angeles, for beneficial consumptive use, by themselves and/or others, on the Coastal Plain of Southern California, 550,000 acre feet of water per annum.

- Fifth Priority, (a) The Metropolitan Water District of Southern California and/or the City of Los Angeles, for beneficial consumptive use, by themselves and/or others, on the Coastal Plain of Southern California, 550,000 acre feet of water per annum and (b) the City of San Diego and/or County of San Diego, for beneficial consumptive use, 112,000 acre feet of water per annum.

- Sixth Priority (a) Imperial Irrigation District and other lands under or that will be served from All American Canal in Imperial and Coachella Valleys, and (b) to Palo Verde Irrigation District for use exclusively on 16,000 acres in that area known as the "Lower Palo Verde Mesa," adjacent to Palo Verde Irrigation District, for beneficial consumptive use, 300,000 acre feet of water per annum.

- Seventh Priority - All remaining water available for use within California, for agricultural use on designated lands in the Colorado River Basin in California.

1934 IID/CVWD Compromise Agreement- An agreement between Imperial Irrigation District (IID) and CVWD which addressed the sale of power within the Coachella Valley and provided a priority for IID ahead of CVWD for Colorado River water in Priorities 3 and 6 of the Seven Party Agreement of 1931 for water put to reasonable beneficial use in its service area.

The Mexican Water Treaty of 1944 -Committed 1.5 maf of the river's annual flow to Mexico.

Upper Colorado River Basin Compact of 1948- Created the Upper Colorado River Commission and apportioned the Upper Basin's 7.5 maf among Colorado (51.75 percent), New Mexico (11.25 percent), Utah (23 percent), and Wyoming (14 percent); the portion of Arizona that lies within the Upper Colorado Basin was also apportioned 50,000 acre-feet annually.

Colorado River Storage Project of 1956- Provided a comprehensive Upper Basin- wide water resource development plan and authorized the construction of Glen Canyon, Flaming Gorge, Navajo and Curecanti dams for river regulation and power production, as well as several projects for irrigation and other uses.

The Arizona v. California Supreme Court Decision of 1964- In 1963, the Supreme Court issued a decision settling a 25-year-old dispute between Arizona and California. The dispute stemmed from Arizona's

desire to build the Central Arizona Project so it could use its full Colorado River apportionment. California objected and argued the Arizona's use of water from the Gila River, a Colorado River tributary, constituted use of its Colorado River apportionment, and that it had developed a historical use of some of Arizona's apportionment. This, under the doctrine of prior appropriation, precluded Arizona from developing the project.

The Supreme Court rejected California's arguments, ruling that lower basin states have a right to appropriate and use tributary flows before the tributary co-mingles with the Colorado River, and that the doctrine of prior appropriation did not apply to apportionments in the lower basin.

In 1964, the Court issued its decree. This decree enjoined the Secretary of the Interior from delivering water outside the framework of apportionments defined by the law and mandated the preparation of annual reports documenting the uses of water in the three lower basin states.

1979, The Supreme Court issued a Supplemental Decree which addressed present perfected right referred to in the Colorado River Compact and in the Boulder Canyon Project Act. These rights are entitlements essentially established under state law, and have priority over later contract entitlements. The case was finalized in 2006.

The Colorado River Basin Project Act of 1968 - This Act authorized construction of a number of water development projects in both the upper and lower basins, including the Central Arizona Project (CAP). It also made the priority of the CAP and portions of Nevada's Colorado River water supply subordinate to California's apportionment in times of shortage, and directed the Secretary to prepare, in consultation with the Colorado River Basin states, long-range operating criteria for the Colorado River reservoir system. This priority for California provides additional reliability for California's Colorado River supply as approximately an additional 1.4 maf of Colorado River water of Arizona and Nevada will take the first storage in the Lower Basin.

The Criteria for Coordinated Long-Range Operation of Colorado River Reservoirs of 1970 (amended March 21, 2005) -Provided for the coordinated operation of reservoirs in the upper and lower basins and set conditions for water releases from Lake Powell and Lake Mead.

Minute 242 of the US Mexico International Boundary and Water Commission of 1973 required the U.S. to take actions to reduce the salinity of water being delivered to Mexico and Morelos Darn.

The Colorado River Basin Salinity Control Act of 1974 authorized desalting and salinity control projects, including Yuma Desalting Plant, to improve Colorado River quality.

Colorado River Storage for CVWD- Under the 1931 Seven Party Agreement and the Colorado River Basin Project Act of 1968, the Colorado River supply to the Lower Basin must be reduced from 7.5 maf to 5 maf before CVWD is subject to a shortage reduction. Under these conditions, the Colorado River supply to CAP and MWD would be reduced to zero.

There are several other laws, contracts and documents which are part of the "Law of the River" in addition to these provisions, the federal Endangered Species Act and various Native American water claim settlement both affect the extent to which water developments and diversions can be utilized in the Colorado River Basin.

14. Agua Caliente Law Suit

On May 14, 2013, the Agua Caliente Band of Cahuilla Indians, a federally recognized tribe, filed a complaint for declaratory and injunctive relief against CVWD and Desert Water Agency (DWA) in U.S. District Court. The complaint alleges that the Agua Caliente Indian Reservation is entitled to groundwater rights prior and paran1ount to the rights of CVWD and DWA under an aboriginal rights theory (in an amount needed to provide for the aboriginal uses of the tribe with a priority date of time immemorial) and under a federal reserved water rights theory (in an amount needed to fulfill the purposes of the reservation, with a priority date of the Executive Orders of 1876 and 1877 establishing the reservation), that CVWD and DWA are overdrafting the Upper Whitewater River and Garnet Hill sub-basins, that CVWD and DWA are degrading groundwater quality by recharging the sub-basins with Colorado River water, and that the tribe owns the "pore space" beneath the reservation lands and has a prior right to use that space for storage of water. The tribe seeks a declaration quantifying the amount of its claimed water rights and an injunction prohibiting CWVD and DWA from producing groundwater in conflict with the claimed water rights, from overdrafting the sub- basins, from recharging the sub-basins with untreated water, and from using the pore space beneath the reservation in conflict with the tribe's claimed rights to use the storage space.

CVWD and DWA have filed answers to the complaint, denying the tribe's allegations and asserting various affirmative defenses, including that any claimed aboriginal water rights have been extinguished by law, that the reserved water rights theory is not applicable to groundwater, that CVWD and DWA have the right to recharge the sub-basins with water diverted from surface streams and imported from the Colorado River, and that the balance of equities weigh in favor of CWVD's and DWA's efforts to address overdraft and preclude granting relief to the tribe.

Footnotes

a. From "State Water Project Delivery Reliability Report 2013" dated December 2013

b. Portions from CVWD website, www.cvwd.org

d. Portions from draft EIR on Monterey Plus October 2007

e. Portions from website saltonsea.ca.gov, “Salton Sea Authority”

f. Portions from Southern Nevada Water Authority website, www.snwa.com

g. Portions from Reclamation's Yuma Area Office website, www.usbr.gov/lc/yuma

h. Portions from Reclamation's Lower Colorado River Region website, www.usbr.gov/lc/

l. Portions from "Reconciling Projections of Future Colorado River Stream Flow" by Robert Webb, et al.

APPENDIX B

Water Demand Calculations

To provide an estimate of the proposed Project's contribution to CVWD water demand, the proposed Project is assumed to build out in a 20-year span between 2017 and 2036 with an average annual increase in demand of 254.4 afy for the Active Adult Community, and 137.6 afy for the Tribal Planning Areas, as illustrated in **Table 1, Projected Annual Project Demand.**

Table 1
Projected Annual Project Demand (afy)

Year	Annual Buildout*	Demand (afy)	Cumulative Buildout	Cumulative Project Demand (afy)
2017	120.3 du	88.98	120.3 du	88.98
	2.37 acre commercial		2.37 acre commercial	
	0.33 acre office		0.33 acre office	
	0.90 acre restaurant		0.90 acre restaurant	
	600 sq. ft. clubhouse		600 sq. ft. clubhouse	
	13.05 acre open space		13.05 acre open space	
2018	120.3 du	88.98	240.6 du	177.96
	2.37 acre commercial		4.75 acre commercial	
	0.33 acre office		0.66 acre office	
	0.90 acre restaurant		1.81 acre restaurant	
	600 sq. ft. clubhouse		1,200 sq. ft. clubhouse	
	13.05 acre open space		26.10 acre open space	
2019	120.3 du	88.98	360.9 du	266.94
	2.37 acre commercial		7.12 acre commercial	
	0.33 acre office		0.99 acre office	
	0.90 acre restaurant		2.71 acre restaurant	
	600 sq. ft. clubhouse		1,800 sq. ft. clubhouse	
	13.05 acre open space		39.15 acre open space	
2020	120.3 du	88.98	481.2 du	355.92
	2.37 acre commercial		9.49 acre commercial	
	0.33 acre office		1.32 acre office	
	0.90 acre restaurant		3.62 acre restaurant	
	600 sq. ft. clubhouse		2,400 sq. ft. clubhouse	
	13.05 acre open space		52.20 acre open pace	
2021	120.3 du	88.98	601.5 du	444.90
	2.37 acre commercial		11.86 acre commercial	
	0.33 acre office		1.65 acre office	
	0.90 acre restaurant		4.52 acre restaurant	
	600 sq. ft. clubhouse		3,000 sq. ft. clubhouse	
	13.05 acre open space		65.25 acre open space	
2022	120.3 du	88.98	721.8 du	533.88
	2.37 acre commercial		14.24 acre commercial	
	0.33 acre office		1.98 acre office	

Year	Annual Buildout*	Demand (afy)	Cumulative Buildout	Cumulative Project Demand (afy)
	0.90 acre restaurant		5.42 acre restaurant	
	600 sq. ft. clubhouse		3,600 sq. ft. clubhouse	
	13.05 acre open space		78.30 acre open space	
2023	120.3 du	88.98	842.1 du	622.86
	2.37 acre commercial		16.61 acre commercial	
	0.33 acre office		2.31 acre office	
	0.90 acre restaurant		6.33 acre restaurant	
	600 sq. ft. clubhouse		4,200 sq. ft. clubhouse	
	13.05 acre open space		91.35 acre open space	
2024	120.3 du	88.98	962.4 du	711.84
	2.37 acre commercial		18.98 acre commercial	
	0.33 acre office		2.64 acre office	
	0.90 acre restaurant		7.23 acre restaurant	
	600 sq. ft. clubhouse		4,800 sq. ft. clubhouse	
	13.05 acre open space		104.4 acre open space	
2025	120.3 du	88.98	1,082.7 du	800.82
	2.37 acre commercial		21.35 acre commercial	
	0.33 acre office		2.97 acre office	
	0.90 acre restaurant		8.14 acre restaurant	
	600 sq. ft. clubhouse		5,400 sq. ft. clubhouse	
	13.05 acre open space		117.5 acre open space	
2026	120.3 du	88.98	1,203.0 du	889.80
	2.37 acre commercial		23.73 acre commercial	
	0.33 acre office		3.30 acre office	
	0.90 acre restaurant		9.04 acre restaurant	
	600 sq. ft. clubhouse		6,000 sq. ft. clubhouse	
	13.05 acre open space		130.5 acre open space	
2027	120.3 du	88.98	1,323.3 du	978.78
	2.37 acre commercial		26.10 acre commercial	
	0.33 acre office		3.63 acre office	
	0.90 acre restaurant		9.94 acre restaurant	
	600 sq. ft. clubhouse		6,600 sq. ft. clubhouse	
	13.05 acre open space		143.6 acre open space	
2028	120.3 du	88.98	1,443.6 du	1,067.76
	2.37 acre commercial		28.47 acre commercial	
	0.33 acre office		3.95 acre office	
	0.90 acre restaurant		10.85 acre restaurant	
	600 sq. ft. clubhouse		7,200 sq. ft. clubhouse	
	13.05 acre open space		156.6 acre open space	
2029	120.3 du	88.98	1,563.9 du	1,156.74
	2.37 acre commercial		30.84 acre commercial	
	0.33 acre office		4.28 acre office	

Year	Annual Buildout*	Demand (afy)	Cumulative Buildout	Cumulative Project Demand (afy)
	0.90 acre restaurant		11.75 acre restaurant	
	600 sq. ft. clubhouse		7,800 sq. ft. clubhouse	
	13.05 acre open space		169.7 acre open space	
2030	120.3 du2.37 acre commercial	88.98	1,684.2 du	1,245.72
	0.33 acre office		33.22 acre commercial	
	0.90 acre restaurant		4.61 acre office	
	600 sq. ft. clubhouse		12.66 acre restaurant	
	13.05 acre open space		8,400 sq. ft. clubhouse	
			182.7 acre open space	
2031	120.3 du	88.98	1,804.3 du	1,334.70
	2.37 acre commercial		35.59 acre commercial	
	0.33 acre office		4.94 acre office	
	0.90 acre restaurant		13.56 acre restaurant	
	600 sq. ft. clubhouse		9,000 sq. ft. clubhouse	
	13.05 acre open space		195.8 acre open space	
2032	120.3 du	88.98	1,924.8 du	1,423.68
	2.37 acre commercial		37.96 acre commercial	
	0.33 acre office		5.27 acre office	
	0.90 acre restaurant		14.46 acre restaurant	
	600 sq. ft. clubhouse		9,600 sq. ft. clubhouse	
	13.05 acre open space		208.8 acre open space	
2033	120.3 du	88.98	2,045.1 du	1,512.66
	2.37 acre commercial		40.33 acre commercial	
	0.33 acre office		5.60 acre office	
	0.90 acre restaurant		15.37 acre restaurant	
	600 sq. ft. clubhouse		10,200 sq. ft. clubhouse	
	13.05 acre open space		221.9 acre open space	
2034	120.3 du	88.98	2,165.4 du	1,601.64
	2.37 acre commercial		42.71 acre commercial	
	0.33 acre office		5.93 acre office	
	0.90 acre restaurant		16.27 acre restaurant	
	600 sq. ft. clubhouse		10,800 sq. ft. clubhouse	
	13.05 acre open space		234.9 acre open space	
2035	120.3 du	88.98	2,285.7 du	1,690.62
	2.37 acre commercial		45.08 acre commercial	
	0.33 acre office		6.26 acre office	
	0.90 acre restaurant		17.18 acre restaurant	
	600 sq. ft. clubhouse		11,400 sq. ft. clubhouse	
	13.05 acre open space		247.95 acre open space	
2036	120.3 du	88.98	2,406 du	1,779.53
	2.37 acre commercial		47.75 acre commercial	
	0.33 acre office		6.59 acre office	

Year	Annual Buildout*	Demand (afy)	Cumulative Buildout	Cumulative Project Demand (afy)
	0.90 acre restaurant		18.08 acre restaurant	
	600 sq. ft. clubhouse		12,000 sq. ft. clubhouse	
	13.05 acre open space		261 acre open space	

– *Note: afy = acre-feet per year, du = dwelling unit*

– **Planning estimate based on a 20-year linear buildout. Since the actual buildout is projected to continue beyond 20 years, the 20-year estimate is considered conservative.*

APPENDIX C

Coachella Valley Water District
2010 Water Management Plan Executive Summary

PREPARED FOR
COACHELLA VALLEY WATER DISTRICT

Coachella Valley Water Management Plan Update

FINAL REPORT
EXECUTIVE SUMMARY

January 2012

MWH
BUILDING A BETTER WORLD

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COACHELLA VALLEY WATER MANAGEMENT PLAN 2010 UPDATE

Executive Summary

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Coachella Valley Water District

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Executive Summary

The Coachella Valley Water Management Plan was adopted by the Board of Directors, Coachella Valley Water District (CVWD) in September 2002. The goal of the Water Management Plan is to reliably meet current and future water demands in a cost-effective and sustainable manner. The Board recognized the need to update the Plan periodically to respond to changing external and internal conditions. This 2010 Water Management Plan Update (2010 WMP Update) meets that need. It defines how the goal will be met given changing conditions and new uncertainties regarding water supplies, water demands, and evolving federal and state laws and regulations.

ES-1 THE COACHELLA VALLEY

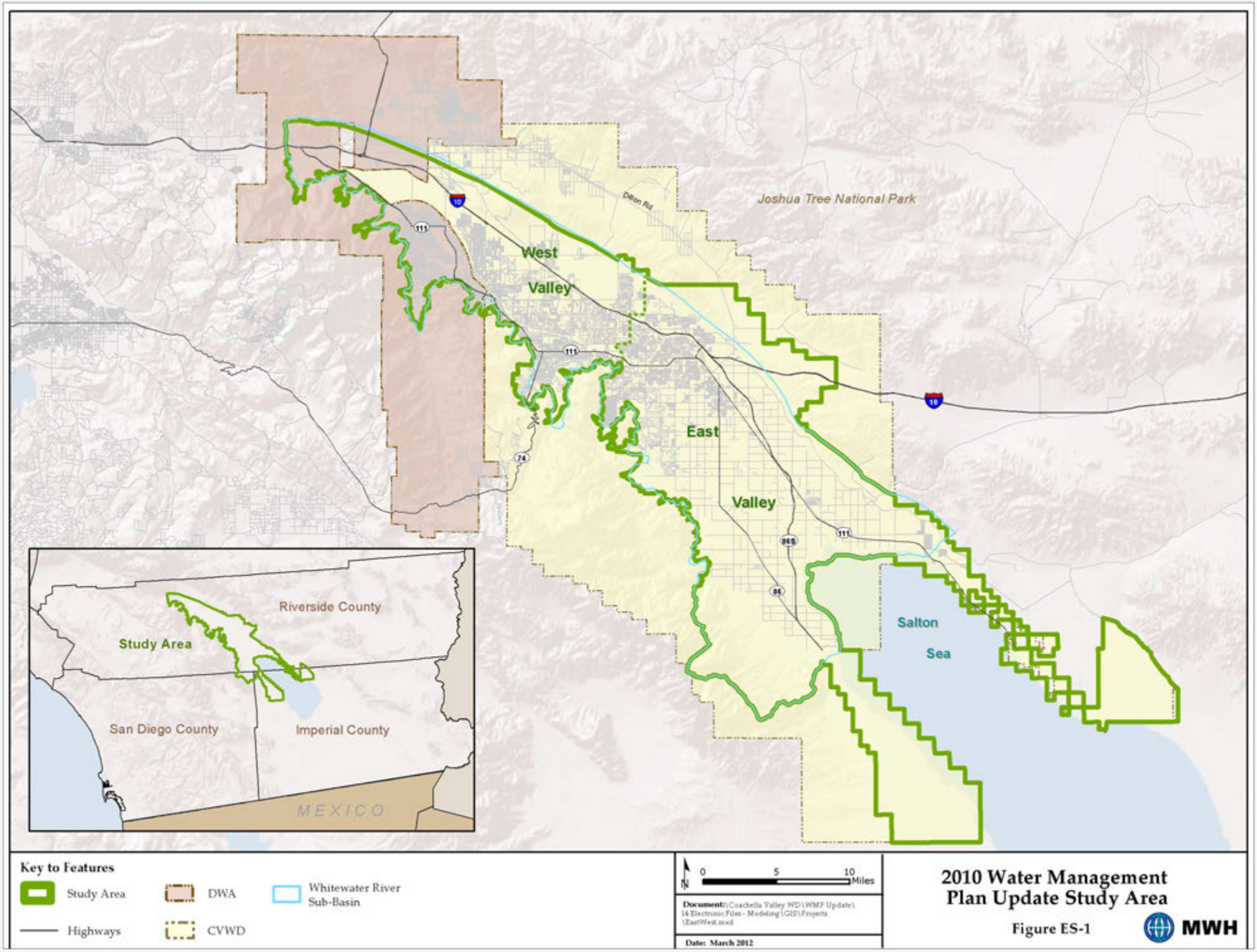
The Coachella Valley is located in the central portion of Riverside County. For purposes of this Water Management Plan, the Coachella Valley is divided into the West Valley and the East Valley. Geographically, the East Valley is southeast of a line extending from Washington Street and Point Happy northeast to the Indio Hills near Jefferson Street, and the West Valley is northwest of this line (**Figure ES-1**).

The West Valley includes the cities of Palm Springs, Cathedral City, Rancho Mirage, Indian Wells, and Palm Desert, a portion of the city of Indio, and the unincorporated communities of Sun City and Thousand Palms. The West Valley has a predominately resort/recreation-based economy. Water demand in the West Valley is supplied by several sources: groundwater, surface water from local streams, and recycled water. The East Valley includes the cities of Coachella, Indio, and La Quinta, and the unincorporated communities of Bermuda Dunes, Mecca, Oasis, Thermal, and Vista Santa Rosa. Historically, the East Valley has had an agricultural-based economy. Urban growth is occurring in the East Valley and is projected to continue in the future. East Valley water sources consist primarily of Coachella Canal water and groundwater, with a small amount of recycled fish farm effluent for agricultural uses.

The Coachella Valley's principal groundwater basin, the Whitewater River (Indio[1]) Subbasin, extends from Whitewater in the northwest to the Salton Sea in southeast. The basin has an estimated storage capacity of approximately 30 million acre-feet[2] (AF) (DWR, 1964). Water placed on the ground surface in the West Valley will percolate through the sands and gravels directly into the groundwater aquifer. In the East Valley, however, several impervious clay layers lie between the ground surface and the main groundwater aquifer. Water applied to the surface in the East Valley does not readily reach the lower groundwater aquifers due to these impervious clay layers. The only outlets for groundwater in the Coachella Valley are through subsurface outflow under the Salton Sea or through collection in drains and transport to the Salton Sea via the Coachella Valley Storm Channel (CVSC).

[1] The California Department of Water Resources (DWR) assigned the name "Indio Subbasin" in its Bulletin 108. CVWD and Desert Water Agency use the designation "Whitewater River Subbasin."

[2] One acre-foot (AF) is the amount of water that would cover one acre of land (approximately the size of a football field), one foot deep or about 326,000 gallons.



Source: DWR, ESRI, County of Riverside

ES-2 WATER MANAGEMENT IN THE COACHELLA VALLEY

Water management in the Valley began as early as 1915. With groundwater levels falling, the need for a supplemental water source was recognized for the Valley to continue to flourish.

The Coachella Valley Stormwater District was formed in 1915 followed by formation of CVWD in January 1918. CVWD's first directors quickly filed paperwork to secure rights to all unclaimed Whitewater River water, an important source for aquifer recharge. In 1918, a contract was awarded for construction of water spreading and recharge facilities in the Whitewater River northwest of Palm Springs.

CVWD next focused on obtaining imported Colorado River water. In 1934, negotiations with the federal government were completed, and plans were put in place for the construction of the Coachella Branch of the All American Canal. Construction of the Canal began in 1938, but was interrupted by World War II. The first deliveries of imported Colorado River water to East Valley growers began in 1949. The service area for Canal water delivery under the CVWD's contract with the U.S. Bureau of Reclamation (Reclamation) is defined as Improvement District No. 1 (ID-1). The impact of imported water on the Valley was almost immediate. By the early 1960s, water levels in the East Valley had returned to their historical high levels.

Although groundwater levels in the East Valley had stabilized, water levels in the West Valley continued to decline as growth occurred. Desert Water Agency (DWA) was formed in 1961 to import State Water Project (SWP) water into the Palm Springs and Desert Hot Springs areas. In 1962 and 1963 respectively, DWA and CVWD entered into contracts with the State of California for 61,200 acre-feet per year (AFY) of SWP water. To avoid the then estimated $150 million cost of constructing an aqueduct to bring SWP water directly to the Valley, CVWD and DWA entered into an agreement with the Metropolitan Water District of Southern California (Metropolitan) to exchange SWP water for Colorado River water.

Starting in 1973, the CVWD and DWA began exchanging their annual SWP allocation with Metropolitan for Colorado River water to recharge West Valley groundwater at the Whitewater River Recharge Facility. CVWD, DWA, and Metropolitan also signed an advance delivery agreement in 1984 that allows Metropolitan to store additional water in the Valley. Since 1973, the spreading facility had percolated in excess of 2.6 million AF of Colorado River water exchanged for SWP water.

By the 1980s, groundwater demand in the East Valley had again exceeded supplies, resulting in significant groundwater level decreases in some parts of the East Valley. Because relatively impervious clay layers in the Valley floor impede groundwater recharge in the East Valley, CVWD began looking for sites sufficiently far away from the main clay layer to allow groundwater recharge. In 1995, the CVWD began operating the Dike No. 4 pilot recharge facility located on the west side of the East Valley in La Quinta. The pilot successfully demonstrated the feasibility of East Valley groundwater recharge. The facility was expanded in 1998 to determine the ultimate recharge capacity at this location. In October 2009, the Thomas E. Levy Groundwater Replenishment Facility (Levy facility, formerly Dike 4) was dedicated. It has a current recharge capacity of 32,000 AFY, upgradable to 40,000 AFY.

Recycled water has been a priority water supply in the Valley since 1965. Currently, CVWD and DWA provide more than 14,000 AFY of recycled water for golf course and greenbelt irrigation purposes from four wastewater treatment facilities. While recycled water is available in the East Valley, it is not currently treated to sufficient levels for unrestricted reuse. Water conservation is also a key element of managing water demands.

ES-3 CURRENT CONDITION OF COACHELLA VALLEY GROUNDWATER BASIN

The demand for groundwater has annually exceeded the limited natural recharge of the groundwater basin. The condition of a groundwater basin in which the outflows (demands) exceed the inflows (supplies) to the groundwater basin over the long term is called "*overdraft.*" Overdraft has caused groundwater levels to decrease in significant portions of the East Valley. Groundwater levels in the West Valley have also decreased substantially, except in the areas near the Whitewater Recharge Facility where artificial recharge has successfully raised water levels.

Overdraft has serious consequences. The immediate and direct effect is increased groundwater pumping costs for all water users. With continued overdraft, wells will have to be deepened, pumps that are more powerful will have to be installed, and energy costs will increase as the pump lifts increase. The need for deeper wells and more powerful pumps will increase the cost of water for agriculture, municipalities, resorts, homes, and businesses. Continued decline of groundwater levels could result in a substantial and possibly irreversible degradation of water quality in the groundwater basin due to the intrusion of lower quality, high TDS water applied at the surface for irrigation and reduced drain flows carrying the salts out of the basin. Continued overdraft also increases the possibility of land subsidence. As groundwater is removed, the dewatered soil begins to compress from the weight of the ground above, causing subsidence. Subsidence can cause ground fissures and damage to buildings, homes, sidewalks, streets, and buried pipelines – all of the structures that make the Valley livable. Subsidence also reduces storage capacity in the aquifer. Continued overdraft would eventually stifle growth in the Valley, as it would not be possible to demonstrate that adequate water supplies exist to support growth.

The 2010 WMP Update uses a calculation of change in storage based on long-term local hydrology and imported water deliveries to estimate long-term overdraft. Since the local hydrology varies significantly from year to year, a long term average provides a better method for estimating the local inflows, which are dampened by the large storage volume of the basin. Because imported water recharge deliveries in the West Valley also vary widely from year to year, recharge is based on estimated long-term average SWP Exchange reliability rather than year-to-year values. Other inflows and outflows are estimated using the groundwater model. This approach dampens the variations in the annual change in storage and gives a more accurate indication of long-term overdraft. Based on these adjustments, the average annual overdraft for 2000 through 2009 is estimated to be 70,000 AFY. When the 2010 WMP Update was adopted in January 2012, CVWD and DWA experienced two years of very high recharge with nearly 461,000 AF recharged at Whitewater (including advanced deliveries).

ES-4 THE 2002 WATER MANAGEMENT PLAN

Continued decline of groundwater levels and ongoing overdraft is unacceptable. CVWD and DWA are charged with providing a reliable, safe water supply now and in the future. In order to fulfill obligations to Valley residents, these agencies must take action to prevent continuing decline of groundwater levels and degradation of water quality on a long-term basis. To meet responsibilities for ensuring adequate water supplies in the future, the CVWD and DWA initiated planning in the early 1990s. The comprehensive Water Management Plan developed in 2002 guides CVWD and DWA in efforts to eliminate overdraft, prevent groundwater level decline, protect water quality, and prevent land subsidence.

The 2002 Water Management Plan clearly identified the significant groundwater overdraft that had occurred over decades and, equally important, the threat of continued overdraft to the economy and quality of life in the Valley. It was based on then current projections of growth and corresponding water demand. The Plan identified the actions needed to eliminate overdraft while maintaining the quality of life and avoiding adverse impacts to the environment. The Plan area originally included the Whitewater River and Garnet Hill Subbasins. Portions of Desert Hot Springs Subbasin east of Indio and Coachella were added to the planning area for this Update, as shown in **Figure ES-1**.

ES-4.1 Goals and Objectives

The goal of the 2002 Water Management Plan is to reliably meet current and future water demands in a cost effective and sustainable manner. To meet this goal, four objectives were identified for the 2002 WMP:

1. Eliminate groundwater overdraft and its associated adverse impacts, including:
    - groundwater storage reductions
    - declining groundwater levels
    - land subsidence, and
    - water quality degradation,
2. Maximize conjunctive use opportunities,
3. Minimize adverse economic impacts to Coachella Valley water users, and
4. Minimize environmental impacts.

The 2002 WMP included five major elements:

- water conservation (urban, golf course, and agricultural),
- substitution of surface water supplies (Colorado River water, SWP water, recycled water) for urban, agricultural, and golf course uses in lieu of pumping groundwater,
- continued groundwater recharge at the Whitewater Recharge Facility and development of two new groundwater recharge facilities in the East Valley,

- increasing surface water supplies, and
- monitoring of groundwater production, levels, water quality and land subsidence.

Within each element, the 2002 WMP identified specific actions to aid in eliminating overdraft. Many of the elements of the 2002 WMP have been accomplished as described in **Section ES-4.2**.

ES-4.2 Accomplishments Since 2002

The actions to eliminate overdraft pursuant to the 2002 WMP taken by CVWD, DWA, other water agencies, municipalities, and tribes are summarized below.

ES-4.2.1 Water Conservation

A broad range of water conservation actions was included in the 2002 WMP. Most of those actions have been achieved, some ahead of schedule.

Urban Conservation

CVWD first passed a Landscape Ordinance in 2003. The ordinance was updated in 2007, and changes were made in 2009 for consistency with the State's updated model landscape ordinance. The ordinance has been adopted by nearly all Valley cities. The ordinance sets a maximum applied water allowance for new developments, requires efficient irrigation systems, specifies the use of climate appropriate plant materials, reduces applied water runoff and overflow, reduces non-recreational turf at golf courses, and mandates smart irrigation controllers on all new landscapes. The ordinance, in combination with other water conservation measures, results in a significant reduction in existing and new water use.

CVWD established an urban water conservation program in 1988. A water conservation coordinator was appointed in 2007, and the program now has a full-time staff of twelve employees. In 2009, CVWD established tiered domestic water pricing for customers based on individual water budgets. A turf buy-out partnership was established with the cities of Cathedral City, La Quinta, and Palm Desert. CVWD also provides weather-based irrigation controllers to eligible customers in participating cities. CVWD maintains water efficient demonstration gardens at the CVWD offices in Coachella and Palm Desert. CVWD sponsors well-attended semi-annual landscape workshops and tours, and creates displays for special events. CVWD produces the popular book, "*Lush & Efficient: Landscape Gardening in the Coachella Valley*," and various other publications. Analysis of water use for CVWD's 2011 Urban Water Management Plan shows water usage has declined by 18 percent compared to average usage from 1996 through 2005.

DWA offers large water users (condominiums, public parks, and businesses) comprehensive irrigation system water audits at no charge and assists in implementing recommended improvements. In partnership with CVWD and Cathedral City, DWA furnishes irrigation controllers at cost to customers. Free controllers are provided with new water meter installation. In addition, DWA recently installed artificial turf and recycled water drip-irrigation for

xeriscaping at its operations center (DWA website, 2010). The City of Palm Springs also promotes water efficiency programs including landscape water training programs and rebates for water efficient toilets (City of Palm Springs website, 2010). Analysis of per capita water use for DWA's 2011 Urban Water Management Plan indicates a comparable 18 percent reduction in water use. Indio and Coachella have also implemented water conservation programs that are described in their respective Urban Water Management Plans. Their plans show 14 percent and 20 percent per capita demand reductions compared to their respective demand baselines.

Agricultural Conservation

The 2002 WMP established a goal of seven (7) percent agricultural water use reduction through conservation. Based on a comparison of the average water use per acre in the 2000 through 2002 period, agricultural water use has generally declined about 9.9 percent through 2008. While this estimate may be due in part to variations in weather conditions, crop water needs, and crop patterns, it represents a significant decrease in agricultural water use over the period. Agricultural water conservation measures included irrigation scheduling, salinity management, and irrigation uniformity evaluation programs for irrigators.

Golf Course Conservation

The 2002 WMP goal was to reduce water demand at existing courses by at least five percent by 2010 and for new courses by up to 25 percent compared to historical use by existing courses. Actual use per irrigated acre in the West Valley, where data are available, indicates a reduction of about 14 percent compared to the 2000 to 2002 average. Adoption of the 2009 Landscape Ordinance throughout the Valley is expected to reduce water use by new courses through turf limitations by about 22 percent compared to existing courses. CVWD initiated a program of monitoring golf course water use to ensure that maximum water allowances are not exceeded. A symposium for golf course operators to promote golf course water conservation is held each year.

Stakeholder Review and Input

In 2006, CVWD completed, with extensive stakeholder involvement, a Water Management Plan Implementation Program. This effort included review, evaluation, and prioritization of water conservation programs and other elements of the 2002 WMP by stakeholders with recommendations to the CVWD Board (Water Consult, 2006). The Board uses the recommendations in the Implementation Program to guide development of annual budgets.

ES-4.2.2 Additional Water Supplies

The 2002 WMP identified the need for CVWD and DWA to acquire additional water supplies to manage current and future groundwater overdraft. Supplies identified included the Colorado River, State Water Project, other transfers, recycled water, and desalinated drain water.

Quantification Settlement Agreement

In 2003, CVWD, IID, and Metropolitan, along with the State of California and Reclamation, successfully completed negotiation of the Quantification Settlement Agreement (QSA). The QSA quantifies the Colorado River water allocations of California's agricultural water contractors for 75 years and provides for the transfer of water between agencies. Under the QSA, CVWD has a base allocation of 330,000 AFY. In accordance with the QSA, CVWD has entered into water transfer agreements with Metropolitan and IID that increase CVWD supplies by an additional 159,000 AFY as shown in **Table ES-1**.

As of 2010, CVWD received 368,000 AFY of Colorado River water deliveries under the QSA. This includes the base allocation of 330,000 AFY, the Metropolitan/IID transfer of 20,000 AFY, 12,000 AFY of the IID/CVWD First transfer, and 35,000 AFY of Metropolitan/SWP transfer. CVWD's allocation will increase to 459,000 AFY of Colorado River water by 2026. After deducting conveyance and distribution losses, approximately 428,000 AFY will be available for CVWD use.

Table ES-1
CVWD Deliveries under the Quantification Settlement Agreement

Component	2010 Amount (AFY)	2045 Amount (AFY)
Base Allocation	330,000	330,000
1988 Metropolitan/IID Approval Agreement	20,000	20,000
Coachella Canal Lining (to SDCWA)	-26,000	-26,000
To Miscellaneous/Indian PPRs	-3,000	-3,000
IID/CVWD First Transfer	12,000	50,000
IID/CVWD Second Transfer	0	53,000
Metropolitan/SWP Transfer	35,000	35,000
Total Diversion at Imperial Dam	**368,000**	**459,000**
Less Conveyance Losses [1]	-31,000	-31,000
Total Deliveries to CVWD	**337,000**	**428,000**

Note:
1 Assumed total losses after completion of All-American and Coachella Canal lining projects

State Water Project

CVWD and DWA have made significant progress toward meeting the 2002 WMP goal of 140,000 AFY average delivery target (103,000 AFY to Whitewater Recharge Facility; 37,000 AFY via Mid-Valley Pipeline (MVP)) of SWP Exchange water in the Whitewater River Subbasin. CVWD's and DWA's SWP Table A Amounts[3] are used to replenish both the Upper Whitewater River and the Mission Creek subbasins. Per an interagency agreement, water for

[3] Each SWP contract contains a "Table A" exhibit that defines the maximum annual amount of water each contractor can receive excluding certain interruptible deliveries. Table A Amounts are used by DWR to allocate available SWP supplies and some of the SWP project costs among the contractors.

recharge is allocated in proportion to pumping in each subbasin. CVWD's and DWA's Table A water is exchanged with Metropolitan for a like amount of Colorado River water from Metropolitan's Colorado River Aqueduct (CRA).

Under the 2003 Exchange Agreement, CVWD and DWA acquired 100,000 AFY (88,100 AFY and 11,900 AFY, respectively) of Metropolitan's SWP Table A water as a permanent transfer. In any given year, the agreement allows Metropolitan to call-back the 100,000 AFY and assume the entire cost of delivery if it needs the water. This transfer became effective in January 2005.

In 2004, CVWD purchased an additional 9,900 AFY of SWP Table A water from the Tulare Lake Basin Water Storage District (Tulare Lake) in Kings County, CA. In 2007, CVWD and DWA made a second purchase of 7,000 AFY of SWP Table A water from Tulare Lake: 5,250 AFY for CVWD and 1,750 AFY for DWA. In 2007, CVWD and DWA completed the transfer of 16,000 AFY of SWP Table A water (12,000 AFY and 4,000 AFY, respectively) from the Berrenda Mesa Water District (Berrenda Mesa), effective in January 2010. With these transfers, the combined SWP Table A Amounts for CVWD and DWA total 194,100 AFY, with CVWD's portion equal to 138,350 AFY and DWA's portion equal to 55,750 AFY. **Table ES-2** summarizes CVWD and DWA total allocations of SWP Table A water.

Table ES-2
State Water Project Sources

	Original SWP Table A (AFY)	Tulare Lake Basin 2004 Transfer (AFY)	Metropolitan 2003 Transfer[1] (AFY)	Tulare Lake Basin 2007 Transfer[2] (AFY)	Berrenda Mesa 2007 Transfer[2] (AFY)	Total (AFY)
CVWD	23,100	9,900	88,100	5,250	12,000	138,350
DWA	38,100	—	11,900	1,750	4,000	55,750
Total	61,200	9,900	100,000	7,000	16,000	194,100

Notes:
1 Transfer became effective on January 1, 2005.
2 Transfer became effective on January 1, 2010.

SWP supplies vary annually due to weather and runoff variations and regulatory limitations on exports from the Delta. When the 2002 WMP was prepared, average SWP supply reliability was estimated to be about 82 percent. Under current conditions, DWR estimates the SWP can only provide about 60 percent of the Table A Amounts indicated in CVWD's and DWA's contracts based on an 82-year hydrologic average (DWR, 2011). The current availability of SWP Table A Amounts is presented in **Table ES-3.** In the absence of state and federal actions in the Bay Delta to improve supply reliability and to protect and enhance the Delta ecosystem, it is anticipated that long-term average SWP reliability (deliveries) could decrease to 50 percent of the Table A Amounts over the next twenty years. Additionally, growth and associated groundwater production increases in the Mission Creek Subbasin will result in more SWP Exchange water being delivered to that subbasin reducing supplies for the Whitewater River.

Other Water Transfers

In March 2008, CVWD and DWA entered into separate agreements with DWR for the purchase and conveyance of supplemental SWP water under the Yuba River Accord Dry Year Water Purchase Program. This program provides dry year supplies. The amount of water available for purchase in a given year varies and is based on DWR's determination of the Water Year Classification. The available water is allocated among participating SWP contractors based on their Table A Amounts. CVWD and DWA may be able to purchase up to 5,600 AFY, and 1,820 AFY, respectively. These agreements provide for the exchange of these supplies with Metropolitan for Colorado River water in accordance with the existing exchange agreements. CVWD and DWA received a total of 5,300 AF of water from this source in 2008 and 2009.

Table ES-3
Current (2010) SWP Supply Availability (60% Reliability)

SWP Components	AFY [1]
Table A Amount (Base)	194,100
Average Deliveries with Current SWP Reliability (60%) [2]	116,500
Less Average Metropolitan Callback [3]	(32,900)
Net Average SWP Supply [4]	83,600
Whitewater River Subbasin Recharge (93% of net) [5]	77,800
Mission Creek Subbasin Recharge (7% of net)	5,800

Notes:
1 Values shown are rounded to nearest 100 AFY.
2 Current reliability is based on California DWR's 2009 SWP Reliability Report.
3 Average supply conservatively assumes Metropolitan calls back its 100,000 AFY transfer in four wet years during a 10-year period.
4 Net supply is calculated by deducting the Metropolitan callback from the Table A Amount with current SWP Reliability.
5 Allocation of SWP water to Upper Whitewater River and Mission Creek subbasins is based on production in each basin.

In 2008, CVWD also executed an agreement with Rosedale-Rio Bravo Water Storage District (Rosedale) in Kern County for a one-time transfer of 10,000 AF of banked Kern River flood water that is exportable to CVWD. Deliveries to CVWD began in 2008 and will be completed by December 31, 2012.

Desalinated Drain Water

The 2002 WMP recommended that a drain water desalination facility commence operation between 2010 and 2015 with a 4,000 AFY facility to treat agricultural drainage water for irrigation purposes. The facility would be expanded to 11,000 AFY by 2025. Product water would be delivered to the Coachella Canal distribution system for non-potable use.

A brackish groundwater treatment pilot study and feasibility study was completed in 2008 (Malcolm-Pirnie, 2008a and 2008b). Reverse osmosis (RO) was recommended to meet water quality goals and provide additional flexibility in the level of water quality produced should the facility's objectives change in the future. The recommended approach to brine management was

to convey the RO concentrate via pipeline to constructed wetlands located at the north shore of the Salton Sea. This study concluded that agricultural drainage water can be treated for reuse as non-potable water and potentially as new potable water.

Recycling of Municipal Effluent

CVWD and DWA currently deliver approximately 14,000 AFY of recycled water in the West Valley for golf course and other large irrigation uses. Wastewater generated in the West Valley that is not reused for irrigation is percolated into the groundwater basin. Current recycled water usage in the East Valley is approximately 700 AFY for agricultural irrigation. East Valley wastewater that is not reused is discharged to the CVSC.

ES-4.2.3 Source Substitution

Source substitution involves the delivery of alternative water supplies, such as Coachella Canal water or recycled water, to replace of groundwater pumping. Significant efforts have been made to implement source substitution projects in the Valley.

Mid-Valley Pipeline (MVP)

In the West Valley, the demand for non-potable water typically exceeds the available recycled water supply, especially in the summer months. Golf courses using recycled water currently must supplement that supply with local groundwater to meet their demands. This limits the amount of overdraft reduction that is possible to the available recycled water supply. Groundwater modeling shows a local pumping deficit (overdraft condition) that cannot be remedied by recharge at Whitewater. The MVP is a pipeline distribution system to deliver Colorado River water to the Mid-Valley area for use with CVWD's recycled water for golf course and open space irrigation. This source substitution project will reduce groundwater pumping for these uses. Construction of the first phase of the MVP from the Coachella Canal in Indio to CVWD's Water Reclamation Plant No. 10 (WRP-10) (6.6 miles in length) was completed in 2009.

At WRP-10, Canal water supplements recycled water for delivery to large irrigators. There are eight golf courses and five other users in the West Valley currently connected to the WRP-10 recycled water system that can receive both recycled water and Canal water via the MVP. If these courses meet at least 90 percent of their irrigation needs with non-potable water, 2,700 AFY of additional groundwater pumping will be eliminated. There are four golf courses adjacent to the MVP that can be connected to the system with minimal construction, thus making them ideal candidates to receive Canal water through the MVP. Construction of Phase 1 of the MVP included outlets along the pipeline to serve these courses. However, pipeline connections to deliver Canal water from the MVP to each course have yet to be constructed. When these four courses are connected, about 4,500 AFY of additional pumping could be eliminated. At least ten additional courses can be connected to the MVP downstream of WRP-10 with relatively simple pipeline connections, reducing pumping by another 11,200 AFY. When fully implemented, the MVP system will be capable of eliminating about 50,000 AFY of groundwater pumping.

Pilot Study of Canal Water Treatment for Urban Use

As projected growth occurs in the East Valley and farms are converted to urban land uses, agricultural demand for Canal water will decrease. To avoid increased urban groundwater pumping and to use the Valley's Colorado River water supply fully, there will be a need to treat Canal water for urban use. The 2002 WMP anticipated this need and proposed that treatment be provided beginning in the late 2020s with about 32,000 AFY being treated by 2035. Present projected domestic water demand coupled with reduced agricultural demand is expected to increase this amount substantially. Potable use will require Canal water treatment to meet drinking water standards. In anticipation of constructing potable water treatment facilities, CVWD completed a pilot treatability study for Canal water in 2008 (Malcolm-Pirnie, 2008c). This study investigated alternative approaches to treatment of Colorado River water delivered for urban use. The study recommended that blending treated Colorado River water with local groundwater be further evaluated to ensure customer satisfaction.

ES-4.2.4 Groundwater Recharge

Groundwater recharge is a critical component of basin management that involves putting water directly into the groundwater basin through surface percolation ponds. The 2002 WMP included continuing recharge at the existing Whitewater Recharge Facility in the West Valley, proposed recharge in the East Valley using Colorado River water at Dike 4, now the Thomas E. Levy Groundwater Replenishment Facility (Levy facility), and recommended another major recharge facility at Martinez Canyon.

Whitewater Recharge Facility – West Valley

The 2002 WMP established a future average annual recharge target at this facility of about 100,000 AFY. The Whitewater River Recharge Facility has a recharge capacity in excess of 300,000 AFY. Because this capacity is enough to capture the full SWP Table A amount with additional capacity for supplemental recharge, no recharge capacity expansion is required. The available capacity is valuable for conjunctive use operations by CVWD and DWA as well as Metropolitan or other interested parties. Currently, the SWP Exchange supply is expected to provide about 78,000 AFY for the Whitewater facility on average. Under future conditions, it is possible that average recharge at Whitewater could be limited to the available future supply of about 61,400 AFY of SWP Exchange, unless it is augmented with other supplies. To reach the 100,000 AFY recharge goal for the Whitewater facility, CVWD and DWA would need to acquire additional SWP Table A Amounts or other imported water sources.

Thomas E. Levy Groundwater Replenishment Facility - East Valley

Construction of the full-scale Levy facility was completed in mid-2009. Located on the west side of the Valley in La Quinta, this facility has an estimated average recharge capacity of 40,000 AFY. The current capacity may be limited by hydraulic, water delivery, and maintenance constraints within the Canal water distribution system to an average of about 32,000 AFY. Construction of an additional pipeline to the Levy facility and pumping station from Lake Cahuilla may be required in the future to reach the 40,000 AFY capacity on a consistent basis.

Martinez Canyon Pilot Recharge Facility Feasibility Assessment – East Valley

The Martinez Canyon pilot recharge facility began operation in 2005 and currently recharges about 3,000 AFY. When this project is expanded to full scale, it is expected to recharge up to 40,000 AFY.

ES-4.2.5 Groundwater/Subsidence Monitoring

CVWD maintains an extensive ongoing groundwater production, level, and water quality monitoring program throughout the Valley. The program includes monitoring of potential saltwater intrusion from the Salton Sea. The data are periodically reviewed to determine impacts of management actions on overdraft and water quality. The data are also applied to re-calibrate the groundwater model that assesses the impact of proposed management actions.

The United States Geological Survey (USGS), working with CVWD, completed subsidence monitoring reports for the Coachella Valley in 2001 and 2007. The reports indicated that subsidence was taking place in varying degrees throughout the Valley.

These studies to date have not confirmed the relationship between land subsidence and declining water levels. The USGS Scientific Investigation Report 2007-5251 states, "Although the localized character of the subsidence signals is typical of the type of subsidence characteristically caused by localized ground-water pumping, the subsidence may also be related to tectonic activity in the valley." This report also concludes additional monitoring is needed to permit meaningful interpretations of the aquifer-system response to water level changes. CVWD's Board of Directors has approved additional funding to continue these cooperative subsidence studies with the USGS. Future studies include additional monitoring designed to evaluate the potential relationship between declining water levels and land subsidence. Potential land subsidence caused by declining water levels was addressed by mitigation measures described in the 2002 Coachella Valley Water Management Plan Programmatic Environmental Impact Report (CVWMP PEIR).

ES-5 2010 WMP UPDATE

Significant actions have been taken since 2002 to alleviate overdraft in the long term. Changes in internal and external factors mandate new activities and increased levels of current activities to eliminate overdraft and assure reliable long term water supplies to the Valley. These new activities are identified in the 2010 WMP Update.

ES-5.1 Population and Water Demand

Since 2002, significant changes have occurred in projections of population and future water demands, including:

- Significantly increased population growth, mainly in the East Valley (**Figure ES-2**);
- Changes in land use from agricultural to urban land use and water demand in terms of both quantity and quality;

- Development on tribal lands and related water demands;
- Potential development located northeast of the San Andreas fault in the spheres of influence (SOI) of the cities of Indio and Coachella;
- Projected urban development outside the 2002 WMP study area and corresponding increases in water demands;
- Uncertainty in the timing of growth and water demands.

Figure ES-2 shows the difference in population projections used in the 2002 WMP and projections used in the 2010 WMP Update. The 2010 WMP Update provides water for approximately 500,000 more people in 2045 than the 2002 WMP.

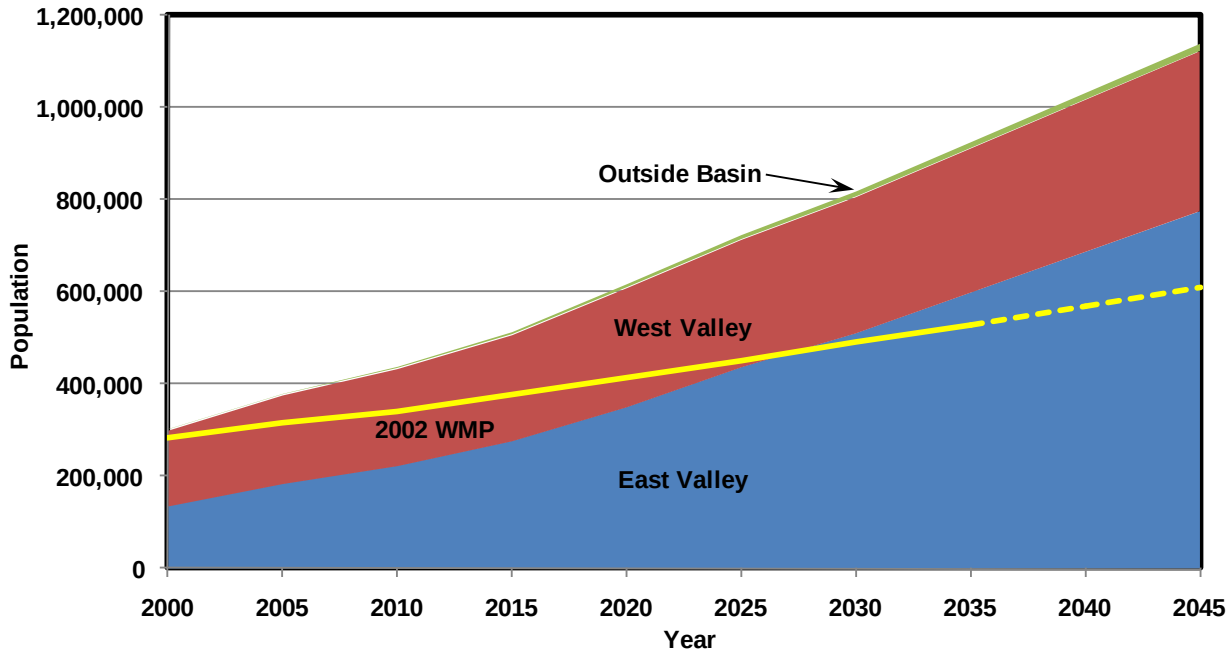


Figure ES-2
Comparison of Population Projections for the Coachella Valley

ES-5.1.1 Future Water Demands

Projected water demands for 2045 resulting from projected population growth and associated assumptions regarding land uses and water demands for land uses are shown by economic sector in **Table ES-4**. Water use by new development is expected to be more efficient due to plumbing code requirements and the Landscape Ordinance. Consequently, water demands are expected to be less than projected in the 2002 WMP. Factoring potential variations in future land use and growth forecasts into these demand projections, water demands in 2045 could range from 793,600 AFY to 971,500 AFY with a mid-range planning value of 885,400 AFY as shown on **Figure ES-3**. If the growth projection in the 2002 WMP, with assumed water conservation measures, were projected to 2045, the projected demand would be approximately 950,000 AFY.

The reduction in projected demand results primarily from the conversion of agricultural lands to urban use and increased water conservation factored into the 2010 WMP Update.

Table ES-4
2045 Baseline Water Demand Projection for the Coachella Valley

Component	2045
Agricultural	
Crop Irrigation	166,300
Total Agricultural Demand	**166,300**
Urban	
Municipal	537,000
Industrial	2,300
Total Urban Demand	**539,300**
Golf Course Demand	**169,500**
Fish Farms and Duck Clubs	
Fish Farms	8,500
Duck Clubs	2,000
Total Fish Farms and Duck Clubs	**10,500**
TOTAL DEMAND	**885,400**

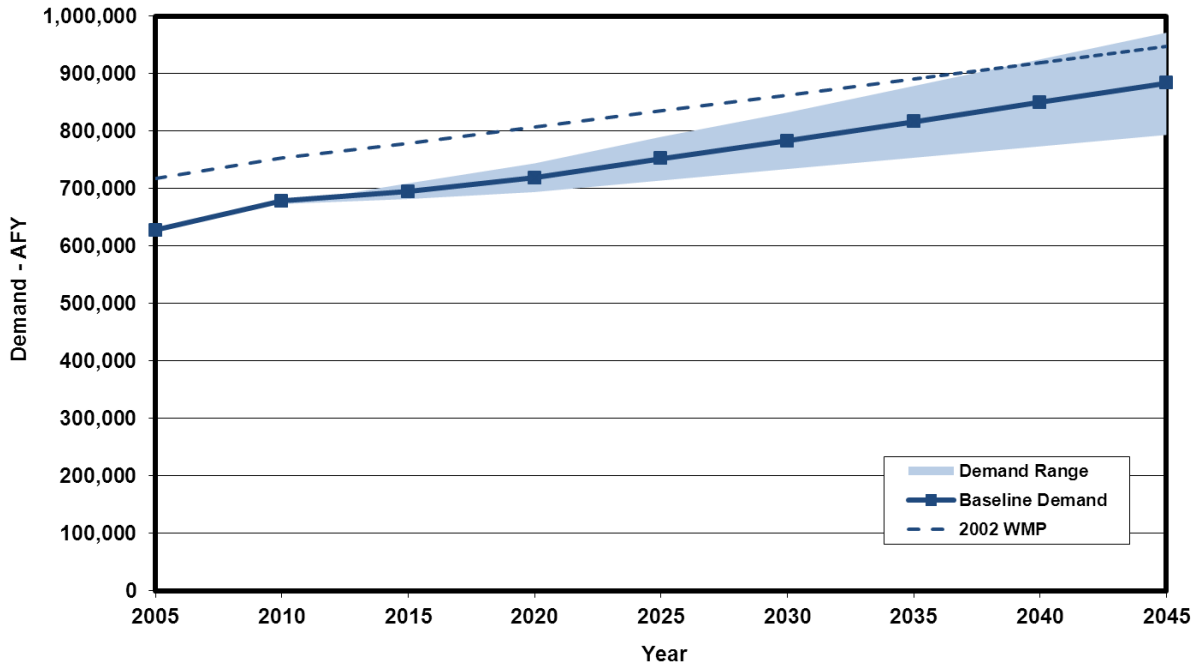


Figure ES-3
Projected Water Demands in the Study Area

ES-5.1.2 Demand Uncertainty

Future water demands are based on the latest approved population growth projections (2006) by Riverside County and assumptions regarding impacts of population growth on land uses, impacts of water conservation on water uses, and resulting water demand associated with each type of land use. There are a number of uncertainties inherent in the demand projections, including:

- Growth forecasts or rates of growth may be too high or too low
- Impacts of economic booms and busts
- Reductions in fish farm operations
- Rates of development on Tribal lands
- Rate of agricultural/vacant land conversion to urban use
- Future water demand factors for various land uses
- Growth outside the Whitewater River subbasin
- Number of future golf courses developed in the East Valley
- Acceptance and effects of water conservation measures

Figure ES-3 shows the range in potential future water demands for the study area.

ES-5.2 Future Water Supply Needs

In addition to changing water demands, changing external factors could affect Valley water supplies:

- SWP allocations fluctuate annually due to snowpack and runoff variations, and the environmental needs in the Bay-Delta.
- Recent environmental rulings have restricted the State's ability to move water through the Delta to the SWP, potentially decreasing supply reliability and deliveries. The degree to which the long-term supply of the SWP will be affected is uncertain.
- The outcome of efforts underway to prepare the Bay-Delta Conservation Plan (BDCP), which is intended to restore the Delta's ecosystem and improve water supply reliability, is uncertain.
- The QSA has been upheld in the appeals court but, as of plan adoption, environmental litigation is still pending, creating uncertainty in future Colorado River supplies.
- Climate change could affect the long term supplies of both the SWP and Colorado River and water demands within the Valley.

These changing conditions and uncertainties reinforce the need for a flexible long term Plan and for updating the Plan periodically.

Additional water supplies needed by 2045 are evaluated for four water supply scenarios that incorporate the uncertainties associated with current supply sources, with the exception of climate change. A 10 percent supply buffer addresses potential climate change impacts and other currently unforeseeable factors affecting future water supplies. **Table ES-5** shows the future water supply needs range from 300,000 to 461,000 AFY. The 2010 WMP Update identifies how this future need will be met through a combination of water conservation measures and new supply development. **Figure ES-4** presents the future water supply plan assuming Scenario 2 without the supply buffer.

Table ES-5
Water Supply Needs – 2045

Scenario	QSA Validated	Delta Conveyance Improvements	Demand (AFY)	Demand with 10% Buffer (AFY)	Available Supply (AFY) [1]	Additional Supply Required (AFY)
1	Yes	Yes	885,400	974,000	674,300	299,700
2	Yes	No	885,400	974,000	640,900	333,700
3	No	Yes	885,400	974,000	546,300	427,700
4	No	No	885,400	974,000	512,900	461,100

Note:
1 Available supplies consist of local runoff and streamflow, recycled water, returns from use, Canal water and SWP Exchange water minus anticipated drain flows and subsurface outflows from the basin as explained in Section 7.2.

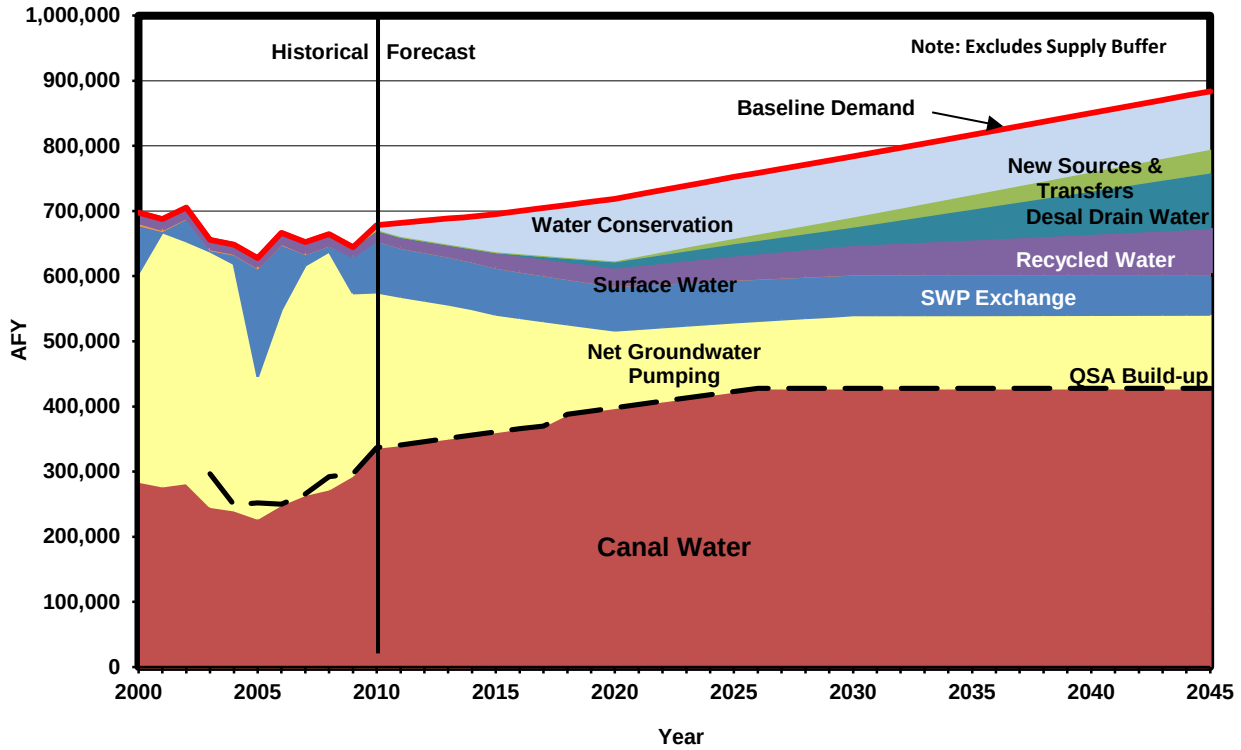


Figure ES-4
Water Supply Mix for 2010 WMP Update

ES-5.3 What is New in the 2010 WMP Update?

The 2010 WMP Update identifies proposed ways and means of meeting future water needs in light of changing conditions and uncertainties. To meet future needs, the 2010 WMP Update includes many new features in the areas of water conservation, source substitution, new supplies, and groundwater recharge. The 2010 WMP Update emphasizes enhanced cooperation in Plan implementation. The 2010 WMP Update incorporates a "bookends" approach to define target ranges for each major supply group and incremental "building blocks" of projects to deal with uncertainties in future demands and supplies.

Revised Goals: The basic goal of the WMP remains the same but has been modified to reflect a more holistic planning approach: "to reliably meet current and future water demands in a cost-effective and sustainable manner." The underlying objectives of the WMP have been refined as follows to reflect the water resources uncertainties facing the Valley:

- Meet current and future demands with a 10 percent supply buffer
- Eliminate long-term groundwater overdraft
- Manage and project water quality
- Comply with state and federal laws and regulations
- Manage future costs
- Minimize adverse environmental impacts

Bookends on Demands and Supplies: To account for the uncertainty and potential variability in demands, the 2010 WMP Update assigns bookend targets (ranges) for each of the major categories of water supplies (see **Section 6)**. The book-ends represent reasonable minimum and maximum amounts for potential supply and project development. Depending on the actual demands that are encountered in the future, the 2010 WMP Update elements can be implemented within these ranges to meet demands.

Building Block Approach: The 2010 WMP Update incorporates a flexible approach to meeting future needs that reflects uncertainties in supplies, demands and future circumstances by combinations of Plan elements. For example, the 2010 WMP Update includes an aggressive program of water conservation for urban, golf course and agricultural water users. However, there are limits in terms of cost, effectiveness, and acceptability of water conservation activities. As those limits are reached, other Plan elements for meeting future needs also can be adjusted. One source of supply is desalination of drain water, the most expensive alternative for providing new supplies. This source will only be implemented as other sources of supplies reach practical limits. Therefore, the Plan includes a range of 55,000 to 85,000 AFY for desalination of drain water. The actual amount of water from this source will depend upon how much can be obtained first from other, lower cost sources.

Enhanced Cooperation in Plan Implementation: The Plan emphasizes cooperation among municipalities, local water agencies and tribes in regional planning and implementation. This occurs through the implementation of activities described in the 2010 WMP Update,

implementation of related planning activities (see **Section 1.0**), and the development of monitoring and data sharing programs among CVWD, other water agencies, cities, and tribes to better manage Valley water resources.

ES-5.4 2010 WMP Update Elements

In developing the 2010 WMP Update, CVWD evaluated the success of 2002 WMP elements and determined future needs, supplies, and uncertainties. Like the 2002 WMP, the 2010 WMP Update has the same five major elements:

- Water conservation (urban, golf course, and agricultural)
- Increasing surface water supplies for the Valley from outsides sources
- Substitution of surface water supplies for groundwater (source substitution)
- Groundwater recharge
- Monitoring and evaluation of subsidence and groundwater levels and quality to provide the information needed to manage the Valley's groundwater resources

Activities included in the 2010 WMP Update in each of these elements are described below.

ES-5.4.1 Water Conservation

New water conservation targets and actions are included for agriculture, urban, and golf course water users. In addition to the water conservation included in the baseline demand projections, the 2010 WMP Update includes a minimum water conservation target of 117,300 AFY by 2045 as shown in **Table ES-6**. This amount could increase to 147,000 AFY to provide a portion of the supply buffer.

Table ES-6
Ranges of Potential Water Conservation Savings – 2045

Type of Conservation	Low Range [1] (AFY)	High Range [2] (AFY)
Urban	82,400	106,200
Agriculture [3]	23,300	23,300
Golf Courses	11,600	17,400
Total	**117,300**	**146,900**

Notes:
1 The low range represents the minimum amount of demand reduction required assuming successful completion of the BDCP and provides a portion of the supply buffer.
2 The high range represents the amount of demand reduction required if the BDCP is not successful and provides a portion of the 10 percent supply buffer.
3 Agricultural savings decline over time as agricultural land is converted to urban uses.

Agricultural Conservation

The new agricultural conservation target is a 14 percent savings by 2020 utilizing a phased approach. The first phase will involve low cost voluntary programs. Depending on the success of those programs, more expensive and vigorous programs could be implemented, as needed. If the 14 percent target can be achieved, the agricultural conservation program is expected to save about 39,500 AFY of water in 2020, decreasing to 23,300 AFY by 2045 as agricultural land uses transition to urban uses. Progress toward meeting agricultural conservation goals will be evaluated and reported every five years.

Urban Conservation

The urban water conservation program will be expanded and enhanced in order to meet changing demands and to comply with the State's requirement of a 20 percent reduction in per capita water use by 2020 compared to average per capita usage for the period of 1995 through 2004. This program could save at least 39,700 AFY by 2020 and achieve a 39 percent reduction in per capita demand by 2030 as it is applied to new growth.

Achievement of the state's 20 percent conservation target in conjunction with on-going conservation programs could result in urban water savings of 82,400 to 106,200 AFY by 2045 depending on the water supply scenario. Progress toward achieving the urban water conservation goals will be reported in urban water management plans prepared on five year intervals.

Golf Course Conservation

The golf course conservation target is a savings of 11,600 to 17,400 AFY by 2045. For existing courses, the minimum target is a 10 percent reduction in water use through golf course irrigation system audit, and soil moisture monitoring services. The 2009 Landscape Ordinance will apply to all new golf courses with turf limitations of 4 acres of per hole and 10 acres for practice areas. Progress toward meeting golf course conservation goals will be evaluated and reported every five years.

ES-5.4.2 Additional Supplies

Table ES-7 summarizes the range of additional supplies that will be developed.

Acquisition of Imported Supplies

CVWD and DWA will continue to acquire additional imported SWP water supplies by transfer or lease where cost-effective, given Delta environmental restrictions and conveyance capacity limitations. For this update, a planning range of 50,000 to 80,000 AFY of average annual supply has been identified to meet future needs including the supply buffer. This amount includes about 35,000 AFY to meet estimated demand east of the San Andreas fault; the amount will be refined as planning proceeds for this area. Changes to the assumed call-back frequency for the MWD 100,000 AFY SWP transfer could provide up to 33,000 AFY of additional supply to the

Whitewater River Subbasin. Option-type contracts could be considered to meet a portion of the supply buffer.

Table ES-7
Range of Additional Supplies Through 2045

Action	Low Range (AFY)	High Range (AFY)
Bay-Delta Conveyance Improvements	0	33,400
Purchases and Transfers [1]	50,000	80,000
Changes to MWD Call-back Provisions [1]	0	32,700
Increased Recycled Water - East and West Valleys	14,000	63,000
Recycled Water Use East of San Andreas Fault	10,800	10,800
Canal Water Loss Reduction	0	10,000
Desalinated Drain Water	55,000	85,000
Stormwater Capture – East Valley	0	5,000
Groundwater for Non-potable Use East of San Andreas Fault	9,700	9,700
Total	**139,500**	**329,600**

Note:
1 High range represents potential supplies with Bay Delta conveyance improvements and no call-back.

Increased Recycled Water Use

Recycled water in the West Valley is currently used beneficially, either through direct non-potable use or percolation for wastewater disposal. At least 90 percent of all wastewater generated in the West Valley will be recycled for direct non-potable use. All wastewater generated by new growth in the East Valley will be recycled. All wastewater from development east of the San Andreas fault could be recycled for irrigation or groundwater recharge to meet demands in that area and reduce the need for additional imported water supplies. Up to 34,500 AFY of recycled water could be utilized in the West Valley, and 33,000 AFY of recycled water could be utilized in the East Valley. Up to 10,800 AFY of recycled water could be utilized in the new growth area east of the San Andreas fault for direct non-potable uses by 2045.

Canal Water Loss Reduction

Water losses in the All-American Canal in the first 49 miles of the Coachella Canal may be as high as 10,000 AFY. Reducing this loss could increase the amount of water delivered to the Valley. CVWD will determine water lost to leakage in the first 49 miles of the Coachella Canal, evaluate the feasibility of corrective actions to capture the lost water, implement cost-effective water saving measures, and work with IID to share losses.

Desalinated Drain Water

A demonstration scale facility will be constructed to gain operational experience in desalinating drain water and brine disposal. Between 55,000 and 85,000 AFY of drain water and shallow

groundwater will be recovered, desalinated, and distributed for non-potable and potable uses in the East Valley. The amount of desalinated water needed will depend upon the resolution of Bay-Delta issues and the resulting amount of SWP water available.

Stormwater Capture

Stormwater capture has been identified as a potential method for increasing local water available for either groundwater recharge or direct use. CVWD will conduct a study to investigate the feasibility of additional stormwater capture in the East Valley. Feasible stormwater capture projects will be developed in conjunction with new flood control facilities as development occurs in the East Valley. For planning purposes, the potential yield is assumed to be 5,000 AFY based on a reduction in evaporation losses with more efficient capture and percolation.

Development of Local Groundwater Supplies for Non-Potable Use

Growth in the areas northeast of the San Andreas fault will create additional demands for both potable and non-potable water. CVWD, the City of Coachella, and the City of Indio will jointly conduct an investigation of groundwater in Fargo Canyon Subarea of the Desert Hot Springs Subbasin to determine the available supply and suitability for use in meeting non-potable demands (outdoor irrigation) of development east of the San Andreas fault. Based on assumed development, up to 9,700 AFY of groundwater could be developed in this area.

ES-5.4.3 Source Substitution

Due to the expected changes in water use patterns from continued development, source substitution will receive increased emphasis in the future to eliminate overdraft and ensure full use of the Valley's available surface water supplies. The ranges of reduction in groundwater overdraft due to source substitution programs are shown in **Table ES-8**.

Table ES-8
Range of Groundwater Pumping Reductions Due To Source Substitution

Action	Low Range (AFY)	High Range (AFY)
Mid-Valley Pipeline	37,000	52,000
Agricultural Canal Water Conversion	5,300	32,000
Oasis Area Conversion to Canal Water	0	27,000
East Valley Golf Course Conversion	43,900	51,700
West Valley Golf Course Conversion	15,200	17,800
Canal Water for Indoor Urban Use – East Valley	48,000	90,000
Canal Water Use for Outdoor Use – East Valley	95,000	115,000
Total	**244,400**	**385,500**

Mid-Valley Pipeline

The MVP system delivers Canal water and recycled water to golf courses in lieu of their pumping groundwater. Activities to fully implement the MVP include preparing an MVP system master plan to lay out the future pipeline systems, near-term expansions to connect golf courses along the MVP alignment and extensions of the existing non-potable distribution system, and completion of construction of the remaining phases of the MVP system by 2020 to provide up to 37,000 AFY of Canal water and 15,000 AFY of WRP-10 recycled water on average to West Valley golf courses.

Conversion of Agricultural and Golf Course Use to Canal Water

It is expected that agricultural use of groundwater could decrease from about 66,000 AFY in 2009 to about 7,000 AFY by 2045, a decrease of 59,000 AFY or 89 percent. A large portion of this reduction could come from the Oasis area that does not currently have access to Canal water. The Oasis area distribution system feasibility study will be updated to include future conversion to serve urban non-potable water. Cost-effective facilities will be constructed. If conversion of the Oasis system is feasible, it could deliver up to 27,000 AFY of Canal and desalinated drain water for irrigation.

In the 2010 WMP Update, it is estimated that for existing East Valley golf courses having Canal water access, Canal water use will increase to 90 percent of demand by 2015. Conversion to Canal water by East Valley golf courses will reduce groundwater use by 43,900 AFY or more.

Colorado River Water for Urban Use

In light of the projected increase in population and change of land use from agricultural to urban in the East Valley, treated Colorado River water for indoor residential use will be essential. In addition, untreated Colorado River water will be used in the future in large developments in the East Valley for outdoor purposes, i.e., lawn and park irrigation. These measures are necessary to reduce overdraft and to insure continued full use of the Valley's Colorado River water supplies.

This program will offset the reduced Canal water use by agriculture as agricultural land use transitions to urban development in the East Valley. Canal water will be treated to meet future indoor urban water demands in the East Valley. The target for urban indoor use of Canal water ranges from 48,000 and 90,000 AFY by 2045.

Dual source plumbing systems will be a feature of new development in the East Valley to provide outdoor use of untreated Canal water. Untreated canal water should provide 67 percent to 80 percent of the landscape demand for new development. This will result in the utilization of 95,000 to 115,000 AFY of non-potable Canal water by 2045. Where found to be cost-effective, existing developments will be retrofitted with distribution systems to provide for outdoor use of untreated Canal water.

ES-5.4.4 Groundwater Recharge

Groundwater recharge will be expanded to reduce overdraft. The ranges of groundwater recharge operations at various facilities under the 2010 WMP Update are shown in **Table ES-9**.

Table ES-9
Range of Groundwater Recharge

Facility	Low Range (AFY)	High Range (AFY)
Whitewater	61,000 [1]	100,000
Levy	40,000	40,000
Martinez Canyon [2]	20,000	40,000
Indio	0	10,000
Total	**121,000**	**190,000**

Notes:
1 Recharge is limited by available supply.
2 High range will depend on overdraft conditions and implementation of East Valley source substitution projects.

Whitewater Recharge Facility

Operation of the Whitewater Recharge Facility will continue with the goal of recharging an average of at least 100,000 AFY of SWP exchange water over the long-term. Unused SWP water and available desalinated drain water from the QSA will be transferred to the Whitewater Recharge Facility. Additional water acquired by transfer or lease will augment the existing SWP exchange water.

Thomas E. Levy Recharge Facility

The Levy facility will recharge 40,000 AFY on average. A second pumping station and pipeline will be constructed if needed to achieve and sustain 40,000 AFY of deliveries for recharge.

Martinez Canyon Recharge

Siting studies, land acquisition, environmental compliance, design, and construction will be conducted for the full-scale Martinez Canyon facility. The project will be implemented in phases with an initial capacity of 20,000 AFY with potential future expansion to as much as to 40,000 AFY based on groundwater overdraft conditions and implementation of East Valley source substitution projects.

Groundwater Recharge in Indio

The City of Indio will evaluate the feasibility of a nominal 10,000 AFY groundwater recharge project in Indio and construct if feasible. The final capacity will be based on pilot studies conducted by Indio.

Investigation of Groundwater Storage Opportunities with IID

CVWD will work with IID to identify options for storing Colorado River water on behalf of IID with currently planned Valley recharge facilities or additional facilities, including facilities to recover the stored water for use by Canal water users if necessary when IID calls for its stored water.

ES-6 WATER QUALITY MANAGEMENT

ES-6.1.1 Additional Groundwater Treatment for Arsenic

CVWD will work with other agencies to assist communities having high levels of arsenic in groundwater supplies to connect to the potable water system. As needed, CVWD will expand its arsenic treatment facilities to allow treatment of additional wells and construct water transmission pipelines as needed to meet future demands.

ES-6.1.2 Development of Salt/Nutrient Management Plan

The State Water Resources Control Board (SWRCB) requires preparation of a salt/nutrient management plan by 2014 as part of the 2009 State Recycled Water Policy. As stated in the Policy, its purpose is to "establish uniform requirements for recycled water use and to develop sustainable water supplies throughout the state" (SWRCB, 2009). CVWD will work with other Valley water agencies, tribes, and stakeholders to develop a salt/nutrient management plan that meets the State requirements and allows the cost-effective recycling of municipal wastewater in the Valley.

ES-6.1.3 Drainage Control

For both basin management (groundwater level and salt export), as well as the prevention of adverse impacts, the existing drainage system should be maintained, replaced as needed, or expanded as urban development occurs. CVWD will investigate alternative methods for funding the drainage system, conduct an investigation of the improvements needed to continue system operation in the future, and maintain and expand the drainage system.

ES-7 MONITORING AND DATA MANAGEMENT

Monitoring and data management programs aid in evaluating the effectiveness of the water management programs and projects identified in the Plan and to identify needed changes in management strategy and/or implementation.

The existing hydrologic monitoring program of weather data, streamflow data, well data (drilling logs, production, water levels), surface and ground water quality monitoring, and subsidence monitoring should be maintained and expanded. Key features of the expanded program are described below.

ES-7.1 Water Quality

CVWD will work with water agencies, tribes and cities to develop a coordinated water quality monitoring program to ensure that local water quality concerns and state/federal regulatory issues are addressed.

ES-7.2 Subsidence

CVWD will continue the USGS subsidence monitoring/reporting program and construct additional extensometers at critical locations to monitor subsidence, as needed.

ES-7.3 Water Resources Database

CVWD will work with water agencies, cities and tribes to develop a shared water resources database. The database could include well ownership data, well logs, groundwater production, water level and water quality data.

ES-7.4 Groundwater Model Update and Recalibration

Prior to the next Plan update, the CVWD groundwater model will be updated, recalibrated and peer reviewed.

ES-7.5 Water Quality Model

CVWD will initiate development of a model capable of simulating the water quality changes in coordination with preparation of the salt/nutrient management plan.

ES-7.6 Water Demand and Conservation Monitoring

Water purveyors will monitor and report demands by water use sector and correlate demands with implementation of water conservation measures to determine the effectiveness of water conservation measures in achieving goals and the need for additional measures.

ES-8 PLAN COSTS

The cost of not eliminating overdraft would be far more than the cost of the actions needed for eliminating overdraft identified in the 2010 WMP Update. Cost of overdraft includes increased subsidence with its impacts on individual homes, commercial structures, and infrastructure (streets, highways, water and sewer lines, and other utilities), water quality degradation, and increased pumping costs. Colorado River supplies would go unused as agricultural land is converted to urban land, and groundwater pumping would increase without alternative sources of supplies. At some point, it would not be possible to demonstrate the availability of water supplies to support new growth.

The estimated cost to implement the 2010 WMP Update is shown in **Table ES-10** for the period 2011 through 2045. Capital, operation and maintenance cost, total cost, and average annual cost are shown for each Plan element in 2010 dollars. These are total costs, not incremental costs,

and include the costs of many current activities such as groundwater pumping, acquisition of Colorado River water, current levels of recycling and water conservation, and groundwater recharge. The costs shown are the total costs for the entire Valley.

Table ES-10
Cost by Plan Component
2011-2045

Component	Total Capital Cost $millions	Total O&M Cost $millions	Total Cost $millions	Average Annual Cost[1] $millions
Water Conservation	$ 1	$ 230	$ 231	$ 6.6
Recycled Water	161	153	314	9.0
Colorado River Water		409	409	11.7
SWP Water		1,907	1,907	54.5
Delta Conveyance		472	472	13.5
Desalinated Drain Water	462	277	739	21.1
Groundwater Pumping and Treatment	135	1,950	2,085	59.6
Water Transfers	0	282	282	8.1
Other New Water		262	262	7.5
Source Substitution	1,142	782,	1,924	55.0
Recharge	48	181	229	6.5
Total Cost	**$1,949**	**$6,907**	**$8,856**	**$253.0**
Average Annual Cost [1]	$56	$197	$253	

Note:
1 Average annual cost is the total cost divided by 35 years.

The total estimated capital cost through 2045 is $1.95 billion. Total O & M cost is $6.91 billion bringing the total cost of the Plan implementation to $8.86 billion over 35 years. The average annual cost is $253 million. This annual cost does not reflect the amortized cost of capital projects that may be bond-funded over several decades, thus increasing the annual cost of capital projects.

ES-9 IMPLEMENTATION AND IMPLEMENTATION COSTS

In developing the 2010 WMP Update, CVWD relied on the latest population projections developed by Riverside County. CVWD does not develop population growth projections for use in water management planning. The 2006 Riverside County projections were prepared before the recent recession, which has slowed growth and is expected to have negative effects on growth in the near term. Over the long term, growth will continue. Future population projections will be adjusted in terms of the timing and magnitude of growth. These realities necessitate adjustment of Plan implementation to meet actual near term needs and continued updates of the Water Management Plan in the future to reflect revised population projections.

Near Term Projects to Meet Water Management Needs

Even with the current recession and lack of growth, continuation of existing projects and a few new projects are needed to reduce overdraft and its adverse affects. Ongoing projects that will be continued include:

- Whitewater Recharge with SWP Exchange Water and SWP purchases
- Implementation of the QSA
- Levy Recharge operating at current level of 32,000 AFY
- Martinez Pilot Recharge at current level of 3,000 AFY
- Water conservation programs at current levels, including implementation of the Landscape Ordinance
- Recycling in the West Valley
- Increased use of Canal water by golf courses with Canal water connections
- Conversion of East Valley agriculture to Canal water as opportunities arise
- Groundwater production/level/quality monitoring
- Cooperative subsidence monitoring with USGS

Assuming that growth remains relative low during the next five years, CVWD will focus on three new or expanded activities to reduce overdraft and comply with state regulations:

- Increased use of the Mid-Valley Pipeline project to reduce overdraft in the West Valley by connecting golf courses and reducing groundwater pumping by those courses.
- Implementation of additional water conservation measures, including the Landscape Ordinance, to meet the State's requirement of 20 percent conservation by 2020.
- Preparation of a salt/nutrient management plan for the Valley by 2014 to meet SWRCB Recycled Water Policy requirements

Long Term Projects

Projects to eliminate and control overdraft that are likely to be needed as future growth occurs are described in the 2010 WMP Update. These projects include:

- Additional water conservation.
- Desalinated drain water.
- Additional water transfers.
- Additional recycled water.
- Canal water treatment for urban indoor use.
- Canal water treatment for urban outdoor irrigation.
- Recharge in the Indio area.

As growth ramps up, the projects will be implemented based on cost effectiveness and need.

Implementation Costs

In 2010, Valley water agencies expended approximately $414 million on all water and wastewater management activities. This total cost includes approximately $106 million per year on activities associated with eliminating overdraft. Since 2002, CVWD and DWA have invested over $240 million in water conservation, supply acquisition and facilities to reduce overdraft. During the next five years (2011-2015), it is estimated that Valley water agencies will expend an additional $5.4 million on activities to eliminate overdraft, assuming growth remains slow.

As growth occurs, additional projects to control overdraft will be needed. Ultimately, costs associated with growth to eliminate and control overdraft could approach an additional $100 million per year in capital project and annual operations and maintenance costs.

Much of the future costs, both capital and operation and maintenance, will not be borne by CVWD. These costs will be borne by developers, other water organizations, and Valley municipalities. Capital costs and operation and maintenance costs associated with new growth will be paid by new growth. For example, the entire cost of systems for treating and delivering Colorado River Canal water for indoor use in East Valley developments and development of dual plumbing systems to provide untreated water to those developments for outdoor use will be paid for by new development.

ES-10 CONCLUSION

Groundwater overdraft is a significant problem in the Coachella Valley. The 2002 Water Management Plan was developed to identify and guide the long term implementation of measures to eliminate groundwater overdraft in the Valley. Since completion of the 2002 Water Management Plan, much has been accomplished by Valley water agencies and agricultural, municipal/residential, and golf course water users to reduce overdraft. Water conservation efforts have expanded, out-of-basin water supplies have increased, surface water and recycled water use is being used in lieu of groundwater, and new groundwater recharge facilities are online and an additional facility is being developed.

However, changing future demands and water supply uncertainties require additional actions to eliminate groundwater overdraft in the future, which are identified in the 2010 WMP Update. Continued implementation of the Water Management Plan will result in unavoidable costs for water users and water agencies alike. Each agency, including CVWD, will consider costs, available resources, funding mechanisms and priorities to eliminate overdraft in a timely manner. The success of the Plan to date indicates broad support for eliminating overdraft and the threats to the economy and quality of life in the Coachella Valley.

The CVWD Board of Directors certified the Supplemental Program EIR and adopted the 2010 WMP Update on January 24, 2012.

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APPENDIX D

2014 Status Report for the 2010 Coachella Valley Water Management Plan Update

2014 Status Report

for the

2010 Coachella Valley Water Management Plan Update

Prepared for:

Board of Directors
of the
Coachella Valley Water District

Prepared by:

Patti Reyes, Planning and Special Programs Manager, Coachella Valley Water District
David Ringel, Principal Water Resources Engineer, MWH

2014 Status Report Overview

The purpose of this 2014 Water Management Plan Status Report (2014 Status Report) is to accomplish the following:

1. Evaluate changes in the planning environment that impact water demand projections and warrant adjustments to the 2010 Coachella Valley Water Management Plan Update (2010 WMP Update).

2. Review the effectiveness of the 2010 WMP Update including overdraft reduction progress.

3. Evaluate implementation progress of the 2010 WMP Update programs and recommend new implementation targets.

The 2014 WMP Status Report demonstrates that the 2010 WMP Update is working. Continued implementation ensures that long-term overdraft will be eliminated by 2021 with increased groundwater levels in the Palm Springs area and the East Valley. Groundwater levels in the Mid-Valley Area will continue to decline until programs are implemented in this area to reduce groundwater pumping. These Mid-Valley programs include urban conservation programs to reduce municipal pumping 20% by 2020; source substitution programs including non-potable water system expansion to golf courses and Colorado River treatment for domestic water use; and direct groundwater recharge.

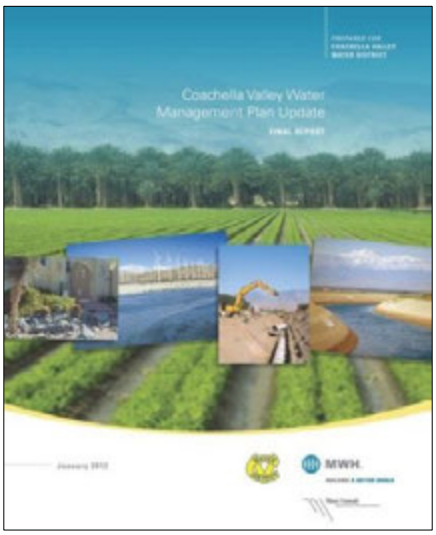
The most significant change in the planning environment is that regional growth projections have been reduced to reflect the impacts of the sustained economic downturn. Population projections through 2045 are reduced in the 2014 Status Report based on revised regional growth projections. The result is that long-term water demands increase at slower rate and estimated total water demand in 2045 is approximately 14% lower in the 2014 Status Report than in the 2010 WMP Update. It is estimated that the 2010 WMP Update demands will not be realized until after 2055 allowing more time to plan for future needs.

The 2010 WMP Update Implementation Plan is summarized in **Table 8-1** of the Plan. **Table 8-1** has been revised and is included in this document as **Table 8-1 REVISED - for the 2014 Status Report**.

Purpose of 2010 WMP Update

The Coachella Valley Water District (CVWD) adopted the Coachella Valley Water Management Plan in 2002 (2002 WMP) to eliminate groundwater overdraft. The Plan was updated in 2010 in response to changes in the water planning environment such as increased growth projections and reduced State Water Project (SWP) reliability. The 2010 Coachella Valley Water Management Plan Update (2010 WMP Update) was adopted by the CVWD Board of Directors in January 2012, following completion of a supplemental program environmental impact report. This plan has a 35 year planning horizon and serves as a roadmap for water resources planning and development for the Coachella Valley.

The 2010 WMP Update focuses on a flexible management approach that allows CVWD to increase or decrease the magnitude and implementation rate of Plan elements in response to changes in supply availability, population projections, and water demands. The 2010 WMP Update uses a "building block approach" so that new supply increments and projects are developed as needed, rather than in response to a pre-defined schedule. Consequently, periodic review of water demands, supplies and implementation progress is an important element of the planning process. This 2014 Status Report is the first periodic review of the 2010 WMP Update.



The goal of the plan is to reliably meet current and future water demands with a 10 percent supply buffer in a cost-effective and sustainable manner. The key water management plan elements identified to meet this goal are:

- Water conservation
- Acquisition of additional imported water supplies
- Development of local water supplies such as recycled water and desalinated drain water
- Source substitution
- Groundwater recharge

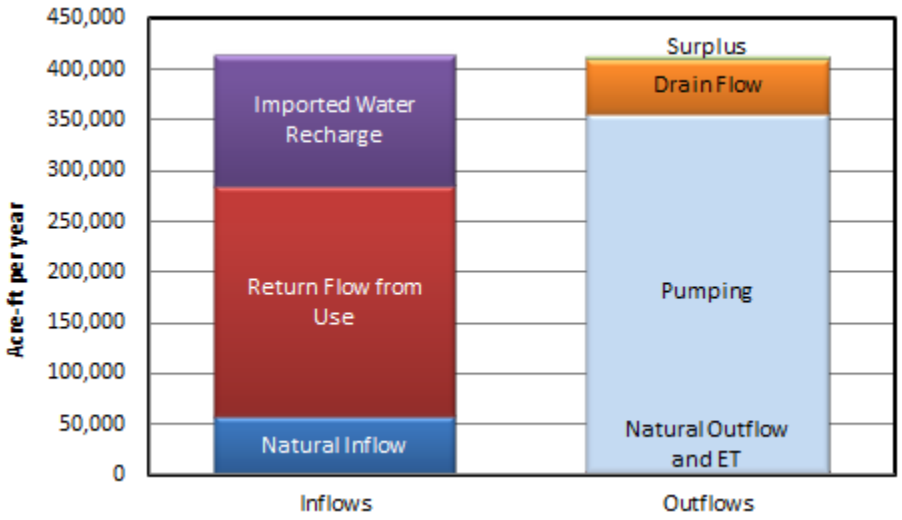
The 10 percent supply buffer is necessary to protect against unanticipated loss of supplies and growth.

2014 Overdraft Status

The California Department of Water Resources defines overdraft as the condition of a groundwater basin in which the amount of water withdrawn by pumping exceeds the amount of water that replenishes the basin over a period of years during which water supply conditions approximate *average* conditions. The 2010 WMP Update estimates *long-term* overdraft using a calculation of change in storage based on long-term local hydrology and imported water deliveries. Change in storage is calculated by subtracting total basin outflows from total basin inflows.

In the Coachella Valley groundwater basin, water is withdrawn by pumping, through natural outflow and agricultural drain flows to the Salton Sea, and through evapotranspiration from native vegetation with root systems. The only sources of groundwater basin replenishment are natural inflow from storms, return flows from irrigation, and imported water recharge. **Figure 1**, on page 3, shows that in the last ten years inflows have exceeded outflows with a slight surplus meaning the groundwater basin has not been in overdraft over the specified ten-year period, and the amount of groundwater in storage has slightly increased. This was accomplished by implementation of conservation and source substitution programs which reduce pumping, and by receiving Table A allotments and advanced deliveries of State Water Project water supplies via CVWD's and DWA's advanced delivery agreement with Metropolitan Water District of Southern California.

Figure 1
Average Inflows and Outflows from 2003 through 2012



It is important to note that although drain flows to the Salton Sea are outflows, they consist of higher salinity discharges and serve as a means of exporting salt from the groundwater basin which reduces the rate of increase in groundwater salinity over time. As overdraft is eliminated and groundwater levels increase, drain flows are predicted to increase exporting additional salt from the groundwater basin. The 2010 WMP Update proposes to recycle a portion of drain flows in the future to satisfy future increases in demand.

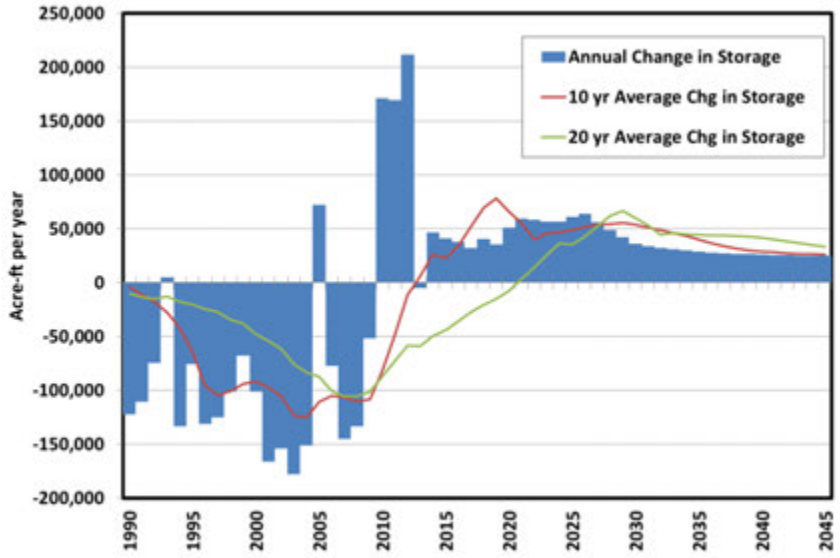
In addition to looking at average inflows and outflows over the last ten years, the annual change in storage from 1990 to 2045 is shown in **Figure 2** and shows long-term progress toward eliminating overdraft. **Figure 2** estimates future annual changes in storage based on the following assumptions:

- Natural inflows and outflows are based on average hydrologic conditions.
- Long-term State Water Project reliability is estimated to be 50%.
- Colorado River Water Supplies will be fully utilized within the groundwater basin.
- 2010 WMP Update programs including conservation, source substitution and recharge programs will continue to be implemented.

Figure 2 illustrates the benefits of fully utilizing and storing imported water supplies for the future. For instance from 2010 to 2013, approximately 260,000 acre feet of advanced deliveries were recharged at the Whitewater Replenishment facility. This amount is in addition to CVWD's and DWA's Table A allotments that were recharged. These advanced deliveries resulted in a significant increase in both 10-year and 20-year average storage volumes. **Figure 2** shows that with successful 2010 WMP Update implementation, long-term overdraft is eliminated in 2021.

Figure 2

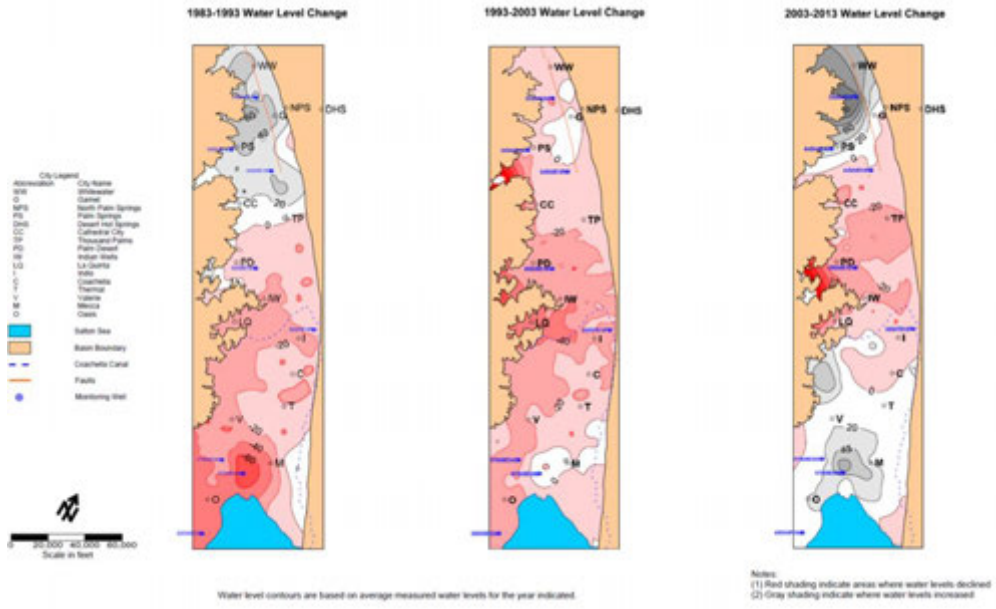
Status of the Overdraft - Annual Change in Storage



It is important to note that even with the recent positive change in groundwater storage, groundwater levels still continue to decline in portions of the Coachella Valley. **Figure 3** shows that increased groundwater levels, shown in gray, have occurred in the Palm Springs area and the East Valley from 2003 to 2013. However decreased groundwater levels, shown in pink, in the Mid-Valley Area will continue until 2010 WMP Update Programs are implemented in this area to reduce pumping. These programs include urban conservation programs to reduce municipal pumping 20% by 2020; source substitution programs including non-potable water system expansion to golf courses and Colorado River treatment for domestic water use; and direct groundwater recharge.

Figure 3

Water Level Changes over the last 30 years in 10-year Increments



Specifically, **Figure 3** shows that in the ten-year period from 1983 to 1993, groundwater level decline was most severe in the East Valley while groundwater levels in the West Valley were stable and actually increasing in the vicinity of Palm Springs and Cathedral City due to large advance deliveries of State Water Project (SWP) that occurred at the Whitewater Replenishment Facility from 1984 through 1986. In the ten-year period from 1993 to 2003 low recharge levels at Whitewater Replenishment Facility resulted in groundwater level decline. Until 2003, CVWD's and DWA's combined Table A allocation was only 62,000 afy and urbanization was causing increased groundwater pumping. Because of these continued groundwater level declines, the first WMP was adopted in 2002. One of the key implementation efforts of that first plan was to increase imported water supplies. CVWD's and DWA's combined allocation is now 194,100 afy and delivery is subject to annual SWP reliability. In the ten-year period from 2003 to 2013 the benefits of additional recharge at Whitewater and Thomas E. Levy replenishment facilities are verified by the increase in groundwater levels at east and west ends of Valley. Reductions in pumping, especially in the East Valley also contribute toward this upward trend. However, in spite of recharge and increases in storage, declining water levels are still occurring in the Mid Valley Area.

Factors Affecting Future Water Needs.

The population projections utilized in the 2010 WMP Update have been updated with current population projection data. The new lower population projections result in lower future water demands during the 35-year planning period.

In April 2014 CDPH adopted a standard of 10 µg/L for chromium-6, putting approximately 50% of the municipal wells in the Coachella Valley are out of compliance. It is anticipated that this new standard will expedite the need to treat Colorado River water for municipal use in portions of the Coachella Valley. Both factors are discussed below.

Recent Population Trends

Population in the Coachella Valley is estimated to have increased from 318,125 in 2000 to 421,146 in 2010, an average annual increase of 10,300 people per year and a corresponding average growth rate of 3.2 percent per year (US Census, 2010). According to the US Census, most of the growth from 2000 to 2010 occurred in the incorporated areas of the Coachella Valley. Based on California Department of Finance (CADOF) population estimates, annual growth rates within the Coachella Valley cities reached a high of 18,000 people per year or 5.65 percent per year in 2005 prior to the recession. Some of the greatest increases in population occurred in the cities of Coachella, La Quinta, Indio, and Desert Hot Springs. These cities had population increases ranging from 55 percent in Indio to 80 percent in Coachella over a ten year period.

Since 2010, growth rates within the Coachella Valley cities have averaged about 5,500 people per year or 1.3 percent based on CADOF estimates. CADOF population estimates are based on changes in indicators such as housing unit counts, home vacancy rates, driver's license address changes, births and deaths, school enrollment, and foreign and domestic migration data. CADOF population estimates show a slight decrease in population for unincorporated Riverside County as a whole, and show virtually all

growth occurring within the incorporated cities of the Coachella Valley. While several large developments have been approved within the unincorporated areas of the Valley, few of these have proceeded to construction.

The Coachella Valley has a significant seasonal population, especially during the winter months. Seasonal population is not counted in the US Census or estimated by the CADOF. Consequently, reliable estimates of seasonal population do not exist. The City of Palm Springs estimates 30,000 to 35,000 people live in the city on a seasonal basis in addition to its 45,000 permanent population (Palm Springs, 2011). A study for the Greater Palm Springs Convention Center and Visitors Bureau estimated 5.1 million annual overnight visitors and 6.4 million day trip visitors to the Valley in 2011. While the seasonal and visitor population clearly have an effect on water usage, in the 2010 WMP Update total water use is divided by permanent population to determine per capita water use. Thus the water use by both visitors and permanent residents is reflected in both per capita and total water use projections. Consequently, as long as the ratio of visitor to permanent population remains roughly the same in the future, no adjustments are required to estimate future water needs of visitors.

The principal sources of population data for the Coachella Valley are:

- **RCP06** - Riverside County Center for Demographic Research 2006 growth forecasts were the most detailed data available at the time that the Plan baseline was established. They were adopted by CVAG and SCAG and used to develop the Regional Transportation Plan (RTP).
- **SCAG RTP 2008** – The Southern California Association of Governments Regional Transportation Plan projections for 2008 were the same as the RCP06 projections.
- **RCP10** – In 2010 before Census data was available, the Riverside County Center for Demographic Research adjusted the RCP06 downward to account for the economic downturn.
- **2010 Census** - United States Census data for 2000 and 2010 (Decennial Census) is available in GIS Census blocks for the Coachella Valley.
- **SCAG RTP 2012** – the Southern California Association of Governments adjusted the RCP2010 projections downward based on the 2010 Census.
- **CADOF 2000 through 2013** - The California Department of Finance Demographic Research Unit annually estimates current populations by city and county (total unincorporated county). Specific data for unincorporated areas of the Coachella Valley is not considered separately.

The 2010 WMP Update used the 2006 Riverside County Projections (RCP06) as the basis for urban water demand projections. The RCP06 projections were adopted by the Coachella Valley Association of Governments (CVAG) and the Southern California Association of Governments (SCAG) as part of the 2008 Regional Transportation Plan. In order to calculate future demands in the 2010 WMP Update, per capita water use was reduced for current and future users by applying the 2010 WMP Update conservation targets. Then the future per capita demands were multiplied by the population projections to determine total future urban demand. Since population projections only extend to 2035, a straight line projection of the average slope was used to estimate 2045 demands. The RCP06 projections were established during a period of significant economic growth and development. In the

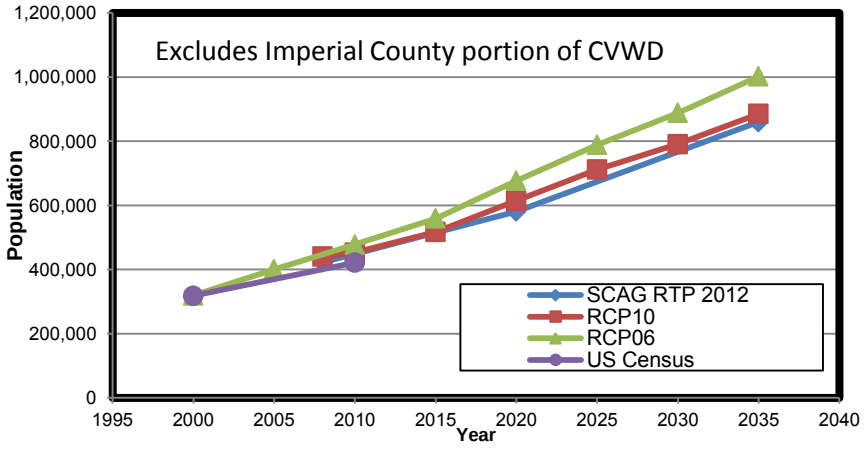
years immediately following publishing of the RCP06 projections and before the 2010 WMP Update was complete, the nation experienced a severe economic recession impacting housing development and population growth in the Coachella Valley. The economy is now showing signs of improvement but at a slower rate than was projected in RCP06.

Figure 4, presents a comparison of the available growth forecasts and the Census data. Based on the SCAG RTP 2012 growth forecast, significant population growth in the Valley is still expected over the next 25 years. Growth within the cities is expected to add about 215,000 people while growth in the unincorporated portions of the Valley will add about 220,000 people by 2035. The total population within the WMP study area is expected to be about 812,000 by 2035, more than double the current population. Assuming growth continues at this rate beyond 2035, the population in the WMP study area would reach almost 990,000 by 2045. In comparison, the 2010 WMP Update estimated a population of 1,120,000 in 2045 (excluding the Imperial County portion of CVWD). The population of the Mission Creek area would increase from 44,600 in 2010 to 96,000 by 2035 and 110,000 by 2045 based on the RCP10 projection. The following observations are made regarding the projections:

- CADOF's reported population estimates for Coachella Valley cities continue to increase but at a lower rate than prior to the recession. The rate of increase is currently less than the SCAG RTP 2012 rate of increase.
- RCP10 projections are lower than the RCP2006 projections for the CVAG area as a result of the prolonged recession.
- SCAG RTP 2012 projection for the Coachella Valley area is about 40,000 people lower than the RCP10 projection. This difference is believed to be the use of the actual 2010 Census numbers as a starting point. No breakdown between East and West Valley population is readily available for this projection.

The 2010 WMP Update assumed that growth would occur equally on vacant desert land and existing agricultural land. Consequently, a decline in agricultural land use (and corresponding water demand) is expected as growth occurs.

Figure 4
Comparison of Coachella Valley Growth Forecasts



Summary of WMP Impacts Related to Growth Projections

The 2014 Status Report recommendation is that population projections are reduced from 1,136,739 in 2045 published in the 2010 WMP Update, to approximately 920,000 , based on SCAG RTP 2012 projections. This is approximately an 18 percent reduction in population in 2045 compared to that of the 2010 WMP Update. **Table 1** on Page 9, shows revised water demand projections compared to the 2010 WMP Update demand projections. The Table 1 values were determined by revising the basis for the 2010 WMP Update population projections from RCP06 to SCAG RTP 2012. While urban and golf course demands are reduced by 22 percent and 16 percent, respectively, agricultural demand is increased by approximately 13 percent. This agricultural demand increase results from a slower rate agricultural land conversion to urban uses. Total reduction in 2045 water demands is approximately 14 percent. However, it is important to note that this is not an elimination of demand but a deferral of demand to later years. Build-out growth will occur over a longer period of time.

As shown in **Figure 5**, long term supply programs may be reduced by a combined value of 70,000 AFY in 2045, as a result of the approximately 14% reduction in demand. Programs that may be deferred or slowed based on this reduction include desalination of agricultural drain water, purchase of additional imported allocations, and conversion of non-potable water supplies to urban uses, except as necessary for full utilization of Colorado River water supplies.

A reduction in growth projections does not reduce the rate at which development of Colorado River water supplies occurs. These supplies available through the Quantification Settlement Agreement (QSA) will continue to increase at an average rate of 5,500 AFY through 2026. Therefore, the need for source substitution and recharge programs to utilize this supply is not affected by changes in population projections. Also a reduction in growth projections does not reduce the need to implement conservation programs for existing and future customers.

Figure 5
Comparison of Coachella Valley Growth Forecasts

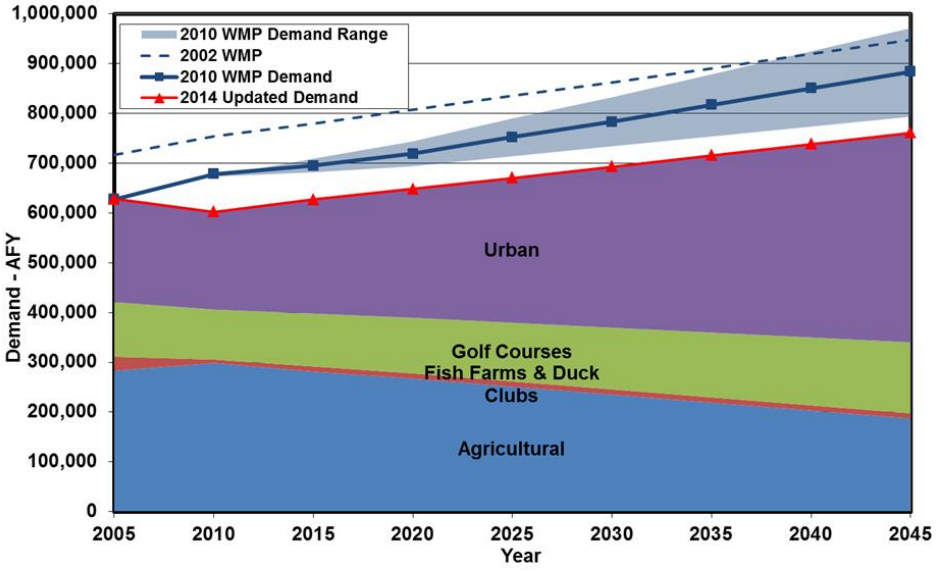


Table 1
Water Demand Projections for CVWD WMP Update Status Report - 2014
Baseline Projection (without additional conservation)

Component	2005	2010	2015	2020	2025	2030	2035	2040	2045
Agricultural									
Crop Irrigation	283,100	298,600	281,300	267,300	251,200	235,200	219,100	203,100	187,100
Total Agricultural Demand	**283,100**	**298,600**	**281,300**	**267,300**	**251,200**	**235,200**	**219,100**	**203,100**	**187,100**
Urban									
Municipal	205,400	192,200	224,800	254,600	287,100	319,400	351,700	384,200	417,000
Industrial	1,700	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300
Total Urban Demand	**207,100**	**194,500**	**227,100**	**256,900**	**289,400**	**321,700**	**354,000**	**386,500**	**419,300**
Golf Course Demand	**109,800**	**100,500**	**106,200**	**111,800**	**118,000**	**124,081**	**130,300**	**136,500**	**142,600**
Fish Farms & Duck Clubs									
Fish Farms	23,500	5,648	8,500	8,500	8,500	8,500	8,500	8,500	8,500
Duck Clubs	4,600	1,418	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Total Fish Farms and Duck Clubs	**28,100**	**7,065**	**10,500**	**10,500**	**10,500**	**10,500**	**10,500**	**10,500**	**10,500**
Total Demand	**628,100**	**600,665**	**625,100**	**646,500**	**669,100**	**691,481**	**713,900**	**736,600**	**759,500**

Water Demand Projections from Table 3-2 of the 2010 WMP Update

Component	2005 [1]	2010	2015	2020	2025	2030	2035	2040	2045
Agricultural									
Crop Irrigation	283,100	317,400	302,900	282,300	258,500	238,100	213,900	189,700	166,100
Total Agricultural Demand	**283,100**	**317,400**	**302,900**	**282,300**	**258,500**	**238,100**	**213,900**	**189,700**	**166,100**
Urban									
Municipal	205,400	234,600	260,900	298,100	346,600	390,000	438,500	487,300	537,000
Industrial	1,700	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300
Total Urban Demand	**207,100**	**236,900**	**263,200**	**300,400**	**348,900**	**392,300**	**440,800**	**489,600**	**539,300**
Golf Course Demand	**109,800**	**113,800**	**118,800**	**125,900**	**134,600**	**142,400**	**151,900**	**160,700**	**169,500**
Fish Farms and Duck Clubs									
Fish Farms	23,500	8,500	8,500	8,500	8,500	8,500	8,500	8,500	8,500
Duck Clubs	4,600	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Total Fish Farms and Duck Clubs	**28,100**	**10,500**	**10,500**	**10,500**	**10,500**	**10,500**	**10,500**	**10,500**	**10,500**
TOTAL DEMAND	**628,100**	**678,600**	**695,400**	**719,100**	**752,500**	**783,300**	**817,100**	**850,500**	**885,400**

Hexavalent Chromium

The 2002 WMP focused on water supplies and overdraft and did not discuss water quality in detail. The 2010 WMP Update devoted a chapter to emerging issues including groundwater quality issues. At the time of the 2010 WMP Update adoption, hexavalent chromium (chromium-6) was regulated in California under the 50 µg/L Maximum Contaminant Level (MCL) for total chromium. No CVWD wells exceed this limit. Also at that time the Office of Environmental Health Hazard Assessment (OEHHA) had recently finalized a Public Health Goal for chromium-6 of 0.02 parts per billion (µg/L) and the California Department of Public Health (CDPH) was developing a proposed MCL for chromium-6.

In August 2013 CDPH published the nation's first draft MCL for chromium-6 of 10 µg/L. It was approved in April 2014, and became effective on July 1, 2014. It is expected that approximately 50% of municipal wells in the Coachella Valley will not comply with the new standard. CVWD, Mission Springs Water District, Coachella Water Authority, and Indio Water Authority all have wells that are expected to exceed the MCL. The cost to comply with this standard is of significant concern, and will expedite the need to treat Colorado River water for direct municipal use in portions of the Coachella Valley.

CVWD is conducting a source of supply study to evaluate chromium-6 treatment options. A final report is expected to be available in December 2014, and it is anticipated that project design and implementation will begin in early 2015.

Evaluation of 2010 WMP Implementation Progress

The key water management plan elements identified to meet 2010 WMP Update goal are:

- Water conservation
- Acquisition of additional imported water supplies (Water Supply Development)
- Continued development of local water supplies such as recycled water and desalinated drain water (Water Supply Development)
- Source substitution, and
- Groundwater recharge.

Prior to the 2010 WMP Update adoption and in direct response to the economic downturn, the Board of Directors expressed concerns over the cost of Plan implementation. In response to their concerns, **Section 8 – Implementation Plan**, of the 2010 WMP Update included a list of priority activities to be implemented by 2020. This priority list is summarized in **Table 8-1** on page 8-16 of the Plan. Table 8-1 has been reviewed and adjusted to recognize progress to date. **Table 8-1 REVISED - for the 2014 Status Report** is located at the end of the document. It is important to note that the 2010 WMP Update identifies many additional future activities not included in **Table 8-1** that will be reconsidered in future plan updates. Examples of such activities are recycled water development in the Eastern Coachella Valley, and participation in desalination of seawater.

Final 2014 Status Report Recommendations

As shown in **Figures 1 and 2,** the 2014 Status Report demonstrates that the 2010 WMP Update is working. Continued Plan implementation ensures that long-term overdraft will be eliminated by 2021

with increased groundwater levels in the Palm Springs area and the East Valley. Although groundwater levels in the Mid-Valley Area will continue to decline, continued implementation of Mid-Valley programs is the most effective means of curtailing these declines. The Programs in **Table 8-1 REVISED - for the 2014 Status Report** should be implemented as scheduled and the four key activities below are recommended:

- Continue to Support Water Conservation Programs
- Accomplish Source Substitution Program Implementation as Scheduled
- Evaluate Additional Recharge Opportunities
- Continue to Evaluate Water Purchase Opportunities

Table 8-1 REVISED - for the 2014 Report

Implementation Plan

Plan Element	Responsible Entity(ies)	2010 Update Goal	Status	Status Report Recommendation
Water Conservation Program				
• Adopt and implement 2009 CVWD/CVAG Landscape Ordinance or equivalent	CVWD, water purveyors, cities, Riverside County	Ongoing	Complete	Revise as needed based on State legislation
• Establish urban water conservation baseline	CVWD, other urban water purveyors	Complete	Complete	Assess status annually and report in 2015 UWMP
• Achieve minimum 10 percent reduction in existing golf course use	CVWD, DWA	2015	Underway	Work via Golf Task Force to implement and monitor custom water budgets. Budget program funds in CIP
• Achieve 14 percent reduction in agricultural water use	CVWD	2020	Underway	2020
• Achieve 20 percent reduction in urban use	CVWD, other urban water purveyors	2020	Underway	Continue funding conservation programs in CIP
Water Supply Development Program				
• Complete siting studies, environmental impact evaluation and design for CVSC drain water capture and treatment facilities	CVWD	2013	Deferred	Re-evaluate need in next WMP Update
• File for water rights application for change of point of use for wastewater effluent discharges to allow water recycling	CVWD, VSD, Coachella	2015	Deferred	Work with Legal Staff to complete filing
• Complete construction of initial CVSC drain water capture and treatment facilities	CVWD	2015	Deferred due to changes in needs	Re-evaluate need in next WMP Update
• Conduct a feasibility study to investigate the potential for additional stormwater capture in the East Valley	CVWD	2015	Ongoing with Stormwater studies	Maximize stormwater capture in facilities design
• Conduct a study to determine the amount of water lost to leakage or otherwise unaccounted in the first 49 miles of the Coachella Canal and evaluate the feasibility of corrective actions to capture the lost water	CVWD	2015	Complete	Continue to monitor annual system losses

Plan Element	Responsible Entity(ies)	2010 Update Goal	Status	Status Report Recommendation
• Conduct a joint investigation with Indio and Coachella of groundwater development potential in Fargo Canyon Subarea of the Desert Hot Springs Subbasin to determine the available supply and suitability for use in meeting non-potable demands of development east of the San Andreas fault	CVWD, IWA, Coachella	2020	Deferred due to changes in needs	Re-evaluate need in next WMP Update
Source Substitution Program				
• Prepare a master plan for Mid-Valley Pipeline completion Phase 2	CVWD	2011	Complete	Budget for Phase 2 in CIP
• Connect four golf course users along the MVP alignment to MVP	CVWD	2011	2 connected 7 scheduled by end of 2015	Monthly Progress Report to Board
• Work with existing East Valley golf courses having Colorado River water access to increase their use to 90 percent of demand	CVWD	2012	Underway – revised to 85% via non-potable agreements	Report Progress in annual Non-Potable Water Report
• Investigate regional opportunities for Colorado River water treatment facilities for domestic water use	CVWD, IWA, Coachella	2012	Underway via Source of Supply/Treatment Study (SS/TS)	Complete by 12/2014 Budget funds in 2015/16 CIP
• Develop policy requiring the installation of non-potable water systems for new development	CVWD	2012	Complete	Required via WSA's/WSV's and Development Design Manual
• Work with large agricultural groundwater pumpers to determine what obstacles exist that prevent them from using additional Colorado River water and encourage them to reduce their groundwater pumping	CVWD	2012	Underway Example: Oasis Irrigation System Expansion Project	Complete Oasis Irrigation System Expansion and Golf Course Conversions
• Construct north and east extensions to the MVP system	CVWD	2013	Partially addressed in Phase 2 master plan	Monthly Progress Report to Board
• Complete siting studies, environmental impact evaluation and design for Colorado River water treatment facilities	CVWD	2013	SS/TS Underway	Re-evaluate schedule based on SS/TS
• Complete construction of initial Colorado River water treatment facilities and connect to domestic water distribution system	CVWD	2015	SS/TS Underway	Re-evaluate schedule based on SS/TS

Plan Element	Responsible Entity(ies)	2010 Update Goal	Status	Status Report Recommendation
• Complete Oasis study update	CVWD	2015	Complete. Design by 2015 Construction by 2018	Form Assessment District Budget funds in CIP Complete by 2018
• Prepare a non-potable water distribution master plan Phase 3	CVWD	2015	Deferred	2017
• Complete construction of MVP backbone system	CVWD	2020	Deferred	Re-evaluate schedule based on Phase 3 master planning
Groundwater Recharge Program				
• Operate and monitor the Levy replenishment facility with a 40,000 AFY goal	CVWD	2010	Underway with lower goal of 32,000 AFY	Re-evaluate need in next WMP Update
• Investigate groundwater storage opportunities with IID	CVWD	2010	Complete	
• Transfer the unused portion of the 35,000 AFY of SWP water available under the QSA to the Whitewater Recharge Facility	CVWD	2011	Complete	Budget transportation funds annually. Maximize advanced delivery opportunities.
• Work with the City of Indio to evaluate the feasibility of developing a groundwater recharge project that reduce groundwater overdraft. If feasible, work with Indio to construct the facility.	CVWD, IWA	2011	Deferred	Recommend changing priority to working with Indio on supply development opportunities.
• Design and construct an additional pumping station and pipeline from Lake Cahuilla to the Levy facility if the existing pumping station and pipeline cannot provide sufficient water to meet the annual goal	CVWD	2015	Deferred	Re-evaluate need in next WMP Update
• Conduct siting studies, environmental impact evaluation and design for Martinez Canyon Replenishment Facility	CVWD	2018	Deferred due to monitoring results	Budget Oasis Expansion funds in CIP
Monitoring and Data Management				
• Continue to monitor the extent of land subsidence	CVWD, USGS	2010	Ongoing Phase VI Underway	Continue monitoring and evaluate results relative to Groundwater modeling in next WMP Update.

Plan Element	Responsible Entity(ies)	2010 Update Goal	Status	Status Report Recommendation
• Provide additional information in the annual engineers' reports: o Annual precipitation and stream flows o Additional groundwater level data and hydrographs o In-lieu recharge water deliveries from imported and recycled water that offset pumping o Imported water deliveries for direct use	CVWD, DWA	2011	Complete Hydrographs added, more consistency with DWA's reports achieved.	
• Obtain DWR designation as groundwater level monitoring and reporting entity for the Coachella Valley within their respective service areas	CVWD, DWA, water purveyors	2011	Complete via the CASGEM Program	Budget funds as needed to Continue Program Participation
• Prepare a comprehensive groundwater monitoring plan	CVWD, DWA, water purveyors, wastewater agencies, tribes	2012	Deferred	Pursue IRWM Grant Funding
• Enhance the CVSC gauging station at Lincoln Street to provide continuous flow recording	CVWD, USGS	2012	Complete	Budget CIB funds as necessary to continue to drain flow monitoring.
• Develop centralized groundwater database	CVWD, DWA, water agencies, tribes	2012	Complete via the CASGEM Program	Budget funds in CIB as necessary to maintain program participation
Other Programs				
• Continue to operate a groundwater advisory committee regarding groundwater management issues in the East Valley	CVWD, water agencies, pumpers, tribes	2010	Complete	Budget CIB funds as necessary to continue annual meetings
• Develop a program to educate and work with well owners to properly control artesian wells	CVWD	2011	Complete	Budget funds in CIB/CIP. and Pursue Grant funding
• Update and recalibrate the CVWD groundwater model based on the most current information	CVWD	2012	Deferred	Complete in parallel with next WMP Update
• Develop a water planning interface to the groundwater model	CVWD	2012	Deferred	Add to scope of work for next groundwater model update
• Prepare a plan to maintain and enhance the existing drainage system to allow its future use for urban purposes	CVWD	2012	Complete Legal Authority Established	

Plan Element	Responsible Entity(ies)	2010 Update Goal	Status	Status Report Recommendation
• Develop well construction, destruction and abandonment policies	CVWD, DWA, water agencies, tribes, Riverside County	2012	Complete	Support County's efforts to enforce. Pursue IRWM Grant Funding
• Add groundwater quality simulation capabilities to the model that will allow simulation of salinity (TDS) and nitrogen in the groundwater	CVWD	2013	Deferred	Add to scope of work for next groundwater model update.
• Prepare a salt/nutrient management plan for the Valley to meet SWRCB Recycled Water Policy requirements	CVWD, CWA,DWA, and IWA	2014	Underway	Work with RWQCB to amend completion date to March 2015
• Extend urban water and sewer service to trailer/RV park communities with deficient infrastructure and poor water quality	CVWD	2015	Ongoing Mountain View Estates Connected, Short Term Arsenic Treatment, DAC Program	Continue to sponsor applications for USDA, IRWM, CDPH, SWRCB funding
• Investigate the feasibility of installing nitrate treatment on selected high nitrate wells to avoid redistribution of nitrates.	CVWD	2015	Underway via SS/TS	Complete by 12/2014 Budget funds in 2015/16 CIP
• Undertake a cooperative program to identify and cap wells that are no longer being used for groundwater production	CVWD, DWA	2015	Underway	Support County's efforts to enforce. Pursue IRWM Grant Funding
Environmental Enhancement and Mitigation Projects				

• Develop plans for the creation of:
  • 25 acres of managed pupfish replacement habitat
  • 66 acres of managed rail replacement habitat
  • 44 acres of Sonoran cottonwood-willow riparian forest habitat
	CVWD	2010	Underway: Received Wildlife Agency approval of site; Under Review by Corps.	Work with Corps to complete review. Update project implementation Schedule. Budget funds in CIB/CIP

• Remove tamarisk, restore and enhance mesquite and Coachella Valley round-tailed ground squirrel habitat on land CVWD owns in the East Indio Hills Conservation Area	CVWD	Not Specified	Study Underway by CVCC	Support CVCC efforts to complete feasibility study

Plan Element	Responsible Entity(ies)	2010 Update Goal	Status	Status Report Recommendation
• Conserve approximately 1,200 acres of land owned in the CVFTL HCP Whitewater Floodplain Preserve in perpetuity as part of the CVMSHCP Reserve System	CVWD	2010	Underway: Resource Agencies reviewing Draft Conservation Easement prepared by CVCC & CVWD	Work with Resource agencies to achieve conservation easement approvals

APPENDIX I

Alternative Air Quality and Greenhouse Gas Emissions Worksheets

Alternative 2

Salton Sea Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	50.00	Acre	50.00	2,178,000.00	0
Parking Lot	12,425.00	Space	111.82	4,970,000.00	0
City Park	12.00	Acre	12.00	522,720.00	0
Condo/Townhouse	2,190.00	Dwelling Unit	497.00	2,190,000.00	3942
Regional Shopping Center	1,200.00	1000sqft	80.00	1,200,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.4	**Precipitation Freq (Days)**	20
Climate Zone	10			**Operational Year**	2030
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Alternative 2 - City General Plan

Construction Phase - Based on similar combined construction schedule

Off-road Equipment -

Off-road Equipment - Default construction equipment

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Based on Trenching Equipment used for EIR model

Trips and VMT - SCAQMD Building Construction Worker and Vendor Trips

On-road Fugitive Dust - Paved Roads

Grading -

Architectural Coating -

Vehicle Trips - Per Traffic Study

Vechicle Emission Factors -

Vechicle Emission Factors -

Vechicle Emission Factors -

Road Dust - Based on previous EIS model

Woodstoves - No woodstoves

Area Coating -

Construction Off-road Equipment Mitigation - Similar mitigation to EIS model

Mobile Land Use Mitigation -

Area Mitigation - Similar to EIS model

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	50
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	80
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim

tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	880.00	660.00
tblConstructionPhase	NumDays	12,400.00	2,088.00
tblConstructionPhase	NumDays	1,240.00	930.00
tblConstructionPhase	NumDays	880.00	660.00
tblConstructionPhase	NumDays	480.00	360.00
tblConstructionPhase	PhaseEndDate	8/7/2031	8/10/2029
tblConstructionPhase	PhaseEndDate	2/20/2032	11/21/2029
tblConstructionPhase	PhaseStartDate	1/26/2029	2/1/2027
tblConstructionPhase	PhaseStartDate	8/11/2029	5/13/2027
tblFireplaces	FireplaceWoodMass	457.60	0.00
tblLandUse	LotAcreage	136.88	497.00
tblLandUse	LotAcreage	27.55	80.00
tblLandUse	Population	7,074.00	3,942.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00

tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblProjectCharacteristics	OperationalYear	2014	2030
tblRoadDust	RoadPercentPave	50	100
tblTripsAndVMT	VendorTripNumber	1,688.00	431.00
tblTripsAndVMT	WorkerTripNumber	5,183.00	1,577.00
tblTripsAndVMT	WorkerTripNumber	1,037.00	315.00
tblVehicleTrips	CC_TTP	48.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TTP	33.00	0.00
tblVehicleTrips	ST_TR	1.59	0.00
tblVehicleTrips	ST_TR	49.97	23.49
tblVehicleTrips	SU_TR	1.59	0.00
tblVehicleTrips	SU_TR	25.24	11.86
tblVehicleTrips	WD_TR	1.59	0.00
tblVehicleTrips	WD_TR	42.94	20.33
tblWoodstoves	NumberCatalytic	109.50	0.00
tblWoodstoves	NumberNoncatalytic	109.50	0.00

tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2015	0.2352	2.5084	1.9263	1.8000e-003	3.2585	0.1359	3.3944	1.7893	0.1251	1.9143	0.0000	169.9388	169.9388	0.0494	0.0000	170.9757
2016	0.6725	7.1436	5.4987	5.3200e-003	3.2714	0.3836	3.6550	1.7927	0.3529	2.1456	0.0000	497.8260	497.8260	0.1462	0.0000	500.8961
2017	0.7959	8.9630	6.1778	8.1400e-003	7.3064	0.4283	7.7347	3.4656	0.3940	3.8596	0.0000	750.5604	750.5604	0.2257	0.0000	755.2991
2018	0.6993	7.7822	5.6438	8.3000e-003	4.0547	0.3640	4.4187	1.6781	0.3349	2.0130	0.0000	752.5058	752.5058	0.2300	0.0000	757.3351
2019	0.6466	7.0849	5.3713	8.3000e-003	4.0547	0.3270	4.3817	1.6781	0.3009	1.9790	0.0000	739.8526	739.8526	0.2298	0.0000	744.6793
2020	0.4688	4.8270	3.7373	6.7600e-003	4.0526	0.2203	4.2729	1.6776	0.2029	1.8804	0.0000	586.5512	586.5512	0.1846	0.0000	590.4269
2021	1.0587	4.5279	14.4435	0.0298	1.8440	0.1580	2.0020	0.4942	0.1479	0.6420	0.0000	2,110.9243	2,110.9243	0.1265	0.0000	2,113.5803
2022	1.0547	4.2807	14.7975	0.0315	1.9638	0.1447	2.1085	0.5263	0.1354	0.6617	0.0000	2,204.9746	2,204.9746	0.1246	0.0000	2,207.5921
2023	0.9951	3.9063	14.2553	0.0315	1.9637	0.1302	2.0939	0.5262	0.1218	0.6480	0.0000	2,187.2866	2,187.2866	0.1222	0.0000	2,189.8536
2024	0.9705	3.8189	14.1102	0.0320	1.9787	0.1212	2.0999	0.5303	0.1132	0.6435	0.0000	2,206.3638	2,206.3638	0.1229	0.0000	2,208.9448
2025	0.9352	3.6844	13.8061	0.0318	1.9711	0.1110	2.0822	0.5282	0.1036	0.6319	0.0000	2,185.7651	2,185.7651	0.1209	0.0000	2,188.3047
2026	0.9204	3.6518	13.6017	0.0318	1.9711	0.1106	2.0818	0.5282	0.1033	0.6315	0.0000	2,175.6829	2,175.6829	0.1202	0.0000	2,178.2064
2027	30.6712	4.6087	16.1279	0.0378	2.2940	0.1535	2.4475	0.6139	0.1432	0.7572	0.0000	2,580.3546	2,580.3546	0.1859	0.0000	2,584.2581
2028	33.1984	4.9889	16.7355	0.0391	2.3182	0.1729	2.4912	0.6204	0.1612	0.7815	0.0000	2,678.4923	2,678.4923	0.2154	0.0000	2,683.0152
2029	19.9997	1.4260	3.6164	7.7600e-003	0.3663	0.0616	0.4279	0.0976	0.0571	0.1547	0.0000	554.8315	554.8315	0.0915	0.0000	556.7532
Total	**93.3221**	**73.2026**	**149.8491**	**0.3117**	**42.6692**	**3.0229**	**45.6921**	**16.5465**	**2.7974**	**19.3439**	**0.0000**	**22,381.9104**	**22,381.9104**	**2.2957**	**0.0000**	**22,430.1206**

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2015	0.0350	0.5500	1.0801	1.8000e-003	1.2068	2.8400e-003	1.2097	0.6629	2.8300e-003	0.6657	0.0000	169.9386	169.9386	0.0494	0.0000	170.9755
2016	0.1027	1.6297	3.1882	5.3200e-003	1.2108	8.4100e-003	1.2192	0.6641	8.4000e-003	0.6725	0.0000	497.8255	497.8255	0.1462	0.0000	500.8955
2017	0.1356	2.6081	4.9865	8.1400e-003	2.7057	0.0130	2.7187	1.2839	0.0130	1.2970	0.0000	750.5596	750.5596	0.2257	0.0000	755.2982
2018	0.1366	2.6607	5.0744	8.3000e-003	1.5009	0.0133	1.5142	0.6217	0.0133	0.6350	0.0000	752.5049	752.5049	0.2300	0.0000	757.3342
2019	0.1359	2.6597	5.0652	8.3000e-003	1.5009	0.0133	1.5142	0.6217	0.0133	0.6350	0.0000	739.8518	739.8518	0.2298	0.0000	744.6785
2020	0.1118	2.0977	3.9998	6.7600e-003	1.5002	0.0118	1.5121	0.6215	0.0118	0.6333	0.0000	586.5505	586.5505	0.1846	0.0000	590.4262
2021	0.9152	4.0393	14.5393	0.0298	0.5913	0.0663	0.6576	0.1867	0.0619	0.2486	0.0000	2,110.9240	2,110.9240	0.1265	0.0000	2,113.5800
2022	0.9339	3.9718	14.8596	0.0315	0.6297	0.0692	0.6989	0.1988	0.0646	0.2634	0.0000	2,204.9743	2,204.9743	0.1246	0.0000	2,207.5918
2023	0.8892	3.7155	14.3264	0.0315	0.6296	0.0673	0.6969	0.1988	0.0628	0.2616	0.0000	2,187.2863	2,187.2863	0.1222	0.0000	2,189.8533
2024	0.8748	3.7142	14.1851	0.0320	0.6344	0.0675	0.7019	0.2003	0.0630	0.2633	0.0000	2,206.3635	2,206.3635	0.1229	0.0000	2,208.9445
2025	0.8513	3.6688	13.8871	0.0318	0.6319	0.0675	0.6994	0.1995	0.0630	0.2625	0.0000	2,185.7648	2,185.7648	0.1209	0.0000	2,188.3044
2026	0.8365	3.6363	13.6827	0.0318	0.6319	0.0671	0.6990	0.1995	0.0626	0.2621	0.0000	2,175.6827	2,175.6827	0.1202	0.0000	2,178.2061
2027	30.5258	4.7001	16.4329	0.0378	0.7307	0.0730	0.8037	0.2302	0.0684	0.2986	0.0000	2,580.3541	2,580.3541	0.1859	0.0000	2,584.2576
2028	33.0257	5.1448	17.1636	0.0391	0.7380	0.0748	0.8128	0.2325	0.0701	0.3026	0.0000	2,678.4917	2,678.4917	0.2154	0.0000	2,683.0146
2029	19.9180	1.5816	3.9328	7.7600e-003	0.1142	0.0110	0.1252	0.0357	0.0106	0.0463	0.0000	554.8312	554.8312	0.0915	0.0000	556.7529
Total	**89.4280**	**46.3783**	**146.4036**	**0.3117**	**14.9570**	**0.6265**	**15.5835**	**6.1577**	**0.5896**	**6.7473**	**0.0000**	**22,381.9032**	**22,381.9032**	**2.2957**	**0.0000**	**22,430.1132**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**4.17**	**36.64**	**2.30**	**0.00**	**64.95**	**79.27**	**65.89**	**62.79**	**78.92**	**65.12**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	51.9871	0.1881	16.3527	8.7000e-004		0.2111	0.2111		0.2098	0.2098	0.0000	1,751.7597	1,751.7597	0.0590	0.0316	1,762.8022
Energy	0.2583	2.2158	0.9995	0.0141		0.1785	0.1785		0.1785	0.1785	0.0000	12,242.0230	12,242.0230	0.4942	0.1390	12,295.4863
Mobile	16.1537	31.3529	172.2053	0.3749	24.2127	0.6966	24.9093	6.4665	0.6423	7.1088	0.0000	24,687.6314	24,687.6314	0.8965	0.0000	24,706.4571
Waste						0.0000	0.0000		0.0000	0.0000	460.4708	0.0000	460.4708	27.2130	0.0000	1,031.9447
Water						0.0000	0.0000		0.0000	0.0000	73.4679	1,367.5463	1,441.0141	7.6087	0.1912	1,660.0629
Total	**68.3991**	**33.7568**	**189.5574**	**0.3899**	**24.2127**	**1.0862**	**25.2988**	**6.4665**	**1.0306**	**7.4970**	**533.9387**	**40,048.9603**	**40,582.8990**	**36.2714**	**0.3618**	**41,456.7531**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	42.2625	0.1881	16.3527	8.7000e-004		0.2111	0.2111		0.2098	0.2098	0.0000	1,751.7597	1,751.7597	0.0590	0.0316	1,762.8022
Energy	0.2251	1.9308	0.8708	0.0123		0.1555	0.1555		0.1555	0.1555	0.0000	8,952.4455	8,952.4455	0.3518	0.1048	8,992.3205
Mobile	15.6429	28.2458	159.6617	0.3215	20.5545	0.6033	21.1578	5.4895	0.5563	6.0458	0.0000	21,165.5569	21,165.5569	0.7817	0.0000	21,181.9734
Waste						0.0000	0.0000		0.0000	0.0000	115.1177	0.0000	115.1177	6.8033	0.0000	257.9862
Water						0.0000	0.0000		0.0000	0.0000	58.7743	1,070.0775	1,128.8518	6.0859	0.1527	1,303.9971
Total	**58.1305**	**30.3647**	**176.8852**	**0.3346**	**20.5545**	**0.9699**	**21.5244**	**5.4895**	**0.9216**	**6.4111**	**173.8920**	**32,939.8396**	**33,113.7316**	**14.0817**	**0.2891**	**33,499.0793**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**15.01**	**10.05**	**6.69**	**14.17**	**15.11**	**10.71**	**14.92**	**15.11**	**10.57**	**14.48**	**67.43**	**17.75**	**18.40**	**61.18**	**20.08**	**19.20**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	9/1/2015	1/16/2017	5	360	
2	Grading	Grading	1/17/2017	8/10/2020	5	930	
3	Utilities	Trenching	8/11/2020	1/25/2021	5	120	
4	Building Construction	Building Construction	1/26/2021	1/25/2029	5	2088	
5	Architectural Coating	Architectural Coating	2/1/2027	8/10/2029	5	660	
6	Paving	Paving	5/13/2027	11/21/2029	5	660	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 2325

Acres of Paving: 0

Residential Indoor: 4,434,750; Residential Outdoor: 1,478,250; Non-Residential Indoor: 6,074,730; Non-Residential Outdoor: 2,024,910 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Utilities	Forklifts	1	4.00	89	0.20
Utilities	Off-Highway Trucks	2	8.00	400	0.38
Utilities	Signal Boards	1	8.00	6	0.82
Utilities	Trenchers	1	6.00	80	0.50
Utilities	Welders	1	4.00	46	0.45
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Utilities	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	1,577.00	431.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	315.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Site Preparation - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.2519	0.0000	3.2519	1.7875	0.0000	1.7875	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2315	2.5032	1.8758	1.7200e-003		0.1359	0.1359		0.1250	0.1250	0.0000	164.1249	164.1249	0.0490	0.0000	165.1539
Total	**0.2315**	**2.5032**	**1.8758**	**1.7200e-003**	**3.2519**	**0.1359**	**3.3878**	**1.7875**	**0.1250**	**1.9125**	**0.0000**	**164.1249**	**164.1249**	**0.0490**	**0.0000**	**165.1539**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7500e-003	5.2500e-003	0.0505	8.0000e-005	6.5500e-003	5.0000e-005	6.5900e-003	1.7400e-003	4.0000e-005	1.7800e-003	0.0000	5.8139	5.8139	3.8000e-004	0.0000	5.8218
Total	**3.7500e-003**	**5.2500e-003**	**0.0505**	**8.0000e-005**	**6.5500e-003**	**5.0000e-005**	**6.5900e-003**	**1.7400e-003**	**4.0000e-005**	**1.7800e-003**	**0.0000**	**5.8139**	**5.8139**	**3.8000e-004**	**0.0000**	**5.8218**

3.2 Site Preparation - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.2048	0.0000	1.2048	0.6623	0.0000	0.6623	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0313	0.5447	1.0296	1.7200e-003		2.7900e-003	2.7900e-003		2.7900e-003	2.7900e-003	0.0000	164.1247	164.1247	0.0490	0.0000	165.1537
Total	**0.0313**	**0.5447**	**1.0296**	**1.7200e-003**	**1.2048**	**2.7900e-003**	**1.2076**	**0.6623**	**2.7900e-003**	**0.6651**	**0.0000**	**164.1247**	**164.1247**	**0.0490**	**0.0000**	**165.1537**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7500e-003	5.2500e-003	0.0505	8.0000e-005	2.0000e-003	5.0000e-005	2.0500e-003	6.2000e-004	4.0000e-005	6.6000e-004	0.0000	5.8139	5.8139	3.8000e-004	0.0000	5.8218
Total	**3.7500e-003**	**5.2500e-003**	**0.0505**	**8.0000e-005**	**2.0000e-003**	**5.0000e-005**	**2.0500e-003**	**6.2000e-004**	**4.0000e-005**	**6.6000e-004**	**0.0000**	**5.8139**	**5.8139**	**3.8000e-004**	**0.0000**	**5.8218**

3.2 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.2519	0.0000	3.2519	1.7875	0.0000	1.7875	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.6626	7.1295	5.3642	5.1000e-003		0.3835	0.3835		0.3528	0.3528	0.0000	481.2463	481.2463	0.1452	0.0000	484.2946
Total	**0.6626**	**7.1295**	**5.3642**	**5.1000e-003**	**3.2519**	**0.3835**	**3.6354**	**1.7875**	**0.3528**	**2.1403**	**0.0000**	**481.2463**	**481.2463**	**0.1452**	**0.0000**	**484.2946**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.9800e-003	0.0141	0.1344	2.2000e-004	0.0194	1.3000e-004	0.0196	5.1600e-003	1.2000e-004	5.2700e-003	0.0000	16.5798	16.5798	1.0300e-003	0.0000	16.6014
Total	**9.9800e-003**	**0.0141**	**0.1344**	**2.2000e-004**	**0.0194**	**1.3000e-004**	**0.0196**	**5.1600e-003**	**1.2000e-004**	**5.2700e-003**	**0.0000**	**16.5798**	**16.5798**	**1.0300e-003**	**0.0000**	**16.6014**

3.2 Site Preparation - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.2048	0.0000	1.2048	0.6623	0.0000	0.6623	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0927	1.6156	3.0537	5.1000e-003		8.2800e-003	8.2800e-003		8.2800e-003	8.2800e-003	0.0000	481.2457	481.2457	0.1452	0.0000	484.2941
Total	**0.0927**	**1.6156**	**3.0537**	**5.1000e-003**	**1.2048**	**8.2800e-003**	**1.2131**	**0.6623**	**8.2800e-003**	**0.6706**	**0.0000**	**481.2457**	**481.2457**	**0.1452**	**0.0000**	**484.2941**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.9800e-003	0.0141	0.1344	2.2000e-004	5.9400e-003	1.3000e-004	6.0700e-003	1.8500e-003	1.2000e-004	1.9700e-003	0.0000	16.5798	16.5798	1.0300e-003	0.0000	16.6014
Total	**9.9800e-003**	**0.0141**	**0.1344**	**2.2000e-004**	**5.9400e-003**	**1.3000e-004**	**6.0700e-003**	**1.8500e-003**	**1.2000e-004**	**1.9700e-003**	**0.0000**	**16.5798**	**16.5798**	**1.0300e-003**	**0.0000**	**16.6014**

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.2519	0.0000	3.2519	1.7875	0.0000	1.7875	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0266	0.2846	0.2167	2.2000e-004		0.0152	0.0152		0.0139	0.0139	0.0000	19.9735	19.9735	6.1200e-003	0.0000	20.1020
Total	**0.0266**	**0.2846**	**0.2167**	**2.2000e-004**	**3.2519**	**0.0152**	**3.2671**	**1.7875**	**0.0139**	**1.8015**	**0.0000**	**19.9735**	**19.9735**	**6.1200e-003**	**0.0000**	**20.1020**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8000e-004	5.4000e-004	5.1200e-003	1.0000e-005	8.2000e-004	1.0000e-005	8.2000e-004	2.2000e-004	0.0000	2.2000e-004	0.0000	0.6702	0.6702	4.0000e-005	0.0000	0.6710
Total	**3.8000e-004**	**5.4000e-004**	**5.1200e-003**	**1.0000e-005**	**8.2000e-004**	**1.0000e-005**	**8.2000e-004**	**2.2000e-004**	**0.0000**	**2.2000e-004**	**0.0000**	**0.6702**	**0.6702**	**4.0000e-005**	**0.0000**	**0.6710**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.2048	0.0000	1.2048	0.6623	0.0000	0.6623	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.9100e-003	0.0681	0.1287	2.2000e-004		3.5000e-004	3.5000e-004		3.5000e-004	3.5000e-004	0.0000	19.9734	19.9734	6.1200e-003	0.0000	20.1020
Total	**3.9100e-003**	**0.0681**	**0.1287**	**2.2000e-004**	**1.2048**	**3.5000e-004**	**1.2052**	**0.6623**	**3.5000e-004**	**0.6626**	**0.0000**	**19.9734**	**19.9734**	**6.1200e-003**	**0.0000**	**20.1020**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8000e-004	5.4000e-004	5.1200e-003	1.0000e-005	2.5000e-004	1.0000e-005	2.6000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.6702	0.6702	4.0000e-005	0.0000	0.6710
Total	**3.8000e-004**	**5.4000e-004**	**5.1200e-003**	**1.0000e-005**	**2.5000e-004**	**1.0000e-005**	**2.6000e-004**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**0.0000**	**0.6702**	**0.6702**	**4.0000e-005**	**0.0000**	**0.6710**

3.3 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.0331	0.0000	4.0331	1.6724	0.0000	1.6724	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.7593	8.6642	5.8272	7.6800e-003		0.4130	0.4130		0.3800	0.3800	0.0000	713.0603	713.0603	0.2185	0.0000	717.6484
Total	**0.7593**	**8.6642**	**5.8272**	**7.6800e-003**	**4.0331**	**0.4130**	**4.4461**	**1.6724**	**0.3800**	**2.0523**	**0.0000**	**713.0603**	**713.0603**	**0.2185**	**0.0000**	**717.6484**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.5200e-003	0.0136	0.1288	2.4000e-004	0.0206	1.3000e-004	0.0207	5.4600e-003	1.2000e-004	5.5900e-003	0.0000	16.8565	16.8565	1.0100e-003	0.0000	16.8777
Total	**9.5200e-003**	**0.0136**	**0.1288**	**2.4000e-004**	**0.0206**	**1.3000e-004**	**0.0207**	**5.4600e-003**	**1.2000e-004**	**5.5900e-003**	**0.0000**	**16.8565**	**16.8565**	**1.0100e-003**	**0.0000**	**16.8777**

3.3 Grading - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.4943	0.0000	1.4943	0.6196	0.0000	0.6196	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1218	2.5259	4.7239	7.6800e-003		0.0126	0.0126		0.0126	0.0126	0.0000	713.0595	713.0595	0.2185	0.0000	717.6475
Total	**0.1218**	**2.5259**	**4.7239**	**7.6800e-003**	**1.4943**	**0.0126**	**1.5068**	**0.6196**	**0.0126**	**0.6322**	**0.0000**	**713.0595**	**713.0595**	**0.2185**	**0.0000**	**717.6475**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.5200e-003	0.0136	0.1288	2.4000e-004	6.3000e-003	1.3000e-004	6.4300e-003	1.9600e-003	1.2000e-004	2.0800e-003	0.0000	16.8565	16.8565	1.0100e-003	0.0000	16.8777
Total	**9.5200e-003**	**0.0136**	**0.1288**	**2.4000e-004**	**6.3000e-003**	**1.3000e-004**	**6.4300e-003**	**1.9600e-003**	**1.2000e-004**	**2.0800e-003**	**0.0000**	**16.8565**	**16.8565**	**1.0100e-003**	**0.0000**	**16.8777**

3.3 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.0331	0.0000	4.0331	1.6724	0.0000	1.6724	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.6903	7.7692	5.5210	8.0500e-003		0.3638	0.3638		0.3347	0.3347	0.0000	735.5190	735.5190	0.2290	0.0000	740.3275
Total	**0.6903**	**7.7692**	**5.5210**	**8.0500e-003**	**4.0331**	**0.3638**	**4.3969**	**1.6724**	**0.3347**	**2.0071**	**0.0000**	**735.5190**	**735.5190**	**0.2290**	**0.0000**	**740.3275**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-003	0.0130	0.1228	2.5000e-004	0.0216	1.4000e-004	0.0217	5.7300e-003	1.3000e-004	5.8500e-003	0.0000	16.9868	16.9868	9.9000e-004	0.0000	17.0075
Total	**9.0000e-003**	**0.0130**	**0.1228**	**2.5000e-004**	**0.0216**	**1.4000e-004**	**0.0217**	**5.7300e-003**	**1.3000e-004**	**5.8500e-003**	**0.0000**	**16.9868**	**16.9868**	**9.9000e-004**	**0.0000**	**17.0075**

3.3 Grading - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.4943	0.0000	1.4943	0.6196	0.0000	0.6196	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1276	2.6477	4.9516	8.0500e-003		0.0132	0.0132		0.0132	0.0132	0.0000	735.5182	735.5182	0.2290	0.0000	740.3267
Total	**0.1276**	**2.6477**	**4.9516**	**8.0500e-003**	**1.4943**	**0.0132**	**1.5074**	**0.6196**	**0.0132**	**0.6328**	**0.0000**	**735.5182**	**735.5182**	**0.2290**	**0.0000**	**740.3267**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-003	0.0130	0.1228	2.5000e-004	6.6000e-003	1.4000e-004	6.7400e-003	2.0500e-003	1.3000e-004	2.1800e-003	0.0000	16.9868	16.9868	9.9000e-004	0.0000	17.0075
Total	**9.0000e-003**	**0.0130**	**0.1228**	**2.5000e-004**	**6.6000e-003**	**1.4000e-004**	**6.7400e-003**	**2.0500e-003**	**1.3000e-004**	**2.1800e-003**	**0.0000**	**16.9868**	**16.9868**	**9.9000e-004**	**0.0000**	**17.0075**

3.3 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.0331	0.0000	4.0331	1.6724	0.0000	1.6724	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.6383	7.0728	5.2577	8.0500e-003		0.3269	0.3269		0.3007	0.3007	0.0000	723.5036	723.5036	0.2289	0.0000	728.3107
Total	**0.6383**	**7.0728**	**5.2577**	**8.0500e-003**	**4.0331**	**0.3269**	**4.3600**	**1.6724**	**0.3007**	**1.9731**	**0.0000**	**723.5036**	**723.5036**	**0.2289**	**0.0000**	**728.3107**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.2700e-003	0.0120	0.1136	2.5000e-004	0.0216	1.4000e-004	0.0217	5.7300e-003	1.3000e-004	5.8500e-003	0.0000	16.3490	16.3490	9.3000e-004	0.0000	16.3686
Total	**8.2700e-003**	**0.0120**	**0.1136**	**2.5000e-004**	**0.0216**	**1.4000e-004**	**0.0217**	**5.7300e-003**	**1.3000e-004**	**5.8500e-003**	**0.0000**	**16.3490**	**16.3490**	**9.3000e-004**	**0.0000**	**16.3686**

3.3 Grading - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.4943	0.0000	1.4943	0.6196	0.0000	0.6196	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1276	2.6477	4.9516	8.0500e-003		0.0132	0.0132		0.0132	0.0132	0.0000	723.5028	723.5028	0.2289	0.0000	728.3098
Total	**0.1276**	**2.6477**	**4.9516**	**8.0500e-003**	**1.4943**	**0.0132**	**1.5074**	**0.6196**	**0.0132**	**0.6328**	**0.0000**	**723.5028**	**723.5028**	**0.2289**	**0.0000**	**728.3098**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.2700e-003	0.0120	0.1136	2.5000e-004	6.6000e-003	1.4000e-004	6.7400e-003	2.0500e-003	1.3000e-004	2.1800e-003	0.0000	16.3490	16.3490	9.3000e-004	0.0000	16.3686
Total	**8.2700e-003**	**0.0120**	**0.1136**	**2.5000e-004**	**6.6000e-003**	**1.4000e-004**	**6.7400e-003**	**2.0500e-003**	**1.3000e-004**	**2.1800e-003**	**0.0000**	**16.3490**	**16.3490**	**9.3000e-004**	**0.0000**	**16.3686**

3.3 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.0331	0.0000	4.0331	1.6724	0.0000	1.6724	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3617	3.9260	3.0548	4.9100e-003		0.1798	0.1798		0.1654	0.1654	0.0000	431.1195	431.1195	0.1394	0.0000	434.0475
Total	**0.3617**	**3.9260**	**3.0548**	**4.9100e-003**	**4.0331**	**0.1798**	**4.2129**	**1.6724**	**0.1654**	**1.8378**	**0.0000**	**431.1195**	**431.1195**	**0.1394**	**0.0000**	**434.0475**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.7000e-003	6.8700e-003	0.0647	1.5000e-004	0.0131	8.0000e-005	0.0132	3.4900e-003	8.0000e-005	3.5700e-003	0.0000	9.5554	9.5554	5.4000e-004	0.0000	9.5668
Total	**4.7000e-003**	**6.8700e-003**	**0.0647**	**1.5000e-004**	**0.0131**	**8.0000e-005**	**0.0132**	**3.4900e-003**	**8.0000e-005**	**3.5700e-003**	**0.0000**	**9.5554**	**9.5554**	**5.4000e-004**	**0.0000**	**9.5668**

3.3 Grading - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.4943	0.0000	1.4943	0.6196	0.0000	0.6196	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0778	1.6129	3.0165	4.9100e-003		8.0200e-003	8.0200e-003		8.0200e-003	8.0200e-003	0.0000	431.1189	431.1189	0.1394	0.0000	434.0470
Total	**0.0778**	**1.6129**	**3.0165**	**4.9100e-003**	**1.4943**	**8.0200e-003**	**1.5023**	**0.6196**	**8.0200e-003**	**0.6276**	**0.0000**	**431.1189**	**431.1189**	**0.1394**	**0.0000**	**434.0470**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.7000e-003	6.8700e-003	0.0647	1.5000e-004	4.0200e-003	8.0000e-005	4.1100e-003	1.2500e-003	8.0000e-005	1.3300e-003	0.0000	9.5554	9.5554	5.4000e-004	0.0000	9.5668
Total	**4.7000e-003**	**6.8700e-003**	**0.0647**	**1.5000e-004**	**4.0200e-003**	**8.0000e-005**	**4.1100e-003**	**1.2500e-003**	**8.0000e-005**	**1.3300e-003**	**0.0000**	**9.5554**	**9.5554**	**5.4000e-004**	**0.0000**	**9.5668**

3.4 Utilities - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1001	0.8908	0.5863	1.6300e-003		0.0403	0.0403		0.0373	0.0373	0.0000	141.2338	141.2338	0.0443	0.0000	142.1646
Total	**0.1001**	**0.8908**	**0.5863**	**1.6300e-003**		**0.0403**	**0.0403**		**0.0373**	**0.0373**	**0.0000**	**141.2338**	**141.2338**	**0.0443**	**0.0000**	**142.1646**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2800e-003	3.3400e-003	0.0314	7.0000e-005	6.3900e-003	4.0000e-005	6.4300e-003	1.7000e-003	4.0000e-005	1.7300e-003	0.0000	4.6425	4.6425	2.6000e-004	0.0000	4.6480
Total	**2.2800e-003**	**3.3400e-003**	**0.0314**	**7.0000e-005**	**6.3900e-003**	**4.0000e-005**	**6.4300e-003**	**1.7000e-003**	**4.0000e-005**	**1.7300e-003**	**0.0000**	**4.6425**	**4.6425**	**2.6000e-004**	**0.0000**	**4.6480**

3.4 Utilities - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0271	0.4746	0.8872	1.6300e-003		3.6900e-003	3.6900e-003		3.6900e-003	3.6900e-003	0.0000	141.2337	141.2337	0.0443	0.0000	142.1644
Total	**0.0271**	**0.4746**	**0.8872**	**1.6300e-003**		**3.6900e-003**	**3.6900e-003**		**3.6900e-003**	**3.6900e-003**	**0.0000**	**141.2337**	**141.2337**	**0.0443**	**0.0000**	**142.1644**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2800e-003	3.3400e-003	0.0314	7.0000e-005	1.9500e-003	4.0000e-005	1.9900e-003	6.1000e-004	4.0000e-005	6.5000e-004	0.0000	4.6425	4.6425	2.6000e-004	0.0000	4.6480
Total	**2.2800e-003**	**3.3400e-003**	**0.0314**	**7.0000e-005**	**1.9500e-003**	**4.0000e-005**	**1.9900e-003**	**6.1000e-004**	**4.0000e-005**	**6.5000e-004**	**0.0000**	**4.6425**	**4.6425**	**2.6000e-004**	**0.0000**	**4.6480**

3.4 Utilities - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0151	0.1265	0.0928	2.7000e-004		5.7200e-003	5.7200e-003		5.3000e-003	5.3000e-003	0.0000	23.3096	23.3096	7.3000e-003	0.0000	23.4629
Total	**0.0151**	**0.1265**	**0.0928**	**2.7000e-004**		**5.7200e-003**	**5.7200e-003**		**5.3000e-003**	**5.3000e-003**	**0.0000**	**23.3096**	**23.3096**	**7.3000e-003**	**0.0000**	**23.4629**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6000e-004	5.2000e-004	4.9400e-003	1.0000e-005	1.0500e-003	1.0000e-005	1.0600e-003	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	0.7550	0.7550	4.0000e-005	0.0000	0.7558
Total	**3.6000e-004**	**5.2000e-004**	**4.9400e-003**	**1.0000e-005**	**1.0500e-003**	**1.0000e-005**	**1.0600e-003**	**2.8000e-004**	**1.0000e-005**	**2.9000e-004**	**0.0000**	**0.7550**	**0.7550**	**4.0000e-005**	**0.0000**	**0.7558**

3.4 Utilities - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.4700e-003	0.0783	0.1464	2.7000e-004		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	23.3095	23.3095	7.3000e-003	0.0000	23.4629
Total	**4.4700e-003**	**0.0783**	**0.1464**	**2.7000e-004**		**6.1000e-004**	**6.1000e-004**		**6.1000e-004**	**6.1000e-004**	**0.0000**	**23.3095**	**23.3095**	**7.3000e-003**	**0.0000**	**23.4629**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6000e-004	5.2000e-004	4.9400e-003	1.0000e-005	3.2000e-004	1.0000e-005	3.3000e-004	1.0000e-004	1.0000e-005	1.1000e-004	0.0000	0.7550	0.7550	4.0000e-005	0.0000	0.7558
Total	**3.6000e-004**	**5.2000e-004**	**4.9400e-003**	**1.0000e-005**	**3.2000e-004**	**1.0000e-005**	**3.3000e-004**	**1.0000e-004**	**1.0000e-005**	**1.1000e-004**	**0.0000**	**0.7550**	**0.7550**	**4.0000e-005**	**0.0000**	**0.7558**

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1878	1.6091	1.8105	2.6700e-003		0.0959	0.0959		0.0906	0.0906	0.0000	228.4881	228.4881	0.0507	0.0000	229.5524
Total	**0.1878**	**1.6091**	**1.8105**	**2.6700e-003**		**0.0959**	**0.0959**		**0.0906**	**0.0906**	**0.0000**	**228.4881**	**228.4881**	**0.0507**	**0.0000**	**229.5524**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.3168	2.0035	5.0767	8.5000e-003	0.2524	0.0462	0.2986	0.0716	0.0425	0.1141	0.0000	719.1627	719.1627	4.6700e-003	0.0000	719.2607
Worker	0.5386	0.7884	7.4585	0.0184	1.5905	0.0102	1.6008	0.4223	9.4800e-003	0.4317	0.0000	1,139.2090	1,139.2090	0.0638	0.0000	1,140.5484
Total	**0.8554**	**2.7919**	**12.5352**	**0.0269**	**1.8430**	**0.0564**	**1.8993**	**0.4939**	**0.0519**	**0.5458**	**0.0000**	**1,858.3717**	**1,858.3717**	**0.0685**	**0.0000**	**1,859.8092**

3.5 Building Construction - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0550	1.1686	1.8527	2.6700e-003		9.3100e-003	9.3100e-003		9.3100e-003	9.3100e-003	0.0000	228.4878	228.4878	0.0507	0.0000	229.5521
Total	**0.0550**	**1.1686**	**1.8527**	**2.6700e-003**		**9.3100e-003**	**9.3100e-003**		**9.3100e-003**	**9.3100e-003**	**0.0000**	**228.4878**	**228.4878**	**0.0507**	**0.0000**	**229.5521**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.3168	2.0035	5.0767	8.5000e-003	0.1043	0.0462	0.1505	0.0353	0.0425	0.0777	0.0000	719.1627	719.1627	4.6700e-003	0.0000	719.2607
Worker	0.5386	0.7884	7.4585	0.0184	0.4867	0.0102	0.4969	0.1513	9.4800e-003	0.1608	0.0000	1,139.2090	1,139.2090	0.0638	0.0000	1,140.5484
Total	**0.8554**	**2.7919**	**12.5352**	**0.0269**	**0.5910**	**0.0564**	**0.6473**	**0.1866**	**0.0519**	**0.2385**	**0.0000**	**1,858.3717**	**1,858.3717**	**0.0685**	**0.0000**	**1,859.8092**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1794	1.5541	1.9120	2.8500e-003		0.0854	0.0854		0.0808	0.0808	0.0000	243.5759	243.5759	0.0535	0.0000	244.6997
Total	**0.1794**	**1.5541**	**1.9120**	**2.8500e-003**		**0.0854**	**0.0854**		**0.0808**	**0.0808**	**0.0000**	**243.5759**	**243.5759**	**0.0535**	**0.0000**	**244.6997**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.3277	1.9203	5.3137	9.0500e-003	0.2689	0.0484	0.3173	0.0763	0.0445	0.1208	0.0000	765.3455	765.3455	5.0700e-003	0.0000	765.4519
Worker	0.5476	0.8064	7.5718	0.0196	1.6948	0.0109	1.7058	0.4500	0.0101	0.4601	0.0000	1,196.0532	1,196.0532	0.0661	0.0000	1,197.4405
Total	**0.8753**	**2.7266**	**12.8855**	**0.0286**	**1.9638**	**0.0593**	**2.0231**	**0.5263**	**0.0547**	**0.5809**	**0.0000**	**1,961.3987**	**1,961.3987**	**0.0711**	**0.0000**	**1,962.8924**

3.5 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0586	1.2452	1.9742	2.8500e-003		9.9200e-003	9.9200e-003		9.9200e-003	9.9200e-003	0.0000	243.5756	243.5756	0.0535	0.0000	244.6995
Total	**0.0586**	**1.2452**	**1.9742**	**2.8500e-003**		**9.9200e-003**	**9.9200e-003**		**9.9200e-003**	**9.9200e-003**	**0.0000**	**243.5756**	**243.5756**	**0.0535**	**0.0000**	**244.6995**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.3277	1.9203	5.3137	9.0500e-003	0.1111	0.0484	0.1595	0.0376	0.0445	0.0821	0.0000	765.3455	765.3455	5.0700e-003	0.0000	765.4519
Worker	0.5476	0.8064	7.5718	0.0196	0.5186	0.0109	0.5295	0.1612	0.0101	0.1714	0.0000	1,196.0532	1,196.0532	0.0661	0.0000	1,197.4405
Total	**0.8753**	**2.7266**	**12.8855**	**0.0286**	**0.6297**	**0.0593**	**0.6890**	**0.1988**	**0.0547**	**0.2535**	**0.0000**	**1,961.3987**	**1,961.3987**	**0.0711**	**0.0000**	**1,962.8924**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1645	1.4360	1.9031	2.8500e-003		0.0728	0.0728		0.0689	0.0689	0.0000	243.6804	243.6804	0.0530	0.0000	244.7941
Total	**0.1645**	**1.4360**	**1.9031**	**2.8500e-003**		**0.0728**	**0.0728**		**0.0689**	**0.0689**	**0.0000**	**243.6804**	**243.6804**	**0.0530**	**0.0000**	**244.7941**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.3062	1.6921	5.1138	9.0200e-003	0.2689	0.0464	0.3153	0.0763	0.0427	0.1190	0.0000	763.4236	763.4236	4.7700e-003	0.0000	763.5237
Worker	0.5244	0.7782	7.2384	0.0196	1.6948	0.0110	1.7058	0.4500	0.0102	0.4601	0.0000	1,180.1827	1,180.1827	0.0644	0.0000	1,181.5358
Total	**0.8306**	**2.4703**	**12.3522**	**0.0286**	**1.9637**	**0.0574**	**2.0211**	**0.5262**	**0.0529**	**0.5791**	**0.0000**	**1,943.6062**	**1,943.6062**	**0.0692**	**0.0000**	**1,945.0595**

3.5 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0586	1.2452	1.9742	2.8500e-003		9.9200e-003	9.9200e-003		9.9200e-003	9.9200e-003	0.0000	243.6801	243.6801	0.0530	0.0000	244.7938
Total	**0.0586**	**1.2452**	**1.9742**	**2.8500e-003**		**9.9200e-003**	**9.9200e-003**		**9.9200e-003**	**9.9200e-003**	**0.0000**	**243.6801**	**243.6801**	**0.0530**	**0.0000**	**244.7938**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.3062	1.6921	5.1138	9.0200e-003	0.1110	0.0464	0.1574	0.0376	0.0427	0.0803	0.0000	763.4236	763.4236	4.7700e-003	0.0000	763.5237
Worker	0.5244	0.7782	7.2384	0.0196	0.5186	0.0110	0.5296	0.1612	0.0102	0.1714	0.0000	1,180.1827	1,180.1827	0.0644	0.0000	1,181.5358
Total	**0.8306**	**2.4703**	**12.3522**	**0.0286**	**0.6296**	**0.0574**	**0.6870**	**0.1988**	**0.0529**	**0.2517**	**0.0000**	**1,943.6062**	**1,943.6062**	**0.0692**	**0.0000**	**1,945.0595**

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1548	1.3595	1.9144	2.8700e-003		0.0636	0.0636		0.0602	0.0602	0.0000	245.6142	245.6142	0.0530	0.0000	246.7278
Total	**0.1548**	**1.3595**	**1.9144**	**2.8700e-003**		**0.0636**	**0.0636**		**0.0602**	**0.0602**	**0.0000**	**245.6142**	**245.6142**	**0.0530**	**0.0000**	**246.7278**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.3029	1.6953	5.0558	9.1100e-003	0.2709	0.0461	0.3170	0.0769	0.0424	0.1193	0.0000	771.4146	771.4146	4.8900e-003	0.0000	771.5173
Worker	0.5129	0.7641	7.1400	0.0200	1.7079	0.0114	1.7193	0.4534	0.0106	0.4640	0.0000	1,189.3351	1,189.3351	0.0650	0.0000	1,190.6998
Total	**0.8158**	**2.4594**	**12.1957**	**0.0291**	**1.9787**	**0.0575**	**2.0363**	**0.5303**	**0.0530**	**0.5833**	**0.0000**	**1,960.7496**	**1,960.7496**	**0.0699**	**0.0000**	**1,962.2171**

3.5 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0591	1.2548	1.9893	2.8700e-003		0.0100	0.0100		0.0100	0.0100	0.0000	245.6139	245.6139	0.0530	0.0000	246.7275
Total	**0.0591**	**1.2548**	**1.9893**	**2.8700e-003**		**0.0100**	**0.0100**		**0.0100**	**0.0100**	**0.0000**	**245.6139**	**245.6139**	**0.0530**	**0.0000**	**246.7275**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.3029	1.6953	5.0558	9.1100e-003	0.1118	0.0461	0.1580	0.0378	0.0424	0.0803	0.0000	771.4146	771.4146	4.8900e-003	0.0000	771.5173
Worker	0.5129	0.7641	7.1400	0.0200	0.5226	0.0114	0.5340	0.1625	0.0106	0.1731	0.0000	1,189.3351	1,189.3351	0.0650	0.0000	1,190.6998
Total	**0.8158**	**2.4594**	**12.1957**	**0.0291**	**0.6344**	**0.0575**	**0.6919**	**0.2003**	**0.0530**	**0.2533**	**0.0000**	**1,960.7496**	**1,960.7496**	**0.0699**	**0.0000**	**1,962.2171**

3.5 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1427	1.2656	1.9008	2.8600e-003		0.0535	0.0535		0.0506	0.0506	0.0000	244.7666	244.7666	0.0524	0.0000	245.8674
Total	**0.1427**	**1.2656**	**1.9008**	**2.8600e-003**		**0.0535**	**0.0535**		**0.0506**	**0.0506**	**0.0000**	**244.7666**	**244.7666**	**0.0524**	**0.0000**	**245.8674**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.2960	1.6758	4.9832	9.0800e-003	0.2698	0.0461	0.3159	0.0765	0.0424	0.1189	0.0000	768.2490	768.2490	4.8800e-003	0.0000	768.3515
Worker	0.4965	0.7430	6.9221	0.0199	1.7014	0.0115	1.7128	0.4517	0.0106	0.4623	0.0000	1,172.7496	1,172.7496	0.0636	0.0000	1,174.0858
Total	**0.7925**	**2.4188**	**11.9053**	**0.0290**	**1.9712**	**0.0575**	**2.0287**	**0.5282**	**0.0530**	**0.5813**	**0.0000**	**1,940.9985**	**1,940.9985**	**0.0685**	**0.0000**	**1,942.4373**

3.5 Building Construction - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0588	1.2500	1.9818	2.8600e-003		9.9600e-003	9.9600e-003		9.9600e-003	9.9600e-003	0.0000	244.7663	244.7663	0.0524	0.0000	245.8671
Total	**0.0588**	**1.2500**	**1.9818**	**2.8600e-003**		**9.9600e-003**	**9.9600e-003**		**9.9600e-003**	**9.9600e-003**	**0.0000**	**244.7663**	**244.7663**	**0.0524**	**0.0000**	**245.8671**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.2960	1.6758	4.9832	9.0800e-003	0.1114	0.0461	0.1575	0.0377	0.0424	0.0801	0.0000	768.2490	768.2490	4.8800e-003	0.0000	768.3515
Worker	0.4965	0.7430	6.9221	0.0199	0.5206	0.0115	0.5320	0.1619	0.0106	0.1725	0.0000	1,172.7496	1,172.7496	0.0636	0.0000	1,174.0858
Total	**0.7925**	**2.4188**	**11.9053**	**0.0290**	**0.6319**	**0.0575**	**0.6895**	**0.1995**	**0.0530**	**0.2525**	**0.0000**	**1,940.9985**	**1,940.9985**	**0.0685**	**0.0000**	**1,942.4373**

3.5 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1427	1.2656	1.9008	2.8600e-003		0.0535	0.0535		0.0506	0.0506	0.0000	244.7666	244.7666	0.0524	0.0000	245.8674
Total	**0.1427**	**1.2656**	**1.9008**	**2.8600e-003**		**0.0535**	**0.0535**		**0.0506**	**0.0506**	**0.0000**	**244.7666**	**244.7666**	**0.0524**	**0.0000**	**245.8674**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.2909	1.6545	4.9166	9.0700e-003	0.2698	0.0456	0.3154	0.0765	0.0419	0.1185	0.0000	768.1905	768.1905	4.8500e-003	0.0000	768.2923
Worker	0.4868	0.7318	6.7843	0.0199	1.7014	0.0116	1.7129	0.4517	0.0107	0.4624	0.0000	1,162.7259	1,162.7259	0.0629	0.0000	1,164.0467
Total	**0.7777**	**2.3863**	**11.7009**	**0.0290**	**1.9712**	**0.0571**	**2.0283**	**0.5282**	**0.0527**	**0.5809**	**0.0000**	**1,930.9164**	**1,930.9164**	**0.0677**	**0.0000**	**1,932.3390**

3.5 Building Construction - 2026

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0588	1.2500	1.9818	2.8600e-003		9.9600e-003	9.9600e-003		9.9600e-003	9.9600e-003	0.0000	244.7663	244.7663	0.0524	0.0000	245.8671
Total	**0.0588**	**1.2500**	**1.9818**	**2.8600e-003**		**9.9600e-003**	**9.9600e-003**		**9.9600e-003**	**9.9600e-003**	**0.0000**	**244.7663**	**244.7663**	**0.0524**	**0.0000**	**245.8671**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.2909	1.6545	4.9166	9.0700e-003	0.1114	0.0456	0.1569	0.0377	0.0419	0.0796	0.0000	768.1905	768.1905	4.8500e-003	0.0000	768.2923
Worker	0.4868	0.7318	6.7843	0.0199	0.5206	0.0116	0.5321	0.1619	0.0107	0.1726	0.0000	1,162.7259	1,162.7259	0.0629	0.0000	1,164.0467
Total	**0.7777**	**2.3863**	**11.7009**	**0.0290**	**0.6319**	**0.0571**	**0.6891**	**0.1995**	**0.0527**	**0.2522**	**0.0000**	**1,930.9164**	**1,930.9164**	**0.0677**	**0.0000**	**1,932.3390**

3.5 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1427	1.2656	1.9008	2.8600e-003		0.0535	0.0535		0.0506	0.0506	0.0000	244.7666	244.7666	0.0524	0.0000	245.8674
Total	**0.1427**	**1.2656**	**1.9008**	**2.8600e-003**		**0.0535**	**0.0535**		**0.0506**	**0.0506**	**0.0000**	**244.7666**	**244.7666**	**0.0524**	**0.0000**	**245.8674**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.2882	1.6440	4.8701	9.0700e-003	0.2698	0.0456	0.3154	0.0765	0.0420	0.1185	0.0000	768.1880	768.1880	4.8500e-003	0.0000	768.2899
Worker	0.4783	0.7215	6.6801	0.0199	1.7014	0.0117	1.7130	0.4517	0.0108	0.4625	0.0000	1,154.1451	1,154.1451	0.0622	0.0000	1,155.4516
Total	**0.7665**	**2.3655**	**11.5502**	**0.0290**	**1.9712**	**0.0573**	**2.0285**	**0.5282**	**0.0528**	**0.5810**	**0.0000**	**1,922.3330**	**1,922.3330**	**0.0671**	**0.0000**	**1,923.7415**

3.5 Building Construction - 2027

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0588	1.2500	1.9818	2.8600e-003		9.9600e-003	9.9600e-003		9.9600e-003	9.9600e-003	0.0000	244.7663	244.7663	0.0524	0.0000	245.8671
Total	**0.0588**	**1.2500**	**1.9818**	**2.8600e-003**		**9.9600e-003**	**9.9600e-003**		**9.9600e-003**	**9.9600e-003**	**0.0000**	**244.7663**	**244.7663**	**0.0524**	**0.0000**	**245.8671**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.2882	1.6440	4.8701	9.0700e-003	0.1114	0.0456	0.1570	0.0377	0.0420	0.0796	0.0000	768.1880	768.1880	4.8500e-003	0.0000	768.2899
Worker	0.4783	0.7215	6.6801	0.0199	0.5206	0.0117	0.5322	0.1619	0.0108	0.1727	0.0000	1,154.1451	1,154.1451	0.0622	0.0000	1,155.4516
Total	**0.7665**	**2.3655**	**11.5502**	**0.0290**	**0.6319**	**0.0573**	**0.6892**	**0.1995**	**0.0528**	**0.2523**	**0.0000**	**1,922.3330**	**1,922.3330**	**0.0671**	**0.0000**	**1,923.7415**

3.5 Building Construction - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1422	1.2607	1.8935	2.8500e-003		0.0533	0.0533		0.0504	0.0504	0.0000	243.8287	243.8287	0.0522	0.0000	244.9254
Total	**0.1422**	**1.2607**	**1.8935**	**2.8500e-003**		**0.0533**	**0.0533**		**0.0504**	**0.0504**	**0.0000**	**243.8287**	**243.8287**	**0.0522**	**0.0000**	**244.9254**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.2851	1.6282	4.8298	9.0400e-003	0.2688	0.0454	0.3141	0.0762	0.0418	0.1180	0.0000	765.1922	765.1922	4.8300e-003	0.0000	765.2936
Worker	0.4684	0.7081	6.5502	0.0198	1.6948	0.0117	1.7066	0.4500	0.0109	0.4608	0.0000	1,142.4903	1,142.4903	0.0613	0.0000	1,143.7777
Total	**0.7535**	**2.3363**	**11.3800**	**0.0289**	**1.9636**	**0.0571**	**2.0207**	**0.5262**	**0.0526**	**0.5788**	**0.0000**	**1,907.6825**	**1,907.6825**	**0.0661**	**0.0000**	**1,909.0713**

3.5 Building Construction - 2028

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0586	1.2452	1.9742	2.8500e-003		9.9200e-003	9.9200e-003		9.9200e-003	9.9200e-003	0.0000	243.8285	243.8285	0.0522	0.0000	244.9251
Total	**0.0586**	**1.2452**	**1.9742**	**2.8500e-003**		**9.9200e-003**	**9.9200e-003**		**9.9200e-003**	**9.9200e-003**	**0.0000**	**243.8285**	**243.8285**	**0.0522**	**0.0000**	**244.9251**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.2851	1.6282	4.8298	9.0400e-003	0.1109	0.0454	0.1563	0.0375	0.0418	0.0793	0.0000	765.1922	765.1922	4.8300e-003	0.0000	765.2936
Worker	0.4684	0.7081	6.5502	0.0198	0.5186	0.0117	0.5303	0.1612	0.0109	0.1721	0.0000	1,142.4903	1,142.4903	0.0613	0.0000	1,143.7777
Total	**0.7535**	**2.3363**	**11.3800**	**0.0289**	**0.6295**	**0.0571**	**0.6866**	**0.1987**	**0.0526**	**0.2514**	**0.0000**	**1,907.6825**	**1,907.6825**	**0.0661**	**0.0000**	**1,909.0713**

3.5 Building Construction - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0104	0.0921	0.1384	2.1000e-004		3.8900e-003	3.8900e-003		3.6800e-003	3.6800e-003	0.0000	17.8183	17.8183	3.8200e-003	0.0000	17.8984
Total	**0.0104**	**0.0921**	**0.1384**	**2.1000e-004**		**3.8900e-003**	**3.8900e-003**		**3.6800e-003**	**3.6800e-003**	**0.0000**	**17.8183**	**17.8183**	**3.8200e-003**	**0.0000**	**17.8984**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0207	0.1184	0.3510	6.6000e-004	0.0196	3.3200e-003	0.0230	5.5700e-003	3.0500e-003	8.6200e-003	0.0000	55.9121	55.9121	3.5000e-004	0.0000	55.9195
Worker	0.0337	0.0510	0.4712	1.4500e-003	0.1239	8.6000e-004	0.1247	0.0329	8.0000e-004	0.0337	0.0000	83.0425	83.0425	4.4300e-003	0.0000	83.1356
Total	**0.0544**	**0.1694**	**0.8223**	**2.1100e-003**	**0.1435**	**4.1800e-003**	**0.1477**	**0.0385**	**3.8500e-003**	**0.0423**	**0.0000**	**138.9546**	**138.9546**	**4.7800e-003**	**0.0000**	**139.0551**

3.5 Building Construction - 2029

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.2800e-003	0.0910	0.1443	2.1000e-004		7.3000e-004	7.3000e-004		7.3000e-004	7.3000e-004	0.0000	17.8182	17.8182	3.8200e-003	0.0000	17.8984
Total	**4.2800e-003**	**0.0910**	**0.1443**	**2.1000e-004**		**7.3000e-004**	**7.3000e-004**		**7.3000e-004**	**7.3000e-004**	**0.0000**	**17.8182**	**17.8182**	**3.8200e-003**	**0.0000**	**17.8984**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0207	0.1184	0.3510	6.6000e-004	8.1100e-003	3.3200e-003	0.0114	2.7400e-003	3.0500e-003	5.7900e-003	0.0000	55.9121	55.9121	3.5000e-004	0.0000	55.9195
Worker	0.0337	0.0510	0.4712	1.4500e-003	0.0379	8.6000e-004	0.0388	0.0118	8.0000e-004	0.0126	0.0000	83.0425	83.0425	4.4300e-003	0.0000	83.1356
Total	**0.0544**	**0.1694**	**0.8223**	**2.1100e-003**	**0.0460**	**4.1800e-003**	**0.0502**	**0.0145**	**3.8500e-003**	**0.0184**	**0.0000**	**138.9546**	**138.9546**	**4.7800e-003**	**0.0000**	**139.0551**

3.6 Architectural Coating - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	29.5221					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0205	0.1375	0.2171	3.6000e-004		6.1800e-003	6.1800e-003		6.1800e-003	6.1800e-003	0.0000	30.6390	30.6390	1.6700e-003	0.0000	30.6741
Total	**29.5426**	**0.1375**	**0.2171**	**3.6000e-004**		**6.1800e-003**	**6.1800e-003**		**6.1800e-003**	**6.1800e-003**	**0.0000**	**30.6390**	**30.6390**	**1.6700e-003**	**0.0000**	**30.6741**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0879	0.1325	1.2270	3.6500e-003	0.3125	2.1400e-003	0.3146	0.0830	1.9900e-003	0.0850	0.0000	211.9874	211.9874	0.0114	0.0000	212.2274
Total	**0.0879**	**0.1325**	**1.2270**	**3.6500e-003**	**0.3125**	**2.1400e-003**	**0.3146**	**0.0830**	**1.9900e-003**	**0.0850**	**0.0000**	**211.9874**	**211.9874**	**0.0114**	**0.0000**	**212.2274**

3.6 Architectural Coating - 2027

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	29.5221					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.5400e-003	0.1272	0.2199	3.6000e-004		4.8000e-004	4.8000e-004		4.8000e-004	4.8000e-004	0.0000	30.6390	30.6390	1.6700e-003	0.0000	30.6741
Total	**29.5286**	**0.1272**	**0.2199**	**3.6000e-004**		**4.8000e-004**	**4.8000e-004**		**4.8000e-004**	**4.8000e-004**	**0.0000**	**30.6390**	**30.6390**	**1.6700e-003**	**0.0000**	**30.6741**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0879	0.1325	1.2270	3.6500e-003	0.0956	2.1400e-003	0.0978	0.0297	1.9900e-003	0.0317	0.0000	211.9874	211.9874	0.0114	0.0000	212.2274
Total	**0.0879**	**0.1325**	**1.2270**	**3.6500e-003**	**0.0956**	**2.1400e-003**	**0.0978**	**0.0297**	**1.9900e-003**	**0.0317**	**0.0000**	**211.9874**	**211.9874**	**0.0114**	**0.0000**	**212.2274**

3.6 Architectural Coating - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	31.9823					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0222	0.1489	0.2352	3.9000e-004		6.7000e-003	6.7000e-003		6.7000e-003	6.7000e-003	0.0000	33.1923	33.1923	1.8100e-003	0.0000	33.2303
Total	**32.0045**	**0.1489**	**0.2352**	**3.9000e-004**		**6.7000e-003**	**6.7000e-003**		**6.7000e-003**	**6.7000e-003**	**0.0000**	**33.1923**	**33.1923**	**1.8100e-003**	**0.0000**	**33.2303**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0936	0.1414	1.3084	3.9600e-003	0.3385	2.3400e-003	0.3409	0.0899	2.1700e-003	0.0921	0.0000	228.2083	228.2083	0.0123	0.0000	228.4654
Total	**0.0936**	**0.1414**	**1.3084**	**3.9600e-003**	**0.3385**	**2.3400e-003**	**0.3409**	**0.0899**	**2.1700e-003**	**0.0921**	**0.0000**	**228.2083**	**228.2083**	**0.0123**	**0.0000**	**228.4654**

3.6 Architectural Coating - 2028

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	31.9823					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.0800e-003	0.1378	0.2382	3.9000e-004		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	33.1923	33.1923	1.8100e-003	0.0000	33.2303
Total	**31.9893**	**0.1378**	**0.2382**	**3.9000e-004**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**33.1923**	**33.1923**	**1.8100e-003**	**0.0000**	**33.2303**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0936	0.1414	1.3084	3.9600e-003	0.1036	2.3400e-003	0.1059	0.0322	2.1700e-003	0.0344	0.0000	228.2083	228.2083	0.0123	0.0000	228.4654
Total	**0.0936**	**0.1414**	**1.3084**	**3.9600e-003**	**0.1036**	**2.3400e-003**	**0.1059**	**0.0322**	**2.1700e-003**	**0.0344**	**0.0000**	**228.2083**	**228.2083**	**0.0123**	**0.0000**	**228.4654**

3.6 Architectural Coating - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	19.6814					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0137	0.0916	0.1447	2.4000e-004		4.1200e-003	4.1200e-003		4.1200e-003	4.1200e-003	0.0000	20.4260	20.4260	1.1100e-003	0.0000	20.4494
Total	**19.6951**	**0.0916**	**0.1447**	**2.4000e-004**		**4.1200e-003**	**4.1200e-003**		**4.1200e-003**	**4.1200e-003**	**0.0000**	**20.4260**	**20.4260**	**1.1100e-003**	**0.0000**	**20.4494**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0566	0.0858	0.7927	2.4400e-003	0.2083	1.4500e-003	0.2098	0.0553	1.3500e-003	0.0567	0.0000	139.6837	139.6837	7.4500e-003	0.0000	139.8402
Total	**0.0566**	**0.0858**	**0.7927**	**2.4400e-003**	**0.2083**	**1.4500e-003**	**0.2098**	**0.0553**	**1.3500e-003**	**0.0567**	**0.0000**	**139.6837**	**139.6837**	**7.4500e-003**	**0.0000**	**139.8402**

3.6 Architectural Coating - 2029

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	19.6814					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3600e-003	0.0848	0.1466	2.4000e-004		3.2000e-004	3.2000e-004		3.2000e-004	3.2000e-004	0.0000	20.4260	20.4260	1.1100e-003	0.0000	20.4494
Total	**19.6858**	**0.0848**	**0.1466**	**2.4000e-004**		**3.2000e-004**	**3.2000e-004**		**3.2000e-004**	**3.2000e-004**	**0.0000**	**20.4260**	**20.4260**	**1.1100e-003**	**0.0000**	**20.4494**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0566	0.0858	0.7927	2.4400e-003	0.0637	1.4500e-003	0.0652	0.0198	1.3500e-003	0.0212	0.0000	139.6837	139.6837	7.4500e-003	0.0000	139.8402
Total	**0.0566**	**0.0858**	**0.7927**	**2.4400e-003**	**0.0637**	**1.4500e-003**	**0.0652**	**0.0198**	**1.3500e-003**	**0.0212**	**0.0000**	**139.6837**	**139.6837**	**7.4500e-003**	**0.0000**	**139.8402**

3.7 Paving - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0749	0.7032	1.1922	1.8600e-003		0.0343	0.0343		0.0316	0.0316	0.0000	163.6044	163.6044	0.0529	0.0000	164.7156
Paving	0.0536					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1286**	**0.7032**	**1.1922**	**1.8600e-003**		**0.0343**	**0.0343**		**0.0316**	**0.0316**	**0.0000**	**163.6044**	**163.6044**	**0.0529**	**0.0000**	**164.7156**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.9100e-003	4.3900e-003	0.0407	1.2000e-004	0.0104	7.0000e-005	0.0104	2.7500e-003	7.0000e-005	2.8100e-003	0.0000	7.0242	7.0242	3.8000e-004	0.0000	7.0321
Total	**2.9100e-003**	**4.3900e-003**	**0.0407**	**1.2000e-004**	**0.0104**	**7.0000e-005**	**0.0104**	**2.7500e-003**	**7.0000e-005**	**2.8100e-003**	**0.0000**	**7.0242**	**7.0242**	**3.8000e-004**	**0.0000**	**7.0321**

3.7 Paving - 2027

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0274	0.8204	1.4135	1.8600e-003		3.0600e-003	3.0600e-003		3.0600e-003	3.0600e-003	0.0000	163.6042	163.6042	0.0529	0.0000	164.7154
Paving	0.0536					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0810**	**0.8204**	**1.4135**	**1.8600e-003**		**3.0600e-003**	**3.0600e-003**		**3.0600e-003**	**3.0600e-003**	**0.0000**	**163.6042**	**163.6042**	**0.0529**	**0.0000**	**164.7154**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.9100e-003	4.3900e-003	0.0407	1.2000e-004	3.1700e-003	7.0000e-005	3.2400e-003	9.9000e-004	7.0000e-005	1.0500e-003	0.0000	7.0242	7.0242	3.8000e-004	0.0000	7.0321
Total	**2.9100e-003**	**4.3900e-003**	**0.0407**	**1.2000e-004**	**3.1700e-003**	**7.0000e-005**	**3.2400e-003**	**9.9000e-004**	**7.0000e-005**	**1.0500e-003**	**0.0000**	**7.0242**	**7.0242**	**3.8000e-004**	**0.0000**	**7.0321**

3.7 Paving - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1167	1.0948	1.8562	2.9000e-003		0.0534	0.0534		0.0492	0.0492	0.0000	254.7135	254.7135	0.0824	0.0000	256.4435
Paving	0.0835					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.2002**	**1.0948**	**1.8562**	**2.9000e-003**		**0.0534**	**0.0534**		**0.0492**	**0.0492**	**0.0000**	**254.7135**	**254.7135**	**0.0824**	**0.0000**	**256.4435**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4600e-003	6.7300e-003	0.0623	1.9000e-004	0.0161	1.1000e-004	0.0162	4.2800e-003	1.0000e-004	4.3800e-003	0.0000	10.8671	10.8671	5.8000e-004	0.0000	10.8793
Total	**4.4600e-003**	**6.7300e-003**	**0.0623**	**1.9000e-004**	**0.0161**	**1.1000e-004**	**0.0162**	**4.2800e-003**	**1.0000e-004**	**4.3800e-003**	**0.0000**	**10.8671**	**10.8671**	**5.8000e-004**	**0.0000**	**10.8793**

3.7 Paving - 2028

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0427	1.2773	2.2006	2.9000e-003		4.7600e-003	4.7600e-003		4.7600e-003	4.7600e-003	0.0000	254.7132	254.7132	0.0824	0.0000	256.4432
Paving	0.0835					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1262**	**1.2773**	**2.2006**	**2.9000e-003**		**4.7600e-003**	**4.7600e-003**		**4.7600e-003**	**4.7600e-003**	**0.0000**	**254.7132**	**254.7132**	**0.0824**	**0.0000**	**256.4432**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4600e-003	6.7300e-003	0.0623	1.9000e-004	4.9300e-003	1.1000e-004	5.0400e-003	1.5300e-003	1.0000e-004	1.6400e-003	0.0000	10.8671	10.8671	5.8000e-004	0.0000	10.8793
Total	**4.4600e-003**	**6.7300e-003**	**0.0623**	**1.9000e-004**	**4.9300e-003**	**1.1000e-004**	**5.0400e-003**	**1.5300e-003**	**1.0000e-004**	**1.6400e-003**	**0.0000**	**10.8671**	**10.8671**	**5.8000e-004**	**0.0000**	**10.8793**

3.7 Paving - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1045	0.9811	1.6634	2.6000e-003		0.0479	0.0479		0.0440	0.0440	0.0000	228.2625	228.2625	0.0738	0.0000	229.8128
Paving	0.0748					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1794**	**0.9811**	**1.6634**	**2.6000e-003**		**0.0479**	**0.0479**		**0.0440**	**0.0440**	**0.0000**	**228.2625**	**228.2625**	**0.0738**	**0.0000**	**229.8128**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9200e-003	5.9500e-003	0.0550	1.7000e-004	0.0145	1.0000e-004	0.0146	3.8400e-003	9.0000e-005	3.9300e-003	0.0000	9.6864	9.6864	5.2000e-004	0.0000	9.6973
Total	**3.9200e-003**	**5.9500e-003**	**0.0550**	**1.7000e-004**	**0.0145**	**1.0000e-004**	**0.0146**	**3.8400e-003**	**9.0000e-005**	**3.9300e-003**	**0.0000**	**9.6864**	**9.6864**	**5.2000e-004**	**0.0000**	**9.6973**

3.7 Paving - 2029

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0382	1.1447	1.9721	2.6000e-003		4.2600e-003	4.2600e-003		4.2600e-003	4.2600e-003	0.0000	228.2622	228.2622	0.0738	0.0000	229.8125
Paving	0.0748					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1131**	**1.1447**	**1.9721**	**2.6000e-003**		**4.2600e-003**	**4.2600e-003**		**4.2600e-003**	**4.2600e-003**	**0.0000**	**228.2622**	**228.2622**	**0.0738**	**0.0000**	**229.8125**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9200e-003	5.9500e-003	0.0550	1.7000e-004	4.4200e-003	1.0000e-004	4.5200e-003	1.3700e-003	9.0000e-005	1.4700e-003	0.0000	9.6864	9.6864	5.2000e-004	0.0000	9.6973
Total	**3.9200e-003**	**5.9500e-003**	**0.0550**	**1.7000e-004**	**4.4200e-003**	**1.0000e-004**	**4.5200e-003**	**1.3700e-003**	**9.0000e-005**	**1.4700e-003**	**0.0000**	**9.6864**	**9.6864**	**5.2000e-004**	**0.0000**	**9.6973**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Improve Walkability Design

Improve Destination Accessibility

Improve Pedestrian Network

Provide Traffic Calming Measures

Implement NEV Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	15.6429	28.2458	159.6617	0.3215	20.5545	0.6033	21.1578	5.4895	0.5563	6.0458	0.0000	21,165.5569	21,165.5569	0.7817	0.0000	21,181.9734
Unmitigated	16.1537	31.3529	172.2053	0.3749	24.2127	0.6966	24.9093	6.4665	0.6423	7.1088	0.0000	24,687.6314	24,687.6314	0.8965	0.0000	24,706.4571

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Condo/Townhouse	14,432.10	15,680.40	13293.30	32,318,460	27,435,685
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Regional Shopping Center	24,396.00	28,188.00	14232.00	31,104,935	26,405,503
Total	38,828.10	43,868.40	27,525.30	63,423,395	53,841,188

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	12.50	4.20	5.40	0.00	0.00	0.00	66	28	6
Condo/Townhouse	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3
Other Asphalt Surfaces	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Parking Lot	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	54	35	11

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.469614	0.066142	0.173873	0.163382	0.035024	0.005630	0.009899	0.067518	0.001256	0.001244	0.003209	0.000474	0.002734

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

Percent of Electricity Use Generated with Renewable Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	6,724.6667	6,724.6667	0.3091	0.0640	6,750.9838
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	9,685.3570	9,685.3570	0.4452	0.0921	9,723.2609
NaturalGas Mitigated	0.2251	1.9308	0.8708	0.0123		0.1555	0.1555		0.1555	0.1555	0.0000	2,227.7788	2,227.7788	0.0427	0.0408	2,241.3367
NaturalGas Unmitigated	0.2583	2.2158	0.9995	0.0141		0.1785	0.1785		0.1785	0.1785	0.0000	2,556.6660	2,556.6660	0.0490	0.0469	2,572.2254

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Condo/Townhouse	4.51261e+007	0.2433	2.0793	0.8848	0.0133		0.1681	0.1681		0.1681	0.1681	0.0000	2,408.1011	2,408.1011	0.0462	0.0442	2,422.7564
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	2.784e+006	0.0150	0.1365	0.1146	8.2000e-004		0.0104	0.0104		0.0104	0.0104	0.0000	148.5648	148.5648	2.8500e-003	2.7200e-003	149.4690
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.2583**	**2.2158**	**0.9995**	**0.0141**		**0.1785**	**0.1785**		**0.1785**	**0.1785**	**0.0000**	**2,556.6660**	**2,556.6660**	**0.0490**	**0.0469**	**2,572.2254**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	2.4204e+006	0.0131	0.1187	0.0997	7.1000e-004		9.0200e-003	9.0200e-003		9.0200e-003	9.0200e-003	0.0000	129.1618	129.1618	2.4800e-003	2.3700e-003	129.9478
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	3.93266e+007	0.2121	1.8121	0.7711	0.0116		0.1465	0.1465		0.1465	0.1465	0.0000	2,098.6170	2,098.6170	0.0402	0.0385	2,111.3889
Total		**0.2251**	**1.9308**	**0.8708**	**0.0123**		**0.1555**	**0.1555**		**0.1555**	**0.1555**	**0.0000**	**2,227.7788**	**2,227.7788**	**0.0427**	**0.0408**	**2,241.3367**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	1.06795e+007	3,056.1293	0.1405	0.0291	3,068.0895
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	4.3736e+006	1,251.5795	0.0575	0.0119	1,256.4776
Regional Shopping Center	1.8792e+007	5,377.6482	0.2472	0.0511	5,398.6937
Total		**9,685.3570**	**0.4452**	**0.0921**	**9,723.2609**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	8.87025e+006	2,538.3713	0.1167	0.0241	2,548.3053
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	2.07746e+006	594.5003	0.0273	5.6500e-003	596.8269
Regional Shopping Center	1.25514e+007	3,591.7951	0.1651	0.0342	3,605.8517
Total		**6,724.6667**	**0.3091**	**0.0640**	**6,750.9838**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

Use only Natural Gas Hearths

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	42.2625	0.1881	16.3527	8.7000e-004		0.2111	0.2111		0.2098	0.2098	0.0000	1,751.7597	1,751.7597	0.0590	0.0316	1,762.8022
Unmitigated	51.9871	0.1881	16.3527	8.7000e-004		0.2111	0.2111		0.2098	0.2098	0.0000	1,751.7597	1,751.7597	0.0590	0.0316	1,762.8022

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	8.1186					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	43.1976					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.1743	1.0000e-005	9.5100e-003	0.0000		0.1204	0.1204		0.1192	0.1192	0.0000	1,724.9531	1,724.9531	0.0331	0.0316	1,735.4509
Landscaping	0.4965	0.1881	16.3432	8.7000e-004		0.0906	0.0906		0.0906	0.0906	0.0000	26.8066	26.8066	0.0259	0.0000	27.3513
Total	**51.9871**	**0.1881**	**16.3527**	**8.7000e-004**		**0.2110**	**0.2110**		**0.2098**	**0.2098**	**0.0000**	**1,751.7597**	**1,751.7597**	**0.0590**	**0.0316**	**1,762.8022**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.6237					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	39.9679					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.1743	1.0000e-005	9.5100e-003	0.0000		0.1204	0.1204		0.1192	0.1192	0.0000	1,724.9531	1,724.9531	0.0331	0.0316	1,735.4509
Landscaping	0.4965	0.1881	16.3432	8.7000e-004		0.0906	0.0906		0.0906	0.0906	0.0000	26.8066	26.8066	0.0259	0.0000	27.3513
Total	**42.2625**	**0.1881**	**16.3527**	**8.7000e-004**		**0.2110**	**0.2110**		**0.2098**	**0.2098**	**0.0000**	**1,751.7597**	**1,751.7597**	**0.0590**	**0.0316**	**1,762.8022**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Use Reclaimed Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Turf Reduction

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1,128.8518	6.0859	0.1527	1,303.9971
Unmitigated	1,441.0141	7.6087	0.1912	1,660.0629

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 14.2978	45.4571	2.0900e-003	4.3000e-004	45.6350
Condo/Townhouse	142.687 / 89.955	862.9420	4.6871	0.1176	997.8138
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	88.887 / 54.4791	532.6150	2.9196	0.0732	616.6141
Total		**1,441.0141**	**7.6087**	**0.1912**	**1,660.0629**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 11.4382	36.3657	1.6700e-003	3.5000e-004	36.5080
Condo/Townhouse	114.15 / 71.964	675.5906	3.7490	0.0939	783.4304
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	71.1096 / 43.5833	416.8955	2.3352	0.0585	484.0587
Total		**1,128.8518**	**6.0859**	**0.1527**	**1,303.9971**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	115.1177	6.8033	0.0000	257.9862
Unmitigated	460.4708	27.2130	0.0000	1,031.9447

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	1.03	0.2091	0.0124	0.0000	0.4686
Condo/Townhouse	1007.4	204.4931	12.0852	0.0000	458.2822
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	1260	255.7686	15.1155	0.0000	573.1940
Total		**460.4708**	**27.2131**	**0.0000**	**1,031.9447**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.2575	0.0523	3.0900e-003	0.0000	0.1171
Condo/Townhouse	251.85	51.1233	3.0213	0.0000	114.5706
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	315	63.9422	3.7789	0.0000	143.2985
Total		**115.1177**	**6.8033**	**0.0000**	**257.9862**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Alternative 2

Salton Sea Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	50.00	Acre	50.00	2,178,000.00	0
Parking Lot	12,425.00	Space	111.82	4,970,000.00	0
City Park	12.00	Acre	12.00	522,720.00	0
Condo/Townhouse	2,190.00	Dwelling Unit	497.00	2,190,000.00	3942
Regional Shopping Center	1,200.00	1000sqft	80.00	1,200,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.4	**Precipitation Freq (Days)**	20
Climate Zone	10			**Operational Year**	2030
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Alternative 2 - City General Plan

Construction Phase - Based on similar combined construction schedule

Off-road Equipment -

Off-road Equipment - Default construction equipment

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Based on Trenching Equipment used for EIR model

Trips and VMT - SCAQMD Building Construction Worker and Vendor Trips

On-road Fugitive Dust - Paved Roads

Grading -

Architectural Coating -

Vehicle Trips - Per Traffic Study

Vechicle Emission Factors -

Vechicle Emission Factors -

Vechicle Emission Factors -

Road Dust - Based on previous EIS model

Woodstoves - No woodstoves

Area Coating -

Construction Off-road Equipment Mitigation - Similar mitigation to EIS model

Mobile Land Use Mitigation -

Area Mitigation - Similar to EIS model

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	50
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	80
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim

tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
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tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	880.00	660.00
tblConstructionPhase	NumDays	12,400.00	2,088.00
tblConstructionPhase	NumDays	1,240.00	930.00
tblConstructionPhase	NumDays	880.00	660.00
tblConstructionPhase	NumDays	480.00	360.00
tblConstructionPhase	PhaseEndDate	8/7/2031	8/10/2029
tblConstructionPhase	PhaseEndDate	2/20/2032	11/21/2029
tblConstructionPhase	PhaseStartDate	1/26/2029	2/1/2027
tblConstructionPhase	PhaseStartDate	8/11/2029	5/13/2027
tblFireplaces	FireplaceWoodMass	457.60	0.00
tblLandUse	LotAcreage	136.88	497.00
tblLandUse	LotAcreage	27.55	80.00
tblLandUse	Population	7,074.00	3,942.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00

tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblProjectCharacteristics	OperationalYear	2014	2030
tblRoadDust	RoadPercentPave	50	100
tblTripsAndVMT	VendorTripNumber	1,688.00	431.00
tblTripsAndVMT	WorkerTripNumber	5,183.00	1,577.00
tblTripsAndVMT	WorkerTripNumber	1,037.00	315.00
tblVehicleTrips	CC_TTP	48.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TTP	33.00	0.00
tblVehicleTrips	ST_TR	1.59	0.00
tblVehicleTrips	ST_TR	49.97	23.49
tblVehicleTrips	SU_TR	1.59	0.00
tblVehicleTrips	SU_TR	25.24	11.86
tblVehicleTrips	WD_TR	1.59	0.00
tblVehicleTrips	WD_TR	42.94	20.33
tblWoodstoves	NumberCatalytic	109.50	0.00
tblWoodstoves	NumberNoncatalytic	109.50	0.00

tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	5.3662	57.0009	43.9183	0.0409	18.2169	3.0893	21.3062	9.9706	2.8422	12.8128	0.0000	4,260.1381	4,260.1381	1.2370	0.0000	4,286.1153
2016	5.1716	54.7328	42.2601	0.0408	18.2169	2.9397	21.1565	9.9706	2.7045	12.6751	0.0000	4,207.6996	4,207.6996	1.2349	0.0000	4,233.6315
2017	6.1938	69.6937	47.9636	0.0637	18.2169	3.3183	20.9720	9.9706	3.0528	12.5054	0.0000	6,465.4477	6,465.4477	1.9434	0.0000	6,506.2581
2018	5.3751	59.6271	43.3598	0.0637	8.8407	2.7891	11.6297	3.6409	2.5660	6.2068	0.0000	6,359.0216	6,359.0216	1.9425	0.0000	6,399.8137
2019	4.9697	54.2840	41.2624	0.0637	8.8407	2.5060	11.3466	3.6409	2.3055	5.9464	0.0000	6,252.0504	6,252.0504	1.9415	0.0000	6,292.8207
2020	4.6231	49.4647	39.3353	0.0637	8.8407	2.2630	11.1037	3.6409	2.0820	5.7228	0.0000	6,112.7409	6,112.7409	1.9408	0.0000	6,153.4984
2021	9.5200	34.9785	120.4940	0.2456	15.2843	1.2466	16.5309	4.0921	1.1668	5.2589	0.0000	19,083.3555	19,083.3555	1.0754	0.0000	19,105.9389
2022	9.0173	31.9287	116.4019	0.2455	15.2839	1.1116	16.3955	4.0919	1.0402	5.1320	0.0000	18,921.6519	18,921.6519	1.0559	0.0000	18,943.8254
2023	8.5026	29.1702	112.0422	0.2453	15.2834	1.0005	16.2839	4.0917	0.9358	5.0275	0.0000	18,769.2404	18,769.2404	1.0355	0.0000	18,790.9857
2024	8.2122	28.2878	110.0218	0.2472	15.2831	0.9236	16.2067	4.0915	0.8631	4.9546	0.0000	18,787.4939	18,787.4939	1.0332	0.0000	18,809.1913
2025	7.9353	27.3828	107.9669	0.2472	15.2827	0.8494	16.1321	4.0914	0.7931	4.8844	0.0000	18,682.7662	18,682.7662	1.0205	0.0000	18,704.1968
2026	7.7977	27.1479	106.3362	0.2472	15.2827	0.8463	16.1290	4.0914	0.7902	4.8816	0.0000	18,595.9623	18,595.9623	1.0140	0.0000	18,617.2567
2027	256.3469	37.6448	133.1459	0.3050	18.0437	1.3288	19.3725	4.8237	1.2384	6.0621	0.0000	23,042.2668	23,042.2668	1.8322	0.0000	23,080.7422
2028	256.2332	37.4825	131.9138	0.3050	18.0437	1.3291	19.3727	4.8237	1.2386	6.0623	0.0000	22,966.2957	22,966.2957	1.8252	0.0000	23,004.6252
2029	256.1254	37.3367	130.6780	0.3050	18.0436	1.3297	19.3733	4.8237	1.2392	6.0629	0.0000	22,901.7771	22,901.7771	1.8184	0.0000	22,939.9639
Total	**851.3901**	**636.1629**	**1,327.0999**	**2.7290**	**227.0037**	**26.8708**	**253.3115**	**79.8555**	**24.8581**	**104.1956**	**0.0000**	**215,407.9081**	**215,407.9081**	**21.9503**	**0.0000**	**215,868.8637**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	0.8156	12.4916	24.6867	0.0409	6.7394	0.0645	6.8039	3.6936	0.0644	3.7579	0.0000	4,260.1381	4,260.1381	1.2370	0.0000	4,286.1152
2016	0.8048	12.4809	24.5551	0.0408	6.7394	0.0644	6.8039	3.6936	0.0643	3.7579	0.0000	4,207.6996	4,207.6996	1.2349	0.0000	4,233.6315
2017	1.0726	20.3903	39.1018	0.0637	6.7394	0.1019	6.8038	3.6936	0.1018	3.7579	0.0000	6,465.4477	6,465.4477	1.9434	0.0000	6,506.2581
2018	1.0635	20.3818	38.9962	0.0637	3.2645	0.1019	3.3664	1.3483	0.1018	1.4502	0.0000	6,359.0216	6,359.0216	1.9425	0.0000	6,399.8137
2019	1.0564	20.3747	38.9167	0.0637	3.2645	0.1019	3.3664	1.3483	0.1018	1.4502	0.0000	6,252.0503	6,252.0503	1.9415	0.0000	6,292.8207
2020	1.0510	20.3693	38.8528	0.0637	3.2645	0.1019	3.3664	1.3483	0.1018	1.4502	0.0000	6,112.7409	6,112.7409	1.9408	0.0000	6,153.4984
2021	8.4312	31.3681	120.8396	0.2456	4.8796	0.5366	5.4162	1.5382	0.5004	2.0385	0.0000	19,083.3555	19,083.3555	1.0754	0.0000	19,105.9389
2022	8.0882	29.5528	116.8801	0.2455	4.8792	0.5309	5.4101	1.5380	0.4952	2.0332	0.0000	18,921.6519	18,921.6519	1.0559	0.0000	18,943.8254
2023	7.6881	27.7025	112.5891	0.2453	4.8787	0.5165	5.3953	1.5378	0.4819	2.0198	0.0000	18,769.2404	18,769.2404	1.0355	0.0000	18,790.9857
2024	7.4817	27.4888	110.5937	0.2472	4.8784	0.5142	5.3926	1.5377	0.4799	2.0175	0.0000	18,787.4939	18,787.4939	1.0332	0.0000	18,809.1913
2025	7.2924	27.2636	108.5874	0.2472	4.8780	0.5160	5.3940	1.5375	0.4815	2.0190	0.0000	18,682.7662	18,682.7662	1.0205	0.0000	18,704.1968
2026	7.1547	27.0287	106.9568	0.2472	4.8780	0.5129	5.3909	1.5375	0.4787	2.0162	0.0000	18,595.9623	18,595.9623	1.0140	0.0000	18,617.2567
2027	255.0184	38.8440	136.4393	0.3050	5.7193	0.5735	6.2929	1.7986	0.5379	2.3365	0.0000	23,042.2667	23,042.2667	1.8322	0.0000	23,080.7422
2028	254.9047	38.6817	135.2073	0.3050	5.7193	0.5738	6.2931	1.7986	0.5381	2.3367	0.0000	22,966.2957	22,966.2957	1.8252	0.0000	23,004.6252
2029	254.7969	38.5360	133.9715	0.3050	5.7192	0.5744	6.2936	1.7986	0.5387	2.3373	0.0000	22,901.7771	22,901.7771	1.8184	0.0000	22,939.9639
Total	**816.7202**	**392.9548**	**1,287.1742**	**2.7290**	**76.4414**	**5.3854**	**81.7892**	**29.7481**	**5.0682**	**34.7788**	**0.0000**	**215,407.9080**	**215,407.9080**	**21.9503**	**0.0000**	**215,868.8637**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**4.07**	**38.23**	**3.01**	**0.00**	**66.33**	**79.96**	**67.71**	**62.75**	**79.61**	**66.62**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	290.9531	2.0901	181.8226	9.6500e-003		3.9441	3.9441		3.9132	3.9132	0.0000	46,704.7956	46,704.7956	1.2066	0.8502	46,993.7063
Energy	1.4156	12.1414	5.4765	0.0772		0.9780	0.9780		0.9780	0.9780		15,442.4209	15,442.4209	0.2960	0.2831	15,536.4009
Mobile	119.9286	188.5249	1,107.6326	2.3904	153.6851	4.3710	158.0561	41.0056	4.0302	45.0358		173,287.5707	173,287.5707	6.2070		173,417.9185
Total	**412.2972**	**202.7564**	**1,294.9317**	**2.4773**	**153.6851**	**9.2931**	**162.9782**	**41.0056**	**8.9214**	**49.9270**	**0.0000**	**235,434.7872**	**235,434.7872**	**7.7096**	**1.1334**	**235,948.0257**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	237.6676	2.0901	181.8226	9.6500e-003		3.9441	3.9441		3.9132	3.9132	0.0000	46,704.7956	46,704.7956	1.2066	0.8502	46,993.7063
Energy	1.2335	10.5795	4.7714	0.0673		0.8522	0.8522		0.8522	0.8522		13,455.9219	13,455.9219	0.2579	0.2467	13,537.8124
Mobile	116.5417	170.4614	1,020.0499	2.0500	130.4659	3.7848	134.2507	34.8104	3.4901	38.3004		148,600.6964	148,600.6964	5.4128		148,714.3658
Total	**355.4428**	**183.1310**	**1,206.6439**	**2.1269**	**130.4659**	**8.5811**	**139.0470**	**34.8104**	**8.2554**	**43.0658**	**0.0000**	**208,761.4138**	**208,761.4138**	**6.8773**	**1.0969**	**209,245.8845**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	13.79	9.68	6.82	14.14	15.11	7.66	14.68	15.11	7.46	13.74	0.00	11.33	11.33	10.80	3.21	11.32

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	9/1/2015	1/16/2017	5	360	
2	Grading	Grading	1/17/2017	8/10/2020	5	930	
3	Utilities	Trenching	8/11/2020	1/25/2021	5	120	
4	Building Construction	Building Construction	1/26/2021	1/25/2029	5	2088	
5	Architectural Coating	Architectural Coating	2/1/2027	8/10/2029	5	660	
6	Paving	Paving	5/13/2027	11/21/2029	5	660	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 2325

Acres of Paving: 0

Residential Indoor: 4,434,750; Residential Outdoor: 1,478,250; Non-Residential Indoor: 6,074,730; Non-Residential Outdoor: 2,024,910 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Utilities	Forklifts	1	4.00	89	0.20
Utilities	Off-Highway Trucks	2	8.00	400	0.38
Utilities	Signal Boards	1	8.00	6	0.82
Utilities	Trenchers	1	6.00	80	0.50
Utilities	Welders	1	4.00	46	0.45
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Utilities	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	1,577.00	431.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	315.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Site Preparation - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	5.2609	56.8897	42.6318	0.0391		3.0883	3.0883		2.8412	2.8412		4,111.7444	4,111.7444	1.2275		4,137.5225
Total	**5.2609**	**56.8897**	**42.6318**	**0.0391**	**18.0663**	**3.0883**	**21.1545**	**9.9307**	**2.8412**	**12.7719**		**4,111.7444**	**4,111.7444**	**1.2275**		**4,137.5225**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1053	0.1112	1.2865	1.7600e-003	0.1506	1.0300e-003	0.1516	0.0400	9.4000e-004	0.0409		148.3937	148.3937	9.4800e-003		148.5928
Total	**0.1053**	**0.1112**	**1.2865**	**1.7600e-003**	**0.1506**	**1.0300e-003**	**0.1516**	**0.0400**	**9.4000e-004**	**0.0409**		**148.3937**	**148.3937**	**9.4800e-003**		**148.5928**

3.2 Site Preparation - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.6936	0.0000	6.6936	3.6793	0.0000	3.6793			0.0000			0.0000
Off-Road	0.7103	12.3804	23.4003	0.0391		0.0634	0.0634		0.0634	0.0634	0.0000	4,111.7444	4,111.7444	1.2275		4,137.5224
Total	**0.7103**	**12.3804**	**23.4003**	**0.0391**	**6.6936**	**0.0634**	**6.7570**	**3.6793**	**0.0634**	**3.7428**	**0.0000**	**4,111.7444**	**4,111.7444**	**1.2275**		**4,137.5224**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1053	0.1112	1.2865	1.7600e-003	0.0459	1.0300e-003	0.0469	0.0142	9.4000e-004	0.0152		148.3937	148.3937	9.4800e-003		148.5928
Total	**0.1053**	**0.1112**	**1.2865**	**1.7600e-003**	**0.0459**	**1.0300e-003**	**0.0469**	**0.0142**	**9.4000e-004**	**0.0152**		**148.3937**	**148.3937**	**9.4800e-003**		**148.5928**

3.2 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	5.0771	54.6323	41.1053	0.0391		2.9387	2.9387		2.7036	2.7036		4,065.0053	4,065.0053	1.2262		4,090.7544
Total	**5.0771**	**54.6323**	**41.1053**	**0.0391**	**18.0663**	**2.9387**	**21.0049**	**9.9307**	**2.7036**	**12.6343**		**4,065.0053**	**4,065.0053**	**1.2262**		**4,090.7544**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0946	0.1005	1.1548	1.7600e-003	0.1506	9.9000e-004	0.1516	0.0400	9.0000e-004	0.0409		142.6944	142.6944	8.7000e-003		142.8771
Total	**0.0946**	**0.1005**	**1.1548**	**1.7600e-003**	**0.1506**	**9.9000e-004**	**0.1516**	**0.0400**	**9.0000e-004**	**0.0409**		**142.6944**	**142.6944**	**8.7000e-003**		**142.8771**

3.2 Site Preparation - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.6936	0.0000	6.6936	3.6793	0.0000	3.6793			0.0000			0.0000
Off-Road	0.7103	12.3804	23.4003	0.0391		0.0634	0.0634		0.0634	0.0634	0.0000	4,065.0053	4,065.0053	1.2262		4,090.7544
Total	**0.7103**	**12.3804**	**23.4003**	**0.0391**	**6.6936**	**0.0634**	**6.7570**	**3.6793**	**0.0634**	**3.7428**	**0.0000**	**4,065.0053**	**4,065.0053**	**1.2262**		**4,090.7544**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0946	0.1005	1.1548	1.7600e-003	0.0459	9.9000e-004	0.0469	0.0142	9.0000e-004	0.0152		142.6944	142.6944	8.7000e-003		142.8771
Total	**0.0946**	**0.1005**	**1.1548**	**1.7600e-003**	**0.0459**	**9.9000e-004**	**0.0469**	**0.0142**	**9.0000e-004**	**0.0152**		**142.6944**	**142.6944**	**8.7000e-003**		**142.8771**

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.8382	51.7535	39.3970	0.0391		2.7542	2.7542		2.5339	2.5339		4,003.0859	4,003.0859	1.2265		4,028.8432
Total	**4.8382**	**51.7535**	**39.3970**	**0.0391**	**18.0663**	**2.7542**	**20.8205**	**9.9307**	**2.5339**	**12.4646**		**4,003.0859**	**4,003.0859**	**1.2265**		**4,028.8432**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0852	0.0915	1.0428	1.7600e-003	0.1506	9.6000e-004	0.1516	0.0400	8.8000e-004	0.0408		136.8708	136.8708	8.0600e-003		137.0400
Total	**0.0852**	**0.0915**	**1.0428**	**1.7600e-003**	**0.1506**	**9.6000e-004**	**0.1516**	**0.0400**	**8.8000e-004**	**0.0408**		**136.8708**	**136.8708**	**8.0600e-003**		**137.0400**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.6936	0.0000	6.6936	3.6793	0.0000	3.6793			0.0000			0.0000
Off-Road	0.7103	12.3804	23.4003	0.0391		0.0634	0.0634		0.0634	0.0634	0.0000	4,003.0859	4,003.0859	1.2265		4,028.8432
Total	**0.7103**	**12.3804**	**23.4003**	**0.0391**	**6.6936**	**0.0634**	**6.7570**	**3.6793**	**0.0634**	**3.7428**	**0.0000**	**4,003.0859**	**4,003.0859**	**1.2265**		**4,028.8432**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0852	0.0915	1.0428	1.7600e-003	0.0459	9.6000e-004	0.0469	0.0142	8.8000e-004	0.0151		136.8708	136.8708	8.0600e-003		137.0400
Total	**0.0852**	**0.0915**	**1.0428**	**1.7600e-003**	**0.0459**	**9.6000e-004**	**0.0469**	**0.0142**	**8.8000e-004**	**0.0151**		**136.8708**	**136.8708**	**8.0600e-003**		**137.0400**

3.3 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	6.0991	69.5920	46.8050	0.0617		3.3172	3.3172		3.0518	3.0518		6,313.3690	6,313.3690	1.9344		6,353.9915
Total	**6.0991**	**69.5920**	**46.8050**	**0.0617**	**8.6733**	**3.3172**	**11.9905**	**3.5965**	**3.0518**	**6.6483**		**6,313.3690**	**6,313.3690**	**1.9344**		**6,353.9915**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0946	0.1017	1.1586	1.9500e-003	0.1673	1.0600e-003	0.1684	0.0444	9.8000e-004	0.0454		152.0786	152.0786	8.9500e-003		152.2666
Total	**0.0946**	**0.1017**	**1.1586**	**1.9500e-003**	**0.1673**	**1.0600e-003**	**0.1684**	**0.0444**	**9.8000e-004**	**0.0454**		**152.0786**	**152.0786**	**8.9500e-003**		**152.2666**

3.3 Grading - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.2135	0.0000	3.2135	1.3325	0.0000	1.3325			0.0000			0.0000
Off-Road	0.9779	20.2885	37.9432	0.0617		0.1009	0.1009		0.1009	0.1009	0.0000	6,313.3690	6,313.3690	1.9344		6,353.9915
Total	**0.9779**	**20.2885**	**37.9432**	**0.0617**	**3.2135**	**0.1009**	**3.3143**	**1.3325**	**0.1009**	**1.4334**	**0.0000**	**6,313.3690**	**6,313.3690**	**1.9344**		**6,353.9915**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0946	0.1017	1.1586	1.9500e-003	0.0510	1.0600e-003	0.0521	0.0158	9.8000e-004	0.0168		152.0786	152.0786	8.9500e-003		152.2666
Total	**0.0946**	**0.1017**	**1.1586**	**1.9500e-003**	**0.0510**	**1.0600e-003**	**0.0521**	**0.0158**	**9.8000e-004**	**0.0168**		**152.0786**	**152.0786**	**8.9500e-003**		**152.2666**

3.3 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	5.2895	59.5338	42.3068	0.0617		2.7880	2.7880		2.5650	2.5650		6,212.8042	6,212.8042	1.9341		6,253.4209
Total	**5.2895**	**59.5338**	**42.3068**	**0.0617**	**8.6733**	**2.7880**	**11.4614**	**3.5965**	**2.5650**	**6.1615**		**6,212.8042**	**6,212.8042**	**1.9341**		**6,253.4209**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0855	0.0933	1.0530	1.9500e-003	0.1673	1.0500e-003	0.1684	0.0444	9.7000e-004	0.0454		146.2174	146.2174	8.3500e-003		146.3928
Total	**0.0855**	**0.0933**	**1.0530**	**1.9500e-003**	**0.1673**	**1.0500e-003**	**0.1684**	**0.0444**	**9.7000e-004**	**0.0454**		**146.2174**	**146.2174**	**8.3500e-003**		**146.3928**

3.3 Grading - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.2135	0.0000	3.2135	1.3325	0.0000	1.3325			0.0000			0.0000
Off-Road	0.9779	20.2885	37.9432	0.0617		0.1009	0.1009		0.1009	0.1009	0.0000	6,212.8041	6,212.8041	1.9341		6,253.4209
Total	**0.9779**	**20.2885**	**37.9432**	**0.0617**	**3.2135**	**0.1009**	**3.3143**	**1.3325**	**0.1009**	**1.4334**	**0.0000**	**6,212.8041**	**6,212.8041**	**1.9341**		**6,253.4209**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0855	0.0933	1.0530	1.9500e-003	0.0510	1.0500e-003	0.0520	0.0158	9.7000e-004	0.0168		146.2174	146.2174	8.3500e-003		146.3928
Total	**0.0855**	**0.0933**	**1.0530**	**1.9500e-003**	**0.0510**	**1.0500e-003**	**0.0520**	**0.0158**	**9.7000e-004**	**0.0168**		**146.2174**	**146.2174**	**8.3500e-003**		**146.3928**

3.3 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.8912	54.1978	40.2888	0.0617		2.5049	2.5049		2.3045	2.3045		6,111.3121	6,111.3121	1.9336		6,151.9167
Total	**4.8912**	**54.1978**	**40.2888**	**0.0617**	**8.6733**	**2.5049**	**11.1783**	**3.5965**	**2.3045**	**5.9010**		**6,111.3121**	**6,111.3121**	**1.9336**		**6,151.9167**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0785	0.0862	0.9735	1.9500e-003	0.1673	1.0500e-003	0.1684	0.0444	9.7000e-004	0.0454		140.7383	140.7383	7.8900e-003		140.9040
Total	**0.0785**	**0.0862**	**0.9735**	**1.9500e-003**	**0.1673**	**1.0500e-003**	**0.1684**	**0.0444**	**9.7000e-004**	**0.0454**		**140.7383**	**140.7383**	**7.8900e-003**		**140.9040**

3.3 Grading - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.2135	0.0000	3.2135	1.3325	0.0000	1.3325			0.0000			0.0000
Off-Road	0.9779	20.2885	37.9432	0.0617		0.1009	0.1009		0.1009	0.1009	0.0000	6,111.3121	6,111.3121	1.9336		6,151.9167
Total	**0.9779**	**20.2885**	**37.9432**	**0.0617**	**3.2135**	**0.1009**	**3.3143**	**1.3325**	**0.1009**	**1.4334**	**0.0000**	**6,111.3121**	**6,111.3121**	**1.9336**		**6,151.9167**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0785	0.0862	0.9735	1.9500e-003	0.0510	1.0500e-003	0.0520	0.0158	9.7000e-004	0.0168		140.7383	140.7383	7.8900e-003		140.9040
Total	**0.0785**	**0.0862**	**0.9735**	**1.9500e-003**	**0.0510**	**1.0500e-003**	**0.0520**	**0.0158**	**9.7000e-004**	**0.0168**		**140.7383**	**140.7383**	**7.8900e-003**		**140.9040**

3.3 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.5501	49.3839	38.4257	0.0617		2.2619	2.2619		2.0810	2.0810		5,977.7088	5,977.7088	1.9333		6,018.3084
Total	**4.5501**	**49.3839**	**38.4257**	**0.0617**	**8.6733**	**2.2619**	**10.9353**	**3.5965**	**2.0810**	**5.6775**		**5,977.7088**	**5,977.7088**	**1.9333**		**6,018.3084**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0730	0.0808	0.9096	1.9500e-003	0.1673	1.0500e-003	0.1684	0.0444	9.7000e-004	0.0454		135.0321	135.0321	7.5200e-003		135.1900
Total	**0.0730**	**0.0808**	**0.9096**	**1.9500e-003**	**0.1673**	**1.0500e-003**	**0.1684**	**0.0444**	**9.7000e-004**	**0.0454**		**135.0321**	**135.0321**	**7.5200e-003**		**135.1900**

3.3 Grading - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.2135	0.0000	3.2135	1.3325	0.0000	1.3325			0.0000			0.0000
Off-Road	0.9779	20.2885	37.9432	0.0617		0.1009	0.1009		0.1009	0.1009	0.0000	5,977.7088	5,977.7088	1.9333		6,018.3084
Total	**0.9779**	**20.2885**	**37.9432**	**0.0617**	**3.2135**	**0.1009**	**3.3143**	**1.3325**	**0.1009**	**1.4334**	**0.0000**	**5,977.7088**	**5,977.7088**	**1.9333**		**6,018.3084**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0730	0.0808	0.9096	1.9500e-003	0.0510	1.0500e-003	0.0520	0.0158	9.7000e-004	0.0168		135.0321	135.0321	7.5200e-003		135.1900
Total	**0.0730**	**0.0808**	**0.9096**	**1.9500e-003**	**0.0510**	**1.0500e-003**	**0.0520**	**0.0158**	**9.7000e-004**	**0.0168**		**135.0321**	**135.0321**	**7.5200e-003**		**135.1900**

3.4 Utilities - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9429	17.2968	11.3849	0.0316		0.7828	0.7828		0.7248	0.7248		3,022.9831	3,022.9831	0.9487		3,042.9047
Total	**1.9429**	**17.2968**	**11.3849**	**0.0316**		**0.7828**	**0.7828**		**0.7248**	**0.7248**		**3,022.9831**	**3,022.9831**	**0.9487**		**3,042.9047**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0548	0.0606	0.6822	1.4600e-003	0.1255	7.9000e-004	0.1263	0.0333	7.3000e-004	0.0340		101.2740	101.2740	5.6400e-003		101.3925
Total	**0.0548**	**0.0606**	**0.6822**	**1.4600e-003**	**0.1255**	**7.9000e-004**	**0.1263**	**0.0333**	**7.3000e-004**	**0.0340**		**101.2740**	**101.2740**	**5.6400e-003**		**101.3925**

3.4 Utilities - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5263	9.2153	17.2272	0.0316		0.0718	0.0718		0.0718	0.0718	0.0000	3,022.9831	3,022.9831	0.9487		3,042.9047
Total	**0.5263**	**9.2153**	**17.2272**	**0.0316**		**0.0718**	**0.0718**		**0.0718**	**0.0718**	**0.0000**	**3,022.9831**	**3,022.9831**	**0.9487**		**3,042.9047**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0548	0.0606	0.6822	1.4600e-003	0.0382	7.9000e-004	0.0390	0.0119	7.3000e-004	0.0126		101.2740	101.2740	5.6400e-003		101.3925
Total	**0.0548**	**0.0606**	**0.6822**	**1.4600e-003**	**0.0382**	**7.9000e-004**	**0.0390**	**0.0119**	**7.3000e-004**	**0.0126**		**101.2740**	**101.2740**	**5.6400e-003**		**101.3925**

3.4 Utilities - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7733	14.8794	10.9221	0.0316		0.6732	0.6732		0.6235	0.6235		3,022.8711	3,022.8711	0.9468		3,042.7535
Total	**1.7733**	**14.8794**	**10.9221**	**0.0316**		**0.6732**	**0.6732**		**0.6235**	**0.6235**		**3,022.8711**	**3,022.8711**	**0.9468**		**3,042.7535**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0517	0.0575	0.6492	1.4600e-003	0.1255	8.0000e-004	0.1263	0.0333	7.4000e-004	0.0340		99.7781	99.7781	5.4800e-003		99.8933
Total	**0.0517**	**0.0575**	**0.6492**	**1.4600e-003**	**0.1255**	**8.0000e-004**	**0.1263**	**0.0333**	**7.4000e-004**	**0.0340**		**99.7781**	**99.7781**	**5.4800e-003**		**99.8933**

3.4 Utilities - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5263	9.2153	17.2272	0.0316		0.0718	0.0718		0.0718	0.0718	0.0000	3,022.8710	3,022.8710	0.9468		3,042.7535
Total	**0.5263**	**9.2153**	**17.2272**	**0.0316**		**0.0718**	**0.0718**		**0.0718**	**0.0718**	**0.0000**	**3,022.8710**	**3,022.8710**	**0.9468**		**3,042.7535**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0517	0.0575	0.6492	1.4600e-003	0.0382	8.0000e-004	0.0390	0.0119	7.4000e-004	0.0126		99.7781	99.7781	5.4800e-003		99.8933
Total	**0.0517**	**0.0575**	**0.6492**	**1.4600e-003**	**0.0382**	**8.0000e-004**	**0.0390**	**0.0119**	**7.4000e-004**	**0.0126**		**99.7781**	**99.7781**	**5.4800e-003**		**99.8933**

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5396	13.1889	14.8402	0.0219		0.7864	0.7864		0.7428	0.7428		2,064.4675	2,064.4675	0.4579		2,074.0833
Total	**1.5396**	**13.1889**	**14.8402**	**0.0219**		**0.7864**	**0.7864**		**0.7428**	**0.7428**		**2,064.4675**	**2,064.4675**	**0.4579**		**2,074.0833**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.5449	15.7491	37.3969	0.0700	2.0900	0.3765	2.4665	0.5924	0.3464	0.9387		6,528.8804	6,528.8804	0.0412		6,529.7455
Worker	5.4355	6.0404	68.2568	0.1538	13.1943	0.0838	13.2781	3.4997	0.0777	3.5774		10,490.0076	10,490.0076	0.5763		10,502.1101
Total	**7.9804**	**21.7896**	**105.6538**	**0.2237**	**15.2843**	**0.4602**	**15.7446**	**4.0921**	**0.4240**	**4.5161**		**17,018.8880**	**17,018.8880**	**0.6175**		**17,031.8556**

3.5 Building Construction - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4508	9.5786	15.1859	0.0219		0.0763	0.0763		0.0763	0.0763	0.0000	2,064.4675	2,064.4675	0.4579		2,074.0833
Total	**0.4508**	**9.5786**	**15.1859**	**0.0219**		**0.0763**	**0.0763**		**0.0763**	**0.0763**	**0.0000**	**2,064.4675**	**2,064.4675**	**0.4579**		**2,074.0833**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.5449	15.7491	37.3969	0.0700	0.8592	0.3765	1.2357	0.2902	0.3464	0.6366		6,528.8804	6,528.8804	0.0412		6,529.7455
Worker	5.4355	6.0404	68.2568	0.1538	4.0204	0.0838	4.1042	1.2479	0.0777	1.3256		10,490.0076	10,490.0076	0.5763		10,502.1101
Total	**7.9804**	**21.7896**	**105.6538**	**0.2237**	**4.8796**	**0.4602**	**5.3399**	**1.5382**	**0.4240**	**1.9622**		**17,018.8880**	**17,018.8880**	**0.6175**		**17,031.8556**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3799	11.9544	14.7076	0.0219		0.6570	0.6570		0.6213	0.6213		2,065.3570	2,065.3570	0.4538		2,074.8868
Total	**1.3799**	**11.9544**	**14.7076**	**0.0219**		**0.6570**	**0.6570**		**0.6213**	**0.6213**		**2,065.3570**	**2,065.3570**	**0.4538**		**2,074.8868**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.4712	14.1774	36.7319	0.0699	2.0896	0.3705	2.4601	0.5922	0.3409	0.9330		6,520.5921	6,520.5921	0.0419		6,521.4728
Worker	5.1661	5.7968	64.9623	0.1537	13.1943	0.0841	13.2784	3.4997	0.0780	3.5777		10,335.7028	10,335.7028	0.5601		10,347.4658
Total	**7.6374**	**19.9743**	**101.6943**	**0.2236**	**15.2839**	**0.4546**	**15.7385**	**4.0919**	**0.4189**	**4.5107**		**16,856.2949**	**16,856.2949**	**0.6021**		**16,868.9385**

3.5 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4508	9.5786	15.1859	0.0219		0.0763	0.0763		0.0763	0.0763	0.0000	2,065.3570	2,065.3570	0.4538		2,074.8868
Total	**0.4508**	**9.5786**	**15.1859**	**0.0219**		**0.0763**	**0.0763**		**0.0763**	**0.0763**	**0.0000**	**2,065.3570**	**2,065.3570**	**0.4538**		**2,074.8868**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.4712	14.1774	36.7319	0.0699	0.8588	0.3705	1.2293	0.2901	0.3409	0.6309		6,520.5921	6,520.5921	0.0419		6,521.4728
Worker	5.1661	5.7968	64.9623	0.1537	4.0204	0.0841	4.1045	1.2479	0.0780	1.3259		10,335.7028	10,335.7028	0.5601		10,347.4658
Total	**7.6374**	**19.9743**	**101.6943**	**0.2236**	**4.8792**	**0.4546**	**5.3338**	**1.5380**	**0.4189**	**1.9569**		**16,856.2949**	**16,856.2949**	**0.6021**		**16,868.9385**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2653	11.0463	14.6389	0.0219		0.5603	0.5603		0.5302	0.5302		2,066.2431	2,066.2431	0.4497		2,075.6869
Total	**1.2653**	**11.0463**	**14.6389**	**0.0219**		**0.5603**	**0.5603**		**0.5302**	**0.5302**		**2,066.2431**	**2,066.2431**	**0.4497**		**2,075.6869**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.3092	12.5305	35.3711	0.0697	2.0892	0.3557	2.4449	0.5920	0.3273	0.9193		6,504.3614	6,504.3614	0.0394		6,505.1891
Worker	4.9281	5.5934	62.0322	0.1537	13.1943	0.0844	13.2787	3.4997	0.0783	3.5780		10,198.6360	10,198.6360	0.5464		10,210.1097
Total	**7.2374**	**18.1239**	**97.4033**	**0.2234**	**15.2834**	**0.4402**	**15.7236**	**4.0917**	**0.4056**	**4.4973**		**16,702.9973**	**16,702.9973**	**0.5858**		**16,715.2988**

3.5 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4508	9.5786	15.1859	0.0219		0.0763	0.0763		0.0763	0.0763	0.0000	2,066.2431	2,066.2431	0.4497		2,075.6869
Total	**0.4508**	**9.5786**	**15.1859**	**0.0219**		**0.0763**	**0.0763**		**0.0763**	**0.0763**	**0.0000**	**2,066.2431**	**2,066.2431**	**0.4497**		**2,075.6869**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.3092	12.5305	35.3711	0.0697	0.8583	0.3557	1.2141	0.2899	0.3273	0.6172		6,504.3614	6,504.3614	0.0394		6,505.1891
Worker	4.9281	5.5934	62.0322	0.1537	4.0204	0.0844	4.1049	1.2479	0.0783	1.3263		10,198.6360	10,198.6360	0.5464		10,210.1097
Total	**7.2374**	**18.1239**	**97.4033**	**0.2234**	**4.8787**	**0.4402**	**5.3189**	**1.5378**	**0.4056**	**1.9434**		**16,702.9973**	**16,702.9973**	**0.5858**		**16,715.2988**

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1813	10.3775	14.6139	0.0219		0.4857	0.4857		0.4595	0.4595		2,066.7425	2,066.7425	0.4462		2,076.1129
Total	**1.1813**	**10.3775**	**14.6139**	**0.0219**		**0.4857**	**0.4857**		**0.4595**	**0.4595**		**2,066.7425**	**2,066.7425**	**0.4462**		**2,076.1129**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.2688	12.4604	34.7212	0.0699	2.0888	0.3508	2.4396	0.5918	0.3228	0.9146		6,522.1897	6,522.1897	0.0402		6,523.0334
Worker	4.7621	5.4499	60.6866	0.1555	13.1943	0.0871	13.2814	3.4997	0.0808	3.5805		10,198.5617	10,198.5617	0.5468		10,210.0450
Total	**7.0309**	**17.9103**	**95.4078**	**0.2253**	**15.2831**	**0.4379**	**15.7210**	**4.0915**	**0.4035**	**4.4951**		**16,720.7514**	**16,720.7514**	**0.5870**		**16,733.0784**

3.5 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4508	9.5786	15.1859	0.0219		0.0763	0.0763		0.0763	0.0763	0.0000	2,066.7425	2,066.7425	0.4462		2,076.1129
Total	**0.4508**	**9.5786**	**15.1859**	**0.0219**		**0.0763**	**0.0763**		**0.0763**	**0.0763**	**0.0000**	**2,066.7425**	**2,066.7425**	**0.4462**		**2,076.1129**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.2688	12.4604	34.7212	0.0699	0.8580	0.3508	1.2088	0.2897	0.3228	0.6125		6,522.1897	6,522.1897	0.0402		6,523.0334
Worker	4.7621	5.4499	60.6866	0.1555	4.0204	0.0871	4.1075	1.2479	0.0808	1.3287		10,198.5617	10,198.5617	0.5468		10,210.0450
Total	**7.0309**	**17.9103**	**95.4078**	**0.2253**	**4.8784**	**0.4379**	**5.3163**	**1.5377**	**0.4035**	**1.9412**		**16,720.7514**	**16,720.7514**	**0.5870**		**16,733.0784**

3.5 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0937	9.6977	14.5653	0.0219		0.4097	0.4097		0.3879	0.3879		2,067.5014	2,067.5014	0.4428		2,076.8003
Total	**1.0937**	**9.6977**	**14.5653**	**0.0219**		**0.4097**	**0.4097**		**0.3879**	**0.3879**		**2,067.5014**	**2,067.5014**	**0.4428**		**2,076.8003**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.2257	12.3666	34.3542	0.0698	2.0884	0.3519	2.4404	0.5917	0.3238	0.9155		6,520.3221	6,520.3221	0.0402		6,521.1672
Worker	4.6159	5.3184	59.0474	0.1554	13.1943	0.0878	13.2821	3.4997	0.0814	3.5811		10,094.9427	10,094.9427	0.5375		10,106.2293
Total	**6.8416**	**17.6851**	**93.4016**	**0.2253**	**15.2827**	**0.4397**	**15.7224**	**4.0914**	**0.4052**	**4.4966**		**16,615.2648**	**16,615.2648**	**0.5777**		**16,627.3965**

3.5 Building Construction - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4508	9.5786	15.1859	0.0219		0.0763	0.0763		0.0763	0.0763	0.0000	2,067.5014	2,067.5014	0.4428		2,076.8003
Total	**0.4508**	**9.5786**	**15.1859**	**0.0219**		**0.0763**	**0.0763**		**0.0763**	**0.0763**	**0.0000**	**2,067.5014**	**2,067.5014**	**0.4428**		**2,076.8003**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.2257	12.3666	34.3542	0.0698	0.8576	0.3519	1.2095	0.2896	0.3238	0.6133		6,520.3221	6,520.3221	0.0402		6,521.1672
Worker	4.6159	5.3184	59.0474	0.1554	4.0204	0.0878	4.1082	1.2479	0.0814	1.3294		10,094.9427	10,094.9427	0.5375		10,106.2293
Total	**6.8416**	**17.6851**	**93.4016**	**0.2253**	**4.8780**	**0.4397**	**5.3177**	**1.5375**	**0.4052**	**1.9427**		**16,615.2648**	**16,615.2648**	**0.5777**		**16,627.3965**

3.5 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0937	9.6977	14.5653	0.0219		0.4097	0.4097		0.3879	0.3879		2,067.5014	2,067.5014	0.4428		2,076.8003
Total	**1.0937**	**9.6977**	**14.5653**	**0.0219**		**0.4097**	**0.4097**		**0.3879**	**0.3879**		**2,067.5014**	**2,067.5014**	**0.4428**		**2,076.8003**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.1889	12.2134	33.9042	0.0698	2.0884	0.3479	2.4363	0.5917	0.3201	0.9118		6,519.8295	6,519.8295	0.0400		6,520.6685
Worker	4.5151	5.2367	57.8668	0.1554	13.1943	0.0887	13.2830	3.4997	0.0823	3.5820		10,008.6314	10,008.6314	0.5313		10,019.7879
Total	**6.7040**	**17.4501**	**91.7710**	**0.2253**	**15.2827**	**0.4366**	**15.7193**	**4.0914**	**0.4023**	**4.4937**		**16,528.4609**	**16,528.4609**	**0.5712**		**16,540.4564**

3.5 Building Construction - 2026

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4508	9.5786	15.1859	0.0219		0.0763	0.0763		0.0763	0.0763	0.0000	2,067.5014	2,067.5014	0.4428		2,076.8003
Total	**0.4508**	**9.5786**	**15.1859**	**0.0219**		**0.0763**	**0.0763**		**0.0763**	**0.0763**	**0.0000**	**2,067.5014**	**2,067.5014**	**0.4428**		**2,076.8003**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.1889	12.2134	33.9042	0.0698	0.8576	0.3479	1.2055	0.2896	0.3201	0.6096		6,519.8295	6,519.8295	0.0400		6,520.6685
Worker	4.5151	5.2367	57.8668	0.1554	4.0204	0.0887	4.1091	1.2479	0.0823	1.3302		10,008.6314	10,008.6314	0.5313		10,019.7879
Total	**6.7040**	**17.4501**	**91.7710**	**0.2253**	**4.8780**	**0.4366**	**5.3146**	**1.5375**	**0.4023**	**1.9398**		**16,528.4609**	**16,528.4609**	**0.5712**		**16,540.4564**

3.5 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0937	9.6977	14.5653	0.0219		0.4097	0.4097		0.3879	0.3879		2,067.5014	2,067.5014	0.4428		2,076.8003
Total	**1.0937**	**9.6977**	**14.5653**	**0.0219**		**0.4097**	**0.4097**		**0.3879**	**0.3879**		**2,067.5014**	**2,067.5014**	**0.4428**		**2,076.8003**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.1702	12.1380	33.5931	0.0698	2.0884	0.3485	2.4369	0.5917	0.3206	0.9123		6,519.8097	6,519.8097	0.0400		6,520.6494
Worker	4.4284	5.1618	56.9773	0.1554	13.1943	0.0895	13.2837	3.4997	0.0830	3.5827		9,934.7783	9,934.7783	0.5255		9,945.8144
Total	**6.5986**	**17.2998**	**90.5704**	**0.2252**	**15.2827**	**0.4379**	**15.7207**	**4.0914**	**0.4036**	**4.4950**		**16,454.5880**	**16,454.5880**	**0.5655**		**16,466.4638**

3.5 Building Construction - 2027

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4508	9.5786	15.1859	0.0219		0.0763	0.0763		0.0763	0.0763	0.0000	2,067.5014	2,067.5014	0.4428		2,076.8003
Total	**0.4508**	**9.5786**	**15.1859**	**0.0219**		**0.0763**	**0.0763**		**0.0763**	**0.0763**	**0.0000**	**2,067.5014**	**2,067.5014**	**0.4428**		**2,076.8003**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.1702	12.1380	33.5931	0.0698	0.8576	0.3485	1.2061	0.2896	0.3206	0.6102		6,519.8097	6,519.8097	0.0400		6,520.6494
Worker	4.4284	5.1618	56.9773	0.1554	4.0204	0.0895	4.1099	1.2479	0.0830	1.3309		9,934.7783	9,934.7783	0.5255		9,945.8144
Total	**6.5986**	**17.2998**	**90.5704**	**0.2252**	**4.8780**	**0.4379**	**5.3159**	**1.5375**	**0.4036**	**1.9411**		**16,454.5880**	**16,454.5880**	**0.5655**		**16,466.4638**

3.5 Building Construction - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0937	9.6977	14.5653	0.0219		0.4097	0.4097		0.3879	0.3879		2,067.5014	2,067.5014	0.4428		2,076.8003
Total	**1.0937**	**9.6977**	**14.5653**	**0.0219**		**0.4097**	**0.4097**		**0.3879**	**0.3879**		**2,067.5014**	**2,067.5014**	**0.4428**		**2,076.8003**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.1557	12.0699	33.4377	0.0698	2.0884	0.3479	2.4362	0.5917	0.3200	0.9117		6,519.3655	6,519.3655	0.0399		6,520.2043
Worker	4.3464	5.0839	56.0870	0.1554	13.1943	0.0902	13.2845	3.4997	0.0837	3.5834		9,872.3212	9,872.3212	0.5198		9,883.2372
Total	**6.5021**	**17.1538**	**89.5247**	**0.2252**	**15.2827**	**0.4380**	**15.7207**	**4.0914**	**0.4037**	**4.4951**		**16,391.6866**	**16,391.6866**	**0.5598**		**16,403.4415**

3.5 Building Construction - 2028

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4508	9.5786	15.1859	0.0219		0.0763	0.0763		0.0763	0.0763	0.0000	2,067.5014	2,067.5014	0.4428		2,076.8003
Total	**0.4508**	**9.5786**	**15.1859**	**0.0219**		**0.0763**	**0.0763**		**0.0763**	**0.0763**	**0.0000**	**2,067.5014**	**2,067.5014**	**0.4428**		**2,076.8003**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.1557	12.0699	33.4377	0.0698	0.8575	0.3479	1.2054	0.2895	0.3200	0.6096		6,519.3655	6,519.3655	0.0399		6,520.2043
Worker	4.3464	5.0839	56.0870	0.1554	4.0204	0.0902	4.1106	1.2479	0.0837	1.3316		9,872.3212	9,872.3212	0.5198		9,883.2372
Total	**6.5021**	**17.1538**	**89.5247**	**0.2252**	**4.8780**	**0.4380**	**5.3160**	**1.5375**	**0.4037**	**1.9412**		**16,391.6866**	**16,391.6866**	**0.5598**		**16,403.4415**

3.5 Building Construction - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0937	9.6977	14.5653	0.0219		0.4097	0.4097		0.3879	0.3879		2,067.5014	2,067.5014	0.4428		2,076.8003
Total	**1.0937**	**9.6977**	**14.5653**	**0.0219**		**0.4097**	**0.4097**		**0.3879**	**0.3879**		**2,067.5014**	**2,067.5014**	**0.4428**		**2,076.8003**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.1465	12.0153	33.2509	0.0698	2.0883	0.3478	2.4361	0.5916	0.3200	0.9116		6,518.6958	6,518.6958	0.0399		6,519.5346
Worker	4.2649	5.0086	55.2195	0.1554	13.1943	0.0907	13.2850	3.4997	0.0842	3.5839		9,819.5210	9,819.5210	0.5142		9,830.3191
Total	**6.4113**	**17.0239**	**88.4704**	**0.2252**	**15.2825**	**0.4386**	**15.7211**	**4.0913**	**0.4042**	**4.4955**		**16,338.2168**	**16,338.2168**	**0.5541**		**16,349.8538**

3.5 Building Construction - 2029

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4508	9.5786	15.1859	0.0219		0.0763	0.0763		0.0763	0.0763	0.0000	2,067.5014	2,067.5014	0.4428		2,076.8003
Total	**0.4508**	**9.5786**	**15.1859**	**0.0219**		**0.0763**	**0.0763**		**0.0763**	**0.0763**	**0.0000**	**2,067.5014**	**2,067.5014**	**0.4428**		**2,076.8003**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.1465	12.0153	33.2509	0.0698	0.8574	0.3478	1.2053	0.2895	0.3200	0.6095		6,518.6958	6,518.6958	0.0399		6,519.5346
Worker	4.2649	5.0086	55.2195	0.1554	4.0204	0.0907	4.1112	1.2479	0.0842	1.3321		9,819.5210	9,819.5210	0.5142		9,830.3191
Total	**6.4113**	**17.0239**	**88.4704**	**0.2252**	**4.8778**	**0.4386**	**5.3164**	**1.5374**	**0.4042**	**1.9416**		**16,338.2168**	**16,338.2168**	**0.5541**		**16,349.8538**

3.6 Architectural Coating - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	246.0174					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.7705
Total	**246.1882**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.7705**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.8846	1.0311	11.3810	0.0311	2.6355	0.0179	2.6534	0.6991	0.0166	0.7156		1,984.4357	1,984.4357	0.1050		1,986.6402
Total	**0.8846**	**1.0311**	**11.3810**	**0.0311**	**2.6355**	**0.0179**	**2.6534**	**0.6991**	**0.0166**	**0.7156**		**1,984.4357**	**1,984.4357**	**0.1050**		**1,986.6402**

3.6 Architectural Coating - 2027

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	246.0174					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0545	1.0598	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0154		281.7705
Total	**246.0719**	**1.0598**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.7705**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.8846	1.0311	11.3810	0.0311	0.8031	0.0179	0.8209	0.2493	0.0166	0.2659		1,984.4357	1,984.4357	0.1050		1,986.6402
Total	**0.8846**	**1.0311**	**11.3810**	**0.0311**	**0.8031**	**0.0179**	**0.8209**	**0.2493**	**0.0166**	**0.2659**		**1,984.4357**	**1,984.4357**	**0.1050**		**1,986.6402**

3.6 Architectural Coating - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	246.0174					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.7705
Total	**246.1882**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.7705**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.8682	1.0155	11.2032	0.0311	2.6355	0.0180	2.6535	0.6991	0.0167	0.7158		1,971.9602	1,971.9602	0.1038		1,974.1406
Total	**0.8682**	**1.0155**	**11.2032**	**0.0311**	**2.6355**	**0.0180**	**2.6535**	**0.6991**	**0.0167**	**0.7158**		**1,971.9602**	**1,971.9602**	**0.1038**		**1,974.1406**

3.6 Architectural Coating - 2028

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	246.0174					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0545	1.0598	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0154		281.7705
Total	**246.0719**	**1.0598**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.7705**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.8682	1.0155	11.2032	0.0311	0.8031	0.0180	0.8211	0.2493	0.0167	0.2660		1,971.9602	1,971.9602	0.1038		1,974.1406
Total	**0.8682**	**1.0155**	**11.2032**	**0.0311**	**0.8031**	**0.0180**	**0.8211**	**0.2493**	**0.0167**	**0.2660**		**1,971.9602**	**1,971.9602**	**0.1038**		**1,974.1406**

3.6 Architectural Coating - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	246.0174					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.7705
Total	**246.1882**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.7705**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.8519	1.0005	11.0299	0.0311	2.6355	0.0181	2.6536	0.6991	0.0168	0.7159		1,961.4135	1,961.4135	0.1027		1,963.5704
Total	**0.8519**	**1.0005**	**11.0299**	**0.0311**	**2.6355**	**0.0181**	**2.6536**	**0.6991**	**0.0168**	**0.7159**		**1,961.4135**	**1,961.4135**	**0.1027**		**1,963.5704**

3.6 Architectural Coating - 2029

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	246.0174					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0545	1.0598	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0154		281.7705
Total	**246.0719**	**1.0598**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.7705**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.8519	1.0005	11.0299	0.0311	0.8031	0.0181	0.8212	0.2493	0.0168	0.2661		1,961.4135	1,961.4135	0.1027		1,963.5704
Total	**0.8519**	**1.0005**	**11.0299**	**0.0311**	**0.8031**	**0.0181**	**0.8212**	**0.2493**	**0.0168**	**0.2661**		**1,961.4135**	**1,961.4135**	**0.1027**		**1,963.5704**

3.7 Paving - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8973	8.4215	14.2781	0.0223		0.4109	0.4109		0.3781	0.3781		2,159.7967	2,159.7967	0.6985		2,174.4656
Paving	0.6424					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.5397**	**8.4215**	**14.2781**	**0.0223**		**0.4109**	**0.4109**		**0.3781**	**0.3781**		**2,159.7967**	**2,159.7967**	**0.6985**		**2,174.4656**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0421	0.0491	0.5420	1.4800e-003	0.1255	8.5000e-004	0.1264	0.0333	7.9000e-004	0.0341		94.4969	94.4969	5.0000e-003		94.6019
Total	**0.0421**	**0.0491**	**0.5420**	**1.4800e-003**	**0.1255**	**8.5000e-004**	**0.1264**	**0.0333**	**7.9000e-004**	**0.0341**		**94.4969**	**94.4969**	**5.0000e-003**		**94.6019**

3.7 Paving - 2027

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3281	9.8256	16.9276	0.0223		0.0366	0.0366		0.0366	0.0366	0.0000	2,159.7967	2,159.7967	0.6985		2,174.4656
Paving	0.6424					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9705**	**9.8256**	**16.9276**	**0.0223**		**0.0366**	**0.0366**		**0.0366**	**0.0366**	**0.0000**	**2,159.7967**	**2,159.7967**	**0.6985**		**2,174.4656**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0421	0.0491	0.5420	1.4800e-003	0.0382	8.5000e-004	0.0391	0.0119	7.9000e-004	0.0127		94.4969	94.4969	5.0000e-003		94.6019
Total	**0.0421**	**0.0491**	**0.5420**	**1.4800e-003**	**0.0382**	**8.5000e-004**	**0.0391**	**0.0119**	**7.9000e-004**	**0.0127**		**94.4969**	**94.4969**	**5.0000e-003**		**94.6019**

3.7 Paving - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8973	8.4215	14.2781	0.0223		0.4109	0.4109		0.3781	0.3781		2,159.7967	2,159.7967	0.6985		2,174.4656
Paving	0.6424					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.5397**	**8.4215**	**14.2781**	**0.0223**		**0.4109**	**0.4109**		**0.3781**	**0.3781**		**2,159.7967**	**2,159.7967**	**0.6985**		**2,174.4656**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0413	0.0484	0.5335	1.4800e-003	0.1255	8.6000e-004	0.1264	0.0333	8.0000e-004	0.0341		93.9029	93.9029	4.9400e-003		94.0067
Total	**0.0413**	**0.0484**	**0.5335**	**1.4800e-003**	**0.1255**	**8.6000e-004**	**0.1264**	**0.0333**	**8.0000e-004**	**0.0341**		**93.9029**	**93.9029**	**4.9400e-003**		**94.0067**

3.7 Paving - 2028

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3281	9.8256	16.9276	0.0223		0.0366	0.0366		0.0366	0.0366	0.0000	2,159.7967	2,159.7967	0.6985		2,174.4656
Paving	0.6424					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9705**	**9.8256**	**16.9276**	**0.0223**		**0.0366**	**0.0366**		**0.0366**	**0.0366**	**0.0000**	**2,159.7967**	**2,159.7967**	**0.6985**		**2,174.4656**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0413	0.0484	0.5335	1.4800e-003	0.0382	8.6000e-004	0.0391	0.0119	8.0000e-004	0.0127		93.9029	93.9029	4.9400e-003		94.0067
Total	**0.0413**	**0.0484**	**0.5335**	**1.4800e-003**	**0.0382**	**8.6000e-004**	**0.0391**	**0.0119**	**8.0000e-004**	**0.0127**		**93.9029**	**93.9029**	**4.9400e-003**		**94.0067**

3.7 Paving - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8973	8.4215	14.2781	0.0223		0.4109	0.4109		0.3781	0.3781		2,159.7967	2,159.7967	0.6985		2,174.4656
Paving	0.6424					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.5397**	**8.4215**	**14.2781**	**0.0223**		**0.4109**	**0.4109**		**0.3781**	**0.3781**		**2,159.7967**	**2,159.7967**	**0.6985**		**2,174.4656**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0406	0.0476	0.5252	1.4800e-003	0.1255	8.6000e-004	0.1264	0.0333	8.0000e-004	0.0341		93.4006	93.4006	4.8900e-003		93.5034
Total	**0.0406**	**0.0476**	**0.5252**	**1.4800e-003**	**0.1255**	**8.6000e-004**	**0.1264**	**0.0333**	**8.0000e-004**	**0.0341**		**93.4006**	**93.4006**	**4.8900e-003**		**93.5034**

3.7 Paving - 2029

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3281	9.8256	16.9276	0.0223		0.0366	0.0366		0.0366	0.0366	0.0000	2,159.7967	2,159.7967	0.6985		2,174.4656
Paving	0.6424					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9705**	**9.8256**	**16.9276**	**0.0223**		**0.0366**	**0.0366**		**0.0366**	**0.0366**	**0.0000**	**2,159.7967**	**2,159.7967**	**0.6985**		**2,174.4656**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0406	0.0476	0.5252	1.4800e-003	0.0382	8.6000e-004	0.0391	0.0119	8.0000e-004	0.0127		93.4006	93.4006	4.8900e-003		93.5034
Total	**0.0406**	**0.0476**	**0.5252**	**1.4800e-003**	**0.0382**	**8.6000e-004**	**0.0391**	**0.0119**	**8.0000e-004**	**0.0127**		**93.4006**	**93.4006**	**4.8900e-003**		**93.5034**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Improve Walkability Design

Improve Destination Accessibility

Improve Pedestrian Network

Provide Traffic Calming Measures

Implement NEV Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	116.5417	170.4614	1,020.0499	2.0500	130.4659	3.7848	134.2507	34.8104	3.4901	38.3004		148,600.6964	148,600.6964	5.4128		148,714.3658
Unmitigated	119.9286	188.5249	1,107.6326	2.3904	153.6851	4.3710	158.0561	41.0056	4.0302	45.0358		173,287.5707	173,287.5707	6.2070		173,417.9185

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Condo/Townhouse	14,432.10	15,680.40	13293.30	32,318,460	27,435,685
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Regional Shopping Center	24,396.00	28,188.00	14232.00	31,104,935	26,405,503
Total	38,828.10	43,868.40	27,525.30	63,423,395	53,841,188

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	12.50	4.20	5.40	0.00	0.00	0.00	66	28	6
Condo/Townhouse	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3
Other Asphalt Surfaces	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Parking Lot	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	54	35	11

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.469614	0.066142	0.173873	0.163382	0.035024	0.005630	0.009899	0.067518	0.001256	0.001244	0.003209	0.000474	0.002734

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

Percent of Electricity Use Generated with Renewable Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	1.2335	10.5795	4.7714	0.0673		0.8522	0.8522		0.8522	0.8522		13,455.9219	13,455.9219	0.2579	0.2467	13,537.8124
NaturalGas Unmitigated	1.4156	12.1414	5.4765	0.0772		0.9780	0.9780		0.9780	0.9780		15,442.4209	15,442.4209	0.2960	0.2831	15,536.4009

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	7627.4	0.0823	0.7478	0.6281	4.4900e-003		0.0568	0.0568		0.0568	0.0568		897.3409	897.3409	0.0172	0.0165	902.8019
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	123633	1.3333	11.3937	4.8484	0.0727		0.9212	0.9212		0.9212	0.9212		14,545.0800	14,545.0800	0.2788	0.2667	14,633.5989
Total		**1.4156**	**12.1414**	**5.4765**	**0.0772**		**0.9780**	**0.9780**		**0.9780**	**0.9780**		**15,442.4209**	**15,442.4209**	**0.2960**	**0.2831**	**15,536.4009**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	6.63123	0.0715	0.6501	0.5461	3.9000e-003		0.0494	0.0494		0.0494	0.0494		780.1450	780.1450	0.0150	0.0143	784.8929
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	107.744	1.1620	9.9294	4.2253	0.0634		0.8028	0.8028		0.8028	0.8028		12,675.7768	12,675.7768	0.2430	0.2324	12,752.9195
Total		**1.2335**	**10.5795**	**4.7714**	**0.0673**		**0.8522**	**0.8522**		**0.8522**	**0.8522**		**13,455.9219**	**13,455.9219**	**0.2579**	**0.2467**	**13,537.8124**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

Use only Natural Gas Hearths

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	237.6676	2.0901	181.8226	9.6500e-003		3.9441	3.9441		3.9132	3.9132	0.0000	46,704.7956	46,704.7956	1.2066	0.8502	46,993.7063
Unmitigated	290.9531	2.0901	181.8226	9.6500e-003		3.9441	3.9441		3.9132	3.9132	0.0000	46,704.7956	46,704.7956	1.2066	0.8502	46,993.7063

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	44.4853					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	236.6994					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	4.2512	1.9000e-004	0.2319	0.0000		2.9372	2.9372		2.9063	2.9063	0.0000	46,376.4706	46,376.4706	0.8889	0.8502	46,658.7101
Landscaping	5.5171	2.0899	181.5907	9.6500e-003		1.0069	1.0069		1.0069	1.0069		328.3250	328.3250	0.3177		334.9963
Total	**290.9531**	**2.0901**	**181.8226**	**9.6500e-003**		**3.9441**	**3.9441**		**3.9132**	**3.9132**	**0.0000**	**46,704.7956**	**46,704.7956**	**1.2066**	**0.8502**	**46,993.7063**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	8.8971					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	219.0023					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	4.2512	1.9000e-004	0.2319	0.0000		2.9372	2.9372		2.9063	2.9063	0.0000	46,376.4706	46,376.4706	0.8889	0.8502	46,658.7101
Landscaping	5.5171	2.0899	181.5907	9.6500e-003		1.0069	1.0069		1.0069	1.0069		328.3250	328.3250	0.3177		334.9963
Total	**237.6677**	**2.0901**	**181.8226**	**9.6500e-003**		**3.9441**	**3.9441**		**3.9132**	**3.9132**	**0.0000**	**46,704.7956**	**46,704.7956**	**1.2066**	**0.8502**	**46,993.7063**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Use Reclaimed Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Turf Reduction

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Alternative 2

Salton Sea Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	50.00	Acre	50.00	2,178,000.00	0
Parking Lot	12,425.00	Space	111.82	4,970,000.00	0
City Park	12.00	Acre	12.00	522,720.00	0
Condo/Townhouse	2,190.00	Dwelling Unit	497.00	2,190,000.00	3942
Regional Shopping Center	1,200.00	1000sqft	80.00	1,200,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.4	**Precipitation Freq (Days)**	20
Climate Zone	10			**Operational Year**	2030
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Alternative 2 - City General Plan

Construction Phase - Based on similar combined construction schedule

Off-road Equipment -

Off-road Equipment - Default construction equipment

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Based on Trenching Equipment used for EIR model

Trips and VMT - SCAQMD Building Construction Worker and Vendor Trips

On-road Fugitive Dust - Paved Roads

Grading -

Architectural Coating -

Vehicle Trips - Per Traffic Study

Vechicle Emission Factors -

Vechicle Emission Factors -

Vechicle Emission Factors -

Road Dust - Based on previous EIS model

Woodstoves - No woodstoves

Area Coating -

Construction Off-road Equipment Mitigation - Similar mitigation to EIS model

Mobile Land Use Mitigation -

Area Mitigation - Similar to EIS model

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	50
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	80
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim

tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	880.00	660.00
tblConstructionPhase	NumDays	12,400.00	2,088.00
tblConstructionPhase	NumDays	1,240.00	930.00
tblConstructionPhase	NumDays	880.00	660.00
tblConstructionPhase	NumDays	480.00	360.00
tblConstructionPhase	PhaseEndDate	8/7/2031	8/10/2029
tblConstructionPhase	PhaseEndDate	2/20/2032	11/21/2029
tblConstructionPhase	PhaseStartDate	1/26/2029	2/1/2027
tblConstructionPhase	PhaseStartDate	8/11/2029	5/13/2027
tblFireplaces	FireplaceWoodMass	457.60	0.00
tblLandUse	LotAcreage	136.88	497.00
tblLandUse	LotAcreage	27.55	80.00
tblLandUse	Population	7,074.00	3,942.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00

tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblProjectCharacteristics	OperationalYear	2014	2030
tblRoadDust	RoadPercentPave	50	100
tblTripsAndVMT	VendorTripNumber	1,688.00	431.00
tblTripsAndVMT	WorkerTripNumber	5,183.00	1,577.00
tblTripsAndVMT	WorkerTripNumber	1,037.00	315.00
tblVehicleTrips	CC_TTP	48.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TTP	33.00	0.00
tblVehicleTrips	ST_TR	1.59	0.00
tblVehicleTrips	ST_TR	49.97	23.49
tblVehicleTrips	SU_TR	1.59	0.00
tblVehicleTrips	SU_TR	25.24	11.86
tblVehicleTrips	WD_TR	1.59	0.00
tblVehicleTrips	WD_TR	42.94	20.33
tblWoodstoves	NumberCatalytic	109.50	0.00
tblWoodstoves	NumberNoncatalytic	109.50	0.00

tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	5.3402	57.0134	43.6968	0.0408	18.2169	3.0893	21.3062	9.9706	2.8422	12.8128	0.0000	4,249.4139	4,249.4139	1.2370	0.0000	4,275.3911
2016	5.1480	54.7439	42.0598	0.0407	18.2169	2.9397	21.1565	9.9706	2.7045	12.6751	0.0000	4,197.3638	4,197.3638	1.2349	0.0000	4,223.2957
2017	6.1698	69.7048	47.7609	0.0635	18.2169	3.3183	20.9720	9.9706	3.0528	12.5054	0.0000	6,454.4079	6,454.4079	1.9434	0.0000	6,495.2183
2018	5.3532	59.6371	43.1739	0.0635	8.8407	2.7891	11.6297	3.6409	2.5660	6.2068	0.0000	6,348.3893	6,348.3893	1.9425	0.0000	6,389.1815
2019	4.9495	54.2931	41.0891	0.0635	8.8407	2.5060	11.3466	3.6409	2.3055	5.9464	0.0000	6,241.7980	6,241.7980	1.9415	0.0000	6,282.5684
2020	4.6046	49.4732	39.1727	0.0635	8.8407	2.2630	11.1037	3.6409	2.0820	5.7228	0.0000	6,102.8884	6,102.8884	1.9408	0.0000	6,143.6459
2021	8.4352	36.4231	122.0581	0.2336	15.2843	1.2509	16.5352	4.0921	1.1708	5.2628	0.0000	18,244.2388	18,244.2388	1.0778	0.0000	18,266.8719
2022	8.0076	33.2575	118.2685	0.2335	15.2839	1.1157	16.3996	4.0919	1.0439	5.1358	0.0000	18,093.4291	18,093.4291	1.0583	0.0000	18,115.6537
2023	7.5509	30.3446	113.8395	0.2332	15.2834	1.0035	16.2869	4.0917	0.9385	5.0302	0.0000	17,950.3249	17,950.3249	1.0379	0.0000	17,972.1205
2024	7.3092	29.4341	111.6822	0.2351	15.2831	0.9266	16.2097	4.0915	0.8658	4.9573	0.0000	17,968.5633	17,968.5633	1.0356	0.0000	17,990.3110
2025	7.0729	28.5042	109.7502	0.2351	15.2827	0.8524	16.1351	4.0914	0.7958	4.8872	0.0000	17,870.9418	17,870.9418	1.0229	0.0000	17,892.4227
2026	6.9620	28.2453	108.1041	0.2350	15.2827	0.8493	16.1320	4.0914	0.7929	4.8843	0.0000	17,790.2761	17,790.2761	1.0164	0.0000	17,811.6208
2027	255.3201	38.8363	132.7047	0.2904	18.0437	1.3318	19.3755	4.8237	1.2411	6.0648	0.0000	22,089.6682	22,089.6682	1.8346	0.0000	22,128.1941
2028	255.2362	38.6567	131.5965	0.2904	18.0437	1.3320	19.3757	4.8237	1.2413	6.0650	0.0000	22,018.7976	22,018.7976	1.8276	0.0000	22,057.1775
2029	255.1590	38.4955	130.4737	0.2904	18.0436	1.3327	19.3762	4.8237	1.2419	6.0656	0.0000	21,958.3998	21,958.3998	1.8208	0.0000	21,996.6370
Total	**842.6181**	**647.0626**	**1,335.4306**	**2.6122**	**227.0037**	**26.8999**	**253.3406**	**79.8555**	**24.8849**	**104.2224**	**0.0000**	**207,578.9008**	**207,578.9008**	**21.9719**	**0.0000**	**208,040.3099**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	0.7895	12.5041	24.4653	0.0408	6.7394	0.0645	6.8039	3.6936	0.0644	3.7579	0.0000	4,249.4139	4,249.4139	1.2370	0.0000	4,275.3911
2016	0.7812	12.4920	24.3548	0.0407	6.7394	0.0644	6.8039	3.6936	0.0643	3.7579	0.0000	4,197.3638	4,197.3638	1.2349	0.0000	4,223.2957
2017	1.0486	20.4013	38.8991	0.0635	6.7394	0.1019	6.8038	3.6936	0.1018	3.7579	0.0000	6,454.4079	6,454.4079	1.9434	0.0000	6,495.2183
2018	1.0416	20.3918	38.8103	0.0635	3.2645	0.1019	3.3664	1.3483	0.1018	1.4502	0.0000	6,348.3893	6,348.3893	1.9425	0.0000	6,389.1814
2019	1.0363	20.3839	38.7435	0.0635	3.2645	0.1019	3.3664	1.3483	0.1018	1.4502	0.0000	6,241.7980	6,241.7980	1.9415	0.0000	6,282.5684
2020	1.0324	20.3778	38.6902	0.0635	3.2645	0.1019	3.3664	1.3483	0.1018	1.4502	0.0000	6,102.8884	6,102.8884	1.9408	0.0000	6,143.6459
2021	7.3463	32.8128	122.4038	0.2336	4.8796	0.5409	5.4205	1.5382	0.5043	2.0425	0.0000	18,244.2388	18,244.2388	1.0778	0.0000	18,266.8719
2022	7.0785	30.8816	118.7468	0.2335	4.8792	0.5350	5.4142	1.5380	0.4990	2.0370	0.0000	18,093.4291	18,093.4291	1.0583	0.0000	18,115.6537
2023	6.7364	28.8769	114.3865	0.2332	4.8787	0.5195	5.3982	1.5378	0.4847	2.0225	0.0000	17,950.3249	17,950.3249	1.0379	0.0000	17,972.1205
2024	6.5787	28.6351	112.2541	0.2351	4.8784	0.5172	5.3956	1.5377	0.4826	2.0203	0.0000	17,968.5633	17,968.5633	1.0356	0.0000	17,990.3110
2025	6.4300	28.3850	110.3708	0.2351	4.8780	0.5190	5.3970	1.5375	0.4843	2.0218	0.0000	17,870.9418	17,870.9418	1.0229	0.0000	17,892.4227
2026	6.3190	28.1261	108.7246	0.2350	4.8780	0.5159	5.3939	1.5375	0.4814	2.0189	0.0000	17,790.2761	17,790.2761	1.0164	0.0000	17,811.6208
2027	253.9916	40.0355	135.9981	0.2904	5.7193	0.5765	6.2958	1.7986	0.5406	2.3392	0.0000	22,089.6682	22,089.6682	1.8346	0.0000	22,128.1941
2028	253.9077	39.8559	134.8900	0.2904	5.7193	0.5767	6.2960	1.7986	0.5408	2.3394	0.0000	22,018.7976	22,018.7976	1.8276	0.0000	22,057.1775
2029	253.8305	39.6947	133.7672	0.2904	5.7192	0.5774	6.2965	1.7986	0.5414	2.3400	0.0000	21,958.3998	21,958.3998	1.8208	0.0000	21,996.6370
Total	**807.9482**	**403.8545**	**1,295.5049**	**2.6122**	**76.4414**	**5.4145**	**81.8184**	**29.7481**	**5.0950**	**34.8056**	**0.0000**	**207,578.9007**	**207,578.9007**	**21.9719**	**0.0000**	**208,040.3098**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	4.11	37.59	2.99	0.00	66.33	79.87	67.70	62.75	79.53	66.60	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	290.9531	2.0901	181.8226	9.6500e-003		3.9441	3.9441		3.9132	3.9132	0.0000	46,704.7956	46,704.7956	1.2066	0.8502	46,993.7063
Energy	1.4156	12.1414	5.4765	0.0772		0.9780	0.9780		0.9780	0.9780		15,442.4209	15,442.4209	0.2960	0.2831	15,536.4009
Mobile	98.9844	201.6352	1,170.0970	2.2631	153.6851	4.3962	158.0813	41.0056	4.0534	45.0590		164,833.3701	164,833.3701	6.2342		164,964.2886
Total	**391.3530**	**215.8667**	**1,357.3961**	**2.3500**	**153.6851**	**9.3183**	**163.0034**	**41.0056**	**8.9446**	**49.9502**	**0.0000**	**226,980.5865**	**226,980.5865**	**7.7368**	**1.1334**	**227,494.3958**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	237.6676	2.0901	181.8226	9.6500e-003		3.9441	3.9441		3.9132	3.9132	0.0000	46,704.7956	46,704.7956	1.2066	0.8502	46,993.7063
Energy	1.2335	10.5795	4.7714	0.0673		0.8522	0.8522		0.8522	0.8522		13,455.9219	13,455.9219	0.2579	0.2467	13,537.8124
Mobile	95.9648	181.7344	1,100.8264	1.9414	130.4659	3.8100	134.2759	34.8104	3.5133	38.3236		141,336.4865	141,336.4865	5.4400		141,450.7266
Total	**334.8659**	**194.4040**	**1,287.4204**	**2.0184**	**130.4659**	**8.6063**	**139.0722**	**34.8104**	**8.2786**	**43.0890**	**0.0000**	**201,497.2039**	**201,497.2039**	**6.9045**	**1.0969**	**201,982.2453**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	14.43	9.94	5.16	14.11	15.11	7.64	14.68	15.11	7.45	13.74	0.00	11.23	11.23	10.76	3.21	11.21

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	9/1/2015	1/16/2017	5	360	
2	Grading	Grading	1/17/2017	8/10/2020	5	930	
3	Utilities	Trenching	8/11/2020	1/25/2021	5	120	
4	Building Construction	Building Construction	1/26/2021	1/25/2029	5	2088	
5	Architectural Coating	Architectural Coating	2/1/2027	8/10/2029	5	660	
6	Paving	Paving	5/13/2027	11/21/2029	5	660	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 2325

Acres of Paving: 0

Residential Indoor: 4,434,750; Residential Outdoor: 1,478,250; Non-Residential Indoor: 6,074,730; Non-Residential Outdoor: 2,024,910 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Utilities	Forklifts	1	4.00	89	0.20
Utilities	Off-Highway Trucks	2	8.00	400	0.38
Utilities	Signal Boards	1	8.00	6	0.82
Utilities	Trenchers	1	6.00	80	0.50
Utilities	Welders	1	4.00	46	0.45
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Utilities	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	1,577.00	431.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	315.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Site Preparation - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	5.2609	56.8897	42.6318	0.0391		3.0883	3.0883		2.8412	2.8412		4,111.7444	4,111.7444	1.2275		4,137.5225
Total	**5.2609**	**56.8897**	**42.6318**	**0.0391**	**18.0663**	**3.0883**	**21.1545**	**9.9307**	**2.8412**	**12.7719**		**4,111.7444**	**4,111.7444**	**1.2275**		**4,137.5225**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0792	0.1237	1.0650	1.6300e-003	0.1506	1.0300e-003	0.1516	0.0400	9.4000e-004	0.0409		137.6696	137.6696	9.4800e-003		137.8687
Total	**0.0792**	**0.1237**	**1.0650**	**1.6300e-003**	**0.1506**	**1.0300e-003**	**0.1516**	**0.0400**	**9.4000e-004**	**0.0409**		**137.6696**	**137.6696**	**9.4800e-003**		**137.8687**

3.2 Site Preparation - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.6936	0.0000	6.6936	3.6793	0.0000	3.6793			0.0000			0.0000
Off-Road	0.7103	12.3804	23.4003	0.0391		0.0634	0.0634		0.0634	0.0634	0.0000	4,111.7444	4,111.7444	1.2275		4,137.5224
Total	**0.7103**	**12.3804**	**23.4003**	**0.0391**	**6.6936**	**0.0634**	**6.7570**	**3.6793**	**0.0634**	**3.7428**	**0.0000**	**4,111.7444**	**4,111.7444**	**1.2275**		**4,137.5224**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0792	0.1237	1.0650	1.6300e-003	0.0459	1.0300e-003	0.0469	0.0142	9.4000e-004	0.0152		137.6696	137.6696	9.4800e-003		137.8687
Total	**0.0792**	**0.1237**	**1.0650**	**1.6300e-003**	**0.0459**	**1.0300e-003**	**0.0469**	**0.0142**	**9.4000e-004**	**0.0152**		**137.6696**	**137.6696**	**9.4800e-003**		**137.8687**

3.2 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	5.0771	54.6323	41.1053	0.0391		2.9387	2.9387		2.7036	2.7036		4,065.0053	4,065.0053	1.2262		4,090.7544
Total	**5.0771**	**54.6323**	**41.1053**	**0.0391**	**18.0663**	**2.9387**	**21.0049**	**9.9307**	**2.7036**	**12.6343**		**4,065.0053**	**4,065.0053**	**1.2262**		**4,090.7544**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0709	0.1116	0.9545	1.6300e-003	0.1506	9.9000e-004	0.1516	0.0400	9.0000e-004	0.0409		132.3586	132.3586	8.7000e-003		132.5413
Total	**0.0709**	**0.1116**	**0.9545**	**1.6300e-003**	**0.1506**	**9.9000e-004**	**0.1516**	**0.0400**	**9.0000e-004**	**0.0409**		**132.3586**	**132.3586**	**8.7000e-003**		**132.5413**

3.2 Site Preparation - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.6936	0.0000	6.6936	3.6793	0.0000	3.6793			0.0000			0.0000
Off-Road	0.7103	12.3804	23.4003	0.0391		0.0634	0.0634		0.0634	0.0634	0.0000	4,065.0053	4,065.0053	1.2262		4,090.7544
Total	**0.7103**	**12.3804**	**23.4003**	**0.0391**	**6.6936**	**0.0634**	**6.7570**	**3.6793**	**0.0634**	**3.7428**	**0.0000**	**4,065.0053**	**4,065.0053**	**1.2262**		**4,090.7544**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0709	0.1116	0.9545	1.6300e-003	0.0459	9.9000e-004	0.0469	0.0142	9.0000e-004	0.0152		132.3586	132.3586	8.7000e-003		132.5413
Total	**0.0709**	**0.1116**	**0.9545**	**1.6300e-003**	**0.0459**	**9.9000e-004**	**0.0469**	**0.0142**	**9.0000e-004**	**0.0152**		**132.3586**	**132.3586**	**8.7000e-003**		**132.5413**

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.8382	51.7535	39.3970	0.0391		2.7542	2.7542		2.5339	2.5339		4,003.0859	4,003.0859	1.2265		4,028.8432
Total	**4.8382**	**51.7535**	**39.3970**	**0.0391**	**18.0663**	**2.7542**	**20.8205**	**9.9307**	**2.5339**	**12.4646**		**4,003.0859**	**4,003.0859**	**1.2265**		**4,028.8432**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0636	0.1015	0.8603	1.6300e-003	0.1506	9.6000e-004	0.1516	0.0400	8.8000e-004	0.0408		126.9350	126.9350	8.0600e-003		127.1041
Total	**0.0636**	**0.1015**	**0.8603**	**1.6300e-003**	**0.1506**	**9.6000e-004**	**0.1516**	**0.0400**	**8.8000e-004**	**0.0408**		**126.9350**	**126.9350**	**8.0600e-003**		**127.1041**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.6936	0.0000	6.6936	3.6793	0.0000	3.6793			0.0000			0.0000
Off-Road	0.7103	12.3804	23.4003	0.0391		0.0634	0.0634		0.0634	0.0634	0.0000	4,003.0859	4,003.0859	1.2265		4,028.8432
Total	**0.7103**	**12.3804**	**23.4003**	**0.0391**	**6.6936**	**0.0634**	**6.7570**	**3.6793**	**0.0634**	**3.7428**	**0.0000**	**4,003.0859**	**4,003.0859**	**1.2265**		**4,028.8432**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0636	0.1015	0.8603	1.6300e-003	0.0459	9.6000e-004	0.0469	0.0142	8.8000e-004	0.0151		126.9350	126.9350	8.0600e-003		127.1041
Total	**0.0636**	**0.1015**	**0.8603**	**1.6300e-003**	**0.0459**	**9.6000e-004**	**0.0469**	**0.0142**	**8.8000e-004**	**0.0151**		**126.9350**	**126.9350**	**8.0600e-003**		**127.1041**

3.3 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	6.0991	69.5920	46.8050	0.0617		3.3172	3.3172		3.0518	3.0518		6,313.3690	6,313.3690	1.9344		6,353.9915
Total	**6.0991**	**69.5920**	**46.8050**	**0.0617**	**8.6733**	**3.3172**	**11.9905**	**3.5965**	**3.0518**	**6.6483**		**6,313.3690**	**6,313.3690**	**1.9344**		**6,353.9915**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0707	0.1128	0.9559	1.8100e-003	0.1673	1.0600e-003	0.1684	0.0444	9.8000e-004	0.0454		141.0388	141.0388	8.9500e-003		141.2268
Total	**0.0707**	**0.1128**	**0.9559**	**1.8100e-003**	**0.1673**	**1.0600e-003**	**0.1684**	**0.0444**	**9.8000e-004**	**0.0454**		**141.0388**	**141.0388**	**8.9500e-003**		**141.2268**

3.3 Grading - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.2135	0.0000	3.2135	1.3325	0.0000	1.3325			0.0000			0.0000
Off-Road	0.9779	20.2885	37.9432	0.0617		0.1009	0.1009		0.1009	0.1009	0.0000	6,313.3690	6,313.3690	1.9344		6,353.9915
Total	**0.9779**	**20.2885**	**37.9432**	**0.0617**	**3.2135**	**0.1009**	**3.3143**	**1.3325**	**0.1009**	**1.4334**	**0.0000**	**6,313.3690**	**6,313.3690**	**1.9344**		**6,353.9915**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0707	0.1128	0.9559	1.8100e-003	0.0510	1.0600e-003	0.0521	0.0158	9.8000e-004	0.0168		141.0388	141.0388	8.9500e-003		141.2268
Total	**0.0707**	**0.1128**	**0.9559**	**1.8100e-003**	**0.0510**	**1.0600e-003**	**0.0521**	**0.0158**	**9.8000e-004**	**0.0168**		**141.0388**	**141.0388**	**8.9500e-003**		**141.2268**

3.3 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	5.2895	59.5338	42.3068	0.0617		2.7880	2.7880		2.5650	2.5650		6,212.8042	6,212.8042	1.9341		6,253.4209
Total	**5.2895**	**59.5338**	**42.3068**	**0.0617**	**8.6733**	**2.7880**	**11.4614**	**3.5965**	**2.5650**	**6.1615**		**6,212.8042**	**6,212.8042**	**1.9341**		**6,253.4209**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0636	0.1033	0.8671	1.8100e-003	0.1673	1.0500e-003	0.1684	0.0444	9.7000e-004	0.0454		135.5852	135.5852	8.3500e-003		135.7606
Total	**0.0636**	**0.1033**	**0.8671**	**1.8100e-003**	**0.1673**	**1.0500e-003**	**0.1684**	**0.0444**	**9.7000e-004**	**0.0454**		**135.5852**	**135.5852**	**8.3500e-003**		**135.7606**

3.3 Grading - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.2135	0.0000	3.2135	1.3325	0.0000	1.3325			0.0000			0.0000
Off-Road	0.9779	20.2885	37.9432	0.0617		0.1009	0.1009		0.1009	0.1009	0.0000	6,212.8041	6,212.8041	1.9341		6,253.4209
Total	**0.9779**	**20.2885**	**37.9432**	**0.0617**	**3.2135**	**0.1009**	**3.3143**	**1.3325**	**0.1009**	**1.4334**	**0.0000**	**6,212.8041**	**6,212.8041**	**1.9341**		**6,253.4209**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0636	0.1033	0.8671	1.8100e-003	0.0510	1.0500e-003	0.0520	0.0158	9.7000e-004	0.0168		135.5852	135.5852	8.3500e-003		135.7606
Total	**0.0636**	**0.1033**	**0.8671**	**1.8100e-003**	**0.0510**	**1.0500e-003**	**0.0520**	**0.0158**	**9.7000e-004**	**0.0168**		**135.5852**	**135.5852**	**8.3500e-003**		**135.7606**

3.3 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.8912	54.1978	40.2888	0.0617		2.5049	2.5049		2.3045	2.3045		6,111.3121	6,111.3121	1.9336		6,151.9167
Total	**4.8912**	**54.1978**	**40.2888**	**0.0617**	**8.6733**	**2.5049**	**11.1783**	**3.5965**	**2.3045**	**5.9010**		**6,111.3121**	**6,111.3121**	**1.9336**		**6,151.9167**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0584	0.0953	0.8003	1.8000e-003	0.1673	1.0500e-003	0.1684	0.0444	9.7000e-004	0.0454		130.4859	130.4859	7.8900e-003		130.6516
Total	**0.0584**	**0.0953**	**0.8003**	**1.8000e-003**	**0.1673**	**1.0500e-003**	**0.1684**	**0.0444**	**9.7000e-004**	**0.0454**		**130.4859**	**130.4859**	**7.8900e-003**		**130.6516**

3.3 Grading - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.2135	0.0000	3.2135	1.3325	0.0000	1.3325			0.0000			0.0000
Off-Road	0.9779	20.2885	37.9432	0.0617		0.1009	0.1009		0.1009	0.1009	0.0000	6,111.3121	6,111.3121	1.9336		6,151.9167
Total	**0.9779**	**20.2885**	**37.9432**	**0.0617**	**3.2135**	**0.1009**	**3.3143**	**1.3325**	**0.1009**	**1.4334**	**0.0000**	**6,111.3121**	**6,111.3121**	**1.9336**		**6,151.9167**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0584	0.0953	0.8003	1.8000e-003	0.0510	1.0500e-003	0.0520	0.0158	9.7000e-004	0.0168		130.4859	130.4859	7.8900e-003		130.6516
Total	**0.0584**	**0.0953**	**0.8003**	**1.8000e-003**	**0.0510**	**1.0500e-003**	**0.0520**	**0.0158**	**9.7000e-004**	**0.0168**		**130.4859**	**130.4859**	**7.8900e-003**		**130.6516**

3.3 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.5501	49.3839	38.4257	0.0617		2.2619	2.2619		2.0810	2.0810		5,977.7088	5,977.7088	1.9333		6,018.3084
Total	**4.5501**	**49.3839**	**38.4257**	**0.0617**	**8.6733**	**2.2619**	**10.9353**	**3.5965**	**2.0810**	**5.6775**		**5,977.7088**	**5,977.7088**	**1.9333**		**6,018.3084**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0545	0.0892	0.7470	1.8000e-003	0.1673	1.0500e-003	0.1684	0.0444	9.7000e-004	0.0454		125.1795	125.1795	7.5200e-003		125.3375
Total	**0.0545**	**0.0892**	**0.7470**	**1.8000e-003**	**0.1673**	**1.0500e-003**	**0.1684**	**0.0444**	**9.7000e-004**	**0.0454**		**125.1795**	**125.1795**	**7.5200e-003**		**125.3375**

3.3 Grading - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.2135	0.0000	3.2135	1.3325	0.0000	1.3325			0.0000			0.0000
Off-Road	0.9779	20.2885	37.9432	0.0617		0.1009	0.1009		0.1009	0.1009	0.0000	5,977.7088	5,977.7088	1.9333		6,018.3084
Total	**0.9779**	**20.2885**	**37.9432**	**0.0617**	**3.2135**	**0.1009**	**3.3143**	**1.3325**	**0.1009**	**1.4334**	**0.0000**	**5,977.7088**	**5,977.7088**	**1.9333**		**6,018.3084**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0545	0.0892	0.7470	1.8000e-003	0.0510	1.0500e-003	0.0520	0.0158	9.7000e-004	0.0168		125.1795	125.1795	7.5200e-003		125.3375
Total	**0.0545**	**0.0892**	**0.7470**	**1.8000e-003**	**0.0510**	**1.0500e-003**	**0.0520**	**0.0158**	**9.7000e-004**	**0.0168**		**125.1795**	**125.1795**	**7.5200e-003**		**125.3375**

3.4 Utilities - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9429	17.2968	11.3849	0.0316		0.7828	0.7828		0.7248	0.7248		3,022.9831	3,022.9831	0.9487		3,042.9047
Total	**1.9429**	**17.2968**	**11.3849**	**0.0316**		**0.7828**	**0.7828**		**0.7248**	**0.7248**		**3,022.9831**	**3,022.9831**	**0.9487**		**3,042.9047**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0408	0.0669	0.5602	1.3500e-003	0.1255	7.9000e-004	0.1263	0.0333	7.3000e-004	0.0340		93.8847	93.8847	5.6400e-003		94.0031
Total	**0.0408**	**0.0669**	**0.5602**	**1.3500e-003**	**0.1255**	**7.9000e-004**	**0.1263**	**0.0333**	**7.3000e-004**	**0.0340**		**93.8847**	**93.8847**	**5.6400e-003**		**94.0031**

3.4 Utilities - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5263	9.2153	17.2272	0.0316		0.0718	0.0718		0.0718	0.0718	0.0000	3,022.9831	3,022.9831	0.9487		3,042.9047
Total	**0.5263**	**9.2153**	**17.2272**	**0.0316**		**0.0718**	**0.0718**		**0.0718**	**0.0718**	**0.0000**	**3,022.9831**	**3,022.9831**	**0.9487**		**3,042.9047**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0408	0.0669	0.5602	1.3500e-003	0.0382	7.9000e-004	0.0390	0.0119	7.3000e-004	0.0126		93.8847	93.8847	5.6400e-003		94.0031
Total	**0.0408**	**0.0669**	**0.5602**	**1.3500e-003**	**0.0382**	**7.9000e-004**	**0.0390**	**0.0119**	**7.3000e-004**	**0.0126**		**93.8847**	**93.8847**	**5.6400e-003**		**94.0031**

3.4 Utilities - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7733	14.8794	10.9221	0.0316		0.6732	0.6732		0.6235	0.6235		3,022.8711	3,022.8711	0.9468		3,042.7535
Total	**1.7733**	**14.8794**	**10.9221**	**0.0316**		**0.6732**	**0.6732**		**0.6235**	**0.6235**		**3,022.8711**	**3,022.8711**	**0.9468**		**3,042.7535**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0388	0.0634	0.5325	1.3500e-003	0.1255	8.0000e-004	0.1263	0.0333	7.4000e-004	0.0340		92.4988	92.4988	5.4800e-003		92.6139
Total	**0.0388**	**0.0634**	**0.5325**	**1.3500e-003**	**0.1255**	**8.0000e-004**	**0.1263**	**0.0333**	**7.4000e-004**	**0.0340**		**92.4988**	**92.4988**	**5.4800e-003**		**92.6139**

3.4 Utilities - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5263	9.2153	17.2272	0.0316		0.0718	0.0718		0.0718	0.0718	0.0000	3,022.8710	3,022.8710	0.9468		3,042.7535
Total	**0.5263**	**9.2153**	**17.2272**	**0.0316**		**0.0718**	**0.0718**		**0.0718**	**0.0718**	**0.0000**	**3,022.8710**	**3,022.8710**	**0.9468**		**3,042.7535**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0388	0.0634	0.5325	1.3500e-003	0.0382	8.0000e-004	0.0390	0.0119	7.4000e-004	0.0126		92.4988	92.4988	5.4800e-003		92.6139
Total	**0.0388**	**0.0634**	**0.5325**	**1.3500e-003**	**0.0382**	**8.0000e-004**	**0.0390**	**0.0119**	**7.4000e-004**	**0.0126**		**92.4988**	**92.4988**	**5.4800e-003**		**92.6139**

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5396	13.1889	14.8402	0.0219		0.7864	0.7864		0.7428	0.7428		2,064.4675	2,064.4675	0.4579		2,074.0833
Total	**1.5396**	**13.1889**	**14.8402**	**0.0219**		**0.7864**	**0.7864**		**0.7428**	**0.7428**		**2,064.4675**	**2,064.4675**	**0.4579**		**2,074.0833**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.8213	16.5648	51.2305	0.0694	2.0900	0.3808	2.4708	0.5924	0.3503	0.9427		6,455.0659	6,455.0659	0.0436		6,455.9807
Worker	4.0743	6.6694	55.9874	0.1423	13.1943	0.0838	13.2781	3.4997	0.0777	3.5774		9,724.7053	9,724.7053	0.5763		9,736.8078
Total	**6.8956**	**23.2342**	**107.2179**	**0.2117**	**15.2843**	**0.4645**	**15.7488**	**4.0921**	**0.4280**	**4.5200**		**16,179.7713**	**16,179.7713**	**0.6199**		**16,192.7886**

3.5 Building Construction - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4508	9.5786	15.1859	0.0219		0.0763	0.0763		0.0763	0.0763	0.0000	2,064.4675	2,064.4675	0.4579		2,074.0833
Total	**0.4508**	**9.5786**	**15.1859**	**0.0219**		**0.0763**	**0.0763**		**0.0763**	**0.0763**	**0.0000**	**2,064.4675**	**2,064.4675**	**0.4579**		**2,074.0833**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.8213	16.5648	51.2305	0.0694	0.8592	0.3808	1.2400	0.2902	0.3503	0.6406		6,455.0659	6,455.0659	0.0436		6,455.9807
Worker	4.0743	6.6694	55.9874	0.1423	4.0204	0.0838	4.1042	1.2479	0.0777	1.3256		9,724.7053	9,724.7053	0.5763		9,736.8078
Total	**6.8956**	**23.2342**	**107.2179**	**0.2117**	**4.8796**	**0.4645**	**5.3441**	**1.5382**	**0.4280**	**1.9662**		**16,179.7713**	**16,179.7713**	**0.6199**		**16,192.7886**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3799	11.9544	14.7076	0.0219		0.6570	0.6570		0.6213	0.6213		2,065.3570	2,065.3570	0.4538		2,074.8868
Total	**1.3799**	**11.9544**	**14.7076**	**0.0219**		**0.6570**	**0.6570**		**0.6213**	**0.6213**		**2,065.3570**	**2,065.3570**	**0.4538**		**2,074.8868**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.7336	14.9067	50.2931	0.0693	2.0896	0.3746	2.4642	0.5922	0.3447	0.9368		6,446.8191	6,446.8191	0.0444		6,447.7510
Worker	3.8942	6.3964	53.2678	0.1423	13.1943	0.0841	13.2784	3.4997	0.0780	3.5777		9,581.2529	9,581.2529	0.5601		9,593.0159
Total	**6.6277**	**21.3031**	**103.5609**	**0.2116**	**15.2839**	**0.4587**	**15.7426**	**4.0919**	**0.4226**	**4.5145**		**16,028.0721**	**16,028.0721**	**0.6045**		**16,040.7669**

3.5 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4508	9.5786	15.1859	0.0219		0.0763	0.0763		0.0763	0.0763	0.0000	2,065.3570	2,065.3570	0.4538		2,074.8868
Total	**0.4508**	**9.5786**	**15.1859**	**0.0219**		**0.0763**	**0.0763**		**0.0763**	**0.0763**	**0.0000**	**2,065.3570**	**2,065.3570**	**0.4538**		**2,074.8868**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.7336	14.9067	50.2931	0.0693	0.8588	0.3746	1.2334	0.2901	0.3447	0.6347		6,446.8191	6,446.8191	0.0444		6,447.7510
Worker	3.8942	6.3964	53.2678	0.1423	4.0204	0.0841	4.1045	1.2479	0.0780	1.3259		9,581.2529	9,581.2529	0.5601		9,593.0159
Total	**6.6277**	**21.3031**	**103.5609**	**0.2116**	**4.8792**	**0.4587**	**5.3379**	**1.5380**	**0.4226**	**1.9607**		**16,028.0721**	**16,028.0721**	**0.6045**		**16,040.7669**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2653	11.0463	14.6389	0.0219		0.5603	0.5603		0.5302	0.5302		2,066.2431	2,066.2431	0.4497		2,075.6869
Total	**1.2653**	**11.0463**	**14.6389**	**0.0219**		**0.5603**	**0.5603**		**0.5302**	**0.5302**		**2,066.2431**	**2,066.2431**	**0.4497**		**2,075.6869**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.5491	13.1302	48.3380	0.0691	2.0892	0.3587	2.4479	0.5920	0.3300	0.9220		6,430.4317	6,430.4317	0.0418		6,431.3098
Worker	3.7365	6.1681	50.8627	0.1423	13.1943	0.0844	13.2787	3.4997	0.0783	3.5780		9,453.6501	9,453.6501	0.5464		9,465.1238
Total	**6.2856**	**19.2983**	**99.2006**	**0.2114**	**15.2834**	**0.4432**	**15.7266**	**4.0917**	**0.4084**	**4.5000**		**15,884.0818**	**15,884.0818**	**0.5882**		**15,896.4336**

3.5 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4508	9.5786	15.1859	0.0219		0.0763	0.0763		0.0763	0.0763	0.0000	2,066.2431	2,066.2431	0.4497		2,075.6869
Total	**0.4508**	**9.5786**	**15.1859**	**0.0219**		**0.0763**	**0.0763**		**0.0763**	**0.0763**	**0.0000**	**2,066.2431**	**2,066.2431**	**0.4497**		**2,075.6869**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.5491	13.1302	48.3380	0.0691	0.8583	0.3587	1.2170	0.2899	0.3300	0.6199		6,430.4317	6,430.4317	0.0418		6,431.3098
Worker	3.7365	6.1681	50.8627	0.1423	4.0204	0.0844	4.1049	1.2479	0.0783	1.3263		9,453.6501	9,453.6501	0.5464		9,465.1238
Total	**6.2856**	**19.2983**	**99.2006**	**0.2114**	**4.8787**	**0.4432**	**5.3219**	**1.5378**	**0.4084**	**1.9462**		**15,884.0818**	**15,884.0818**	**0.5882**		**15,896.4336**

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1813	10.3775	14.6139	0.0219		0.4857	0.4857		0.4595	0.4595		2,066.7425	2,066.7425	0.4462		2,076.1129
Total	**1.1813**	**10.3775**	**14.6139**	**0.0219**		**0.4857**	**0.4857**		**0.4595**	**0.4595**		**2,066.7425**	**2,066.7425**	**0.4462**		**2,076.1129**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.4965	13.0503	47.3769	0.0693	2.0888	0.3538	2.4426	0.5918	0.3255	0.9173		6,448.2555	6,448.2555	0.0426		6,449.1495
Worker	3.6314	6.0063	49.6913	0.1439	13.1943	0.0871	13.2814	3.4997	0.0808	3.5805		9,453.5653	9,453.5653	0.5468		9,465.0486
Total	**6.1279**	**19.0566**	**97.0682**	**0.2132**	**15.2831**	**0.4409**	**15.7239**	**4.0915**	**0.4063**	**4.4978**		**15,901.8208**	**15,901.8208**	**0.5894**		**15,914.1981**

3.5 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4508	9.5786	15.1859	0.0219		0.0763	0.0763		0.0763	0.0763	0.0000	2,066.7425	2,066.7425	0.4462		2,076.1129
Total	**0.4508**	**9.5786**	**15.1859**	**0.0219**		**0.0763**	**0.0763**		**0.0763**	**0.0763**	**0.0000**	**2,066.7425**	**2,066.7425**	**0.4462**		**2,076.1129**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.4965	13.0503	47.3769	0.0693	0.8580	0.3538	1.2117	0.2897	0.3255	0.6152		6,448.2555	6,448.2555	0.0426		6,449.1495
Worker	3.6314	6.0063	49.6913	0.1439	4.0204	0.0871	4.1075	1.2479	0.0808	1.3287		9,453.5653	9,453.5653	0.5468		9,465.0486
Total	**6.1279**	**19.0566**	**97.0682**	**0.2132**	**4.8784**	**0.4409**	**5.3192**	**1.5377**	**0.4063**	**1.9439**		**15,901.8208**	**15,901.8208**	**0.5894**		**15,914.1981**

3.5 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0937	9.6977	14.5653	0.0219		0.4097	0.4097		0.3879	0.3879		2,067.5014	2,067.5014	0.4428		2,076.8003
Total	**1.0937**	**9.6977**	**14.5653**	**0.0219**		**0.4097**	**0.4097**		**0.3879**	**0.3879**		**2,067.5014**	**2,067.5014**	**0.4428**		**2,076.8003**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.4462	12.9463	46.8684	0.0692	2.0884	0.3549	2.4433	0.5917	0.3265	0.9182		6,446.3846	6,446.3846	0.0426		6,447.2800
Worker	3.5330	5.8601	48.3166	0.1439	13.1943	0.0878	13.2821	3.4997	0.0814	3.5811		9,357.0559	9,357.0559	0.5375		9,368.3424
Total	**5.9792**	**18.8064**	**95.1850**	**0.2131**	**15.2827**	**0.4426**	**15.7254**	**4.0914**	**0.4079**	**4.4993**		**15,803.4404**	**15,803.4404**	**0.5801**		**15,815.6224**

3.5 Building Construction - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4508	9.5786	15.1859	0.0219		0.0763	0.0763		0.0763	0.0763	0.0000	2,067.5014	2,067.5014	0.4428		2,076.8003
Total	**0.4508**	**9.5786**	**15.1859**	**0.0219**		**0.0763**	**0.0763**		**0.0763**	**0.0763**	**0.0000**	**2,067.5014**	**2,067.5014**	**0.4428**		**2,076.8003**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.4462	12.9463	46.8684	0.0692	0.8576	0.3549	1.2125	0.2896	0.3265	0.6161		6,446.3846	6,446.3846	0.0426		6,447.2800
Worker	3.5330	5.8601	48.3166	0.1439	4.0204	0.0878	4.1082	1.2479	0.0814	1.3294		9,357.0559	9,357.0559	0.5375		9,368.3424
Total	**5.9792**	**18.8064**	**95.1850**	**0.2131**	**4.8780**	**0.4426**	**5.3207**	**1.5375**	**0.4079**	**1.9454**		**15,803.4404**	**15,803.4404**	**0.5801**		**15,815.6224**

3.5 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0937	9.6977	14.5653	0.0219		0.4097	0.4097		0.3879	0.3879		2,067.5014	2,067.5014	0.4428		2,076.8003
Total	**1.0937**	**9.6977**	**14.5653**	**0.0219**		**0.4097**	**0.4097**		**0.3879**	**0.3879**		**2,067.5014**	**2,067.5014**	**0.4428**		**2,076.8003**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.4009	12.7779	46.2187	0.0692	2.0884	0.3509	2.4393	0.5917	0.3228	0.9145		6,445.8883	6,445.8883	0.0424		6,446.7777
Worker	3.4673	5.7697	47.3201	0.1439	13.1943	0.0887	13.2830	3.4997	0.0823	3.5820		9,276.8864	9,276.8864	0.5313		9,288.0429
Total	**5.8683**	**18.5476**	**93.5388**	**0.2131**	**15.2827**	**0.4395**	**15.7222**	**4.0914**	**0.4051**	**4.4964**		**15,722.7747**	**15,722.7747**	**0.5736**		**15,734.8205**

3.5 Building Construction - 2026

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4508	9.5786	15.1859	0.0219		0.0763	0.0763		0.0763	0.0763	0.0000	2,067.5014	2,067.5014	0.4428		2,076.8003
Total	**0.4508**	**9.5786**	**15.1859**	**0.0219**		**0.0763**	**0.0763**		**0.0763**	**0.0763**	**0.0000**	**2,067.5014**	**2,067.5014**	**0.4428**		**2,076.8003**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.4009	12.7779	46.2187	0.0692	0.8576	0.3509	1.2085	0.2896	0.3228	0.6124		6,445.8883	6,445.8883	0.0424		6,446.7777
Worker	3.4673	5.7697	47.3201	0.1439	4.0204	0.0887	4.1091	1.2479	0.0823	1.3302		9,276.8864	9,276.8864	0.5313		9,288.0429
Total	**5.8683**	**18.5476**	**93.5388**	**0.2131**	**4.8780**	**0.4395**	**5.3175**	**1.5375**	**0.4051**	**1.9426**		**15,722.7747**	**15,722.7747**	**0.5736**		**15,734.8205**

3.5 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0937	9.6977	14.5653	0.0219		0.4097	0.4097		0.3879	0.3879		2,067.5014	2,067.5014	0.4428		2,076.8003
Total	**1.0937**	**9.6977**	**14.5653**	**0.0219**		**0.4097**	**0.4097**		**0.3879**	**0.3879**		**2,067.5014**	**2,067.5014**	**0.4428**		**2,076.8003**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.3751	12.6946	45.7450	0.0692	2.0884	0.3514	2.4399	0.5917	0.3233	0.9150		6,445.8653	6,445.8653	0.0424		6,446.7555
Worker	3.4098	5.6868	46.5634	0.1439	13.1943	0.0895	13.2837	3.4997	0.0830	3.5827		9,208.1723	9,208.1723	0.5255		9,219.2084
Total	**5.7849**	**18.3815**	**92.3084**	**0.2131**	**15.2827**	**0.4409**	**15.7236**	**4.0914**	**0.4063**	**4.4977**		**15,654.0376**	**15,654.0376**	**0.5679**		**15,665.9638**

3.5 Building Construction - 2027

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4508	9.5786	15.1859	0.0219		0.0763	0.0763		0.0763	0.0763	0.0000	2,067.5014	2,067.5014	0.4428		2,076.8003
Total	**0.4508**	**9.5786**	**15.1859**	**0.0219**		**0.0763**	**0.0763**		**0.0763**	**0.0763**	**0.0000**	**2,067.5014**	**2,067.5014**	**0.4428**		**2,076.8003**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.3751	12.6946	45.7450	0.0692	0.8576	0.3514	1.2090	0.2896	0.3233	0.6129		6,445.8653	6,445.8653	0.0424		6,446.7555
Worker	3.4098	5.6868	46.5634	0.1439	4.0204	0.0895	4.1099	1.2479	0.0830	1.3309		9,208.1723	9,208.1723	0.5255		9,219.2084
Total	**5.7849**	**18.3815**	**92.3084**	**0.2131**	**4.8780**	**0.4409**	**5.3189**	**1.5375**	**0.4063**	**1.9438**		**15,654.0376**	**15,654.0376**	**0.5679**		**15,665.9638**

3.5 Building Construction - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0937	9.6977	14.5653	0.0219		0.4097	0.4097		0.3879	0.3879		2,067.5014	2,067.5014	0.4428		2,076.8003
Total	**1.0937**	**9.6977**	**14.5653**	**0.0219**		**0.4097**	**0.4097**		**0.3879**	**0.3879**		**2,067.5014**	**2,067.5014**	**0.4428**		**2,076.8003**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.3582	12.6194	45.5502	0.0692	2.0884	0.3508	2.4392	0.5917	0.3228	0.9144		6,445.4183	6,445.4183	0.0423		6,446.3076
Worker	3.3544	5.6006	45.8081	0.1439	13.1943	0.0902	13.2845	3.4997	0.0837	3.5834		9,149.9352	9,149.9352	0.5198		9,160.8513
Total	**5.7126**	**18.2200**	**91.3583**	**0.2131**	**15.2827**	**0.4410**	**15.7236**	**4.0914**	**0.4064**	**4.4978**		**15,595.3536**	**15,595.3536**	**0.5622**		**15,607.1589**

3.5 Building Construction - 2028

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4508	9.5786	15.1859	0.0219		0.0763	0.0763		0.0763	0.0763	0.0000	2,067.5014	2,067.5014	0.4428		2,076.8003
Total	**0.4508**	**9.5786**	**15.1859**	**0.0219**		**0.0763**	**0.0763**		**0.0763**	**0.0763**	**0.0000**	**2,067.5014**	**2,067.5014**	**0.4428**		**2,076.8003**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.3582	12.6194	45.5502	0.0692	0.8575	0.3508	1.2083	0.2895	0.3228	0.6123		6,445.4183	6,445.4183	0.0423		6,446.3076
Worker	3.3544	5.6006	45.8081	0.1439	4.0204	0.0902	4.1106	1.2479	0.0837	1.3316		9,149.9352	9,149.9352	0.5198		9,160.8513
Total	**5.7126**	**18.2200**	**91.3583**	**0.2131**	**4.8780**	**0.4410**	**5.3189**	**1.5375**	**0.4064**	**1.9439**		**15,595.3536**	**15,595.3536**	**0.5622**		**15,607.1589**

3.5 Building Construction - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0937	9.6977	14.5653	0.0219		0.4097	0.4097		0.3879	0.3879		2,067.5014	2,067.5014	0.4428		2,076.8003
Total	**1.0937**	**9.6977**	**14.5653**	**0.0219**		**0.4097**	**0.4097**		**0.3879**	**0.3879**		**2,067.5014**	**2,067.5014**	**0.4428**		**2,076.8003**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.3469	12.5591	45.3141	0.0692	2.0883	0.3508	2.4390	0.5916	0.3227	0.9143		6,444.7466	6,444.7466	0.0424		6,445.6359
Worker	3.2999	5.5171	45.0749	0.1439	13.1943	0.0907	13.2850	3.4997	0.0842	3.5839		9,100.5445	9,100.5445	0.5142		9,111.3426
Total	**5.6468**	**18.0762**	**90.3890**	**0.2131**	**15.2825**	**0.4415**	**15.7241**	**4.0913**	**0.4069**	**4.4982**		**15,545.2911**	**15,545.2911**	**0.5566**		**15,556.9785**

3.5 Building Construction - 2029

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4508	9.5786	15.1859	0.0219		0.0763	0.0763		0.0763	0.0763	0.0000	2,067.5014	2,067.5014	0.4428		2,076.8003
Total	**0.4508**	**9.5786**	**15.1859**	**0.0219**		**0.0763**	**0.0763**		**0.0763**	**0.0763**	**0.0000**	**2,067.5014**	**2,067.5014**	**0.4428**		**2,076.8003**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.3469	12.5591	45.3141	0.0692	0.8574	0.3508	1.2082	0.2895	0.3227	0.6122		6,444.7466	6,444.7466	0.0424		6,445.6359
Worker	3.2999	5.5171	45.0749	0.1439	4.0204	0.0907	4.1112	1.2479	0.0842	1.3321		9,100.5445	9,100.5445	0.5142		9,111.3426
Total	**5.6468**	**18.0762**	**90.3890**	**0.2131**	**4.8778**	**0.4415**	**5.3194**	**1.5374**	**0.4069**	**1.9443**		**15,545.2911**	**15,545.2911**	**0.5566**		**15,556.9785**

3.6 Architectural Coating - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	246.0174					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.7705
Total	**246.1882**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.7705**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6811	1.1359	9.3009	0.0288	2.6355	0.0179	2.6534	0.6991	0.0166	0.7156		1,839.2988	1,839.2988	0.1050		1,841.5033
Total	**0.6811**	**1.1359**	**9.3009**	**0.0288**	**2.6355**	**0.0179**	**2.6534**	**0.6991**	**0.0166**	**0.7156**		**1,839.2988**	**1,839.2988**	**0.1050**		**1,841.5033**

3.6 Architectural Coating - 2027

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	246.0174					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0545	1.0598	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0154		281.7705
Total	**246.0719**	**1.0598**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.7705**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6811	1.1359	9.3009	0.0288	0.8031	0.0179	0.8209	0.2493	0.0166	0.2659		1,839.2988	1,839.2988	0.1050		1,841.5033
Total	**0.6811**	**1.1359**	**9.3009**	**0.0288**	**0.8031**	**0.0179**	**0.8209**	**0.2493**	**0.0166**	**0.2659**		**1,839.2988**	**1,839.2988**	**0.1050**		**1,841.5033**

3.6 Architectural Coating - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	246.0174					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.7705
Total	**246.1882**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.7705**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6700	1.1187	9.1500	0.0288	2.6355	0.0180	2.6535	0.6991	0.0167	0.7158		1,827.6662	1,827.6662	0.1038		1,829.8467
Total	**0.6700**	**1.1187**	**9.1500**	**0.0288**	**2.6355**	**0.0180**	**2.6535**	**0.6991**	**0.0167**	**0.7158**		**1,827.6662**	**1,827.6662**	**0.1038**		**1,829.8467**

3.6 Architectural Coating - 2028

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	246.0174					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0545	1.0598	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0154		281.7705
Total	**246.0719**	**1.0598**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.7705**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6700	1.1187	9.1500	0.0288	0.8031	0.0180	0.8211	0.2493	0.0167	0.2660		1,827.6662	1,827.6662	0.1038		1,829.8467
Total	**0.6700**	**1.1187**	**9.1500**	**0.0288**	**0.8031**	**0.0180**	**0.8211**	**0.2493**	**0.0167**	**0.2660**		**1,827.6662**	**1,827.6662**	**0.1038**		**1,829.8467**

3.6 Architectural Coating - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	246.0174					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.7705
Total	**246.1882**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.7705**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6592	1.1020	9.0035	0.0288	2.6355	0.0181	2.6536	0.6991	0.0168	0.7159		1,817.8006	1,817.8006	0.1027		1,819.9575
Total	**0.6592**	**1.1020**	**9.0035**	**0.0288**	**2.6355**	**0.0181**	**2.6536**	**0.6991**	**0.0168**	**0.7159**		**1,817.8006**	**1,817.8006**	**0.1027**		**1,819.9575**

3.6 Architectural Coating - 2029

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	246.0174					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0545	1.0598	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0154		281.7705
Total	**246.0719**	**1.0598**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.7705**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6592	1.1020	9.0035	0.0288	0.8031	0.0181	0.8212	0.2493	0.0168	0.2661		1,817.8006	1,817.8006	0.1027		1,819.9575
Total	**0.6592**	**1.1020**	**9.0035**	**0.0288**	**0.8031**	**0.0181**	**0.8212**	**0.2493**	**0.0168**	**0.2661**		**1,817.8006**	**1,817.8006**	**0.1027**		**1,819.9575**

3.7 Paving - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8973	8.4215	14.2781	0.0223		0.4109	0.4109		0.3781	0.3781		2,159.7967	2,159.7967	0.6985		2,174.4656
Paving	0.6424					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.5397**	**8.4215**	**14.2781**	**0.0223**		**0.4109**	**0.4109**		**0.3781**	**0.3781**		**2,159.7967**	**2,159.7967**	**0.6985**		**2,174.4656**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0324	0.0541	0.4429	1.3700e-003	0.1255	8.5000e-004	0.1264	0.0333	7.9000e-004	0.0341		87.5857	87.5857	5.0000e-003		87.6906
Total	**0.0324**	**0.0541**	**0.4429**	**1.3700e-003**	**0.1255**	**8.5000e-004**	**0.1264**	**0.0333**	**7.9000e-004**	**0.0341**		**87.5857**	**87.5857**	**5.0000e-003**		**87.6906**

3.7 Paving - 2027

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3281	9.8256	16.9276	0.0223		0.0366	0.0366		0.0366	0.0366	0.0000	2,159.7967	2,159.7967	0.6985		2,174.4656
Paving	0.6424					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9705**	**9.8256**	**16.9276**	**0.0223**		**0.0366**	**0.0366**		**0.0366**	**0.0366**	**0.0000**	**2,159.7967**	**2,159.7967**	**0.6985**		**2,174.4656**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0324	0.0541	0.4429	1.3700e-003	0.0382	8.5000e-004	0.0391	0.0119	7.9000e-004	0.0127		87.5857	87.5857	5.0000e-003		87.6906
Total	**0.0324**	**0.0541**	**0.4429**	**1.3700e-003**	**0.0382**	**8.5000e-004**	**0.0391**	**0.0119**	**7.9000e-004**	**0.0127**		**87.5857**	**87.5857**	**5.0000e-003**		**87.6906**

3.7 Paving - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8973	8.4215	14.2781	0.0223		0.4109	0.4109		0.3781	0.3781		2,159.7967	2,159.7967	0.6985		2,174.4656
Paving	0.6424					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.5397**	**8.4215**	**14.2781**	**0.0223**		**0.4109**	**0.4109**		**0.3781**	**0.3781**		**2,159.7967**	**2,159.7967**	**0.6985**		**2,174.4656**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0319	0.0533	0.4357	1.3700e-003	0.1255	8.6000e-004	0.1264	0.0333	8.0000e-004	0.0341		87.0317	87.0317	4.9400e-003		87.1356
Total	**0.0319**	**0.0533**	**0.4357**	**1.3700e-003**	**0.1255**	**8.6000e-004**	**0.1264**	**0.0333**	**8.0000e-004**	**0.0341**		**87.0317**	**87.0317**	**4.9400e-003**		**87.1356**

3.7 Paving - 2028

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3281	9.8256	16.9276	0.0223		0.0366	0.0366		0.0366	0.0366	0.0000	2,159.7967	2,159.7967	0.6985		2,174.4656
Paving	0.6424					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9705**	**9.8256**	**16.9276**	**0.0223**		**0.0366**	**0.0366**		**0.0366**	**0.0366**	**0.0000**	**2,159.7967**	**2,159.7967**	**0.6985**		**2,174.4656**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0319	0.0533	0.4357	1.3700e-003	0.0382	8.6000e-004	0.0391	0.0119	8.0000e-004	0.0127		87.0317	87.0317	4.9400e-003		87.1356
Total	**0.0319**	**0.0533**	**0.4357**	**1.3700e-003**	**0.0382**	**8.6000e-004**	**0.0391**	**0.0119**	**8.0000e-004**	**0.0127**		**87.0317**	**87.0317**	**4.9400e-003**		**87.1356**

3.7 Paving - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8973	8.4215	14.2781	0.0223		0.4109	0.4109		0.3781	0.3781		2,159.7967	2,159.7967	0.6985		2,174.4656
Paving	0.6424					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.5397**	**8.4215**	**14.2781**	**0.0223**		**0.4109**	**0.4109**		**0.3781**	**0.3781**		**2,159.7967**	**2,159.7967**	**0.6985**		**2,174.4656**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0314	0.0525	0.4287	1.3700e-003	0.1255	8.6000e-004	0.1264	0.0333	8.0000e-004	0.0341		86.5619	86.5619	4.8900e-003		86.6646
Total	**0.0314**	**0.0525**	**0.4287**	**1.3700e-003**	**0.1255**	**8.6000e-004**	**0.1264**	**0.0333**	**8.0000e-004**	**0.0341**		**86.5619**	**86.5619**	**4.8900e-003**		**86.6646**

3.7 Paving - 2029

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3281	9.8256	16.9276	0.0223		0.0366	0.0366		0.0366	0.0366	0.0000	2,159.7967	2,159.7967	0.6985		2,174.4656
Paving	0.6424					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9705**	**9.8256**	**16.9276**	**0.0223**		**0.0366**	**0.0366**		**0.0366**	**0.0366**	**0.0000**	**2,159.7967**	**2,159.7967**	**0.6985**		**2,174.4656**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0314	0.0525	0.4287	1.3700e-003	0.0382	8.6000e-004	0.0391	0.0119	8.0000e-004	0.0127		86.5619	86.5619	4.8900e-003		86.6646
Total	**0.0314**	**0.0525**	**0.4287**	**1.3700e-003**	**0.0382**	**8.6000e-004**	**0.0391**	**0.0119**	**8.0000e-004**	**0.0127**		**86.5619**	**86.5619**	**4.8900e-003**		**86.6646**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Improve Walkability Design

Improve Destination Accessibility

Improve Pedestrian Network

Provide Traffic Calming Measures

Implement NEV Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	95.9648	181.7344	1,100.8264	1.9414	130.4659	3.8100	134.2759	34.8104	3.5133	38.3236		141,336.4865	141,336.4865	5.4400		141,450.7266
Unmitigated	98.9844	201.6352	1,170.0970	2.2631	153.6851	4.3962	158.0813	41.0056	4.0534	45.0590		164,833.3701	164,833.3701	6.2342		164,964.2886

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Condo/Townhouse	14,432.10	15,680.40	13293.30	32,318,460	27,435,685
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Regional Shopping Center	24,396.00	28,188.00	14232.00	31,104,935	26,405,503
Total	38,828.10	43,868.40	27,525.30	63,423,395	53,841,188

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	12.50	4.20	5.40	0.00	0.00	0.00	66	28	6
Condo/Townhouse	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3
Other Asphalt Surfaces	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Parking Lot	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	54	35	11

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.469614	0.066142	0.173873	0.163382	0.035024	0.005630	0.009899	0.067518	0.001256	0.001244	0.003209	0.000474	0.002734

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

Percent of Electricity Use Generated with Renewable Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	1.2335	10.5795	4.7714	0.0673		0.8522	0.8522		0.8522	0.8522		13,455.9219	13,455.9219	0.2579	0.2467	13,537.8124
NaturalGas Unmitigated	1.4156	12.1414	5.4765	0.0772		0.9780	0.9780		0.9780	0.9780		15,442.4209	15,442.4209	0.2960	0.2831	15,536.4009

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	7627.4	0.0823	0.7478	0.6281	4.4900e-003		0.0568	0.0568		0.0568	0.0568		897.3409	897.3409	0.0172	0.0165	902.8019
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	123633	1.3333	11.3937	4.8484	0.0727		0.9212	0.9212		0.9212	0.9212		14,545.0800	14,545.0800	0.2788	0.2667	14,633.5989
Total		**1.4156**	**12.1414**	**5.4765**	**0.0772**		**0.9780**	**0.9780**		**0.9780**	**0.9780**		**15,442.4209**	**15,442.4209**	**0.2960**	**0.2831**	**15,536.4009**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	6.63123	0.0715	0.6501	0.5461	3.9000e-003		0.0494	0.0494		0.0494	0.0494		780.1450	780.1450	0.0150	0.0143	784.8929
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	107.744	1.1620	9.9294	4.2253	0.0634		0.8028	0.8028		0.8028	0.8028		12,675.7768	12,675.7768	0.2430	0.2324	12,752.9195
Total		**1.2335**	**10.5795**	**4.7714**	**0.0673**		**0.8522**	**0.8522**		**0.8522**	**0.8522**		**13,455.9219**	**13,455.9219**	**0.2579**	**0.2467**	**13,537.8124**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

Use only Natural Gas Hearths

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	237.6676	2.0901	181.8226	9.6500e-003		3.9441	3.9441		3.9132	3.9132	0.0000	46,704.7956	46,704.7956	1.2066	0.8502	46,993.7063
Unmitigated	290.9531	2.0901	181.8226	9.6500e-003		3.9441	3.9441		3.9132	3.9132	0.0000	46,704.7956	46,704.7956	1.2066	0.8502	46,993.7063

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	44.4853					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	236.6994					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	4.2512	1.9000e-004	0.2319	0.0000		2.9372	2.9372		2.9063	2.9063	0.0000	46,376.4706	46,376.4706	0.8889	0.8502	46,658.7101
Landscaping	5.5171	2.0899	181.5907	9.6500e-003		1.0069	1.0069		1.0069	1.0069		328.3250	328.3250	0.3177		334.9963
Total	**290.9531**	**2.0901**	**181.8226**	**9.6500e-003**		**3.9441**	**3.9441**		**3.9132**	**3.9132**	**0.0000**	**46,704.7956**	**46,704.7956**	**1.2066**	**0.8502**	**46,993.7063**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	8.8971					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	219.0023					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	4.2512	1.9000e-004	0.2319	0.0000		2.9372	2.9372		2.9063	2.9063	0.0000	46,376.4706	46,376.4706	0.8889	0.8502	46,658.7101
Landscaping	5.5171	2.0899	181.5907	9.6500e-003		1.0069	1.0069		1.0069	1.0069		328.3250	328.3250	0.3177		334.9963
Total	**237.6677**	**2.0901**	**181.8226**	**9.6500e-003**		**3.9441**	**3.9441**		**3.9132**	**3.9132**	**0.0000**	**46,704.7956**	**46,704.7956**	**1.2066**	**0.8502**	**46,993.7063**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Use Reclaimed Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Turf Reduction

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Alternative 3

Salton Sea Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	50.00	Acre	50.00	2,178,000.00	0
Parking Lot	12,425.00	Space	111.82	4,970,000.00	0
City Park	6.00	Acre	6.00	261,360.00	0
Condo/Townhouse	1,200.00	Dwelling Unit	240.00	1,200,000.00	2160
Regional Shopping Center	5,100.00	1000sqft	337.00	5,100,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.4	**Precipitation Freq (Days)**	20
Climate Zone	10			**Operational Year**	2030
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Alternatve 3 - County General Plan

Construction Phase - Based on EIS model

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Based on EIS model

On-road Fugitive Dust - Paved Roads

Grading -

Architectural Coating -

Vechicle Emission Factors -

Vechicle Emission Factors -

Vechicle Emission Factors -

Road Dust - Based on previous EIS model

Woodstoves - No woodstoves

Area Coating -

Construction Off-road Equipment Mitigation - Based on previous EIS model

Mobile Land Use Mitigation -

Area Mitigation - Based on previous EIS model

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	50

tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	50
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	80
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim

tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	9,300.00	2,089.00
tblConstructionPhase	PhaseEndDate	8/8/2031	8/10/2029
tblConstructionPhase	PhaseEndDate	2/20/2032	11/21/2029
tblConstructionPhase	PhaseStartDate	1/27/2029	2/1/2027
tblConstructionPhase	PhaseStartDate	8/11/2029	5/13/2027
tblFireplaces	FireplaceWoodMass	457.60	0.00
tblLandUse	LotAcreage	75.00	240.00
tblLandUse	LotAcreage	117.08	337.00
tblLandUse	Population	3,876.00	2,160.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Utilities
tblOffRoadEquipment	PhaseName		Utilities
tblOffRoadEquipment	PhaseName		Utilities
tblOffRoadEquipment	PhaseName		Utilities
tblOffRoadEquipment	PhaseName		Utilities
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00

tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblProjectCharacteristics	OperationalYear	2014	2030
tblRoadDust	RoadPercentPave	50	100
tblTripsAndVMT	VendorTripNumber	2,179.00	964.00
tblTripsAndVMT	WorkerTripNumber	5,608.00	2,496.00
tblTripsAndVMT	WorkerTripNumber	1,122.00	499.00
tblWoodstoves	NumberCatalytic	60.00	0.00
tblWoodstoves	NumberNoncatalytic	60.00	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2015	0.2352	2.5084	1.9263	1.8000e-003	3.2585	0.1359	3.3944	1.7893	0.1251	1.9143	0.0000	169.9388	169.9388	0.0494	0.0000	170.9757
2016	0.6725	7.1436	5.4987	5.3200e-003	3.2714	0.3836	3.6550	1.7927	0.3529	2.1456	0.0000	497.8260	497.8260	0.1462	0.0000	500.8961
2017	0.7959	8.9630	6.1778	8.1400e-003	7.3064	0.4283	7.7347	3.4656	0.3940	3.8596	0.0000	750.5604	750.5604	0.2257	0.0000	755.2991
2018	0.6993	7.7822	5.6438	8.3000e-003	4.0547	0.3640	4.4187	1.6781	0.3349	2.0130	0.0000	752.5058	752.5058	0.2300	0.0000	757.3351
2019	0.6466	7.0849	5.3713	8.3000e-003	4.0547	0.3270	4.3817	1.6781	0.3009	1.9790	0.0000	739.8526	739.8526	0.2298	0.0000	744.6793
2020	0.4688	4.8270	3.7373	6.7600e-003	4.0526	0.2203	4.2729	1.6776	0.2029	1.8804	0.0000	586.5512	586.5512	0.1846	0.0000	590.4269
2021	1.7643	7.4650	25.0682	0.0511	3.0830	0.2211	3.3041	0.8288	0.2059	1.0347	0.0000	3,664.1596	3,664.1596	0.1694	0.0000	3,667.7174
2022	1.7791	7.1253	25.7811	0.0541	3.2840	0.2109	3.4949	0.8828	0.1964	1.0792	0.0000	3,848.4484	3,848.4484	0.1694	0.0000	3,852.0059
2023	1.6793	6.4524	24.7976	0.0540	3.2838	0.1940	3.4779	0.8828	0.1805	1.0633	0.0000	3,819.1350	3,819.1350	0.1657	0.0000	3,822.6144
2024	1.6440	6.3607	24.5232	0.0549	3.3090	0.1848	3.4938	0.8895	0.1719	1.0614	0.0000	3,853.4279	3,853.4279	0.1668	0.0000	3,856.9314
2025	1.5906	6.1898	24.0025	0.0546	3.2963	0.1747	3.4709	0.8861	0.1623	1.0484	0.0000	3,819.2492	3,819.2492	0.1641	0.0000	3,822.6943
2026	1.5638	6.1243	23.6354	0.0546	3.2963	0.1737	3.4699	0.8861	0.1614	1.0475	0.0000	3,803.2535	3,803.2535	0.1628	0.0000	3,806.6726
2027	41.0580	7.1396	26.7601	0.0628	3.8016	0.2180	4.0196	1.0203	0.2026	1.2229	0.0000	4,326.7491	4,326.7491	0.2348	0.0000	4,331.6802
2028	44.3874	7.4977	27.2897	0.0642	3.8360	0.2373	4.0733	1.0293	0.2204	1.2498	0.0000	4,423.8653	4,423.8653	0.2642	0.0000	4,429.4140
2029	26.5508	1.6753	4.8760	0.0111	0.5971	0.0677	0.6648	0.1594	0.0628	0.2221	0.0000	768.3993	768.3993	0.0995	0.0000	770.4887
Total	**125.5354**	**94.3390**	**235.0889**	**0.4999**	**53.7853**	**3.5413**	**57.3266**	**19.5464**	**3.2747**	**22.8211**	**0.0000**	**35,823.9221**	**35,823.9221**	**2.6623**	**0.0000**	**35,879.8310**

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2015	0.0350	0.5500	1.0801	1.8000e-003	1.2114	2.8400e-003	1.2142	0.6640	2.8300e-003	0.6669	0.0000	169.9386	169.9386	0.0494	0.0000	170.9755
2016	0.1027	1.6297	3.1882	5.3200e-003	1.2243	8.4100e-003	1.2327	0.6674	8.4000e-003	0.6758	0.0000	497.8255	497.8255	0.1462	0.0000	500.8955
2017	0.1356	2.6081	4.9865	8.1400e-003	2.7205	0.0130	2.7336	1.2876	0.0130	1.3006	0.0000	750.5596	750.5596	0.2257	0.0000	755.2982
2018	0.1366	2.6607	5.0744	8.3000e-003	1.5158	0.0133	1.5291	0.6253	0.0133	0.6386	0.0000	752.5049	752.5049	0.2300	0.0000	757.3342
2019	0.1359	2.6597	5.0652	8.3000e-003	1.5158	0.0133	1.5291	0.6253	0.0133	0.6386	0.0000	739.8518	739.8518	0.2298	0.0000	744.6785
2020	0.1118	2.0977	3.9998	6.7600e-003	1.5138	0.0118	1.5256	0.6248	0.0118	0.6366	0.0000	586.5505	586.5505	0.1846	0.0000	590.4262
2021	1.6209	6.9764	25.1639	0.0511	3.0830	0.1293	3.2124	0.8288	0.1199	0.9487	0.0000	3,664.1593	3,664.1593	0.1694	0.0000	3,667.7171
2022	1.6583	6.8164	25.8433	0.0541	3.2840	0.1355	3.4194	0.8828	0.1255	1.0084	0.0000	3,848.4481	3,848.4481	0.1694	0.0000	3,852.0056
2023	1.5734	6.2616	24.8687	0.0540	3.2838	0.1311	3.4149	0.8828	0.1215	1.0043	0.0000	3,819.1347	3,819.1347	0.1657	0.0000	3,822.6141
2024	1.5483	6.2560	24.5982	0.0549	3.3090	0.1312	3.4402	0.8895	0.1217	1.0112	0.0000	3,853.4277	3,853.4277	0.1668	0.0000	3,856.9311
2025	1.5067	6.1743	24.0835	0.0546	3.2963	0.1312	3.4274	0.8861	0.1216	1.0077	0.0000	3,819.2490	3,819.2490	0.1641	0.0000	3,822.6940
2026	1.4799	6.1088	23.7164	0.0546	3.2963	0.1302	3.4264	0.8861	0.1207	1.0068	0.0000	3,803.2532	3,803.2532	0.1628	0.0000	3,806.6723
2027	40.9126	7.2310	27.0651	0.0628	3.8016	0.1375	3.9392	1.0203	0.1278	1.1480	0.0000	4,326.7485	4,326.7485	0.2348	0.0000	4,331.6797
2028	44.2146	7.6536	27.7178	0.0642	3.8360	0.1391	3.9751	1.0293	0.1293	1.1587	0.0000	4,423.8646	4,423.8646	0.2642	0.0000	4,429.4133
2029	26.4687	1.8308	5.1928	0.0111	0.5971	0.0170	0.6140	0.1594	0.0161	0.1754	0.0000	768.3989	768.3989	0.0995	0.0000	770.4883
Total	**121.6410**	**67.5148**	**231.6437**	**0.4999**	**37.4887**	**1.1447**	**38.6334**	**11.9596**	**1.0668**	**13.0264**	**0.0000**	**35,823.9148**	**35,823.9148**	**2.6623**	**0.0000**	**35,879.8237**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**3.10**	**28.43**	**1.47**	**0.00**	**30.30**	**67.67**	**32.61**	**38.81**	**67.42**	**42.92**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	64.7041	0.1039	9.0525	4.8000e-004		0.1160	0.1160		0.1153	0.1153	0.0000	960.0485	960.0485	0.0328	0.0173	966.1089
Energy	0.1971	1.7194	0.9720	0.0108		0.1362	0.1362		0.1362	0.1362	0.0000	27,732.0838	27,732.0838	1.2225	0.2810	27,844.8518
Mobile	89.6470	158.7775	904.6136	1.7815	113.5632	3.3531	116.9163	30.3292	3.0921	33.4213	0.0000	117,285.9081	117,285.9081	4.3537	0.0000	117,377.3354
Waste						0.0000	0.0000		0.0000	0.0000	1,199.1732	0.0000	1,199.1732	70.8691	0.0000	2,687.4244
Water						0.0000	0.0000		0.0000	0.0000	144.6534	2,614.5340	2,759.1874	14.9775	0.3757	3,190.1745
Total	**154.5482**	**160.6008**	**914.6382**	**1.7927**	**113.5632**	**3.6053**	**117.1684**	**30.3292**	**3.3435**	**33.6727**	**1,343.8266**	**148,592.5744**	**149,936.4009**	**91.4555**	**0.6740**	**152,065.8949**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	52.0720	0.1039	9.0525	4.8000e-004		0.1160	0.1160		0.1153	0.1153	0.0000	960.0485	960.0485	0.0328	0.0173	966.1089
Energy	0.1717	1.4972	0.8461	9.3600e-003		0.1186	0.1186		0.1186	0.1186	0.0000	18,949.3825	18,949.3825	0.8255	0.1952	19,027.2317
Mobile	82.1587	113.2332	720.7466	0.9983	59.9413	1.9849	61.9262	16.0085	1.8314	17.8398	0.0000	65,658.2997	65,658.2997	2.6721	0.0000	65,714.4130
Waste						0.0000	0.0000		0.0000	0.0000	299.7933	0.0000	299.7933	17.7173	0.0000	671.8561
Water						0.0000	0.0000		0.0000	0.0000	115.7227	2,044.4526	2,160.1753	11.9798	0.3001	2,504.7803
Total	**134.4024**	**114.8343**	**730.6453**	**1.0081**	**59.9413**	**2.2195**	**62.1608**	**16.0085**	**2.0652**	**18.0737**	**415.5160**	**87,612.1832**	**88,027.6992**	**33.2275**	**0.5126**	**88,884.3900**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**13.04**	**28.50**	**20.12**	**43.77**	**47.22**	**38.44**	**46.95**	**47.22**	**38.23**	**46.33**	**69.08**	**41.04**	**41.29**	**63.67**	**23.94**	**41.55**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	9/1/2015	1/16/2017	5	360	
2	Grading	Grading	1/17/2017	8/10/2020	5	930	
3	Utilities	Trenching	8/11/2020	1/25/2021	5	120	
4	Building Construction	Building Construction	1/26/2021	1/26/2029	5	2089	
5	Architectural Coating	Architectural Coating	2/1/2027	8/10/2029	5	660	
6	Paving	Paving	5/13/2027	11/21/2029	5	660	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 2325

Acres of Paving: 0

Residential Indoor: 2,430,000; Residential Outdoor: 810,000; Non-Residential Indoor: 11,532,690; Non-Residential Outdoor: 3,844,230 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Utilities	Forklifts	1	4.00	89	0.20
Utilities	Off-Highway Trucks	2	8.00	400	0.38
Utilities	Signal Boards	1	8.00	6	0.82
Utilities	Trenchers	1	6.00	80	0.50
Utilities	Welders	1	4.00	46	0.45
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Utilities	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	2,496.00	964.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	499.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.2519	0.0000	3.2519	1.7875	0.0000	1.7875	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2315	2.5032	1.8758	1.7200e-003		0.1359	0.1359		0.1250	0.1250	0.0000	164.1249	164.1249	0.0490	0.0000	165.1539
Total	**0.2315**	**2.5032**	**1.8758**	**1.7200e-003**	**3.2519**	**0.1359**	**3.3878**	**1.7875**	**0.1250**	**1.9125**	**0.0000**	**164.1249**	**164.1249**	**0.0490**	**0.0000**	**165.1539**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7500e-003	5.2500e-003	0.0505	8.0000e-005	6.5500e-003	5.0000e-005	6.5900e-003	1.7400e-003	4.0000e-005	1.7800e-003	0.0000	5.8139	5.8139	3.8000e-004	0.0000	5.8218
Total	**3.7500e-003**	**5.2500e-003**	**0.0505**	**8.0000e-005**	**6.5500e-003**	**5.0000e-005**	**6.5900e-003**	**1.7400e-003**	**4.0000e-005**	**1.7800e-003**	**0.0000**	**5.8139**	**5.8139**	**3.8000e-004**	**0.0000**	**5.8218**

3.2 Site Preparation - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.2048	0.0000	1.2048	0.6623	0.0000	0.6623	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0313	0.5447	1.0296	1.7200e-003		2.7900e-003	2.7900e-003		2.7900e-003	2.7900e-003	0.0000	164.1247	164.1247	0.0490	0.0000	165.1537
Total	**0.0313**	**0.5447**	**1.0296**	**1.7200e-003**	**1.2048**	**2.7900e-003**	**1.2076**	**0.6623**	**2.7900e-003**	**0.6651**	**0.0000**	**164.1247**	**164.1247**	**0.0490**	**0.0000**	**165.1537**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7500e-003	5.2500e-003	0.0505	8.0000e-005	6.5500e-003	5.0000e-005	6.5900e-003	1.7400e-003	4.0000e-005	1.7800e-003	0.0000	5.8139	5.8139	3.8000e-004	0.0000	5.8218
Total	**3.7500e-003**	**5.2500e-003**	**0.0505**	**8.0000e-005**	**6.5500e-003**	**5.0000e-005**	**6.5900e-003**	**1.7400e-003**	**4.0000e-005**	**1.7800e-003**	**0.0000**	**5.8139**	**5.8139**	**3.8000e-004**	**0.0000**	**5.8218**

3.2 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.2519	0.0000	3.2519	1.7875	0.0000	1.7875	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.6626	7.1295	5.3642	5.1000e-003		0.3835	0.3835		0.3528	0.3528	0.0000	481.2463	481.2463	0.1452	0.0000	484.2946
Total	**0.6626**	**7.1295**	**5.3642**	**5.1000e-003**	**3.2519**	**0.3835**	**3.6354**	**1.7875**	**0.3528**	**2.1403**	**0.0000**	**481.2463**	**481.2463**	**0.1452**	**0.0000**	**484.2946**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.9800e-003	0.0141	0.1344	2.2000e-004	0.0194	1.3000e-004	0.0196	5.1600e-003	1.2000e-004	5.2700e-003	0.0000	16.5798	16.5798	1.0300e-003	0.0000	16.6014
Total	**9.9800e-003**	**0.0141**	**0.1344**	**2.2000e-004**	**0.0194**	**1.3000e-004**	**0.0196**	**5.1600e-003**	**1.2000e-004**	**5.2700e-003**	**0.0000**	**16.5798**	**16.5798**	**1.0300e-003**	**0.0000**	**16.6014**

3.2 Site Preparation - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.2048	0.0000	1.2048	0.6623	0.0000	0.6623	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0927	1.6156	3.0537	5.1000e-003		8.2800e-003	8.2800e-003		8.2800e-003	8.2800e-003	0.0000	481.2457	481.2457	0.1452	0.0000	484.2941
Total	**0.0927**	**1.6156**	**3.0537**	**5.1000e-003**	**1.2048**	**8.2800e-003**	**1.2131**	**0.6623**	**8.2800e-003**	**0.6706**	**0.0000**	**481.2457**	**481.2457**	**0.1452**	**0.0000**	**484.2941**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.9800e-003	0.0141	0.1344	2.2000e-004	0.0194	1.3000e-004	0.0196	5.1600e-003	1.2000e-004	5.2700e-003	0.0000	16.5798	16.5798	1.0300e-003	0.0000	16.6014
Total	**9.9800e-003**	**0.0141**	**0.1344**	**2.2000e-004**	**0.0194**	**1.3000e-004**	**0.0196**	**5.1600e-003**	**1.2000e-004**	**5.2700e-003**	**0.0000**	**16.5798**	**16.5798**	**1.0300e-003**	**0.0000**	**16.6014**

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.2519	0.0000	3.2519	1.7875	0.0000	1.7875	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0266	0.2846	0.2167	2.2000e-004		0.0152	0.0152		0.0139	0.0139	0.0000	19.9735	19.9735	6.1200e-003	0.0000	20.1020
Total	**0.0266**	**0.2846**	**0.2167**	**2.2000e-004**	**3.2519**	**0.0152**	**3.2671**	**1.7875**	**0.0139**	**1.8015**	**0.0000**	**19.9735**	**19.9735**	**6.1200e-003**	**0.0000**	**20.1020**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8000e-004	5.4000e-004	5.1200e-003	1.0000e-005	8.2000e-004	1.0000e-005	8.2000e-004	2.2000e-004	0.0000	2.2000e-004	0.0000	0.6702	0.6702	4.0000e-005	0.0000	0.6710
Total	**3.8000e-004**	**5.4000e-004**	**5.1200e-003**	**1.0000e-005**	**8.2000e-004**	**1.0000e-005**	**8.2000e-004**	**2.2000e-004**	**0.0000**	**2.2000e-004**	**0.0000**	**0.6702**	**0.6702**	**4.0000e-005**	**0.0000**	**0.6710**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.2048	0.0000	1.2048	0.6623	0.0000	0.6623	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.9100e-003	0.0681	0.1287	2.2000e-004		3.5000e-004	3.5000e-004		3.5000e-004	3.5000e-004	0.0000	19.9734	19.9734	6.1200e-003	0.0000	20.1020
Total	**3.9100e-003**	**0.0681**	**0.1287**	**2.2000e-004**	**1.2048**	**3.5000e-004**	**1.2052**	**0.6623**	**3.5000e-004**	**0.6626**	**0.0000**	**19.9734**	**19.9734**	**6.1200e-003**	**0.0000**	**20.1020**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8000e-004	5.4000e-004	5.1200e-003	1.0000e-005	8.2000e-004	1.0000e-005	8.2000e-004	2.2000e-004	0.0000	2.2000e-004	0.0000	0.6702	0.6702	4.0000e-005	0.0000	0.6710
Total	**3.8000e-004**	**5.4000e-004**	**5.1200e-003**	**1.0000e-005**	**8.2000e-004**	**1.0000e-005**	**8.2000e-004**	**2.2000e-004**	**0.0000**	**2.2000e-004**	**0.0000**	**0.6702**	**0.6702**	**4.0000e-005**	**0.0000**	**0.6710**

3.3 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.0331	0.0000	4.0331	1.6724	0.0000	1.6724	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.7593	8.6642	5.8272	7.6800e-003		0.4130	0.4130		0.3800	0.3800	0.0000	713.0603	713.0603	0.2185	0.0000	717.6484
Total	**0.7593**	**8.6642**	**5.8272**	**7.6800e-003**	**4.0331**	**0.4130**	**4.4461**	**1.6724**	**0.3800**	**2.0523**	**0.0000**	**713.0603**	**713.0603**	**0.2185**	**0.0000**	**717.6484**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.5200e-003	0.0136	0.1288	2.4000e-004	0.0206	1.3000e-004	0.0207	5.4600e-003	1.2000e-004	5.5900e-003	0.0000	16.8565	16.8565	1.0100e-003	0.0000	16.8777
Total	**9.5200e-003**	**0.0136**	**0.1288**	**2.4000e-004**	**0.0206**	**1.3000e-004**	**0.0207**	**5.4600e-003**	**1.2000e-004**	**5.5900e-003**	**0.0000**	**16.8565**	**16.8565**	**1.0100e-003**	**0.0000**	**16.8777**

3.3 Grading - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.4943	0.0000	1.4943	0.6196	0.0000	0.6196	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1218	2.5259	4.7239	7.6800e-003		0.0126	0.0126		0.0126	0.0126	0.0000	713.0595	713.0595	0.2185	0.0000	717.6475
Total	**0.1218**	**2.5259**	**4.7239**	**7.6800e-003**	**1.4943**	**0.0126**	**1.5068**	**0.6196**	**0.0126**	**0.6322**	**0.0000**	**713.0595**	**713.0595**	**0.2185**	**0.0000**	**717.6475**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.5200e-003	0.0136	0.1288	2.4000e-004	0.0206	1.3000e-004	0.0207	5.4600e-003	1.2000e-004	5.5900e-003	0.0000	16.8565	16.8565	1.0100e-003	0.0000	16.8777
Total	**9.5200e-003**	**0.0136**	**0.1288**	**2.4000e-004**	**0.0206**	**1.3000e-004**	**0.0207**	**5.4600e-003**	**1.2000e-004**	**5.5900e-003**	**0.0000**	**16.8565**	**16.8565**	**1.0100e-003**	**0.0000**	**16.8777**

3.3 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.0331	0.0000	4.0331	1.6724	0.0000	1.6724	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.6903	7.7692	5.5210	8.0500e-003		0.3638	0.3638		0.3347	0.3347	0.0000	735.5190	735.5190	0.2290	0.0000	740.3275
Total	**0.6903**	**7.7692**	**5.5210**	**8.0500e-003**	**4.0331**	**0.3638**	**4.3969**	**1.6724**	**0.3347**	**2.0071**	**0.0000**	**735.5190**	**735.5190**	**0.2290**	**0.0000**	**740.3275**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-003	0.0130	0.1228	2.5000e-004	0.0216	1.4000e-004	0.0217	5.7300e-003	1.3000e-004	5.8500e-003	0.0000	16.9868	16.9868	9.9000e-004	0.0000	17.0075
Total	**9.0000e-003**	**0.0130**	**0.1228**	**2.5000e-004**	**0.0216**	**1.4000e-004**	**0.0217**	**5.7300e-003**	**1.3000e-004**	**5.8500e-003**	**0.0000**	**16.9868**	**16.9868**	**9.9000e-004**	**0.0000**	**17.0075**

3.3 Grading - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.4943	0.0000	1.4943	0.6196	0.0000	0.6196	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1276	2.6477	4.9516	8.0500e-003		0.0132	0.0132		0.0132	0.0132	0.0000	735.5182	735.5182	0.2290	0.0000	740.3267
Total	**0.1276**	**2.6477**	**4.9516**	**8.0500e-003**	**1.4943**	**0.0132**	**1.5074**	**0.6196**	**0.0132**	**0.6328**	**0.0000**	**735.5182**	**735.5182**	**0.2290**	**0.0000**	**740.3267**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-003	0.0130	0.1228	2.5000e-004	0.0216	1.4000e-004	0.0217	5.7300e-003	1.3000e-004	5.8500e-003	0.0000	16.9868	16.9868	9.9000e-004	0.0000	17.0075
Total	**9.0000e-003**	**0.0130**	**0.1228**	**2.5000e-004**	**0.0216**	**1.4000e-004**	**0.0217**	**5.7300e-003**	**1.3000e-004**	**5.8500e-003**	**0.0000**	**16.9868**	**16.9868**	**9.9000e-004**	**0.0000**	**17.0075**

3.3 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.0331	0.0000	4.0331	1.6724	0.0000	1.6724	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.6383	7.0728	5.2577	8.0500e-003		0.3269	0.3269		0.3007	0.3007	0.0000	723.5036	723.5036	0.2289	0.0000	728.3107
Total	**0.6383**	**7.0728**	**5.2577**	**8.0500e-003**	**4.0331**	**0.3269**	**4.3600**	**1.6724**	**0.3007**	**1.9731**	**0.0000**	**723.5036**	**723.5036**	**0.2289**	**0.0000**	**728.3107**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.2700e-003	0.0120	0.1136	2.5000e-004	0.0216	1.4000e-004	0.0217	5.7300e-003	1.3000e-004	5.8500e-003	0.0000	16.3490	16.3490	9.3000e-004	0.0000	16.3686
Total	**8.2700e-003**	**0.0120**	**0.1136**	**2.5000e-004**	**0.0216**	**1.4000e-004**	**0.0217**	**5.7300e-003**	**1.3000e-004**	**5.8500e-003**	**0.0000**	**16.3490**	**16.3490**	**9.3000e-004**	**0.0000**	**16.3686**

3.3 Grading - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.4943	0.0000	1.4943	0.6196	0.0000	0.6196	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1276	2.6477	4.9516	8.0500e-003		0.0132	0.0132		0.0132	0.0132	0.0000	723.5028	723.5028	0.2289	0.0000	728.3098
Total	**0.1276**	**2.6477**	**4.9516**	**8.0500e-003**	**1.4943**	**0.0132**	**1.5074**	**0.6196**	**0.0132**	**0.6328**	**0.0000**	**723.5028**	**723.5028**	**0.2289**	**0.0000**	**728.3098**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.2700e-003	0.0120	0.1136	2.5000e-004	0.0216	1.4000e-004	0.0217	5.7300e-003	1.3000e-004	5.8500e-003	0.0000	16.3490	16.3490	9.3000e-004	0.0000	16.3686
Total	**8.2700e-003**	**0.0120**	**0.1136**	**2.5000e-004**	**0.0216**	**1.4000e-004**	**0.0217**	**5.7300e-003**	**1.3000e-004**	**5.8500e-003**	**0.0000**	**16.3490**	**16.3490**	**9.3000e-004**	**0.0000**	**16.3686**

3.3 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.0331	0.0000	4.0331	1.6724	0.0000	1.6724	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3617	3.9260	3.0548	4.9100e-003		0.1798	0.1798		0.1654	0.1654	0.0000	431.1195	431.1195	0.1394	0.0000	434.0475
Total	**0.3617**	**3.9260**	**3.0548**	**4.9100e-003**	**4.0331**	**0.1798**	**4.2129**	**1.6724**	**0.1654**	**1.8378**	**0.0000**	**431.1195**	**431.1195**	**0.1394**	**0.0000**	**434.0475**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.7000e-003	6.8700e-003	0.0647	1.5000e-004	0.0131	8.0000e-005	0.0132	3.4900e-003	8.0000e-005	3.5700e-003	0.0000	9.5554	9.5554	5.4000e-004	0.0000	9.5668
Total	**4.7000e-003**	**6.8700e-003**	**0.0647**	**1.5000e-004**	**0.0131**	**8.0000e-005**	**0.0132**	**3.4900e-003**	**8.0000e-005**	**3.5700e-003**	**0.0000**	**9.5554**	**9.5554**	**5.4000e-004**	**0.0000**	**9.5668**

3.3 Grading - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.4943	0.0000	1.4943	0.6196	0.0000	0.6196	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0778	1.6129	3.0165	4.9100e-003		8.0200e-003	8.0200e-003		8.0200e-003	8.0200e-003	0.0000	431.1189	431.1189	0.1394	0.0000	434.0470
Total	**0.0778**	**1.6129**	**3.0165**	**4.9100e-003**	**1.4943**	**8.0200e-003**	**1.5023**	**0.6196**	**8.0200e-003**	**0.6276**	**0.0000**	**431.1189**	**431.1189**	**0.1394**	**0.0000**	**434.0470**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.7000e-003	6.8700e-003	0.0647	1.5000e-004	0.0131	8.0000e-005	0.0132	3.4900e-003	8.0000e-005	3.5700e-003	0.0000	9.5554	9.5554	5.4000e-004	0.0000	9.5668
Total	**4.7000e-003**	**6.8700e-003**	**0.0647**	**1.5000e-004**	**0.0131**	**8.0000e-005**	**0.0132**	**3.4900e-003**	**8.0000e-005**	**3.5700e-003**	**0.0000**	**9.5554**	**9.5554**	**5.4000e-004**	**0.0000**	**9.5668**

3.4 Utilities - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1001	0.8908	0.5863	1.6300e-003		0.0403	0.0403		0.0373	0.0373	0.0000	141.2338	141.2338	0.0443	0.0000	142.1646
Total	**0.1001**	**0.8908**	**0.5863**	**1.6300e-003**		**0.0403**	**0.0403**		**0.0373**	**0.0373**	**0.0000**	**141.2338**	**141.2338**	**0.0443**	**0.0000**	**142.1646**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2800e-003	3.3400e-003	0.0314	7.0000e-005	6.3900e-003	4.0000e-005	6.4300e-003	1.7000e-003	4.0000e-005	1.7300e-003	0.0000	4.6425	4.6425	2.6000e-004	0.0000	4.6480
Total	**2.2800e-003**	**3.3400e-003**	**0.0314**	**7.0000e-005**	**6.3900e-003**	**4.0000e-005**	**6.4300e-003**	**1.7000e-003**	**4.0000e-005**	**1.7300e-003**	**0.0000**	**4.6425**	**4.6425**	**2.6000e-004**	**0.0000**	**4.6480**

3.4 Utilities - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0271	0.4746	0.8872	1.6300e-003		3.6900e-003	3.6900e-003		3.6900e-003	3.6900e-003	0.0000	141.2337	141.2337	0.0443	0.0000	142.1644
Total	**0.0271**	**0.4746**	**0.8872**	**1.6300e-003**		**3.6900e-003**	**3.6900e-003**		**3.6900e-003**	**3.6900e-003**	**0.0000**	**141.2337**	**141.2337**	**0.0443**	**0.0000**	**142.1644**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2800e-003	3.3400e-003	0.0314	7.0000e-005	6.3900e-003	4.0000e-005	6.4300e-003	1.7000e-003	4.0000e-005	1.7300e-003	0.0000	4.6425	4.6425	2.6000e-004	0.0000	4.6480
Total	**2.2800e-003**	**3.3400e-003**	**0.0314**	**7.0000e-005**	**6.3900e-003**	**4.0000e-005**	**6.4300e-003**	**1.7000e-003**	**4.0000e-005**	**1.7300e-003**	**0.0000**	**4.6425**	**4.6425**	**2.6000e-004**	**0.0000**	**4.6480**

3.4 Utilities - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0151	0.1265	0.0928	2.7000e-004		5.7200e-003	5.7200e-003		5.3000e-003	5.3000e-003	0.0000	23.3096	23.3096	7.3000e-003	0.0000	23.4629
Total	**0.0151**	**0.1265**	**0.0928**	**2.7000e-004**		**5.7200e-003**	**5.7200e-003**		**5.3000e-003**	**5.3000e-003**	**0.0000**	**23.3096**	**23.3096**	**7.3000e-003**	**0.0000**	**23.4629**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6000e-004	5.2000e-004	4.9400e-003	1.0000e-005	1.0500e-003	1.0000e-005	1.0600e-003	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	0.7550	0.7550	4.0000e-005	0.0000	0.7558
Total	**3.6000e-004**	**5.2000e-004**	**4.9400e-003**	**1.0000e-005**	**1.0500e-003**	**1.0000e-005**	**1.0600e-003**	**2.8000e-004**	**1.0000e-005**	**2.9000e-004**	**0.0000**	**0.7550**	**0.7550**	**4.0000e-005**	**0.0000**	**0.7558**

3.4 Utilities - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.4700e-003	0.0783	0.1464	2.7000e-004		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	23.3095	23.3095	7.3000e-003	0.0000	23.4629
Total	**4.4700e-003**	**0.0783**	**0.1464**	**2.7000e-004**		**6.1000e-004**	**6.1000e-004**		**6.1000e-004**	**6.1000e-004**	**0.0000**	**23.3095**	**23.3095**	**7.3000e-003**	**0.0000**	**23.4629**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6000e-004	5.2000e-004	4.9400e-003	1.0000e-005	1.0500e-003	1.0000e-005	1.0600e-003	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	0.7550	0.7550	4.0000e-005	0.0000	0.7558
Total	**3.6000e-004**	**5.2000e-004**	**4.9400e-003**	**1.0000e-005**	**1.0500e-003**	**1.0000e-005**	**1.0600e-003**	**2.8000e-004**	**1.0000e-005**	**2.9000e-004**	**0.0000**	**0.7550**	**0.7550**	**4.0000e-005**	**0.0000**	**0.7558**

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1878	1.6091	1.8105	2.6700e-003		0.0959	0.0959		0.0906	0.0906	0.0000	228.4881	228.4881	0.0507	0.0000	229.5524
Total	**0.1878**	**1.6091**	**1.8105**	**2.6700e-003**		**0.0959**	**0.0959**		**0.0906**	**0.0906**	**0.0000**	**228.4881**	**228.4881**	**0.0507**	**0.0000**	**229.5524**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.7086	4.4811	11.3549	0.0190	0.5646	0.1032	0.6678	0.1602	0.0950	0.2552	0.0000	1,608.5216	1,608.5216	0.0104	0.0000	1,608.7410
Worker	0.8524	1.2479	11.8049	0.0291	2.5174	0.0162	2.5336	0.6683	0.0150	0.6833	0.0000	1,803.0854	1,803.0854	0.1010	0.0000	1,805.2054
Total	**1.5610**	**5.7290**	**23.1599**	**0.0481**	**3.0820**	**0.1194**	**3.2014**	**0.8286**	**0.1100**	**0.9385**	**0.0000**	**3,411.6070**	**3,411.6070**	**0.1114**	**0.0000**	**3,413.9463**

3.5 Building Construction - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0550	1.1686	1.8527	2.6700e-003		9.3100e-003	9.3100e-003		9.3100e-003	9.3100e-003	0.0000	228.4878	228.4878	0.0507	0.0000	229.5521
Total	**0.0550**	**1.1686**	**1.8527**	**2.6700e-003**		**9.3100e-003**	**9.3100e-003**		**9.3100e-003**	**9.3100e-003**	**0.0000**	**228.4878**	**228.4878**	**0.0507**	**0.0000**	**229.5521**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.7086	4.4811	11.3549	0.0190	0.5646	0.1032	0.6678	0.1602	0.0950	0.2552	0.0000	1,608.5216	1,608.5216	0.0104	0.0000	1,608.7410
Worker	0.8524	1.2479	11.8049	0.0291	2.5174	0.0162	2.5336	0.6683	0.0150	0.6833	0.0000	1,803.0854	1,803.0854	0.1010	0.0000	1,805.2054
Total	**1.5610**	**5.7290**	**23.1599**	**0.0481**	**3.0820**	**0.1194**	**3.2014**	**0.8286**	**0.1100**	**0.9385**	**0.0000**	**3,411.6070**	**3,411.6070**	**0.1114**	**0.0000**	**3,413.9463**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1794	1.5541	1.9120	2.8500e-003		0.0854	0.0854		0.0808	0.0808	0.0000	243.5759	243.5759	0.0535	0.0000	244.6997
Total	**0.1794**	**1.5541**	**1.9120**	**2.8500e-003**		**0.0854**	**0.0854**		**0.0808**	**0.0808**	**0.0000**	**243.5759**	**243.5759**	**0.0535**	**0.0000**	**244.6997**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.7330	4.2950	11.8848	0.0202	0.6015	0.1082	0.7097	0.1707	0.0996	0.2703	0.0000	1,711.8168	1,711.8168	0.0113	0.0000	1,712.0548
Worker	0.8667	1.2763	11.9843	0.0310	2.6825	0.0173	2.6998	0.7122	0.0161	0.7282	0.0000	1,893.0557	1,893.0557	0.1046	0.0000	1,895.2514
Total	**1.5997**	**5.5712**	**23.8691**	**0.0513**	**3.2840**	**0.1255**	**3.4095**	**0.8828**	**0.1156**	**0.9985**	**0.0000**	**3,604.8725**	**3,604.8725**	**0.1159**	**0.0000**	**3,607.3062**

3.5 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0586	1.2452	1.9742	2.8500e-003		9.9200e-003	9.9200e-003		9.9200e-003	9.9200e-003	0.0000	243.5756	243.5756	0.0535	0.0000	244.6995
Total	**0.0586**	**1.2452**	**1.9742**	**2.8500e-003**		**9.9200e-003**	**9.9200e-003**		**9.9200e-003**	**9.9200e-003**	**0.0000**	**243.5756**	**243.5756**	**0.0535**	**0.0000**	**244.6995**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.7330	4.2950	11.8848	0.0202	0.6015	0.1082	0.7097	0.1707	0.0996	0.2703	0.0000	1,711.8168	1,711.8168	0.0113	0.0000	1,712.0548
Worker	0.8667	1.2763	11.9843	0.0310	2.6825	0.0173	2.6998	0.7122	0.0161	0.7282	0.0000	1,893.0557	1,893.0557	0.1046	0.0000	1,895.2514
Total	**1.5997**	**5.5712**	**23.8691**	**0.0513**	**3.2840**	**0.1255**	**3.4095**	**0.8828**	**0.1156**	**0.9985**	**0.0000**	**3,604.8725**	**3,604.8725**	**0.1159**	**0.0000**	**3,607.3062**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1645	1.4360	1.9031	2.8500e-003		0.0728	0.0728		0.0689	0.0689	0.0000	243.6804	243.6804	0.0530	0.0000	244.7941
Total	**0.1645**	**1.4360**	**1.9031**	**2.8500e-003**		**0.0728**	**0.0728**		**0.0689**	**0.0689**	**0.0000**	**243.6804**	**243.6804**	**0.0530**	**0.0000**	**244.7941**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.6848	3.7847	11.4379	0.0202	0.6013	0.1038	0.7051	0.1706	0.0955	0.2661	0.0000	1,707.5181	1,707.5181	0.0107	0.0000	1,707.7420
Worker	0.8301	1.2316	11.4566	0.0310	2.6825	0.0174	2.6999	0.7122	0.0161	0.7283	0.0000	1,867.9366	1,867.9366	0.1020	0.0000	1,870.0783
Total	**1.5148**	**5.0163**	**22.8945**	**0.0512**	**3.2838**	**0.1212**	**3.4050**	**0.8828**	**0.1116**	**0.9944**	**0.0000**	**3,575.4547**	**3,575.4547**	**0.1127**	**0.0000**	**3,577.8203**

3.5 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0586	1.2452	1.9742	2.8500e-003		9.9200e-003	9.9200e-003		9.9200e-003	9.9200e-003	0.0000	243.6801	243.6801	0.0530	0.0000	244.7938
Total	**0.0586**	**1.2452**	**1.9742**	**2.8500e-003**		**9.9200e-003**	**9.9200e-003**		**9.9200e-003**	**9.9200e-003**	**0.0000**	**243.6801**	**243.6801**	**0.0530**	**0.0000**	**244.7938**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.6848	3.7847	11.4379	0.0202	0.6013	0.1038	0.7051	0.1706	0.0955	0.2661	0.0000	1,707.5181	1,707.5181	0.0107	0.0000	1,707.7420
Worker	0.8301	1.2316	11.4566	0.0310	2.6825	0.0174	2.6999	0.7122	0.0161	0.7283	0.0000	1,867.9366	1,867.9366	0.1020	0.0000	1,870.0783
Total	**1.5148**	**5.0163**	**22.8945**	**0.0512**	**3.2838**	**0.1212**	**3.4050**	**0.8828**	**0.1116**	**0.9944**	**0.0000**	**3,575.4547**	**3,575.4547**	**0.1127**	**0.0000**	**3,577.8203**

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1548	1.3595	1.9144	2.8700e-003		0.0636	0.0636		0.0602	0.0602	0.0000	245.6142	245.6142	0.0530	0.0000	246.7278
Total	**0.1548**	**1.3595**	**1.9144**	**2.8700e-003**		**0.0636**	**0.0636**		**0.0602**	**0.0602**	**0.0000**	**245.6142**	**245.6142**	**0.0530**	**0.0000**	**246.7278**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.6775	3.7919	11.3080	0.0204	0.6059	0.1032	0.7090	0.1719	0.0949	0.2668	0.0000	1,725.3913	1,725.3913	0.0110	0.0000	1,725.6211
Worker	0.8117	1.2094	11.3008	0.0316	2.7031	0.0181	2.7212	0.7176	0.0168	0.7344	0.0000	1,882.4225	1,882.4225	0.1029	0.0000	1,884.5825
Total	**1.4892**	**5.0012**	**22.6088**	**0.0520**	**3.3090**	**0.1212**	**3.4302**	**0.8895**	**0.1117**	**1.0012**	**0.0000**	**3,607.8138**	**3,607.8138**	**0.1138**	**0.0000**	**3,610.2036**

3.5 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0591	1.2548	1.9893	2.8700e-003		0.0100	0.0100		0.0100	0.0100	0.0000	245.6139	245.6139	0.0530	0.0000	246.7275
Total	**0.0591**	**1.2548**	**1.9893**	**2.8700e-003**		**0.0100**	**0.0100**		**0.0100**	**0.0100**	**0.0000**	**245.6139**	**245.6139**	**0.0530**	**0.0000**	**246.7275**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.6775	3.7919	11.3080	0.0204	0.6059	0.1032	0.7090	0.1719	0.0949	0.2668	0.0000	1,725.3913	1,725.3913	0.0110	0.0000	1,725.6211
Worker	0.8117	1.2094	11.3008	0.0316	2.7031	0.0181	2.7212	0.7176	0.0168	0.7344	0.0000	1,882.4225	1,882.4225	0.1029	0.0000	1,884.5825
Total	**1.4892**	**5.0012**	**22.6088**	**0.0520**	**3.3090**	**0.1212**	**3.4302**	**0.8895**	**0.1117**	**1.0012**	**0.0000**	**3,607.8138**	**3,607.8138**	**0.1138**	**0.0000**	**3,610.2036**

3.5 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1427	1.2656	1.9008	2.8600e-003		0.0535	0.0535		0.0506	0.0506	0.0000	244.7666	244.7666	0.0524	0.0000	245.8674
Total	**0.1427**	**1.2656**	**1.9008**	**2.8600e-003**		**0.0535**	**0.0535**		**0.0506**	**0.0506**	**0.0000**	**244.7666**	**244.7666**	**0.0524**	**0.0000**	**245.8674**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.6620	3.7483	11.1458	0.0203	0.6034	0.1031	0.7065	0.1712	0.0948	0.2660	0.0000	1,718.3109	1,718.3109	0.0109	0.0000	1,718.5403
Worker	0.7858	1.1760	10.9559	0.0315	2.6928	0.0181	2.7110	0.7149	0.0168	0.7317	0.0000	1,856.1718	1,856.1718	0.1007	0.0000	1,858.2866
Total	**1.4478**	**4.9243**	**22.1017**	**0.0518**	**3.2963**	**0.1212**	**3.4175**	**0.8861**	**0.1117**	**0.9977**	**0.0000**	**3,574.4827**	**3,574.4827**	**0.1116**	**0.0000**	**3,576.8269**

3.5 Building Construction - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0588	1.2500	1.9818	2.8600e-003		9.9600e-003	9.9600e-003		9.9600e-003	9.9600e-003	0.0000	244.7663	244.7663	0.0524	0.0000	245.8671
Total	**0.0588**	**1.2500**	**1.9818**	**2.8600e-003**		**9.9600e-003**	**9.9600e-003**		**9.9600e-003**	**9.9600e-003**	**0.0000**	**244.7663**	**244.7663**	**0.0524**	**0.0000**	**245.8671**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.6620	3.7483	11.1458	0.0203	0.6034	0.1031	0.7065	0.1712	0.0948	0.2660	0.0000	1,718.3109	1,718.3109	0.0109	0.0000	1,718.5403
Worker	0.7858	1.1760	10.9559	0.0315	2.6928	0.0181	2.7110	0.7149	0.0168	0.7317	0.0000	1,856.1718	1,856.1718	0.1007	0.0000	1,858.2866
Total	**1.4478**	**4.9243**	**22.1017**	**0.0518**	**3.2963**	**0.1212**	**3.4175**	**0.8861**	**0.1117**	**0.9977**	**0.0000**	**3,574.4827**	**3,574.4827**	**0.1116**	**0.0000**	**3,576.8269**

3.5 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1427	1.2656	1.9008	2.8600e-003		0.0535	0.0535		0.0506	0.0506	0.0000	244.7666	244.7666	0.0524	0.0000	245.8674
Total	**0.1427**	**1.2656**	**1.9008**	**2.8600e-003**		**0.0535**	**0.0535**		**0.0506**	**0.0506**	**0.0000**	**244.7666**	**244.7666**	**0.0524**	**0.0000**	**245.8674**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.6506	3.7005	10.9968	0.0203	0.6034	0.1019	0.7053	0.1712	0.0938	0.2650	0.0000	1,718.1801	1,718.1801	0.0109	0.0000	1,718.4078
Worker	0.7705	1.1583	10.7378	0.0315	2.6928	0.0183	2.7111	0.7149	0.0170	0.7319	0.0000	1,840.3069	1,840.3069	0.0996	0.0000	1,842.3973
Total	**1.4211**	**4.8588**	**21.7347**	**0.0518**	**3.2963**	**0.1202**	**3.4165**	**0.8861**	**0.1108**	**0.9968**	**0.0000**	**3,558.4869**	**3,558.4869**	**0.1104**	**0.0000**	**3,560.8052**

3.5 Building Construction - 2026

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0588	1.2500	1.9818	2.8600e-003		9.9600e-003	9.9600e-003		9.9600e-003	9.9600e-003	0.0000	244.7663	244.7663	0.0524	0.0000	245.8671
Total	**0.0588**	**1.2500**	**1.9818**	**2.8600e-003**		**9.9600e-003**	**9.9600e-003**		**9.9600e-003**	**9.9600e-003**	**0.0000**	**244.7663**	**244.7663**	**0.0524**	**0.0000**	**245.8671**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.6506	3.7005	10.9968	0.0203	0.6034	0.1019	0.7053	0.1712	0.0938	0.2650	0.0000	1,718.1801	1,718.1801	0.0109	0.0000	1,718.4078
Worker	0.7705	1.1583	10.7378	0.0315	2.6928	0.0183	2.7111	0.7149	0.0170	0.7319	0.0000	1,840.3069	1,840.3069	0.0996	0.0000	1,842.3973
Total	**1.4211**	**4.8588**	**21.7347**	**0.0518**	**3.2963**	**0.1202**	**3.4165**	**0.8861**	**0.1108**	**0.9968**	**0.0000**	**3,558.4869**	**3,558.4869**	**0.1104**	**0.0000**	**3,560.8052**

3.5 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1427	1.2656	1.9008	2.8600e-003		0.0535	0.0535		0.0506	0.0506	0.0000	244.7666	244.7666	0.0524	0.0000	245.8674
Total	**0.1427**	**1.2656**	**1.9008**	**2.8600e-003**		**0.0535**	**0.0535**		**0.0506**	**0.0506**	**0.0000**	**244.7666**	**244.7666**	**0.0524**	**0.0000**	**245.8674**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.6446	3.6771	10.8928	0.0203	0.6034	0.1021	0.7055	0.1712	0.0939	0.2651	0.0000	1,718.1745	1,718.1745	0.0109	0.0000	1,718.4024
Worker	0.7571	1.1420	10.5729	0.0315	2.6928	0.0185	2.7113	0.7149	0.0171	0.7320	0.0000	1,826.7255	1,826.7255	0.0985	0.0000	1,828.7934
Total	**1.4016**	**4.8191**	**21.4657**	**0.0518**	**3.2963**	**0.1206**	**3.4168**	**0.8861**	**0.1111**	**0.9971**	**0.0000**	**3,544.8999**	**3,544.8999**	**0.1093**	**0.0000**	**3,547.1958**

3.5 Building Construction - 2027

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0588	1.2500	1.9818	2.8600e-003		9.9600e-003	9.9600e-003		9.9600e-003	9.9600e-003	0.0000	244.7663	244.7663	0.0524	0.0000	245.8671
Total	**0.0588**	**1.2500**	**1.9818**	**2.8600e-003**		**9.9600e-003**	**9.9600e-003**		**9.9600e-003**	**9.9600e-003**	**0.0000**	**244.7663**	**244.7663**	**0.0524**	**0.0000**	**245.8671**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.6446	3.6771	10.8928	0.0203	0.6034	0.1021	0.7055	0.1712	0.0939	0.2651	0.0000	1,718.1745	1,718.1745	0.0109	0.0000	1,718.4024
Worker	0.7571	1.1420	10.5729	0.0315	2.6928	0.0185	2.7113	0.7149	0.0171	0.7320	0.0000	1,826.7255	1,826.7255	0.0985	0.0000	1,828.7934
Total	**1.4016**	**4.8191**	**21.4657**	**0.0518**	**3.2963**	**0.1206**	**3.4168**	**0.8861**	**0.1111**	**0.9971**	**0.0000**	**3,544.8999**	**3,544.8999**	**0.1093**	**0.0000**	**3,547.1958**

3.5 Building Construction - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1422	1.2607	1.8935	2.8500e-003		0.0533	0.0533		0.0504	0.0504	0.0000	243.8287	243.8287	0.0522	0.0000	244.9254
Total	**0.1422**	**1.2607**	**1.8935**	**2.8500e-003**		**0.0533**	**0.0533**		**0.0504**	**0.0504**	**0.0000**	**243.8287**	**243.8287**	**0.0522**	**0.0000**	**244.9254**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.6377	3.6418	10.8026	0.0202	0.6011	0.1015	0.7026	0.1705	0.0934	0.2639	0.0000	1,711.4739	1,711.4739	0.0108	0.0000	1,711.7008
Worker	0.7414	1.1207	10.3673	0.0314	2.6825	0.0186	2.7011	0.7122	0.0172	0.7294	0.0000	1,808.2789	1,808.2789	0.0970	0.0000	1,810.3165
Total	**1.3791**	**4.7625**	**21.1699**	**0.0516**	**3.2836**	**0.1201**	**3.4037**	**0.8827**	**0.1106**	**0.9933**	**0.0000**	**3,519.7528**	**3,519.7528**	**0.1078**	**0.0000**	**3,522.0172**

3.5 Building Construction - 2028

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0586	1.2452	1.9742	2.8500e-003		9.9200e-003	9.9200e-003		9.9200e-003	9.9200e-003	0.0000	243.8285	243.8285	0.0522	0.0000	244.9251
Total	**0.0586**	**1.2452**	**1.9742**	**2.8500e-003**		**9.9200e-003**	**9.9200e-003**		**9.9200e-003**	**9.9200e-003**	**0.0000**	**243.8285**	**243.8285**	**0.0522**	**0.0000**	**244.9251**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.6377	3.6418	10.8026	0.0202	0.6011	0.1015	0.7026	0.1705	0.0934	0.2639	0.0000	1,711.4739	1,711.4739	0.0108	0.0000	1,711.7008
Worker	0.7414	1.1207	10.3673	0.0314	2.6825	0.0186	2.7011	0.7122	0.0172	0.7294	0.0000	1,808.2789	1,808.2789	0.0970	0.0000	1,810.3165
Total	**1.3791**	**4.7625**	**21.1699**	**0.0516**	**3.2836**	**0.1201**	**3.4037**	**0.8827**	**0.1106**	**0.9933**	**0.0000**	**3,519.7528**	**3,519.7528**	**0.1078**	**0.0000**	**3,522.0172**

3.5 Building Construction - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0109	0.0970	0.1457	2.2000e-004		4.1000e-003	4.1000e-003		3.8800e-003	3.8800e-003	0.0000	18.7561	18.7561	4.0200e-003	0.0000	18.8404
Total	**0.0109**	**0.0970**	**0.1457**	**2.2000e-004**		**4.1000e-003**	**4.1000e-003**		**3.8800e-003**	**3.8800e-003**	**0.0000**	**18.7561**	**18.7561**	**4.0200e-003**	**0.0000**	**18.8404**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0488	0.2788	0.8265	1.5500e-003	0.0462	7.8100e-003	0.0540	0.0131	7.1800e-003	0.0203	0.0000	131.6382	131.6382	8.3000e-004	0.0000	131.6557
Worker	0.0561	0.0850	0.7851	2.4100e-003	0.2064	1.4400e-003	0.2078	0.0548	1.3300e-003	0.0561	0.0000	138.3534	138.3534	7.3800e-003	0.0000	138.5084
Total	**0.1049**	**0.3638**	**1.6116**	**3.9600e-003**	**0.2526**	**9.2500e-003**	**0.2618**	**0.0679**	**8.5100e-003**	**0.0764**	**0.0000**	**269.9916**	**269.9916**	**8.2100e-003**	**0.0000**	**270.1641**

3.5 Building Construction - 2029

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.5100e-003	0.0958	0.1519	2.2000e-004		7.6000e-004	7.6000e-004		7.6000e-004	7.6000e-004	0.0000	18.7560	18.7560	4.0200e-003	0.0000	18.8404
Total	**4.5100e-003**	**0.0958**	**0.1519**	**2.2000e-004**		**7.6000e-004**	**7.6000e-004**		**7.6000e-004**	**7.6000e-004**	**0.0000**	**18.7560**	**18.7560**	**4.0200e-003**	**0.0000**	**18.8404**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0488	0.2788	0.8265	1.5500e-003	0.0462	7.8100e-003	0.0540	0.0131	7.1800e-003	0.0203	0.0000	131.6382	131.6382	8.3000e-004	0.0000	131.6557
Worker	0.0561	0.0850	0.7851	2.4100e-003	0.2064	1.4400e-003	0.2078	0.0548	1.3300e-003	0.0561	0.0000	138.3534	138.3534	7.3800e-003	0.0000	138.5084
Total	**0.1049**	**0.3638**	**1.6116**	**3.9600e-003**	**0.2526**	**9.2500e-003**	**0.2618**	**0.0679**	**8.5100e-003**	**0.0764**	**0.0000**	**269.9916**	**269.9916**	**8.2100e-003**	**0.0000**	**270.1641**

3.6 Architectural Coating - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	39.2225					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0205	0.1375	0.2171	3.6000e-004		6.1800e-003	6.1800e-003		6.1800e-003	6.1800e-003	0.0000	30.6390	30.6390	1.6700e-003	0.0000	30.6741
Total	**39.2430**	**0.1375**	**0.2171**	**3.6000e-004**		**6.1800e-003**	**6.1800e-003**		**6.1800e-003**	**6.1800e-003**	**0.0000**	**30.6390**	**30.6390**	**1.6700e-003**	**0.0000**	**30.6741**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1392	0.2099	1.9437	5.7900e-003	0.4950	3.4000e-003	0.4984	0.1314	3.1500e-003	0.1346	0.0000	335.8149	335.8149	0.0181	0.0000	336.1951
Total	**0.1392**	**0.2099**	**1.9437**	**5.7900e-003**	**0.4950**	**3.4000e-003**	**0.4984**	**0.1314**	**3.1500e-003**	**0.1346**	**0.0000**	**335.8149**	**335.8149**	**0.0181**	**0.0000**	**336.1951**

3.6 Architectural Coating - 2027

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	39.2225					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.5400e-003	0.1272	0.2199	3.6000e-004		4.8000e-004	4.8000e-004		4.8000e-004	4.8000e-004	0.0000	30.6390	30.6390	1.6700e-003	0.0000	30.6741
Total	**39.2290**	**0.1272**	**0.2199**	**3.6000e-004**		**4.8000e-004**	**4.8000e-004**		**4.8000e-004**	**4.8000e-004**	**0.0000**	**30.6390**	**30.6390**	**1.6700e-003**	**0.0000**	**30.6741**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1392	0.2099	1.9437	5.7900e-003	0.4950	3.4000e-003	0.4984	0.1314	3.1500e-003	0.1346	0.0000	335.8149	335.8149	0.0181	0.0000	336.1951
Total	**0.1392**	**0.2099**	**1.9437**	**5.7900e-003**	**0.4950**	**3.4000e-003**	**0.4984**	**0.1314**	**3.1500e-003**	**0.1346**	**0.0000**	**335.8149**	**335.8149**	**0.0181**	**0.0000**	**336.1951**

3.6 Architectural Coating - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	42.4910					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0222	0.1489	0.2352	3.9000e-004		6.7000e-003	6.7000e-003		6.7000e-003	6.7000e-003	0.0000	33.1923	33.1923	1.8100e-003	0.0000	33.2303
Total	**42.5132**	**0.1489**	**0.2352**	**3.9000e-004**		**6.7000e-003**	**6.7000e-003**		**6.7000e-003**	**6.7000e-003**	**0.0000**	**33.1923**	**33.1923**	**1.8100e-003**	**0.0000**	**33.2303**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1482	0.2241	2.0726	6.2700e-003	0.5363	3.7100e-003	0.5400	0.1424	3.4400e-003	0.1458	0.0000	361.5109	361.5109	0.0194	0.0000	361.9182
Total	**0.1482**	**0.2241**	**2.0726**	**6.2700e-003**	**0.5363**	**3.7100e-003**	**0.5400**	**0.1424**	**3.4400e-003**	**0.1458**	**0.0000**	**361.5109**	**361.5109**	**0.0194**	**0.0000**	**361.9182**

3.6 Architectural Coating - 2028

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	42.4910					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.0800e-003	0.1378	0.2382	3.9000e-004		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	33.1923	33.1923	1.8100e-003	0.0000	33.2303
Total	**42.4981**	**0.1378**	**0.2382**	**3.9000e-004**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**33.1923**	**33.1923**	**1.8100e-003**	**0.0000**	**33.2303**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1482	0.2241	2.0726	6.2700e-003	0.5363	3.7100e-003	0.5400	0.1424	3.4400e-003	0.1458	0.0000	361.5109	361.5109	0.0194	0.0000	361.9182
Total	**0.1482**	**0.2241**	**2.0726**	**6.2700e-003**	**0.5363**	**3.7100e-003**	**0.5400**	**0.1424**	**3.4400e-003**	**0.1458**	**0.0000**	**361.5109**	**361.5109**	**0.0194**	**0.0000**	**361.9182**

3.6 Architectural Coating - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	26.1483					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0137	0.0916	0.1447	2.4000e-004		4.1200e-003	4.1200e-003		4.1200e-003	4.1200e-003	0.0000	20.4260	20.4260	1.1100e-003	0.0000	20.4494
Total	**26.1620**	**0.0916**	**0.1447**	**2.4000e-004**		**4.1200e-003**	**4.1200e-003**		**4.1200e-003**	**4.1200e-003**	**0.0000**	**20.4260**	**20.4260**	**1.1100e-003**	**0.0000**	**20.4494**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0897	0.1359	1.2557	3.8600e-003	0.3300	2.3000e-003	0.3323	0.0876	2.1300e-003	0.0898	0.0000	221.2767	221.2767	0.0118	0.0000	221.5247
Total	**0.0897**	**0.1359**	**1.2557**	**3.8600e-003**	**0.3300**	**2.3000e-003**	**0.3323**	**0.0876**	**2.1300e-003**	**0.0898**	**0.0000**	**221.2767**	**221.2767**	**0.0118**	**0.0000**	**221.5247**

3.6 Architectural Coating - 2029

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	26.1483					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3600e-003	0.0848	0.1466	2.4000e-004		3.2000e-004	3.2000e-004		3.2000e-004	3.2000e-004	0.0000	20.4260	20.4260	1.1100e-003	0.0000	20.4494
Total	**26.1527**	**0.0848**	**0.1466**	**2.4000e-004**		**3.2000e-004**	**3.2000e-004**		**3.2000e-004**	**3.2000e-004**	**0.0000**	**20.4260**	**20.4260**	**1.1100e-003**	**0.0000**	**20.4494**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0897	0.1359	1.2557	3.8600e-003	0.3300	2.3000e-003	0.3323	0.0876	2.1300e-003	0.0898	0.0000	221.2767	221.2767	0.0118	0.0000	221.5247
Total	**0.0897**	**0.1359**	**1.2557**	**3.8600e-003**	**0.3300**	**2.3000e-003**	**0.3323**	**0.0876**	**2.1300e-003**	**0.0898**	**0.0000**	**221.2767**	**221.2767**	**0.0118**	**0.0000**	**221.5247**

3.7 Paving - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0749	0.7032	1.1922	1.8600e-003		0.0343	0.0343		0.0316	0.0316	0.0000	163.6044	163.6044	0.0529	0.0000	164.7156
Paving	0.0536					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1286**	**0.7032**	**1.1922**	**1.8600e-003**		**0.0343**	**0.0343**		**0.0316**	**0.0316**	**0.0000**	**163.6044**	**163.6044**	**0.0529**	**0.0000**	**164.7156**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.9100e-003	4.3900e-003	0.0407	1.2000e-004	0.0104	7.0000e-005	0.0104	2.7500e-003	7.0000e-005	2.8100e-003	0.0000	7.0242	7.0242	3.8000e-004	0.0000	7.0321
Total	**2.9100e-003**	**4.3900e-003**	**0.0407**	**1.2000e-004**	**0.0104**	**7.0000e-005**	**0.0104**	**2.7500e-003**	**7.0000e-005**	**2.8100e-003**	**0.0000**	**7.0242**	**7.0242**	**3.8000e-004**	**0.0000**	**7.0321**

3.7 Paving - 2027

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0274	0.8204	1.4135	1.8600e-003		3.0600e-003	3.0600e-003		3.0600e-003	3.0600e-003	0.0000	163.6042	163.6042	0.0529	0.0000	164.7154
Paving	0.0536					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0810**	**0.8204**	**1.4135**	**1.8600e-003**		**3.0600e-003**	**3.0600e-003**		**3.0600e-003**	**3.0600e-003**	**0.0000**	**163.6042**	**163.6042**	**0.0529**	**0.0000**	**164.7154**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.9100e-003	4.3900e-003	0.0407	1.2000e-004	0.0104	7.0000e-005	0.0104	2.7500e-003	7.0000e-005	2.8100e-003	0.0000	7.0242	7.0242	3.8000e-004	0.0000	7.0321
Total	**2.9100e-003**	**4.3900e-003**	**0.0407**	**1.2000e-004**	**0.0104**	**7.0000e-005**	**0.0104**	**2.7500e-003**	**7.0000e-005**	**2.8100e-003**	**0.0000**	**7.0242**	**7.0242**	**3.8000e-004**	**0.0000**	**7.0321**

3.7 Paving - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1167	1.0948	1.8562	2.9000e-003		0.0534	0.0534		0.0492	0.0492	0.0000	254.7135	254.7135	0.0824	0.0000	256.4435
Paving	0.0835					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.2002**	**1.0948**	**1.8562**	**2.9000e-003**		**0.0534**	**0.0534**		**0.0492**	**0.0492**	**0.0000**	**254.7135**	**254.7135**	**0.0824**	**0.0000**	**256.4435**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4600e-003	6.7300e-003	0.0623	1.9000e-004	0.0161	1.1000e-004	0.0162	4.2800e-003	1.0000e-004	4.3800e-003	0.0000	10.8671	10.8671	5.8000e-004	0.0000	10.8793
Total	**4.4600e-003**	**6.7300e-003**	**0.0623**	**1.9000e-004**	**0.0161**	**1.1000e-004**	**0.0162**	**4.2800e-003**	**1.0000e-004**	**4.3800e-003**	**0.0000**	**10.8671**	**10.8671**	**5.8000e-004**	**0.0000**	**10.8793**

3.7 Paving - 2028

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0427	1.2773	2.2006	2.9000e-003		4.7600e-003	4.7600e-003		4.7600e-003	4.7600e-003	0.0000	254.7132	254.7132	0.0824	0.0000	256.4432
Paving	0.0835					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1262**	**1.2773**	**2.2006**	**2.9000e-003**		**4.7600e-003**	**4.7600e-003**		**4.7600e-003**	**4.7600e-003**	**0.0000**	**254.7132**	**254.7132**	**0.0824**	**0.0000**	**256.4432**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4600e-003	6.7300e-003	0.0623	1.9000e-004	0.0161	1.1000e-004	0.0162	4.2800e-003	1.0000e-004	4.3800e-003	0.0000	10.8671	10.8671	5.8000e-004	0.0000	10.8793
Total	**4.4600e-003**	**6.7300e-003**	**0.0623**	**1.9000e-004**	**0.0161**	**1.1000e-004**	**0.0162**	**4.2800e-003**	**1.0000e-004**	**4.3800e-003**	**0.0000**	**10.8671**	**10.8671**	**5.8000e-004**	**0.0000**	**10.8793**

3.7 Paving - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1045	0.9811	1.6634	2.6000e-003		0.0479	0.0479		0.0440	0.0440	0.0000	228.2625	228.2625	0.0738	0.0000	229.8128
Paving	0.0748					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1794**	**0.9811**	**1.6634**	**2.6000e-003**		**0.0479**	**0.0479**		**0.0440**	**0.0440**	**0.0000**	**228.2625**	**228.2625**	**0.0738**	**0.0000**	**229.8128**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9200e-003	5.9500e-003	0.0550	1.7000e-004	0.0145	1.0000e-004	0.0146	3.8400e-003	9.0000e-005	3.9300e-003	0.0000	9.6864	9.6864	5.2000e-004	0.0000	9.6973
Total	**3.9200e-003**	**5.9500e-003**	**0.0550**	**1.7000e-004**	**0.0145**	**1.0000e-004**	**0.0146**	**3.8400e-003**	**9.0000e-005**	**3.9300e-003**	**0.0000**	**9.6864**	**9.6864**	**5.2000e-004**	**0.0000**	**9.6973**

3.7 Paving - 2029

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0382	1.1447	1.9721	2.6000e-003		4.2600e-003	4.2600e-003		4.2600e-003	4.2600e-003	0.0000	228.2622	228.2622	0.0738	0.0000	229.8125
Paving	0.0748					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1131**	**1.1447**	**1.9721**	**2.6000e-003**		**4.2600e-003**	**4.2600e-003**		**4.2600e-003**	**4.2600e-003**	**0.0000**	**228.2622**	**228.2622**	**0.0738**	**0.0000**	**229.8125**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9200e-003	5.9500e-003	0.0550	1.7000e-004	0.0145	1.0000e-004	0.0146	3.8400e-003	9.0000e-005	3.9300e-003	0.0000	9.6864	9.6864	5.2000e-004	0.0000	9.6973
Total	**3.9200e-003**	**5.9500e-003**	**0.0550**	**1.7000e-004**	**0.0145**	**1.0000e-004**	**0.0146**	**3.8400e-003**	**9.0000e-005**	**3.9300e-003**	**0.0000**	**9.6864**	**9.6864**	**5.2000e-004**	**0.0000**	**9.6973**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Increase Diversity

Improve Walkability Design

Improve Destination Accessibility

Increase Transit Accessibility

Improve Pedestrian Network

Provide Traffic Calming Measures

Implement NEV Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	82.1587	113.2332	720.7466	0.9983	59.9413	1.9849	61.9262	16.0085	1.8314	17.8398	0.0000	65,658.2997	65,658.2997	2.6721	0.0000	65,714.4130
Unmitigated	89.6470	158.7775	904.6136	1.7815	113.5632	3.3531	116.9163	30.3292	3.0921	33.4213	0.0000	117,285.9081	117,285.9081	4.3537	0.0000	117,377.3354

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	9.54	9.54	9.54	18,189	9,601
Condo/Townhouse	7,908.00	8,592.00	7284.00	17,708,745	9,347,091
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Regional Shopping Center	218,994.00	254,847.00	128724.00	279,744,048	147,655,476
Total	226,911.54	263,448.54	136,017.54	297,470,983	157,012,168

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	12.50	4.20	5.40	33.00	48.00	19.00	66	28	6
Condo/Townhouse	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3
Other Asphalt Surfaces	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Parking Lot	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	54	35	11

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.469614	0.066142	0.173873	0.163382	0.035024	0.005630	0.009899	0.067518	0.001256	0.001244	0.003209	0.000474	0.002734

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

Percent of Electricity Use Generated with Renewable Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	17,250.5179	17,250.5179	0.7930	0.1641	17,318.0281
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	25,781.1758	25,781.1758	1.1851	0.2452	25,882.0709
NaturalGas Mitigated	0.1717	1.4972	0.8461	9.3600e-003		0.1186	0.1186		0.1186	0.1186	0.0000	1,698.8646	1,698.8646	0.0326	0.0312	1,709.2036
NaturalGas Unmitigated	0.1971	1.7194	0.9720	0.0108		0.1362	0.1362		0.1362	0.1362	0.0000	1,950.9080	1,950.9080	0.0374	0.0358	1,962.7809

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	1.1832e+007	0.0638	0.5800	0.4872	3.4800e-003		0.0441	0.0441		0.0441	0.0441	0.0000	631.4006	631.4006	0.0121	0.0116	635.2432
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	2.47266e+007	0.1333	1.1394	0.4848	7.2700e-003		0.0921	0.0921		0.0921	0.0921	0.0000	1,319.5075	1,319.5075	0.0253	0.0242	1,327.5378
Total		**0.1971**	**1.7194**	**0.9720**	**0.0108**		**0.1362**	**0.1362**		**0.1362**	**0.1362**	**0.0000**	**1,950.9080**	**1,950.9080**	**0.0374**	**0.0358**	**1,962.7809**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	1.02867e+007	0.0555	0.5043	0.4236	3.0300e-003		0.0383	0.0383		0.0383	0.0383	0.0000	548.9375	548.9375	0.0105	0.0101	552.2782
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	2.15488e+007	0.1162	0.9929	0.4225	6.3400e-003		0.0803	0.0803		0.0803	0.0803	0.0000	1,149.9271	1,149.9271	0.0220	0.0211	1,156.9254
Total		**0.1717**	**1.4972**	**0.8461**	**9.3700e-003**		**0.1186**	**0.1186**		**0.1186**	**0.1186**	**0.0000**	**1,698.8646**	**1,698.8646**	**0.0326**	**0.0311**	**1,709.2036**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	5.8518e+006	1,674.5914	0.0770	0.0159	1,681.1450
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	4.3736e+006	1,251.5795	0.0575	0.0119	1,256.4776
Regional Shopping Center	7.9866e+007	22,855.0049	1.0506	0.2174	22,944.4484
Total		**25,781.1758**	**1.1851**	**0.2452**	**25,882.0709**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	4.86041e+006	1,390.8884	0.0639	0.0132	1,396.3317
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	2.07746e+006	594.5003	0.0273	5.6500e-003	596.8269
Regional Shopping Center	5.33434e+007	15,265.1292	0.7017	0.1452	15,324.8696
Total		**17,250.5179**	**0.7930**	**0.1641**	**17,318.0281**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

Use only Natural Gas Hearths

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	52.0720	0.1039	9.0525	4.8000e-004		0.1160	0.1160		0.1153	0.1153	0.0000	960.0485	960.0485	0.0328	0.0173	966.1089
Unmitigated	64.7041	0.1039	9.0525	4.8000e-004		0.1160	0.1160		0.1153	0.1153	0.0000	960.0485	960.0485	0.0328	0.0173	966.1089

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	10.7862					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	53.5419					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0955	0.0000	5.2100e-003	0.0000		0.0660	0.0660		0.0653	0.0653	0.0000	945.1798	945.1798	0.0181	0.0173	950.9320
Landscaping	0.2805	0.1039	9.0473	4.8000e-004		0.0500	0.0500		0.0500	0.0500	0.0000	14.8687	14.8687	0.0147	0.0000	15.1769
Total	**64.7041**	**0.1039**	**9.0525**	**4.8000e-004**		**0.1160**	**0.1160**		**0.1153**	**0.1153**	**0.0000**	**960.0485**	**960.0485**	**0.0328**	**0.0173**	**966.1089**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	2.1572					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	49.5388					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0955	0.0000	5.2100e-003	0.0000		0.0660	0.0660		0.0653	0.0653	0.0000	945.1798	945.1798	0.0181	0.0173	950.9320
Landscaping	0.2805	0.1039	9.0473	4.8000e-004		0.0500	0.0500		0.0500	0.0500	0.0000	14.8687	14.8687	0.0147	0.0000	15.1769
Total	**52.0720**	**0.1039**	**9.0525**	**4.8000e-004**		**0.1160**	**0.1160**		**0.1153**	**0.1153**	**0.0000**	**960.0485**	**960.0485**	**0.0328**	**0.0173**	**966.1089**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Use Reclaimed Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Turf Reduction

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	2,160.1753	11.9798	0.3001	2,504.7803
Unmitigated	2,759.1874	14.9775	0.3757	3,190.1745

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 7.14889	22.7286	1.0400e-003	2.2000e-004	22.8175
Condo/Townhouse	78.1848 / 49.2904	472.8449	2.5683	0.0644	546.7473
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	377.77 / 231.536	2,263.6139	12.4082	0.3111	2,620.6097
Total		**2,759.1874**	**14.9775**	**0.3757**	**3,190.1745**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 5.71911	18.1829	8.4000e-004	1.7000e-004	18.2540
Condo/Townhouse	62.5479 / 39.4323	370.1867	2.0542	0.0515	429.2769
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	302.216 / 185.229	1,771.8058	9.9248	0.2485	2,057.2494
Total		**2,160.1753**	**11.9798**	**0.3001**	**2,504.7803**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	299.7933	17.7173	0.0000	671.8561
Unmitigated	1,199.1732	70.8691	0.0000	2,687.4244

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.52	0.1056	6.2400e-003	0.0000	0.2366
Condo/Townhouse	552	112.0510	6.6220	0.0000	251.1135
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	5355	1,087.0166	64.2408	0.0000	2,436.0743
Total		**1,199.1732**	**70.8691**	**0.0000**	**2,687.4244**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.13	0.0264	1.5600e-003	0.0000	0.0591
Condo/Townhouse	138	28.0128	1.6555	0.0000	62.7784
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	1338.75	271.7542	16.0602	0.0000	609.0186
Total		**299.7933**	**17.7173**	**0.0000**	**671.8561**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Alternative 3

Salton Sea Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	50.00	Acre	50.00	2,178,000.00	0
Parking Lot	12,425.00	Space	111.82	4,970,000.00	0
City Park	6.00	Acre	6.00	261,360.00	0
Condo/Townhouse	1,200.00	Dwelling Unit	240.00	1,200,000.00	2160
Regional Shopping Center	5,100.00	1000sqft	337.00	5,100,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.4	**Precipitation Freq (Days)**	20
Climate Zone	10			**Operational Year**	2030
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Alternatve 3 - County General Plan

Construction Phase - Based on EIS model

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Based on EIS model

On-road Fugitive Dust - Paved Roads

Grading -

Architectural Coating -

Vechicle Emission Factors -

Vechicle Emission Factors -

Vechicle Emission Factors -

Road Dust - Based on previous EIS model

Woodstoves - No woodstoves

Area Coating -

Construction Off-road Equipment Mitigation - Based on previous EIS model

Mobile Land Use Mitigation -

Area Mitigation - Based on previous EIS model

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	50

tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	50
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	80
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
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tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim

tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	9,300.00	2,089.00
tblConstructionPhase	PhaseEndDate	8/8/2031	8/10/2029
tblConstructionPhase	PhaseEndDate	2/20/2032	11/21/2029
tblConstructionPhase	PhaseStartDate	1/27/2029	2/1/2027
tblConstructionPhase	PhaseStartDate	8/11/2029	5/13/2027
tblFireplaces	FireplaceWoodMass	457.60	0.00
tblLandUse	LotAcreage	75.00	240.00
tblLandUse	LotAcreage	117.08	337.00
tblLandUse	Population	3,876.00	2,160.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Utilities
tblOffRoadEquipment	PhaseName		Utilities
tblOffRoadEquipment	PhaseName		Utilities
tblOffRoadEquipment	PhaseName		Utilities
tblOffRoadEquipment	PhaseName		Utilities
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00

tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblProjectCharacteristics	OperationalYear	2014	2030
tblRoadDust	RoadPercentPave	50	100
tblTripsAndVMT	VendorTripNumber	2,179.00	964.00
tblTripsAndVMT	WorkerTripNumber	5,608.00	2,496.00
tblTripsAndVMT	WorkerTripNumber	1,122.00	499.00
tblWoodstoves	NumberCatalytic	60.00	0.00
tblWoodstoves	NumberNoncatalytic	60.00	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	5.3662	57.0009	43.9183	0.0409	18.2169	3.0893	21.3062	9.9706	2.8422	12.8128	0.0000	4,260.1381	4,260.1381	1.2370	0.0000	4,286.1153
2016	5.1716	54.7328	42.2601	0.0408	18.2169	2.9397	21.1565	9.9706	2.7045	12.6751	0.0000	4,207.6996	4,207.6996	1.2349	0.0000	4,233.6315
2017	6.1938	69.6937	47.9636	0.0637	18.2169	3.3183	20.9720	9.9706	3.0528	12.5054	0.0000	6,465.4477	6,465.4477	1.9434	0.0000	6,506.2581
2018	5.3751	59.6271	43.3598	0.0637	8.8407	2.7891	11.6297	3.6409	2.5660	6.2068	0.0000	6,359.0216	6,359.0216	1.9425	0.0000	6,399.8137
2019	4.9697	54.2840	41.2624	0.0637	8.8407	2.5060	11.3466	3.6409	2.3055	5.9464	0.0000	6,252.0504	6,252.0504	1.9415	0.0000	6,292.8207
2020	4.6231	49.4647	39.3353	0.0637	8.8407	2.2630	11.1037	3.6409	2.0820	5.7228	0.0000	6,112.7409	6,112.7409	1.9408	0.0000	6,153.4984
2021	15.8347	57.9748	206.5180	0.4217	25.5580	1.7610	27.3189	6.8641	1.6404	8.5045	0.0000	33,270.4274	33,270.4274	1.4622	0.0000	33,301.1334
2022	15.0839	52.8394	199.6836	0.4214	25.5571	1.6188	27.1758	6.8637	1.5071	8.3708	0.0000	33,008.5525	33,008.5525	1.4342	0.0000	33,038.6699
2023	14.2302	47.9258	191.9335	0.4210	25.5560	1.4896	27.0456	6.8632	1.3862	8.2494	0.0000	32,756.1931	32,756.1931	1.4026	0.0000	32,785.6484
2024	13.7931	46.8730	188.3253	0.4242	25.5552	1.4082	26.9634	6.8629	1.3093	8.1722	0.0000	32,796.4509	32,796.4509	1.4016	0.0000	32,825.8836
2025	13.3777	45.7754	184.8613	0.4241	25.5544	1.3358	26.8902	6.8626	1.2409	8.1035	0.0000	32,629.0295	32,629.0295	1.3835	0.0000	32,658.0824
2026	13.1357	45.3034	181.9861	0.4241	25.5544	1.3282	26.8826	6.8625	1.2340	8.0965	0.0000	32,491.3183	32,491.3183	1.3730	0.0000	32,520.1517
2027	342.9646	56.2657	214.5407	0.5000	29.8549	1.8223	31.6772	8.0032	1.6929	9.6961	0.0000	38,053.7226	38,053.7226	2.2492	0.0000	38,100.9555
2028	342.7756	55.9647	212.4938	0.5000	29.8547	1.8223	31.6771	8.0032	1.6929	9.6961	0.0000	37,933.5179	37,933.5179	2.2382	0.0000	37,980.5197
2029	342.5993	55.6987	210.4202	0.5000	29.8545	1.8233	31.6778	8.0031	1.6938	9.6969	0.0000	37,831.2412	37,831.2412	2.2275	0.0000	37,878.0178
Total	**1,145.4943**	**809.4240**	**2,048.8620**	**4.3728**	**324.0717**	**31.3147**	**354.8233**	**106.0229**	**28.9503**	**134.4552**	**0.0000**	**344,427.5516**	**344,427.5516**	**25.4118**	**0.0000**	**344,961.2000**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	0.8156	12.4916	24.6867	0.0409	6.8442	0.0645	6.9086	3.7193	0.0644	3.7836	0.0000	4,260.1381	4,260.1381	1.2370	0.0000	4,286.1152
2016	0.8048	12.4809	24.5551	0.0408	6.8442	0.0644	6.9086	3.7193	0.0643	3.7836	0.0000	4,207.6996	4,207.6996	1.2349	0.0000	4,233.6315
2017	1.0726	20.3903	39.1018	0.0637	6.8442	0.1019	6.9085	3.7193	0.1018	3.7836	0.0000	6,465.4477	6,465.4477	1.9434	0.0000	6,506.2581
2018	1.0635	20.3818	38.9962	0.0637	3.3808	0.1019	3.4827	1.3769	0.1018	1.4787	0.0000	6,359.0216	6,359.0216	1.9425	0.0000	6,399.8137
2019	1.0564	20.3747	38.9167	0.0637	3.3808	0.1019	3.4827	1.3769	0.1018	1.4787	0.0000	6,252.0503	6,252.0503	1.9415	0.0000	6,292.8207
2020	1.0510	20.3693	38.8528	0.0637	3.3808	0.1019	3.4827	1.3769	0.1018	1.4787	0.0000	6,112.7409	6,112.7409	1.9408	0.0000	6,153.4984
2021	14.7458	54.3645	206.8637	0.4217	25.5580	1.0510	26.6089	6.8641	0.9740	7.8380	0.0000	33,270.4274	33,270.4274	1.4622	0.0000	33,301.1334
2022	14.1548	50.4636	200.1619	0.4214	25.5571	1.0381	26.5951	6.8637	0.9622	7.8258	0.0000	33,008.5525	33,008.5525	1.4342	0.0000	33,038.6699
2023	13.4157	46.4580	192.4805	0.4210	25.5560	1.0057	26.5617	6.8632	0.9323	7.7956	0.0000	32,756.1931	32,756.1931	1.4026	0.0000	32,785.6484
2024	13.0626	46.0740	188.8972	0.4242	25.5552	0.9988	26.5540	6.8629	0.9261	7.7890	0.0000	32,796.4509	32,796.4509	1.4016	0.0000	32,825.8836
2025	12.7348	45.6563	185.4819	0.4241	25.5544	1.0024	26.5568	6.8626	0.9294	7.7919	0.0000	32,629.0295	32,629.0295	1.3835	0.0000	32,658.0824
2026	12.4928	45.1843	182.6067	0.4241	25.5544	0.9948	26.5492	6.8625	0.9224	7.7850	0.0000	32,491.3183	32,491.3183	1.3730	0.0000	32,520.1517
2027	341.6361	57.4649	217.8341	0.5000	29.8549	1.0670	30.9219	8.0032	0.9924	8.9956	0.0000	38,053.7226	38,053.7226	2.2492	0.0000	38,100.9555
2028	341.4471	57.1639	215.7872	0.5000	29.8547	1.0670	30.9218	8.0032	0.9924	8.9955	0.0000	37,933.5179	37,933.5179	2.2382	0.0000	37,980.5197
2029	341.2708	56.8979	213.7137	0.5000	29.8545	1.0681	30.9226	8.0031	0.9933	8.9964	0.0000	37,831.2412	37,831.2412	2.2275	0.0000	37,878.0178
Total	**1,110.8244**	**566.2159**	**2,008.9363**	**4.3728**	**273.5740**	**9.8293**	**283.3657**	**80.4768**	**9.1604**	**89.5998**	**0.0000**	**344,427.5515**	**344,427.5515**	**25.4118**	**0.0000**	**344,961.2000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	3.03	30.05	1.95	0.00	15.58	68.61	20.14	24.09	68.36	33.36	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	357.9289	1.1545	100.6530	5.3600e-003		2.1648	2.1648		2.1478	2.1478	0.0000	25,593.8751	25,593.8751	0.6668	0.4659	25,752.3019
Energy	1.0802	9.4212	5.3262	0.0589		0.7463	0.7463		0.7463	0.7463		11,783.6055	11,783.6055	0.2259	0.2160	11,855.3185
Mobile	696.0488	1,003.2448	6,026.6864	11.9256	757.2177	22.0656	779.2833	202.0376	20.3479	222.3854		864,463.4217	864,463.4217	31.6073		865,127.1739
Total	**1,055.0578**	**1,013.8204**	**6,132.6656**	**11.9898**	**757.2177**	**24.9766**	**782.1943**	**202.0376**	**23.2420**	**225.2796**	**0.0000**	**901,840.9023**	**901,840.9023**	**32.4999**	**0.6819**	**902,734.7943**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	288.7120	1.1545	100.6530	5.3600e-003		2.1648	2.1648		2.1478	2.1478	0.0000	25,593.8751	25,593.8751	0.6668	0.4659	25,752.3019
Energy	0.9406	8.2038	4.6361	0.0513		0.6499	0.6499		0.6499	0.6499		10,261.2476	10,261.2476	0.1967	0.1881	10,323.6958
Mobile	643.8965	725.0960	4,678.0478	6.6835	399.6773	13.0388	412.7161	106.6402	12.0304	118.6706		484,323.6267	484,323.6267	19.3777		484,730.5577
Total	**933.5491**	**734.4542**	**4,783.3369**	**6.7402**	**399.6773**	**15.8535**	**415.5308**	**106.6402**	**14.8281**	**121.4683**	**0.0000**	**520,178.7494**	**520,178.7494**	**20.2412**	**0.6540**	**520,806.5554**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	11.52	27.56	22.00	43.78	47.22	36.53	46.88	47.22	36.20	46.08	0.00	42.32	42.32	37.72	4.09	42.31

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	9/1/2015	1/16/2017	5	360	
2	Grading	Grading	1/17/2017	8/10/2020	5	930	
3	Utilities	Trenching	8/11/2020	1/25/2021	5	120	
4	Building Construction	Building Construction	1/26/2021	1/26/2029	5	2089	
5	Architectural Coating	Architectural Coating	2/1/2027	8/10/2029	5	660	
6	Paving	Paving	5/13/2027	11/21/2029	5	660	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 2325

Acres of Paving: 0

Residential Indoor: 2,430,000; Residential Outdoor: 810,000; Non-Residential Indoor: 11,532,690; Non-Residential Outdoor: 3,844,230 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Utilities	Forklifts	1	4.00	89	0.20
Utilities	Off-Highway Trucks	2	8.00	400	0.38
Utilities	Signal Boards	1	8.00	6	0.82
Utilities	Trenchers	1	6.00	80	0.50
Utilities	Welders	1	4.00	46	0.45
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Utilities	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	2,496.00	964.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	499.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	5.2609	56.8897	42.6318	0.0391		3.0883	3.0883		2.8412	2.8412		4,111.7444	4,111.7444	1.2275		4,137.5225
Total	**5.2609**	**56.8897**	**42.6318**	**0.0391**	**18.0663**	**3.0883**	**21.1545**	**9.9307**	**2.8412**	**12.7719**		**4,111.7444**	**4,111.7444**	**1.2275**		**4,137.5225**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1053	0.1112	1.2865	1.7600e-003	0.1506	1.0300e-003	0.1516	0.0400	9.4000e-004	0.0409		148.3937	148.3937	9.4800e-003		148.5928
Total	**0.1053**	**0.1112**	**1.2865**	**1.7600e-003**	**0.1506**	**1.0300e-003**	**0.1516**	**0.0400**	**9.4000e-004**	**0.0409**		**148.3937**	**148.3937**	**9.4800e-003**		**148.5928**

3.2 Site Preparation - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.6936	0.0000	6.6936	3.6793	0.0000	3.6793			0.0000			0.0000
Off-Road	0.7103	12.3804	23.4003	0.0391		0.0634	0.0634		0.0634	0.0634	0.0000	4,111.7444	4,111.7444	1.2275		4,137.5224
Total	**0.7103**	**12.3804**	**23.4003**	**0.0391**	**6.6936**	**0.0634**	**6.7570**	**3.6793**	**0.0634**	**3.7428**	**0.0000**	**4,111.7444**	**4,111.7444**	**1.2275**		**4,137.5224**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1053	0.1112	1.2865	1.7600e-003	0.1506	1.0300e-003	0.1516	0.0400	9.4000e-004	0.0409		148.3937	148.3937	9.4800e-003		148.5928
Total	**0.1053**	**0.1112**	**1.2865**	**1.7600e-003**	**0.1506**	**1.0300e-003**	**0.1516**	**0.0400**	**9.4000e-004**	**0.0409**		**148.3937**	**148.3937**	**9.4800e-003**		**148.5928**

3.2 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	5.0771	54.6323	41.1053	0.0391		2.9387	2.9387		2.7036	2.7036		4,065.0053	4,065.0053	1.2262		4,090.7544
Total	**5.0771**	**54.6323**	**41.1053**	**0.0391**	**18.0663**	**2.9387**	**21.0049**	**9.9307**	**2.7036**	**12.6343**		**4,065.0053**	**4,065.0053**	**1.2262**		**4,090.7544**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0946	0.1005	1.1548	1.7600e-003	0.1506	9.9000e-004	0.1516	0.0400	9.0000e-004	0.0409		142.6944	142.6944	8.7000e-003		142.8771
Total	**0.0946**	**0.1005**	**1.1548**	**1.7600e-003**	**0.1506**	**9.9000e-004**	**0.1516**	**0.0400**	**9.0000e-004**	**0.0409**		**142.6944**	**142.6944**	**8.7000e-003**		**142.8771**

3.2 Site Preparation - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.6936	0.0000	6.6936	3.6793	0.0000	3.6793			0.0000			0.0000
Off-Road	0.7103	12.3804	23.4003	0.0391		0.0634	0.0634		0.0634	0.0634	0.0000	4,065.0053	4,065.0053	1.2262		4,090.7544
Total	**0.7103**	**12.3804**	**23.4003**	**0.0391**	**6.6936**	**0.0634**	**6.7570**	**3.6793**	**0.0634**	**3.7428**	**0.0000**	**4,065.0053**	**4,065.0053**	**1.2262**		**4,090.7544**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0946	0.1005	1.1548	1.7600e-003	0.1506	9.9000e-004	0.1516	0.0400	9.0000e-004	0.0409		142.6944	142.6944	8.7000e-003		142.8771
Total	**0.0946**	**0.1005**	**1.1548**	**1.7600e-003**	**0.1506**	**9.9000e-004**	**0.1516**	**0.0400**	**9.0000e-004**	**0.0409**		**142.6944**	**142.6944**	**8.7000e-003**		**142.8771**

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.8382	51.7535	39.3970	0.0391		2.7542	2.7542		2.5339	2.5339		4,003.0859	4,003.0859	1.2265		4,028.8432
Total	**4.8382**	**51.7535**	**39.3970**	**0.0391**	**18.0663**	**2.7542**	**20.8205**	**9.9307**	**2.5339**	**12.4646**		**4,003.0859**	**4,003.0859**	**1.2265**		**4,028.8432**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0852	0.0915	1.0428	1.7600e-003	0.1506	9.6000e-004	0.1516	0.0400	8.8000e-004	0.0408		136.8708	136.8708	8.0600e-003		137.0400
Total	**0.0852**	**0.0915**	**1.0428**	**1.7600e-003**	**0.1506**	**9.6000e-004**	**0.1516**	**0.0400**	**8.8000e-004**	**0.0408**		**136.8708**	**136.8708**	**8.0600e-003**		**137.0400**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.6936	0.0000	6.6936	3.6793	0.0000	3.6793			0.0000			0.0000
Off-Road	0.7103	12.3804	23.4003	0.0391		0.0634	0.0634		0.0634	0.0634	0.0000	4,003.0859	4,003.0859	1.2265		4,028.8432
Total	**0.7103**	**12.3804**	**23.4003**	**0.0391**	**6.6936**	**0.0634**	**6.7570**	**3.6793**	**0.0634**	**3.7428**	**0.0000**	**4,003.0859**	**4,003.0859**	**1.2265**		**4,028.8432**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0852	0.0915	1.0428	1.7600e-003	0.1506	9.6000e-004	0.1516	0.0400	8.8000e-004	0.0408		136.8708	136.8708	8.0600e-003		137.0400
Total	**0.0852**	**0.0915**	**1.0428**	**1.7600e-003**	**0.1506**	**9.6000e-004**	**0.1516**	**0.0400**	**8.8000e-004**	**0.0408**		**136.8708**	**136.8708**	**8.0600e-003**		**137.0400**

3.3 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	6.0991	69.5920	46.8050	0.0617		3.3172	3.3172		3.0518	3.0518		6,313.3690	6,313.3690	1.9344		6,353.9915
Total	**6.0991**	**69.5920**	**46.8050**	**0.0617**	**8.6733**	**3.3172**	**11.9905**	**3.5965**	**3.0518**	**6.6483**		**6,313.3690**	**6,313.3690**	**1.9344**		**6,353.9915**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0946	0.1017	1.1586	1.9500e-003	0.1673	1.0600e-003	0.1684	0.0444	9.8000e-004	0.0454		152.0786	152.0786	8.9500e-003		152.2666
Total	**0.0946**	**0.1017**	**1.1586**	**1.9500e-003**	**0.1673**	**1.0600e-003**	**0.1684**	**0.0444**	**9.8000e-004**	**0.0454**		**152.0786**	**152.0786**	**8.9500e-003**		**152.2666**

3.3 Grading - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.2135	0.0000	3.2135	1.3325	0.0000	1.3325			0.0000			0.0000
Off-Road	0.9779	20.2885	37.9432	0.0617		0.1009	0.1009		0.1009	0.1009	0.0000	6,313.3690	6,313.3690	1.9344		6,353.9915
Total	**0.9779**	**20.2885**	**37.9432**	**0.0617**	**3.2135**	**0.1009**	**3.3143**	**1.3325**	**0.1009**	**1.4334**	**0.0000**	**6,313.3690**	**6,313.3690**	**1.9344**		**6,353.9915**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0946	0.1017	1.1586	1.9500e-003	0.1673	1.0600e-003	0.1684	0.0444	9.8000e-004	0.0454		152.0786	152.0786	8.9500e-003		152.2666
Total	**0.0946**	**0.1017**	**1.1586**	**1.9500e-003**	**0.1673**	**1.0600e-003**	**0.1684**	**0.0444**	**9.8000e-004**	**0.0454**		**152.0786**	**152.0786**	**8.9500e-003**		**152.2666**

3.3 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	5.2895	59.5338	42.3068	0.0617		2.7880	2.7880		2.5650	2.5650		6,212.8042	6,212.8042	1.9341		6,253.4209
Total	**5.2895**	**59.5338**	**42.3068**	**0.0617**	**8.6733**	**2.7880**	**11.4614**	**3.5965**	**2.5650**	**6.1615**		**6,212.8042**	**6,212.8042**	**1.9341**		**6,253.4209**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0855	0.0933	1.0530	1.9500e-003	0.1673	1.0500e-003	0.1684	0.0444	9.7000e-004	0.0454		146.2174	146.2174	8.3500e-003		146.3928
Total	**0.0855**	**0.0933**	**1.0530**	**1.9500e-003**	**0.1673**	**1.0500e-003**	**0.1684**	**0.0444**	**9.7000e-004**	**0.0454**		**146.2174**	**146.2174**	**8.3500e-003**		**146.3928**

3.3 Grading - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.2135	0.0000	3.2135	1.3325	0.0000	1.3325			0.0000			0.0000
Off-Road	0.9779	20.2885	37.9432	0.0617		0.1009	0.1009		0.1009	0.1009	0.0000	6,212.8041	6,212.8041	1.9341		6,253.4209
Total	**0.9779**	**20.2885**	**37.9432**	**0.0617**	**3.2135**	**0.1009**	**3.3143**	**1.3325**	**0.1009**	**1.4334**	**0.0000**	**6,212.8041**	**6,212.8041**	**1.9341**		**6,253.4209**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0855	0.0933	1.0530	1.9500e-003	0.1673	1.0500e-003	0.1684	0.0444	9.7000e-004	0.0454		146.2174	146.2174	8.3500e-003		146.3928
Total	**0.0855**	**0.0933**	**1.0530**	**1.9500e-003**	**0.1673**	**1.0500e-003**	**0.1684**	**0.0444**	**9.7000e-004**	**0.0454**		**146.2174**	**146.2174**	**8.3500e-003**		**146.3928**

3.3 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.8912	54.1978	40.2888	0.0617		2.5049	2.5049		2.3045	2.3045		6,111.3121	6,111.3121	1.9336		6,151.9167
Total	**4.8912**	**54.1978**	**40.2888**	**0.0617**	**8.6733**	**2.5049**	**11.1783**	**3.5965**	**2.3045**	**5.9010**		**6,111.3121**	**6,111.3121**	**1.9336**		**6,151.9167**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0785	0.0862	0.9735	1.9500e-003	0.1673	1.0500e-003	0.1684	0.0444	9.7000e-004	0.0454		140.7383	140.7383	7.8900e-003		140.9040
Total	**0.0785**	**0.0862**	**0.9735**	**1.9500e-003**	**0.1673**	**1.0500e-003**	**0.1684**	**0.0444**	**9.7000e-004**	**0.0454**		**140.7383**	**140.7383**	**7.8900e-003**		**140.9040**

3.3 Grading - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.2135	0.0000	3.2135	1.3325	0.0000	1.3325			0.0000			0.0000
Off-Road	0.9779	20.2885	37.9432	0.0617		0.1009	0.1009		0.1009	0.1009	0.0000	6,111.3121	6,111.3121	1.9336		6,151.9167
Total	**0.9779**	**20.2885**	**37.9432**	**0.0617**	**3.2135**	**0.1009**	**3.3143**	**1.3325**	**0.1009**	**1.4334**	**0.0000**	**6,111.3121**	**6,111.3121**	**1.9336**		**6,151.9167**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0785	0.0862	0.9735	1.9500e-003	0.1673	1.0500e-003	0.1684	0.0444	9.7000e-004	0.0454		140.7383	140.7383	7.8900e-003		140.9040
Total	**0.0785**	**0.0862**	**0.9735**	**1.9500e-003**	**0.1673**	**1.0500e-003**	**0.1684**	**0.0444**	**9.7000e-004**	**0.0454**		**140.7383**	**140.7383**	**7.8900e-003**		**140.9040**

3.3 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.5501	49.3839	38.4257	0.0617		2.2619	2.2619		2.0810	2.0810		5,977.7088	5,977.7088	1.9333		6,018.3084
Total	**4.5501**	**49.3839**	**38.4257**	**0.0617**	**8.6733**	**2.2619**	**10.9353**	**3.5965**	**2.0810**	**5.6775**		**5,977.7088**	**5,977.7088**	**1.9333**		**6,018.3084**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0730	0.0808	0.9096	1.9500e-003	0.1673	1.0500e-003	0.1684	0.0444	9.7000e-004	0.0454		135.0321	135.0321	7.5200e-003		135.1900
Total	**0.0730**	**0.0808**	**0.9096**	**1.9500e-003**	**0.1673**	**1.0500e-003**	**0.1684**	**0.0444**	**9.7000e-004**	**0.0454**		**135.0321**	**135.0321**	**7.5200e-003**		**135.1900**

3.3 Grading - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.2135	0.0000	3.2135	1.3325	0.0000	1.3325			0.0000			0.0000
Off-Road	0.9779	20.2885	37.9432	0.0617		0.1009	0.1009		0.1009	0.1009	0.0000	5,977.7088	5,977.7088	1.9333		6,018.3084
Total	**0.9779**	**20.2885**	**37.9432**	**0.0617**	**3.2135**	**0.1009**	**3.3143**	**1.3325**	**0.1009**	**1.4334**	**0.0000**	**5,977.7088**	**5,977.7088**	**1.9333**		**6,018.3084**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0730	0.0808	0.9096	1.9500e-003	0.1673	1.0500e-003	0.1684	0.0444	9.7000e-004	0.0454		135.0321	135.0321	7.5200e-003		135.1900
Total	**0.0730**	**0.0808**	**0.9096**	**1.9500e-003**	**0.1673**	**1.0500e-003**	**0.1684**	**0.0444**	**9.7000e-004**	**0.0454**		**135.0321**	**135.0321**	**7.5200e-003**		**135.1900**

3.4 Utilities - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9429	17.2968	11.3849	0.0316		0.7828	0.7828		0.7248	0.7248		3,022.9831	3,022.9831	0.9487		3,042.9047
Total	**1.9429**	**17.2968**	**11.3849**	**0.0316**		**0.7828**	**0.7828**		**0.7248**	**0.7248**		**3,022.9831**	**3,022.9831**	**0.9487**		**3,042.9047**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0548	0.0606	0.6822	1.4600e-003	0.1255	7.9000e-004	0.1263	0.0333	7.3000e-004	0.0340		101.2740	101.2740	5.6400e-003		101.3925
Total	**0.0548**	**0.0606**	**0.6822**	**1.4600e-003**	**0.1255**	**7.9000e-004**	**0.1263**	**0.0333**	**7.3000e-004**	**0.0340**		**101.2740**	**101.2740**	**5.6400e-003**		**101.3925**

3.4 Utilities - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5263	9.2153	17.2272	0.0316		0.0718	0.0718		0.0718	0.0718	0.0000	3,022.9831	3,022.9831	0.9487		3,042.9047
Total	**0.5263**	**9.2153**	**17.2272**	**0.0316**		**0.0718**	**0.0718**		**0.0718**	**0.0718**	**0.0000**	**3,022.9831**	**3,022.9831**	**0.9487**		**3,042.9047**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0548	0.0606	0.6822	1.4600e-003	0.1255	7.9000e-004	0.1263	0.0333	7.3000e-004	0.0340		101.2740	101.2740	5.6400e-003		101.3925
Total	**0.0548**	**0.0606**	**0.6822**	**1.4600e-003**	**0.1255**	**7.9000e-004**	**0.1263**	**0.0333**	**7.3000e-004**	**0.0340**		**101.2740**	**101.2740**	**5.6400e-003**		**101.3925**

3.4 Utilities - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7733	14.8794	10.9221	0.0316		0.6732	0.6732		0.6235	0.6235		3,022.8711	3,022.8711	0.9468		3,042.7535
Total	**1.7733**	**14.8794**	**10.9221**	**0.0316**		**0.6732**	**0.6732**		**0.6235**	**0.6235**		**3,022.8711**	**3,022.8711**	**0.9468**		**3,042.7535**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0517	0.0575	0.6492	1.4600e-003	0.1255	8.0000e-004	0.1263	0.0333	7.4000e-004	0.0340		99.7781	99.7781	5.4800e-003		99.8933
Total	**0.0517**	**0.0575**	**0.6492**	**1.4600e-003**	**0.1255**	**8.0000e-004**	**0.1263**	**0.0333**	**7.4000e-004**	**0.0340**		**99.7781**	**99.7781**	**5.4800e-003**		**99.8933**

3.4 Utilities - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5263	9.2153	17.2272	0.0316		0.0718	0.0718		0.0718	0.0718	0.0000	3,022.8710	3,022.8710	0.9468		3,042.7535
Total	**0.5263**	**9.2153**	**17.2272**	**0.0316**		**0.0718**	**0.0718**		**0.0718**	**0.0718**	**0.0000**	**3,022.8710**	**3,022.8710**	**0.9468**		**3,042.7535**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0517	0.0575	0.6492	1.4600e-003	0.1255	8.0000e-004	0.1263	0.0333	7.4000e-004	0.0340		99.7781	99.7781	5.4800e-003		99.8933
Total	**0.0517**	**0.0575**	**0.6492**	**1.4600e-003**	**0.1255**	**8.0000e-004**	**0.1263**	**0.0333**	**7.4000e-004**	**0.0340**		**99.7781**	**99.7781**	**5.4800e-003**		**99.8933**

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5396	13.1889	14.8402	0.0219		0.7864	0.7864		0.7428	0.7428		2,064.4675	2,064.4675	0.4579		2,074.0833
Total	**1.5396**	**13.1889**	**14.8402**	**0.0219**		**0.7864**	**0.7864**		**0.7428**	**0.7428**		**2,064.4675**	**2,064.4675**	**0.4579**		**2,074.0833**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.6920	35.2254	83.6442	0.1565	4.6747	0.8421	5.5167	1.3249	0.7747	2.0996		14,602.8787	14,602.8787	0.0921		14,604.8136
Worker	8.6031	9.5605	108.0336	0.2433	20.8833	0.1326	21.0159	5.5392	0.1229	5.6621		16,603.0812	16,603.0812	0.9122		16,622.2364
Total	**14.2951**	**44.7859**	**191.6778**	**0.3998**	**25.5580**	**0.9746**	**26.5326**	**6.8641**	**0.8977**	**7.7617**		**31,205.9599**	**31,205.9599**	**1.0043**		**31,227.0501**

3.5 Building Construction - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4508	9.5786	15.1859	0.0219		0.0763	0.0763		0.0763	0.0763	0.0000	2,064.4675	2,064.4675	0.4579		2,074.0833
Total	**0.4508**	**9.5786**	**15.1859**	**0.0219**		**0.0763**	**0.0763**		**0.0763**	**0.0763**	**0.0000**	**2,064.4675**	**2,064.4675**	**0.4579**		**2,074.0833**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.6920	35.2254	83.6442	0.1565	4.6747	0.8421	5.5167	1.3249	0.7747	2.0996		14,602.8787	14,602.8787	0.0921		14,604.8136
Worker	8.6031	9.5605	108.0336	0.2433	20.8833	0.1326	21.0159	5.5392	0.1229	5.6621		16,603.0812	16,603.0812	0.9122		16,622.2364
Total	**14.2951**	**44.7859**	**191.6778**	**0.3998**	**25.5580**	**0.9746**	**26.5326**	**6.8641**	**0.8977**	**7.7617**		**31,205.9599**	**31,205.9599**	**1.0043**		**31,227.0501**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3799	11.9544	14.7076	0.0219		0.6570	0.6570		0.6213	0.6213		2,065.3570	2,065.3570	0.4538		2,074.8868
Total	**1.3799**	**11.9544**	**14.7076**	**0.0219**		**0.6570**	**0.6570**		**0.6213**	**0.6213**		**2,065.3570**	**2,065.3570**	**0.4538**		**2,074.8868**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.5273	31.7101	82.1568	0.1563	4.6738	0.8287	5.5024	1.3245	0.7624	2.0869		14,584.3405	14,584.3405	0.0938		14,586.3103
Worker	8.1767	9.1749	102.8193	0.2433	20.8833	0.1331	21.0164	5.5392	0.1234	5.6626		16,358.8549	16,358.8549	0.8866		16,377.4728
Total	**13.7040**	**40.8850**	**184.9760**	**0.3996**	**25.5571**	**0.9618**	**26.5188**	**6.8637**	**0.8858**	**7.7495**		**30,943.1955**	**30,943.1955**	**0.9804**		**30,963.7831**

3.5 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4508	9.5786	15.1859	0.0219		0.0763	0.0763		0.0763	0.0763	0.0000	2,065.3570	2,065.3570	0.4538		2,074.8868
Total	**0.4508**	**9.5786**	**15.1859**	**0.0219**		**0.0763**	**0.0763**		**0.0763**	**0.0763**	**0.0000**	**2,065.3570**	**2,065.3570**	**0.4538**		**2,074.8868**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.5273	31.7101	82.1568	0.1563	4.6738	0.8287	5.5024	1.3245	0.7624	2.0869		14,584.3405	14,584.3405	0.0938		14,586.3103
Worker	8.1767	9.1749	102.8193	0.2433	20.8833	0.1331	21.0164	5.5392	0.1234	5.6626		16,358.8549	16,358.8549	0.8866		16,377.4728
Total	**13.7040**	**40.8850**	**184.9760**	**0.3996**	**25.5571**	**0.9618**	**26.5188**	**6.8637**	**0.8858**	**7.7495**		**30,943.1955**	**30,943.1955**	**0.9804**		**30,963.7831**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2653	11.0463	14.6389	0.0219		0.5603	0.5603		0.5302	0.5302		2,066.2431	2,066.2431	0.4497		2,075.6869
Total	**1.2653**	**11.0463**	**14.6389**	**0.0219**		**0.5603**	**0.5603**		**0.5302**	**0.5302**		**2,066.2431**	**2,066.2431**	**0.4497**		**2,075.6869**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.1649	28.0265	79.1130	0.1558	4.6727	0.7957	5.4684	1.3241	0.7320	2.0561		14,548.0380	14,548.0380	0.0882		14,549.8894
Worker	7.8000	8.8530	98.1816	0.2432	20.8833	0.1336	21.0169	5.5392	0.1240	5.6631		16,141.9121	16,141.9121	0.8648		16,160.0722
Total	**12.9649**	**36.8794**	**177.2946**	**0.3991**	**25.5560**	**0.9293**	**26.4853**	**6.8632**	**0.8560**	**7.7192**		**30,689.9501**	**30,689.9501**	**0.9529**		**30,709.9615**

3.5 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4508	9.5786	15.1859	0.0219		0.0763	0.0763		0.0763	0.0763	0.0000	2,066.2431	2,066.2431	0.4497		2,075.6869
Total	**0.4508**	**9.5786**	**15.1859**	**0.0219**		**0.0763**	**0.0763**		**0.0763**	**0.0763**	**0.0000**	**2,066.2431**	**2,066.2431**	**0.4497**		**2,075.6869**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.1649	28.0265	79.1130	0.1558	4.6727	0.7957	5.4684	1.3241	0.7320	2.0561		14,548.0380	14,548.0380	0.0882		14,549.8894
Worker	7.8000	8.8530	98.1816	0.2432	20.8833	0.1336	21.0169	5.5392	0.1240	5.6631		16,141.9121	16,141.9121	0.8648		16,160.0722
Total	**12.9649**	**36.8794**	**177.2946**	**0.3991**	**25.5560**	**0.9293**	**26.4853**	**6.8632**	**0.8560**	**7.7192**		**30,689.9501**	**30,689.9501**	**0.9529**		**30,709.9615**

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1813	10.3775	14.6139	0.0219		0.4857	0.4857		0.4595	0.4595		2,066.7425	2,066.7425	0.4462		2,076.1129
Total	**1.1813**	**10.3775**	**14.6139**	**0.0219**		**0.4857**	**0.4857**		**0.4595**	**0.4595**		**2,066.7425**	**2,066.7425**	**0.4462**		**2,076.1129**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.0746	27.8696	77.6595	0.1562	4.6719	0.7847	5.4566	1.3237	0.7219	2.0456		14,587.9139	14,587.9139	0.0899		14,589.8010
Worker	7.5372	8.6258	96.0519	0.2460	20.8833	0.1378	21.0211	5.5392	0.1279	5.6670		16,141.7945	16,141.7945	0.8655		16,159.9697
Total	**12.6118**	**36.4954**	**173.7114**	**0.4023**	**25.5552**	**0.9225**	**26.4777**	**6.8629**	**0.8498**	**7.7127**		**30,729.7084**	**30,729.7084**	**0.9554**		**30,749.7707**

3.5 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4508	9.5786	15.1859	0.0219		0.0763	0.0763		0.0763	0.0763	0.0000	2,066.7425	2,066.7425	0.4462		2,076.1129
Total	**0.4508**	**9.5786**	**15.1859**	**0.0219**		**0.0763**	**0.0763**		**0.0763**	**0.0763**	**0.0000**	**2,066.7425**	**2,066.7425**	**0.4462**		**2,076.1129**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.0746	27.8696	77.6595	0.1562	4.6719	0.7847	5.4566	1.3237	0.7219	2.0456		14,587.9139	14,587.9139	0.0899		14,589.8010
Worker	7.5372	8.6258	96.0519	0.2460	20.8833	0.1378	21.0211	5.5392	0.1279	5.6670		16,141.7945	16,141.7945	0.8655		16,159.9697
Total	**12.6118**	**36.4954**	**173.7114**	**0.4023**	**25.5552**	**0.9225**	**26.4777**	**6.8629**	**0.8498**	**7.7127**		**30,729.7084**	**30,729.7084**	**0.9554**		**30,749.7707**

3.5 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0937	9.6977	14.5653	0.0219		0.4097	0.4097		0.3879	0.3879		2,067.5014	2,067.5014	0.4428		2,076.8003
Total	**1.0937**	**9.6977**	**14.5653**	**0.0219**		**0.4097**	**0.4097**		**0.3879**	**0.3879**		**2,067.5014**	**2,067.5014**	**0.4428**		**2,076.8003**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.9782	27.6599	76.8387	0.1562	4.6711	0.7871	5.4582	1.3234	0.7242	2.0476		14,583.7367	14,583.7367	0.0900		14,585.6269
Worker	7.3058	8.4178	93.4573	0.2460	20.8833	0.1389	21.0222	5.5392	0.1289	5.6680		15,977.7914	15,977.7914	0.8507		15,995.6552
Total	**12.2840**	**36.0777**	**170.2960**	**0.4022**	**25.5544**	**0.9260**	**26.4804**	**6.8625**	**0.8530**	**7.7156**		**30,561.5281**	**30,561.5281**	**0.9407**		**30,581.2821**

3.5 Building Construction - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4508	9.5786	15.1859	0.0219		0.0763	0.0763		0.0763	0.0763	0.0000	2,067.5014	2,067.5014	0.4428		2,076.8003
Total	**0.4508**	**9.5786**	**15.1859**	**0.0219**		**0.0763**	**0.0763**		**0.0763**	**0.0763**	**0.0000**	**2,067.5014**	**2,067.5014**	**0.4428**		**2,076.8003**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.9782	27.6599	76.8387	0.1562	4.6711	0.7871	5.4582	1.3234	0.7242	2.0476		14,583.7367	14,583.7367	0.0900		14,585.6269
Worker	7.3058	8.4178	93.4573	0.2460	20.8833	0.1389	21.0222	5.5392	0.1289	5.6680		15,977.7914	15,977.7914	0.8507		15,995.6552
Total	**12.2840**	**36.0777**	**170.2960**	**0.4022**	**25.5544**	**0.9260**	**26.4804**	**6.8625**	**0.8530**	**7.7156**		**30,561.5281**	**30,561.5281**	**0.9407**		**30,581.2821**

3.5 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0937	9.6977	14.5653	0.0219		0.4097	0.4097		0.3879	0.3879		2,067.5014	2,067.5014	0.4428		2,076.8003
Total	**1.0937**	**9.6977**	**14.5653**	**0.0219**		**0.4097**	**0.4097**		**0.3879**	**0.3879**		**2,067.5014**	**2,067.5014**	**0.4428**		**2,076.8003**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.8957	27.3173	75.8321	0.1562	4.6711	0.7781	5.4492	1.3234	0.7159	2.0393		14,582.6349	14,582.6349	0.0894		14,584.5114
Worker	7.1463	8.2884	91.5888	0.2460	20.8833	0.1403	21.0236	5.5392	0.1302	5.6694		15,841.1820	15,841.1820	0.8409		15,858.8399
Total	**12.0420**	**35.6057**	**167.4209**	**0.4022**	**25.5544**	**0.9185**	**26.4729**	**6.8625**	**0.8461**	**7.7086**		**30,423.8169**	**30,423.8169**	**0.9302**		**30,443.3514**

3.5 Building Construction - 2026

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4508	9.5786	15.1859	0.0219		0.0763	0.0763		0.0763	0.0763	0.0000	2,067.5014	2,067.5014	0.4428		2,076.8003
Total	**0.4508**	**9.5786**	**15.1859**	**0.0219**		**0.0763**	**0.0763**		**0.0763**	**0.0763**	**0.0000**	**2,067.5014**	**2,067.5014**	**0.4428**		**2,076.8003**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.8957	27.3173	75.8321	0.1562	4.6711	0.7781	5.4492	1.3234	0.7159	2.0393		14,582.6349	14,582.6349	0.0894		14,584.5114
Worker	7.1463	8.2884	91.5888	0.2460	20.8833	0.1403	21.0236	5.5392	0.1302	5.6694		15,841.1820	15,841.1820	0.8409		15,858.8399
Total	**12.0420**	**35.6057**	**167.4209**	**0.4022**	**25.5544**	**0.9185**	**26.4729**	**6.8625**	**0.8461**	**7.7086**		**30,423.8169**	**30,423.8169**	**0.9302**		**30,443.3514**

3.5 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0937	9.6977	14.5653	0.0219		0.4097	0.4097		0.3879	0.3879		2,067.5014	2,067.5014	0.4428		2,076.8003
Total	**1.0937**	**9.6977**	**14.5653**	**0.0219**		**0.4097**	**0.4097**		**0.3879**	**0.3879**		**2,067.5014**	**2,067.5014**	**0.4428**		**2,076.8003**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.8541	27.1486	75.1364	0.1561	4.6711	0.7794	5.4505	1.3234	0.7171	2.0405		14,582.5905	14,582.5905	0.0894		14,584.4688
Worker	7.0091	8.1699	90.1810	0.2460	20.8833	0.1416	21.0249	5.5392	0.1314	5.6705		15,724.2908	15,724.2908	0.8318		15,741.7582
Total	**11.8631**	**35.3185**	**165.3173**	**0.4022**	**25.5544**	**0.9210**	**26.4754**	**6.8626**	**0.8484**	**7.7110**		**30,306.8814**	**30,306.8814**	**0.9212**		**30,326.2270**

3.5 Building Construction - 2027

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4508	9.5786	15.1859	0.0219		0.0763	0.0763		0.0763	0.0763	0.0000	2,067.5014	2,067.5014	0.4428		2,076.8003
Total	**0.4508**	**9.5786**	**15.1859**	**0.0219**		**0.0763**	**0.0763**		**0.0763**	**0.0763**	**0.0000**	**2,067.5014**	**2,067.5014**	**0.4428**		**2,076.8003**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.8541	27.1486	75.1364	0.1561	4.6711	0.7794	5.4505	1.3234	0.7171	2.0405		14,582.5905	14,582.5905	0.0894		14,584.4688
Worker	7.0091	8.1699	90.1810	0.2460	20.8833	0.1416	21.0249	5.5392	0.1314	5.6705		15,724.2908	15,724.2908	0.8318		15,741.7582
Total	**11.8631**	**35.3185**	**165.3173**	**0.4022**	**25.5544**	**0.9210**	**26.4754**	**6.8626**	**0.8484**	**7.7110**		**30,306.8814**	**30,306.8814**	**0.9212**		**30,326.2270**

3.5 Building Construction - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0937	9.6977	14.5653	0.0219		0.4097	0.4097		0.3879	0.3879		2,067.5014	2,067.5014	0.4428		2,076.8003
Total	**1.0937**	**9.6977**	**14.5653**	**0.0219**		**0.4097**	**0.4097**		**0.3879**	**0.3879**		**2,067.5014**	**2,067.5014**	**0.4428**		**2,076.8003**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.8216	26.9963	74.7888	0.1561	4.6710	0.7781	5.4490	1.3233	0.7158	2.0391		14,581.5970	14,581.5970	0.0893		14,583.4731
Worker	6.8792	8.0466	88.7718	0.2460	20.8833	0.1427	21.0260	5.5392	0.1324	5.6716		15,625.4367	15,625.4367	0.8227		15,642.7141
Total	**11.7008**	**35.0429**	**163.5606**	**0.4021**	**25.5542**	**0.9208**	**26.4750**	**6.8625**	**0.8482**	**7.7107**		**30,207.0336**	**30,207.0336**	**0.9121**		**30,226.1872**

3.5 Building Construction - 2028

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4508	9.5786	15.1859	0.0219		0.0763	0.0763		0.0763	0.0763	0.0000	2,067.5014	2,067.5014	0.4428		2,076.8003
Total	**0.4508**	**9.5786**	**15.1859**	**0.0219**		**0.0763**	**0.0763**		**0.0763**	**0.0763**	**0.0000**	**2,067.5014**	**2,067.5014**	**0.4428**		**2,076.8003**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.8216	26.9963	74.7888	0.1561	4.6710	0.7781	5.4490	1.3233	0.7158	2.0391		14,581.5970	14,581.5970	0.0893		14,583.4731
Worker	6.8792	8.0466	88.7718	0.2460	20.8833	0.1427	21.0260	5.5392	0.1324	5.6716		15,625.4367	15,625.4367	0.8227		15,642.7141
Total	**11.7008**	**35.0429**	**163.5606**	**0.4021**	**25.5542**	**0.9208**	**26.4750**	**6.8625**	**0.8482**	**7.7107**		**30,207.0336**	**30,207.0336**	**0.9121**		**30,226.1872**

3.5 Building Construction - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0937	9.6977	14.5653	0.0219		0.4097	0.4097		0.3879	0.3879		2,067.5014	2,067.5014	0.4428		2,076.8003
Total	**1.0937**	**9.6977**	**14.5653**	**0.0219**		**0.4097**	**0.4097**		**0.3879**	**0.3879**		**2,067.5014**	**2,067.5014**	**0.4428**		**2,076.8003**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.8009	26.8740	74.3710	0.1561	4.6707	0.7780	5.4487	1.3232	0.7158	2.0390		14,580.0992	14,580.0992	0.0893		14,581.9754
Worker	6.7502	7.9274	87.3988	0.2460	20.8833	0.1436	21.0269	5.5392	0.1332	5.6724		15,541.8671	15,541.8671	0.8138		15,558.9578
Total	**11.5511**	**34.8014**	**161.7698**	**0.4021**	**25.5540**	**0.9216**	**26.4756**	**6.8624**	**0.8490**	**7.7114**		**30,121.9663**	**30,121.9663**	**0.9032**		**30,140.9332**

3.5 Building Construction - 2029

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4508	9.5786	15.1859	0.0219		0.0763	0.0763		0.0763	0.0763	0.0000	2,067.5014	2,067.5014	0.4428		2,076.8003
Total	**0.4508**	**9.5786**	**15.1859**	**0.0219**		**0.0763**	**0.0763**		**0.0763**	**0.0763**	**0.0000**	**2,067.5014**	**2,067.5014**	**0.4428**		**2,076.8003**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.8009	26.8740	74.3710	0.1561	4.6707	0.7780	5.4487	1.3232	0.7158	2.0390		14,580.0992	14,580.0992	0.0893		14,581.9754
Worker	6.7502	7.9274	87.3988	0.2460	20.8833	0.1436	21.0269	5.5392	0.1332	5.6724		15,541.8671	15,541.8671	0.8138		15,558.9578
Total	**11.5511**	**34.8014**	**161.7698**	**0.4021**	**25.5540**	**0.9216**	**26.4756**	**6.8624**	**0.8490**	**7.7114**		**30,121.9663**	**30,121.9663**	**0.9032**		**30,140.9332**

3.6 Architectural Coating - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	326.8539					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.7705
Total	**327.0247**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.7705**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	1.4013	1.6333	18.0290	0.0492	4.1750	0.0283	4.2033	1.1074	0.0263	1.1337		3,143.5982	3,143.5982	0.1663		3,147.0903
Total	**1.4013**	**1.6333**	**18.0290**	**0.0492**	**4.1750**	**0.0283**	**4.2033**	**1.1074**	**0.0263**	**1.1337**		**3,143.5982**	**3,143.5982**	**0.1663**		**3,147.0903**

3.6 Architectural Coating - 2027

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	326.8539					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0545	1.0598	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0154		281.7705
Total	**326.9084**	**1.0598**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.7705**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	1.4013	1.6333	18.0290	0.0492	4.1750	0.0283	4.2033	1.1074	0.0263	1.1337		3,143.5982	3,143.5982	0.1663		3,147.0903
Total	**1.4013**	**1.6333**	**18.0290**	**0.0492**	**4.1750**	**0.0283**	**4.2033**	**1.1074**	**0.0263**	**1.1337**		**3,143.5982**	**3,143.5982**	**0.1663**		**3,147.0903**

3.6 Architectural Coating - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	326.8539					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.7705
Total	**327.0247**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.7705**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	1.3753	1.6087	17.7473	0.0492	4.1750	0.0285	4.2035	1.1074	0.0265	1.1339		3,123.8353	3,123.8353	0.1645		3,127.2894
Total	**1.3753**	**1.6087**	**17.7473**	**0.0492**	**4.1750**	**0.0285**	**4.2035**	**1.1074**	**0.0265**	**1.1339**		**3,123.8353**	**3,123.8353**	**0.1645**		**3,127.2894**

3.6 Architectural Coating - 2028

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	326.8539					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0545	1.0598	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0154		281.7705
Total	**326.9084**	**1.0598**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.7705**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	1.3753	1.6087	17.7473	0.0492	4.1750	0.0285	4.2035	1.1074	0.0265	1.1339		3,123.8353	3,123.8353	0.1645		3,127.2894
Total	**1.3753**	**1.6087**	**17.7473**	**0.0492**	**4.1750**	**0.0285**	**4.2035**	**1.1074**	**0.0265**	**1.1339**		**3,123.8353**	**3,123.8353**	**0.1645**		**3,127.2894**

3.6 Architectural Coating - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	326.8539					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.7705
Total	**327.0247**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.7705**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	1.3495	1.5848	17.4728	0.0492	4.1750	0.0287	4.2037	1.1074	0.0266	1.1340		3,107.1281	3,107.1281	0.1627		3,110.5449
Total	**1.3495**	**1.5848**	**17.4728**	**0.0492**	**4.1750**	**0.0287**	**4.2037**	**1.1074**	**0.0266**	**1.1340**		**3,107.1281**	**3,107.1281**	**0.1627**		**3,110.5449**

3.6 Architectural Coating - 2029

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	326.8539					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0545	1.0598	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0154		281.7705
Total	**326.9084**	**1.0598**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.7705**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	1.3495	1.5848	17.4728	0.0492	4.1750	0.0287	4.2037	1.1074	0.0266	1.1340		3,107.1281	3,107.1281	0.1627		3,110.5449
Total	**1.3495**	**1.5848**	**17.4728**	**0.0492**	**4.1750**	**0.0287**	**4.2037**	**1.1074**	**0.0266**	**1.1340**		**3,107.1281**	**3,107.1281**	**0.1627**		**3,110.5449**

3.7 Paving - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8973	8.4215	14.2781	0.0223		0.4109	0.4109		0.3781	0.3781		2,159.7967	2,159.7967	0.6985		2,174.4656
Paving	0.6424					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.5397**	**8.4215**	**14.2781**	**0.0223**		**0.4109**	**0.4109**		**0.3781**	**0.3781**		**2,159.7967**	**2,159.7967**	**0.6985**		**2,174.4656**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0421	0.0491	0.5420	1.4800e-003	0.1255	8.5000e-004	0.1264	0.0333	7.9000e-004	0.0341		94.4969	94.4969	5.0000e-003		94.6019
Total	**0.0421**	**0.0491**	**0.5420**	**1.4800e-003**	**0.1255**	**8.5000e-004**	**0.1264**	**0.0333**	**7.9000e-004**	**0.0341**		**94.4969**	**94.4969**	**5.0000e-003**		**94.6019**

3.7 Paving - 2027

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3281	9.8256	16.9276	0.0223		0.0366	0.0366		0.0366	0.0366	0.0000	2,159.7967	2,159.7967	0.6985		2,174.4656
Paving	0.6424					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9705**	**9.8256**	**16.9276**	**0.0223**		**0.0366**	**0.0366**		**0.0366**	**0.0366**	**0.0000**	**2,159.7967**	**2,159.7967**	**0.6985**		**2,174.4656**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0421	0.0491	0.5420	1.4800e-003	0.1255	8.5000e-004	0.1264	0.0333	7.9000e-004	0.0341		94.4969	94.4969	5.0000e-003		94.6019
Total	**0.0421**	**0.0491**	**0.5420**	**1.4800e-003**	**0.1255**	**8.5000e-004**	**0.1264**	**0.0333**	**7.9000e-004**	**0.0341**		**94.4969**	**94.4969**	**5.0000e-003**		**94.6019**

3.7 Paving - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8973	8.4215	14.2781	0.0223		0.4109	0.4109		0.3781	0.3781		2,159.7967	2,159.7967	0.6985		2,174.4656
Paving	0.6424					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.5397**	**8.4215**	**14.2781**	**0.0223**		**0.4109**	**0.4109**		**0.3781**	**0.3781**		**2,159.7967**	**2,159.7967**	**0.6985**		**2,174.4656**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0413	0.0484	0.5335	1.4800e-003	0.1255	8.6000e-004	0.1264	0.0333	8.0000e-004	0.0341		93.9029	93.9029	4.9400e-003		94.0067
Total	**0.0413**	**0.0484**	**0.5335**	**1.4800e-003**	**0.1255**	**8.6000e-004**	**0.1264**	**0.0333**	**8.0000e-004**	**0.0341**		**93.9029**	**93.9029**	**4.9400e-003**		**94.0067**

3.7 Paving - 2028

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3281	9.8256	16.9276	0.0223		0.0366	0.0366		0.0366	0.0366	0.0000	2,159.7967	2,159.7967	0.6985		2,174.4656
Paving	0.6424					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9705**	**9.8256**	**16.9276**	**0.0223**		**0.0366**	**0.0366**		**0.0366**	**0.0366**	**0.0000**	**2,159.7967**	**2,159.7967**	**0.6985**		**2,174.4656**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0413	0.0484	0.5335	1.4800e-003	0.1255	8.6000e-004	0.1264	0.0333	8.0000e-004	0.0341		93.9029	93.9029	4.9400e-003		94.0067
Total	**0.0413**	**0.0484**	**0.5335**	**1.4800e-003**	**0.1255**	**8.6000e-004**	**0.1264**	**0.0333**	**8.0000e-004**	**0.0341**		**93.9029**	**93.9029**	**4.9400e-003**		**94.0067**

3.7 Paving - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8973	8.4215	14.2781	0.0223		0.4109	0.4109		0.3781	0.3781		2,159.7967	2,159.7967	0.6985		2,174.4656
Paving	0.6424					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.5397**	**8.4215**	**14.2781**	**0.0223**		**0.4109**	**0.4109**		**0.3781**	**0.3781**		**2,159.7967**	**2,159.7967**	**0.6985**		**2,174.4656**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0406	0.0476	0.5252	1.4800e-003	0.1255	8.6000e-004	0.1264	0.0333	8.0000e-004	0.0341		93.4006	93.4006	4.8900e-003		93.5034
Total	**0.0406**	**0.0476**	**0.5252**	**1.4800e-003**	**0.1255**	**8.6000e-004**	**0.1264**	**0.0333**	**8.0000e-004**	**0.0341**		**93.4006**	**93.4006**	**4.8900e-003**		**93.5034**

3.7 Paving - 2029

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3281	9.8256	16.9276	0.0223		0.0366	0.0366		0.0366	0.0366	0.0000	2,159.7967	2,159.7967	0.6985		2,174.4656
Paving	0.6424					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9705**	**9.8256**	**16.9276**	**0.0223**		**0.0366**	**0.0366**		**0.0366**	**0.0366**	**0.0000**	**2,159.7967**	**2,159.7967**	**0.6985**		**2,174.4656**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0406	0.0476	0.5252	1.4800e-003	0.1255	8.6000e-004	0.1264	0.0333	8.0000e-004	0.0341		93.4006	93.4006	4.8900e-003		93.5034
Total	**0.0406**	**0.0476**	**0.5252**	**1.4800e-003**	**0.1255**	**8.6000e-004**	**0.1264**	**0.0333**	**8.0000e-004**	**0.0341**		**93.4006**	**93.4006**	**4.8900e-003**		**93.5034**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Increase Diversity

Improve Walkability Design

Improve Destination Accessibility

Increase Transit Accessibility

Improve Pedestrian Network

Provide Traffic Calming Measures

Implement NEV Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	643.8965	725.0960	4,678.0478	6.6835	399.6773	13.0388	412.7161	106.6402	12.0304	118.6706		484,323.6267	484,323.6267	19.3777		484,730.5577
Unmitigated	696.0488	1,003.2448	6,026.6864	11.9256	757.2177	22.0656	779.2833	202.0376	20.3479	222.3854		864,463.4217	864,463.4217	31.6073		865,127.1739

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	9.54	9.54	9.54	18,189	9,601
Condo/Townhouse	7,908.00	8,592.00	7284.00	17,708,745	9,347,091
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Regional Shopping Center	218,994.00	254,847.00	128724.00	279,744,048	147,655,476
Total	226,911.54	263,448.54	136,017.54	297,470,983	157,012,168

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	12.50	4.20	5.40	33.00	48.00	19.00	66	28	6
Condo/Townhouse	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3
Other Asphalt Surfaces	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Parking Lot	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	54	35	11

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.469614	0.066142	0.173873	0.163382	0.035024	0.005630	0.009899	0.067518	0.001256	0.001244	0.003209	0.000474	0.002734

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

Percent of Electricity Use Generated with Renewable Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.9406	8.2038	4.6361	0.0513		0.6499	0.6499		0.6499	0.6499		10,261.2476	10,261.2476	0.1967	0.1881	10,323.6958
NaturalGas Unmitigated	1.0802	9.4212	5.3262	0.0589		0.7463	0.7463		0.7463	0.7463		11,783.6055	11,783.6055	0.2259	0.2160	11,855.3185

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	32416.4	0.3496	3.1781	2.6696	0.0191		0.2415	0.2415		0.2415	0.2415		3,813.6986	3,813.6986	0.0731	0.0699	3,836.9082
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	67744.2	0.7306	6.2431	2.6566	0.0399		0.5048	0.5048		0.5048	0.5048		7,969.9069	7,969.9069	0.1528	0.1461	8,018.4104
Total		**1.0802**	**9.4212**	**5.3262**	**0.0589**		**0.7463**	**0.7463**		**0.7463**	**0.7463**		**11,783.6055**	**11,783.6055**	**0.2259**	**0.2160**	**11,855.3185**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	28.1827	0.3039	2.7630	2.3209	0.0166		0.2100	0.2100		0.2100	0.2100		3,315.6164	3,315.6164	0.0636	0.0608	3,335.7947
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	59.0379	0.6367	5.4407	2.3152	0.0347		0.4399	0.4399		0.4399	0.4399		6,945.6311	6,945.6311	0.1331	0.1273	6,987.9011
Total		**0.9406**	**8.2038**	**4.6361**	**0.0513**		**0.6499**	**0.6499**		**0.6499**	**0.6499**		**10,261.2476**	**10,261.2476**	**0.1967**	**0.1881**	**10,323.6958**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

Use only Natural Gas Hearths

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	288.7120	1.1545	100.6530	5.3600e-003		2.1648	2.1648		2.1478	2.1478	0.0000	25,593.8751	25,593.8751	0.6668	0.4659	25,752.3019
Unmitigated	357.9289	1.1545	100.6530	5.3600e-003		2.1648	2.1648		2.1478	2.1478	0.0000	25,593.8751	25,593.8751	0.6668	0.4659	25,752.3019

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	59.1024					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	293.3803					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	2.3294	1.1000e-004	0.1271	0.0000		1.6094	1.6094		1.5925	1.5925	0.0000	25,411.7647	25,411.7647	0.4871	0.4659	25,566.4165
Landscaping	3.1168	1.1544	100.5259	5.3600e-003		0.5554	0.5554		0.5554	0.5554		182.1104	182.1104	0.1798		185.8854
Total	**357.9289**	**1.1545**	**100.6530**	**5.3600e-003**		**2.1648**	**2.1648**		**2.1478**	**2.1478**	**0.0000**	**25,593.8751**	**25,593.8751**	**0.6668**	**0.4659**	**25,752.3019**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	11.8205					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	271.4453					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	2.3294	1.1000e-004	0.1271	0.0000		1.6094	1.6094		1.5925	1.5925	0.0000	25,411.7647	25,411.7647	0.4871	0.4659	25,566.4165
Landscaping	3.1168	1.1544	100.5259	5.3600e-003		0.5554	0.5554		0.5554	0.5554		182.1104	182.1104	0.1798		185.8854
Total	**288.7120**	**1.1545**	**100.6530**	**5.3600e-003**		**2.1648**	**2.1648**		**2.1478**	**2.1478**	**0.0000**	**25,593.8751**	**25,593.8751**	**0.6668**	**0.4659**	**25,752.3019**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Use Reclaimed Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Turf Reduction

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Alternative 3

Salton Sea Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	50.00	Acre	50.00	2,178,000.00	0
Parking Lot	12,425.00	Space	111.82	4,970,000.00	0
City Park	6.00	Acre	6.00	261,360.00	0
Condo/Townhouse	1,200.00	Dwelling Unit	240.00	1,200,000.00	2160
Regional Shopping Center	5,100.00	1000sqft	337.00	5,100,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.4	**Precipitation Freq (Days)**	20
Climate Zone	10			**Operational Year**	2030
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Alternatve 3 - County General Plan

Construction Phase - Based on EIS model

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Based on EIS model

On-road Fugitive Dust - Paved Roads

Grading -

Architectural Coating -

Vechicle Emission Factors -

Vechicle Emission Factors -

Vechicle Emission Factors -

Road Dust - Based on previous EIS model

Woodstoves - No woodstoves

Area Coating -

Construction Off-road Equipment Mitigation - Based on previous EIS model

Mobile Land Use Mitigation -

Area Mitigation - Based on previous EIS model

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	50

tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	50
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	80
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim

tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	9,300.00	2,089.00
tblConstructionPhase	PhaseEndDate	8/8/2031	8/10/2029
tblConstructionPhase	PhaseEndDate	2/20/2032	11/21/2029
tblConstructionPhase	PhaseStartDate	1/27/2029	2/1/2027
tblConstructionPhase	PhaseStartDate	8/11/2029	5/13/2027
tblFireplaces	FireplaceWoodMass	457.60	0.00
tblLandUse	LotAcreage	75.00	240.00
tblLandUse	LotAcreage	117.08	337.00
tblLandUse	Population	3,876.00	2,160.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Utilities
tblOffRoadEquipment	PhaseName		Utilities
tblOffRoadEquipment	PhaseName		Utilities
tblOffRoadEquipment	PhaseName		Utilities
tblOffRoadEquipment	PhaseName		Utilities
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00

tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblProjectCharacteristics	OperationalYear	2014	2030
tblRoadDust	RoadPercentPave	50	100
tblTripsAndVMT	VendorTripNumber	2,179.00	964.00
tblTripsAndVMT	WorkerTripNumber	5,608.00	2,496.00
tblTripsAndVMT	WorkerTripNumber	1,122.00	499.00
tblWoodstoves	NumberCatalytic	60.00	0.00
tblWoodstoves	NumberNoncatalytic	60.00	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	5.3402	57.0134	43.6968	0.0408	18.2169	3.0893	21.3062	9.9706	2.8422	12.8128	0.0000	4,249.4139	4,249.4139	1.2370	0.0000	4,275.3911
2016	5.1480	54.7439	42.0598	0.0407	18.2169	2.9397	21.1565	9.9706	2.7045	12.6751	0.0000	4,197.3638	4,197.3638	1.2349	0.0000	4,223.2957
2017	6.1698	69.7048	47.7609	0.0635	18.2169	3.3183	20.9720	9.9706	3.0528	12.5054	0.0000	6,454.4079	6,454.4079	1.9434	0.0000	6,495.2183
2018	5.3532	59.6371	43.1739	0.0635	8.8407	2.7891	11.6297	3.6409	2.5660	6.2068	0.0000	6,348.3893	6,348.3893	1.9425	0.0000	6,389.1815
2019	4.9495	54.2931	41.0891	0.0635	8.8407	2.5060	11.3466	3.6409	2.3055	5.9464	0.0000	6,241.7980	6,241.7980	1.9415	0.0000	6,282.5684
2020	4.6046	49.4732	39.1727	0.0635	8.8407	2.2630	11.1037	3.6409	2.0820	5.7228	0.0000	6,102.8884	6,102.8884	1.9408	0.0000	6,143.6459
2021	14.2984	60.7948	218.0395	0.4023	25.5580	1.7706	27.3285	6.8641	1.6493	8.5133	0.0000	31,894.0458	31,894.0458	1.4675	0.0000	31,924.8629
2022	13.6574	55.4195	211.5059	0.4021	25.5571	1.6280	27.1850	6.8637	1.5156	8.3793	0.0000	31,649.4404	31,649.4404	1.4396	0.0000	31,679.6723
2023	12.8807	50.1767	203.2574	0.4016	25.5560	1.4963	27.0523	6.8632	1.3923	8.2555	0.0000	31,411.7099	31,411.7099	1.4080	0.0000	31,441.2776
2024	12.5127	49.0730	199.2290	0.4046	25.5552	1.4148	26.9701	6.8629	1.3154	8.1783	0.0000	31,451.9407	31,451.9407	1.4069	0.0000	31,481.4859
2025	12.1569	47.9293	195.8670	0.4045	25.5544	1.3424	26.8968	6.8626	1.2470	8.1095	0.0000	31,295.7645	31,295.7645	1.3888	0.0000	31,324.9300
2026	11.9517	47.4095	192.8367	0.4045	25.5544	1.3348	26.8892	6.8625	1.2400	8.1026	0.0000	31,167.7661	31,167.7661	1.3784	0.0000	31,196.7121
2027	341.4787	58.5128	221.8435	0.4767	29.8549	1.8289	31.6838	8.0032	1.6990	9.7022	0.0000	36,501.4706	36,501.4706	2.2546	0.0000	36,548.8162
2028	341.3351	58.1799	219.9661	0.4767	29.8547	1.8289	31.6836	8.0032	1.6990	9.7021	0.0000	36,389.3145	36,389.3145	2.2436	0.0000	36,436.4291
2029	341.2058	57.8857	218.0385	0.4766	29.8545	1.8299	31.6844	8.0031	1.6999	9.7030	0.0000	36,293.5407	36,293.5407	2.2328	0.0000	36,340.4301
Total	**1,133.0427**	**830.2464**	**2,137.5367**	**4.1850**	**324.0717**	**31.3799**	**354.8885**	**106.0229**	**29.0102**	**134.5151**	**0.0000**	**331,649.2543**	**331,649.2543**	**25.4601**	**0.0000**	**332,183.9170**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	0.7895	12.5041	24.4653	0.0408	6.8442	0.0645	6.9086	3.7193	0.0644	3.7836	0.0000	4,249.4139	4,249.4139	1.2370	0.0000	4,275.3911
2016	0.7812	12.4920	24.3548	0.0407	6.8442	0.0644	6.9086	3.7193	0.0643	3.7836	0.0000	4,197.3638	4,197.3638	1.2349	0.0000	4,223.2957
2017	1.0486	20.4013	38.8991	0.0635	6.8442	0.1019	6.9085	3.7193	0.1018	3.7836	0.0000	6,454.4079	6,454.4079	1.9434	0.0000	6,495.2183
2018	1.0416	20.3918	38.8103	0.0635	3.3808	0.1019	3.4827	1.3769	0.1018	1.4787	0.0000	6,348.3893	6,348.3893	1.9425	0.0000	6,389.1814
2019	1.0363	20.3839	38.7435	0.0635	3.3808	0.1019	3.4827	1.3769	0.1018	1.4787	0.0000	6,241.7980	6,241.7980	1.9415	0.0000	6,282.5684
2020	1.0324	20.3778	38.6902	0.0635	3.3808	0.1019	3.4827	1.3769	0.1018	1.4787	0.0000	6,102.8884	6,102.8884	1.9408	0.0000	6,143.6459
2021	13.2096	57.1844	218.3852	0.4023	25.5580	1.0606	26.6185	6.8641	0.9828	7.8469	0.0000	31,894.0458	31,894.0458	1.4675	0.0000	31,924.8629
2022	12.7283	53.0436	211.9841	0.4021	25.5571	1.0473	26.6043	6.8637	0.9706	7.8343	0.0000	31,649.4404	31,649.4404	1.4396	0.0000	31,679.6723
2023	12.0662	48.7089	203.8044	0.4016	25.5560	1.0123	26.5683	6.8632	0.9385	7.8017	0.0000	31,411.7099	31,411.7099	1.4080	0.0000	31,441.2776
2024	11.7822	48.2740	199.8009	0.4046	25.5552	1.0054	26.5606	6.8629	0.9322	7.7951	0.0000	31,451.9407	31,451.9407	1.4069	0.0000	31,481.4859
2025	11.5140	47.8102	196.4876	0.4045	25.5544	1.0090	26.5634	6.8626	0.9355	7.7980	0.0000	31,295.7645	31,295.7645	1.3888	0.0000	31,324.9300
2026	11.3088	47.2903	193.4573	0.4045	25.5544	1.0014	26.5558	6.8625	0.9285	7.7911	0.0000	31,167.7661	31,167.7661	1.3784	0.0000	31,196.7121
2027	340.1502	59.7120	225.1369	0.4767	29.8549	1.0737	30.9285	8.0032	0.9985	9.0017	0.0000	36,501.4706	36,501.4706	2.2546	0.0000	36,548.8162
2028	340.0066	59.3791	223.2596	0.4767	29.8547	1.0736	30.9284	8.0032	0.9985	9.0016	0.0000	36,389.3145	36,389.3145	2.2436	0.0000	36,436.4291
2029	339.8773	59.0849	221.3320	0.4766	29.8545	1.0747	30.9291	8.0031	0.9994	9.0024	0.0000	36,293.5407	36,293.5407	2.2328	0.0000	36,340.4301
Total	**1,098.3727**	**587.0383**	**2,097.6110**	**4.1850**	**273.5740**	**9.8944**	**283.4309**	**80.4768**	**9.2204**	**89.6597**	**0.0000**	**331,649.2543**	**331,649.2543**	**25.4601**	**0.0000**	**332,183.9170**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**3.06**	**29.29**	**1.87**	**0.00**	**15.58**	**68.47**	**20.14**	**24.09**	**68.22**	**33.35**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	357.9289	1.1545	100.6530	5.3600e-003		2.1648	2.1648		2.1478	2.1478	0.0000	25,593.8751	25,593.8751	0.6668	0.4659	25,752.3019
Energy	1.0802	9.4212	5.3262	0.0589		0.7463	0.7463		0.7463	0.7463		11,783.6055	11,783.6055	0.2259	0.2160	11,855.3185
Mobile	572.8910	1,068.8640	6,532.5144	11.2950	757.2177	22.2170	779.4347	202.0376	20.4872	222.5248		822,185.8893	822,185.8893	31.7705		822,853.0692
Total	**931.9000**	**1,079.4396**	**6,638.4936**	**11.3592**	**757.2177**	**25.1281**	**782.3458**	**202.0376**	**23.3813**	**225.4189**	**0.0000**	**859,563.3699**	**859,563.3699**	**32.6631**	**0.6819**	**860,460.6896**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	288.7120	1.1545	100.6530	5.3600e-003		2.1648	2.1648		2.1478	2.1478	0.0000	25,593.8751	25,593.8751	0.6668	0.4659	25,752.3019
Energy	0.9406	8.2038	4.6361	0.0513		0.6499	0.6499		0.6499	0.6499		10,261.2476	10,261.2476	0.1967	0.1881	10,323.6958
Mobile	526.3934	762.4228	5,465.8538	6.3411	399.6773	13.1903	412.8676	106.6402	12.1698	118.8099		460,370.1164	460,370.1164	19.5409		460,780.4750
Total	**816.0460**	**771.7810**	**5,571.1429**	**6.3978**	**399.6773**	**16.0049**	**415.6822**	**106.6402**	**14.9675**	**121.6076**	**0.0000**	**496,225.2391**	**496,225.2391**	**20.4044**	**0.6540**	**496,856.4727**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	12.43	28.50	16.08	43.68	47.22	36.31	46.87	47.22	35.99	46.05	0.00	42.27	42.27	37.53	4.09	42.26

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	9/1/2015	1/16/2017	5	360	
2	Grading	Grading	1/17/2017	8/10/2020	5	930	
3	Utilities	Trenching	8/11/2020	1/25/2021	5	120	
4	Building Construction	Building Construction	1/26/2021	1/26/2029	5	2089	
5	Architectural Coating	Architectural Coating	2/1/2027	8/10/2029	5	660	
6	Paving	Paving	5/13/2027	11/21/2029	5	660	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 2325

Acres of Paving: 0

Residential Indoor: 2,430,000; Residential Outdoor: 810,000; Non-Residential Indoor: 11,532,690; Non-Residential Outdoor: 3,844,230 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Utilities	Forklifts	1	4.00	89	0.20
Utilities	Off-Highway Trucks	2	8.00	400	0.38
Utilities	Signal Boards	1	8.00	6	0.82
Utilities	Trenchers	1	6.00	80	0.50
Utilities	Welders	1	4.00	46	0.45
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Utilities	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	2,496.00	964.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	499.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	5.2609	56.8897	42.6318	0.0391		3.0883	3.0883		2.8412	2.8412		4,111.7444	4,111.7444	1.2275		4,137.5225
Total	**5.2609**	**56.8897**	**42.6318**	**0.0391**	**18.0663**	**3.0883**	**21.1545**	**9.9307**	**2.8412**	**12.7719**		**4,111.7444**	**4,111.7444**	**1.2275**		**4,137.5225**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0792	0.1237	1.0650	1.6300e-003	0.1506	1.0300e-003	0.1516	0.0400	9.4000e-004	0.0409		137.6696	137.6696	9.4800e-003		137.8687
Total	**0.0792**	**0.1237**	**1.0650**	**1.6300e-003**	**0.1506**	**1.0300e-003**	**0.1516**	**0.0400**	**9.4000e-004**	**0.0409**		**137.6696**	**137.6696**	**9.4800e-003**		**137.8687**

3.2 Site Preparation - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.6936	0.0000	6.6936	3.6793	0.0000	3.6793			0.0000			0.0000
Off-Road	0.7103	12.3804	23.4003	0.0391		0.0634	0.0634		0.0634	0.0634	0.0000	4,111.7444	4,111.7444	1.2275		4,137.5224
Total	**0.7103**	**12.3804**	**23.4003**	**0.0391**	**6.6936**	**0.0634**	**6.7570**	**3.6793**	**0.0634**	**3.7428**	**0.0000**	**4,111.7444**	**4,111.7444**	**1.2275**		**4,137.5224**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0792	0.1237	1.0650	1.6300e-003	0.1506	1.0300e-003	0.1516	0.0400	9.4000e-004	0.0409		137.6696	137.6696	9.4800e-003		137.8687
Total	**0.0792**	**0.1237**	**1.0650**	**1.6300e-003**	**0.1506**	**1.0300e-003**	**0.1516**	**0.0400**	**9.4000e-004**	**0.0409**		**137.6696**	**137.6696**	**9.4800e-003**		**137.8687**

3.2 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	5.0771	54.6323	41.1053	0.0391		2.9387	2.9387		2.7036	2.7036		4,065.0053	4,065.0053	1.2262		4,090.7544
Total	**5.0771**	**54.6323**	**41.1053**	**0.0391**	**18.0663**	**2.9387**	**21.0049**	**9.9307**	**2.7036**	**12.6343**		**4,065.0053**	**4,065.0053**	**1.2262**		**4,090.7544**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0709	0.1116	0.9545	1.6300e-003	0.1506	9.9000e-004	0.1516	0.0400	9.0000e-004	0.0409		132.3586	132.3586	8.7000e-003		132.5413
Total	**0.0709**	**0.1116**	**0.9545**	**1.6300e-003**	**0.1506**	**9.9000e-004**	**0.1516**	**0.0400**	**9.0000e-004**	**0.0409**		**132.3586**	**132.3586**	**8.7000e-003**		**132.5413**

3.2 Site Preparation - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.6936	0.0000	6.6936	3.6793	0.0000	3.6793			0.0000			0.0000
Off-Road	0.7103	12.3804	23.4003	0.0391		0.0634	0.0634		0.0634	0.0634	0.0000	4,065.0053	4,065.0053	1.2262		4,090.7544
Total	**0.7103**	**12.3804**	**23.4003**	**0.0391**	**6.6936**	**0.0634**	**6.7570**	**3.6793**	**0.0634**	**3.7428**	**0.0000**	**4,065.0053**	**4,065.0053**	**1.2262**		**4,090.7544**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0709	0.1116	0.9545	1.6300e-003	0.1506	9.9000e-004	0.1516	0.0400	9.0000e-004	0.0409		132.3586	132.3586	8.7000e-003		132.5413
Total	**0.0709**	**0.1116**	**0.9545**	**1.6300e-003**	**0.1506**	**9.9000e-004**	**0.1516**	**0.0400**	**9.0000e-004**	**0.0409**		**132.3586**	**132.3586**	**8.7000e-003**		**132.5413**

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.8382	51.7535	39.3970	0.0391		2.7542	2.7542		2.5339	2.5339		4,003.0859	4,003.0859	1.2265		4,028.8432
Total	**4.8382**	**51.7535**	**39.3970**	**0.0391**	**18.0663**	**2.7542**	**20.8205**	**9.9307**	**2.5339**	**12.4646**		**4,003.0859**	**4,003.0859**	**1.2265**		**4,028.8432**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0636	0.1015	0.8603	1.6300e-003	0.1506	9.6000e-004	0.1516	0.0400	8.8000e-004	0.0408		126.9350	126.9350	8.0600e-003		127.1041
Total	**0.0636**	**0.1015**	**0.8603**	**1.6300e-003**	**0.1506**	**9.6000e-004**	**0.1516**	**0.0400**	**8.8000e-004**	**0.0408**		**126.9350**	**126.9350**	**8.0600e-003**		**127.1041**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.6936	0.0000	6.6936	3.6793	0.0000	3.6793			0.0000			0.0000
Off-Road	0.7103	12.3804	23.4003	0.0391		0.0634	0.0634		0.0634	0.0634	0.0000	4,003.0859	4,003.0859	1.2265		4,028.8432
Total	**0.7103**	**12.3804**	**23.4003**	**0.0391**	**6.6936**	**0.0634**	**6.7570**	**3.6793**	**0.0634**	**3.7428**	**0.0000**	**4,003.0859**	**4,003.0859**	**1.2265**		**4,028.8432**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0636	0.1015	0.8603	1.6300e-003	0.1506	9.6000e-004	0.1516	0.0400	8.8000e-004	0.0408		126.9350	126.9350	8.0600e-003		127.1041
Total	**0.0636**	**0.1015**	**0.8603**	**1.6300e-003**	**0.1506**	**9.6000e-004**	**0.1516**	**0.0400**	**8.8000e-004**	**0.0408**		**126.9350**	**126.9350**	**8.0600e-003**		**127.1041**

3.3 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	6.0991	69.5920	46.8050	0.0617		3.3172	3.3172		3.0518	3.0518		6,313.3690	6,313.3690	1.9344		6,353.9915
Total	**6.0991**	**69.5920**	**46.8050**	**0.0617**	**8.6733**	**3.3172**	**11.9905**	**3.5965**	**3.0518**	**6.6483**		**6,313.3690**	**6,313.3690**	**1.9344**		**6,353.9915**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0707	0.1128	0.9559	1.8100e-003	0.1673	1.0600e-003	0.1684	0.0444	9.8000e-004	0.0454		141.0388	141.0388	8.9500e-003		141.2268
Total	**0.0707**	**0.1128**	**0.9559**	**1.8100e-003**	**0.1673**	**1.0600e-003**	**0.1684**	**0.0444**	**9.8000e-004**	**0.0454**		**141.0388**	**141.0388**	**8.9500e-003**		**141.2268**

3.3 Grading - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.2135	0.0000	3.2135	1.3325	0.0000	1.3325			0.0000			0.0000
Off-Road	0.9779	20.2885	37.9432	0.0617		0.1009	0.1009		0.1009	0.1009	0.0000	6,313.3690	6,313.3690	1.9344		6,353.9915
Total	**0.9779**	**20.2885**	**37.9432**	**0.0617**	**3.2135**	**0.1009**	**3.3143**	**1.3325**	**0.1009**	**1.4334**	**0.0000**	**6,313.3690**	**6,313.3690**	**1.9344**		**6,353.9915**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0707	0.1128	0.9559	1.8100e-003	0.1673	1.0600e-003	0.1684	0.0444	9.8000e-004	0.0454		141.0388	141.0388	8.9500e-003		141.2268
Total	**0.0707**	**0.1128**	**0.9559**	**1.8100e-003**	**0.1673**	**1.0600e-003**	**0.1684**	**0.0444**	**9.8000e-004**	**0.0454**		**141.0388**	**141.0388**	**8.9500e-003**		**141.2268**

3.3 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	5.2895	59.5338	42.3068	0.0617		2.7880	2.7880		2.5650	2.5650		6,212.8042	6,212.8042	1.9341		6,253.4209
Total	**5.2895**	**59.5338**	**42.3068**	**0.0617**	**8.6733**	**2.7880**	**11.4614**	**3.5965**	**2.5650**	**6.1615**		**6,212.8042**	**6,212.8042**	**1.9341**		**6,253.4209**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0636	0.1033	0.8671	1.8100e-003	0.1673	1.0500e-003	0.1684	0.0444	9.7000e-004	0.0454		135.5852	135.5852	8.3500e-003		135.7606
Total	**0.0636**	**0.1033**	**0.8671**	**1.8100e-003**	**0.1673**	**1.0500e-003**	**0.1684**	**0.0444**	**9.7000e-004**	**0.0454**		**135.5852**	**135.5852**	**8.3500e-003**		**135.7606**

3.3 Grading - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.2135	0.0000	3.2135	1.3325	0.0000	1.3325			0.0000			0.0000
Off-Road	0.9779	20.2885	37.9432	0.0617		0.1009	0.1009		0.1009	0.1009	0.0000	6,212.8041	6,212.8041	1.9341		6,253.4209
Total	**0.9779**	**20.2885**	**37.9432**	**0.0617**	**3.2135**	**0.1009**	**3.3143**	**1.3325**	**0.1009**	**1.4334**	**0.0000**	**6,212.8041**	**6,212.8041**	**1.9341**		**6,253.4209**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0636	0.1033	0.8671	1.8100e-003	0.1673	1.0500e-003	0.1684	0.0444	9.7000e-004	0.0454		135.5852	135.5852	8.3500e-003		135.7606
Total	**0.0636**	**0.1033**	**0.8671**	**1.8100e-003**	**0.1673**	**1.0500e-003**	**0.1684**	**0.0444**	**9.7000e-004**	**0.0454**		**135.5852**	**135.5852**	**8.3500e-003**		**135.7606**

3.3 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.8912	54.1978	40.2888	0.0617		2.5049	2.5049		2.3045	2.3045		6,111.3121	6,111.3121	1.9336		6,151.9167
Total	**4.8912**	**54.1978**	**40.2888**	**0.0617**	**8.6733**	**2.5049**	**11.1783**	**3.5965**	**2.3045**	**5.9010**		**6,111.3121**	**6,111.3121**	**1.9336**		**6,151.9167**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0584	0.0953	0.8003	1.8000e-003	0.1673	1.0500e-003	0.1684	0.0444	9.7000e-004	0.0454		130.4859	130.4859	7.8900e-003		130.6516
Total	**0.0584**	**0.0953**	**0.8003**	**1.8000e-003**	**0.1673**	**1.0500e-003**	**0.1684**	**0.0444**	**9.7000e-004**	**0.0454**		**130.4859**	**130.4859**	**7.8900e-003**		**130.6516**

3.3 Grading - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.2135	0.0000	3.2135	1.3325	0.0000	1.3325			0.0000			0.0000
Off-Road	0.9779	20.2885	37.9432	0.0617		0.1009	0.1009		0.1009	0.1009	0.0000	6,111.3121	6,111.3121	1.9336		6,151.9167
Total	**0.9779**	**20.2885**	**37.9432**	**0.0617**	**3.2135**	**0.1009**	**3.3143**	**1.3325**	**0.1009**	**1.4334**	**0.0000**	**6,111.3121**	**6,111.3121**	**1.9336**		**6,151.9167**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0584	0.0953	0.8003	1.8000e-003	0.1673	1.0500e-003	0.1684	0.0444	9.7000e-004	0.0454		130.4859	130.4859	7.8900e-003		130.6516
Total	**0.0584**	**0.0953**	**0.8003**	**1.8000e-003**	**0.1673**	**1.0500e-003**	**0.1684**	**0.0444**	**9.7000e-004**	**0.0454**		**130.4859**	**130.4859**	**7.8900e-003**		**130.6516**

3.3 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.5501	49.3839	38.4257	0.0617		2.2619	2.2619		2.0810	2.0810		5,977.7088	5,977.7088	1.9333		6,018.3084
Total	**4.5501**	**49.3839**	**38.4257**	**0.0617**	**8.6733**	**2.2619**	**10.9353**	**3.5965**	**2.0810**	**5.6775**		**5,977.7088**	**5,977.7088**	**1.9333**		**6,018.3084**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0545	0.0892	0.7470	1.8000e-003	0.1673	1.0500e-003	0.1684	0.0444	9.7000e-004	0.0454		125.1795	125.1795	7.5200e-003		125.3375
Total	**0.0545**	**0.0892**	**0.7470**	**1.8000e-003**	**0.1673**	**1.0500e-003**	**0.1684**	**0.0444**	**9.7000e-004**	**0.0454**		**125.1795**	**125.1795**	**7.5200e-003**		**125.3375**

3.3 Grading - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.2135	0.0000	3.2135	1.3325	0.0000	1.3325			0.0000			0.0000
Off-Road	0.9779	20.2885	37.9432	0.0617		0.1009	0.1009		0.1009	0.1009	0.0000	5,977.7088	5,977.7088	1.9333		6,018.3084
Total	**0.9779**	**20.2885**	**37.9432**	**0.0617**	**3.2135**	**0.1009**	**3.3143**	**1.3325**	**0.1009**	**1.4334**	**0.0000**	**5,977.7088**	**5,977.7088**	**1.9333**		**6,018.3084**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0545	0.0892	0.7470	1.8000e-003	0.1673	1.0500e-003	0.1684	0.0444	9.7000e-004	0.0454		125.1795	125.1795	7.5200e-003		125.3375
Total	**0.0545**	**0.0892**	**0.7470**	**1.8000e-003**	**0.1673**	**1.0500e-003**	**0.1684**	**0.0444**	**9.7000e-004**	**0.0454**		**125.1795**	**125.1795**	**7.5200e-003**		**125.3375**

3.4 Utilities - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9429	17.2968	11.3849	0.0316		0.7828	0.7828		0.7248	0.7248		3,022.9831	3,022.9831	0.9487		3,042.9047
Total	**1.9429**	**17.2968**	**11.3849**	**0.0316**		**0.7828**	**0.7828**		**0.7248**	**0.7248**		**3,022.9831**	**3,022.9831**	**0.9487**		**3,042.9047**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0408	0.0669	0.5602	1.3500e-003	0.1255	7.9000e-004	0.1263	0.0333	7.3000e-004	0.0340		93.8847	93.8847	5.6400e-003		94.0031
Total	**0.0408**	**0.0669**	**0.5602**	**1.3500e-003**	**0.1255**	**7.9000e-004**	**0.1263**	**0.0333**	**7.3000e-004**	**0.0340**		**93.8847**	**93.8847**	**5.6400e-003**		**94.0031**

3.4 Utilities - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5263	9.2153	17.2272	0.0316		0.0718	0.0718		0.0718	0.0718	0.0000	3,022.9831	3,022.9831	0.9487		3,042.9047
Total	**0.5263**	**9.2153**	**17.2272**	**0.0316**		**0.0718**	**0.0718**		**0.0718**	**0.0718**	**0.0000**	**3,022.9831**	**3,022.9831**	**0.9487**		**3,042.9047**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0408	0.0669	0.5602	1.3500e-003	0.1255	7.9000e-004	0.1263	0.0333	7.3000e-004	0.0340		93.8847	93.8847	5.6400e-003		94.0031
Total	**0.0408**	**0.0669**	**0.5602**	**1.3500e-003**	**0.1255**	**7.9000e-004**	**0.1263**	**0.0333**	**7.3000e-004**	**0.0340**		**93.8847**	**93.8847**	**5.6400e-003**		**94.0031**

3.4 Utilities - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7733	14.8794	10.9221	0.0316		0.6732	0.6732		0.6235	0.6235		3,022.8711	3,022.8711	0.9468		3,042.7535
Total	**1.7733**	**14.8794**	**10.9221**	**0.0316**		**0.6732**	**0.6732**		**0.6235**	**0.6235**		**3,022.8711**	**3,022.8711**	**0.9468**		**3,042.7535**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0388	0.0634	0.5325	1.3500e-003	0.1255	8.0000e-004	0.1263	0.0333	7.4000e-004	0.0340		92.4988	92.4988	5.4800e-003		92.6139
Total	**0.0388**	**0.0634**	**0.5325**	**1.3500e-003**	**0.1255**	**8.0000e-004**	**0.1263**	**0.0333**	**7.4000e-004**	**0.0340**		**92.4988**	**92.4988**	**5.4800e-003**		**92.6139**

3.4 Utilities - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5263	9.2153	17.2272	0.0316		0.0718	0.0718		0.0718	0.0718	0.0000	3,022.8710	3,022.8710	0.9468		3,042.7535
Total	**0.5263**	**9.2153**	**17.2272**	**0.0316**		**0.0718**	**0.0718**		**0.0718**	**0.0718**	**0.0000**	**3,022.8710**	**3,022.8710**	**0.9468**		**3,042.7535**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0388	0.0634	0.5325	1.3500e-003	0.1255	8.0000e-004	0.1263	0.0333	7.4000e-004	0.0340		92.4988	92.4988	5.4800e-003		92.6139
Total	**0.0388**	**0.0634**	**0.5325**	**1.3500e-003**	**0.1255**	**8.0000e-004**	**0.1263**	**0.0333**	**7.4000e-004**	**0.0340**		**92.4988**	**92.4988**	**5.4800e-003**		**92.6139**

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5396	13.1889	14.8402	0.0219		0.7864	0.7864		0.7428	0.7428		2,064.4675	2,064.4675	0.4579		2,074.0833
Total	**1.5396**	**13.1889**	**14.8402**	**0.0219**		**0.7864**	**0.7864**		**0.7428**	**0.7428**		**2,064.4675**	**2,064.4675**	**0.4579**		**2,074.0833**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.3102	37.0499	114.5851	0.1552	4.6747	0.8517	5.5263	1.3249	0.7835	2.1084		14,437.7809	14,437.7809	0.0974		14,439.8270
Worker	6.4486	10.5560	88.6142	0.2253	20.8833	0.1326	21.0159	5.5392	0.1229	5.6621		15,391.7974	15,391.7974	0.9122		15,410.9527
Total	**12.7588**	**47.6059**	**203.1993**	**0.3805**	**25.5580**	**0.9842**	**26.5422**	**6.8641**	**0.9065**	**7.7705**		**29,829.5783**	**29,829.5783**	**1.0096**		**29,850.7797**

3.5 Building Construction - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4508	9.5786	15.1859	0.0219		0.0763	0.0763		0.0763	0.0763	0.0000	2,064.4675	2,064.4675	0.4579		2,074.0833
Total	**0.4508**	**9.5786**	**15.1859**	**0.0219**		**0.0763**	**0.0763**		**0.0763**	**0.0763**	**0.0000**	**2,064.4675**	**2,064.4675**	**0.4579**		**2,074.0833**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.3102	37.0499	114.5851	0.1552	4.6747	0.8517	5.5263	1.3249	0.7835	2.1084		14,437.7809	14,437.7809	0.0974		14,439.8270
Worker	6.4486	10.5560	88.6142	0.2253	20.8833	0.1326	21.0159	5.5392	0.1229	5.6621		15,391.7974	15,391.7974	0.9122		15,410.9527
Total	**12.7588**	**47.6059**	**203.1993**	**0.3805**	**25.5580**	**0.9842**	**26.5422**	**6.8641**	**0.9065**	**7.7705**		**29,829.5783**	**29,829.5783**	**1.0096**		**29,850.7797**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3799	11.9544	14.7076	0.0219		0.6570	0.6570		0.6213	0.6213		2,065.3570	2,065.3570	0.4538		2,074.8868
Total	**1.3799**	**11.9544**	**14.7076**	**0.0219**		**0.6570**	**0.6570**		**0.6213**	**0.6213**		**2,065.3570**	**2,065.3570**	**0.4538**		**2,074.8868**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.1141	33.3412	112.4886	0.1550	4.6738	0.8379	5.5116	1.3245	0.7709	2.0954		14,419.3356	14,419.3356	0.0993		14,421.4198
Worker	6.1635	10.1239	84.3097	0.2252	20.8833	0.1331	21.0164	5.5392	0.1234	5.6626		15,164.7478	15,164.7478	0.8866		15,183.3657
Total	**12.2776**	**43.4651**	**196.7983**	**0.3802**	**25.5571**	**0.9710**	**26.5280**	**6.8637**	**0.8943**	**7.7580**		**29,584.0834**	**29,584.0834**	**0.9858**		**29,604.7854**

3.5 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4508	9.5786	15.1859	0.0219		0.0763	0.0763		0.0763	0.0763	0.0000	2,065.3570	2,065.3570	0.4538		2,074.8868
Total	**0.4508**	**9.5786**	**15.1859**	**0.0219**		**0.0763**	**0.0763**		**0.0763**	**0.0763**	**0.0000**	**2,065.3570**	**2,065.3570**	**0.4538**		**2,074.8868**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.1141	33.3412	112.4886	0.1550	4.6738	0.8379	5.5116	1.3245	0.7709	2.0954		14,419.3356	14,419.3356	0.0993		14,421.4198
Worker	6.1635	10.1239	84.3097	0.2252	20.8833	0.1331	21.0164	5.5392	0.1234	5.6626		15,164.7478	15,164.7478	0.8866		15,183.3657
Total	**12.2776**	**43.4651**	**196.7983**	**0.3802**	**25.5571**	**0.9710**	**26.5280**	**6.8637**	**0.8943**	**7.7580**		**29,584.0834**	**29,584.0834**	**0.9858**		**29,604.7854**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2653	11.0463	14.6389	0.0219		0.5603	0.5603		0.5302	0.5302		2,066.2431	2,066.2431	0.4497		2,075.6869
Total	**1.2653**	**11.0463**	**14.6389**	**0.0219**		**0.5603**	**0.5603**		**0.5302**	**0.5302**		**2,066.2431**	**2,066.2431**	**0.4497**		**2,075.6869**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.7014	29.3679	108.1156	0.1545	4.6727	0.8023	5.4750	1.3241	0.7382	2.0622		14,382.6826	14,382.6826	0.0935		14,384.6464
Worker	5.9140	9.7625	80.5030	0.2252	20.8833	0.1336	21.0169	5.5392	0.1240	5.6631		14,962.7842	14,962.7842	0.8648		14,980.9443
Total	**11.6154**	**39.1304**	**188.6185**	**0.3797**	**25.5560**	**0.9360**	**26.4920**	**6.8632**	**0.8621**	**7.7254**		**29,345.4668**	**29,345.4668**	**0.9583**		**29,365.5907**

3.5 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4508	9.5786	15.1859	0.0219		0.0763	0.0763		0.0763	0.0763	0.0000	2,066.2431	2,066.2431	0.4497		2,075.6869
Total	**0.4508**	**9.5786**	**15.1859**	**0.0219**		**0.0763**	**0.0763**		**0.0763**	**0.0763**	**0.0000**	**2,066.2431**	**2,066.2431**	**0.4497**		**2,075.6869**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.7014	29.3679	108.1156	0.1545	4.6727	0.8023	5.4750	1.3241	0.7382	2.0622		14,382.6826	14,382.6826	0.0935		14,384.6464
Worker	5.9140	9.7625	80.5030	0.2252	20.8833	0.1336	21.0169	5.5392	0.1240	5.6631		14,962.7842	14,962.7842	0.8648		14,980.9443
Total	**11.6154**	**39.1304**	**188.6185**	**0.3797**	**25.5560**	**0.9360**	**26.4920**	**6.8632**	**0.8621**	**7.7254**		**29,345.4668**	**29,345.4668**	**0.9583**		**29,365.5907**

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1813	10.3775	14.6139	0.0219		0.4857	0.4857		0.4595	0.4595		2,066.7425	2,066.7425	0.4462		2,076.1129
Total	**1.1813**	**10.3775**	**14.6139**	**0.0219**		**0.4857**	**0.4857**		**0.4595**	**0.4595**		**2,066.7425**	**2,066.7425**	**0.4462**		**2,076.1129**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.5839	29.1890	105.9660	0.1549	4.6719	0.7913	5.4632	1.3237	0.7280	2.0517		14,422.5482	14,422.5482	0.0952		14,424.5478
Worker	5.7475	9.5065	78.6490	0.2278	20.8833	0.1378	21.0211	5.5392	0.1279	5.6670		14,962.6500	14,962.6500	0.8655		14,980.8252
Total	**11.3314**	**38.6955**	**184.6151**	**0.3827**	**25.5552**	**0.9291**	**26.4843**	**6.8629**	**0.8559**	**7.7188**		**29,385.1982**	**29,385.1982**	**0.9607**		**29,405.3730**

3.5 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4508	9.5786	15.1859	0.0219		0.0763	0.0763		0.0763	0.0763	0.0000	2,066.7425	2,066.7425	0.4462		2,076.1129
Total	**0.4508**	**9.5786**	**15.1859**	**0.0219**		**0.0763**	**0.0763**		**0.0763**	**0.0763**	**0.0000**	**2,066.7425**	**2,066.7425**	**0.4462**		**2,076.1129**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.5839	29.1890	105.9660	0.1549	4.6719	0.7913	5.4632	1.3237	0.7280	2.0517		14,422.5482	14,422.5482	0.0952		14,424.5478
Worker	5.7475	9.5065	78.6490	0.2278	20.8833	0.1378	21.0211	5.5392	0.1279	5.6670		14,962.6500	14,962.6500	0.8655		14,980.8252
Total	**11.3314**	**38.6955**	**184.6151**	**0.3827**	**25.5552**	**0.9291**	**26.4843**	**6.8629**	**0.8559**	**7.7188**		**29,385.1982**	**29,385.1982**	**0.9607**		**29,405.3730**

3.5 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0937	9.6977	14.5653	0.0219		0.4097	0.4097		0.3879	0.3879		2,067.5014	2,067.5014	0.4428		2,076.8003
Total	**1.0937**	**9.6977**	**14.5653**	**0.0219**		**0.4097**	**0.4097**		**0.3879**	**0.3879**		**2,067.5014**	**2,067.5014**	**0.4428**		**2,076.8003**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.4713	28.9565	104.8286	0.1548	4.6711	0.7938	5.4649	1.3234	0.7303	2.0537		14,418.3637	14,418.3637	0.0954		14,420.3664
Worker	5.5919	9.2751	76.4732	0.2278	20.8833	0.1389	21.0222	5.5392	0.1289	5.6680		14,809.8994	14,809.8994	0.8507		14,827.7632
Total	**11.0632**	**38.2316**	**181.3017**	**0.3826**	**25.5544**	**0.9327**	**26.4871**	**6.8625**	**0.8591**	**7.7217**		**29,228.2631**	**29,228.2631**	**0.9460**		**29,248.1297**

3.5 Building Construction - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4508	9.5786	15.1859	0.0219		0.0763	0.0763		0.0763	0.0763	0.0000	2,067.5014	2,067.5014	0.4428		2,076.8003
Total	**0.4508**	**9.5786**	**15.1859**	**0.0219**		**0.0763**	**0.0763**		**0.0763**	**0.0763**	**0.0000**	**2,067.5014**	**2,067.5014**	**0.4428**		**2,076.8003**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.4713	28.9565	104.8286	0.1548	4.6711	0.7938	5.4649	1.3234	0.7303	2.0537		14,418.3637	14,418.3637	0.0954		14,420.3664
Worker	5.5919	9.2751	76.4732	0.2278	20.8833	0.1389	21.0222	5.5392	0.1289	5.6680		14,809.8994	14,809.8994	0.8507		14,827.7632
Total	**11.0632**	**38.2316**	**181.3017**	**0.3826**	**25.5544**	**0.9327**	**26.4871**	**6.8625**	**0.8591**	**7.7217**		**29,228.2631**	**29,228.2631**	**0.9460**		**29,248.1297**

3.5 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0937	9.6977	14.5653	0.0219		0.4097	0.4097		0.3879	0.3879		2,067.5014	2,067.5014	0.4428		2,076.8003
Total	**1.0937**	**9.6977**	**14.5653**	**0.0219**		**0.4097**	**0.4097**		**0.3879**	**0.3879**		**2,067.5014**	**2,067.5014**	**0.4428**		**2,076.8003**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.3701	28.5798	103.3754	0.1548	4.6711	0.7848	5.4558	1.3234	0.7220	2.0454		14,417.2537	14,417.2537	0.0947		14,419.2429
Worker	5.4879	9.1320	74.8960	0.2278	20.8833	0.1403	21.0236	5.5392	0.1302	5.6694		14,683.0111	14,683.0111	0.8409		14,700.6690
Total	**10.8580**	**37.7118**	**178.2714**	**0.3826**	**25.5544**	**0.9251**	**26.4795**	**6.8625**	**0.8522**	**7.7147**		**29,100.2647**	**29,100.2647**	**0.9356**		**29,119.9118**

3.5 Building Construction - 2026

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4508	9.5786	15.1859	0.0219		0.0763	0.0763		0.0763	0.0763	0.0000	2,067.5014	2,067.5014	0.4428		2,076.8003
Total	**0.4508**	**9.5786**	**15.1859**	**0.0219**		**0.0763**	**0.0763**		**0.0763**	**0.0763**	**0.0000**	**2,067.5014**	**2,067.5014**	**0.4428**		**2,076.8003**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.3701	28.5798	103.3754	0.1548	4.6711	0.7848	5.4558	1.3234	0.7220	2.0454		14,417.2537	14,417.2537	0.0947		14,419.2429
Worker	5.4879	9.1320	74.8960	0.2278	20.8833	0.1403	21.0236	5.5392	0.1302	5.6694		14,683.0111	14,683.0111	0.8409		14,700.6690
Total	**10.8580**	**37.7118**	**178.2714**	**0.3826**	**25.5544**	**0.9251**	**26.4795**	**6.8625**	**0.8522**	**7.7147**		**29,100.2647**	**29,100.2647**	**0.9356**		**29,119.9118**

3.5 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0937	9.6977	14.5653	0.0219		0.4097	0.4097		0.3879	0.3879		2,067.5014	2,067.5014	0.4428		2,076.8003
Total	**1.0937**	**9.6977**	**14.5653**	**0.0219**		**0.4097**	**0.4097**		**0.3879**	**0.3879**		**2,067.5014**	**2,067.5014**	**0.4428**		**2,076.8003**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.3123	28.3936	102.3160	0.1548	4.6711	0.7860	5.4571	1.3234	0.7232	2.0466		14,417.2022	14,417.2022	0.0948		14,419.1932
Worker	5.3969	9.0009	73.6984	0.2278	20.8833	0.1416	21.0249	5.5392	0.1314	5.6705		14,574.2537	14,574.2537	0.8318		14,591.7210
Total	**10.7092**	**37.3944**	**176.0143**	**0.3826**	**25.5544**	**0.9276**	**26.4820**	**6.8626**	**0.8545**	**7.7171**		**28,991.4559**	**28,991.4559**	**0.9266**		**29,010.9142**

3.5 Building Construction - 2027

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4508	9.5786	15.1859	0.0219		0.0763	0.0763		0.0763	0.0763	0.0000	2,067.5014	2,067.5014	0.4428		2,076.8003
Total	**0.4508**	**9.5786**	**15.1859**	**0.0219**		**0.0763**	**0.0763**		**0.0763**	**0.0763**	**0.0000**	**2,067.5014**	**2,067.5014**	**0.4428**		**2,076.8003**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.3123	28.3936	102.3160	0.1548	4.6711	0.7860	5.4571	1.3234	0.7232	2.0466		14,417.2022	14,417.2022	0.0948		14,419.1932
Worker	5.3969	9.0009	73.6984	0.2278	20.8833	0.1416	21.0249	5.5392	0.1314	5.6705		14,574.2537	14,574.2537	0.8318		14,591.7210
Total	**10.7092**	**37.3944**	**176.0143**	**0.3826**	**25.5544**	**0.9276**	**26.4820**	**6.8626**	**0.8545**	**7.7171**		**28,991.4559**	**28,991.4559**	**0.9266**		**29,010.9142**

3.5 Building Construction - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0937	9.6977	14.5653	0.0219		0.4097	0.4097		0.3879	0.3879		2,067.5014	2,067.5014	0.4428		2,076.8003
Total	**1.0937**	**9.6977**	**14.5653**	**0.0219**		**0.4097**	**0.4097**		**0.3879**	**0.3879**		**2,067.5014**	**2,067.5014**	**0.4428**		**2,076.8003**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.2745	28.2254	101.8803	0.1548	4.6710	0.7847	5.4556	1.3233	0.7219	2.0452		14,416.2025	14,416.2025	0.0947		14,418.1914
Worker	5.3092	8.8643	72.5029	0.2278	20.8833	0.1427	21.0260	5.5392	0.1324	5.6716		14,482.0789	14,482.0789	0.8227		14,499.3563
Total	**10.5837**	**37.0897**	**174.3832**	**0.3826**	**25.5542**	**0.9274**	**26.4816**	**6.8625**	**0.8543**	**7.7168**		**28,898.2813**	**28,898.2813**	**0.9174**		**28,917.5477**

3.5 Building Construction - 2028

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4508	9.5786	15.1859	0.0219		0.0763	0.0763		0.0763	0.0763	0.0000	2,067.5014	2,067.5014	0.4428		2,076.8003
Total	**0.4508**	**9.5786**	**15.1859**	**0.0219**		**0.0763**	**0.0763**		**0.0763**	**0.0763**	**0.0000**	**2,067.5014**	**2,067.5014**	**0.4428**		**2,076.8003**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.2745	28.2254	101.8803	0.1548	4.6710	0.7847	5.4556	1.3233	0.7219	2.0452		14,416.2025	14,416.2025	0.0947		14,418.1914
Worker	5.3092	8.8643	72.5029	0.2278	20.8833	0.1427	21.0260	5.5392	0.1324	5.6716		14,482.0789	14,482.0789	0.8227		14,499.3563
Total	**10.5837**	**37.0897**	**174.3832**	**0.3826**	**25.5542**	**0.9274**	**26.4816**	**6.8625**	**0.8543**	**7.7168**		**28,898.2813**	**28,898.2813**	**0.9174**		**28,917.5477**

3.5 Building Construction - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0937	9.6977	14.5653	0.0219		0.4097	0.4097		0.3879	0.3879		2,067.5014	2,067.5014	0.4428		2,076.8003
Total	**1.0937**	**9.6977**	**14.5653**	**0.0219**		**0.4097**	**0.4097**		**0.3879**	**0.3879**		**2,067.5014**	**2,067.5014**	**0.4428**		**2,076.8003**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.2492	28.0904	101.3522	0.1547	4.6707	0.7846	5.4553	1.3232	0.7218	2.0450		14,414.7000	14,414.7000	0.0947		14,416.6890
Worker	5.2230	8.7323	71.3424	0.2278	20.8833	0.1436	21.0269	5.5392	0.1332	5.6724		14,403.9056	14,403.9056	0.8138		14,420.9963
Total	**10.4721**	**36.8227**	**172.6946**	**0.3825**	**25.5540**	**0.9282**	**26.4822**	**6.8624**	**0.8551**	**7.7174**		**28,818.6057**	**28,818.6057**	**0.9086**		**28,837.6854**

3.5 Building Construction - 2029

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4508	9.5786	15.1859	0.0219		0.0763	0.0763		0.0763	0.0763	0.0000	2,067.5014	2,067.5014	0.4428		2,076.8003
Total	**0.4508**	**9.5786**	**15.1859**	**0.0219**		**0.0763**	**0.0763**		**0.0763**	**0.0763**	**0.0000**	**2,067.5014**	**2,067.5014**	**0.4428**		**2,076.8003**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.2492	28.0904	101.3522	0.1547	4.6707	0.7846	5.4553	1.3232	0.7218	2.0450		14,414.7000	14,414.7000	0.0947		14,416.6890
Worker	5.2230	8.7323	71.3424	0.2278	20.8833	0.1436	21.0269	5.5392	0.1332	5.6724		14,403.9056	14,403.9056	0.8138		14,420.9963
Total	**10.4721**	**36.8227**	**172.6946**	**0.3825**	**25.5540**	**0.9282**	**26.4822**	**6.8624**	**0.8551**	**7.7174**		**28,818.6057**	**28,818.6057**	**0.9086**		**28,837.6854**

3.6 Architectural Coating - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	326.8539					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.7705
Total	**327.0247**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.7705**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	1.0790	1.7995	14.7338	0.0455	4.1750	0.0283	4.2033	1.1074	0.0263	1.1337		2,913.6829	2,913.6829	0.1663		2,917.1750
Total	**1.0790**	**1.7995**	**14.7338**	**0.0455**	**4.1750**	**0.0283**	**4.2033**	**1.1074**	**0.0263**	**1.1337**		**2,913.6829**	**2,913.6829**	**0.1663**		**2,917.1750**

3.6 Architectural Coating - 2027

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	326.8539					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0545	1.0598	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0154		281.7705
Total	**326.9084**	**1.0598**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.7705**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	1.0790	1.7995	14.7338	0.0455	4.1750	0.0283	4.2033	1.1074	0.0263	1.1337		2,913.6829	2,913.6829	0.1663		2,917.1750
Total	**1.0790**	**1.7995**	**14.7338**	**0.0455**	**4.1750**	**0.0283**	**4.2033**	**1.1074**	**0.0263**	**1.1337**		**2,913.6829**	**2,913.6829**	**0.1663**		**2,917.1750**

3.6 Architectural Coating - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	326.8539					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.7705
Total	**327.0247**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.7705**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	1.0614	1.7721	14.4948	0.0455	4.1750	0.0285	4.2035	1.1074	0.0265	1.1339		2,895.2554	2,895.2554	0.1645		2,898.7095
Total	**1.0614**	**1.7721**	**14.4948**	**0.0455**	**4.1750**	**0.0285**	**4.2035**	**1.1074**	**0.0265**	**1.1339**		**2,895.2554**	**2,895.2554**	**0.1645**		**2,898.7095**

3.6 Architectural Coating - 2028

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	326.8539					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0545	1.0598	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0154		281.7705
Total	**326.9084**	**1.0598**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.7705**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	1.0614	1.7721	14.4948	0.0455	4.1750	0.0285	4.2035	1.1074	0.0265	1.1339		2,895.2554	2,895.2554	0.1645		2,898.7095
Total	**1.0614**	**1.7721**	**14.4948**	**0.0455**	**4.1750**	**0.0285**	**4.2035**	**1.1074**	**0.0265**	**1.1339**		**2,895.2554**	**2,895.2554**	**0.1645**		**2,898.7095**

3.6 Architectural Coating - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	326.8539					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.7705
Total	**327.0247**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.7705**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	1.0442	1.7458	14.2628	0.0455	4.1750	0.0287	4.2037	1.1074	0.0266	1.1340		2,879.6270	2,879.6270	0.1627		2,883.0437
Total	**1.0442**	**1.7458**	**14.2628**	**0.0455**	**4.1750**	**0.0287**	**4.2037**	**1.1074**	**0.0266**	**1.1340**		**2,879.6270**	**2,879.6270**	**0.1627**		**2,883.0437**

3.6 Architectural Coating - 2029

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	326.8539					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0545	1.0598	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0154		281.7705
Total	**326.9084**	**1.0598**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.7705**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	1.0442	1.7458	14.2628	0.0455	4.1750	0.0287	4.2037	1.1074	0.0266	1.1340		2,879.6270	2,879.6270	0.1627		2,883.0437
Total	**1.0442**	**1.7458**	**14.2628**	**0.0455**	**4.1750**	**0.0287**	**4.2037**	**1.1074**	**0.0266**	**1.1340**		**2,879.6270**	**2,879.6270**	**0.1627**		**2,883.0437**

3.7 Paving - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8973	8.4215	14.2781	0.0223		0.4109	0.4109		0.3781	0.3781		2,159.7967	2,159.7967	0.6985		2,174.4656
Paving	0.6424					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.5397**	**8.4215**	**14.2781**	**0.0223**		**0.4109**	**0.4109**		**0.3781**	**0.3781**		**2,159.7967**	**2,159.7967**	**0.6985**		**2,174.4656**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0324	0.0541	0.4429	1.3700e-003	0.1255	8.5000e-004	0.1264	0.0333	7.9000e-004	0.0341		87.5857	87.5857	5.0000e-003		87.6906
Total	**0.0324**	**0.0541**	**0.4429**	**1.3700e-003**	**0.1255**	**8.5000e-004**	**0.1264**	**0.0333**	**7.9000e-004**	**0.0341**		**87.5857**	**87.5857**	**5.0000e-003**		**87.6906**

3.7 Paving - 2027

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3281	9.8256	16.9276	0.0223		0.0366	0.0366		0.0366	0.0366	0.0000	2,159.7967	2,159.7967	0.6985		2,174.4656
Paving	0.6424					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9705**	**9.8256**	**16.9276**	**0.0223**		**0.0366**	**0.0366**		**0.0366**	**0.0366**	**0.0000**	**2,159.7967**	**2,159.7967**	**0.6985**		**2,174.4656**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0324	0.0541	0.4429	1.3700e-003	0.1255	8.5000e-004	0.1264	0.0333	7.9000e-004	0.0341		87.5857	87.5857	5.0000e-003		87.6906
Total	**0.0324**	**0.0541**	**0.4429**	**1.3700e-003**	**0.1255**	**8.5000e-004**	**0.1264**	**0.0333**	**7.9000e-004**	**0.0341**		**87.5857**	**87.5857**	**5.0000e-003**		**87.6906**

3.7 Paving - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8973	8.4215	14.2781	0.0223		0.4109	0.4109		0.3781	0.3781		2,159.7967	2,159.7967	0.6985		2,174.4656
Paving	0.6424					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.5397**	**8.4215**	**14.2781**	**0.0223**		**0.4109**	**0.4109**		**0.3781**	**0.3781**		**2,159.7967**	**2,159.7967**	**0.6985**		**2,174.4656**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0319	0.0533	0.4357	1.3700e-003	0.1255	8.6000e-004	0.1264	0.0333	8.0000e-004	0.0341		87.0317	87.0317	4.9400e-003		87.1356
Total	**0.0319**	**0.0533**	**0.4357**	**1.3700e-003**	**0.1255**	**8.6000e-004**	**0.1264**	**0.0333**	**8.0000e-004**	**0.0341**		**87.0317**	**87.0317**	**4.9400e-003**		**87.1356**

3.7 Paving - 2028

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3281	9.8256	16.9276	0.0223		0.0366	0.0366		0.0366	0.0366	0.0000	2,159.7967	2,159.7967	0.6985		2,174.4656
Paving	0.6424					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9705**	**9.8256**	**16.9276**	**0.0223**		**0.0366**	**0.0366**		**0.0366**	**0.0366**	**0.0000**	**2,159.7967**	**2,159.7967**	**0.6985**		**2,174.4656**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0319	0.0533	0.4357	1.3700e-003	0.1255	8.6000e-004	0.1264	0.0333	8.0000e-004	0.0341		87.0317	87.0317	4.9400e-003		87.1356
Total	**0.0319**	**0.0533**	**0.4357**	**1.3700e-003**	**0.1255**	**8.6000e-004**	**0.1264**	**0.0333**	**8.0000e-004**	**0.0341**		**87.0317**	**87.0317**	**4.9400e-003**		**87.1356**

3.7 Paving - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8973	8.4215	14.2781	0.0223		0.4109	0.4109		0.3781	0.3781		2,159.7967	2,159.7967	0.6985		2,174.4656
Paving	0.6424					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.5397**	**8.4215**	**14.2781**	**0.0223**		**0.4109**	**0.4109**		**0.3781**	**0.3781**		**2,159.7967**	**2,159.7967**	**0.6985**		**2,174.4656**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0314	0.0525	0.4287	1.3700e-003	0.1255	8.6000e-004	0.1264	0.0333	8.0000e-004	0.0341		86.5619	86.5619	4.8900e-003		86.6646
Total	**0.0314**	**0.0525**	**0.4287**	**1.3700e-003**	**0.1255**	**8.6000e-004**	**0.1264**	**0.0333**	**8.0000e-004**	**0.0341**		**86.5619**	**86.5619**	**4.8900e-003**		**86.6646**

3.7 Paving - 2029

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3281	9.8256	16.9276	0.0223		0.0366	0.0366		0.0366	0.0366	0.0000	2,159.7967	2,159.7967	0.6985		2,174.4656
Paving	0.6424					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9705**	**9.8256**	**16.9276**	**0.0223**		**0.0366**	**0.0366**		**0.0366**	**0.0366**	**0.0000**	**2,159.7967**	**2,159.7967**	**0.6985**		**2,174.4656**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0314	0.0525	0.4287	1.3700e-003	0.1255	8.6000e-004	0.1264	0.0333	8.0000e-004	0.0341		86.5619	86.5619	4.8900e-003		86.6646
Total	**0.0314**	**0.0525**	**0.4287**	**1.3700e-003**	**0.1255**	**8.6000e-004**	**0.1264**	**0.0333**	**8.0000e-004**	**0.0341**		**86.5619**	**86.5619**	**4.8900e-003**		**86.6646**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Increase Diversity

Improve Walkability Design

Improve Destination Accessibility

Increase Transit Accessibility

Improve Pedestrian Network

Provide Traffic Calming Measures

Implement NEV Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	526.3934	762.4228	5,465.8538	6.3411	399.6773	13.1903	412.8676	106.6402	12.1698	118.8099		460,370.1164	460,370.1164	19.5409		460,780.4750
Unmitigated	572.8910	1,068.8640	6,532.5144	11.2950	757.2177	22.2170	779.4347	202.0376	20.4872	222.5248		822,185.8893	822,185.8893	31.7705		822,853.0692

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	9.54	9.54	9.54	18,189	9,601
Condo/Townhouse	7,908.00	8,592.00	7284.00	17,708,745	9,347,091
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Regional Shopping Center	218,994.00	254,847.00	128724.00	279,744,048	147,655,476
Total	226,911.54	263,448.54	136,017.54	297,470,983	157,012,168

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	12.50	4.20	5.40	33.00	48.00	19.00	66	28	6
Condo/Townhouse	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3
Other Asphalt Surfaces	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Parking Lot	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	54	35	11

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.469614	0.066142	0.173873	0.163382	0.035024	0.005630	0.009899	0.067518	0.001256	0.001244	0.003209	0.000474	0.002734

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

Percent of Electricity Use Generated with Renewable Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.9406	8.2038	4.6361	0.0513		0.6499	0.6499		0.6499	0.6499		10,261.2476	10,261.2476	0.1967	0.1881	10,323.6958
NaturalGas Unmitigated	1.0802	9.4212	5.3262	0.0589		0.7463	0.7463		0.7463	0.7463		11,783.6055	11,783.6055	0.2259	0.2160	11,855.3185

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	67744.2	0.7306	6.2431	2.6566	0.0399		0.5048	0.5048		0.5048	0.5048		7,969.9069	7,969.9069	0.1528	0.1461	8,018.4104
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	32416.4	0.3496	3.1781	2.6696	0.0191		0.2415	0.2415		0.2415	0.2415		3,813.6986	3,813.6986	0.0731	0.0699	3,836.9082
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**1.0802**	**9.4212**	**5.3262**	**0.0589**		**0.7463**	**0.7463**		**0.7463**	**0.7463**		**11,783.6055**	**11,783.6055**	**0.2259**	**0.2160**	**11,855.3185**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	28.1827	0.3039	2.7630	2.3209	0.0166		0.2100	0.2100		0.2100	0.2100		3,315.6164	3,315.6164	0.0636	0.0608	3,335.7947
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	59.0379	0.6367	5.4407	2.3152	0.0347		0.4399	0.4399		0.4399	0.4399		6,945.6311	6,945.6311	0.1331	0.1273	6,987.9011
Total		**0.9406**	**8.2038**	**4.6361**	**0.0513**		**0.6499**	**0.6499**		**0.6499**	**0.6499**		**10,261.2476**	**10,261.2476**	**0.1967**	**0.1881**	**10,323.6958**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

Use only Natural Gas Hearths

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	288.7120	1.1545	100.6530	5.3600e-003		2.1648	2.1648		2.1478	2.1478	0.0000	25,593.8751	25,593.8751	0.6668	0.4659	25,752.3019
Unmitigated	357.9289	1.1545	100.6530	5.3600e-003		2.1648	2.1648		2.1478	2.1478	0.0000	25,593.8751	25,593.8751	0.6668	0.4659	25,752.3019

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	59.1024					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	293.3803					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	2.3294	1.1000e-004	0.1271	0.0000		1.6094	1.6094		1.5925	1.5925	0.0000	25,411.7647	25,411.7647	0.4871	0.4659	25,566.4165
Landscaping	3.1168	1.1544	100.5259	5.3600e-003		0.5554	0.5554		0.5554	0.5554		182.1104	182.1104	0.1798		185.8854
Total	**357.9289**	**1.1545**	**100.6530**	**5.3600e-003**		**2.1648**	**2.1648**		**2.1478**	**2.1478**	**0.0000**	**25,593.8751**	**25,593.8751**	**0.6668**	**0.4659**	**25,752.3019**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	11.8205					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	271.4453					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	2.3294	1.1000e-004	0.1271	0.0000		1.6094	1.6094		1.5925	1.5925	0.0000	25,411.7647	25,411.7647	0.4871	0.4659	25,566.4165
Landscaping	3.1168	1.1544	100.5259	5.3600e-003		0.5554	0.5554		0.5554	0.5554		182.1104	182.1104	0.1798		185.8854
Total	**288.7120**	**1.1545**	**100.6530**	**5.3600e-003**		**2.1648**	**2.1648**		**2.1478**	**2.1478**	**0.0000**	**25,593.8751**	**25,593.8751**	**0.6668**	**0.4659**	**25,752.3019**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Use Reclaimed Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Turf Reduction

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation