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ACRONYMS AND ABBREVIATIONS

Acronym/Abbreviation	Definition
AB	Assembly Bill
ADT	average daily trip
AIA	Airport Influence Area
BMP	best management practice
CalEEMod	California Emissions Estimator Model
CalFIRE	California Department of Forestry and Fire Protection
CAP	Climate Action Plan
CARB	California Air Resources Board
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CIWMB	California Integrated Waste Management Board
CNRA	California Natural Resources Agency
CO	carbon monoxide
dBA	A-weighted decibels
DOC	California Department of Conservation
DPM	diesel particulate matter
DPR	Department of Parks and Recreation
DTSC	California Department of Toxic Substances Control
EIR	Environmental Impact Report
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
HVAC	heating, ventilation, and air conditioning
LED	light-emitting-diode
LOS	level of service
MBTA	Migratory Bird Treaty Act
MS4	municipal separate storm sewer systems
NPDES	National Pollution Discharge Elimination System
OPR	Governor’s Office of Planning and Research
OTOP-2-1	Old Town San Diego Open Space-Park
OTSDPD	Old Town San Diego Planned District
PDF	project design feature

Acronym/Abbreviation	Definition
PRC	Public Resources Code
RAQS	Regional Air Quality Strategy
RCNM	Roadway Construction Noise Model
SANDAG	San Diego Association of Governments
SDAPCD	San Diego Air Pollution Control District
SDRWQCB	San Diego Regional Water Quality Control Board
SIP	State Implementation Plan
SLM	Sound Level Meter
SWPPP	stormwater pollution prevention plan
SWRCB	State Water Resource Control Board
TSM	Transportation Study Manual
USEPA	U.S. Environmental Protection Agency
VHFHSZ	very high fire hazard severity zones

County of San Diego

DEPARTMENT OF PARKS AND RECREATION
5500 OVERLAND AVENUE, SUITE 410, San Diego, CA 92123

November 2022

Environmental Review Update Checklist Form
For Projects with Previously Approved Environmental Documents

ADDENDUM TO THE HERITAGE PARK MASTER PLAN IMPROVEMENTS PROJECT NEGATIVE DECLARATION

The California Environmental Quality Act (CEQA) Guidelines Sections 15162 through 15164 set forth the criteria for determining the appropriate type of additional environmental documentation to be completed, if any, when there is a previously adopted Negative Declaration or a previously certified Environmental Impact Report (EIR) covering the project for which a subsequent discretionary action is required. In this case, the County of San Diego (County) must assess whether the adopted Initial Study/Negative Declaration (Final Negative Declaration or 2009 Negative Declaration) for the Heritage Park Master Plan Improvements Project (2009 Project) adequately covers the impacts associated with the County's modified project (the proposed "Project"). This Environmental Review Update Checklist Form has been prepared in accordance with CEQA Guidelines Section 15164(e) to explain the rationale for determining whether any additional environmental documentation is required for the subject discretionary action.

1. Background on the 2009 Project and the previously adopted Negative Declaration:

The County approved a Plan for Developing and Operating Heritage Park in 1971, and between 1973 and 1981, seven Victorian structures were relocated to the Old Town Community Plan area of the City of San Diego (City) and operated as office space, museum space, and bed and breakfast guest rooms. On June 24, 2009, the County of San Diego Board of Supervisors approved the 2009 Project and adopted a Final Negative Declaration (State Clearinghouse [SCH] No. 2008101145) for the 2009 Project. The Final Negative Declaration analyzed the continued development of Heritage Park as proposed by the 2009 Project, which involved construction of four new Victorian-style structures in Heritage Park (Buildings #7, #9, #11, and #12) and renovations to seven existing structures to their original restored condition (Senlis Cottage, Sherman-Gilbert House, Bushyhead House, Christian House, McConaughy House, Temple Beth Israel, and Burton House). The four new structures were proposed to operate as individual bed and breakfasts, providing 63 guest rooms across the four buildings, and six out of the seven existing structures (excluding Temple Beth Israel) were proposed to be converted to provide approximately 21 additional guest rooms. In addition, the 2009 Project proposed modified landscaping and minor site improvements, including but not limited to, the addition of

pedestrian benches, lighting, additional tree plantings, a fire pit, hardscape/walkways around buildings, and the removal of the existing driveway (Heritage Row Park) and replacement with decorative pavers for use as a pedestrian/cart path.

The Final Negative Declaration determined that the proposed improvements to Heritage Park under the 2009 Project would not result in significant environmental impacts, and would not contribute to cumulatively considerable impacts. No mitigation was required.

2. Lead agency name and address:

County of San Diego, Department of Parks and Recreation
5500 Overland Avenue, Suite 410
San Diego, CA 92123

a. Contact: Emily Pacholski, Land Use/Environmental Planner

b. Phone number: (877) 565-3600

c. E-mail: Emily.Pacholski@sdcounty.ca.gov

3. Project applicant's name and address:

County of San Diego, Department of Parks and Recreation
5500 Overland Avenue, Suite 410
San Diego, CA 92123

4. Summary of the proposed Project and Addendum:

The proposed Project would implement a scaled-down version of the previously approved 2009 Project, discussed above, on the existing developed portion of Heritage Park, which consists of approximately 3.89 acres. The Project site is located at 2454 Heritage Park Row on a parcel northeast of Juan Street and southeast of Heritage Park Row in Old Town San Diego, California (APN 443-340-34). Despite its location within incorporated City of San Diego, Heritage Park is owned and operated by the County. **Figure 1** shows the location of the Project site.

This Addendum addresses changes to the proposed Project as compared to the 2009 Project evaluated in the Final Negative Declaration. The changes to the 2009 Project evaluated in this Addendum for the proposed Project include: (1) elimination of the four proposed structures and renovations to only five of the seven existing buildings at Heritage Park, including Senlis Cottage, Sherman-Gilbert House, Bushyhead House, Burton House, and Christian House, as shown in **Figure 2**, Aerial Photograph; and (2) the addition of recreational amenities and other minor improvements to the outdoor spaces (hereafter referred to as the "back lawn" area). Improvements to the back lawn area include the addition of an outdoor meeting space, paved sidewalks, light fixtures, fencing, additional landscaping, and other similar features.

SOURCE: Mapbox, 2021; ESA, 2022

Heritage Park Master Plan Improvements Project Addendum

Figure 1
Project Location

ESA

SOURCE: Mapbox, 2021; ESA, 2022

Heritage Park Master Plan Improvements Project Addendum

Figure 2
Aerial Photograph

ESA

As required by CEQA, the proposed Project Addendum has been prepared to identify and address the anticipated environmental impacts of the proposed Project as compared to the 2009 Project, which are evaluated in the Final Negative Declaration. Each of the topical sections address: (1) changes to the 2009 Project that are relevant to the particular issue area; and (2) impacts associated with construction and implementation of the proposed Project as compared to the 2009 Project. To provide context, each impact discussion includes a brief summary of the Final Negative Declaration conclusions, as applicable. The analytic methods for each topical section generally follow the same methods used in the Final Negative Declaration. In some cases, the methods are different in certain respects and the reasons for these differences are provided in the relevant topical sections of the Addendum. Public review of this Addendum is not required per CEQA Guidelines Section 15164 (c).

In summary, this Addendum provides substantial evidence supporting the conclusion that the proposed Project would not result in new significant effects or a substantial increase in the severity of previously identified significant effects, therefore, the proposed Project does not require preparation of a mitigated negative declaration or environmental impact report.

5. Summary of the proposed Project activities:

Existing Setting

The Project site is currently developed with seven Victorian structures, landscaping, manufactured lawns, parking and an internal circulation roadway. Existing uses include offices, museum space, and public restrooms. Furthermore, Temple Beth Israel and the back lawn area, which consists of a grass lawn and pergola, serve as venues for weddings, graduations, and similar events and ceremonies. Additionally, the Coral Tree Tea House, located in the McConaughy House, currently serves as a restaurant. Under existing operations, the park currently hosts events using both the back and front lawn spaces, such as weddings with up to 200 guests, movie nights, and community educational events. Heritage Park is equipped with all major utilities including water, sewer, gas and electric, irrigation main, fire main, and fire hydrants. There are 39 parking spaces available within the Project site, and an additional 41 off-site parking spaces are available at a nearby hotel located at the southwest corner of Juan Street and Harney Street.

Proposed Building Renovations

In contrast to the 2009 Project, which proposed a total of 84 guest rooms (72 new) through the renovation and conversion of seven existing structures and construction of four new buildings, the proposed Project only proposes a total of up to 24 new guest rooms through renovation and conversion of five existing structures. No new structures are proposed. The proposed modifications to the 2009 Project are summarized below.

Senlis Cottage (Building A)

Senlis Cottage is single-story building consisting of Classic Revival architecture. At the time of the 2009 Project, the building was used as a museum and included public restrooms. The 2009

Project proposed conversion of the building to one guest room/honeymoon cottage. Under the proposed Project, the building would be renovated and would include an interpretive center and public restrooms.

Sherman-Gilbert House (Building B)

Sherman-Gilbert House is a two-story building consisting of Stick architecture. The 2009 Project proposed conversion of the building from existing office uses to two guest rooms. Under the proposed Project, the first floor of the building would be renovated and converted to administrative areas and a break room that would be used by hotel and park operators. The building would also include guest bedrooms on the first and second floors.

Bushyhead House (Building C)

Bushyhead House is a two-story building consisting of Italianate architecture. At the time of the 2009 Project, the house included three guest rooms and was not proposed to include any additional guest rooms. The proposed Project would renovate the building to include guest bedrooms on the first and second floors.

Burton House (Building D)

Burton House is a two-story building consisting of Classic Revival architecture. At the time of the 2009 Project, the house included a shop, a museum, and an office. The 2009 Project proposed conversion of the building to include two new guest rooms in addition the existing shop and office. Under the proposed Project, the building would be converted to guest bedrooms on the first and second floors.

Christian House (Building E)

Christian House is a two-story building consisting of Queen Anne style architecture. The Christian House included nine existing guest rooms and was not proposed to be converted to any additional rooms at the time of the 2009 Project. The proposed Project would provide public space for guests and day-use visitors on the first floor and would include guest bedrooms on the first and second floors.

Other Existing Structures

The proposed Project would not include renovations or conversions to the two other existing buildings within the Heritage Park property, namely McConaughy House or Temple Beth Israel. McConaughy House was previously proposed to be converted from shopping and apartment uses to four new guest rooms, while Temple Beth Israel was proposed to be left unoccupied and remain open for public viewing and/or public events (e.g., weddings) by the 2009 Project.

Proposed Recreational Amenities

The back lawn area was previously proposed to be developed with four new structures in the 2009 Project. Under the proposed Project, no new structures would be constructed, and recreational amenities would be added to the back lawn area. These improvements would include an outdoor meeting space, enhancements to the existing pergola plaza, and other site

improvements as discussed below. Similar to existing conditions, events of up to 200 people would continue occur in the back lawn area under the proposed Project.

Outdoor Meeting Space

The proposed Project would include construction of an outdoor meeting space within the back lawn area. The proposed outdoor meeting space would include low, decorative walls that would provide seating for up to 200 people. The meeting space is anticipated to contain approximately 1- to 2-foot-tall walls that are made up of stone or concrete materials. It is anticipated that the decorative walls would include integrated lighting, such as bollard or pole top lighting fixtures, and power receptacles installed into the walls or nearby plant pedestals. The outdoor meeting space would also provide space for tables and chairs, and may also contain a small platform or area for a speaker to conduct a presentation.

Existing Pergola Plaza Enhancements

The existing pergola plaza is located in the back lawn at the eastern boundary of the Project site and is used for weddings, receptions, and similar events. The existing pergola plaza includes a small, approximately two-foot concrete walkway around the brick base of the elevated structure. The proposed Project would include improvements to the pergola area such as new concrete pavement surrounding the pergola area, as well as a new pergola/shade canopy and potential new lighting fixtures.

Outdoor Improvements

The proposed Project would include site improvements evaluated in the Final Negative Declaration, including additional pedestrian benches, landscaping, addition of lighting for security and aesthetics, and hardscape/walkway improvements. Descriptions of the outdoor improvements discussed in the Final Negative Declaration are provided below.

Other Proposed Improvements

Circulation and Parking

The proposed Project would construct an approximately 6-foot-wide sidewalk along the perimeter of the back lawn that would provide pedestrian access internally throughout the Project site. The sidewalk loop would start at the existing roundabout at the eastern terminus of Heritage Park Row, and would provide connections between the pergola plaza and the proposed outdoor meeting area before connecting to an existing walkway on the east side of the Burton House. The new sidewalk surrounding the back lawn would also include connections to the sidewalk on the northern side of Juan Street.

The existing 39 parking spaces would remain within Heritage Park under the proposed Project. Similarly, an additional 41 parking spaces would continue to be available through the County's lease with the Hacienda Hotel. The 2009 Project also analyzed replacement of the existing driveway with decorative pedestrian pavers. The proposed Project may include enhancements to the existing driveway, as part of routine maintenance, due to regular wear and tear of the driveway over the years.

Landscaping

Following development of the proposed Project, the Project site would include ornamental/flowering planting areas and grass lawn. The proposed planting areas would be located in various outdoor spaces at the Project site including the pergola plaza, and along the perimeter of the outdoor meeting space. The planting areas would be designed to include low-growing shrubs and perennial grass species to contribute to the Victorian character of the site, or may be naturalistic in character to tie into the canyon character of the site. The proposed Project would require removal of approximately 8 existing trees at the Project site. Approximately 25 shade and ornamental trees would be planted within the Project site with implementation of the proposed Project. If additional tree removal is necessary, the trees would be replaced at a 3:1 ratio per DPR policy.

Lighting

In addition to the integrated lighting fixtures associated with the proposed recreational amenities, new lighting fixtures would be constructed throughout the Project site for security purposes. It is anticipated that the Project site would include light poles with light-emitting-diode (LED), full cutoff light fixtures that relate to the aesthetic of Heritage Park. Shorter bollard-type light fixtures may also be considered during final design. All lighting would comply with the County's Outdoor Lighting Code (San Diego County Code of Regulatory Ordinances Section 51.204 through 51.206) and other applicable County lighting regulations as well as with City of San Diego outdoor lighting regulations (City of San Diego Municipal Code Section 142.0740).

Maintenance Facility Upgrades and Other Minor Improvements

The existing maintenance facility near the southeast boundary of the Project site may require upgrades so the structure may continue to provide adequate storage capacity for equipment and event furnishings associated with the improved back lawn area. In addition, perimeter fencing would be implemented around the existing maintenance facility. The fencing would be designed with stone/brick columns, ornamental fencing, and similar features in order to be compatible with the architectural character of the Project site. Other minor improvements may also be constructed in various portions of the Project site, such as ornamental fencing, benches, bike racks, water fountains, and/or signage.

The Project site includes all major utilities (i.e., water, sewer, gas and electric, irrigation, fire main, and fire hydrants) to serve the proposed guest facilities and recreational amenities. It is anticipated that new development would tie into existing infrastructure at the site.

Construction

Construction of the Project is anticipated to occur over a 24-month period, beginning in early 2023 and ending in early 2025. Construction activities would occur Monday through Friday between 7:00 a.m. and 7:00 p.m., with occasional weekend work, in accordance with San Diego County Code Section 36.408 and City of San Diego Municipal Code Section 59.5.0404. The proposed Project would occur over three consecutive 8-month phases, as follows:

- Phase I: Buildings A (Senlis) and B (Sherman-Gilbert) and site development

- Phase II: Buildings C (Bushyhead) and D (Burton) and site development
- Phase III: Building E (Christian) and site development

Construction activities for all phases would involve ground disturbing activities including excavation, grading, and demolition, as well as removal of trees and landscaping improvements. Typical construction equipment would be utilized throughout the construction period, which could include, but is not necessarily limited to, rubber-tired loaders, skid steer loaders, excavators, graders, rollers, cement and mortar mixers, aerial lifts, forklifts, cranes, and/or similar types of construction equipment. Site access would occur from Heritage Park Row via Juan Street or Harney Street. Construction staging areas and vehicle laydown areas would be accommodated within the Project site's paved parking lot and driveways.

It is estimated that construction activities for the proposed Project may require import of up to approximately 1,000 cubic yards of soil. However, a smaller amount of soils may be required if filling of the hillside located south of the back lawn is not necessary to construct the proposed outdoor meeting space. Excavation activities would be limited and it is likely that certain areas would be subject to surficial shallow ground disturbance only. Renovation and conversion of the five existing Victorian buildings would require demolition activities, which are expected to generate up to approximately 5 tons of debris and building materials. In addition, construction of the proposed connecting walkways and potential concrete replacement around existing houses would require import of concrete materials to the Project site.

All soils required for construction activities are anticipated to be imported to the Project site during the first phase of construction. Demolition debris, building materials, landscaping (i.e., removed trees), and other wastes generated during construction would be hauled from the site by trucks periodically throughout the construction schedule as each structure is renovated and other site improvements occur. Through all phases of construction, it is anticipated that up to 100 trips by haul trucks would be required to transport building materials, trees, and other construction materials to and from the Project site. It is assumed that approximately 20 daily construction workers would be required for each construction phase.

The following project design features (PDFs) are considered part of the proposed Project.

Project Design Feature AIR-1: The construction contractor shall implement the following dust control design features:

- Water the grading areas a minimum of twice daily to minimize fugitive dust;
- Stabilize graded areas as quickly as possible to minimize fugitive dust;
- Remove any visible track-out into traveled public streets within 30 minutes of occurrence;
- Wet wash the construction access point at the end of each workday if any vehicle travel on unpaved surfaces has occurred;
- Provide sufficient perimeter erosion control to prevent washout of silty material onto public roads;

- Cover haul trucks or maintain at least 12 inches of freeboard to reduce blow-off during hauling;
- Suspend all soil disturbance and travel on unpaved surfaces if winds exceed 25 mph;
- Cover/water onsite stockpiles of excavated material;
- Enforce a 15 mile-per-hour speed limit on unpaved surfaces;
- On dry days, dirt and debris spilled onto paved surfaces shall be swept up immediately to reduce re-suspension of particulate matter caused by vehicle movement. Approach routes to construction sites shall be cleaned daily of construction-related dirt in dry weather;
- Disturbed areas shall be hydroseeded, landscaped, or developed as quickly as possible and as directed by the County to reduce dust generation; and

Project Design Feature AIR-2: The construction contractor shall implement following construction equipment emissions reduction design features:

- Use modified equipment incorporating such measures as cooled exhaust gas recirculation or lean-NOx catalysts where commercially available for the specific equipment;
- Equipment shall be maintained in accordance with manufacturer specifications.

Project Design Feature NOISE-1: As part of the Project's design features, the construction contractor shall be required to implement noise-reduction features such that construction noise levels at residences surrounding the Project Site would not exceed 75 A-weighted decibels (dBA) Leq in compliance with the City and County noise regulations. Noise-reduction features could include construction of a temporary noise barrier on the Project Site that blocks the direct line-of-sight between the noise source of the construction equipment on the Project Site and receptors at residences or other noise-reduction practices.

Project Design Feature NOISE-2: Construction Noise Best Management Practices. For construction activities within 150 feet of sensitive receptors, the construction contractor shall implement the following measures to the extent necessary to meet the standards of Section 36.409 of the County of San Diego Noise Ordinance:

- The construction contractor shall provide written notification to the noise-sensitive land uses within 150 feet of normal construction activities at least 3 weeks before the start of construction activities, informing them of the estimated start date and duration of construction activities.
- Construction activities that could generate high noise levels at residences shall be scheduled during times that would have the least impact on sensitive receptor locations.
- Stationary construction noise sources, such as temporary generators, shall be as far from nearby noise-sensitive receptors as possible.
- Trucks shall be prohibited from idling along streets serving the construction site where noise-sensitive residences are located.

- Construction equipment shall be outfitted with properly maintained, manufacturer-approved, or recommended sound abatement means on air intakes, combustion exhausts, heat dissipation vents, and interior surfaces of engine hoods and power train enclosures.
- Construction laydown and vehicle staging areas shall be positioned (to the extent practical) as far from noise-sensitive land uses as feasible.
- Simultaneous operation of construction equipment shall be limited or construction time shall be limited to within an hour to reduce the hourly average noise level.
- Temporary noise barriers shall be installed around the perimeter of the construction area to minimize construction noise.

Project Design Feature MAINT-1: Routine Maintenance. Regularly scheduled maintenance would continue to occur at Heritage Park. Routine maintenance may include, but is not limited to, items such as repainting buildings, repair of walkways and driveways, and landscaping activities.

Management and Operations

The proposed Project would include operation of the lodging component and uses contained within the renovated structures, including up to 24 guest rooms, hotel reception areas, an interpretive center, offices, public bathrooms, and staff and break room areas. Operation of new recreation facilities in the back lawn area would include outdoor meetings and/or events near the southern boundary of the back lawn. However, the inclusion of the new additional recreational facilities would not substantially change existing operation of the Project site, where the front and back lawns would continue to be used to host events. All other existing structures and amenities at the Project site would continue to operate similar to existing conditions.

In addition, the proposed Project would include daily maintenance, scheduling, and provision of 24-hour security. The County currently has the responsibility for maintenance. The proposed Project would include PDF-MAINT-1, which would ensure regularly scheduled maintenance would continue to occur at Heritage Park. However, if another operator were to take over the facility, a maintenance agreement would be established and the operator would likely assume responsibility for building maintenance. The Project site would generally be open from sunrise to sunset, and Park hours and evening programming would remain the same as existing conditions under the proposed Project. The operator would be required to obtain a permit for any events outside of established park hours. Limited amplified music is currently allowed at Heritage Park and operations would be required to comply with applicable City and County of San Diego noise ordinances applicable to the Project site. Furthermore, park staff currently monitor noise during events using a decibel meter and actively enforce all applicable noise restrictions.

It is assumed that hotel operations would require a small number of new permanent staff. Operation of events in the back lawn area would not require additional permanent staff. Landscaping and other maintenance activities associated with outdoor areas would not change or result in a need for new maintenance workers.

6. Does the project for which a subsequent discretionary action is now proposed differ in any way from the previously approved project?

YES	NO
☒	☐

As detailed above, the Heritage Park Master Plan Improvements Project was adopted by the Board of Supervisors on June 24, 2009. The 2009 Project proposed the construction of four new Victorian-style structures and renovations to seven existing structures within Heritage Park to their original restored condition. The 2009 Project proposed operation of a total of 84 guest rooms, 72 of which would have been newly implemented, in addition to modified landscaping and minor site improvements. However, the 2009 Project was not implemented due to financial constraints. The proposed Project would be a scaled-down version of the 2009 Project, and would include up to 24 guest rooms through renovation and conversion of five existing structures, as well as additional recreational amenities and other minor site improvements.

7. SUBJECT AREAS DETERMINED TO HAVE NEW OR SUBSTANTIALLY MORE SEVERE SIGNIFICANT ENVIRONMENTAL EFFECTS COMPARED TO THOSE IDENTIFIED IN THE PREVIOUS ND OR EIR. The subject areas checked below were determined to be new significant environmental effects or to be previously identified effects that have a substantial increase in severity either due to a change in project, change in circumstances or new information of substantial importance, as indicated by the checklist and discussion on the following pages.

☒ NONE

☐ Aesthetics	☐ Agriculture and Forest Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Energy
☐ Geology & Soils	☐ Greenhouse Gas Emissions	☐ Hazards & Hazardous Materials
☐ Hydrology & Water Quality	☐ Land Use and Planning	☐ Mineral Resources
☐ Noise	☐ Population & Housing	☐ Public Services
☐ Recreation	☐ Transportation	☐ Tribal Cultural Resources
☐ Utilities & Service Systems	☐ Wildfire	☐ Mandatory Findings of Significance

DETERMINATION: (To be completed by the Lead Agency) On the basis of this analysis, the County of San Diego's Department of Parks and Recreation (DPR) has determined that:

☒ No substantial changes are proposed in the project and there are no substantial changes or circumstances under which the project will be undertaken that will require major revisions to the previous ND due to the involvement of significant new environmental effects or a substantial increase in the severity of previously identified significant effects. Also, there is no "new information of substantial importance" as that term is used in CEQA Guidelines Section 15162(a)(3). Therefore, the previously adopted ND is adequate upon completion of an ADDENDUM.

☐ No substantial changes are proposed in the project and there are no substantial changes in the circumstances under which the project will be undertaken that will require major revisions to the previous EIR or ND due to the involvement of significant new environmental effects or a substantial increase in the severity of previously identified significant effects. Also, there is no "new information of substantial importance" as that term is used in CEQA Guidelines Section 15162(a)(3). Therefore, because the project is a residential project in conformance with, and pursuant to, a Specific Plan with an EIR completed after January 1, 1980, the project is exempt pursuant to CEQA Guidelines Section 15182.

☐ Substantial changes are proposed in the project or there are substantial changes in the circumstances under which the project will be undertaken that will require major revisions to the previous ND due to the involvement of significant new environmental effects or a substantial increase in the severity of previously identified significant effects. Or, there is "new information of substantial importance," as that term is used in CEQA Guidelines Section 15162(a)(3). However, all new significant environmental effects or a substantial increase in severity of previously identified significant effects are clearly avoidable through the incorporation of mitigation measures agreed to by the project applicant. Therefore, a SUBSEQUENT ND is required.

☐ Substantial changes are proposed in the project or there are substantial changes in the circumstances under which the project will be undertaken that will require major revisions to the previous ND or EIR due to the involvement of significant new environmental effects or a substantial increase in the severity of previously identified significant effects. Or, there is "new information of substantial importance," as that term is used in CEQA Guidelines Section 15162(a)(3). Therefore, a SUBSEQUENT or SUPPLEMENTAL EIR is required.

Oakes, Chelsea Digitally signed by Oakes, Chelsea Date: 2022.12.15 10:33:43 -08'00'

Signature

12/15/22

Date

Chelsea Oakes

Printed Name

Group Program Manager

Title

INTRODUCTION

CEQA Guidelines Sections 15162 through 15164 set forth the criteria for determining the appropriate additional environmental documentation, if any, to be completed when there is a previously adopted ND or a previously certified EIR for the project.

CEQA Guidelines, Section 15162(a) and 15163 state that when an EIR has been certified or a ND has been adopted for a project, no Subsequent or Supplemental EIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in light of the whole public record, one or more of the following:

1. Substantial changes are proposed in the project which will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;

2. Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

3. New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the Negative Declaration was adopted, shows any of the following:

    a. The project will have one or more significant effects not discussed in the previous EIR or Negative Declaration;

    b. Significant effects previously examined will be substantially more severe than shown in the previously certified EIR;

    c. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

    d. Mitigation measures or alternatives which are considerably different from those analyzed in the EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

CEQA Guidelines, Section 15164(b) states that an addendum to an adopted ND may be prepared if only minor technical changes or additions are necessary or none of the conditions described in Section 15162 calling for the preparation of a subsequent EIR or ND have occurred.

If the factors listed in CEQA Guidelines Sections 15162, 15163, or 15164 have not occurred or are not met, no changes to the previously certified EIR or previously adopted ND are necessary.

The following Environmental Review Update Checklist evaluates the proposed Project using Appendix G of the current CEQA Guidelines. The County of San Diego has evaluated the environmental impacts of the proposed modifications and, as Lead Agency under CEQA, has determined that none of these conditions apply. Therefore, an Addendum to the Final Negative Declaration is the appropriate environmental document to analyze the proposed modifications.

ENVIRONMENTAL REVIEW UPDATE CHECKLIST

I. AESTHETICS – Since the previous Negative Declaration was adopted, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that cause one or more effects to aesthetic resources including: cause a substantial adverse effect on scenic vistas; cause substantial damage to scenic resources including, but not limited to, trees, rock outcroppings, or historic buildings within a state scenic highway; substantially degrade the existing visual character or quality of public views of the site and its surroundings; or create new sources of substantial light or glare, which would adversely affect day or nighttime views in the area?

YES	NO
☐	☒

Summary of Conclusions in the 2009 Project Final Negative Declaration

As discussed in Section I, *Aesthetics*, of the Final Negative Declaration, construction and operation of the 2009 Project would not result in significant impacts to aesthetic resources. The Final Negative Declaration determined that the proposed structures would not substantially change or block scenic vistas, public view corridors, or public views of the San Diego Bay; proposed building design features would enhance the visual character and quality of the park; and damage or removal of scenic resources within a state scenic highway viewshed would not occur. In addition, the Final Negative Declaration determined that the 2009 Project would have a less than significant impact on light and glare, as the 2009 Project did not propose major light sources or the use of highly reflective materials.

Potential Impacts from the Proposed Project

Similar to the 2009 Final Negative Declaration, the City of San Diego Development Services Department Significance Determination Thresholds ("City CEQA Thresholds") were used as the significance criteria to determine aesthetic impacts for the proposed Project. The City CEQA Thresholds were applied to the proposed Project to evaluate aesthetic impacts instead of County thresholds because the proposed Project is located within the City of San Diego on a County-owned property, where use of the City CEQA Thresholds would ensure visual compatibility with surrounding development. Although the City CEQA thresholds have been updated since the 2009 Project, the aesthetic and visual resources thresholds remain the same as those used to evaluate the 2009 Project. Furthermore, the City has not developed new thresholds that are applicable to the proposed Project.

The Project site is located in Old Town San Diego. There are no designated public view corridors identified in the Old Town San Diego Community Plan (City of San Diego, 2018). The proposed Project would involve demolition and construction activities associated with renovation and conversion of existing structures, and construction of the proposed recreational amenities, ADA-accessible walkway, planting areas, maintenances facility upgrades, and minor outdoor improvements in the back lawn of the Project site. The proposed Project would include a scaled down version of the 2009 Project. Specifically, the proposed Project would not include

construction of the four new buildings proposed as part of the 2009 Project. The Project site is not located in the vicinity of an officially designated State Scenic highway (California Department of Transportation [Caltrans], 2022). Similar to the 2009 Project, the proposed Project would not have the potential to impact scenic vistas/resources or public view corridors as there are none designated in the vicinity of the Project site and would not impact public views of the San Diego Bay as development on the Project site would not interfere with offsite views. Therefore, no impacts related to these issue areas would occur with implementation of the proposed Project, similar to the 2009 Project.

Similar to the 2009 Project, during construction, the proposed Project would have the potential to degrade the existing visual character or quality of public views of the site and its surroundings. Construction equipment and stockpiled materials would be visible at the Project site for the 24-month anticipated construction schedule, but would be used/stored within the property and out of the public right-of-way for the duration of construction. While the presence of construction materials and equipment would be visible from nearby residences during construction, this would only occur on a short-term basis and would be removed after construction activities are completed. For this reason, construction of the proposed Project would not permanently affect views from any public vantage points. Similar to the 2009 Project, once construction is complete, the proposed Project would not include any structures or landscaping that would obstruct views, or result in other conditions identified in the City CEQA thresholds. Although private views are not protected by CEQA or the City of San Diego, the proposed Project also would not include structures or landscaping that would obstruct views from adjacent residences during operations.

As part of the landscaping improvements, the proposed Project may include the removal of up to eight existing trees. However, the proposed Project would replace or relocate trees on the Project site, where feasible, and would retain most of the existing lawn and trees in place. No significant, protected, or heritage trees would be removed. In addition, the proposed Project would construct planting areas and would plant up to 25 shade and ornamental trees within the Project site (a 3:1 tree replacement ratio, per DPR policy). The planting areas would be designed to include low-growing shrubs and perennial grass species to contribute to the Victorian character of the site, or may be naturalistic in character to tie into the canyon character of the site. Therefore, the proposed Project would not result in a substantial adverse effect on a scenic vista or public views during construction.

Once construction is complete, the Project site would consist of the newly renovated buildings along with the additional recreational facilities and landscape improvements. Operation of the proposed Project would not change building locations or heights, which could obstruct existing on- or off-site views or degrade the visual quality of the Project site. Implementation of the proposed Project would improve the visual quality of the Project site as the existing buildings would be renovated respective to their architectural styles and the front and back lawn areas would be further improved. All building renovations, outdoor amenities, and minor outdoor improvements (e.g., fencing, benches, bike racks, and/or water fountains) would be designed to complement the existing character and visual quality of Heritage Park. Therefore, the proposed Project would not significantly alter the existing visual character of the Project site, nor would

there be any new or increased adverse aesthetic impacts to onsite visual resources compared to the 2009 Project.

Similar to the 2009 Project, the proposed Project would include installation of light poles and other fixtures throughout the Project site for security purposes. In addition, the proposed Project would include installation of integrated lighting fixtures for the proposed recreational amenities. No major sources of lighting would be constructed and improvements would not be in proximity to residential structures. The proposed building renovations and outdoor amenities would not be constructed with highly reflective properties, such as highly reflective glass or high-gloss surface colors. All lighting would comply with the County's Outdoor Lighting Code (San Diego County Code of Regulatory Ordinances Section 51.204 through 51.206) and other applicable County lighting regulations as well as with City of San Diego outdoor lighting regulations (San Diego Municipal Code Section 142.0740) which would ensure that offsite light pollution would be minimized to the greatest extent possible. Therefore, similar to the 2009 Project, the proposed Project would result in a less than significant impact related to light and glare.

Conclusion

The proposed Project would be consistent with the findings of the Final Negative Declaration for the 2009 Project with respect aesthetics and visual resources. Although the proposed Project includes changes to building renovations, and the addition of recreational amenities, an internal walkway, landscaping improvements, and storage upgrades, these changes would not give rise to new significant environmental effects or a substantial increase in the severity of previously identified significant environmental effects to aesthetics and visual resources. There are no changes in circumstances under which the proposed Project is undertaken and/or new information of substantial importance that cause one or more effects to aesthetics or visual resources.

II. AGRICULTURE AND FORESTRY RESOURCES – Since the previous Negative Declaration was adopted, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that cause one or more effects to agriculture or forestry resources including: conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a non-agricultural use; conflicts with existing zoning for agricultural use or Williamson Act contract; conversion 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)); loss of forest land or conversion of forest land to non-forest use; or involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?

YES	NO
☐	☒

Summary of Conclusions in the 2009 Project Final Negative Declaration

The Final Negative Declaration (Section II, *Agricultural Resources*) concluded that there would be no impacts to agriculture and forestry resources as a result of the 2009 Project. It was

determined in the Final Negative Declaration that no agricultural resources exist within the 2009 Project boundaries and proposed development would not conflict with zoning for agricultural use or a Williamson Act Contract. Furthermore, the 2009 Project did not propose any future agricultural uses or include the conversion of agricultural or forestry land to a non-agricultural/forestry use.

Potential Impacts from the Proposed Project

Similar to the 2009 Project, the proposed Project would be developed on the same Project site and would actually implement a scaled-down version of the previously approved 2009 Project. The Project site is located within the boundaries of the Old Town San Diego Community Plan, which does not include any land designated with agricultural or forestry uses and does not include any agricultural or forestry components (City of San Diego, 2018). In addition, as discussed in the Final Negative Declaration, the Project site is not under a Williamson Act Contract and is not designated for agriculture or forestry activities. Therefore, implementation of the proposed Project would not change any of these existing conditions and would not destroy or convert existing or potential agricultural resources nor conflict with existing zoning for agricultural use, forestry, or timberland. Therefore, no impact to agricultural and forestry resources would occur with implementation of the proposed Project, similar to the 2009 Project.

Conclusion

The proposed Project would be consistent with the findings of the Final Negative Declaration for the 2009 Project with respect to agriculture and forestry resources. Although the proposed Project would include changes to building renovations, and the addition of recreational amenities, an internal walkway, landscaping improvements, and storage upgrades, these changes would not give rise to new significant environmental effects or a substantial increase in the severity of previously identified significant effects to agriculture and forestry resources. There are no changes in circumstances under which the proposed Project is undertaken and/or new information of substantial importance that cause one or more effects to agriculture and forestry resources.

III. AIR QUALITY – Since the previous Negative Declaration was adopted, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that cause one or more effects to air quality including: conflicts with or obstruction of implementation of the San Diego Regional Air Quality Strategy (RAQS) or applicable portions of the State Implementation Plan (SIP); results 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; exposure of sensitive receptors to substantial pollutant concentrations; or results in other emissions, such as those leading to odors, adversely affecting a substantial number of people?

YES	NO
☐	☒

Summary of Conclusions in the 2009 Project Final Negative Declaration

As discussed in Section III, *Air Quality,* of the Final Negative Declaration for the 2009 Project, improvements to the Project site would result in less than significant impacts to air quality. The 2009 Project would not conflict with the RAQS or the SIP because the 2009 Project's development was anticipated in the San Diego Association of Governments (SANDAG) growth projections used in development of the RAQS and SIP. The 2009 Project's construction emissions would be minimal, localized and temporary, resulting in PM_{10} and VOC emissions below the screening-level criteria established by the County or City guidelines, and the 2009 Project's operational emissions, resulting from approximately 572 Average Daily Trips (ADTs), would not exceed any significance thresholds established by the County or City guidelines. Since the 2009 Project would result in emissions below the screening-level criteria established by the County and City guidelines, the construction and operational emissions associated with the 2009 Project were not expected to create a cumulatively considerable impact or a considerable net increase of PM_{10}, or any O_3 (ozone) precursors. The 2009 Project was found to have no impacts related to odors and it was determined that the 2009 Project would not expose sensitive receptors to substantial pollutant concentrations.

Project Design Features

The County of San Diego *Guidelines for Determining Significance and Report Format and Content Requirements Air Quality* (County of San Diego, 2007) provides design measures for a project to reduce emissions. The guidelines do not require that each design feature identified be applied to every project or that the design feature be written exactly as presented in the guidelines. Listed below are design features that are relevant to the proposed Project and that will be implemented as Project Design Features (PDFs):

Project Design Feature AIR-1: The construction contractor shall implement the following dust control design features:

- Water the grading areas a minimum of twice daily to minimize fugitive dust;
- Stabilize graded areas as quickly as possible to minimize fugitive dust;
- Remove any visible track-out into traveled public streets within 30 minutes of occurrence;
- Wet wash the construction access point at the end of each workday if any vehicle travel on unpaved surfaces has occurred;
- Provide sufficient perimeter erosion control to prevent washout of silty material onto public roads;
- Cover haul trucks or maintain at least 12 inches of freeboard to reduce blow-off during hauling;
- Suspend all soil disturbance and travel on unpaved surfaces if winds exceed 25 mph;
- Cover/water onsite stockpiles of excavated material;
- Enforce a 15 mile-per-hour speed limit on unpaved surfaces;

- On dry days, dirt and debris spilled onto paved surfaces shall be swept up immediately to reduce re-suspension of particulate matter caused by vehicle movement. Approach routes to construction sites shall be cleaned daily of construction-related dirt in dry weather;
- Disturbed areas shall be hydroseeded, landscaped, or developed as quickly as possible and as directed by the County to reduce dust generation; and

Project Design Feature AIR-2: The construction contractor shall implement following construction equipment emissions reduction design features:

- Use modified equipment incorporating such measures as cooled exhaust gas recirculation or lean-NOx catalysts where commercially available for the specific equipment;
- Equipment shall be maintained in accordance with manufacturer specifications.

Potential Impacts from the Proposed Project

The analysis below is based on the air quality calculations that were prepared for the proposed Project, which are attached as **Appendix A** to this addendum.

Compliance with Plans

The San Diego Air Pollution Control District's (SDAPCD) RAQS is the regional air quality plan that is applicable to the area surrounding the Project site. The RAQS contains rules and regulations that are implemented by the SDAPCD to help the San Diego Air Basin meet the clean air standards required by federal and state law. The RAQS relies on projected growth in the County, as well as information on mobile, area, and other sources of emissions obtained from the California Air Resources Board (CARB) and the SANDAG to project future emissions within the County. Based on these emissions, reduction strategies are determined to reduce emissions in order to achieve or maintain attainment with State and federal standards.

The proposed Project would renovate five of seven existing buildings at Heritage Park and would also include additional recreational amenities and other minor improvements to the back lawn area. The proposed Project would not provide new residences and would not result in significant new employment, resulting in population growth and, therefore, would not conflict with the SANDAG growth projections or the SDAPCD RAQS. Furthermore, the proposed Project would result in significantly fewer overnight accommodations and employment opportunities compared to the 2009 Project due to the reduced number of structures to be developed. Additionally, as required by law, the proposed Project would comply with CARB regulations to minimize short-term emissions from on-road and off-road diesel construction equipment (i.e., 13 CCR Section 2485 – anti-idling regulation; 13 CCR Section 2025 – Truck and Bus regulation to reduce NO_X, PM_{10}, and $PM_{2.5}$ emissions; and 13 CCR Section 2449 – In-Use Off-Road Diesel Fueled Fleets regulation to reduce NOX, PM10, and PM2.5 emissions). The proposed Project would also comply with all current SDAPCD regulations for controlling fugitive dust pursuant to SDAPCD Rule 55 Fugitive Dust. Compliance with these requirements is consistent with and meets the RAQS requirements for control measures intended to reduce emissions from construction equipment and activities. Therefore, the proposed Project would not result in new

or substantially more severe environmental impacts associated with obstruction of implementation of the RAQS.

Construction Emissions

Construction activities would temporarily generate emissions from equipment exhaust and mobile trips. The amount of air emissions generated on a daily basis would vary depending on the intensity and types of construction activities occurring simultaneously. The San Diego Basin is currently classified as a federal non-attainment area for the 2008 8-hour standard for ozone and a State nonattainment area for PM_{10}, $PM_{2.5}$, and ozone.

The proposed Project's construction emissions were estimated using the California Emissions Estimator Model (CalEEMod) software (Version 2020.4.0), an emissions inventory software program recommended by the SDAPCD, and the CARB on-road vehicle emissions factor (EMFAC2021) model. The emissions calculations in CalEEMod also account for the implementation of construction best management practices, which includes compliance with methods for controlling fugitive dust emissions, such as the application of water, pursuant to SDAPCD Rule 55 Fugitive Dust. Within CalEEMod, SDAPCD Rule 55 compliance is accounted for by selecting the application of water at least twice per day, which yields a 55 percent reduction in fugitive dust emissions. A summary of the model input values are provided in **Appendix A** of this Addendum.[1]

The proposed Project's construction emissions are compared to the construction emissions previously estimated for the 2009 Project and to the SDAPCD thresholds of significance to determine if the proposed Project would result in a new significant impact that was previously unidentified in the 2009 ND or result in a substantially greater impact than the 2009 Project. The proposed Project's maximum daily construction emissions are shown in **Table 1**, *Regional Construction Emissions (Pounds per Day)*. As demonstrated in Table 1, the proposed Project's construction emissions would be within the emissions estimated for the 2009 ND for PM_{10}, VOC, and CO. The proposed Project emissions would not exceed the SDAPCD significance thresholds for PM_{10}, $PM_{2.5}$, VOC, NO_x, CO, or SO_2. Therefore, the proposed Project would not result in new or substantially more severe significant environmental impacts associated with construction-related air quality emissions.

[1] For modeling purposes, emissions were calculated in CalEEMod with a start date of 2023. Modeling emissions with an earlier start year results in incrementally higher emissions because construction equipment and vehicle emissions incrementally decline in future years due to the use of a more energy-efficient and cleaner burning construction equipment and vehicle fleet mix, pursuant to State regulations that require fleet operators to phase-in less polluting heavy-duty equipment (see the CARB In-Use Off-Road Diesel Fueled Fleets regulation in California Code of Regulations [CCR] Title 13, Section 2449 and the Truck and Bus regulation in CCR Title 13, Section 2025). As a result, Project construction emissions occurring in later years, should an unanticipated delay occur, would be incrementally lower than the less-than-significant emissions levels disclosed herein.

TABLE 1
REGIONAL CONSTRUCTION EMISSIONS (POUNDS PER DAY) [a]

Phase	VOC	NO_X	CO	SO_2	PM10	PM2.5
Proposed Project						
Phase I - 2023	1.8	15.8	15.8	0.0	0.7	0.6
Site Preparation – Phase I - 2023	2.1	18.3	18.5	0.1	1.1	0.7
Phase II – 2024	2.3	19.8	18.9	0.1	1.0	0.7
Phase III - 2024	2.2	18.1	18.1	0.1	0.8	0.7
Site Preparation – Phases II and III - 2024	1.8	19.5	19.5	0.0	0.8	0.6
Regional Significance Threshold [b]	55	250	550	250	100	55
Exceeds Thresholds?	No	No	No	No	No	No
2009 Project						
Grading	9.8	57.8	84.5	0.0	5.8	N/A
Construction	14.4	12.5	18.5	0.0	0.3	N/A
Regional Significance Threshold [b]	55	250	550	250	100	N/A
Exceeds Thresholds?	No	No	No	No	No	N/A

NOTES:

[a] Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in Appendix A, Air Quality and Greenhouse Gas Emissions.

[b] County of San Diego, 2007.

SOURCE: ESA, Appendix A, Air Quality Calculations, 2022.

Operational Air Quality Emissions

As discussed in Section XVII, *Transportation and Traffic*, of the Final Negative Declaration prepared for the 2009 Project, the 2009 Project would result in the generation of approximately 572 ADTs. The proposed Project would implement a scaled-down version of the 2009 Project, which proposed a total of 84 guest rooms (72 new) through the renovation and conversion of seven existing structures and construction of four new buildings. The proposed Project would only result in up to 24 guest rooms through renovation and conversion of five existing structures. The proposed Project would also include additional recreational amenities and other minor improvements to the back lawn area. Implementation of the proposed Project would result in approximately 192 ADTs, which would be 380 fewer ADTs than the 2009 Project or approximately 66 percent lower than the ADT determined for operation of the 2009 Project. Given the substantial reduction in ADTs (reduced by approximately 66 percent from the 2009 Project), the proposed Project's operational emissions would be reduced accordingly compared to the 2009 Project. Furthermore, according to the County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements – Air Quality, projects that cause road intersections to operate at or below a Level of Service (LOS) E and generate less than 2,000 ADT during operations are below the screening-level criteria established by the County or City guidelines for determining significance (County of San Diego 2007). As such, the proposed Project would not create a cumulatively considerable net increase of CO and would not violate an applicable air quality standard or contribute substantially to an existing or projected

air quality violation. Therefore, the vehicle trip emissions associated with the proposed Project are not expected to significantly contribute to an existing or projected air quality violation.

Impacts to Sensitive Receptors

Construction emissions would be intermittent and temporary as construction activities are anticipated to last for approximately 24 months and would occur in three phases of approximately 8-month durations. Project-related trucks associated with construction activities would be required to comply with the applicable provisions of the CARB Truck and Bus regulation (13 CCR Section 2025) and the CARB anti-idling regulation (13 CCR Section 2485), which would minimize PM and NO_X emissions from diesel trucks. Operational activities associated with the proposed Project would involve periodic maintenance to the five renovated buildings, outdoor meeting space, pergola plaza, and landscaping, as similarly assumed for the 2009 Negative Declaration.

The nearest offsite sensitive land uses are residences located directly adjacent to the park boundaries. Although the regional emissions analysis (presented in Table 1 above) does not directly measure health risk impacts, it does provide data that can be used to evaluate the potential to cause health risk impacts. The very low level of $PM_{2.5}$ emissions coupled with the short-term duration of construction activity (24 months) results in an overall low level of diesel particulate matter (DPM) concentrations in the Project site. Furthermore, compliance with the CARB Airborne Toxic Control Measures anti-idling measure, which restricts heavy duty diesel vehicles from idling more than 5 minutes, further minimizes DPM emissions in the Project site. The 2009 Project would result in the generation of approximately 572 ADTs during operation and was found to have a less than significant impact to sensitive receptors. Therefore, the proposed Project, as a scaled down version of the 2009 Project, would not result in new or substantially more severe significant environmental impacts associated with DPM emissions.

With respect to carbon monoxide (CO) hotspots, and as required by the County of San Diego *Guidelines for Determining Significance and Report Format and Content Requirements – Air Quality*, CO hotspots may occur at signalized intersections that operate at or below Level of Service (LOS) E with peak-hour trips for that intersection exceeding 3,000 trips. The 2009 Project would generate 572 daily trips and was found to not contribute considerably to a CO hotspot. Therefore, the proposed Project, as a scaled down version of the 2009 Project, would not result in new or substantially more severe significant environmental impacts associated with CO hotspots.

Construction Odors

Potential sources that may emit odors during construction activities include the combustion of diesel fuel in on- and off-road equipment and limited use of coatings as controlled by SDAPCD Rule 67.0.1. The proposed Project would comply with the applicable provisions of the CARB Air Toxics Control Measure regarding idling limitations for diesel trucks. Through mandatory compliance with SDAPCD rules, no construction activities or materials are expected to result in other emissions, such as those leading to objectionable odors, affecting a substantial number of people. Since compliance with SDAPCD Rules governing these compounds is mandatory, no construction activities or materials are proposed that would create objectionable odors. Furthermore, with respect to other emissions, criteria air pollutant emissions from those pollutants that are in attainment (CO and SO_2) would not exceed standards of significance as

shown in Table 1. Therefore, the proposed Project would not result in new or substantially more severe significant environmental impacts associated with construction-related odors.

Operational Odors

The County of San Diego *Guidelines for Determining Significance and Report Format and Content Requirements – Air Quality* identifies potential odor impacts from geothermal power plants, petroleum production and refining, sewers, and sewage treatment plants.[2] According to the SCAQMD *CEQA Air Quality Handbook*, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The proposed Project does not include any uses identified by the SDAPCD or the neighboring SCAQMD as being typically associated with objectionable or nuisance odors. Therefore, the proposed Project would not result in new or substantially more severe significant environmental impacts associated with operational odors.

Conclusion

The proposed Project would be consistent with the results of the Final Negative Declaration with respect to air quality. Although the proposed Project includes changes to building renovations, and the addition of recreational amenities, an internal walkway, landscaping improvements, and storage upgrades, these changes would not give rise to new significant environmental effects or a substantial increase in the severity of previously identified significant effects to air quality. There are no changes in circumstances under which the proposed Project is undertaken and/or new information of substantial importance that cause one or more effects to air quality.

IV. BIOLOGICAL RESOURCES Since the previous Negative Declaration was adopted, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that cause one or more effects to biological resources including: substantial adverse effects, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species or on any riparian habitat or other sensitive natural community identified in a local or regional plan, policy, or regulation, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service; substantial adverse effects on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means; substantial interference with the movement of any native resident or migratory fish or wildlife species or with wildlife corridors, or impeding the use of native wildlife nursery sites; and/or conflicts with the provisions of any adopted Habitat Conservation Plan, Natural Communities

[2] County of San Diego, 2007. *Guidelines for Determining Significance and Report Format and Content Requirements – Air Quality*. https://www.sandiegocounty.gov/content/dam/sdc/pds/ProjectPlanning/docs/AQ-Guidelines.pdf Accessed June 2022.

Conservation Plan, or other approved local, regional or state habitat conservation plan, policies or ordinances, such as such as a tree preservation policy or ordinance?

YES	NO
☐	☒

Summary of Conclusions in the 2009 Project Final Negative Declaration

The Final Negative Declaration (Section IV, *Biological Resources*) concluded that no impacts to biological resources would occur as a result of the 2009 Project because the portion of Heritage Park proposed for development was completely disturbed and immediately surrounded by existing developed and landscaped portions of the park, and did not contain any native vegetation or sensitive biological habitats. Additionally, the Final Negative Declaration determined that the portion of the Project site proposed for development did not contain sensitive natural communities or endangered, threatened, or rare plant or animal species protected by the City of San Diego or by state or federal wildlife agencies, and did not contain federally protected wetlands as defined by Section 404 of the Clean Water Act. Furthermore, it was determined that the Project site was not located within the boundaries of the City of San Diego's Multi-Species Conservation Program Subarea Plan/Multi-Habitat Planning Area (MSCP/MHPA) or other approved local, regional or state habitat conservation plan protecting biological resources. No off-site development was proposed that would have the potential to impact other biological resources in the vicinity.

Potential Impacts from the Proposed Project

Implementation of the proposed Project would occur on the same Project site as the 2009 Project. The Project site is currently developed with seven Victorian structures, landscaping, manufactured lawns, parking, and an internal circulation roadway. The front and back lawn areas are currently landscaped with ornamental vegetation and have been maintained regularly. Furthermore, it was determined by the Final Negative Declaration that the Project site does not contain any endangered, threatened, or rare plant or animal species protected by the City of San Diego or by state or federal wildlife agencies; any wetlands, rivers, streams, lakes, waters of the U.S., or any linear features that connect native vegetation or natural open space; and is not located in an within the boundaries of the City of San Diego's MSCP/MHPA or any other approved local, regional, state habitat conservation plan, policies, or ordinances. No new designations have been identified for the Project site that would now include the site in any approved local, regional, state habitat conservation plan, policies, or ordinances. Therefore, due to these reasons stated above, it is reasonable to assume that existing conditions related to biological resources for the proposed Project would be relatively the same as those described in the Final Negative Declaration.

Since the Project site does not contain any identified sensitive, endangered, threatened, or rare plant or animal species, there would be limited potential to impact biological resources with implementation of the proposed Project, similar to the 2009 Project. Construction of the proposed Project would require ground-disturbing activities, including grading activities, which would affect existing onsite ornamental vegetation. However, all disturbed areas would be either

developed with impervious surfaces or revegetated once construction activities are completed. In addition, the proposed Project may include the removal of approximately eight existing trees from Project site; however, the Project would also plant approximately 25 new shade/ornamental trees within the site (at a 3:1 tree replacement ratio, per DPR policy). If additional tree removal is necessary, the trees would be replaced at a 3:1 ratio. Furthermore, in accordance with federal law, the County and Applicant would comply with the Migratory Bird Treaty Act (MBTA) and would require pre-construction nesting bird surveys to ensure that nesting birds are not present in the trees before removal. If nesting birds are identified, construction activities would be altered until the safety of the birds is determined by a qualified biologist. Since these activities are regulatory, and therefore required by law, they do not constitute mitigation measures. Compliance with the MBTA would ensure that impacts to nesting birds and associated nesting bird habitats would not occur. Additionally, since the Project site is not located within the boundaries of any plan, policies, or ordinances related to biological resources, development of the proposed Project would not interfere or conflict with any plans used to protect biological resources, similar to the 2009 Project. Therefore, no impacts to biological resources would occur under the proposed Project, which would be similar to the 2009 Project.

Conclusion

The proposed Project would be consistent with the findings of the Final Negative Declaration with respect to biological resources. Although the proposed Project includes changes to building renovations, and the addition of recreational amenities, an internal walkway, landscaping improvements, and storage upgrades, these changes would not give rise to new significant environmental effects or a substantial increase in the severity of previously identified significant effects to biological resources. There are no changes in circumstances under which the proposed Project is undertaken and/or new information of substantial importance that cause one or more effects to biological resources.

V. CULTURAL RESOURCES – Since the previous Negative Declaration was adopted, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that cause one or more effects to cultural resources including: cause a substantial adverse change in the significance of a historical or archaeological resource pursuant to State CEQA Guidelines Section 15064.5; and/or disturbing any human remains, including those interred outside of formal cemeteries?

YES	NO
☐	☒

Summary of Conclusions in the 2009 Project Final Negative Declaration

As discussed in Section V, *Cultural Resources*, of the Final Negative Declaration, the 2009 Project was determined to have a less than significant impact with respect to substantial adverse changes in the significance of a historical resource, as new structures and renovations to existing structures under the 2009 Project would be subject to review by the City of San Diego Historical Resources Board and required to comply with the City Historical Resources Regulations. Furthermore, it was determined in the Final Negative Declaration that the 2009 Project would

result in no impacts to buried historical resources as prior grading has eliminated any potential for impacts, and the 2009 Project would complement the existing historical structures by providing recreations of important Victorian-heritage structures. In addition, due to previous grading and fill activities at the Project site, the Final Negative Declaration determined that there would be no potential for the 2009 Project to result in impacts to archaeological resources or human remains during construction and operation.

Potential Impacts from the Proposed Project

The proposed Project would be developed on the same Project site as described for the 2009 Project but would implement a scaled-down version of the previously approved 2009 Project. The proposed Project differs from the 2009 Project as it would include the rehabilitation and renovation of five structures, instead of all seven existing structures, along with the construction of new recreational facilities and minor landscape improvements. The proposed Project would not construct the four new buildings described as part of the 2009 Project, which would reduce the proposed Project's development footprint compared to the 2009 Project.

CEQA requires projects to identify any substantial adverse impacts which may affect the significance of identified historical resources. The seven buildings on the Project site were recorded on Historic Resources Inventory State Department of Parks and Recreation forms in 1981 by CompuShare, Inc. of California as part of the *Cultural Resource Survey of Presidio Hills, Mission Hills and Bankers Hill Areas of San Diego, CA* (1981 Survey). Senlis Cottage, the Bushyhead House, the Burton House, and the Christian House were determined to have California Historical Resource (CHR) Status Codes of 3S, which means that they appeared eligible for the National Register as individual properties through the survey evaluation.

The Sherman-Gilbert House was documented in a Historical American Buildings Survey (HABS CAL,37-SANDI,23) in 1967, and was designated as a City of San Diego Historical Landmark #8 in 1969. Only the exterior of the building is included in the Local Designation. The property was documented as part of the 1981 Survey, and as a result, the property has a CHR Status Code of 5S1 and 3S. CHR Status Code 5S1 denotes an individual property that is listed or designated locally.

Temple Beth Israel was designated as City of San Diego Historical Landmark #82 in 1973 and was documented in a Historical American Buildings Survey (HABS CAL, 37-SANDI,14) in 1975. Only the exterior of the building is included in the Local Designation. The building was listed in the National Register in 1978 and subsequently removed from the National Register due to its relocation. The property was documented as part of the 1981 Survey and as a result, has a CHR Status Code of 3S and 6W. CHR Status Code 6W means that the property was removed from National Register. The proposed Project does not include alterations to the Temple Beth Israel.

The McConaughy House was designated as San Diego City Landmark #114 in 1976. Only the exterior of the building is included in the Local Designation. The property was documented as part of the 1981 Survey and as a result, the property has a CHR Status Code of 3S. The proposed Project does not include alterations to the McConaughy House.

The proposed Project would include rehabilitation and renovation activities to upgrade the Senlis Cottage, the Sherman-Gilbert House, the Bushyhead House, the Burton House, and the Christian House. The proposed Project is being designed to follow the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings and would follow these Guidelines to the extent feasible while ensuring compliance with the California Building and Fire Codes, as well as improving accessibility under standards issued by the Americans with Disabilities Act (ADA). Rehabilitation and renovation activities would involve limited room reconfiguration as well as the installation of new but appropriate finishes, fixtures, and features. Limited external renovations are also proposed in order to meet California Building and Fire Code requirements, as well as improve ADA accessibility. Exterior modifications would include new or modified doors that would be similar in appearance to existing doors, and a staircase would be installed at the east elevation porch at the Burton House.

Proposed alterations would not be greater than the impacts considered under the 2009 project and would not affect the historical listing eligibility of the subject buildings. Additionally, the proposed outdoor amenities would not demolish, alter, or substantially change any historical resources such that eligibility would be affected. Thus, the proposed Project would not result in a substantial material change to the integrity of the buildings within the Project site and impacts would remain less than significant.

With respect to archaeological resources and disruption to any unknown buried human remains, development of the proposed Project would have no potential to impact these resources as the Project site has been previously graded to depths of 26 feet and infilled. Any ground-disturbing activities associated with the Proposed project would not exceed the depths of existing fill on the Project site. Due to the previous ground-disturbance at the Project site, there is little to no potential for buried unknown archaeological resources or human remains under the site. Therefore, implementation of the proposed Project would have no impact related to these resources, similar to the 2009 Project.

Conclusion

The proposed Project would have a less than significant impact on cultural resources, consistent with the findings of the Final Negative Declaration. Although the proposed Project includes changes to building renovations, and the addition of recreational amenities, an internal walkway, landscaping improvements, and storage upgrades, these changes would not give rise to new significant environmental effects or a substantial increase in the severity of previously identified significant cultural resources impacts. There are no changes in circumstances under which the proposed Project is undertaken and/or new information of substantial importance that cause one or more cultural resources impacts.

VI. ENERGY – Since the previous Negative Declaration was adopted, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that cause one or more effects to energy including: result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation; and/or conflicts with or obstructs a state or local plan for renewable energy or energy efficiency?

YES	NO
☐	☒

Summary of Conclusions in the 2009 Project Final Negative Declaration

Energy impacts were not previously analyzed in a separate topic heading under the Final Negative Declaration as Energy is a new resource area that was added during the 2018 CEQA Guidelines update. However, the Final Negative Declaration considered construction and operational energy sources within Section III, *Air Quality*. Therefore, to be consistent with the updated CEQA Thresholds, energy impacts for the proposed Project have been analyzed separately under its own topic heading in this Addendum.

Potential Impacts from the Proposed Project

The proposed Project would implement a scaled-down version of the previously adopted 2009 Project, which included development of a total of 84 guest rooms (72 new) through renovation and conversion of seven existing structures and construction of four new buildings. In contrast, the proposed Project would only include up to 24 guest rooms through renovation and conversion of five existing structures and would not construct any new buildings, which would not substantially change the construction assumptions or construction duration/phasing. The proposed Project would also include additional recreational amenities and other minor improvements to the back lawn area. As is typical of any construction, the project would temporarily consume energy for the operation of construction equipment and vehicles. During construction, portable gas-powered equipment, vehicles and other mobile construction equipment would be used. Construction activities would be similar to those evaluated for the 2009 Project and would not include methods of construction that would result in inefficient or unnecessary use of energy resources. Construction equipment would be required to comply with CARB emissions requirements for construction equipment, which includes measures to reduce fuel-consumption, such as imposing limits on idling and requiring older engines and equipment to be retired, replaced, or repowered. Furthermore, the proposed Project would be required to comply with applicable plans and policies such as the County General Plan Conservation and Open Space Element Policy 14.10, which requires County contractors and encourages other developers to use low-emission construction vehicles and equipment and Policy 17.2, which requires construction and demolition debris be reduced, reused, and recycled (County of San Diego 2011). Therefore, construction energy impacts would be less than significant, similar to the 2009 Project.

At full build-out, the proposed Project's operational phase would require electricity for the various buildings and lighting fixtures, and natural gas would be directly consumed throughout operation

of the proposed Project, primarily through building heating. The proposed Project would include installation of LED site lighting pursuant to Title 24 requirements which would result in improved building energy efficiency. The proposed Project would implement a scaled-down version of the previously adopted 2009 Project and therefore, is expected to have similar but reduced electricity and natural gas demands compared to the 2009 Project. Therefore, the proposed Project would have a less than significant impact with respect to inefficient or wasteful electricity and natural gas use, and the level of impact would not increase from those levels that would have occurred from the 2009 Project.

The proposed Project would result in approximately 192 ADTs, which would be 380 fewer ADTs than the 2009 Project or approximately 66 percent lower than the ADT determined for operation of the 2009 Project. Given the substantial reduction in ADTs (reduced by approximately 66 percent from the 2009 Project), the proposed Project's transportation energy demand would be reduced accordingly compared to the 2009 Project.

Conclusion

The proposed Project would be consistent with the findings of the Final Negative Declaration with respect to energy. Although the proposed Project includes changes to building renovations, and the addition of recreational amenities, an internal walkway, landscaping improvements, and storage upgrades, these changes would not give rise to new significant environmental effects or a substantial increase in the severity of previously identified significant energy impacts. There are no changes in circumstances under which the proposed Project is undertaken and/or new information of substantial importance that cause one or more effects to energy impacts.

VII. GEOLOGY AND SOILS Since the previous Negative Declaration was adopted, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that cause one or more effects to geology and soils including: directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure, including liquefaction, or landslides; result in substantial soil erosion or the loss of topsoil; produce unstable geological conditions that will result in adverse impacts resulting from landslides, lateral spreading, subsidence, liquefaction or collapse; being located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property; having soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater; and/or directly or indirectly destroying a unique paleontological resource or site or unique geologic feature?

YES	NO
☐	☒

Summary of Conclusions in the 2009 Project Final Negative Declaration

The Final Negative Declaration (Section IV, *Geology and Soils*) concluded that development of the 2009 Project would not result in significant impacts to geology and soils. The Geotechnical

Summary prepared for the 2009 Project did not identify any known faults, County of San Diego "Landslide Susceptibility Areas," areas prone to liquefaction, unstable geological formations, or expansive soils at the Project site; however, the Final Negative Declaration indicated that preparation of a site-specific Geotechnical Report would be required prior to construction to ensure the structural integrity of the proposed buildings and structures. With incorporation of construction and design recommendations included in the Geotechnical Report, and conformance to the California Building Code and City of San Diego Code requirements, the Final Negative Declaration determined that development of 2009 Project would result in a less than significant impacts with regard to the exposure of people or structures to adverse effects from fault rupture, strong seismic ground shaking, and seismic-related ground failure, including liquefaction.

In addition, the proposed construction activities included limited ground disturbance, amounting to four pads with approximately 1,320 cubic yards of grading. The Final Negative Declaration determined that the graded pads would be relatively flat and no impact associated with substantial soil erosion of the loss of topsoil would occur; however, implementation of appropriate best management practices (BMPs) during construction would ensure exposed soils are stabilized. No impacts would occur with regard to the production of unstable geologic conditions that would result in landslides, lateral spreading, subsidence, liquefaction or collapse, or the use of septic tanks or alternative wastewater disposal systems.

The Final Negative Declaration (Section V, *Cultural Resources*) concluded that development of the 2009 Project would not result in significant impacts to a unique paleontological resource or site or unique geologic feature. It should be noted that impacts related to paleontological impacts were previously analyzed in Section V, *Cultural Resources,* of the Final Negative Declaration for the 2009 Project. When the CEQA Guidelines were updated in 2018, the threshold for paleontological resources was moved from the Cultural Resources topic heading to the Geology and Soils topic heading as paleontological resources are closely related to the type of geologic formations found within a site. Therefore, to be consistent with the updated 2018 CEQA Thresholds, paleontological impacts for the proposed Project have been analyzed under this topic heading.

Potential Impacts from the Proposed Project

Development of the proposed Project would occur on the same Project site as the 2009 Project. Since the Project site would remain the same as described for the 2009 Project, existing geologic conditions have remained the same as described in the analysis in the Final Negative Declaration. Construction of the proposed Project would require ground disturbing activities including excavation, grading, demolition, and landscaping improvements. Excavations would limited and would not exceed the depth of existing fill; however, it is likely that certain areas would be subject to surficial ground disturbance only as the Project site is mostly flat. It is estimated that construction could involve import of up to approximately 1,000 cubic yards of soil if filling of the hillside located south of the back lawn is needed to construct the proposed outdoor meeting space. However, the grading limit and estimated fill amounts would be reduced compared to the 2009 Project as the proposed Project would not include the construction of four new buildings included in the 2009 Project. The proposed Project would be required to comply

with the California Building Code and the County Building Code to ensure all proposed structures and facilities including, but not necessarily limited to, building renovations, the outdoor meeting space, maintenance facility upgrades, the new walkway, and light poles are designed and developed to withstand seismic and geological events. Therefore, the proposed Project would continue to result in less than significant impacts related to exposure of people or structures to hazards related to fault rupture, seismic ground-shaking, or liquefaction similar to the 2009 Project.

In addition, since the overall footprint of construction activities would exceed one acre, the proposed Project would be required to comply with the N*ational Pollution Discharge Elimination System* (*NPDES) General Permit for Discharges of Storm Water Runoff Associated with Construction and Land Disturbance Activities* (Order 2009-0009-DWQ, NPDES No. CAS000002; as amended by Orders 2010-0014-DWQ and 2012-006-DWQ) (commonly referred to as the Construction General Permit). The Construction General Permit requires preparation and implementation of a stormwater pollution prevention plan (SWPPP), which requires applications of best management practices (BMPs) to control runoff from construction work sites. The BMPs would include, but would not be limited to, physical barriers to prevent erosion and sedimentation, construction of sedimentation basins, limitations on work periods during storm events, protection of stockpiled materials, and a variety of other measures that would substantially reduce or prevent erosion from occurring during construction. Through implementation of these BMPs, impacts related to erosion and/or loss of topsoil would be reduced to a less than significant level during construction of the proposed Project, similar to the 2009 Project.

Once construction is completed, all exposed soils would either be developed with impervious surfaces or would be revegetated. While the amount of impervious surfaces would increase with development of the proposed Project compared to existing conditions, the amount of impervious surfaces would be reduced compared to the buildout of the 2009 Project. For this reason, no new greater impacts related to erosion and loss of topsoil would occur compared to the 2009 Project.

In addition, as discussed in the Final Negative Declaration, the Project site is not located on or near geological formations that are unstable or would become unstable with development of the proposed Project and is not located within an identified Landslide Susceptibility Area. The proposed Project would also continue to rely on the existing sewer system and would have no impact related to landslides or unstable soils related to alternative wastewater disposal systems. Therefore, impacts related to unstable soils and landslides would not occur with development of the proposed Project, similar to the 2009 Project.

Compliance with applicable building codes and regulations would ensure that impacts related to geology and soils would remain less than significant, similar to the findings of the Final Negative Declaration for the 2009 Project.

The Final Negative Declaration determined that the 2009 Project would not impact paleontological resources as the Project site is underlain with fill, alluvium, and Pleistocene and Pliocene sedimentary rocks. Previous grading and fill materials reach down to depths of up to

26 feet. Grading activities associated with the proposed Project would not exceed the existing fill depth of 26 feet and as such, would not have the potential to reach native soils that could contain unknown paleontological resources. Therefore, no impact to paleontological resources would occur with development of the proposed Project, similar to the 2009 Project.

Conclusion

The proposed Project would be consistent with the findings of the Final Negative Declaration with respect to geology and soils. Although the proposed Project includes changes to building renovations, and the addition of recreational amenities, an internal walkway, landscaping improvements, and storage upgrades, these changes would not give rise to new significant environmental effects or a substantial increase in the severity of previously identified significant effects to geology and soils. There are no changes in circumstances under which the proposed Project is undertaken and/or new information of substantial importance that cause one or more effects to geology and soils.

VIII. GREENHOUSE GAS EMISSIONS – Since the previous Negative Declaration was adopted, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that cause one or more effects to greenhouse gas emissions including: generation of greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; and/or conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

YES	NO
☐	☒

Summary of Conclusions in the 2009 Project Final Negative Declaration

Greenhouse Gas Emission impacts were not previously analyzed in a separate topic heading under the Final Negative Declaration as Greenhouse Gas Emissions is a new resource area that was added during the 2018 CEQA Guidelines update. However, the Final Negative Declaration considered CO_2, ozone, and other emissions within Section III, *Air Quality*. Currently the CEQA Guidelines Appendix G requires a discussion in relation to whether a project would, either directly or indirectly, generate GHG emissions and/or or conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. Therefore, to be consistent with the updated CEQA Thresholds, GHG impacts for the proposed Project have been analyzed separately under its own topic heading in this Addendum.

Potential Impacts from the Proposed Project

As discussed in Section III, Air Quality, above, the proposed Project emissions would not exceed the regional construction emissions significance thresholds established by the County or City.

The proposed Project would implement a scaled-down version of the previously adopted 2009 Project, which proposed a total of 84 guest rooms (72 new) through the renovation and conversion of seven existing structures and construction of four new buildings. The proposed

Project would only propose up to 24 guest rooms through renovation and conversion of five existing structures. The proposed Project would also include additional recreational amenities and other minor improvements to the back lawn area. Therefore, it is assumed that construction of the proposed Project would result in emissions similar to or less than the 2009 Project construction emissions over the construction period.

The proposed Project's construction GHG emissions were estimated using the approach outlined above in Air Quality. In summary, the California Emissions Estimator Model (CalEEMod) software (Version 2020.4.0) was utilized along with the CARB on-road vehicle emissions factor (EMFAC2021) model. The input values used in the emissions analysis were based on the County's Project-specific information about the construction schedule, equipment types, demolition debris, grading and concrete quantities, and truck and worker trip estimates. A summary of the model input values are provided in **Appendix A** of this Addendum.

The proposed Project's GHG emissions generated from construction activities are summarized in **Table 2,** *Proposed Project Construction GHG Emissions*.

TABLE 2
PROPOSED PROJECT CONSTRUCTION GHG EMISSIONS

Year	CO2e (Metric Tons per Year)
2023	1,180
2024	712
Total Construction Emissions	1,891
Amortized Construction Emissions (30-years)	63

NOTE: Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in Appendix A, Air Quality and Greenhouse Gas Emissions.

SOURCE: ESA, Appendix A, Air Quality and Greenhouse Gas Emissions, 2022.

Analysis of GHG emissions is cumulative in nature because impacts are caused by cumulative global emissions. The California Natural Resources Agency (CNRA) has clarified that the State CEQA Guidelines focus on the effects of GHG emissions as cumulative impacts, and that they should be analyzed in the context of CEQA's requirements for cumulative impact analysis (see CEQA Guidelines Section 15064(h)). The Governor's Office of Planning and Research (OPR) released a technical advisory on CEQA and climate change that provided some guidance on assessing the significance of GHG emissions, and states that "lead agencies may undertake a project-by-project analysis, consistent with available guidance and current CEQA practice," and that while "climate change is ultimately a cumulative impact, not every individual project that emits GHGs must necessarily be found to contribute to a significant cumulative impact on the environment."[3] Consistent with the State CEQA Guidelines, the proposed Project's

[3] See generally California Natural Resources Agency, Final Statement of Reasons for Regulatory Action, December 2009, pages 11-13, 14, and 16; see also Letter from Cynthia Bryant, Director of the Office of Planning and Research to Mike Chrisman, Secretary for Natural Resources, April 13, 2009.

construction GHG emissions must be considered in combination with the proposed Project's operational GHG emissions relative to the 2009 Project.

The proposed Project would implement a scaled-down version of the previously adopted 2009 Project and would result in approximately 192 daily trips, which is 380 fewer trips than the 572 daily trips (or 66 percent fewer trips) assumed for the 2009 Project. Given the substantial reduction in ADTs (reduced by approximately 66 percent from the 2009 Project), the proposed Project's operational GHG emissions would be reduced accordingly compared to the 2009 Project. Therefore, the proposed Project would generate less GHG emissions associated with vehicle trips than the 2009 Project during operation. Given the small scale of the proposed Project, which only includes renovations to existing buildings and no new structures, given the minor level of construction GHG emissions amortized over 30 years, and given the substantial reduction in mobile sources relative to the 2009 Project, the overall operational GHG emissions from the proposed Project would be less than the 2009 Project. Therefore, the proposed Project would not generate GHG emissions, either direct or indirect, that would have a significant effect on the environment, and impacts would be less than significant.

It is noted that the County prepared a Climate Action Plan (CAP) in 2018. The County's CAP was subsequently litigated and on June 12, 2020 the Superior Court of California issued a judgment vacating the County's adoption of the CAP and related CEQA documents. Consequently, the County is currently preparing an update to the 2018 CAP and related environmental documentation. Therefore, this Addendum does not address the proposed Project's consistency with the CAP.

The proposed Project would not generate GHG emissions that would interfere with the implementation of statewide GHG reduction goals for 2030 and 2050 or conflict with plans, policies, or regulations adopted for the purpose of reducing GHG emissions. Building renovations under the proposed Project would include installation of Calsense water efficient irrigation equipment and LED site lighting pursuant to Title 24 requirements which would result in improved building energy efficiency. In addition, vehicles traveling to and from the Project site would tend to generate fewer GHG emissions now than what was anticipated for the 2009 Project due to fleet rules phasing in over time, which require more stringent emissions standards and technological advancements resulting in more efficient fuel standards and subsequently fewer emissions.

The proposed Project is consistent with the existing General Plan land use designation of Old Town San Diego Planned District and SANDAG growth projections. In addition, the proposed Project would be consistent with the policies set forth in the Conservation and Open Space Element of the County's General Plan, including Policies COS-15.2 and COS-15.6 which promote the retrofit of existing buildings to incorporate design, water, and energy elements to improve their sustainability and reduce GHG emissions and require development design methods to minimize impacts to air quality (County of San Diego 2011).

Therefore, the proposed Project would not conflict with SB 32 and Executive Order S-3-05 or any plans adopted with the purpose of reducing GHG emissions. Impacts on GHG emissions

would be less than significant, and the level of impact would be similar to or less than that of the 2009 Project.

Conclusion

The proposed Project would be consistent with the findings of the Final Negative Declaration with respect to GHG emissions. Although the proposed Project includes changes to building renovations, and the addition of recreational amenities, an internal walkway, landscaping improvements, and storage upgrades, these changes would not give rise to new significant environmental effects or a substantial increase in the severity of previously identified significant GHG emissions impacts. There are no changes in circumstances under which the proposed Project is undertaken and/or new information of substantial importance that cause one or more GHG emissions impacts.

IX. HAZARDS AND HAZARDOUS MATERIALS – Since the previous Negative Declaration was adopted, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that cause one or more effects to hazards and hazardous materials including: create a significant hazard to the public or the environment through the routine transport, storage, use, or disposal of hazardous materials; 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; emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school; be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 creating a hazard to the public or the environment; 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, would the project result in a safety hazard or excessive noise for people residing or working in the project area; impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

YES	NO
☐	☒

Summary of Conclusions in the 2009 Project Final Negative Declaration

As discussed in Section VII, *Hazards and Hazardous Materials*, of the Final Negative Declaration, development of the 2009 Project would not result in significant impacts due to hazards or hazardous materials. The Final Negative Declaration determined that impacts of the 2009 Project would be less than significant with regard to creating a significant hazard to the public or the environment as all storage, handling, transport, emission and disposal of hazardous substances would be in full compliance with local, state, and federal regulations. In addition, while the Project site is located within the Airport Influence Area (AIA) and the FAA Part 77 Notification Area for the San Diego International Airport, the Final Negative Declaration determined that the 2009 Project would have less than significant impacts with regard to airport

safety hazards, as the 2009 Project would not include distracting visual hazards, structures greater than 150 feet in height, or artificial bird attractors. Furthermore, the applicant would submit FAA Form 7460-1, Notice of Proposed Construction or Alteration, to the FAA for review.

The Final Negative Declaration determined that the 2009 Project would result in less-than significant-impacts related to consistency with the San Diego County Operational Area Emergency Plan and the Multi-Jurisdictional Hazard Mitigation Plan, as it would not prohibit subsequent plans from being established or prevent the goals and objectives of existing plans from being carried out. Furthermore, it was determined that the 2009 Project would not result in impacts with regard to nearby hazardous materials sites; handling hazardous materials within a quarter mile of existing or proposed schools; creating a hazard within the vicinity of a private airstrip; interference with other applicable emergency response and evacuation plans; or exposure of people to fire hazards or flooding hazards.

Potential Impacts from the Proposed Project

Construction activities required for development of the proposed Project would involve demolition, grading, and excavation at the Project site. The proposed construction activities would require equipment and vehicles that use hazardous materials, such as petroleum fuels and oil. During construction activities, hazardous materials, including materials potentially used in older structures such as lead-based paint or asbestos, could accidentally be spilled or otherwise released into the environment and expose construction workers, the public, and/or the environment to potentially hazardous conditions. Construction activities that involve hazardous materials would be governed by several agencies, including the United States Environmental Protection Agency (USEPA), California Department of Transportation (Caltrans), Division of Occupational Safety and Health (Cal/OSHA), and the California Department of Toxic Substances Control (DTSC). BMPs would be employed during construction to prevent spills of hazardous materials into the surrounding environment, as required by the project-specific stormwater pollution prevention plan (SWPPP) to be prepared under the Construction General Permit (Order No. 2009-009-DWQ, NPDES No. CAS000002, as amended by Order 2010-014-DWQ and 2012-06-DWQ). The BMPs would include, but would not be limited to, parking and refueling vehicles and equipment in one area, practicing good housekeeping, and properly disposing of hazardous waste. In addition, construction contractors would be required to comply with all local, State, and federal regulations for handling hazardous materials during construction activities. Compliance with all applicable regulations related to the handling, transport, storage, use, or disposal of hazardous materials would ensure impacts would be reduced to a less than significant level during construction of the proposed Project, similar to the 2009 Project.

Once construction activity is complete, the Project site would include operation of up to 24 new guest rooms and additional outdoor recreational amenities. As such, operation of the proposed Project would include the transport and storage of hazardous materials, such as fuels and chemical cleaning substances, at the Project site. However, because the number of guests rooms would be reduced in comparison to the 2009 Project, the proposed Project would require less hazardous materials to operate the proposed Project relative to the 2009 Project. As with construction, the proposed Project would comply with applicable federal, state, and local standards, and the County would be required to implement BMPs for handling hazardous

materials during operation and maintenance activities. Therefore, operation-related impacts related to the transport, use, or disposal of hazardous materials or accidental release of hazardous materials would remain less than significant.

Since the Project site would remain in the same location under the proposed Project as described for the 2009 Project, the proposed Project would be located within the AIA and the FAA Part 77 Notification Area for the San Diego International Airport. Similar to the 2009 Project, the proposed Project would not include distracting visual hazards, structures greater than 150 feet in height, or artificial bird attractors (proposed landscaping would not include water features). Furthermore, the County would be required to submit FAA Form 7460-1, Notice of Proposed Construction or Alteration, to the FAA for review prior to construction activities to ensure compatibility with existing airport operations. While the Project site is located within the overhead flight area for the San Diego Airport, the Project site is located over a mile away from the airport, where overhead flights would not result in excessive noise levels at the Project site. Therefore, the proposed Project would not result in a safety hazard for people residing or working in the Project area.

The Final Negative Declaration determined that the Project site was not listed as a hazardous materials site pursuant to Government Code Section 65962.5. A review of DTSC EnviroStor and the State Water Resources Control Board (SWRCB) GeoTracker databases was conducted for the proposed Project to ensure the Project site was not designated as a hazardous materials site in the interim period after the Final Negative Declaration was adopted. The Project site is still not listed as a hazardous materials site compiled pursuant to Government Code Section 65962.5, nor is it located within 1,000 feet of a known contamination site (DTSC 2022; SWRCB 2022). Therefore, no impact would occur, similar to the 2009 Project.

The Project site is within the jurisdiction of the San Diego County Operational Area Emergency Plan and the Multi-Jurisdictional Hazard Mitigation Plan. Similar to the 2009 Project, the proposed Project would not conflict with or obstruct the effectiveness of any of emergency plans as it would not prohibit subsequent plans from being established or prevent the goals and objectives of existing plans from being carried out. In addition, the Project site is in an urban environment and is not within any mapped dam inundation area. Moreover, the proposed Project site is not located in the vicinity of existing or proposed schools and is not mapped within any other additional emergency plans or emergency evacuation plans. Therefore, the proposed Project would have no impact with regard to handling hazardous materials in the vicinity of proposed schools and does not conflict with other emergency response or evacuation plans.

For additional discussion regarding wildfire hazards, see Section XX, *Wildfire*. Some lands in proximity to the Project site to the north and east are designated as a very high fire hazard severity zone (VHFHSZ) by the California Department of Forestry and Fire Protection (CalFIRE), and the City of San Diego classifies the proposed Project site and surrounding areas as a VHFHSZ (CalFIRE, 2009; City of San Diego 2022a). During construction and operation, the use of spark-producing machinery and vehicles would be limited to the greatest extent feasible and in cases where necessary would be handled in accordance with all applicable CalFire, County, and City fire regulations to minimize the risk of wildfire. Compliance with all applicable fire

regulations would reduce impacts related to wildfire to a less than significant level, similar to the 2009 Project.

Conclusion

The proposed Project would be consistent with the findings of the Final Negative Declaration with respect to hazards and hazardous materials. Although the proposed Project includes changes to building renovations, and the addition of recreational amenities, an internal walkway, landscaping improvements, and storage upgrades, these changes would not give rise to new significant environmental effects or a substantial increase in the severity of previously identified significant hazards and hazardous materials impacts. There are no changes in circumstances under which the proposed Project is undertaken and/or new information of substantial importance that cause one or more hazards and hazardous materials impacts.

X. HYDROLOGY AND WATER QUALITY – Since the previous Negative Declaration was adopted, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that cause one or more effects to hydrology and water quality including: violation of any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality; substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin; l; substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site, substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite, create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or impede or redirect flood flows; in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation; and/or conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

YES	NO
☐	☒

Summary of Conclusions in the 2009 Project Final Negative Declaration

As discussed in Section VIII, *Hydrology and Water Quality*, of the Final Negative Declaration, development of the 2009 Project would not result in significant impacts to hydrology and water quality. It was determined that the 2009 Project would have a less than significant impact with regard to drainage pattern alterations resulting in on- or of-site flooding; runoff water exceeding existing or planned stormwater drainage system capacities; and increases to pollution in stormwater runoff, as the 2009 Project would control any slight increases to stormwater volumes and/or polluted runoff with minor landscaping, drainage improvements, and connections to the existing drainage system at the site. Compliance with all applicable City of San Diego regulations and implementation of BMPs during construction (e.g., silt fencing, storm drain inlet protection, or gravel bag barriers) would further reduce impacts discussed above. Additionally, the Final

Negative Declaration determined that development of the 2009 Project would not result in impacts related to waste discharge requirements; water quality objectives; groundwater supplies or recharge; drainage pattern alterations resulting in erosion or siltation; flood hazard areas; or inundation hazards.

Potential Impacts from the Proposed Project

Since adoption of the Final Negative Declaration in 2009, there has been a change in circumstances regarding municipal stormwater regulations. The San Diego Regional Water Quality Control Board (SDRWQCB) issued a new Municipal Stormwater Permit under the NPDES on discharges from municipal separate storm water sewer systems (MS4). The new MS4 Permit was adopted by the Regional Board on May 8, 2013, was amended on November 18, 2015, and took effect on February 26, 2016. The MS4 Permit expired on June 27, 2018 but remains in effect under an administrative extension until its reissued by the SDRWQCB. In order to comply with all applicable stormwater regulations, proposed Project activities would be subject to enforcement under permits from the SDRWQCB and the County of San Diego Watershed Protection, Stormwater Management, and Discharge Control Ordinance No. 10410 and all other applicable ordinances and standards for the life of this permit.

Construction of the proposed Project would involve minor excavation, grading, and other similar ground disturbing activities. Sediment associated with earthmoving activities and exposed soil would have the potential to erode and be transported to downgradient areas, potentially resulting in water quality standard violations. In the event of heavy rain, erosion of stockpiles may occur resulting in scouring and sedimentation of local drainages. Additionally, stormwater passing through the construction site has the potential to pick up construction-related chemicals (such as fuels or oils from construction equipment), and toxic materials from demolished structures (such as lead-based paint or asbestos) that may pass into the local stormwater collection system, impacting water quality. However, the proposed Project would be required to prepare a project-specific SWPPP to minimize soil erosion. The SWPPP would identify site-specific BMPs to control erosion, sediment, and other potential construction-related pollutants. Compliance with the SWPPP would maintain water quality in accordance with the most recent SDRWQCB standards and City regulations such that construction of the proposed Project would not violate any waste discharge requirements or water quality standards. Therefore, no impacts related to water quality standards or waste discharge requirements would occur.

During operations, the proposed Project would not include known sources of polluted runoff or land use activities that would require special site design considerations, source control BMPs or treatment control BMPs under the updated MS4 permit. Therefore, no impacts related to waste discharge requirements or water quality standards would occur during operation of the proposed Project. The proposed Project would include landscaping improvements similar to those proposed under the 2009 Project, which would further ensure that water quality impacts associated with runoff would not occur.

The proposed Project would result in slight increases to the amount of stormwater runoff that enters local storm drains due to the construction of additional impervious surfaces at the Project site, such as the ADA-accessible walkway and outdoor meeting space in the back lawn area.

However, the existing storm drains at the site would have adequate capacity to accommodate small increases to stormwater runoff. Furthermore, the proposed Project would not construct the four new buildings that were originally proposed under the 2009 Project, and would introduce landscaping improvements that would allow additional runoff to percolate into the ground. Impacts to storm water drainage capacities would remain less than significant and would be similar to those described for the 2009 Project.

Similar to the 2009 Project, the proposed Project would not involve use of groundwater supplies or introduce structures or operations that would interfere with groundwater recharge. The proposed Project site is not located in an area that would expose people or structures to risks involving flood hazards, seiches, dam inundation, tsunamis, or mudflow. No impacts would occur with respect to these issues.

Conclusion

The proposed Project would be consistent with the findings of the Final Negative Declaration with respect to hydrology and water quality. Although the proposed Project includes changes to building renovations, and the addition of recreational amenities, an internal walkway, landscaping improvements, and storage upgrades, these changes would not give rise to new significant environmental effects or a substantial increase in the severity of previously identified significant effects to hydrology and water quality. There are no changes in circumstances under which the proposed Project is undertaken and/or new information of substantial importance that cause one or more effects to hydrology and water quality.

XI. LAND USE AND PLANNING – Since the previous Negative Declaration was adopted, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that cause one or more effects to land use and planning including: physically divide an established community; and/or cause a significant environmental impact due to a conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

YES	NO
☐	☒

Summary of Conclusions in the 2009 Project Final Negative Declaration

The Final Negative Declaration (Section IX, *Land Use and Planning*) evaluated the 2009 Project for potential impacts to land use and planning in the Project area based on local planning documents and concluded that no impact would occur, since no new structures were proposed that would disrupt or divide an established community, and the proposed development of Victorian re-created additions would conform with the Old Town San Diego Community Plan and the City of San Diego Old Town San Diego Planned District (OTSDPD) Old Town San Diego Open Space-Park (OTOP-2-1) zone, which allows parks for passive uses with some active uses that cater to visitors.

Potential Impacts from the Proposed Project

The Project site is already developed as Heritage Park, which is integrated into the existing urban landscape on a parcel connected to the larger community by roadways and sidewalks. Additionally, the proposed Project would not include construction of major infrastructure or utilities that could disrupt or divide an established community. Therefore, the development of the proposed Project would not impact an established community, and impacts would remain similar as identified for the 2009 Project.

As stated above, the Project site is Heritage Park, which is currently designated as "Park - County" land use in the Old Town San Diego Community Plan and as OTOP-2-1 zone (City of San Diego, 2018). Applicable policies for the Heritage-Sub-District are as follows:

- LU-7.1: Encourage active use of the historical Victorian structures with community- and visitor-serving uses that are compatible with the character of Heritage Park.
- LU-7.2: Support Heritage Park as a County Park dedicated to the preservation of San Diego's Victorian architecture and structures.

The proposed rehabilitation and renovations of the existing Victorian structures to a hotel use and enhanced outdoor recreational facilities would improve community and visitor-serving uses and result in continued preservation of the character of the park. The development of the proposed Project would be consistent with the existing land use and zoning designations. While the proposed Project would implement a scaled-down version of the previously approved 2009 Project, development of the proposed Project would help revitalize the Project site similar to the 2009 Project. Therefore, the proposed Project would continue to have no impact with respect to land use planning or physical division of established communities.

Conclusion

The proposed Project would be consistent with the findings of the Final Negative Declaration with respect to land use and planning. Although the proposed Project includes changes to building renovations, and the addition of recreational amenities, an internal walkway, landscaping improvements, and storage upgrades, these changes would not give rise to new significant environmental effects or a substantial increase in the severity of previously identified significant land use and planning impacts. There are no changes in circumstances under which the proposed Project is undertaken and/or new information of substantial importance that cause one or more land use and planning impacts.

XII. MINERAL RESOURCES – Since the previous Negative Declaration was adopted, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that cause one or more effects to mineral resources including: the loss of availability of a known mineral resource that would be of value to the region and the residents of the state; and/or loss of locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

YES	NO
☐	☒

Summary of Conclusions in the 2009 Project Final Negative Declaration

The Final Negative Declaration (Section X, *Mineral Resources*) evaluated the 2009 Project for potential impacts to mineral resources and concluded that no impact would occur because the Project site is within an area classified by the California Department of Conservation (DOC) as an area where no significant mineral deposits are present and the Project site is not located within a locally-important mineral resource recovery site per the Old Town San Diego Community Plan.

Potential Impacts from the Proposed Project

According to the DOC, the Project site is within an area designated as MRZ-1 for areas where adequate information indicates that no significant mineral deposits are present or likely to be present (DOC, 1996). Therefore, as there are no significant mineral deposits are present in the vicinity, similar to the 2009 Project, implementation of the proposed Project would not have the potential to impact an existing or potential mineral resource in San Diego County. No impact would occur.

In addition, the Project site is not located within a locally-important mineral resource recovery site per the Old Town San Diego Community Plan. Therefore, no potentially significant loss of availability of a known mineral resource of locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan would occur as a result of the proposed Project, similar to the 2009 Project.

Conclusion

The proposed Project would be consistent with the findings of the Final Negative Declaration with respect to mineral resources. Although the proposed Project includes changes to building renovations, and the addition of recreational amenities, an internal walkway, landscaping improvements, and storage upgrades, these changes would not give rise to new significant environmental effects or a substantial increase in the severity of previously identified significant effects to mineral resources. There are no changes in circumstances under which the proposed Project is undertaken and/or new information of substantial importance that cause one or more effects to mineral resources.

XIII. NOISE – Since the previous Negative Declaration was adopted, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new

information of substantial importance" that result in one or more effects from noise including: generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies; generation of excessive groundborne vibration or groundborne noise levels; and/or for projects located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

YES	NO
☐	☒

Summary of Conclusions in the 2009 Project Final Negative Declaration

As discussed in Section XI, *Noise*, of the Final Negative Declaration, construction and operation of the 2009 Project would not result in substantial effects with respect to noise regulations, groundborne vibration, ambient noise levels, or airport noise. The Final Negative Declaration determined that construction and operation of the 2009 Project would result in less than significant noise impacts as it would not expose people to potentially significant noise levels that exceed the allowable limits of the City of San Diego General Plan, City of San Diego Noise Ordinance, and other applicable local, State and Federal noise control regulations. The Final Negative Declaration determined that construction and operation of the 2009 Project would result in no impacts from groundborne vibration as it would not propose any major, new or expanded infrastructure or intensive extractive industry that could generate excessive groundborne vibration or groundborne noise levels on-site or in the surrounding area. The Project site is located within 2 miles of the San Diego International Airport; however, the Project site is outside of the CNEL 60 dBA contours for the airport, and the impact would be less than significant.

Potential Impacts from the Proposed Project

Existing Settings

The vicinity of the Project site includes residential uses, a historic museum, commercial uses, and vacant/undeveloped land. The Mormon Battalion Historic Site is located across Heritage Park Row to the northwest, approximately 50 feet from the nearest Project site's construction area boundary. Both the San Diego County and the City of San Diego Noise Ordinance consider this use as a commercial use for one-hour average sound level limits, which is less sensitive to noise compared to residential uses (see San Diego County Code 36.404 and City of San Diego Municipal Code Noise Ordinance 59.5.401). Residential uses that are located closest to the Project site's construction area boundary include those that are located to the north/northeast (150 feet), south/southeast (75 feet), southwest (75 feet), and northwest (200 feet). In urban and suburban residential settings, traffic noise is the primary contributor to ambient noise, although there may be other periodic contributors to noise such as commercial uses delivery trucks traveling in the area, lawnmowers, barking dogs, and other existing noise sources common to residential and open space areas.

Section 59.5.0404 of the City's Municipal Code sets forth limitations related to construction noise. The City's Noise Ordinance specifies that construction activity is restricted to 7:00 a.m. to 7:00 p.m., unless a permit has been issued by the Noise Abatement and Control Administrator. Construction is not permitted on Sundays or on legal holidays as specified in Section 21.0104 of the City of San Diego Municipal Code. The City's Noise Ordinance also indicates that construction activity shall not cause an average sound level greater than 75 decibels during the 12--hour period from 7:00 a.m. to 7:00 p.m. at or beyond the property lines of any property zoned residential.

Section 36.408 of the County's Municipal Code prohibits construction between the hours of 7:00 p.m. and 7:00 a.m. Monday through Saturday, and at any time on Sunday or a holiday. In addition, Section 36.409 of the County's Municipal Code sets a maximum noise level for construction equipment of 75 dBA for an eight-hour period, between 7:00 a.m. and 7:00 p.m., when measured at the boundary line of the property where the noise source is located or on any occupied property where the noise is being received.

For operations, the County of San Diego in its *Guidelines for Determining Significance for Noise* (County of San Diego, Land Use and Environment Group, Department of Planning and Land Use, Department of Public Works, January 27, 2009), states that if the measured ambient level exceeds the applicable limit noted above, the allowable one- hour average sound level shall be the ambient noise level, plus three decibels. The ambient noise level shall be measured when the alleged noise violation source is not operating.

The City of San Diego and County of San Diego have not adopted standards or regulations addressing groundborne vibration or groundborne noise impacts from land use development projects, such as the proposed Project. Instead, the County of San Diego *Guidelines for Determining Significance for Noise* (Land Use and Environment Group, January 27, 2009) references vibration guidelines provided in the Caltrans *Transportation and Construction Vibration Manual* (Caltrans, 2020) and Federal Transit Administration (FTA) *Transit Noise and Vibration Impact Assessment* (FTA, 2018) guidance documents, which provide screening level thresholds for vibration impacts for potential building structural damage and human annoyance.

The following analysis describes the results of the *Noise and Vibration Technical Report* prepared for the proposed Project, which is included as **Appendix B** to this Addendum.

Existing Ambient Noise Levels

To establish baseline noise conditions representing the nearby noise sensitive land uses in the vicinity of the proposed Project site, existing ambient noise levels measurements were conducted on February 24 through February 26, 2022, at 4 locations in the vicinity of the Project site. The locations of the noise measurements, labeled as R1 through R4, as shown in **Appendix B**, Figure 4, are described as follows:

- Noise Measurement Location R1 - to the north/northeast of the proposed Project site, approximately 50 feet from residential uses at the southern end of Arista Street.
- Noise Measurement Location R2 - to the south/southeast of the proposed Project site, approximately 100 feet from residences on the north side of Juan Street.

- Noise Measurement Location R3 – to the southwest of the proposed Project site, on the north side of Juan Street, approximately 75 feet north of the residences on the south side of Juan Street and approximately 160 feet north of the nearest portion of the Best Western Plus Hacienda Hotel.
- Noise Measurement Location R4 – to the northwest of the proposed Project site, on the north side of Juan Street, approximately 15 feet south of residences to the northwest of the proposed Project site.

Long-term (24-hour) noise measurements were conducted at three of the noise measurement locations (R1, R2, and R3). A short-term (15-minute) noise measurement was conducted at one noise measurement location (R4) to characterize the existing noise environment in the Project vicinity. Measured noise levels at these noise measurement locations in the vicinity of the Project site represent typical noise levels expected in a developed and mostly residential environment. The predominant existing noise source observed was vehicle traffic noise from the roadways surrounding the proposed Project site. Secondary noise sources observed included general residential-related activities, such as landscaping and refuse service activities, and intermittent aircraft flyovers. **Table 3** lists the measured ambient noise levels at the proposed Project site.

TABLE 3
SUMMARY OF AMBIENT NOISE MEASUREMENTS

Measurement Locations Date (Time of Day)	Noise Level (dBA Leq)[a]
Long-term Noise Measurements	
Noise Measurement Location R1 2/25/22 (14:12) to 2/26/22 (15:41)	56.2
Noise Measurement Location R2 2/24/22 (12:30) to 2/25/22 (13:15)	59.2
Noise Measurement Location R3 2/24/22 (11:48) to 2/25/22 (13:02)	61.3
Short-term Noise Measurement	
Noise Measurement Location R4 2/24/22 (11:56 AM to 12:11 PM)	63.0

[a] Detailed measured noise data is included in Appendix B. The ambient noise measurements were conducted using Larson Davis's model 820 Precision Integrated Sound Level Meter (SLM), which is a Type 1 standard instrument, as defined in the American National Standard Institute S1.4. The SLM was within its annual factory calibration, field calibrated prior to conducting measurements, and operated according to the applicable manufacturer specification. The microphone of the SLM was placed at a height of five feet above the local grade, representing an average height of the human ear.

SOURCE: ESA, 2022.

Construction Noise

On-Site Construction Activity Noise

Construction of the proposed Project is anticipated to occur over a 24-month period, beginning in early 2023 and ending in early 2025. Construction activities would consist of three phases and

site development. Construction equipment used may include tractors/loaders/backhoes, manlift, excavators, graders, forklifts, cranes, rollers, concrete mixer trucks, and/or similar types of equipment.

Project construction would generate noise from the daytime operation of construction equipment on the Project site and from haul truck trips on local roadways accessing and departing the Project site. Project construction would use small-scale construction equipment over a 24-month period, where construction activities would vary from day-to-day. As no large buildings are proposed, there would be no pile driving activities. The construction activities associated with the surficial grading would have the greatest potential to generate noise during construction; however, these activities would be conducted using small-scale construction equipment and would not occur continuously over the 24-month construction period.

According to the FHWA Roadway Construction Noise Model (RCNM), which is based on a survey of heavy-duty construction equipment used for large scale projects, reference construction equipment noise levels for equipment such as an excavator, dump truck, forklift, and tractor/loader/backhoe range from an average of 69 to 77 dBA Leq at a distance of 50 feet from the equipment, taking into account equipment usage factors.

Individual pieces of construction equipment that would be used for construction of the proposed Project produce maximum noise levels of 75 dBA to 85 dBA at a reference distance of 50 feet from the noise source, as shown in **Table 4**. The construction equipment noise levels at 50 feet distance (Referenced Maximum Noise Levels) are based on the Federal Highway Administration (FHWA) Roadway Construction Noise Model (RCNM) User's Guide,[4] which is a technical report containing actual measured noise data for construction equipment. Table 4 also presents the percentage of time that each piece of construction equipment would be operating at full power (the "acoustical usage factor") for a 1-hour period, as well as the resulting noise levels at 50 feet from a sensitive receptor. Due to the use of small-scale construction equipment, the amount of noise generated during construction would be minimal and would dissipate as distance from the activity increased when construction equipment was located further away from the site boundaries. Therefore, while limited amounts of noise might be perceivable at the residences that are directly adjacent to the site during certain construction activities, those construction activities would occur on an interval basis and would be intermittent throughout the day depending on the type of construction activity and distance from the site boundary.

4 FHWA, Roadway Construction Noise Model, version 1.1, 2006. Available at: https://www.fhwa.dot.gov/environment/noise/construction_noise/rcnm/.

TABLE 4
OFF-ROAD CONSTRUCTION EQUIPMENT NOISE REFERENCE LEVELS AND USAGE FACTORS

Type of Equipment	Acoustical Usage Factor[a] (%)	Reference Maximum Noise Levels at 50 Feet,[a,b] L_{max} (dBA)
Backhoe	40	78
Concrete Mixer Truck	40	79
Crane	16	81
Excavator	40	81
Forklift	10	75
Grader	40	85
Front End Loader	40	79
Roller	20	80
Tractor	40	80

[a] The usage factor is the percentage of time during a construction noise operation that a piece of construction is operating at full power.

[b] Construction equipment noise levels are based on the FHWA RCNM.

SOURCE: FHWA, Roadway Construction Noise Model User's Guide, 2006, Table 1.

Construction Noise Impacts to Off-Site Sensitive Receptors

Off-site sensitive land uses include residential uses located to the north/northeast (150 feet), south/southeast (75 feet), southwest (75 feet), and northwest (200 feet) of the Project site's construction area. Noise impacts from construction activities would be a function of the noise generated by construction equipment, the location of the equipment, the timing and duration of the noise-generating construction activities, and the relative distance to off-site noise-sensitive receptors.

It should be noted that, other than the residences to the north/northeast that are located on top of the hill, the other off-site receivers (i.e., to the south/southeast, southwest, and northwest) are evaluated at the same elevation as the Project site. Any shielding effect from undulation or terrain variation for these off-site receivers that are evaluated at the same level of the Project site would be small and negligible.

For the residences to the north/northeast that are located on top of the hill, the distances are measured without considering the increased distance due to the slant angle, which would represent a conservative analysis compared to the straight-line distance between the proposed Project site and the elevated property line of the north/northeast residences.

The hills to the north/northeast of Heritage Park consists of acoustically soft topography (i.e., earth/soil, shrubs, trees) such that the amount of sound energy that would be reflected towards the south from the hills would be small and would not perceptibly add to noise levels to the south. A doubling of sound energy is required to increase noise levels by 3 dBA, which is a barely perceptible increase by the human ear. Acoustically soft topography absorbs more sound energy

and reflects less sound energy than acoustically hard surfaces. The reflected sound energy would also travel a longer distance than the direct sound to receptors located to the south of the hill such that the reflected noise would be substantially attenuated below levels that would perceptibly add to the direct noise. Thus, the contribution of Project noise that would be reflected from the hill towards the south would not be a perceptible addition to the direct noise.

The noise from construction equipment would generate both steady-state and episodic noise that could be heard within and adjacent to the proposed Project site. Construction noise levels fluctuate throughout a given workday as construction equipment moves from one location to another within a project site. When construction equipment would be in use further away from a sensitive receptor location, construction noise levels would be lower than the calculated values provided in this analysis, which assumes construction equipment would be in use nearest to a sensitive receptor location.

Individual pieces of construction equipment that would be used for construction of the proposed Project would produce maximum noise levels of 75 dBA to 85 dBA at a reference distance of 50 feet from the noise source, as shown in Table 4. These maximum noise levels would occur when equipment is operating under full power conditions (i.e., the equipment engine at maximum speed). For a worst-case scenario, it is assumed that each piece of construction equipment would operate at the same time at a location that is nearest the off-site sensitive receptor at full power conditions. However, equipment used on construction sites typically operates under less than full power conditions.

Table 5 provides the aggregate noise level from each piece of equipment provided in Table 4 operating in the same area over a 1-hour period, using the utilization factors also provided in Table 4, and the reference noise level at 50 feet from an active construction area. Table 5 presents the noise levels from the use of multiple pieces of equipment. Because construction equipment would move around an active construction area, it is not realistic or accurate to locate the entire list of equipment at or near the same location on the project boundary. With the worst-case assumption of up to four pieces of equipment with the highest noise levels (Grader, Excavator, Crane, and Roller) operating at the same time in the area nearest off-site sensitive receptors, the combined noise level from these four pieces of equipment would result in 83 dBA Leq, which includes the acoustical usage factor, at a distance of 50 feet. At a distance of 75 feet from an active construction area, construction noise level would be reduced by 5 dBA, compared to the noise level measured at 50 feet. At a distance of 100 feet, the noise reduction is 6 dBA compared to the noise level measured at 50 feet. Similarly, at 150 feet, construction noise level would be reduced by 10 dBA compared to the noise level measured at 50 feet. Noise impacts are evaluated at the nearest and most impacted sensitive receptors in each of the general directions from the proposed Project site. Sensitive receptors that are located further away in each general direction would experience lower noise levels due to distance attenuation, and lower noise impacts, than summarized in Table 5.

TABLE 5
MAXIMUM COMBINED CONSTRUCTION NOISE LEVEL AT OFF-SITE SENSITIVE RECEPTORS, LEQ

Construction Equipment (usage factor/dBA at 50 feet)	Noise Level at Sensitive Receptors			
	North/Northeast, 150 feet from Project Site Construction Area (Ambient Noise Measurement Location R1)	South/Southeast, 75 feet from Project Site Construction Area (Ambient Noise Measurement Location R2)	Southwest, 75 feet from Project Site Construction Area (Ambient Noise Measurement Location R3)	Northwest, 200 feet from Project Site Construction Area (Ambient Noise Measurement Location R4)
Manlift (0.2/75) Frontend Loader (0.4/78) Concrete Mixer truck (0.4/79) Crane (0.16/81) Backhoe (0.4/78) Excavators (0.4/81) Forklift (0.1/75) Grader (0.4/85) Roller (0.2/80) Tractor (0.4/78)	74.5 (Without PDF NOISE-1 and PDF NOISE-2)	79.0 (Without PDF NOISE-1 and PDF NOISE-2) Less than or Equal to 75 (With PDF NOISE-1 and PDF NOISE-2)	79.5 (Without PDF NOISE-1 and PDF NOISE-2) Less than or Equal to 75 (With PDF NOISE-1 and PDF NOISE-2)	70.9 (Without PDF NOISE-1 and PDF NOISE-2)

Detailed construction and operational noise data is included as Appendix B.

SOURCE: ESA, 2022

Table 5 shows that the noise levels associated with the maximum combined construction noise levels without incorporation of PDF NOISE-1 and PDF NOISE-2 would be 74.5, 79.0, 79.5, and 70.9 dBA Leq(1h), respectively, for the sensitive receptors to the north/northeast, south/southeast, southwest, and northwest of the proposed Project site construction area. Even if it is assumed that each equipment would be operating with the same utilization factor throughout the 8-hour construction day (Leq(8h)), the noise level would be averaged to the same level of noise the same as the 1-hour average (Leq(1h)). The nearest off-site sensitive receptors would be exposed to 70.9 to 79.5 dBA Leq(8h), respectively, without incorporation of PDF NOISE-1 and PDF NOISE-2. With incorporation of PDF NOISE-1 and PDF NOISE-2, the maximum combined construction noise levels would be 75 dBA Leq or less.

The proposed Project site's range of construction noise levels, with incorporation of PDF NOISE-1 and PDF NOISE-2 of 70.9 to up to 75 dBA (Leq) would not exceed the County's 75 dBA L_{eq}(8h) and the City's 75 dBA L_{eq}(12h) noise thresholds for construction activities that occur over an 8-hour period for all land use types (Section 36.409, Sound Level Limitations on Construction Equipment) at the sensitive receptors located to the south/southeast and southwest of the Project site construction area. Therefore, construction equipment noise impacts would be less than significant, and no mitigation measures would be required.

Off-Site Construction Activity Noise

Through all phases of construction, it is anticipated that up to 100 trips by haul trucks would be required to transport building materials, trees, and other construction materials to and from the proposed Project site. It is assumed that approximately 20 daily construction workers would be

required for each construction phase. The construction haul truck and worker commute trips would be negligible such that it would not result in a measurable increase in peak hour and daily traffic noise levels. A doubling of roadway traffic volumes is required to increase traffic noise levels by 3 dBA. Construction of the proposed Project would not result in a doubling of roadway traffic volumes; therefore, construction traffic noise impacts would be less than significant.

Project Design Features

The following PDFs are considered part of the proposed Project.

Project Design Feature NOISE-1: As part of the Project's design features, the construction contractor shall be required to implement noise-reduction features such that construction noise levels at residences surrounding the Project site would not exceed 75 dBA Leq in compliance with the City and County noise regulations. Noise-reduction features could include installation of a temporary noise barrier on the proposed Project site that blocks the direct line-of-sight between the noise source of the construction equipment on the proposed Project site and receptors at residences or other noise-reduction practices.

Project Design Feature NOISE-2: Construction Noise Best Management Practices. For construction activities within 150 feet of sensitive receptors, the construction contractor shall implement the following measures to the extent necessary to meet the standards of Section 36.409 of the County of San Diego Noise Ordinance:

- The construction contractor shall provide written notification to the noise-sensitive land uses within 150 feet of normal construction activities at least 3 weeks before the start of construction activities, informing them of the estimated start date and duration of construction activities.
- Construction activities that could generate high noise levels at residences shall be scheduled during times that would have the least impact on sensitive receptor locations.
- Stationary construction noise sources, such as temporary generators, shall be as far from nearby noise-sensitive receptors as possible.
- Trucks shall be prohibited from idling along streets serving the construction site where noise-sensitive residences are located.
- Construction equipment shall be outfitted with properly maintained, manufacturer-approved, or recommended sound abatement means on air intakes, combustion exhausts, heat dissipation vents, and interior surfaces of engine hoods and power train enclosures.
- Construction laydown and vehicle staging areas shall be positioned (to the extent practical) as far from noise-sensitive land uses as feasible.
- Simultaneous operation of construction equipment shall be limited or construction time shall be limited to within an hour to reduce the hourly average noise level.
- Temporary noise barriers shall be installed around the perimeter of the construction area to minimize construction noise.

- Lower vibration-generating equipment should be used in lieu of high vibration-generating equipment (e.g., small bulldozer vs. large bulldozer) in areas within 50 feet of sensitive structures.

Operational Noise

Operation of the proposed Project would result in recreational activities and would include stationary heating, ventilation, and air conditioning (HVAC) mechanical equipment in the outdoor area outside the buildings. The HVAC in outdoor areas would be shielded by fencing and vegetation, and will be designed to comply with both City and County of San Diego noise ordinance requirements. The proposed Project would include the operation of a variety of educational and recreational components, as further detailed below. Noise impacts are evaluated at the nearest and most impacted sensitive receptors in each of the general directions from the proposed Project site. Sensitive receptors that are located further away in each general direction would experience lower noise levels due to distance attenuation, and lower noise impacts.

On-Site Operational Noise (back lawn area)

There are several recreational amenities proposed within the outdoor spaces of the park. The pergola for the back lawn area is located at the northeast corner of the proposed Project site. The plaza in front of the pergola is a flexible event space sized to accommodate movable tables and chairs. The lawn adjacent to the plaza provides additional seating capacity for weddings, receptions, and for other meetings/events.

Currently, the park holds events using both back and front lawn spaces, such as wedding ceremonies, movie nights, private parties, and community educational events with a maximum of 200 people attending the wedding ceremony events. The ambient noise measurements provided were not taken during an event at the park. Therefore, the ambient noise measurements also provide a conservatively low baseline noise level for analysis purposes.

It is estimated that there would be approximately a total of 200 people in the back lawn area at the same time when in use, which is a conservative maximum estimate for a scheduled event and similar to existing operations. It is assumed that half (100) of the attendees would be speaking and the other half (100) would be listening. Crowd noise during an event at the back lawn area has been calculated based on a reference noise level for “shouting” of 89 dBA for 1 of the event attendees, a reference noise level for “raised” of 65 dBA for 99 of the event attendees at a reference distance of 3.3 feet (1 meter) from the source. It is assumed that the event attendees would be spread around the back lawn area. Therefore, the event attendees are considered to form a group in the vicinity of the pergola.

For 1 person at 89 dBA and 99 people at 65 dBA, the combined noise level would be equal to 90.4 dBA[5] at a distance of 3.3 feet. The nearest residences to the north/northeast are 150 feet from the back lawn area. The nearest residences to the south/southeast are 150 feet from the back lawn area. The nearest residences to the southwest are 300 feet from the back lawn area.

5 10 Log [$1x10^{8.9}$ + $99x10^{6.5}$] = 90.4 dBA at a distance of 3.3 feet

The nearest residences to the northwest are 750 feet from the back lawn area. These distances would provide the following reduction in noise due to distance attenuation compared to the noise level measured at 3.3 feet: 150 feet, 33 dBA; 300 feet, 39 dBA; 750 feet, 47 dBA.

Therefore, noise from the back lawn area crowd would be reduced to 57.4 dBA,[6] 57.4 dBA,[7] 51.4 dBA,[8] and 43.4 dBA[9] at the nearest residences to the north/northeast, south/southeast, southwest, and northwest of the proposed back lawn area, respectively.

Park staff currently monitor noise during events using a decibel meter and actively enforce all applicable noise restrictions. With compliance of the County's exterior noise level standard, no significant noise impact would occur.

On-Site Operational Noise (Outdoor Meeting Space)

The outdoor meeting space would be located at the south-central area of the proposed Project site and would accommodate up to 200 people for meetings. The nearest residences to the north/northeast are 300 feet from the meeting space. The nearest residences to the south/southeast are 125 feet from the meeting space. The nearest residences to the southwest are 150 from the meeting space. The nearest residences to the northwest are 750 feet from the meeting space.

It is estimated that there would be approximately a total of 200 people in the meeting space at the same time when in use. It is assumed that half (100) of the attendees would be speaking and the other half (100) would be listening. Crowd noise during an event at the meeting space has been calculated based on a reference noise level for "shouting" of 89 dBA for 1 of the event attendees, a reference noise level for "raised" of 65 dBA for 99 of the event attendees at reference distance of 3.3 feet (1 meter) from the source. It is assumed that the event attendees would be spread around the middle of the meeting space. Therefore, the event attendees are considered to form a group centered in the middle of the outdoor meeting space.

For 1 person at 89 dBA and 99 people at 65 dBA, the combined noise level would be equal to 90.4 dBA[10] at a distance of 3.3 feet. Therefore, noise from the meeting space crowd would be reduced to 50.4 dBA,[11] 58.0 dBA,[12] 56.4 dBA,[13] and 42.5 dBA[14] at the nearest residences to the north/northeast, south/southeast, southwest, and northwest of the proposed meeting space, respectively.

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6 90 dBA - 33 dBA = 57 dBA at the nearest residences to the north/northeast of the back lawn area.
7 90 dBA - 33 dBA = 57 dBA at the nearest residences to the south/southeast of the back lawn area.
8 90 dBA - 39 dBA = 51 dBA at the nearest residences to the southwest of the back lawn area.
9 90 dBA - 47 dBA = 43 dBA at the nearest residences to the northwest of the back lawn area.
10 10 Log [$1x10^{8.9}$ + $32x10^{6.5}$] = 89.5 dBA at a distance of 3.3 feet
11 89.5 dBA - 39 dBA = 50.5 dBA at the nearest residences to the north/northeast of the proposed meeting space.
12 89.5 dBA - 32 dBA = 57.5 dBA at the nearest residences to the south/southeast of the proposed meeting space.
13 89.5 dBA - 38 dBA = 51.5 dBA at the nearest residences to the southwest of the proposed meeting space.
14 89.5 dBA - 47 dBA = 42.5 dBA at the nearest residences to the northwest of the proposed meeting space.

The noise analysis is based on conservative modeling assumptions for the meeting space, which assumes that the attendees would be located at the center of the outdoor meeting space with the shortest distances to the off-site sensitive receptors. In reality, the attendees would be located throughout the entire meeting space, which means that noise would not be concentrated at the portion of the outdoor meeting space closest to the off-site sensitive receptors. Therefore, the analysis provides an upper range of the noise levels that could occur. These projected operational noise levels would not exceed the ambient plus 3 dBA noise thresholds of 59.2 dBA Leq at R1, 62.2 dBA Leq at R2, 64.3 dBA Leq at R3, and 66.0 dBA Leq at R4. Therefore, no significant noise impact would occur from the use of the proposed outdoor meeting space.

As stated in Section 1 above, park staff currently monitor noise during events using a decibel meter and actively enforce all applicable noise restrictions. With compliance of the City's and County's exterior noise level standard, no significant noise impact would occur.

Off-Site Traffic Noise

Table 6 presents the calculated CNEL levels from the existing plus proposed Project traffic volumes in the vicinity of the Project site. The proposed Project would contribute approximately 192 average daily trips (ADTs), with 10 morning peak hour trips and 13 afternoon peak hour trips. Table 6 shows that Project-related traffic would not result in an audible increase in traffic noise over the existing baseline to the roadway segments in the proposed Project vicinity.

TABLE 6
EXISTING PLUS PROJECT VEHICULAR TRAFFIC NOISE LEVELS

Roadway Segment	Existing CNEL (dBA) at the 30 feet from Roadway	Existing with Project CNEL (dBA) at 30 feet from Roadway	Increase over Existing Baseline CNEL (dBA) at 30 feet from roadway
Juan Street			
Between Harney Street and San Juan Road	71.4	71.4	0.0
Between Harney Street and Twiggs Street	73.0	73.0	0.0
Harney Street			
Between Calhoun Street and Juan Street	72.0	72.0	0.0

Detailed construction and operational noise data is included as Appendix B.

SOURCE: ESA, 2022; City of San Diego, 2003

The traffic noise level would be below the barely perceptible threshold of 3 dBA and well below a "clearly noticeable" increase of 5 dBA CNEL in an area characterized by normally acceptable noise levels. Therefore, proposed Project-related noise increases would be less than the applicable threshold and therefore less than significant, and no mitigation measures would be required.

Groundborne Vibration

Structural Damage

The proposed Project does not propose any major, new or expanded infrastructure such as mass transit, highways or major roadways or intensive extractive industry that could generate excessive groundborne vibration or groundborne noise levels on site or in the surrounding area.

Construction of the proposed Project would generate groundborne construction vibration during site clearing and grading activities. Based on reference vibration velocities (Refer to **Appendix B**, Table 10), vibration velocities from construction equipment would range from approximately 0.0006 to 0.017 in/sec PPV at 75 feet from the source of activity. Relative to the proposed Project site's construction area boundary, residential uses are located to the north/northeast (150 feet), south/southeast (75 feet), southwest (75 feet), and northwest (200 feet). Vibration levels at these off-site sensitive uses would be up to 0.017 in/sec PPV at 75 feet, and would decrease at distances greater than 75 feet from the source.

On-Site buildings: The property includes seven Victorian structures, which are shown below in **Table 7** with their corresponding distances to the back lawn area and outdoor meeting space, and the associated maximum groundborne vibration levels from construction at the corresponding distances.

TABLE 7
CONSTRUCTION VIBRATION LEVELS AT ONSITE BUILDINGS

Onsite Building	Distance to Back Lawn Area, feet	Vibration Level at Building from Back Lawn Area Construction, in/sec	Distance to Meeting Space, feet	Vibration Level at Building from Meeting Space Construction, in/sec
Senlis Cottage	425	0.0013	375	0.0015
Sherman-Gilbert House	350	0.0017	300	0.0021
Bushyhead House	300	0.0021	200	0.0040
Burton House	275	0.0024	175	0.0048
Christian House	225	0.0033	200	0.004
Temple Beth Israel	375	0.0015	275	0.0024
McConaughy House	100	0.011	115	0.009

SOURCE: ESA, 2022;

The vibration levels that would be experienced at the seven on-site buildings from construction at the proposed on-site outdoor amenity area would range from 0.0013 in/sec to 0.011 in/sec. This range of vibration would be much lower than the building damage threshold of 0.2 in/sec for fragile buildings and 0.5 in/sec threshold for historic buildings.

Typically, heavy-duty construction equipment used for demolition, earth-moving, and compaction for paving would generate localized vibration levels, which, depending upon distance, could potentially cause damage to structures. Similar to noise levels, vibration levels

diminish with increasing distance away from the source. Proposed Project construction would use small-scale construction equipment over a 24-month period, where construction activities would vary from day-to-day and include clearing, grading, landscaping, as well as installation of park features.

All grading activities would be surficial. Due to the use of small-scale construction equipment, the amount of vibration generated during construction would be minimal and would dissipate as distance from the activity increased. Therefore, while limited amounts of vibration might be perceivable at the residences that are adjacent to the site during certain construction activities occurring at the closest boundary of the proposed Project site, those construction activities would occur on a short-term basis and would be intermittent throughout the day depending on the distance from the site boundary. Construction equipment tends to move through a construction site area during a construction workday; therefore, construction vibrations would typically not be concentrated at a single location. Vibration generated by the proposed Project would not be substantial enough to exceed applicable significance thresholds. Construction activities associated with the proposed Project would not generate vibration velocities in excess of the significance thresholds and impacts would be less than significant.

Once construction is completed, the primary sources of transient vibration would include passenger vehicle circulation within the existing parking area that would be used by the proposed on-site uses. Groundborne vibration generated by each of the above-mentioned activities would generate approximately up to 0.005 in/sec PPV adjacent to the Project site.[15] The potential vibration levels from all proposed Project operational sources at the closest existing sensitive receptor locations would be less than the significance threshold of 0.2 in/sec PPV significance threshold for potential residential building damage. As such, vibration impacts associated with operation of the proposed Project would be below the significance threshold, and impacts would be less than significant.

Human Annoyance

The County's *Guidelines for Determining Significance* identifies residences, schools, hotels, resorts, libraries, hospitals, or similar facilities where quiet is an important attribute of the environment as sensitive uses (County of San Diego, 2009). Off-site non-residential uses such as retail and commercial uses are not considered vibration sensitive receptors for human annoyance under CEQA.

Based on reference vibration source amplitudes (Refer to **Appendix B**, Table 12), vibration levels from construction equipment would range from 60 VdB to 73 VdB at the nearest off-site sensitive receptors. Construction equipment vibration levels would not exceed the FTA's 78 VdB threshold for annoyance at the nearest residential sensitive receptor locations during daytime hours.

The potential groundborne noise levels from all proposed Project operational sources at the closest existing sensitive receptor locations would be less than the significance threshold of 0.04

[15] This vibration estimate is based on data presented in the USDOT Federal Transit Administration, 2018.

in/sec PPV for perceptibility. As discussed above, operation of the proposed Project would result in vibration levels substantially less than the significance threshold for groundborne vibration at vibration-sensitive receptors. For typical buildings, groundborne vibration results in groundborne noise levels approximately 25 to 40 dB lower than the velocity level.[16] Given that the vibration level would be much lower than the perceptibility threshold at vibration-sensitive uses, and given that groundborne noise would be approximately 25 to 40 dB lower than the velocity level, operational groundborne noise impacts would also be less than significant at vibration-sensitive uses.

Aircraft Noise

The proposed Project site is approximately 1.2 miles to the north of the San Diego International Airport. However, the runways at the San Diego International Airport are oriented in a northwest to southeast direction. The proposed Project site is not within the 65 dBA CNEL zone of the San Diego International Airport (San Diego International Airport, 2020). As such, the proposed Project would not be impacted by the airport noise or any other applicable rules and regulations that pertain to airports and excessive noise. Therefore, no impact would occur with implementation of the proposed Project.

Conclusion

The proposed Project would be consistent with the findings of the Final Negative Declaration prepared for the 2009 Project with respect to noise and vibration. Although the proposed Project includes changes to building renovations, and the addition of recreational amenities, an internal walkway, landscaping improvements, and storage upgrades, these changes would not give rise to new significant environmental effects or a substantial increase in the severity of previously identified significant noise and vibration impacts. There are no changes in circumstances under which the proposed Project is undertaken and/or new information of substantial importance that cause one or more noise or vibration impacts.

XIV. POPULATION AND HOUSING – Since the previous Negative Declaration was adopted, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that cause one or more effects to population and housing including: inducing substantial unplanned 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; and/or displacing substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

YES	NO
☐	☒

[16] Federal Transit Administration, *Noise and Vibration Manual*, 2018, Page 120.

Summary of Conclusions in the 2009 Project Final Negative Declaration

The Final Negative Declaration (Section XII, *Population and Housing*) evaluated the 2009 Project for potential impacts related to population growth and housing in the project area and concluded that no impact would occur because the 2009 Project did not propose any physical or regulatory change that would remove a restriction to or encourage population growth in the area, and would not displace a substantial number of existing housing.

Potential Impacts from the Proposed Project

Development of the proposed Project would result in the addition of up to 24 guest rooms and enhanced recreational amenities at the Project site, which is a substantial reduction from the approved 84 guest rooms (72 new) under the 2009 Project. There is no existing housing on the Project site. Thus, implementation of the proposed Project would not displace any existing housing or people, or cause a need for housing to be constructed off-site. The proposed recreational amenities would provide recreational opportunities for current residents of the surrounding community while the proposed guest rooms are anticipated to serve as recreational amenities that would draw temporary visitors from outside of the Project area. For this reason, the proposed Project is not anticipated to attract a substantial amount of new residents to the surrounding area based on the development of the limited visitor-serving amenities proposed and would reduce the amount of guests the Project site could accommodate compared to the 2009 Project. Furthermore, as the proposed Project does not include any new development, there would be fewer employment opportunities than were anticipated under the 2009 Project. The limited employment opportunities would likely be filled by existing members of the local workforce and are not expected to attract new residents to the surrounding area. In addition, the proposed Project would be consistent with the 2009 Project in that it would not include physical or regulatory changes that would remove a restriction to or encourage population growth in the surrounding area, such as large-scale residential development, new or extended infrastructure, General Plan amendments, or zone reclassifications. Therefore, no impact with respect to population and housing would occur with implementation of the proposed Project, similar to the 2009 Project.

Conclusion

The proposed Project would be consistent with the findings of the Final Negative Declaration with respect to population and housing. Although the proposed Project includes changes to building renovations, and the addition of recreational amenities, an internal walkway, landscaping improvements, and storage upgrades, these changes would not give rise to new significant environmental effects or a substantial increase in the severity of previously identified significant effects to population and housing. There are no changes in circumstances under which the proposed Project is undertaken and/or new information of substantial importance that cause one or more effects to population and housing.

XV. PUBLIC SERVICES – Since the previous Negative Declaration was adopted, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that result in one or more substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services: fire protection, police protection, schools, parks, or other public facilities?

YES	NO
☐	☒

Summary of Conclusions in the 2009 Project Final Negative Declaration

The Final Negative Declaration (Section XV, *Public Services*) concluded that development of the 2009 Project would result in less than significant impacts to public services because existing services, such as fire protection, police protection, and parks would be available to serve the 2009 Project. Furthermore, the Final Negative Declaration determined that the 2009 Project would not require construction of new or physically altered governmental facilities in order to maintain acceptable service rations, response times or other performance ratios or objectives for any public services.

Potential Impacts from the Proposed Project

Since the proposed Project would be developed on the same Project site as the previously approved 2009 Project, the same public services providers would also serve the proposed Project. Compared to the approved 84 (72 new) guest rooms under the 2009 Project, the proposed Project would construct a reduced total of up to 24 guest rooms, which would substantially reduce the amount of guests the Project site could accommodate. The Project site is in a highly urbanized area located in proximity to several fire stations, police stations, libraries, hospitals, and schools. Due to the nature of the proposed Project including hotel and recreational uses, no permanent resident population growth would occur with development of the proposed Project that would necessitate the need for new or additional library, school, or park facilities.

While the 2009 Project was never developed on the Project site, City of San Diego police and fire protection services continued to serve the property and included the Project site in their plans for continued service for the foreseeable future since the Project site is located in their jurisdictions. Since the proposed Project would reduce the amount of guests that could be accommodated by the Project site compared to the 2009 Project, it would be reasonable to assume that these public service providers would also be able to serve the Project site with the development of the proposed Project as was identified for the 2009 Project. Therefore, it is anticipated that public service providers in the Project vicinity would continue to be available and have adequate capacity to serve the proposed Project. In addition, the proposed Project would include the provision of 24-hour security. Thus, the proposed Project would not result in the need for new or physically altered governmental facilities in order to maintain acceptable service ratios, response times, or objectives for any public facilities. Furthermore, the proposed Project

would be a scaled-down version of the 2009 Project and is anticipated to result in less of a need for service from governmental facilities in the surrounding area relative to the 2009 Project. Therefore, the proposed Project would have a less than significant impact with regard to public facilities, similar to the 2009 Project.

Conclusion

The proposed Project would be consistent with the findings of the Final Negative Declaration with respect to public services. Although the proposed Project includes changes to building renovations, and the addition of recreational amenities, an internal walkway, landscaping improvements, and storage upgrades, these changes would not give rise to new significant environmental effects or a substantial increase in the severity of previously identified significant effects to public services. There are no changes in circumstances under which the proposed Project is undertaken and/or new information of substantial importance that cause one or more effects to public services.

XVI. RECREATION – Since the previous Negative Declaration was adopted, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that result in an increase in 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; and/or that include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

YES	NO
☐	☒

Summary of Conclusions in the 2009 Project Final Negative Declaration

The Final Negative Declaration (Section XIV, *Recreation*) evaluated the 2009 Project for potential impacts to parks and recreational facilities and concluded that no impact would occur. The 2009 Project did not propose any residential use and would complete the improvements envisioned in the previously improved Heritage Park Master Plan. Since the proposed improvements evaluated throughout the Final Negative Declaration identified no significant impacts, it was determined that the construction or expansion of recreational facilities under the 2009 Project would not have an adverse physical effect on the environment.

Potential Impacts from the Proposed Project

Similar to the 2009 Project, the proposed Project would not include any residential uses and therefore, would not increase the use of existing neighborhood or regional park or other recreational facilities in the Project vicinity. In fact, the proposed Project includes the construction and operation of outdoor recreational amenities, including an outdoor meeting space, enhancements to the existing pergola plaza, and minor improvements such as the addition of benches and water fountains, which would serve both the surrounding resident population as well as guests/visitors of the proposed Project. This Addendum has evaluated the proposed

Project for potential adverse physical effects on the environment as a result of the creation of a recreational facility. As concluded throughout this Addendum, the proposed Project, inclusive of the proposed recreational facilities, would not result in significant impacts and would not result in effects on the environment greater than those previously analyzed within the Final Negative Declaration prepared for the 2009 Project. The proposed recreational amenities would provide additional recreational opportunities within Heritage Park and would continue to serve as a recreational use in the area similar to existing conditions. It is not anticipated that the proposed Project would draw additional users to other existing recreational facilities in the area such that substantial physical deterioration of those facilities would occur. Therefore, no impact would occur as a result of the proposed Project with regard to the deterioration of existing facilities or the need for new or expanded recreational facilities in the Project area, similar to the 2009 Project.

Conclusion

The proposed Project would be consistent with the findings of the Final Negative Declaration with respect to recreation. Although the proposed Project includes changes to building renovations, and the addition of recreational amenities, an internal walkway, landscaping improvements, and storage upgrades, these changes would not give rise to new significant environmental effects or a substantial increase in the severity of previously identified significant effects to recreation. There are no changes in circumstances under which the proposed Project is undertaken and/or new information of substantial importance that cause one or more effects to recreation.

XVII. TRANSPORTATION – Since the previous Negative Declaration was adopted, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that cause effects to transportation/traffic including: conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities; conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b); substantial increase in hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); and/or result in inadequate emergency access?

YES	NO
☐	☒

Summary of Conclusions in the 2009 Project Final Negative Declaration

As discussed in Section XV, *Transportation/Traffic*, of the Final Negative Declaration, development of the 2009 Project would not result in significant impacts to transportation and traffic. The trip generation analysis that was prepared for the 2009 Project determined that the project would result in the generation of an additional 572 ADT, with 41 AM peak hour vehicle trips and 47 PM peak hour vehicle trips (Darnell & Associates, Inc., 2008). Because these estimates would be well below the City of San Diego's threshold requirement for preparation of a traffic impact analysis (1,000 ADT or more, as specified in the *Transportation Study Manual* [City of San Diego, 2020]), the Final Negative Declaration determined that the 2009 Project

would not result in a substantial direct or cumulative increase in the number of vehicle trips, volume-to-capacity ratio on roads, or conflict with level of service (LOS) standards due to a direct or cumulative increase in congestion at study intersections in relation to existing conditions. Impacts were identified as less than significant.

In addition, the Final Negative Declaration determined that the 2009 Project would a have less than significant impact associated with changes in air traffic patterns, as the 2009 Project would not exceed the FAA Part 77 criteria related to airspace obstructions.

Furthermore, the 2009 Project would result in less than significant impacts to parking capacity as the addition of 72 additional rooms at Heritage Park would be adequately served by the existing 39 parking spaces on the Project site and proposed exclusive use of 41 existing parking spaces at the nearby Hacienda Hotel. Parking capacity is no longer required to be evaluated under CEQA per the December 2018 update to the CEQA Guidelines and therefore is not included in the following analysis.

No impacts were identified with regard to alteration of traffic patterns or geometric design hazards on existing roadways; inadequate emergency access; or conflicts with policies, plans, or programs, supporting alternative transportation.

Potential Impacts from the Proposed Project

Project Trip Generation

As discussed above, the trip generation analysis referenced in the Final Negative Declaration determined that the 2009 Project would generate 572 ADT. The City of San Diego's *Trip Generation Manual* has not been updated since May 2003 and thus, the trip generation rates used to determine the ADT generated by the 2009 Project remain the same for the proposed Project. Specifically, the trip generation rates for hotel uses and park uses remain at 8 ADT per room/100 trips per acre and 50 trips per acre, respectively. The existing park use of the Project site currently generates ADT. Under existing operations, the park currently hosts events using both the back and front lawn spaces, such as weddings with up to 200 guests, movie nights, and community educational events. The proposed project would not increase the size of the park, which is the trip generator according to the *Trip Generation Manual*. Therefore, consistent with trip generation calculated for the 2009 Project, the analysis is based on the "resort hotel" land use trip generation rate used to calculate ADT that would be generated as a result of the proposed Project. Based on these generation rates and the reduction in guest rooms, the proposed Project is estimated to generate 192 ADT, with 10 AM peak hour trips and 13 PM peak hour trips.

CEQA Guidelines Section 15064.3, Subdivision (b)

The Final Negative Declaration did not evaluate consistency with CEQA Guidelines Section 15064.3, Subdivision (b), as that criterion was introduced as part of the December 2018 update to the CEQA Guidelines, which occurred after the Final Negative Declaration was adopted. The City of San Diego has adopted VMT thresholds, which are presented in this Addendum. The City published its Transportation Study Manual (TSM) in June 2020, which updated transportation

significance thresholds and transportation impact analysis procedures in compliance with this new statewide guidance (City of San Diego, 2020).

According to the TSM, a detailed transportation VMT analysis is required for all land development projects, except those that meet one of eight designated screening criteria. A project that meets at least one of the screening criteria would be presumed to result in a less than-significant VMT impact due to project characteristics and/or location. The proposed Project would meet Criterion 1 – Small Project. Criterion 1 states that a project generating less than 300 daily vehicle trips would result in a less than-significant VMT impact. As discussed above, the proposed Project would generate 192 ADT, which is under the 300 daily vehicle trips threshold. Since the proposed Project meets screening Criteria 1, the proposed Project would result in a less-than significant impact related to CEQA Guidelines Section 15064.3

Site Access Analysis

The proposed Project would construct a new pedestrian walkway that would be located in the back lawn of the Project site. The walkway would provide connections between the pergola plaza and the proposed outdoor meeting area before connecting to an existing walkway on the southeast side of the Burton House. In addition, an ADA ramp would be constructed between the proposed sidewalk loop and the elevated pergola plaza near the southeastern portion of the back lawn. The existing sidewalks and Heritage Park Row provide pedestrian and vehicle access to the northwestern portion of the Project site, and would remain with implementation of the proposed Project. The proposed Project does not propose any new driveways to/from the public roadway network; thus, the proposed Project would not introduce any potentially hazardous conditions for vehicles, pedestrians, or bicyclists accessing the Project site, and no impact would occur, similar to the 2009 Project.

Conclusion

The proposed Project would be consistent with the findings of the Final Negative Declaration with respect to transportation. Although the proposed Project includes changes to building renovations, and the addition of recreational amenities, an internal walkway, landscaping improvements, and storage upgrades, these changes would not give rise to new significant environmental effects or a substantial increase in the severity of previously identified significant effects to transportation. There are no changes in circumstances under which the proposed Project is undertaken and/or new information of substantial importance that cause one or more effects to transportation.

XVIII. TRIBAL CULTURAL RESOURCES – Since the previous Negative Declaration was adopted, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1?

YES	NO
☐	☒

Summary of Conclusions in the 2009 Project Final Negative Declaration

Tribal cultural resource impacts is a new resource area that was added during the 2018 CEQA Guidelines update. Since Assembly Bill (AB) 52 was not required in 2009, tribal consultation did not occur for the 2009 Project, and impacts to tribal cultural resources were not discussed in the Final Negative Declaration. However, the Final Negative Declaration considered impacts to archaeological resources and human remains in Section V, *Cultural Resources*. For informational purposes, tribal cultural resource impacts for the proposed Project have been analyzed in this Addendum. The Final Negative Declaration determined that the 2009 Project would not impact archaeological resources or human remains because the site was mass graded in the 1970's. Furthermore, impacts to cultural resources were determined to be less than significant in the 2009 Final Negative Declaration.

Potential Impacts from the Proposed Project

The proposed Project would implement a scaled-down version of the previously adopted 2009 Project, which proposed a total of 84 guest rooms through the renovation and conversion of seven existing structures and construction of four new buildings. The proposed Project would reduce total guest rooms down to 24 guest rooms within five of the existing structures and does not include the construction of the four new buildings but instead includes construction of additional recreational amenities and minor improvements in the back lawn area. As stated in Section 21080.3.1 of the CEQA Guidelines, tribal consultation is not required when a Lead Agency is preparing an addendum for a proposed project. In accordance with Section 21080.3.1 of the CEQA Guidelines, since an Addendum does not require public noticing, an analysis of impacts to tribal cultural resources is not required for the proposed Project.

As discussed in the Final Negative Declaration, due to mass grading and import of approximately 50,000 cubic yards of fill that occurred during initial development of Heritage Park in 1973, the portion of the site proposed for development under the 2009 Project was located on fill material, with depths up to 26 feet. Previous grading has eliminated the potential for impacts to archaeological resources including buried tribal cultural resources at the site. Furthermore, the

proposed Project would be limited to the developed portions of Heritage Park. Since the proposed construction activities would remain within developed property and would not exceed the depth of previous fill material, tribal cultural resources would not have the potential to be impacted. Therefore, no impact to tribal cultural resources would occur.

Conclusion

The Final Negative Declaration did not include a separate analysis of tribal cultural resources as this was not part of CEQA Appendix G at the time of its preparation; however, the document did determine that there would be no significant impacts to cultural resources. There are no changes in circumstances under which the proposed Project is undertaken and/or new information of substantial importance that cause one or more effects to tribal cultural resources. No impact to tribal cultural resources would occur.

XIX. UTILITIES AND SERVICE SYSTEMS – Since the previous Negative Declaration was adopted, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that cause effects to utilities and service systems including: require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects; have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years; result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments; generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals; or comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

YES	NO
☐	☒

Summary of Conclusions in the 2009 Project Final Negative Declaration

The Final Negative Declaration (Section XVI, *Utilities and Service Systems*) evaluated the 2009 Project for potential impacts to water and wastewater treatment requirements, facilities, and service providers, stormwater drainage facilities, water supplies, and concluded that no impact would occur. The Final Negative Declaration determined that implementation of the 2009 Project would generate solid waste. However, less than significant impacts were identified with regard to impacts on existing landfill capacities and solid waste statutes and regulations.

Potential Impacts from the Proposed Project

The Project site is located within the developed western portion of Heritage Park, which is equipped with all major utilities including water, sewer, gas and electric, irrigation main, fire main, and fire hydrants. The proposed Project is a scaled-down version of the 2009 Project, and would

include the addition of up to 24 guest rooms for hotel uses, recreational amenities, landscaping improvements, and other minor outdoor improvements that would connect to existing utility infrastructure at the Project site. The proposed Project would not include uses that differ substantially from those that were proposed as part of the 2009 Project. Although the outdoor meeting space was not proposed as part of the 2009 Project, the new feature would be consistent with existing event and recreational uses that occur in the back lawn area, and would not greatly increase the demand for potable water, irrigation water, electricity, or any other utilities at the Project site. Therefore, similar to the 2009 Project, the proposed Project would not involve any uses that would result in impacts to the existing sewer line located within Heritage Park Road; would not include or require new or expanded water, wastewater treatment, or stormwater drainage facilities; and would utilize existing water infrastructure to obtain its water supply from the City of San Diego. In addition, the proposed Project would obtain permits as needed from the City to ensure adequate utility capacities are available for the proposed development. Therefore, no impact would occur, and impact levels with regard to utilities would be similar to or less than those discussed in the Final Negative Declaration.

In addition, the proposed Project would generate solid waste during construction activities including demolition debris, building materials, landscaping, and similar wastes. The majority of waste generated during the construction period would be from demolition and renovation of the existing structures, resulting in approximately five tons of waste being generated and hauled from the site for disposal over the course of two years. In addition, tree and concrete removal would occur in smaller amounts. There are several waste disposal facilities located in the vicinity that could accept waste from the Project site. The Miramar Landfill, located at 5180 Convoy Street, San Diego, CA, or Otay Landfill, located at 1700 Maxwell Road, Chula Vista, CA, would accept construction/demolition debris, green waste, mixed municipal waste, and industrial waste. Both of these landfill sites still have adequate capacity to accept the solid waste generated by development of the proposed Project (City of San Diego, 2022a, 2022b). Thus, since the majority of waste generated by the proposed Project would occur during construction, the amount of waste generated at the Project site is not anticipated to significantly impact nearby landfill serving capacities. Furthermore, the solid wastes that would be generated during operations would be less than those that were analyzed in the Final Negative Declaration with full build-out of the 2009 Project. Therefore, no impact would occur.

All solid waste facilities, including landfills require solid waste facility permits to operate. In San Diego County, the County Department of Environmental Health, Local Enforcement Agency issues solid waste facility permits with concurrence from the California Integrated Waste Management Board (CIWMB) under the authority of the Public Resources Code (Sections 44001-44018) and California Code of Regulations Title 27, Division 2, Subdivision 1, Chapter 4 (Section 21440et seq.). The proposed Project would deposit all solid waste at a permitted solid waste facility. The proposed Project would also divert debris generated during construction to recycling facilities. Therefore, the proposed Project would comply with federal, state, and local statutes and regulations related to solid waste.

Conclusion

The proposed Project would be consistent with the findings of the Final Negative Declaration with respect to utilities and service systems. Although the proposed Project includes changes to building renovations, and the addition of recreational amenities, an internal walkway, landscaping improvements, and storage upgrades, these changes would not give rise to new significant environmental effects or a substantial increase in the severity of previously identified significant effects to utilities and service systems. There are no changes in circumstances under which the proposed Project is undertaken and/or new information of substantial importance that cause one or more effects to utilities and service systems.

XX. WILDFIRE – Since the previous Negative Declaration was adopted, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that cause effects to wildfire including: if located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project: substantially impair an adopted emergency response plan or emergency evacuation plan; due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire; require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment; and/or expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

YES	NO
☐	☒

Summary of Conclusions in the 2009 Project Final Negative Declaration

Wildfire impacts were not previously analyzed in a separate topic heading under the Final Negative Declaration prepared for the 2009 Project as Wildfire is a new resource area that was added during the 2018 CEQA Guidelines update. Although the Final Negative Declaration considered impacts to emergency response plans, emergency evacuation plans, and wildfire hazards in section VII, *Hazards and Hazardous Materials,* Appendix G of the CEQA Guidelines currently requires a discussion of wildfire hazards specific to projects located in or near state responsibility areas or lands classified as VHFHSZ. Therefore, to be consistent with the updated CEQA Thresholds, wildfire impacts for the proposed Project have been analyzed separately under its own topic heading in this Addendum.

It was determined that the 2009 Project would not interfere with applicable emergency response and evacuation plans as it would not prohibit subsequent plans from being established or prevent the goals and objectives of existing plans from being carried out. Furthermore, the Final Negative Declaration concluded that the 2009 Project would not result in the exposure of people to fire hazards or flooding hazards because the Project site was completely surrounded by urbanized areas and/or irrigated lands, and no wildlands were located adjacent to the Project site.

Potential Impacts from the Proposed Project

Development of the proposed Project would occur on the same Project site as the 2009 Project. As such, existing conditions relative to the urbanized nature of the Project site have remained the same as described in the analysis for the 2009 Project in the Final Negative Declaration. Some lands in proximity to the Project site to the north and east are designated as a VHFHSZ by CalFIRE, and the City of San Diego classifies the proposed Project site and surrounding areas as a VHFHSZ (CalFIRE, 2009; City of San Diego 2022a).

The proposed Project would be located within the jurisdiction of the San Diego County Operational Area Emergency Plan and the Multi-Jurisdictional Hazard Mitigation Plan. Similar to the 2009 Project, the proposed Project would not conflict or obstruct the effectiveness of any of emergency plans as it would not prohibit subsequent plans from being established or prevent the goals and objectives of existing plans from being carried out.

The Project site is located within the existing developed portion of Heritage Park and is bound by urban development to the south and west. However, the hillsides that bound the site to the north and northeast, as well as the canyon located east/adjacent to the Project site in undeveloped portions of Heritage Park consist of vegetation that may be flammable during dry periods. Pursuant to the building and fire codes adopted for the City of San Diego and the County Fire Code, the proposed Project would be required to comply with requirements relating to emergency planning and preparedness, fire service features, building services and systems, access requirements, water supply, fire and smoke protection features, building materials, construction requirements, defensible space and vegetation management, and specific requirements for specialized uses involving flammable and hazardous materials. All personnel working at the Project site would be required to comply with Public Resources Code (PRC) Sections 4427, 4428, 4431, and 4442, which include regulations relating to the handling of combustible fuels and equipment that can exacerbate fire risks. Therefore, adherence to all applicable regulations would ensure that contractors are responsible for all monitoring and safety measures to reduce risk of exacerbating wildfires. Additionally, all construction activities must comply with fire protection and prevention requirements specified by the California Code of Regulations (CCR) and Cal OSHA. This includes various measures such as easy accessibility of firefighting equipment, proper storage of combustible liquids, no smoking in service and refueling areas, and worker training for firefighter extinguisher use. The project would also comply with County ordinances and the County Consolidated Fire Code. Therefore, through compliance with applicable local, state, and federal regulations, impacts associated with wildfire would be less than significant.

Similar to the 2009 Project, the proposed Project would not require the installation or maintenance of infrastructure that would exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. Furthermore, construction and operational activities at the Project site would be required to adhere to CCR Title 24, the California Building Code, and the California Fire Code.

Conclusion

The proposed Project would be consistent with the findings of the Final Negative Declaration with respect to wildfire. Although the proposed Project includes changes to building renovations, and the addition of recreational amenities, an internal walkway, landscaping improvements, and storage upgrades, these changes would not give rise to new significant environmental effects or a substantial increase in the severity of previously identified significant effects to wildfire. There are no changes in circumstances under which the Project is undertaken and/or new information of substantial importance that cause one or more effects to wildfire.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE : Since the previous Negative Declaration was adopted, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that result in any mandatory findings of significance listed below?

Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?

YES	NO
☐	☒

As described throughout this Addendum, development of the proposed Project would not result in impacts greater than those identified for the 2009 Project in the Final Negative Declaration. As demonstrated in Sections IV and V of this Addendum, biological and cultural resources impacts would be similar as those identified for the 2009 Project and would be less than significant with adherence to all applicable federal, State, and local regulations and standards. Therefore, development of the proposed Project would not substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory

Development of the proposed Project would not result in cumulative impacts as this type of project has been planned and approved for the Project site since the County approved a Plan for Developing and Operating Heritage Park in 1971 and most recently approved the 2009

Project. The Final Negative Declaration did not identify any cumulative considerable impacts for the 2009 Project. Since the proposed Project would implement a scaled-down version of the previously approved 2009 Project and would not result in any impacts greater than those identified for the 2009 Project in the Final Negative Declaration, the proposed Project would not result in greater cumulative impacts than the 2009 Project.

Development of the proposed Project would not have environmental effects which would cause substantial adverse effects on human beings as shown through the analysis contained in this Addendum.

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Appendix A
Air Quality Calculations

Heritage Park

Construction Assumptions

Project Site Acreage 3.89

Project Summary

Land Use	CalEEMod Landuse Type	Unit Amount	Size Metrics	Lot Acreage	Square Feet
Recreational	City Park	0.9	Acre	0.90	39,400
Parking	Other non-asphalt surfaces	5.9	1000 square feet	0.13	5,900

Project Description

Location	CEC Forecasting Climate Zone	Start of Construction	Operational Year	Utility Company
San Diego County	13	1-Jan-23	2025	San Diego Gas & Electric

Construction Schedule - 24 months

Phase Name	CalEEMod Phase Type	Start Date	End Date	Total Days	# of Workers per day	Total One-way Worker Trips per day	Trip Length	Vendor Trips per day	Total One-Way Vendor Trips per day	Trip Length	Total Haul Trucks	Total One-way Haul Trips	Trucks per day	Trip Length
Phase I	Demolition	1/1/2023	8/31/2023	208	10	20	10.8	2	4	7.3	33	66	0.05	20
Site Development- Phase I	Grading	1/1/2023	8/31/2023	208	10	20	10.8	2	4	7.3	1	2	0.003	20
Phase II	Demolition	9/1/2023	4/30/2024	208	10	20	10.8	2	4	7.3	33	66	0.05	20
Phase III	Demolition	5/1/2024	12/31/2024	210	10	20	10.8	2	4	7.3	33	66	0.05	20
Site Development- Phases II and III	Grading	9/1/2023	12/31/2024	418	10	20	10.8	2	4	7.3	0	0	0	20

Note: Duration of construction phases were provided by the client. Assumes 6 days a week work schedule.

Use standard mitigation for 2x/day watering to reduce dust.

Demolition phases would include a total 5 tons of debris.

Grading Summary

Grading Cut:	-	CY
Fill/Import:	1,000	CY
Export:	-	CY
Balanced on Site:	No	

Note: Duration of construction phases were provided by the client. Assumes 6 days a week work schedule.

Demolition

Structures to be Removed

Structure	Area (SF)
Phase I - Building A (Senlis)	1
Phase I - Building B (Sherman-Gilbert)	1
Phase II - Building C (Bushyhead)	1
Phase II - Building D (Burton)	1
Phase III - Building E (Christian)	1
Total (Tons)	**5**

TOTAL PROJECT DEMOLITION WASTE	**Amount**	
Total Demolition Waste (tons)	5	
Total Demolition Waste (CY)	18.5	*Enter into CalEEMod*
Haul Truck Capacity[1]	14	
Total Trucks	1	
Total One-Way Trips	2	*Enter into CalEEMod*
Duration (days)	626	
Haul Trucks per day	0.16	

Notes:

1 http://www.earthhaulers.com/news/how-much-dirt-can-a-dump-truck-carry/

Construction Equipment

Equipment Mix

Phase Name	Equipment Type	Equipment Amount[1]	Hours per Day
Phase 1	Man Lift	1	8
Phase 1	Tractor/Loader/Backhoe	2	8
Phase 1	Forklift	1	8
Phase 1	Crane	1	8
Phase 1	Vendor Truck[2]	2	8
Phase 2	Man Lift	1	8
Phase 2	Tractor/Loader/Backhoe	2	8
Phase 2	Forklift	1	8
Phase 2	Crane	1	8
Phase 2	Vendor Truck[2]	2	8
Phase 3	Man Lift	1	8
Phase 3	Tractor/Loader/Backhoe	2	8
Phase 3	Forklift	1	8
Phase 3	Crane	1	8
Phase 3	Vendor Truck[2]	2	8
Site Development	Tractor/Loader/Backhoe	2	8
Site Development	Excavator	1	8
Site Development	Grader	1	8
Site Development	Roller	1	8
Site Development	Vendor Truck[2]	2	8

Notes:

1 Based on CalEEMod defaults and equipment provided by client for Phase I through Phase III and Site Development.

2 Concrete mixer truck modeled as vendor truck. Includes one water truck to conservatively account for watering during construction.

Heritage Park Addendum

Air Quality Construction Analysis

Regional Maximums Source	ROG	NOX	CO	SO2	Fugitive PM10	Exhaust PM10	Total PM10	Fugitive PM2.5	Exhaust PM2.5	Total PM2.5
						lb/day				
3.2 Phase I - 2023	1.8	15.8	15.8	0.000	0.1	0.6	0.7	0.0	0.6	0.6
3.3 Site Development - Phase I - 2023	2.1	18.3	18.5	0.1	0.3	0.7	1.1	0.1	0.7	0.7
3.4 Phase II - 2023	2.3	19.8	18.9	0.1	0.2	0.8	1.0	0.0	0.7	0.7
3.5 Phase III - 2024	2.2	18.1	18.1	0.1	0.1	0.7	0.8	0.0	0.7	0.7
3.6 Site Development - Phases II and III - 2023	1.8	19.5	19.5	0.0	0.1	0.6	0.8	0.0	0.6	0.6
Project Daily Maximum Emissions	**2.3**	**19.8**	**18.9**	**0.1**	**0.3**	**0.8**	**1.1**	**0.1**	**0.7**	**0.7**

Heritage Park Addendum

Air Quality Construction Analysis

Unmitigated Construction Scenario

Regional Emissions Summary	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
Source	lb/day					
3.2 Phase I - 2023	2	16	16	0	0.7	0.6
3.3 Site Development - Phase I	2	18	19	0.1	1.1	0.7
3.4 Phase II	2	20	19	0.1	1.0	0.7
3.5 Phase III	2	18	18	0.1	0.8	0.7
3.6 Site Development - Phases II and III	2	20	20	0	0.8	0.6
Project Daily Maximum Emissions	2	19	19	0.1	1.1	0.7
SDAPCD Regional Significance Threholds	137	250	550	250	100	55
Exceeds Thresholds?	No	No	No	No	No	No

Heritage Park Addendum

Air Quality Construction Analysis

Summer	Onsite Emissions										Offsite Emissions									
Source	ROG	NOX	CO	SO2	Fugitive PM10	Exhaust PM10	Total PM10	Fugitive PM2.5	Exhaust PM2.5	Total PM2.5	ROG	NOX	CO	SO2	Fugitive PM10	Exhaust PM10	Total PM10	Fugitive PM2.5	Exhaust PM2.5	Total PM2.5
	lb/day										lb/day									
3.2 Phase I - 2023	1.79	15.52	15.11	0.04	0.00	0.64	0.64	0.00	0.59	0.59	0.01	0.26	0.64	0.000	0.08	0.00	0.09	0.02	0.00	0.02
3.3 Site Development - Phase I - 2023	2.04	18.02	17.84	0.05	0.24	0.72	0.96	0.03	0.67	0.69	0.01	0.26	0.64	0.000	0.08	0.00	0.09	0.02	0.00	0.02
3.4 Phase II - 2023	2.27	19.28	17.64	0.06	0.00	0.77	0.77	0.00	0.70	0.70	0.02	0.51	1.25	0.000	0.16	0.00	0.18	0.04	0.00	0.04
3.5 Phase III - 2024	2.22	18.04	17.52	0.06	0.00	0.71	0.71	0.00	0.66	0.66	0.01	0.25	0.61	0.000	0.08	0.00	0.09	0.02	0.00	0.02
3.6 Site Development - Phases II and III - 2023	1.73	15.72	18.35	0.04	0.00	0.64	0.64	0.00	0.59	0.59	0.02	0.26	1.12	0.000	0.14	0.00	0.14	0.02	0.00	0.02

Regional Emissions	ROG	NOX	CO	SO2	Fugitive PM10	Exhaust PM10	Total PM10	Fugitive PM2.5	Exhaust PM2.5	Total PM2.5
3.2 Phase I - 2023	1.8	15.8	15.8	0.0	0.1	0.6	0.7	0.0	0.6	0.6
3.3 Site Development - Phase I - 2023	2.1	18.3	18.5	0.1	0.3	0.7	1.1	0.1	0.7	0.7
3.4 Phase II - 2023	2.3	19.8	18.9	0.1	0.2	0.8	1.0	0.0	0.7	0.7
3.5 Phase III - 2024	2.2	18.3	18.1	0.1	0.1	0.7	0.8	0.0	0.7	0.7
3.6 Site Development - Phases II and III - 2023	1.8	16.0	19.5	0.0	0.1	0.6	0.8	0.0	0.6	0.6
Project Daily Maximum Emissions	**2.3000**	**19.80000**	**18.9000**	**0.1000**	**0.3000**	**0.8000**	**1.1000**	**0.1000**	**0.7000**	**0.7000**

Note: Offsite emissions pasted over from EMFAC2021

Heritage Park Addendum

Air Quality Construction Analysis

Winter	Onsite Emissions										Offsite Emissions									
Source	ROG	NOX	CO	SO2	Fugitive PM10	Exhaust PM10	Total PM10	Fugitive PM2.5	Exhaust PM2.5	Total PM2.5	ROG	NOX	CO	SO2	Fugitive PM10	Exhaust PM10	Total PM10	Fugitive PM2.5	Exhaust PM2.5	Total PM2.5
	lb/day										lb/day									
3.2 Phase I - 2023	1.80	15.52	15.11	0.04	0.00	0.64	0.64	0.00	0.59	0.59	0.01	0.26	0.64	0.000	0.08	0.00	0.09	0.02	0.00	0.02
3.3 Site Development - Phase I - 2023	2.04	18.02	17.84	0.05	0.24	0.72	0.96	0.03	0.67	0.69	0.01	0.26	0.64	0.000	0.08	0.00	0.09	0.02	0.00	0.02
3.4 Phase II - 2023	2.27	19.28	17.64	0.06	0.00	0.77	0.77	0.00	0.70	0.70	0.02	0.51	1.25	0.000	0.16	0.00	0.18	0.04	0.00	0.04
3.5 Phase III - 2024	2.22	18.04	17.52	0.06	0.00	0.71	0.71	0.00	0.66	0.66	0.01	0.25	0.61	0.000	0.08	0.00	0.09	0.02	0.00	0.02
3.6 Site Development - Phases II and III - 2023	1.73	15.72	18.35	0.04	0.00	0.64	0.64	0.00	0.59	0.59	0.02	0.26	1.12	0.000	0.14	0.00	0.14	0.02	0.00	0.02

Regional Emissions	ROG	NOX	CO	SO2	Fugitive PM10	Exhaust PM10	Total PM10	Fugitive PM2.5	Exhaust PM2.5	Total PM2.5
3.2 Phase I - 2023	1.8	15.8	15.8	0.0	0.1	0.6	0.7	0.0	0.6	0.6
3.3 Site Development - Phase I - 2023	2.1	18.3	18.5	0.1	0.3	0.7	1.1	0.1	0.7	0.7
3.4 Phase II - 2023	2.3	19.8	18.9	0.1	0.2	0.8	1.0	0.0	0.7	0.7
3.5 Phase III - 2024	2.2	18.3	18.1	0.1	0.1	0.7	0.8	0.0	0.7	0.7
3.6 Site Development - Phases II and III - 2023	1.8	16.0	19.5	0.0	0.1	0.6	0.8	0.0	0.6	0.6
Project Daily Maximum Emissions	**2.3000**	**19.8000**	**18.9000**	**0.1000**	**0.3000**	**0.8000**	**1.1000**	**0.1000**	**0.7000**	**0.7000**

Note: Offsite emissions pasted over from EMFAC2021

	Metric Tons/Year		
Year	**On-Road Mobile Sources**	**CalEEMod**	**Total**
2023	81	1,099	1,180
2024	70	641	712
Total	**151**	**1,740**	**1,891**
Amortized - 30 years	**5**	**58**	**63.0**

Heritage Park

Total On-Road Emissions

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Idling per Day (minutes)
Phase I	2023				
Total Haul Trips	66				
Hauling	1	208	8	20	15
Vendor	2	208	8	7.3	15
Worker	20	208	8	10.8	0
					Total:
Site Development- Phase I	2023				
Total Haul Trips	2				
Hauling	1	208	8	20	15
Vendor	2	208	8	7.3	15
Worker	20	208	8	10.8	0
					Total:
Phase II	2023				
Total Haul Trips	33				
Hauling	1	106	8	20	15
Vendor	2	106	8	7.3	15
Worker	20	106	8	10.8	0
					Total:
Phase II	2024				
Total Haul Trips	33				
Hauling	1	102	8	20	15
Vendor	2	102	8	7.3	15
Worker	20	102	8	10.8	0
					Total:
Phase III	2024				
Total Haul Trips	66				
Hauling	1	208	8	20	15
Vendor	2	208	8	7.3	15
Worker	20	208	8	10.8	0
					Total:
Site Development- Phases II and III	2023				
Total Haul Trips	0				
Hauling	0	106	8	20	15
Vendor	2	106	8	7.3	15
Worker	20	106	8	10.8	0
					Total:
Site Development- Phases II and III	2024				
Total Haul Trips	0				
Hauling	0	310	8	20	15
Vendor	2	310	8	7.3	15
Worker	20	310	8	10.8	0
					Total:

Heritage Park

Total On-Road Emissions

Construction Phase	Regional Emissions (pounds/day)										(MT/yr)
	ROG	NOX	CO	SO2	PM10 Dust	PM10 Exh	Total PM10	PM2.5 Dust	PM2.5 Exh	Total PM2.5	Total CO2e
Phase I											
Total Haul Trips											
Hauling	0.00	0.12	0.07	0.00	0.01	0.00	0.01	0.00	0.00	0.00	7.86
Vendor	0.00	0.09	0.06	0.00	0.01	0.00	0.01	0.00	0.00	0.00	5.41
Worker	0.01	0.04	0.51	0.00	0.07	0.00	0.07	0.01	0.00	0.01	14.79
	0.01	0.26	0.64	0.00	0.08	0.00	0.09	0.02	0.00	0.02	28.06
Site Development- Phase I											
Total Haul Trips											
Hauling	0.00	0.12	0.07	0.00	0.01	0.00	0.01	0.00	0.00	0.00	7.86
Vendor	0.00	0.09	0.06	0.00	0.01	0.00	0.01	0.00	0.00	0.00	5.41
Worker	0.01	0.04	0.51	0.00	0.07	0.00	0.07	0.01	0.00	0.01	14.79
	0.01	0.26	0.64	0.00	0.08	0.00	0.09	0.02	0.00	0.02	28.06
Phase II											
Total Haul Trips											
Hauling	0.00	0.12	0.07	0.00	0.01	0.00	0.01	0.00	0.00	0.00	4.01
Vendor	0.00	0.09	0.06	0.00	0.01	0.00	0.01	0.00	0.00	0.00	2.76
Worker	0.01	0.04	0.51	0.00	0.07	0.00	0.07	0.01	0.00	0.01	7.54
	0.01	0.26	0.64	0.00	0.08	0.00	0.09	0.02	0.00	0.02	14.30
Phase II											
Total Haul Trips											
Hauling	0.00	0.12	0.07	0.00	0.01	0.00	0.01	0.00	0.00	0.00	3.79
Vendor	0.00	0.09	0.06	0.00	0.01	0.00	0.01	0.00	0.00	0.00	2.61
Worker	0.01	0.04	0.48	0.00	0.07	0.00	0.07	0.01	0.00	0.01	7.07
	0.01	0.25	0.61	0.00	0.08	0.00	0.09	0.02	0.00	0.02	13.47
Phase III											
Total Haul Trips											
Hauling	0.00	0.12	0.07	0.00	0.01	0.00	0.01	0.00	0.00	0.00	7.72
Vendor	0.00	0.09	0.06	0.00	0.01	0.00	0.01	0.00	0.00	0.00	5.33
Worker	0.01	0.04	0.48	0.00	0.07	0.00	0.07	0.01	0.00	0.01	14.42
	0.01	0.25	0.61	0.00	0.08	0.00	0.09	0.02	0.00	0.02	27.47
Site Development- Phases II and III											
Total Haul Trips											
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.09	0.06	0.00	0.01	0.00	0.01	0.00	0.00	0.00	2.76
Worker	0.01	0.04	0.51	0.00	0.07	0.00	0.07	0.01	0.00	0.01	7.54
	0.01	0.13	0.58	0.00	0.07	0.00	0.07	0.01	0.00	0.01	10.29
Site Development- Phases II and III											
Total Haul Trips											
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.09	0.06	0.00	0.01	0.00	0.01	0.00	0.00	0.00	7.95
Worker	0.01	0.04	0.48	0.00	0.07	0.00	0.07	0.01	0.00	0.01	21.48
	0.01	0.13	0.54	0.00	0.07	0.00	0.07	0.01	0.00	0.01	29.43

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Heritage Park Addendum

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	0.90	Acre	0.90	39,400.00	0
Other Non-Asphalt Surfaces	5.90	1000sqft	0.13	5,900.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2025
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	539.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Based on project data received from applicant.

Construction Phase - Based on construction schedule provided by the applicant.

Off-road Equipment - Based on project data provided by applicant.

Off-road Equipment - Based on project data provided by applicant.

Off-road Equipment - Based on project data provided by applicant.

Off-road Equipment - Based on project data provided by applicant.

Off-road Equipment - Site development equipment accounted for in Site Development - Phase I.

Grading -

Demolition -

Trips and VMT - Based on project data provided by applicant.

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Vehicle Trips - Mobile calculated outside CalEEMod.

Construction Off-road Equipment Mitigation - Water 2x day.

Mobile Land Use Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	210.00
tblConstructionPhase	NumDays	20.00	208.00
tblConstructionPhase	NumDays	20.00	208.00
tblConstructionPhase	NumDays	4.00	418.00
tblConstructionPhase	NumDays	4.00	208.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	PhaseEndDate	11/13/2023	12/31/2024
tblConstructionPhase	PhaseEndDate	1/27/2023	8/31/2023
tblConstructionPhase	PhaseEndDate	2/6/2023	4/30/2024
tblConstructionPhase	PhaseEndDate	11/27/2023	12/31/2024
tblConstructionPhase	PhaseEndDate	1/31/2023	8/31/2023
tblConstructionPhase	PhaseStartDate	2/7/2023	5/1/2024
tblConstructionPhase	PhaseStartDate	2/1/2023	9/1/2023
tblConstructionPhase	PhaseStartDate	11/14/2023	9/1/2023
tblConstructionPhase	PhaseStartDate	1/28/2023	1/1/2023
tblGrading	MaterialImported	0.00	1,000.00
tblLandUse	LandUseSquareFeet	39,204.00	39,400.00
tblLandUse	LotAcreage	0.14	0.13
tblOffRoadEquipment	HorsePower	97.00	84.00
tblOffRoadEquipment	HorsePower	97.00	187.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblOffRoadEquipment	HorsePower	89.00	247.00
tblOffRoadEquipment	HorsePower	231.00	97.00
tblOffRoadEquipment	HorsePower	63.00	81.00
tblOffRoadEquipment	HorsePower	63.00	81.00
tblOffRoadEquipment	HorsePower	402.00	247.00
tblOffRoadEquipment	LoadFactor	0.37	0.74
tblOffRoadEquipment	LoadFactor	0.37	0.41
tblOffRoadEquipment	LoadFactor	0.20	0.40
tblOffRoadEquipment	LoadFactor	0.29	0.37
tblOffRoadEquipment	LoadFactor	0.31	0.73
tblOffRoadEquipment	LoadFactor	0.31	0.73
tblOffRoadEquipment	LoadFactor	0.38	0.40
tblOffRoadEquipment	OffRoadEquipmentType		Aerial Lifts
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Forklifts
tblOffRoadEquipment	OffRoadEquipmentType	Rubber Tired Dozers	Forklifts
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType	Tractors/Loaders/Backhoes	Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType	Concrete/Industrial Saws	Aerial Lifts
tblOffRoadEquipment	OffRoadEquipmentType	Concrete/Industrial Saws	Aerial Lifts
tblOffRoadEquipment	OffRoadEquipmentType	Rubber Tired Dozers	Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Graders
tblOffRoadEquipment	OffRoadEquipmentType		Rollers
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblTripsAndVMT	HaulingTripNumber	125.00	200.00
tblTripsAndVMT	WorkerTripNumber	18.00	10.00
tblTripsAndVMT	WorkerTripNumber	18.00	10.00
tblTripsAndVMT	WorkerTripNumber	18.00	10.00
tblTripsAndVMT	WorkerTripNumber	18.00	10.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TTP	48.00	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	33.00	0.00
tblVehicleTrips	DV_TP	28.00	0.00
tblVehicleTrips	PB_TP	6.00	0.00
tblVehicleTrips	PR_TP	66.00	0.00
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	WD_TR	0.78	0.00

2.0 Emissions Summary

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	0.5244	4.5085	4.4071	0.0124	0.0778	0.1817	0.2595	0.0120	0.1672	0.1792	0.0000	1,089.8299	1,089.8299	0.3460	1.4100e-003	1,098.9012
2024	0.3017	2.5914	2.8716	7.2400e-003	0.0126	0.1047	0.1173	3.3500e-003	0.0963	0.0997	0.0000	636.0787	636.0787	0.2029	2.6000e-004	641.2279
Maximum	**0.5244**	**4.5085**	**4.4071**	**0.0124**	**0.0778**	**0.1817**	**0.2595**	**0.0120**	**0.1672**	**0.1792**	**0.0000**	**1,089.8299**	**1,089.8299**	**0.3460**	**1.4100e-003**	**1,098.9012**

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	0.5244	4.5085	4.4071	0.0124	0.0474	0.1817	0.2292	8.7000e-003	0.1672	0.1759	0.0000	1,089.8286	1,089.8286	0.3460	1.4100e-003	1,098.8999
2024	0.3017	2.5914	2.8716	7.2400e-003	0.0126	0.1047	0.1173	3.3500e-003	0.0963	0.0997	0.0000	636.0779	636.0779	0.2029	2.6000e-004	641.2271
Maximum	**0.5244**	**4.5085**	**4.4071**	**0.0124**	**0.0474**	**0.1817**	**0.2292**	**8.7000e-003**	**0.1672**	**0.1759**	**0.0000**	**1,089.8286**	**1,089.8286**	**0.3460**	**1.4100e-003**	**1,098.8999**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	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	**0.00**	**0.00**	**0.00**	**0.00**	**33.62**	**0.00**	**8.06**	**21.40**	**0.00**	**1.18**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**1-1-2023**	**3-31-2023**	3.0641	3.0641
2	**4-1-2023**	**6-30-2023**	3.0970	3.0970
3	**7-1-2023**	**9-30-2023**	2.3877	2.3877
4	**10-1-2023**	**12-31-2023**	0.8517	0.8517
5	**1-1-2024**	**3-31-2024**	1.4745	1.4745
6	**4-1-2024**	**6-30-2024**	0.9434	0.9434
7	**7-1-2024**	**9-30-2024**	0.6898	0.6898
		Highest	3.0970	3.0970

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	9.6000e-004	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2000e-004	1.2000e-004	0.0000	0.0000	1.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0162	0.0000	0.0162	9.6000e-004	0.0000	0.0402
Water						0.0000	0.0000		0.0000	0.0000	0.0000	2.9180	2.9180	1.8000e-004	2.0000e-005	2.9289
Total	**9.6000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0162**	**2.9181**	**2.9344**	**1.1400e-003**	**2.0000e-005**	**2.9693**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	9.6000e-004	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2000e-004	1.2000e-004	0.0000	0.0000	1.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0162	0.0000	0.0162	9.6000e-004	0.0000	0.0402
Water						0.0000	0.0000		0.0000	0.0000	0.0000	2.9180	2.9180	1.8000e-004	2.0000e-005	2.9289
Total	**9.6000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0162**	**2.9181**	**2.9344**	**1.1400e-003**	**2.0000e-005**	**2.9693**

	ROG	NOx	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	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Phase I	Demolition	1/1/2023	8/31/2023	6	208	
2	Site Development - Phase I	Grading	1/1/2023	8/31/2023	6	208	
3	Phase II	Demolition	9/1/2023	4/30/2024	6	208	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4	Phase III	Demolition	5/1/2024	12/31/2024	6	210	
5	Site Development - Phases II and III	Grading	9/1/2023	12/31/2024	6	418	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 104

Acres of Paving: 0.13

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Phase II	Aerial Lifts	1	8.00	81	0.73
Phase I	Aerial Lifts	1	8.00	63	0.31
Phase III	Cranes	1	8.00	231	0.29
Phase III	Forklifts	1	8.00	89	0.20
Phase III	Tractors/Loaders/Backhoes	2	8.00	84	0.74
Phase II	Tractors/Loaders/Backhoes	2	8.00	187	0.41
Phase I	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Phase I	Forklifts	1	8.00	89	0.20
Phase II	Forklifts	1	8.00	247	0.40
Phase I	Cranes	1	8.00	231	0.29
Phase II	Off-Highway Trucks	2	8.00	402	0.38
Phase II	Cranes	1	8.00	97	0.37
Phase I	Off-Highway Trucks	2	8.00	402	0.38
Phase III	Aerial Lifts	1	8.00	81	0.73
Phase III	Off-Highway Trucks	2	8.00	247	0.40
Site Development - Phase I	Off-Highway Trucks	2	8.00	402	0.38
Site Development - Phase I	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Development - Phase I	Excavators	1	8.00	158	0.38

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Site Development - Phase I	Graders	1	8.00	187	0.41
Site Development - Phase I	Rollers	1	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
Phase I	7	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Development - Phase I	7	10.00	0.00	200.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase II	7	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase III	7	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Development - Phases II and III			0.00	0.00	10.80	7.30				

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Phase I - 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					
Fugitive Dust					2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1871	1.6136	1.5715	4.3300e-003		0.0663	0.0663		0.0610	0.0610	0.0000	380.4457	380.4457	0.1230	0.0000	383.5218
Total	**0.1871**	**1.6136**	**1.5715**	**4.3300e-003**	**2.0000e-005**	**0.0663**	**0.0663**	**0.0000**	**0.0610**	**0.0610**	**0.0000**	**380.4457**	**380.4457**	**0.1230**	**0.0000**	**383.5218**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Phase I - 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	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	2.8100e-003	1.9500e-003	0.0237	7.0000e-005	8.3400e-003	5.0000e-005	8.3900e-003	2.2200e-003	4.0000e-005	2.2600e-003	0.0000	6.5994	6.5994	2.0000e-004	1.8000e-004	6.6592
Total	**2.8100e-003**	**1.9500e-003**	**0.0237**	**7.0000e-005**	**8.3400e-003**	**5.0000e-005**	**8.3900e-003**	**2.2200e-003**	**4.0000e-005**	**2.2600e-003**	**0.0000**	**6.5994**	**6.5994**	**2.0000e-004**	**1.8000e-004**	**6.6592**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1871	1.6136	1.5715	4.3300e-003		0.0663	0.0663		0.0610	0.0610	0.0000	380.4452	380.4452	0.1230	0.0000	383.5213
Total	**0.1871**	**1.6136**	**1.5715**	**4.3300e-003**	**1.0000e-005**	**0.0663**	**0.0663**	**0.0000**	**0.0610**	**0.0610**	**0.0000**	**380.4452**	**380.4452**	**0.1230**	**0.0000**	**383.5213**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Phase I - 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	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	2.8100e-003	1.9500e-003	0.0237	7.0000e-005	8.3400e-003	5.0000e-005	8.3900e-003	2.2200e-003	4.0000e-005	2.2600e-003	0.0000	6.5994	6.5994	2.0000e-004	1.8000e-004	6.6592
Total	**2.8100e-003**	**1.9500e-003**	**0.0237**	**7.0000e-005**	**8.3400e-003**	**5.0000e-005**	**8.3900e-003**	**2.2200e-003**	**4.0000e-005**	**2.2600e-003**	**0.0000**	**6.5994**	**6.5994**	**2.0000e-004**	**1.8000e-004**	**6.6592**

3.3 Site Development - Phase I - 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					
Fugitive Dust					0.0552	0.0000	0.0552	5.9700e-003	0.0000	5.9700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2118	1.8740	1.8556	4.9000e-003		0.0754	0.0754		0.0694	0.0694	0.0000	430.0345	430.0345	0.1391	0.0000	433.5115
Total	**0.2118**	**1.8740**	**1.8556**	**4.9000e-003**	**0.0552**	**0.0754**	**0.1306**	**5.9700e-003**	**0.0694**	**0.0753**	**0.0000**	**430.0345**	**430.0345**	**0.1391**	**0.0000**	**433.5115**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Development - Phase I - 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	tons/yr										MT/yr					
Hauling	2.2000e-004	0.0136	3.6100e-003	6.0000e-005	1.7100e-003	1.1000e-004	1.8200e-003	4.7000e-004	1.1000e-004	5.8000e-004	0.0000	6.0015	6.0015	3.0000e-004	9.5000e-004	6.2934
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8100e-003	1.9500e-003	0.0237	7.0000e-005	8.3400e-003	5.0000e-005	8.3900e-003	2.2200e-003	4.0000e-005	2.2600e-003	0.0000	6.5994	6.5994	2.0000e-004	1.8000e-004	6.6592
Total	**3.0300e-003**	**0.0155**	**0.0273**	**1.3000e-004**	**0.0101**	**1.6000e-004**	**0.0102**	**2.6900e-003**	**1.5000e-004**	**2.8400e-003**	**0.0000**	**12.6009**	**12.6009**	**5.0000e-004**	**1.1300e-003**	**12.9526**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					0.0249	0.0000	0.0249	2.6800e-003	0.0000	2.6800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2118	1.8740	1.8556	4.9000e-003		0.0754	0.0754		0.0694	0.0694	0.0000	430.0339	430.0339	0.1391	0.0000	433.5110
Total	**0.2118**	**1.8740**	**1.8556**	**4.9000e-003**	**0.0249**	**0.0754**	**0.1002**	**2.6800e-003**	**0.0694**	**0.0720**	**0.0000**	**430.0339**	**430.0339**	**0.1391**	**0.0000**	**433.5110**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Development - Phase I - 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	tons/yr										MT/yr					
Hauling	2.2000e-004	0.0136	3.6100e-003	6.0000e-005	1.7100e-003	1.1000e-004	1.8200e-003	4.7000e-004	1.1000e-004	5.8000e-004	0.0000	6.0015	6.0015	3.0000e-004	9.5000e-004	6.2934
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8100e-003	1.9500e-003	0.0237	7.0000e-005	8.3400e-003	5.0000e-005	8.3900e-003	2.2200e-003	4.0000e-005	2.2600e-003	0.0000	6.5994	6.5994	2.0000e-004	1.8000e-004	6.6592
Total	**3.0300e-003**	**0.0155**	**0.0273**	**1.3000e-004**	**0.0101**	**1.6000e-004**	**0.0102**	**2.6900e-003**	**1.5000e-004**	**2.8400e-003**	**0.0000**	**12.6009**	**12.6009**	**5.0000e-004**	**1.1300e-003**	**12.9526**

3.4 Phase II - 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					
Fugitive Dust					1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1183	1.0025	0.9171	2.9300e-003		0.0398	0.0398		0.0366	0.0366	0.0000	256.8497	256.8497	0.0831	0.0000	258.9265
Total	**0.1183**	**1.0025**	**0.9171**	**2.9300e-003**	**1.0000e-005**	**0.0398**	**0.0398**	**0.0000**	**0.0366**	**0.0366**	**0.0000**	**256.8497**	**256.8497**	**0.0831**	**0.0000**	**258.9265**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Phase II - 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	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	1.4100e-003	9.7000e-004	0.0119	4.0000e-005	4.1700e-003	2.0000e-005	4.1900e-003	1.1100e-003	2.0000e-005	1.1300e-003	0.0000	3.2997	3.2997	1.0000e-004	9.0000e-005	3.3296
Total	**1.4100e-003**	**9.7000e-004**	**0.0119**	**4.0000e-005**	**4.1700e-003**	**2.0000e-005**	**4.1900e-003**	**1.1100e-003**	**2.0000e-005**	**1.1300e-003**	**0.0000**	**3.2997**	**3.2997**	**1.0000e-004**	**9.0000e-005**	**3.3296**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1183	1.0025	0.9171	2.9300e-003		0.0398	0.0398		0.0366	0.0366	0.0000	256.8494	256.8494	0.0831	0.0000	258.9262
Total	**0.1183**	**1.0025**	**0.9171**	**2.9300e-003**	**0.0000**	**0.0398**	**0.0398**	**0.0000**	**0.0366**	**0.0366**	**0.0000**	**256.8494**	**256.8494**	**0.0831**	**0.0000**	**258.9262**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Phase II - 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	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	1.4100e-003	9.7000e-004	0.0119	4.0000e-005	4.1700e-003	2.0000e-005	4.1900e-003	1.1100e-003	2.0000e-005	1.1300e-003	0.0000	3.2997	3.2997	1.0000e-004	9.0000e-005	3.3296
Total	**1.4100e-003**	**9.7000e-004**	**0.0119**	**4.0000e-005**	**4.1700e-003**	**2.0000e-005**	**4.1900e-003**	**1.1100e-003**	**2.0000e-005**	**1.1300e-003**	**0.0000**	**3.2997**	**3.2997**	**1.0000e-004**	**9.0000e-005**	**3.3296**

3.4 Phase II - 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					
Fugitive Dust					1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1157	0.9380	0.9110	2.9300e-003		0.0370	0.0370		0.0341	0.0341	0.0000	256.9145	256.9145	0.0831	0.0000	258.9918
Total	**0.1157**	**0.9380**	**0.9110**	**2.9300e-003**	**1.0000e-005**	**0.0370**	**0.0371**	**0.0000**	**0.0341**	**0.0341**	**0.0000**	**256.9145**	**256.9145**	**0.0831**	**0.0000**	**258.9918**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Phase II - 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	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	1.3200e-003	8.7000e-004	0.0111	3.0000e-005	4.1700e-003	2.0000e-005	4.1900e-003	1.1100e-003	2.0000e-005	1.1300e-003	0.0000	3.1917	3.1917	9.0000e-005	9.0000e-005	3.2195
Total	**1.3200e-003**	**8.7000e-004**	**0.0111**	**3.0000e-005**	**4.1700e-003**	**2.0000e-005**	**4.1900e-003**	**1.1100e-003**	**2.0000e-005**	**1.1300e-003**	**0.0000**	**3.1917**	**3.1917**	**9.0000e-005**	**9.0000e-005**	**3.2195**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1157	0.9380	0.9110	2.9300e-003		0.0370	0.0370		0.0341	0.0341	0.0000	256.9142	256.9142	0.0831	0.0000	258.9915
Total	**0.1157**	**0.9380**	**0.9110**	**2.9300e-003**	**0.0000**	**0.0370**	**0.0370**	**0.0000**	**0.0341**	**0.0341**	**0.0000**	**256.9142**	**256.9142**	**0.0831**	**0.0000**	**258.9915**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Phase II - 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	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	1.3200e-003	8.7000e-004	0.0111	3.0000e-005	4.1700e-003	2.0000e-005	4.1900e-003	1.1100e-003	2.0000e-005	1.1300e-003	0.0000	3.1917	3.1917	9.0000e-005	9.0000e-005	3.2195
Total	**1.3200e-003**	**8.7000e-004**	**0.0111**	**3.0000e-005**	**4.1700e-003**	**2.0000e-005**	**4.1900e-003**	**1.1100e-003**	**2.0000e-005**	**1.1300e-003**	**0.0000**	**3.1917**	**3.1917**	**9.0000e-005**	**9.0000e-005**	**3.2195**

3.5 Phase III - 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					
Fugitive Dust					1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1820	1.6508	1.9273	4.2100e-003		0.0676	0.0676		0.0622	0.0622	0.0000	369.5279	369.5279	0.1195	0.0000	372.5157
Total	**0.1820**	**1.6508**	**1.9273**	**4.2100e-003**	**1.0000e-005**	**0.0676**	**0.0676**	**0.0000**	**0.0622**	**0.0622**	**0.0000**	**369.5279**	**369.5279**	**0.1195**	**0.0000**	**372.5157**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Phase III - 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	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	2.6700e-003	1.7700e-003	0.0224	7.0000e-005	8.4200e-003	4.0000e-005	8.4600e-003	2.2400e-003	4.0000e-005	2.2800e-003	0.0000	6.4447	6.4447	1.8000e-004	1.7000e-004	6.5009
Total	**2.6700e-003**	**1.7700e-003**	**0.0224**	**7.0000e-005**	**8.4200e-003**	**4.0000e-005**	**8.4600e-003**	**2.2400e-003**	**4.0000e-005**	**2.2800e-003**	**0.0000**	**6.4447**	**6.4447**	**1.8000e-004**	**1.7000e-004**	**6.5009**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1820	1.6508	1.9273	4.2100e-003		0.0676	0.0676		0.0622	0.0622	0.0000	369.5274	369.5274	0.1195	0.0000	372.5152
Total	**0.1820**	**1.6508**	**1.9273**	**4.2100e-003**	**0.0000**	**0.0676**	**0.0676**	**0.0000**	**0.0622**	**0.0622**	**0.0000**	**369.5274**	**369.5274**	**0.1195**	**0.0000**	**372.5152**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Phase III - 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	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	2.6700e-003	1.7700e-003	0.0224	7.0000e-005	8.4200e-003	4.0000e-005	8.4600e-003	2.2400e-003	4.0000e-005	2.2800e-003	0.0000	6.4447	6.4447	1.8000e-004	1.7000e-004	6.5009
Total	**2.6700e-003**	**1.7700e-003**	**0.0224**	**7.0000e-005**	**8.4200e-003**	**4.0000e-005**	**8.4600e-003**	**2.2400e-003**	**4.0000e-005**	**2.2800e-003**	**0.0000**	**6.4447**	**6.4447**	**1.8000e-004**	**1.7000e-004**	**6.5009**

3.6 Site Development - Phases II and III - 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					
Fugitive Dust					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					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Site Development - Phases II and III - 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	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
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Site Development - Phases II and III - 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	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
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Site Development - Phases II and III - 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					
Fugitive Dust					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					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Site Development - Phases II and III - 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	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
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Site Development - Phases II and III - 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	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
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

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	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.561854	0.062428	0.177046	0.117565	0.023832	0.006317	0.008949	0.006298	0.000705	0.000577	0.028723	0.000955	0.004751
Other Non-Asphalt Surfaces	0.561854	0.062428	0.177046	0.117565	0.023832	0.006317	0.008949	0.006298	0.000705	0.000577	0.028723	0.000955	0.004751

5.0 Energy Detail

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Historical Energy Use: N

5.1 Mitigation Measures 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	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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
Other Non-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		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
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 Non-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		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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 Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

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 Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	9.6000e-004	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2000e-004	1.2000e-004	0.0000	0.0000	1.3000e-004
Unmitigated	9.6000e-004	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2000e-004	1.2000e-004	0.0000	0.0000	1.3000e-004

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	2.1000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	7.5000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2000e-004	1.2000e-004	0.0000	0.0000	1.3000e-004
Total	**9.7000e-004**	**0.0000**	**6.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.2000e-004**	**1.2000e-004**	**0.0000**	**0.0000**	**1.3000e-004**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	2.1000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	7.5000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2000e-004	1.2000e-004	0.0000	0.0000	1.3000e-004
Total	**9.7000e-004**	**0.0000**	**6.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.2000e-004**	**1.2000e-004**	**0.0000**	**0.0000**	**1.3000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	2.9180	1.8000e-004	2.0000e-005	2.9289
Unmitigated	2.9180	1.8000e-004	2.0000e-005	2.9289

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 1.07233	2.9180	1.8000e-004	2.0000e-005	2.9289
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**2.9180**	**1.8000e-004**	**2.0000e-005**	**2.9289**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 1.07233	2.9180	1.8000e-004	2.0000e-005	2.9289
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**2.9180**	**1.8000e-004**	**2.0000e-005**	**2.9289**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0162	9.6000e-004	0.0000	0.0402
Unmitigated	0.0162	9.6000e-004	0.0000	0.0402

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.08	0.0162	9.6000e-004	0.0000	0.0402
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0162**	**9.6000e-004**	**0.0000**	**0.0402**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.08	0.0162	9.6000e-004	0.0000	0.0402
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0162**	**9.6000e-004**	**0.0000**	**0.0402**

9.0 Operational Offroad

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Heritage Park Addendum - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Heritage Park Addendum

San Diego County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	0.90	Acre	0.90	39,400.00	0
Other Non-Asphalt Surfaces	5.90	1000sqft	0.13	5,900.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2025
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	539.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Based on project data received from applicant.

Construction Phase - Based on construction schedule provided by the applicant.

Off-road Equipment - Based on project data provided by applicant.

Off-road Equipment - Based on project data provided by applicant.

Off-road Equipment - Based on project data provided by applicant.

Off-road Equipment - Based on project data provided by applicant.

Off-road Equipment - Site development equipment accounted for in Site Development - Phase I.

Grading -

Demolition -

Trips and VMT - Based on project data provided by applicant.

Heritage Park Addendum - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Vehicle Trips - Mobile calculated outside CalEEMod.

Construction Off-road Equipment Mitigation - Water 2x day.

Mobile Land Use Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	210.00
tblConstructionPhase	NumDays	20.00	208.00
tblConstructionPhase	NumDays	20.00	208.00
tblConstructionPhase	NumDays	4.00	418.00
tblConstructionPhase	NumDays	4.00	208.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	PhaseEndDate	11/13/2023	12/31/2024
tblConstructionPhase	PhaseEndDate	1/27/2023	8/31/2023
tblConstructionPhase	PhaseEndDate	2/6/2023	4/30/2024
tblConstructionPhase	PhaseEndDate	11/27/2023	12/31/2024
tblConstructionPhase	PhaseEndDate	1/31/2023	8/31/2023
tblConstructionPhase	PhaseStartDate	2/7/2023	5/1/2024
tblConstructionPhase	PhaseStartDate	2/1/2023	9/1/2023
tblConstructionPhase	PhaseStartDate	11/14/2023	9/1/2023
tblConstructionPhase	PhaseStartDate	1/28/2023	1/1/2023
tblGrading	MaterialImported	0.00	1,000.00
tblLandUse	LandUseSquareFeet	39,204.00	39,400.00
tblLandUse	LotAcreage	0.14	0.13
tblOffRoadEquipment	HorsePower	97.00	84.00
tblOffRoadEquipment	HorsePower	97.00	187.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblOffRoadEquipment	HorsePower	89.00	247.00
tblOffRoadEquipment	HorsePower	231.00	97.00
tblOffRoadEquipment	HorsePower	63.00	81.00
tblOffRoadEquipment	HorsePower	63.00	81.00
tblOffRoadEquipment	HorsePower	402.00	247.00
tblOffRoadEquipment	LoadFactor	0.37	0.74
tblOffRoadEquipment	LoadFactor	0.37	0.41
tblOffRoadEquipment	LoadFactor	0.20	0.40
tblOffRoadEquipment	LoadFactor	0.29	0.37
tblOffRoadEquipment	LoadFactor	0.31	0.73
tblOffRoadEquipment	LoadFactor	0.31	0.73
tblOffRoadEquipment	LoadFactor	0.38	0.40
tblOffRoadEquipment	OffRoadEquipmentType		Aerial Lifts
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Forklifts
tblOffRoadEquipment	OffRoadEquipmentType	Rubber Tired Dozers	Forklifts
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType	Tractors/Loaders/Backhoes	Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType	Concrete/Industrial Saws	Aerial Lifts
tblOffRoadEquipment	OffRoadEquipmentType	Concrete/Industrial Saws	Aerial Lifts
tblOffRoadEquipment	OffRoadEquipmentType	Rubber Tired Dozers	Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Graders
tblOffRoadEquipment	OffRoadEquipmentType		Rollers
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblTripsAndVMT	HaulingTripNumber	125.00	200.00
tblTripsAndVMT	WorkerTripNumber	18.00	10.00
tblTripsAndVMT	WorkerTripNumber	18.00	10.00
tblTripsAndVMT	WorkerTripNumber	18.00	10.00
tblTripsAndVMT	WorkerTripNumber	18.00	10.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TTP	48.00	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	33.00	0.00
tblVehicleTrips	DV_TP	28.00	0.00
tblVehicleTrips	PB_TP	6.00	0.00
tblVehicleTrips	PR_TP	66.00	0.00
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	WD_TR	0.78	0.00

2.0 Emissions Summary

Heritage Park Addendum - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	3.8922	33.6942	33.4676	0.0908	0.7123	1.3642	2.0765	0.1056	1.2551	1.3607	0.0000	8,800.7155	8,800.7155	2.7855	0.0138	8,874.4561
2024	2.2502	18.0529	18.5787	0.0570	0.0824	0.7128	0.7952	0.0218	0.6558	0.6776	0.0000	5,517.1047	5,517.1047	1.7632	1.7100e-003	5,561.6941
Maximum	**3.8922**	**33.6942**	**33.4676**	**0.0908**	**0.7123**	**1.3642**	**2.0765**	**0.1056**	**1.2551**	**1.3607**	**0.0000**	**8,800.7155**	**8,800.7155**	**2.7855**	**0.0138**	**8,874.4561**

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	3.8922	33.6942	33.4676	0.0908	0.4201	1.3642	1.7844	0.0740	1.2551	1.3291	0.0000	8,800.7155	8,800.7155	2.7855	0.0138	8,874.4561
2024	2.2502	18.0529	18.5787	0.0570	0.0822	0.7128	0.7950	0.0218	0.6558	0.6776	0.0000	5,517.1047	5,517.1047	1.7632	1.7100e-003	5,561.6941
Maximum	**3.8922**	**33.6942**	**33.4676**	**0.0908**	**0.4201**	**1.3642**	**1.7844**	**0.0740**	**1.2551**	**1.3291**	**0.0000**	**8,800.7155**	**8,800.7155**	**2.7855**	**0.0138**	**8,874.4561**

Heritage Park Addendum - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	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	0.00	0.00	0.00	0.00	36.78	0.00	10.18	24.80	0.00	1.55	0.00	0.00	0.00	0.00	0.00	0.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	5.3100e-003	1.0000e-005	6.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.4900e-003	1.4900e-003	0.0000		1.5800e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	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	**5.3100e-003**	**1.0000e-005**	**6.9000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**1.4900e-003**	**1.4900e-003**	**0.0000**	**0.0000**	**1.5800e-003**

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	5.3100e-003	1.0000e-005	6.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.4900e-003	1.4900e-003	0.0000		1.5800e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	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	**5.3100e-003**	**1.0000e-005**	**6.9000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**1.4900e-003**	**1.4900e-003**	**0.0000**	**0.0000**	**1.5800e-003**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Phase I	Demolition	1/1/2023	8/31/2023	6	208	
2	Site Development - Phase I	Grading	1/1/2023	8/31/2023	6	208	
3	Phase II	Demolition	9/1/2023	4/30/2024	6	208	
4	Phase III	Demolition	5/1/2024	12/31/2024	6	210	
5	Site Development - Phases II and III	Grading	9/1/2023	12/31/2024	6	418	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 104

Acres of Paving: 0.13

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Phase II	Aerial Lifts	1	8.00	81	0.73
Phase I	Aerial Lifts	1	8.00	63	0.31
Phase III	Cranes	1	8.00	231	0.29
Phase III	Forklifts	1	8.00	89	0.20
Phase III	Tractors/Loaders/Backhoes	2	8.00	84	0.74
Phase II	Tractors/Loaders/Backhoes	2	8.00	187	0.41

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Phase I	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Phase I	Forklifts	1	8.00	89	0.20
Phase II	Forklifts	1	8.00	247	0.40
Phase I	Cranes	1	8.00	231	0.29
Phase II	Off-Highway Trucks	2	8.00	402	0.38
Phase II	Cranes	1	8.00	97	0.37
Phase I	Off-Highway Trucks	2	8.00	402	0.38
Phase III	Aerial Lifts	1	8.00	81	0.73
Phase III	Off-Highway Trucks	2	8.00	247	0.40
Site Development - Phase I	Off-Highway Trucks	2	8.00	402	0.38
Site Development - Phase I	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Development - Phase I	Excavators	1	8.00	158	0.38
Site Development - Phase I	Graders	1	8.00	187	0.41
Site Development - Phase I	Rollers	1	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
Phase I	7	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Development - Phase I	7	10.00	0.00	200.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase II	7	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase III	7	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Development - Phases II and III			0.00	0.00	10.80	7.30				

3.1 Mitigation Measures Construction

Water Exposed Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Phase I - 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					
Fugitive Dust					2.1000e-004	0.0000	2.1000e-004	3.0000e-005	0.0000	3.0000e-005			0.0000			0.0000
Off-Road	1.7990	15.5156	15.1109	0.0417		0.6375	0.6375		0.5865	0.5865		4,032.3999	4,032.3999	1.3042		4,065.0039
Total	**1.7990**	**15.5156**	**15.1109**	**0.0417**	**2.1000e-004**	**0.6375**	**0.6377**	**3.0000e-005**	**0.5865**	**0.5865**		**4,032.3999**	**4,032.3999**	**1.3042**		**4,065.0039**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0273	0.0170	0.2400	7.3000e-004	0.0822	4.4000e-004	0.0826	0.0218	4.1000e-004	0.0222		73.3664	73.3664	1.9900e-003	1.8300e-003	73.9611
Total	**0.0273**	**0.0170**	**0.2400**	**7.3000e-004**	**0.0822**	**4.4000e-004**	**0.0826**	**0.0218**	**4.1000e-004**	**0.0222**		**73.3664**	**73.3664**	**1.9900e-003**	**1.8300e-003**	**73.9611**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Phase I - 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					
Fugitive Dust					9.0000e-005	0.0000	9.0000e-005	1.0000e-005	0.0000	1.0000e-005			0.0000			0.0000
Off-Road	1.7990	15.5156	15.1109	0.0417		0.6375	0.6375		0.5865	0.5865	0.0000	4,032.3999	4,032.3999	1.3042		4,065.0039
Total	**1.7990**	**15.5156**	**15.1109**	**0.0417**	**9.0000e-005**	**0.6375**	**0.6376**	**1.0000e-005**	**0.5865**	**0.5865**	**0.0000**	**4,032.3999**	**4,032.3999**	**1.3042**		**4,065.0039**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0273	0.0170	0.2400	7.3000e-004	0.0822	4.4000e-004	0.0826	0.0218	4.1000e-004	0.0222		73.3664	73.3664	1.9900e-003	1.8300e-003	73.9611
Total	**0.0273**	**0.0170**	**0.2400**	**7.3000e-004**	**0.0822**	**4.4000e-004**	**0.0826**	**0.0218**	**4.1000e-004**	**0.0222**		**73.3664**	**73.3664**	**1.9900e-003**	**1.8300e-003**	**73.9611**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Development - Phase I - 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					
Fugitive Dust					0.5309	0.0000	0.5309	0.0574	0.0000	0.0574			0.0000			0.0000
Off-Road	2.0363	18.0189	17.8423	0.0471		0.7248	0.7248		0.6668	0.6668		4,557.9985	4,557.9985	1.4742		4,594.8522
Total	**2.0363**	**18.0189**	**17.8423**	**0.0471**	**0.5309**	**0.7248**	**1.2557**	**0.0574**	**0.6668**	**0.7242**		**4,557.9985**	**4,557.9985**	**1.4742**		**4,594.8522**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.1800e-003	0.1258	0.0346	5.8000e-004	0.0168	1.0700e-003	0.0179	4.6100e-003	1.0200e-003	5.6300e-003		63.5844	63.5844	3.2000e-003	0.0101	66.6777
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0273	0.0170	0.2400	7.3000e-004	0.0822	4.4000e-004	0.0826	0.0218	4.1000e-004	0.0222		73.3664	73.3664	1.9900e-003	1.8300e-003	73.9611
Total	**0.0295**	**0.1428**	**0.2745**	**1.3100e-003**	**0.0990**	**1.5100e-003**	**0.1005**	**0.0264**	**1.4300e-003**	**0.0278**		**136.9508**	**136.9508**	**5.1900e-003**	**0.0119**	**140.6388**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Development - Phase I - 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					
Fugitive Dust					0.2389	0.0000	0.2389	0.0258	0.0000	0.0258			0.0000			0.0000
Off-Road	2.0363	18.0189	17.8423	0.0471		0.7248	0.7248		0.6668	0.6668	0.0000	4,557.9985	4,557.9985	1.4742		4,594.8522
Total	**2.0363**	**18.0189**	**17.8423**	**0.0471**	**0.2389**	**0.7248**	**0.9637**	**0.0258**	**0.6668**	**0.6926**	**0.0000**	**4,557.9985**	**4,557.9985**	**1.4742**		**4,594.8522**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.1800e-003	0.1258	0.0346	5.8000e-004	0.0168	1.0700e-003	0.0179	4.6100e-003	1.0200e-003	5.6300e-003		63.5844	63.5844	3.2000e-003	0.0101	66.6777
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0273	0.0170	0.2400	7.3000e-004	0.0822	4.4000e-004	0.0826	0.0218	4.1000e-004	0.0222		73.3664	73.3664	1.9900e-003	1.8300e-003	73.9611
Total	**0.0295**	**0.1428**	**0.2745**	**1.3100e-003**	**0.0990**	**1.5100e-003**	**0.1005**	**0.0264**	**1.4300e-003**	**0.0278**		**136.9508**	**136.9508**	**5.1900e-003**	**0.0119**	**140.6388**

Heritage Park Addendum - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Phase II - 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					
Fugitive Dust					2.1000e-004	0.0000	2.1000e-004	3.0000e-005	0.0000	3.0000e-005			0.0000			0.0000
Off-Road	2.2740	19.2787	17.6372	0.0563		0.7657	0.7657		0.7045	0.7045		5,444.7765	5,444.7765	1.7610		5,488.8003
Total	**2.2740**	**19.2787**	**17.6372**	**0.0563**	**2.1000e-004**	**0.7657**	**0.7659**	**3.0000e-005**	**0.7045**	**0.7045**		**5,444.7765**	**5,444.7765**	**1.7610**		**5,488.8003**

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	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0273	0.0170	0.2400	7.3000e-004	0.0822	4.4000e-004	0.0826	0.0218	4.1000e-004	0.0222		73.3664	73.3664	1.9900e-003	1.8300e-003	73.9611
Total	**0.0273**	**0.0170**	**0.2400**	**7.3000e-004**	**0.0822**	**4.4000e-004**	**0.0826**	**0.0218**	**4.1000e-004**	**0.0222**		**73.3664**	**73.3664**	**1.9900e-003**	**1.8300e-003**	**73.9611**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Phase II - 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					
Fugitive Dust					9.0000e-005	0.0000	9.0000e-005	1.0000e-005	0.0000	1.0000e-005			0.0000			0.0000
Off-Road	2.2740	19.2787	17.6372	0.0563		0.7657	0.7657		0.7045	0.7045	0.0000	5,444.7765	5,444.7765	1.7610		5,488.8003
Total	**2.2740**	**19.2787**	**17.6372**	**0.0563**	**9.0000e-005**	**0.7657**	**0.7658**	**1.0000e-005**	**0.7045**	**0.7045**	**0.0000**	**5,444.7765**	**5,444.7765**	**1.7610**		**5,488.8003**

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	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0273	0.0170	0.2400	7.3000e-004	0.0822	4.4000e-004	0.0826	0.0218	4.1000e-004	0.0222		73.3664	73.3664	1.9900e-003	1.8300e-003	73.9611
Total	**0.0273**	**0.0170**	**0.2400**	**7.3000e-004**	**0.0822**	**4.4000e-004**	**0.0826**	**0.0218**	**4.1000e-004**	**0.0222**		**73.3664**	**73.3664**	**1.9900e-003**	**1.8300e-003**	**73.9611**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Phase II - 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					
Fugitive Dust					2.1000e-004	0.0000	2.1000e-004	3.0000e-005	0.0000	3.0000e-005			0.0000			0.0000
Off-Road	2.2245	18.0377	17.5185	0.0563		0.7124	0.7124		0.6554	0.6554		5,446.1488	5,446.1488	1.7614		5,490.1837
Total	**2.2245**	**18.0377**	**17.5185**	**0.0563**	**2.1000e-004**	**0.7124**	**0.7126**	**3.0000e-005**	**0.6554**	**0.6554**		**5,446.1488**	**5,446.1488**	**1.7614**		**5,490.1837**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0257	0.0153	0.2239	7.0000e-004	0.0822	4.2000e-004	0.0826	0.0218	3.9000e-004	0.0222		70.9559	70.9559	1.8100e-003	1.7100e-003	71.5104
Total	**0.0257**	**0.0153**	**0.2239**	**7.0000e-004**	**0.0822**	**4.2000e-004**	**0.0826**	**0.0218**	**3.9000e-004**	**0.0222**		**70.9559**	**70.9559**	**1.8100e-003**	**1.7100e-003**	**71.5104**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Phase II - 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					
Fugitive Dust					9.0000e-005	0.0000	9.0000e-005	1.0000e-005	0.0000	1.0000e-005			0.0000			0.0000
Off-Road	2.2245	18.0377	17.5185	0.0563		0.7124	0.7124		0.6554	0.6554	0.0000	5,446.1488	5,446.1488	1.7614		5,490.1837
Total	**2.2245**	**18.0377**	**17.5185**	**0.0563**	**9.0000e-005**	**0.7124**	**0.7125**	**1.0000e-005**	**0.6554**	**0.6554**	**0.0000**	**5,446.1488**	**5,446.1488**	**1.7614**		**5,490.1837**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0257	0.0153	0.2239	7.0000e-004	0.0822	4.2000e-004	0.0826	0.0218	3.9000e-004	0.0222		70.9559	70.9559	1.8100e-003	1.7100e-003	71.5104
Total	**0.0257**	**0.0153**	**0.2239**	**7.0000e-004**	**0.0822**	**4.2000e-004**	**0.0826**	**0.0218**	**3.9000e-004**	**0.0222**		**70.9559**	**70.9559**	**1.8100e-003**	**1.7100e-003**	**71.5104**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Phase III - 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					
Fugitive Dust					1.0000e-004	0.0000	1.0000e-004	2.0000e-005	0.0000	2.0000e-005			0.0000			0.0000
Off-Road	1.7334	15.7216	18.3548	0.0401		0.6436	0.6436		0.5921	0.5921		3,879.3784	3,879.3784	1.2547		3,910.7452
Total	**1.7334**	**15.7216**	**18.3548**	**0.0401**	**1.0000e-004**	**0.6436**	**0.6437**	**2.0000e-005**	**0.5921**	**0.5922**		**3,879.3784**	**3,879.3784**	**1.2547**		**3,910.7452**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0257	0.0153	0.2239	7.0000e-004	0.0822	4.2000e-004	0.0826	0.0218	3.9000e-004	0.0222		70.9559	70.9559	1.8100e-003	1.7100e-003	71.5104
Total	**0.0257**	**0.0153**	**0.2239**	**7.0000e-004**	**0.0822**	**4.2000e-004**	**0.0826**	**0.0218**	**3.9000e-004**	**0.0222**		**70.9559**	**70.9559**	**1.8100e-003**	**1.7100e-003**	**71.5104**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Phase III - 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					
Fugitive Dust					5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005			0.0000			0.0000
Off-Road	1.7334	15.7216	18.3548	0.0401		0.6436	0.6436		0.5921	0.5921	0.0000	3,879.3784	3,879.3784	1.2547		3,910.7452
Total	**1.7334**	**15.7216**	**18.3548**	**0.0401**	**5.0000e-005**	**0.6436**	**0.6437**	**1.0000e-005**	**0.5921**	**0.5922**	**0.0000**	**3,879.3784**	**3,879.3784**	**1.2547**		**3,910.7452**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0257	0.0153	0.2239	7.0000e-004	0.0822	4.2000e-004	0.0826	0.0218	3.9000e-004	0.0222		70.9559	70.9559	1.8100e-003	1.7100e-003	71.5104
Total	**0.0257**	**0.0153**	**0.2239**	**7.0000e-004**	**0.0822**	**4.2000e-004**	**0.0826**	**0.0218**	**3.9000e-004**	**0.0222**		**70.9559**	**70.9559**	**1.8100e-003**	**1.7100e-003**	**71.5104**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Site Development - Phases II and III - 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					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Worker					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Site Development - Phases II and III - 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					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Worker					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Site Development - Phases II and III - 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					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Worker					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Site Development - Phases II and III - 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					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Worker					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

4.0 Operational Detail - Mobile

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

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		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

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	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.561854	0.062428	0.177046	0.117565	0.023832	0.006317	0.008949	0.006298	0.000705	0.000577	0.028723	0.000955	0.004751

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Other Non-Asphalt Surfaces	0.561854	0.062428	0.177046	0.117565	0.023832	0.006317	0.008949	0.006298	0.000705	0.000577	0.028723	0.000955	0.004751

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures 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	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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
Other Non-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		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
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 Non-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		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	5.3100e-003	1.0000e-005	6.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.4900e-003	1.4900e-003	0.0000		1.5800e-003
Unmitigated	5.3100e-003	1.0000e-005	6.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.4900e-003	1.4900e-003	0.0000		1.5800e-003

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	1.1200e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.1200e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.0000e-005	1.0000e-005	6.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.4900e-003	1.4900e-003	0.0000		1.5800e-003
Total	**5.3000e-003**	**1.0000e-005**	**6.9000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.4900e-003**	**1.4900e-003**	**0.0000**		**1.5800e-003**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	1.1200e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.1200e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.0000e-005	1.0000e-005	6.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.4900e-003	1.4900e-003	0.0000		1.5800e-003
Total	**5.3000e-003**	**1.0000e-005**	**6.9000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.4900e-003**	**1.4900e-003**	**0.0000**		**1.5800e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Heritage Park Addendum - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Heritage Park Addendum

San Diego County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	0.90	Acre	0.90	39,400.00	0
Other Non-Asphalt Surfaces	5.90	1000sqft	0.13	5,900.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2025
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	539.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Based on project data received from applicant.

Construction Phase - Based on construction schedule provided by the applicant.

Off-road Equipment - Based on project data provided by applicant.

Off-road Equipment - Based on project data provided by applicant.

Off-road Equipment - Based on project data provided by applicant.

Off-road Equipment - Based on project data provided by applicant.

Off-road Equipment - Site development equipment accounted for in Site Development - Phase I.

Grading -

Demolition -

Trips and VMT - Based on project data provided by applicant.

Heritage Park Addendum - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Vehicle Trips - Mobile calculated outside CalEEMod.

Construction Off-road Equipment Mitigation - Water 2x day.

Mobile Land Use Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	210.00
tblConstructionPhase	NumDays	20.00	208.00
tblConstructionPhase	NumDays	20.00	208.00
tblConstructionPhase	NumDays	4.00	418.00
tblConstructionPhase	NumDays	4.00	208.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	PhaseEndDate	11/13/2023	12/31/2024
tblConstructionPhase	PhaseEndDate	1/27/2023	8/31/2023
tblConstructionPhase	PhaseEndDate	2/6/2023	4/30/2024
tblConstructionPhase	PhaseEndDate	11/27/2023	12/31/2024
tblConstructionPhase	PhaseEndDate	1/31/2023	8/31/2023
tblConstructionPhase	PhaseStartDate	2/7/2023	5/1/2024
tblConstructionPhase	PhaseStartDate	2/1/2023	9/1/2023
tblConstructionPhase	PhaseStartDate	11/14/2023	9/1/2023
tblConstructionPhase	PhaseStartDate	1/28/2023	1/1/2023
tblGrading	MaterialImported	0.00	1,000.00
tblLandUse	LandUseSquareFeet	39,204.00	39,400.00
tblLandUse	LotAcreage	0.14	0.13
tblOffRoadEquipment	HorsePower	97.00	84.00
tblOffRoadEquipment	HorsePower	97.00	187.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblOffRoadEquipment	HorsePower	89.00	247.00
tblOffRoadEquipment	HorsePower	231.00	97.00
tblOffRoadEquipment	HorsePower	63.00	81.00
tblOffRoadEquipment	HorsePower	63.00	81.00
tblOffRoadEquipment	HorsePower	402.00	247.00
tblOffRoadEquipment	LoadFactor	0.37	0.74
tblOffRoadEquipment	LoadFactor	0.37	0.41
tblOffRoadEquipment	LoadFactor	0.20	0.40
tblOffRoadEquipment	LoadFactor	0.29	0.37
tblOffRoadEquipment	LoadFactor	0.31	0.73
tblOffRoadEquipment	LoadFactor	0.31	0.73
tblOffRoadEquipment	LoadFactor	0.38	0.40
tblOffRoadEquipment	OffRoadEquipmentType		Aerial Lifts
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Forklifts
tblOffRoadEquipment	OffRoadEquipmentType	Rubber Tired Dozers	Forklifts
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType	Tractors/Loaders/Backhoes	Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType	Concrete/Industrial Saws	Aerial Lifts
tblOffRoadEquipment	OffRoadEquipmentType	Concrete/Industrial Saws	Aerial Lifts
tblOffRoadEquipment	OffRoadEquipmentType	Rubber Tired Dozers	Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Graders
tblOffRoadEquipment	OffRoadEquipmentType		Rollers
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblTripsAndVMT	HaulingTripNumber	125.00	200.00
tblTripsAndVMT	WorkerTripNumber	18.00	10.00
tblTripsAndVMT	WorkerTripNumber	18.00	10.00
tblTripsAndVMT	WorkerTripNumber	18.00	10.00
tblTripsAndVMT	WorkerTripNumber	18.00	10.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TTP	48.00	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	33.00	0.00
tblVehicleTrips	DV_TP	28.00	0.00
tblVehicleTrips	PB_TP	6.00	0.00
tblVehicleTrips	PR_TP	66.00	0.00
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	WD_TR	0.78	0.00

2.0 Emissions Summary

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	3.8966	33.7035	33.4442	0.0907	0.7123	1.3642	2.0765	0.1056	1.2551	1.3607	0.0000	8,792.7123	8,792.7123	2.7858	0.0141	8,866.5510
2024	2.2524	18.0548	18.5679	0.0569	0.0824	0.7128	0.7952	0.0218	0.6558	0.6776	0.0000	5,513.2135	5,513.2135	1.7633	1.8500e-003	5,557.8474
Maximum	**3.8966**	**33.7035**	**33.4442**	**0.0907**	**0.7123**	**1.3642**	**2.0765**	**0.1056**	**1.2551**	**1.3607**	**0.0000**	**8,792.7123**	**8,792.7123**	**2.7858**	**0.0141**	**8,866.5510**

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	3.8966	33.7035	33.4442	0.0907	0.4201	1.3642	1.7844	0.0740	1.2551	1.3291	0.0000	8,792.7123	8,792.7123	2.7858	0.0141	8,866.5510
2024	2.2524	18.0548	18.5679	0.0569	0.0822	0.7128	0.7950	0.0218	0.6558	0.6776	0.0000	5,513.2135	5,513.2135	1.7633	1.8500e-003	5,557.8474
Maximum	**3.8966**	**33.7035**	**33.4442**	**0.0907**	**0.4201**	**1.3642**	**1.7844**	**0.0740**	**1.2551**	**1.3291**	**0.0000**	**8,792.7123**	**8,792.7123**	**2.7858**	**0.0141**	**8,866.5510**

Heritage Park Addendum - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	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	0.00	0.00	0.00	0.00	36.78	0.00	10.18	24.80	0.00	1.55	0.00	0.00	0.00	0.00	0.00	0.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	5.3100e-003	1.0000e-005	6.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.4900e-003	1.4900e-003	0.0000		1.5800e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	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	**5.3100e-003**	**1.0000e-005**	**6.9000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**1.4900e-003**	**1.4900e-003**	**0.0000**	**0.0000**	**1.5800e-003**

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	5.3100e-003	1.0000e-005	6.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.4900e-003	1.4900e-003	0.0000		1.5800e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	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	**5.3100e-003**	**1.0000e-005**	**6.9000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**1.4900e-003**	**1.4900e-003**	**0.0000**	**0.0000**	**1.5800e-003**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Phase I	Demolition	1/1/2023	8/31/2023	6	208	
2	Site Development - Phase I	Grading	1/1/2023	8/31/2023	6	208	
3	Phase II	Demolition	9/1/2023	4/30/2024	6	208	
4	Phase III	Demolition	5/1/2024	12/31/2024	6	210	
5	Site Development - Phases II and III	Grading	9/1/2023	12/31/2024	6	418	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 104

Acres of Paving: 0.13

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Phase II	Aerial Lifts	1	8.00	81	0.73
Phase I	Aerial Lifts	1	8.00	63	0.31
Phase III	Cranes	1	8.00	231	0.29
Phase III	Forklifts	1	8.00	89	0.20
Phase III	Tractors/Loaders/Backhoes	2	8.00	84	0.74
Phase II	Tractors/Loaders/Backhoes	2	8.00	187	0.41

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Phase I	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Phase I	Forklifts	1	8.00	89	0.20
Phase II	Forklifts	1	8.00	247	0.40
Phase I	Cranes	1	8.00	231	0.29
Phase II	Off-Highway Trucks	2	8.00	402	0.38
Phase II	Cranes	1	8.00	97	0.37
Phase I	Off-Highway Trucks	2	8.00	402	0.38
Phase III	Aerial Lifts	1	8.00	81	0.73
Phase III	Off-Highway Trucks	2	8.00	247	0.40
Site Development - Phase I	Off-Highway Trucks	2	8.00	402	0.38
Site Development - Phase I	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Development - Phase I	Excavators	1	8.00	158	0.38
Site Development - Phase I	Graders	1	8.00	187	0.41
Site Development - Phase I	Rollers	1	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
Phase I	7	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Development - Phase I	7	10.00	0.00	200.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase II	7	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase III	7	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Development - Phases II and III			0.00	0.00	10.80	7.30				

3.1 Mitigation Measures Construction

Water Exposed Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Phase I - 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					
Fugitive Dust					2.1000e-004	0.0000	2.1000e-004	3.0000e-005	0.0000	3.0000e-005			0.0000			0.0000
Off-Road	1.7990	15.5156	15.1109	0.0417		0.6375	0.6375		0.5865	0.5865		4,032.3999	4,032.3999	1.3042		4,065.0039
Total	**1.7990**	**15.5156**	**15.1109**	**0.0417**	**2.1000e-004**	**0.6375**	**0.6377**	**3.0000e-005**	**0.5865**	**0.5865**		**4,032.3999**	**4,032.3999**	**1.3042**		**4,065.0039**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0296	0.0191	0.2281	6.9000e-004	0.0822	4.4000e-004	0.0826	0.0218	4.1000e-004	0.0222		69.3339	69.3339	2.1200e-003	1.9800e-003	69.9763
Total	**0.0296**	**0.0191**	**0.2281**	**6.9000e-004**	**0.0822**	**4.4000e-004**	**0.0826**	**0.0218**	**4.1000e-004**	**0.0222**		**69.3339**	**69.3339**	**2.1200e-003**	**1.9800e-003**	**69.9763**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Phase I - 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					
Fugitive Dust					9.0000e-005	0.0000	9.0000e-005	1.0000e-005	0.0000	1.0000e-005			0.0000			0.0000
Off-Road	1.7990	15.5156	15.1109	0.0417		0.6375	0.6375		0.5865	0.5865	0.0000	4,032.3999	4,032.3999	1.3042		4,065.0039
Total	**1.7990**	**15.5156**	**15.1109**	**0.0417**	**9.0000e-005**	**0.6375**	**0.6376**	**1.0000e-005**	**0.5865**	**0.5865**	**0.0000**	**4,032.3999**	**4,032.3999**	**1.3042**		**4,065.0039**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0296	0.0191	0.2281	6.9000e-004	0.0822	4.4000e-004	0.0826	0.0218	4.1000e-004	0.0222		69.3339	69.3339	2.1200e-003	1.9800e-003	69.9763
Total	**0.0296**	**0.0191**	**0.2281**	**6.9000e-004**	**0.0822**	**4.4000e-004**	**0.0826**	**0.0218**	**4.1000e-004**	**0.0222**		**69.3339**	**69.3339**	**2.1200e-003**	**1.9800e-003**	**69.9763**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Development - Phase I - 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					
Fugitive Dust					0.5309	0.0000	0.5309	0.0574	0.0000	0.0574			0.0000			0.0000
Off-Road	2.0363	18.0189	17.8423	0.0471		0.7248	0.7248		0.6668	0.6668		4,557.9985	4,557.9985	1.4742		4,594.8522
Total	**2.0363**	**18.0189**	**17.8423**	**0.0471**	**0.5309**	**0.7248**	**1.2557**	**0.0574**	**0.6668**	**0.7242**		**4,557.9985**	**4,557.9985**	**1.4742**		**4,594.8522**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.0500e-003	0.1309	0.0350	5.8000e-004	0.0168	1.0700e-003	0.0179	4.6100e-003	1.0200e-003	5.6300e-003		63.6462	63.6462	3.2000e-003	0.0101	66.7424
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0296	0.0191	0.2281	6.9000e-004	0.0822	4.4000e-004	0.0826	0.0218	4.1000e-004	0.0222		69.3339	69.3339	2.1200e-003	1.9800e-003	69.9763
Total	**0.0317**	**0.1499**	**0.2630**	**1.2700e-003**	**0.0990**	**1.5100e-003**	**0.1005**	**0.0264**	**1.4300e-003**	**0.0278**		**132.9800**	**132.9800**	**5.3200e-003**	**0.0121**	**136.7186**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Development - Phase I - 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					
Fugitive Dust					0.2389	0.0000	0.2389	0.0258	0.0000	0.0258			0.0000			0.0000
Off-Road	2.0363	18.0189	17.8423	0.0471		0.7248	0.7248		0.6668	0.6668	0.0000	4,557.9985	4,557.9985	1.4742		4,594.8522
Total	**2.0363**	**18.0189**	**17.8423**	**0.0471**	**0.2389**	**0.7248**	**0.9637**	**0.0258**	**0.6668**	**0.6926**	**0.0000**	**4,557.9985**	**4,557.9985**	**1.4742**		**4,594.8522**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.0500e-003	0.1309	0.0350	5.8000e-004	0.0168	1.0700e-003	0.0179	4.6100e-003	1.0200e-003	5.6300e-003		63.6462	63.6462	3.2000e-003	0.0101	66.7424
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0296	0.0191	0.2281	6.9000e-004	0.0822	4.4000e-004	0.0826	0.0218	4.1000e-004	0.0222		69.3339	69.3339	2.1200e-003	1.9800e-003	69.9763
Total	**0.0317**	**0.1499**	**0.2630**	**1.2700e-003**	**0.0990**	**1.5100e-003**	**0.1005**	**0.0264**	**1.4300e-003**	**0.0278**		**132.9800**	**132.9800**	**5.3200e-003**	**0.0121**	**136.7186**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Phase II - 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					
Fugitive Dust					2.1000e-004	0.0000	2.1000e-004	3.0000e-005	0.0000	3.0000e-005			0.0000			0.0000
Off-Road	2.2740	19.2787	17.6372	0.0563		0.7657	0.7657		0.7045	0.7045		5,444.7765	5,444.7765	1.7610		5,488.8003
Total	**2.2740**	**19.2787**	**17.6372**	**0.0563**	**2.1000e-004**	**0.7657**	**0.7659**	**3.0000e-005**	**0.7045**	**0.7045**		**5,444.7765**	**5,444.7765**	**1.7610**		**5,488.8003**

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	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0296	0.0191	0.2281	6.9000e-004	0.0822	4.4000e-004	0.0826	0.0218	4.1000e-004	0.0222		69.3339	69.3339	2.1200e-003	1.9800e-003	69.9763
Total	**0.0296**	**0.0191**	**0.2281**	**6.9000e-004**	**0.0822**	**4.4000e-004**	**0.0826**	**0.0218**	**4.1000e-004**	**0.0222**		**69.3339**	**69.3339**	**2.1200e-003**	**1.9800e-003**	**69.9763**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Phase II - 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					
Fugitive Dust					9.0000e-005	0.0000	9.0000e-005	1.0000e-005	0.0000	1.0000e-005			0.0000			0.0000
Off-Road	2.2740	19.2787	17.6372	0.0563		0.7657	0.7657		0.7045	0.7045	0.0000	5,444.7765	5,444.7765	1.7610		5,488.8003
Total	**2.2740**	**19.2787**	**17.6372**	**0.0563**	**9.0000e-005**	**0.7657**	**0.7658**	**1.0000e-005**	**0.7045**	**0.7045**	**0.0000**	**5,444.7765**	**5,444.7765**	**1.7610**		**5,488.8003**

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	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0296	0.0191	0.2281	6.9000e-004	0.0822	4.4000e-004	0.0826	0.0218	4.1000e-004	0.0222		69.3339	69.3339	2.1200e-003	1.9800e-003	69.9763
Total	**0.0296**	**0.0191**	**0.2281**	**6.9000e-004**	**0.0822**	**4.4000e-004**	**0.0826**	**0.0218**	**4.1000e-004**	**0.0222**		**69.3339**	**69.3339**	**2.1200e-003**	**1.9800e-003**	**69.9763**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Phase II - 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					
Fugitive Dust					2.1000e-004	0.0000	2.1000e-004	3.0000e-005	0.0000	3.0000e-005			0.0000			0.0000
Off-Road	2.2245	18.0377	17.5185	0.0563		0.7124	0.7124		0.6554	0.6554		5,446.1488	5,446.1488	1.7614		5,490.1837
Total	**2.2245**	**18.0377**	**17.5185**	**0.0563**	**2.1000e-004**	**0.7124**	**0.7126**	**3.0000e-005**	**0.6554**	**0.6554**		**5,446.1488**	**5,446.1488**	**1.7614**		**5,490.1837**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0279	0.0172	0.2132	6.6000e-004	0.0822	4.2000e-004	0.0826	0.0218	3.9000e-004	0.0222		67.0647	67.0647	1.9300e-003	1.8500e-003	67.6637
Total	**0.0279**	**0.0172**	**0.2132**	**6.6000e-004**	**0.0822**	**4.2000e-004**	**0.0826**	**0.0218**	**3.9000e-004**	**0.0222**		**67.0647**	**67.0647**	**1.9300e-003**	**1.8500e-003**	**67.6637**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Phase II - 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					
Fugitive Dust					9.0000e-005	0.0000	9.0000e-005	1.0000e-005	0.0000	1.0000e-005			0.0000			0.0000
Off-Road	2.2245	18.0377	17.5185	0.0563		0.7124	0.7124		0.6554	0.6554	0.0000	5,446.1488	5,446.1488	1.7614		5,490.1837
Total	**2.2245**	**18.0377**	**17.5185**	**0.0563**	**9.0000e-005**	**0.7124**	**0.7125**	**1.0000e-005**	**0.6554**	**0.6554**	**0.0000**	**5,446.1488**	**5,446.1488**	**1.7614**		**5,490.1837**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0279	0.0172	0.2132	6.6000e-004	0.0822	4.2000e-004	0.0826	0.0218	3.9000e-004	0.0222		67.0647	67.0647	1.9300e-003	1.8500e-003	67.6637
Total	**0.0279**	**0.0172**	**0.2132**	**6.6000e-004**	**0.0822**	**4.2000e-004**	**0.0826**	**0.0218**	**3.9000e-004**	**0.0222**		**67.0647**	**67.0647**	**1.9300e-003**	**1.8500e-003**	**67.6637**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Phase III - 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					
Fugitive Dust					1.0000e-004	0.0000	1.0000e-004	2.0000e-005	0.0000	2.0000e-005			0.0000			0.0000
Off-Road	1.7334	15.7216	18.3548	0.0401		0.6436	0.6436		0.5921	0.5921		3,879.3784	3,879.3784	1.2547		3,910.7452
Total	**1.7334**	**15.7216**	**18.3548**	**0.0401**	**1.0000e-004**	**0.6436**	**0.6437**	**2.0000e-005**	**0.5921**	**0.5922**		**3,879.3784**	**3,879.3784**	**1.2547**		**3,910.7452**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0279	0.0172	0.2132	6.6000e-004	0.0822	4.2000e-004	0.0826	0.0218	3.9000e-004	0.0222		67.0647	67.0647	1.9300e-003	1.8500e-003	67.6637
Total	**0.0279**	**0.0172**	**0.2132**	**6.6000e-004**	**0.0822**	**4.2000e-004**	**0.0826**	**0.0218**	**3.9000e-004**	**0.0222**		**67.0647**	**67.0647**	**1.9300e-003**	**1.8500e-003**	**67.6637**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Phase III - 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					
Fugitive Dust					5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005			0.0000			0.0000
Off-Road	1.7334	15.7216	18.3548	0.0401		0.6436	0.6436		0.5921	0.5921	0.0000	3,879.3784	3,879.3784	1.2547		3,910.7452
Total	**1.7334**	**15.7216**	**18.3548**	**0.0401**	**5.0000e-005**	**0.6436**	**0.6437**	**1.0000e-005**	**0.5921**	**0.5922**	**0.0000**	**3,879.3784**	**3,879.3784**	**1.2547**		**3,910.7452**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0279	0.0172	0.2132	6.6000e-004	0.0822	4.2000e-004	0.0826	0.0218	3.9000e-004	0.0222		67.0647	67.0647	1.9300e-003	1.8500e-003	67.6637
Total	**0.0279**	**0.0172**	**0.2132**	**6.6000e-004**	**0.0822**	**4.2000e-004**	**0.0826**	**0.0218**	**3.9000e-004**	**0.0222**		**67.0647**	**67.0647**	**1.9300e-003**	**1.8500e-003**	**67.6637**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Site Development - Phases II and III - 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					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Worker					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Site Development - Phases II and III - 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					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Worker					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Site Development - Phases II and III - 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					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Worker					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Site Development - Phases II and III - 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					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Worker					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

4.0 Operational Detail - Mobile

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

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		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

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	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.561854	0.062428	0.177046	0.117565	0.023832	0.006317	0.008949	0.006298	0.000705	0.000577	0.028723	0.000955	0.004751

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Other Non-Asphalt Surfaces	0.561854	0.062428	0.177046	0.117565	0.023832	0.006317	0.008949	0.006298	0.000705	0.000577	0.028723	0.000955	0.004751

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures 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	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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
Other Non-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		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
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 Non-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		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	5.3100e-003	1.0000e-005	6.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.4900e-003	1.4900e-003	0.0000		1.5800e-003
Unmitigated	5.3100e-003	1.0000e-005	6.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.4900e-003	1.4900e-003	0.0000		1.5800e-003

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	1.1200e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.1200e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.0000e-005	1.0000e-005	6.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.4900e-003	1.4900e-003	0.0000		1.5800e-003
Total	**5.3000e-003**	**1.0000e-005**	**6.9000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.4900e-003**	**1.4900e-003**	**0.0000**		**1.5800e-003**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	1.1200e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.1200e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.0000e-005	1.0000e-005	6.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.4900e-003	1.4900e-003	0.0000		1.5800e-003
Total	**5.3000e-003**	**1.0000e-005**	**6.9000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.4900e-003**	**1.4900e-003**	**0.0000**		**1.5800e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Appendix B

Noise and Vibration Technical Report

ADDENDUM TO THE HERITAGE PARK MASTER PLAN IMPROVEMENTS PROJECT

Noise and Vibration Technical Report

Prepared for
County of San Diego
Department of Parks and Recreation
5500 Overland Avenue, Suite 410
(MS029)
San Diego, CA 92123

October 2022

ESA

ADDENDUM TO THE HERITAGE PARK MASTER PLAN IMPROVEMENTS PROJECT

Noise and Vibration Technical Report

Prepared for
County of San Diego
Department of Parks and Recreation
5500 Overland Avenue, Suite 410
(MS029)
San Diego, CA 92123

October 2022

550 West C Street Suite 750
San Diego, CA 9210
619.719.4200
esassoc.com

ESA

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OUR COMMITMENT TO SUSTAINABILITY | ESA helps a variety of public and private sector clients plan and prepare for climate change and emerging regulations that limit GHG emissions. ESA is a registered assessor with the California Climate Action Registry, a Climate Leader, and founding reporter for the Climate Registry. ESA is also a corporate member of the U.S. Green Building Council and the Business Council on Climate Change (BC3). Internally, ESA has adopted a Sustainability Vision and Policy Statement and a plan to reduce waste and energy within our operations.

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Noise and Vibration Technical Report

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ACRONYMS AND ABBREVIATIONS

Acronym	Description
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
CNEL	Community Noise Equivalent Level
County	County of San Diego
dB	decibel
dBA	A-weighted dB scale
FTA	Federal Transit Administration
FHWA	Federal Highway Administration
L_{dn}	Day-night average noise level
L_{eq}	Equivalent Sound Level
L_{max}	Maximum Noise Level
L_{min}	Minimum Noise Level
Municipal Code	City or County of San Diego Municipal Code
Noise Element	City or County of San Diego General Plan Noise Element
PDF	Project Design Features
PPV	peak particle velocity
RCNM	Roadway Construction Noise Model
TeNS	Caltrans Technical Noise Supplement

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EXECUTIVE SUMMARY

The proposed Project would implement a scaled-down version of the previously approved 2009 Project on the existing developed portion of Heritage Park, on the same approximately 3.89-acre Project site. Despite its location within incorporated City of San Diego, Heritage Park is owned and operated by the County and is therefore subject to both City and County noise regulations.

This Noise and Vibration Technical Report (Technical Report) provides an estimate of noise and vibration levels for the proposed Project in order to determine whether the proposed Project construction and operational activities would result in significant impacts on the environment pursuant to the California Environmental Quality Act (CEQA). The analysis describes the existing noise environment in the vicinity of the proposed Project site, estimates future noise and vibration levels at surrounding land uses resulting from construction and operation of the proposed Project, and identifies the potential for significant noise impacts based on applicable standards and noise and vibration thresholds of significance. Noise worksheets and technical data used in this analysis are provided in **Appendices A and B** of this Technical Report.

The findings of the analyses are as follows:

- Construction activities would be required to comply with City and County of San Diego construction hours. The approach to construction of the proposed Project includes implementation of Project Design Features (PDFs) in order to ensure compliance with these regulations. Therefore, with implementation of PDF NOISE-1 and PDF NOISE-2, and compliance with City and County of San Diego allowable construction hours, and applicable noise reduction strategies, noise impacts related to proposed Project construction activities would be less than significant at noise sensitive receptor locations and no mitigation measures would be required.
- The addition of haul truck trips to roadways during construction on access roads would result in less than 3 dBA barely perceptible noise level increase, and would not increase noise levels by a "clearly noticeable" increase of 5 dBA over the ambient condition. Off-site haul truck trips would not substantially increase noise levels over the ambient condition. In addition, construction activities would occur only during daytime hours within the allowable hours specified in the City's and County's Municipal Code. Therefore, noise impacts from off-site construction traffic would be less than significant and no mitigation measures would be required.
- The proposed Project's noise impacts on existing offsite development from on-site operational stationary noise sources and traffic would not exceed established thresholds of significance. Operational related noise impacts would be less than significant and no mitigation measures would be required.
- The proposed Project's approach to construction includes implementation of PDFs that would ensure construction vibration levels would be less than significant. In addition, operation of

the proposed Project would not result in vibration levels that would affect nearby sensitive receptors. Thus, vibration impacts would be less than significant and no mitigation measures would be required.

SECTION 1
Introduction

The proposed Project would implement a scaled-down version of the previously approved 2009 Project on the existing developed portion of Heritage Park, on the same approximately 3.89-acre Project site.

ESA has conducted an acoustical study with respect to potential noise and vibration impacts associated with construction activities, surface transportation, and other aspects of proposed Project operations that are noise and vibration intensive and have the potential to impact noise sensitive land uses. The objectives of this noise study are to:

a. Quantify the existing ambient noise environment at the proposed Project site;

b. Evaluate construction and operational noise and vibration in order to determine whether sensitive receptors (i.e., residential uses) would be subject to significant impacts based on applicable City and County standards and thresholds; and

c. Provide, if needed, recommendations to meet applicable noise regulations and standards as specified by the City and County of San Diego.

1.1 Project Location

The proposed Project site is located at 2454 Heritage Park Row on a parcel northeast of Juan Street and southeast of Harney Street in Old Town San Diego, California (APN 443-340-34). Despite its location within incorporated City of San Diego, Heritage Park is owned and operated by the County. **Figure 1**, *Project Location*, shows the location of the proposed Project site.

1.1.1 Existing Setting

The proposed Project site is currently developed with seven Victorian structures, landscaping, manufactured lawns, parking and an internal circulation roadway. Existing uses include offices, museum space, and public restrooms. Further, Temple Beth Israel, the Coral Tree Tea House, and the back lawn area, which consists of a grass lawn with a pergola plaza, serve as venues for weddings, graduations, restaurant use, and similar events and ceremonies. Under existing operations, the park currently hosts events using both the back and front lawn spaces, such as weddings with up to 200 guests, movie nights, and community educational events. Heritage Park is equipped with all major utilities including water, sewer, gas and electric, irrigation main, fire main, and fire hydrants. There are 39 parking spaces available within the proposed Project site, and an additional 41 off-site parking spaces are available at a nearby hotel located at the southwest corner of Juan Street and Harney Street.

SOURCE: Mapbox, 2021; ESA, 2022

Heritage Park Master Plan Improvements Project Addendum

Figure 1
Project Location

ESA

1.1.2 Summary of Conclusions in the 2009 Project Final Negative Declaration

As discussed in Section XI, *Noise*, of the Final Negative Declaration, construction and operation of the 2009 Project would not result in substantial effects with respect to noise regulations, groundborne vibration, ambient noise levels, or airport noise. The Final Negative Declaration determined that construction and operation of the 2009 Project would result in less than significant noise impacts as it would not expose people to potentially significant noise levels that exceed the allowable limits of the City of San Diego General Plan, City of San Diego Noise Ordinance, and other applicable local, State and Federal noise control regulations. The Final Negative Declaration determined that construction and operation of the 2009 Project would result in no impacts from groundborne vibration as it would not propose any major, new or expanded infrastructure or intensive extractive industry that could generate excessive groundborne vibration or groundborne noise levels on-site or in the surrounding area. The Project site is located within 2 miles of the San Diego International Airport; however, the Project site is outside of the CNEL 60 dBA contours for the airport and the impact would be less than significant.

1.2 Project Description

1.2.1 Proposed Building Renovations

In contrast to the 2009 Project, which proposed a total of 84 guest rooms (72 new) through the renovation and conversion of seven existing structures and construction of four new buildings, the proposed Project only proposes a total of up to 24 guest rooms through renovation and conversion of five existing structures, which are shown in **Figure 2**, *Aerial Photograph*. The proposed modifications to the 2009 Project are summarized below.

Senlis Cottage (Building A)

Senlis Cottage is single-story building consisting of Classic Revival architecture. At the time of the 2009 Project, the building was used as a museum and included public restrooms. The 2009 Project proposed conversion of the building to one guest room/honeymoon cottage. Under the proposed Project, the building would be renovated and would include an interpretive center and public restrooms.

Sherman-Gilbert House (Building B)

Sherman-Gilbert House is a two-story building consisting of Stick architecture. The 2009 Project proposed conversion of the building from existing office uses to two guest rooms. Under the proposed Project, the first floor of the building would be renovated and converted to administrative areas and a break room that would be used by hotel and park operators. The building would also include guest bedrooms on the first and second floors.

Path: U:\GIS\GIS\Projects\17xxxx\ID170240_TO56_Heritage_County_Park\03_MXDs_Projects\Addendum.aprx Fig 2 - Aerial Photograph. JNielsen 9/22/2022

SOURCE: Mapbox, 2021; ESA, 2022

Heritage Park Master Plan Improvements Project Addendum

Figure 2
Aerial Photograph

Bushyhead House (Building C)

Bushyhead House is a two-story building consisting of Italianate architecture. At the time of the 2009 Project, the house included three guest rooms and was not proposed to include any additional guest rooms. The proposed Project would renovate the building to include guest bedrooms on the first and second floors.

Burton House (Building D)

Burton House is a two-story building consisting of Classic Revival architecture. At the time of the 2009 Project, the house included a shop, a museum, and an office. The 2009 Project proposed conversion of the building to include two new guest rooms in addition to the existing shop and office. Under the proposed Project, the building would be converted to guest bedrooms on the first and second floors.

Christian House (Building E)

Christian House two-story building consisting of Queen Anne style architecture. The Christian House included nine existing guest rooms and was not proposed to be converted to any additional rooms at the time of the 2009 Project The proposed Project would provide public space for guests and day-use visitors on the first floor and would include guest bedrooms on the first and second floors.

Other Existing Structures

The proposed Project would not include renovations or conversions to the two other existing buildings within the Heritage Park property, namely McConaughy House or Temple Beth Israel. McConaughy House was previously proposed to be converted from shopping and apartment uses to four new guest rooms, while Temple Beth Israel was proposed to be left unoccupied and remain open for public viewing and/or public events (e.g., weddings) by the 2009 Project.

1.2.2 Proposed Recreational Amenities

The back lawn area was previously proposed to be developed with four new structures in the 2009 Project. Under the proposed Project, no new structures would be constructed, and recreational amenities would be added to the back lawn area. These improvements would include an outdoor meeting space, enhancements to the existing pergola plaza, and other site improvements as discussed below. Similar to existing conditions, events of up to 200 people would continue occur in the back lawn area under the proposed Project.

Outdoor Meeting Space

The proposed Project would include construction of an outdoor meeting space within the back lawn area. The proposed outdoor meeting space would include low, decorative walls that would provide seating for up to 200 people. The meeting space is anticipated to contain approximately 1- to 2-foot-tall walls that are made up of stone or concrete materials. It is anticipated that the decorative walls would include integrated lighting, such as bollard or pole top lighting fixtures, and power receptacles installed into the walls or nearby plant pedestals. The outdoor meeting

space would also provide space for tables and chairs, and may also contain a small platform or area for a speaker to conduct a presentation.

Existing Pergola Plaza Enhancements

The existing pergola plaza is located in the back lawn at the eastern boundary of the proposed Project site and is used for weddings, receptions, and similar events. The existing pergola plaza includes a small, approximately two-foot concrete walkway around the brick base of the elevated structure and three-step stairs on either side. The proposed Project would include improvements to the pergola area such as new concrete pavement surrounding the pergola area, as well as a new pergola/shade canopy and potential new lighting fixtures.

Outdoor Improvements

The proposed Project would include site improvements evaluated in the Final Negative Declaration, including additional pedestrian benches, landscaping, addition of lighting for security and aesthetics, and hardscape/walkway improvements. Descriptions of the outdoor improvements discussed in the Final Negative Declaration are provided below.

1.2.3 Other Proposed Improvements

Circulation and Parking

The proposed Project would construct an approximately 6-foot-wide sidewalk along the perimeter of the back lawn to provide internal pedestrian access throughout the proposed Project site. The sidewalk loop would start at the existing roundabout at the eastern terminus of Heritage Park Row, and would provide connections between the pergola plaza and the proposed outdoor meeting area before connecting to an existing walkway on the east side of the Burton House. The new sidewalk surrounding the back lawn would also include connections to the sidewalk on the northern side of Juan Street.

The existing 39 parking spaces would remain within Heritage Park under the proposed Project. Similarly, an additional 41 parking spaces would continue to be available through the County's lease with the Hacienda Hotel. The 2009 Project also analyzed replacement of the existing driveway with decorative pedestrian pavers. The proposed Project may include enhancements to the existing driveway, as part of routine maintenance, due to regular wear and tear of the driveway over the years.

Landscaping

Following development of the proposed Project, the proposed Project site would include ornamental/flowering planting areas and grass lawn. The proposed planting areas would be located in various outdoor spaces at the proposed Project site including the pergola plaza, and along the perimeter of the outdoor meeting space. The planting areas would be designed to include low-growing shrubs and perennial grass species to contribute to the Victorian character of the site, or may be naturalistic in character to tie into the canyon character of the site. The proposed Project would require removal of approximately 8 existing trees at the Project site. Approximately 25 shade and ornamental trees would be planted within the proposed Project site

with implementation of the proposed Project. If additional tree removal is necessary, the trees would be replaced at a 3:1 ratio per DPR policy.

Lighting

In addition to the integrated lighting fixtures associated with the proposed recreational amenities, new lighting fixtures would be constructed throughout the proposed Project site for security purposes. It is anticipated that the proposed Project site would include light poles with light-emitting-diode (LED), full cutoff light fixtures that relate to the aesthetic of Heritage Park. Shorter bollard-type light fixtures may also be considered during final design. All lighting would comply with the County's Outdoor Lighting Code (San Diego County Code of Regulatory Ordinances Section 51.204 through 51.206) and other applicable County lighting regulations as well as with City of San Diego outdoor lighting regulations (City of San Diego Municipal Code Section 142.0740).

Maintenance Facility Upgrades and Other Minor Improvements

The existing maintenance facility near the southeast boundary of the proposed Project site may require upgrades so the structure may continue to provide adequate storage capacity for equipment and event furnishings associated with the improved back lawn area. In addition, perimeter fencing would be implemented around the existing maintenance facility. The fencing would be designed with stone/brick columns, ornamental fencing, and similar features in order to be compatible with the architectural character of the proposed Project site. Other minor improvements may also be constructed in various portions of the proposed Project site, such as ornamental fencing, benches, bike racks, water fountains, and/or signage.

The proposed Project site includes all major utilities (i.e., water, sewer, gas and electric, irrigation, fire main, and fire hydrants) to serve the proposed guest facilities and recreational amenities. It is anticipated that new development would tie into existing infrastructure at the site.

1.2.4 Construction

Construction of the proposed Project is anticipated to occur over a 24-month period, beginning in early 2023 and ending in early 2025. Construction activities would occur Monday through Friday between 7:00 a.m. and 7:00 p.m., with occasional weekend work, in accordance with San Diego County Code Section 36.408 and City of San Diego Municipal Code Section 59.5.0404. The proposed Project would occur over three consecutive 8-month phases, as follows:

- Phase I: Buildings A (Senlis) and B (Sherman-Gilbert) and site development
- Phase II: Buildings C (Bushyhead) and D (Burton) and site development
- Phase III: Building E (Christian) and site development

Construction activities for all phases would involve ground disturbing activities including excavation, grading, and demolition, as well as removal of trees and landscaping improvements. Typical construction equipment would be utilized throughout the construction period, which could include, but is not necessarily limited to, rubber-tired loaders, skid steer loaders,

excavators, graders, rollers, cement and mortar mixers, aerial lifts, forklifts, cranes, and/or similar types of construction equipment. Site access would occur from Heritage Park Row via Juan Street or Harney Street. Construction staging areas and vehicle laydown areas would be accommodated within the proposed Project site's paved parking lot and driveways.

It is estimated that construction activities for the proposed Project may require import of up to approximately 1,000 cubic yards of soil. However, a smaller amount of soils may be required if filling of the hillside located south of the back lawn area is not necessary to construct the proposed outdoor meeting space. Excavation activities would be limited and it is likely that certain areas would be subject to surficial shallow ground disturbance only. Renovation and conversion of the five existing Victorian buildings would require demolition activities, which are expected to generate up to approximately 5 tons of debris and building materials. In addition, construction of the proposed connecting walkways and potential concrete replacement around existing houses would require import of concrete materials to the proposed Project site.

All soils required for construction activities are anticipated to be imported to the proposed Project site during the first phase of construction. Demolition debris, building materials, landscaping (i.e., removed trees), and other wastes generated during construction would be hauled from the site by trucks periodically throughout the construction schedule as each structure is renovated and other site improvements occur. Through all phases of construction, it is anticipated that up to 100 trips by haul trucks would be required to transport building materials, trees, and other construction materials to and from the proposed Project site. It is assumed that approximately 20 daily construction workers would be required for each construction phase.

1.2.5 Management and Operations

The proposed Project would include operation of the lodging component, and uses contained within the renovated structures, including up to 24 guest rooms, hotel reception areas, an interpretive center, offices, public bathrooms, and staff and break room areas. Operation of new recreation facilities in the back lawn area would include outdoor meetings and/or events near the southern boundary of the back lawn area. However, the inclusion of the new additional recreational facilities would not substantially change existing operation of the proposed Project site, where the front and back lawns would continue to be used to host events. All other existing structures and amenities at the proposed Project site would continue to operate similar to existing conditions.

In addition, the proposed Project would include daily maintenance, scheduling, and provision of 24-hour security. The County currently has the responsibility for maintenance. The proposed Project would include PDF MAINT-1, which would ensure regularly scheduled maintenance would continue to occur at Heritage Park. However, if another operator were to take over the facility, a maintenance agreement would be established and the operator would likely assume responsibility for building maintenance. The proposed Project site would generally be open from sunrise to sunset, and Park hours and evening programming would remain the same as existing conditions under the proposed Project. The operator would be required to permit any events outside of established park hours. Limited amplified music is currently allowed at Heritage Park and operations would be required to comply with applicable City and County of San Diego noise

ordinances applicable to the proposed Project site. Furthermore, park staff currently monitor noise during events using a decibel meter and actively enforce all applicable noise restrictions.

It is assumed that hotel operations would require a small number of new permanent staff. Operation of events in the back lawn area would not require additional permanent staff. Landscaping and other maintenance activities associated with outdoor areas would not change or result in a need for new maintenance workers.

1.3 Environmental Setting

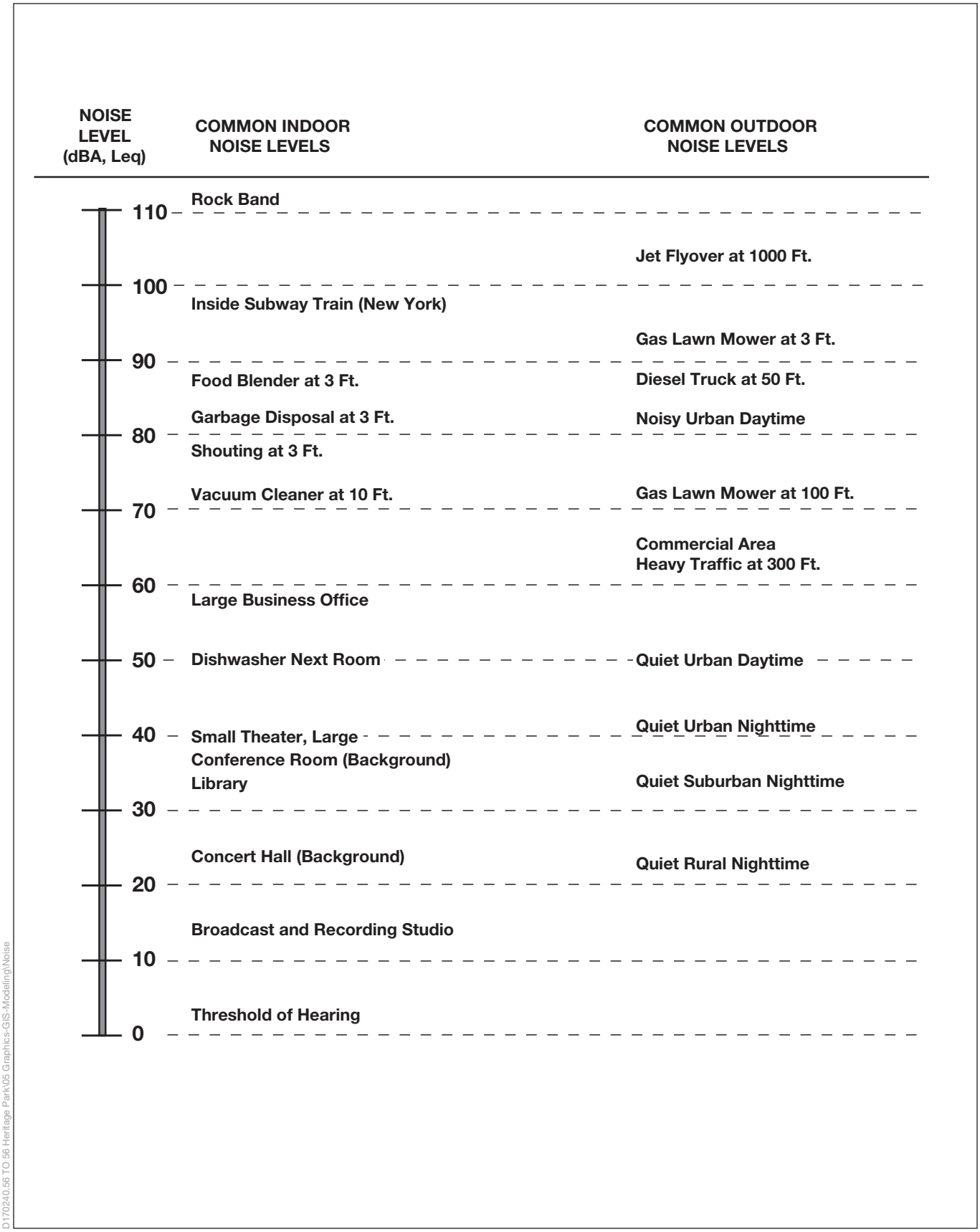
1.3.1 Noise and Vibration Basics

Noise Principles and Descriptors

Sound can be described as the mechanical energy of a vibrating object transmitted by pressure waves through a liquid or gaseous medium (e.g., air). Noise is generally defined as unwanted sound (i.e., loud, unexpected, or annoying sound). Acoustics is defined as the physics of sound. In acoustics, the fundamental scientific model consists of a sound (or noise) source, a receiver, and the propagation path between the two. The loudness of the noise source and obstructions or atmospheric factors affecting the propagation path to the receiver determines the sound level and characteristics of the noise perceived by the receiver. Acoustics addresses primarily the propagation and control of sound.

Sound, traveling in the form of waves from a source, exerts a sound pressure level (referred to as sound level) that is measured in decibels (dB), which is the standard unit of sound amplitude measurement. The dB scale is a logarithmic scale that describes the physical intensity of the pressure vibrations that make up any sound, with 0 dB corresponding roughly to the threshold of human hearing and 120 to 140 dB corresponding to the threshold of feeling and pain, respectively. Pressure waves traveling through air exert a force registered by the human ear as sound.

Sound pressure fluctuations can be measured in units of hertz (Hz), which correspond to the frequency of a particular sound. Typically, sound does not consist of a single frequency, but rather a broad band of frequencies varying in levels of magnitude, with audible frequencies of the sound spectrum ranging from 20 to 20,000 Hz. The typical human ear is not equally sensitive to this frequency range. As a consequence, when assessing potential noise impacts, sound is measured using an electronic filter that deemphasizes the frequencies below 1,000 Hz and above 5,000 Hz in a manner corresponding to the human ear's decreased sensitivity to these extremely low and extremely high frequencies. This method of frequency filtering or weighting is referred to as A-weighting, expressed in units of A-weighted decibels (dBA), which is typically applied to community noise measurements. Some representative common outdoor and indoor noise sources and their corresponding A-weighted noise levels are shown in **Figure 3**, *Decibel Scale and Common Noise Sources*.



D170240.56 TO 56 Heritage Park\05 Graphics-GIS-Modeling\Noise

SOURCE: State of California, Department of Transportation (Caltrans), Technical Noise Supplement (TeNS). October 1998. Available: http://www.dot.ca.gov/hq/env/noise/pub/Technical Noise Supplement.pdf

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Figure 3
Decibel Scale and Common Noise Sources

ESA

Noise Exposure and Community Noise

An individual's noise exposure is a measure of noise over a period of time; a noise level is a measure of noise at a given instant in time, as presented in Figure 3. However, noise levels rarely persist at that level over a long period of time. Rather, community noise varies continuously over a period of time with respect to the sound sources contributing to the community noise environment. Community noise is primarily the product of many distant noise sources, which constitute a relatively stable background noise exposure, with many of the individual contributors unidentifiable. The background noise level changes throughout a typical day, but does so gradually, corresponding with the addition and subtraction of distant noise sources, such as changes in traffic volume. What makes community noise variable throughout a day, besides the slowly changing background noise, is the addition of short-duration, single-event noise sources (e.g., aircraft flyovers, motor vehicles, sirens), which are readily identifiable to the individual.

These successive additions of sound to the community noise environment change the community noise level from instant to instant, requiring the noise exposure to be measured over periods of time to characterize an existing community noise environment. The following noise descriptors are used to characterize environmental noise levels over time, which are applicable to the proposed Project.

L_{eq}: The equivalent sound level over a specified period of time, typically, 1 hour (L_{eq}). The L_{eq} may also be referred to as the average sound level.

L_{max}: The maximum, instantaneous noise level experienced during a given period of time.

L_{min}: The minimum, instantaneous noise level experienced during a given period of time.

L_x: The noise level exceeded a percentage of a specified time period. For instance, L_{50} and L_{90} represent the noise levels that are exceeded 50 percent and 90 percent of the time, respectively.

L_{dn}: The average A-weighted noise level during a 24-hour day, obtained after an addition of 10 dB to measured noise levels between the hours of 10:00 p.m. to 7:00 a.m. to account nighttime noise sensitivity. The L_{dn} is also termed the day-night average noise level (DNL).

CNEL: The Community Noise Equivalent Level (CNEL) is the average A-weighted noise level during a 24-hour day that includes an addition of 5 dB to measured noise levels between the hours of 7:00 p.m. to 10:00 p.m. and an addition of 10 dB to noise levels between the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the evening and nighttime, respectively.

Effects of Noise on People

Noise is generally loud, unpleasant, unexpected, or undesired sound that is typically associated with human activity that is a nuisance or disruptive. The effects of noise on people can be placed into the following four general categories:

- Subjective effects (e.g., dissatisfaction, annoyance)

- Interference effects (e.g., communication, sleep, and learning interference)
- Physiological effects (e.g., startle response)
- Physical effects (e.g., hearing loss)

Although exposure to high noise levels has been demonstrated to cause physical and physiological effects, the principal human responses to typical environmental noise exposure are related to subjective effects and interference with activities. Interference effects interrupt daily activities and include interference with human communication activities, such as normal conversations, watching television, telephone conversations, and interference with sleep. Sleep interference effects can include both awakening and arousal to a lesser state of sleep.

With regard to the subjective effects, the responses of individuals to similar noise events are diverse and influenced by many factors, including the type of noise, the perceived importance of the noise, the appropriateness of the noise to the setting, the duration of the noise, the time of day and the type of activity during which the noise occurs, and individual noise sensitivity. Overall, there is no completely satisfactory way to measure the subjective effects of noise, or the corresponding reactions of annoyance and dissatisfaction on people. A wide variation in individual thresholds of annoyance exists, and different tolerances to noise tend to develop based on an individual's past experiences with noise. Thus, an important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment to which one has adapted (i.e., comparison to the ambient noise environment). In general, the more a new noise level exceeds the previously existing ambient noise level, the less acceptable the new noise level will be judged by those hearing it. With regard to increases in A-weighted noise level, the following relationships generally occur:[1]

- Except in carefully controlled laboratory experiments, a change of 1 dBA in ambient noise levels cannot be perceived
- Outside of the laboratory, a 3 dBA change in ambient noise levels is considered to be a barely perceivable difference
- A change in ambient noise levels of 5 dBA is considered to be a readily perceivable difference
- A change in ambient noise levels of 10 dBA is subjectively heard as doubling of the perceived loudness

These relationships occur in part because of the logarithmic nature of sound and the decibel scale. The human ear perceives sound in a non-linear fashion; therefore, the dBA scale was developed. Because the dBA scale is based on logarithms, two noise sources do not combine in a simple additive fashion, but rather logarithmically. Under the dBA scale, a doubling of sound energy corresponds to a 3 dBA increase. In other words, when two sources are each producing sound of the same loudness, the resulting sound level at a given distance would be approximately 3 dBA higher than one of the sources under the same conditions. For example, if two identical noise sources produce noise levels of 50 dBA, the combined sound level would be 53 dBA, not 100 dBA. Under the dB scale, three sources of equal loudness together produce a sound level of

[1] Caltrans, *TeNS*, September 2013, Section 2.2.1.

approximately 5 dBA louder than one source, and ten sources of equal loudness together produce a sound level of approximately 10 dBA louder than the single source.[2]

Noise Attenuation

When noise propagates over a distance, the noise level reduces with distance at a rate that depends on the type of noise source and the propagation path. Noise from a localized source (i.e., point source) propagates uniformly outward in a spherical pattern, referred to as "spherical spreading." Stationary point sources of noise, including stationary mobile sources such as idling vehicles, attenuate (i.e., reduce) at a rate between 6 dBA for acoustically "hard" sites and 7.5 dBA for "soft" sites for each doubling of distance from the reference measurement, as their energy is continuously spread out over a spherical surface (e.g., for hard surfaces, 80 dBA at 50 feet attenuates to 74 at 100 feet, 68 dBA at 200 feet, etc.).[3] Hard sites are those with a reflective surface between the source and the receiver, such as asphalt or concrete surfaces, flat and solid walls, or smooth bodies of water.[4] No excess ground attenuation is assumed for hard sites and the reduction in noise levels with distance (drop-off rate) is simply the geometric spreading of the noise from the source.[5] Soft sites have an absorptive ground surface, such as soft dirt, grass, or scattered bushes, shrubs, and trees, which in addition to geometric spreading, provides an excess ground attenuation value of 1.5 dBA (per doubling distance).[6]

Roadways and highways consist of several localized noise sources on a defined path, and hence are treated as "line" sources, which approximate the effect of several point sources.[7] Noise from a line source propagates over a cylindrical surface, often referred to as "cylindrical spreading."[8] Line sources (e.g., traffic noise from vehicles) attenuate at a rate between 3 dBA for hard sites and 4.5 dBA for soft sites for each doubling of distance from the reference measurement.[9] Therefore, noise due to a line source attenuates less with distance than that of a point source with increased distance.

Additionally, receptors located downwind from a noise source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lowered noise levels.[10] Atmospheric temperature inversion (i.e., increasing temperature with elevation) can increase sound levels at long distances (e.g., more than 500 feet). Other factors such as air temperature, humidity, and turbulence can also have significant effects on noise levels.[11]

2 Caltrans, *Technical Noise Supplement* (*TeNS*), September 2013, Section 2.2.1.1,
3 Caltrans, *Technical Noise Supplement* (*TeNS*), September 2013, Section 2.1.4.2.
4 Caltrans, *Technical Noise Supplement* (*TeNS*), September 2013, Section 2.1.4.2.
5 Caltrans, *Technical Noise Supplement* (*TeNS*), September 2013, Section 2.1.4.2.
6 Caltrans, *Technical Noise Supplement* (*TeNS*), September 2013, Section 2.1.4.2.
7 Caltrans, *Technical Noise Supplement* (*TeNS*), September 2013, Section 2.1.4.1.
8 Caltrans, *Technical Noise Supplement* (*TeNS*), September 2013, Section 2.1.4.1.
9 Caltrans, *Technical Noise Supplement* (*TeNS*), September 2013, Section 2.1.4.1.
10 Caltrans, *Technical Noise Supplement* (*TeNS*), September 2013, Section 2.1.4.3.
11 Caltrans, *Technical Noise Supplement* (*TeNS*), September 2013, Section 2.1.4.3.

Vibration Fundamentals

Vibration can be interpreted as energy transmitted in waves through the ground or man-made structures, which generally dissipate with distance from the vibration source. Because energy is lost during the transfer of energy from one particle to another, vibration becomes less perceptible with increasing distance from the source.

As discussed in the California Department of Transportation's (Caltrans) *Transportation and Construction Vibration Guidance Manual,* operation of construction equipment generates ground vibration. Maintenance operations and traffic traveling on roadways can also be a source of such vibration. If the amplitudes are high enough, ground vibration has the potential to damage structures, cause cosmetic damage or disrupt the operation of vibration-sensitive equipment such as electron microscopes and advanced technology production and research equipment. Groundborne vibration and groundborne noise can also be a source of annoyance to individuals who live or work close to vibration-generating activities. Traffic, including heavy trucks traveling on a highway, rarely generates vibration amplitudes high enough to cause structural or cosmetic damage. However, there have been cases in which heavy trucks traveling over potholes or other discontinuities in the pavement have caused vibration high enough to result in complaints from nearby residents.[12]

In describing vibration in the ground and in structures, the motion of a particle (i.e., a point in or on the ground or structure) is used. The concepts of particle displacement, velocity, and acceleration are used to describe how the ground or structure responds to excitation. Although displacement is generally easier to understand than velocity or acceleration, it is rarely used to describe ground and structure-borne vibration because most transducers used to measure vibration directly measure velocity or acceleration, not displacement. Accordingly, vibratory motion is commonly described by identifying the peak particle velocity (PPV).[13] Caltrans has identified used by governmental agencies, including the Federal Transit Administration and reported by various researchers and organizations, that can be used as screening tools for assessing the potential for adverse vibration effects related to structural damage and human perception.[14] The Caltrans Manual is meant to provide practical guidance to Caltrans engineers, planners, and consultants who must address vibration issues associated with the construction, operation, and maintenance of Caltrans projects, but can be used to guide the analysis of non-transportation projects.[15] Structural damage can potentially result from vibration events that generate vibration levels of 0.2 in/sec (in/sec) PPV at fragile buildings, 0.5 in/sec PPV at older residential buildings or historic buildings, and 2.0 in/sec PPV at modern industrial or commercial buildings. Vibration events that generate a vibration level of 0.04 in/sec PPV is considered barely perceptible by a human.[16]

Groundborne noise specifically refers to the rumbling noise emanating from the motion of building room surfaces due to vibration of floors and walls; it is perceptible only inside

12 Caltrans, *Transportation and Construction Vibration Guidance Manual*, September 2020, Page 1.
13 Caltrans, *Transportation and Construction Vibration Guidance Manual*, September 2020, Page 6.
14 Caltrans, *Transportation and Construction Vibration Guidance Manual*, September 2020, pages 21-25, 38.
15 Caltrans, *Transportation and Construction Vibration Guidance Manual*, September 2020, page 1.
16 Caltrans, *Transportation and Construction Vibration Guidance Manual*, September 2020, page 38.

buildings.[17] The relationship between groundborne vibration and groundborne noise depends on the frequency content of the vibration and the acoustical absorption characteristics of the receiving room. For typical buildings, groundborne vibration that causes low frequency noise (i.e., the vibration spectrum peak is near 30 Hz) results in a groundborne noise level that is approximately 40 dB lower than the velocity level. For groundborne vibration that causes mid-frequency noise (i.e., the vibration spectrum peak is near 60 Hz), the groundborne noise level will be approximately 25 dB lower than the velocity level.[18] Therefore, for typical buildings, the groundborne noise dB level is lower than the groundborne vibration velocity level.

In general, manmade groundborne vibrations attenuate rapidly with distance from the source. For instance, vibration of truck pass by is characterized by peaks that are considerably higher than those generated by automobiles. These peaks last no more than a few seconds and often only a fraction of a second, including a rapid drop-off with distance. Truck vibration levels at 50 feet from the centerline of the nearest lane would be about half of vibration levels measured at 15 feet from the centerline of the near lane.[19] At 100 feet, vibration levels from trucks are about one fourth, at 200 feet about one tenth, and at 300 feet less than one twentieth.[20] Because vibration drops off rapidly with distance, there is rarely a cumulative increase in groundborne vibration from the presence of multiple trucks.[21]

1.3.2 Existing Conditions

Noise-Sensitive Receptor Locations

Some land uses are considered more sensitive to noise than others due to the types of activities typically involved at the receptor locations and the effect that noise can have on those activities and the persons engaged in them. Noise sensitive receptors are defined as those specific land uses that have associated indoor and/or outdoor human activities that may be subject to stress and/or significant interference from noise produced by community sound sources. Typically, residences, hospitals and schools are considered noise sensitive, as their land uses of sleeping, recuperation, and concentration, can be adversely affected by noise.

The vicinity of the proposed Project site includes residential uses, a historic museum, commercial uses, and vacant/undeveloped land. The Mormon Battalion Historic Site is located across Heritage Park Row to the northwest, approximately 50 feet from the nearest proposed Project site's construction area boundary. Both the San Diego County and the City of San Diego Noise Ordinance consider this use as a commercial use for one-hour average sound level limits, which is less sensitive to noise compared to residential uses (see San Diego County Code 36.404 and City of San Diego Municipal Code Noise Ordinance 59.5.401). Residential uses that are located closest to the proposed Project site's construction area boundary include those that are located to the north/northeast (150 feet), south/southeast (75 feet), southwest (75 feet), and northwest (200 feet). In urban and suburban residential settings, traffic noise is the primary contributor to

17 Federal Transit Administration (FTA), *Noise and Vibration Manual*, 2018, Page 109.
18 FTA, Noise and Vibration Manual, 2018, Page 119.
19 Caltrans, *Transportation and Construction Vibration Guidance Manual*, September 2020, Appendix A, page 13.
20 Caltrans, *Transportation and Construction Vibration Guidance Manual*, September 2020, page 10.
21 Caltrans, *Transportation and Construction Vibration Guidance Manual*, September 2020, Appendix A, page 13.

ambient noise, although there may be other periodic contributors to noise such as commercial uses delivery trucks traveling in the area, lawnmowers, barking dogs, and other existing noise sources common to residential and open space areas.

Vibration-Sensitive Receptor Locations

Typically, groundborne vibration generated by human-made activities (i.e., rail and roadway traffic, operation of mechanical equipment and typical construction equipment) diminishes rapidly with distance from the vibration source.[22] The FTA *Transit Noise and Vibration Impact Assessment* provides vibration structure damage criteria for (1) reinforced-concrete, steel, or timber (no plaster); (2) engineered concrete and masonry (no plaster); (3) non-engineered timber and masonry buildings; (3) and buildings extremely susceptible to vibration damage.[23]

The FTA's document also provides vibration human annoyance criteria. The nearest off-site buildings to the proposed Project site that could be subjected to Project-related vibration structural damage and human annoyance impacts include residential uses that would be within approximately 50 to 100 feet from construction activities related to the proposed Project.

Ambient Noise Levels

Noise Measurements

To establish baseline noise conditions representing the nearby noise sensitive land uses in the vicinity of the proposed Project site, existing ambient noise levels measurements were conducted on February 24 through February 26, 2022, at 4 locations in the vicinity of the Project site. **Figure 4**, *Noise Measurement Locations*, shows the locations of the noise measurements, labeled as R1 through R4, as described as follows:

- Noise Measurement Location R1 - to the north/northeast of the proposed Project site, approximately 50 feet from residential uses at the southern end of Arista Street.
- Noise Measurement Location R2 - to the south/southeast of the proposed Project site, approximately 100 feet from residences on the north side of Juan Street.
- Noise Measurement Location R3 – to the southwest of the proposed Project site, on the north side of Juan Street, approximately 75 feet north of the residences on the south side of Juan Street and approximately 160 feet north of the nearest portion of the Best Western Plus Hacienda Hotel.
- Noise Measurement Location R4 – to the northwest of the proposed Project site, on the north side of Juan Street, approximately 15 feet south of residences to the northwest of the proposed Project site.

[22] Caltrans, *Transportation and Construction Vibration Guidance Manual*, September 2020, page 38.

[23] FTA, *Transit Noise and Vibration Impact Assessment*. September 2018.

Path: U:\GIS\GIS\Projects\17xxxx\D170240_TO56_Heritage_County_Park\03_MXDs_Projects\Noise.aprx Fig 4 - Noise Measurement Locations, dkaneshiro 9/24/2022

SOURCE: Mapbox, 2021; ESA, 2022

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Figure 4
Noise Measurement Locations

Long-term (24-hour) noise measurements were conducted at three of the noise measurement locations (R1, R2, and R3). A short-term (15-minute) noise measurement was conducted at one noise measurement location (R4) to characterize the existing noise environment in the proposed Project vicinity. Measured noise levels at these noise measurement locations in the vicinity of the proposed Project site represent typical noise levels expected in a developed and mostly residential, environment. The predominant existing noise source observed was vehicle traffic noise from the roadways surrounding the proposed Project site. Secondary noise sources observed included general residential-related activities, such as landscaping and refuse service activities, and intermittent aircraft flyovers. **Table 1** lists the measured ambient noise levels at the proposed Project site.

TABLE 1
SUMMARY OF AMBIENT NOISE MEASUREMENTS

Measurement Locations Date (Time of Day)	Noise Level (dBA Leq)a
Long-term Noise Measurements	
Noise Measurement Location R1 2/25/22 (14:12) to 2/26/22 (15:41)	56.2
Noise Measurement Location R2 2/24/22 (12:30) to 2/25/22 (13:15)	59.2
Noise Measurement Location R3 2/24/22 (11:48) to 2/25/22 (13:02)	61.3
Short-term Noise Measurement	
Noise Measurement Location R4 2/24/22 (11:56 AM to 12:11 PM)	63.0

[a] Detailed measured noise data is included in Appendix A. The ambient noise measurements were conducted using Larson Davis's model 820 Precision Integrated Sound Level Meter (SLM), which is a Type 1 standard instrument, as defined in the American National Standard Institute S1.4. The SLM was within its annual factory calibration, field calibrated prior to conducting measurements, and operated according to the applicable manufacturer specification. The microphone of the SLM was placed at a height of five feet above the local grade, representing an average height of the human ear.

SOURCE: ESA, 2022.

Existing Roadway Noise Levels

Noise levels attributed to existing traffic volumes on local roadways were estimated using a spreadsheet model developed based on the methodologies provided in Federal Highway Administration's (FHWA) Traffic Noise Model (TNM) Technical Manual, and the Caltrans Technical Noise Supplement (TeNS) document.[24]

Table 2 presents the calculated existing CNEL levels from the existing traffic volumes in the vicinity of the proposed Project site. Traffic volumes for the existing baseline conditions were

[24] FHWA, *Federal Highway Administration's Traffic Noise Model, Version 1.0 Technical Manual*. February 1998 https://www.fhwa.dot.gov/environment/noise/traffic_noise_model/old_versions/tnm_version_10/tech_manual/index.cfm.

obtained from the City's Website as presented in the Local ADT Counts in the Vicinity of Heritage Park.[25]

TABLE 2
EXISTING VEHICULAR TRAFFIC NOISE LEVELS

Roadway Segment	Existing CNEL (dBA) at the 30 feet from Roadway
Juan Street	
Between Harney Street and San Juan Road	71.4
Between Harney Street and Twiggs Street	73.0
Harney Street	
Between Calhoun Street and Juan Street	72.0

SOURCE: City of San Diego 2021; ESA 2022

Ambient Groundborne Vibration Levels

Aside from periodic construction work occurring throughout the City and County, field observations noted that other sources of groundborne vibration in the proposed Project site vicinity are limited to vehicular travel on local roadways. Rubber-tired vehicles traveling at a distance of 50 feet typically generates groundborne vibration velocity levels of approximately 0.006 in/sec PPV (approximately 63 VdB).[26] As stated earlier, groundborne noise impacts would generally be 25 to 40 dB lower than the velocity level depending on the frequency level of the source.[27]

[25] City of San Diego, 2021. Traffic Volumes Data. Last updated June 26, 2021. Available: https://data.sandiego.gov/datasets/traffic-volumes/.

[26] FTA, *Transit Noise and Vibration Impact Assessment*, Figure 6-4, September 2018.

[27] Caltrans, Transportation and Construction Vibration Guidance Manual, September 2020, page 38.

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SECTION 2
Regulatory Framework

2.1 Federal

2.1.1 Federal Noise Standards

Under the authority of the Noise Control Act of 1972, the U.S. Environmental Protection Agency (USEPA) established noise emission criteria and testing methods published in Parts 201 through 205 of Title 40 of the Code of Federal Regulations (CFR) that apply to some transportation equipment (e.g., interstate rail carriers, medium trucks, and heavy trucks) and construction equipment. In 1974, the USEPA issued guidance levels for the protection of public health and welfare in residential land use areas of an outdoor L_{dn} of 55 dBA and an indoor L_{dn} of 45 dBA. These guidance levels are not considered as standards or regulations and were developed without consideration of technical or economic feasibility.[28] There are no federal noise standards that directly regulate environmental noise related to the construction or operation of the proposed Project.

2.1.2 Federal Vibration Standards

There are no federal vibration standards or regulations adopted by an agency that are applicable to evaluating vibration impacts from land use development projects such as the proposed Project. However, the Federal Transit Administration (FTA) has adopted vibration criteria. The vibration damage criteria adopted by the FTA are shown in **Table 3,** *Construction Vibration Damage Criteria*. In addition, based on Table 8-3 in the FTA's *Transit Noise and Vibration Impact Assessment*,[29] interpretation of human annoyance vibration criteria for detailed analysis is 78 VdB for residential uses during daytime hours. During nighttime hours, the vibration criterion is 72 VdB. For office buildings, the FTA guidelines suggest that a vibration level of 84 VdB should be used for detailed analysis.

[28] United States Environmental Protection Agency (USEPA), EPA Identifies Noise Levels Affecting Health and Welfare. April 1974.

[29] FTA, *Transit Noise and Vibration Impact Assessment*, Table 8-3, September 2018.

TABLE 3
CONSTRUCTION VIBRATION DAMAGE CRITERIA

Building Category	PPV (inch/sec)	Approximate LV[a]
Reinforced-concrete, steel, or timber (no plaster)	0.50	102
Engineered concrete and masonry (no plaster)	0.30	98
Non-engineered timber and masonry buildings	0.20	94
Buildings extremely susceptible to vibration damage	0.12	90

NOTES: PPV = peak particle velocity; L_V = velocity in decibels; inch/sec = inches per second

[a] Root-mean-square velocity in decibels (VdB) re 1 microinch per second.

SOURCE: Federal Transit Administration. Table 12-3, *Transit Noise and Vibration Impact Assessment* (2018).

2.2 State of California

2.2.1 Groundborne Vibration and Noise

Caltrans' Transportation and Construction Vibration Manual (2020) and FTA's Transit Noise and Vibration Impact Assessment (2018) document provide thresholds of vibration impact for structure and human annoyance. The threshold of vibration impact for human annoyance would apply for residential uses since commercial uses are not considered vibration sensitive uses.[30] This FTA document is used to identify the impacts for this proposed Project.

Table 4, *Caltrans Vibration Annoyance Potential Criteria*, and **Table 5**, *Guideline Vibration Damage Potential Threshold Criteria*, include the vibration impact criteria for human annoyance and for structure damage.

TABLE 4
CALTRANS VIBRATION ANNOYANCE POTENTIAL CRITERIA

	Maximum PPV (in/sec)	
Structure and Condition	Transient Sources	Continuous/Frequent Intermittent Sources
Barely perceptible	0.04	0.01
Distinctly perceptible	0.25	0.04
Strongly perceptible	0.9	0.1
Severe	2.0	0.4

NOTE: Transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

SOURCE: Caltrans, Transportation and Construction Vibration Guidance Manual. September 2020.

30 Caltrans, *Transportation and Construction Vibration Manual*, 2020.

TABLE 5
GUIDELINE VIBRATION DAMAGE POTENTIAL THRESHOLD CRITERIA

Structure and Condition	Maximum PPV (inch/sec)	
	Transient Sources[a]	Continuous/Frequent Intermittent Sources[b]
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.20	0.10
Historic and some old buildings	0.50	0.25
Older residential structures	0.50	0.30
New residential structures	1.00	0.50
Modern industrial/commercial buildings	2.00	0.50

NOTES: PPV = peak particle velocity; inch/sec = inches per second

[a] Transient sources create a single, isolated vibration event, such as blasting or drop balls.

[b] Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

SOURCE: California Department of Transportation, *Transportation and Construction Vibration Guidance Manual* (2020), Table 19.

2.3 County of San Diego

2.3.1 County Code Noise Standards

The County of San Diego Municipal Code (County 2017) establishes prohibitions for disturbing, excessive, or offensive noise, and provisions such as sound level limits for the purpose of securing and promoting the public health, comfort, safety, peace, and quiet for its citizens (Chapter 4, Noise Abatement and Control). Section 36.408 of the County's Municipal Code prohibits construction between the hours of 7:00 p.m. and 7:00 a.m. Monday through Saturday, and at any time on Sunday or a holiday. A person may, however, operate construction equipment on a Sunday or holiday between the hours of 10:00 a.m. and 5:00 p.m. at the person's residence or for the purpose of constructing a residence for himself or herself, provided that the operation of construction equipment is not carried out for financial consideration or other consideration of any kind and does not violate the limitations in sections 36.409 and 36.410.

In addition, Section 36.409 of the County's Municipal Code sets a maximum noise level for construction equipment of 75 dBA for an eight-hour period, between 7:00 a.m. and 7:00 p.m., when measured at the boundary line of the property where the noise source is located or on any occupied property where the noise is being received.

For operations, County of San Diego Municipal Code Section 36.404, General Sound Level Limits, indicates that for residential uses zoned R-S, R-D, R-R, R-MH, A-70, A-72, S-80, S-81, S-87, S-90, S-92, and R-V and R-U with a density of less than 11 dwelling units per acre, the one-hour sound level limits are 50 dBA during daytime hours (7:00 a.m. to 10:00 p.m.) and 45 dBA during nighttime hours (10:00 p.m. to 7:00 a.m.). However, the County of San Diego in its *Guidelines for Determining Significance for Noise* (County of San Diego, Land Use and Environment Group, Department of Planning and Land Use, Department of Public Works, January

27, 2009), states that if the measured ambient level exceeds the applicable limit noted above, the allowable one- hour average sound level shall be the ambient noise level, plus three decibels. The ambient noise level shall be measured when the alleged noise violation source is not operating.

2.3.2 Groundborne Vibration

The City and County of San Diego have not adopted standards or regulations addressing groundborne vibration or groundborne noise impacts from land use development projects, such as the proposed Project. Instead, the County of San Diego *Guidelines for Determining Significance for Noise* (Land Use and Environment Group, January 27, 2009) references vibration guidelines provided in the Caltrans *Transportation and Construction Vibration Manual* (2020) and FTA *Transit Noise and Vibration Impact Assessment* (2018), which provide screening level thresholds for vibration impacts for potential building structural damage and human annoyance.

2.4 City of San Diego

2.4.1 City of San Diego Noise Element

The goal of the Noise and Land Use Compatibility component of the City of San Diego Noise Element is to "Consider existing and future noise levels when making land use planning decisions to minimize people's exposure to excessive noise."

The Noise Element influences Land Use Element policies since excessive noise affects land uses, specifically, the quality of life of people working and living in the City. The planning of future noise-sensitive land uses should have a sufficient spatial separation or incorporate site design and construction techniques to ensure compatibility with noise-generating uses. Noise-sensitive land uses include, but are not necessarily limited to residential uses, hospitals, nursing facilities, intermediate care facilities, child educational facilities, libraries, places of worship, childcare facilities, and certain types of passive recreational parks and open space.

2.4.2 City of San Diego Municipal Code Noise Standards

Limits, as specified by land use, are provided in **Table 6**: City of San Diego Noise Limits. It is unlawful for any person to cause noise by any means to the extent that the 1-hour average sound level exceeds the applicable limit given in Table 6 at any location in the City of San Diego on or beyond the boundaries of the property on which the noise is produced. The noise subject to these limits is the part of the total noise at the specified location that is due solely to a single action, activity, or project.

When two adjacent properties each have different zone classifications, the average of the two sound level limits is used. The Noise Ordinance prohibits the creation of any noise that exceeds the applicable limits of the Noise Ordinance at any point on or beyond the boundaries of the property where the sound is produced. Fixed-location public utility distribution or power line facilities located on or adjacent to a property line are subject to these noise level limits when measured at or beyond six feet from the boundary of the property where the equipment is located.

TABLE 6
CITY OF SAN DIEGO LAND USE SOUND LEVEL LIMITS

Land Use	Time of Day	1-Hour Average Sound Level Limit (dBA)
Single-family residential	7:00 a.m.–7:00 p.m.	50
	7:00 p.m.–10:00 p.m.	45
	10:00 p.m.–7:00 a.m.	40
Multi-family residential (up to a maximum density of 1/2,000)	7:00 a.m.–7:00 p.m.	55
	7:00 p.m.–10:00 p.m.	50
	10:00 p.m.–7:00 a.m.	45
All other residential	7:00 a.m.–7:00 p.m.	60
	7:00 p.m.–10:00 p.m.	55
	10:00 p.m.–7:00 a.m.	50
Commercial	7:00 a.m.–7:00 p.m.	65
	7:00 p.m.–10:00 p.m.	60
	10:00 p.m.–7:00 a.m.	60
Industrial or agricultural	Any time	75

dBA = A-weighted decibel.
SOURCE: City of San Diego 2010.

Section 59.5.0404 of the City's Municipal Code sets forth limitations related to construction noise. The City's Noise Ordinance specifies that construction activity is restricted to 7:00 a.m. to 7:00 p.m., unless a permit has been issued by the Noise Abatement and Control Administrator. Construction is not permitted on Sundays or on legal holidays as specified in Section 21.0104 of the City of San Diego Municipal Code. The City's Noise Ordinance also indicates that construction activity shall not cause an average sound level greater than 75 decibels during the 12-hour period from 7:00 a.m. to 7:00 p.m. at or beyond the property lines of any property zoned residential.

The City of San Diego has not adopted standards or regulations addressing groundborne vibration or groundborne noise impacts from land use development projects, such as the proposed Project. Instead, the Caltrans *Transportation and Construction Vibration Manual* (2013) and the Federal Transit Administration (FTA) *Transit Noise and Vibration Impact Assessment* (2018) guidance documents provide screening level thresholds for vibration impacts for potential building structural damage and human annoyance.

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SECTION 3
Thresholds of Significance

In accordance with the State CEQA Guidelines Appendix G, the proposed Project would have a significant impact related to noise and vibration if it would result in:

- **NOI-1:** Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.
- **NOI-2:** Generation of excessive groundborne vibration or groundborne noise levels.
- **NOI-3:** For a project located within the vicinity of a private airstrip or 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, would the project expose people residing or working in the project area to excessive noise levels.

The following significance thresholds evaluate potential noise and vibration impacts of the proposed Project based on the regulatory framework described above. The proposed Project would result in potentially significant impacts under the following circumstances:

- Project-related noise from construction sources would cause noise levels to exceed 75 dBA, L_{eq} averaged over 8 hours at the Project's boundary within the County area and 75 dBA L_{eq} averaged over 12 hours at the Project's boundary within the City's jurisdiction;
- Project-related noise from stationary operational sources would cause noise levels to exceed the existing ambient noise level plus 3 dBA, L_{eq} averaged over 1 hour.
- For Project-related construction or operational traffic noise, the Project would cause the ambient noise levels measured at the property line of affected uses to increase by 3 dBA to or within the "normally unacceptable" or "clearly unacceptable" categories; or the Project would cause the ambient noise levels measured at the property line of affected uses to increase by 5 dBA or more within the "normally acceptable" or "conditionally acceptable" categories.
- Potential Building Damage – Project construction activities would cause transient groundborne vibration levels to exceed 0.2 in/sec PPV at fragile buildings or 0.5 in/sec PPV for historic buildings; or
- Potential Human Perception – Project construction activities would cause transient groundborne vibration levels to exceed 78 VdB at the nearest sensitive residential buildings and 84 VdB at the nearest office buildings.

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SECTION 4
Methodology

4.1 On-Site Construction Noise

On-site construction noise impacts were projected by determining the noise levels expected to be generated by the different types of construction activities anticipated, calculating the construction-related noise levels produced by the construction equipment assumed at sensitive receptors. More, specifically, the following steps were undertaken to assess construction-period noise impacts.

1. Ambient noise levels at surrounding sensitive receptor locations were estimated based on field measurement data (see Table 1).
2. Typical noise levels for each type of construction equipment expected to be used based on information provided by the Applicant were obtained from the Federal Highway Administration (FHWA) roadway construction noise model (RCNM).
3. Distances between construction site locations (noise sources) within the proposed Project site and surrounding sensitive receptors were measured using proposed Project architectural drawings, Google Earth, and site plans.
4. The construction noise levels were then calculated for each construction phase using the FHWA RCNM, conservatively, in terms of hourly L_{eq}, for sensitive receptor locations based on the standard point source noise-distance attenuation factor of 6 dBA for each doubling of distance, assuming that all of the equipment for each construction phase would be in use concurrently and that the loudest equipment would be located at the edge of the proposed Project site closest to the sensitive receptor locations.
5. Noise attenuation effects were applied as specified in the PDFs incorporated into the proposed Project.
6. Construction noise levels were then compared to the construction noise significance thresholds identified above in **Section 3**, *Thresholds of Significance*.

4.2 Off-Site Roadway Noise (Construction and Operations)

Roadway CNEL noise levels were calculated using the methodology based on the Federal Highway Administration's (FHWA's) Highway Traffic Noise Model (TNM) and traffic volumes obtained from the City's Website.[31] The modeling analysis calculates the average noise level at specific locations based on traffic volumes, average speeds, and site environmental conditions.

[31] Traffic volumes were obtained from the City's Website (City of San Diego, Traffic Volumes, https://data.sandiego.gov/datasets/traffic-volumes/. Accessed September 2022.).

This method allows for the definition of roadway configurations, barrier information (if any), and receptor locations. Roadway noise attributable to proposed Project development was calculated and compared to baseline noise levels that would occur under the "without the proposed Project" condition.

4.3 Stationary Point-Source Noise (Operations)

Stationary point-source noise levels were evaluated by identifying the noise levels generated by outdoor stationary noise sources such as rooftop mechanical equipment, parking structure, automobile operations, and loading/refuse collection area activity, calculating the hourly L_{eq} noise level from each noise source at sensitive receptor property lines, and comparing such noise levels to existing ambient noise levels. More specifically, the following steps were undertaken to calculate outdoor stationary point-source noise impacts:

1. Ambient noise levels at surrounding sensitive receptor locations were estimated based on field measurement data (see Table 1).
2. Typical noise levels generated by each type of stationary point-source noise generator including mechanical equipment, open space operations were obtained from measured noise levels for similar equipment/activities, noise levels published in environmental noise assessment documents for land use development projects or scientific journals, or noise levels from equipment manufacturer specifications.
3. Distances between stationary point-source noise generators and surrounding sensitive receptor locations were measured using proposed Project architectural drawings, Google Earth, and site plans.
4. Stationary point-source noise levels were then calculated for each sensitive receptor location based on the standard point source noise-distance attenuation factor of 6 dBA for each doubling of distance.
5. Noise attenuation effects were applied from the implementation of PDFs.
6. Noise level increases, if any, were compared to the stationary point-source noise significance thresholds identified above in **Section 3**, *Thresholds of Significance*, including the following requirements for outdoor mechanical equipment:

> Outdoor mechanical equipment is assessed based on the City or County of San Diego Municipal Code requirements and measured data, and their impacts on the nearby offsite receptors are determined based on their distance from these receptors. The noise levels determined at the offsite, noise-sensitive receptors are then compared to the stationary source noise significance thresholds identified in the City or County of San Diego Municipal Code.

4.4 Groundborne Vibration and Noise (Construction and Operations)

Groundborne vibration and noise were evaluated for potential building damage and human annoyance impacts by identifying the proposed Project's potential vibration sources, estimating the distance between the proposed Project's vibration sources and the nearest structure and

vibration annoyance receptor locations, and making a significance determination based on the significance thresholds described above in Section 3, *Thresholds of Significance*.

Groundborne vibration and noise generated by construction and operational activities on the proposed Project site, such as those from trucks and vehicles driving to and from the proposed Project site, or from the operation of typical commercial-grade stationary mechanical and electrical equipment used for residential and commercial land uses, would be evaluated with source level data provided in the FHWA and FTA documents, attenuation provided by transmission through the ground, and compared to the thresholds suggested by the FTA and FHWA.

4.5 Project Design Features

The following PDFs will be implemented by the proposed Project:

> **PDF NOISE-1:** As part of the proposed Project's design features, the construction contractor shall be required to implement noise-reduction features such that construction noise levels at residences surrounding the proposed Project site would not exceed 75 dBA Leq in compliance with the City and County noise regulations. Noise-reduction features could include installation of a temporary noise barrier on the proposed Project site that blocks the direct line-of-sight between the noise source of the construction equipment on the proposed Project site and receptors at residences or other noise-reduction practices.
>
> **PDF NOISE-2:** Construction Noise Best Management Practices. For construction activities within 150 feet of sensitive receptors, the construction contractor shall implement the following measures to the extent necessary to meet the standards of Section 36.409 of the County of San Diego Noise Ordinance:
>
> - The construction contractor shall provide written notification to the noise-sensitive land uses within 150 feet of normal construction activities at least 3 weeks before the start of construction activities, informing them of the estimated start date and duration of construction activities.
> - Construction activities that could generate high noise levels at residences shall be scheduled during times that would have the least impact on sensitive receptor locations.
> - Stationary construction noise sources, such as temporary generators, shall be as far from nearby noise-sensitive receptors as possible.
> - Trucks shall be prohibited from idling along streets serving the construction site where noise-sensitive residences are located.
> - Construction equipment shall be outfitted with properly maintained, manufacturer-approved, or recommended sound abatement means on air intakes, combustion exhausts, heat dissipation vents, and interior surfaces of engine hoods and power train enclosures.
> - Construction laydown and vehicle staging areas shall be positioned (to the extent practical) as far from noise-sensitive land uses as feasible.

- Simultaneous operation of construction equipment shall be limited or construction time shall be limited to within an hour to reduce the hourly average noise level.
- Temporary noise barriers shall be installed around the perimeter of the construction area to minimize construction noise.
- Lower vibration-generating equipment should be used in lieu of high vibration-generating equipment (e.g., small bulldozer vs. large bulldozer) in areas within 50 feet of sensitive structures.

SECTION 5
Environmental Impacts

5.1 Ambient Noise Levels

Threshold NOI-1: Would the Project result in the generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Impact Statement NOI-1: The Project would not result in the generation of a temporary or permanent increases in ambient noise levels in excess of the standards. (Less than Significant with PDFs)

5.1.1 Temporary Increase in Ambient Noise Levels

On-Site Construction Activity Noise

Construction of the proposed Project is anticipated to occur over a 24-month period, beginning in early 2023 and ending in early 2025. Construction activities would consist of three phases and site development. Construction equipment used may include tractors/loaders/backhoes, manlift, excavators, graders, forklifts, cranes, rollers, concrete mixer trucks, and/or similar types of equipment.

Proposed Project construction would generate noise from the daytime operation of construction equipment on the proposed Project site and from haul truck trips on local roadways accessing and departing the proposed Project site. Proposed Project construction would use small-scale construction equipment over a 24-month period, where construction activities would vary from day-to-day. As no large buildings are proposed, there would be no pile driving activities. The construction activities associated with the surficial grading would have the greatest potential to generate noise during construction; however, these activities would be conducted using small-scale construction equipment and would not occur continuously over the 24-month construction period.

According to the FHWA Roadway Construction Noise Model (RCNM), which is based on a survey of heavy-duty construction equipment used for large scale projects, reference construction equipment noise levels for equipment such as an excavator, dump truck, forklift, and tractor/loader/backhoe range from an average of 69 to 77 dBA Leq at a distance of 50 feet from the equipment, taking into account equipment usage factors.

Individual pieces of construction equipment that would be used for construction of the proposed Project produce maximum noise levels of 75 dBA to 85 dBA at a reference distance of 50 feet

from the noise source, as shown in **Table 7**. The construction equipment noise levels at 50 feet distance (Referenced Maximum Noise Levels) are based on the FHWA RCNM User's Guide,[32] which is a technical report containing actual measured noise data for construction equipment. Table 7 also presents the percentage of time that each piece of construction equipment would be operating at full power (the "acoustical usage factor") for a 1-hour period, as well as the resulting noise levels at 50 feet from a sensitive receptor. Due to the use of small-scale construction equipment, the amount of noise generated during construction would be minimal and would dissipate as distance from the activity increased when construction equipment was located further away from the site boundaries. Therefore, while limited amounts of noise might be perceivable at the residences that are directly adjacent to the site during certain construction activities, those construction activities would occur on an interval basis and would be intermittent throughout the day depending on the type of construction activity and distance from the site boundary.

TABLE 7
OFF-ROAD CONSTRUCTION EQUIPMENT NOISE REFERENCE LEVELS AND USAGE FACTORS

Type of Equipment	Acoustical Usage Factor[a] (%)	Reference Maximum Noise Levels at 50 Feet[a,b] Lmax (dBA)
Backhoe	40	78
Concrete Mixer Truck	40	79
Crane	16	81
Excavator	40	81
Forklift	10	75
Grader	40	85
Front End Loader	40	79
Roller	20	80
Tractor	40	80

[a] The usage factor is the percentage of time during a construction noise operation that a piece of construction is operating at full power.

[b] Construction equipment noise levels are based on the FHWA RCNM.

SOURCE: FHWA, Roadway Construction Noise Model User's Guide, 2006, Table 1. Available at: https://www.fhwa.dot.gov/environment/noise/construction_noise/rcnm/.

Off-site sensitive land uses include residential uses located to the north/northeast (150 feet), south/southeast (75 feet), southwest (75 feet), and northwest (200 feet) of the proposed Project site's construction area.

It should be noted that, other than the residences to the north/northeast that are located on top of the hill, the other off-site receivers (i.e., to the south/southeast, southwest, and northwest) are evaluated at the same elevation as the proposed Project site. Any shielding effect from undulation or terrain variation for these off-site receivers that are evaluated at the same level of the proposed Project site would be small and negligible. For the residences to the north/northeast that are located on top of the hill, the distances are measured without considering the increased distance due to the slant angle, which would represent a conservative analysis compared to the straight-

[32] FHWA, Roadway Construction Noise Model, version 1.1, 2006. Available at: https://www.fhwa.dot.gov/environment/noise/construction_noise/rcnm/.

line distance between the proposed Project site and the elevated property line of the north/northeast residences.

The hills to the north/northeast of Heritage Park consists of acoustically soft topography (i.e., earth/soil, shrubs, trees) such that the amount of sound energy that would be reflected towards the south from the hills would be small and would not perceptibly add to noise levels to the south. As previously discussed in Section 1.3.1, a doubling of sound energy is required to increase noise levels by 3 dBA, which is a barely perceptible increase by the human ear. Acoustically soft topography absorbs more sound energy and reflects less sound energy than acoustically hard surfaces. The reflected sound energy would also travel a longer distance than the direct sound to receptors located to the south of the hill such that the reflected noise would be substantially attenuated below levels that would perceptibly add to the direct noise. Thus, the contribution of Project noise that would be reflected from the hill towards the south would not be a perceptible addition to the direct noise.

Noise impacts from proposed Project construction activities would be a function of the noise generated by construction equipment, the location of the equipment, the timing and duration of the noise-generating construction activities, and the relative distance to off-site noise-sensitive receptors. The noise from construction equipment would generate both steady-state and episodic noise that could be heard within and adjacent to the proposed Project site. Construction noise levels fluctuate throughout a given workday as construction equipment moves from one location to another within a project site. When construction equipment would be in use further away from a sensitive receptor location, construction noise levels would be lower than the calculated values provided in this analysis, which assumes construction equipment would be in use nearest to a sensitive receptor location.

Individual pieces of construction equipment that would be used for construction of the proposed Project would produce maximum noise levels of 75 dBA to 85 dBA at a reference distance of 50 feet from the noise source, as shown in Table 7. These maximum noise levels would occur when equipment is operating under full power conditions (i.e., the equipment engine at maximum speed). For a worst-case scenario, it is assumed that each piece of construction equipment would operate at the same time at a location that is nearest the off-site sensitive receptor at full power conditions. However, equipment used on construction sites typically operates under less than full power conditions.

Table 8 provides the aggregate noise level from each piece of equipment provided in Table 7 operating in the same area over a 1-hour period, using the utilization factors also provided in Table 7, and the reference noise level at 50 feet from an active construction area. Table 8 presents the noise levels from the use of multiple pieces of equipment. Because construction equipment would move around an active construction area, it is not realistic or accurate to locate the entire list of equipment at or near the same location on the proposed Project boundary. With the worst-case assumption of up to four pieces of equipment with the highest noise levels (Grader, Excavator, Crane, and Roller) operating at the same time in the area nearest off-site sensitive receptors, the combined noise level from these four pieces of equipment would result in 83 dBA Leq at a distance of 50 feet. At a distance of 75 feet from an active construction area, construction

noise level would be reduced by 5 dBA, compared to the noise level measured at 50 feet. At a distance of 100 feet, the noise reduction is 6 dBA compared to the noise level measured at 50 feet. Similarly, at 150 feet, construction noise level would be reduced by 10 dBA compared to the noise level measured at 50 feet. Noise impacts are evaluated at the nearest and most impacted sensitive receptors in each of the general directions from the proposed Project site. Sensitive receptors that are located further away in each general direction would experience lower noise levels due to distance attenuation, and lower noise impacts, than summarized in Table 8.

TABLE 8
MAXIMUM COMBINED CONSTRUCTION NOISE LEVEL AT OFF-SITE SENSITIVE RECEPTORS, LEQ

	Noise Level at Sensitive Receptors			
Construction Equipment (usage factor/dBA at 50 feet)	**North/Northeast, 150 feet from Project Site Construction Area (Ambient Noise Measurement Location R1)**	**South/Southeast, 75 feet from Project Site Construction Area (Ambient Noise Measurement Location R2)**	**Southwest, 75 feet from Project Site Construction Area (Ambient Noise Measurement Location R3)**	**Northwest, 200 feet from Project Site Construction Area (Ambient Noise Measurement Location R4)**
Manlift (0.2/75) Frontend Loader (0.4/78) Concrete Mixer truck (0.4/79) Crane (0.16/81) Backhoe (0.4/78) Excavators (0.4/81) Forklift (0.1/75) Grader (0.4/85) Roller (0.2/80) Tractor (0.4/78)	74.5 (Without PDF NOISE-1 and PDF NOISE-2)	79.0 (Without PDF NOISE-1 and PDF NOISE-2) Less than or Equal to 75 (With PDF NOISE-1 and PDF NOISE-2)	79.5 (Without PDF NOISE-1 and PDF NOISE-2) Less than or Equal to 75 (With PDF NOISE-1 and PDF NOISE-2)	70.9 (Without PDF NOISE-1 and PDF NOISE-2)

Detailed construction and operational noise data is included as Appendix B.
SOURCE: ESA, 2022

Table 8 shows that the noise levels associated with the maximum combined construction noise levels without incorporation of PDF NOISE-1 and PDF NOISE-2 would be 74.5, 79.0, 79.5, and 70.9 dBA Leq(1h), respectively, for the sensitive receptors to the north/northeast, south/southeast, southwest, and northwest of the proposed Project site construction area. Even if it is assumed that each equipment would be operating with the same utilization factor throughout the 8-hour construction day (Leq(8h)), the noise level would be averaged to the same level of noise the same as the 1-hour average (Leq(1h)). The nearest off-site sensitive receptors would be exposed to 70.9 to 79.5 dBA Leq(8h), respectively, without incorporation of PDF NOISE-1 and PDF NOISE-2. With incorporation of PDF NOISE-1 and PDF NOISE-2, the maximum combined construction noise levels would be 75 dBA Leq or less.

Section 36.409 of the County's Municipal Code sets a maximum noise level for construction equipment of 75 dBA L_{eq} for an eight-hour period, between 7:00 a.m. and 7:00 p.m., when measured at the boundary line of the property where the noise source is located or on any occupied property where the noise is being received. Within the City of San Diego area, the 75 dBA L_{eq} noise threshold is averaged over a 12-hour period.

The proposed Project site's range of construction noise levels, with incorporation of PDF NOISE-1 and PDF NOISE-2 of 70.9 to up to 75 dBA Leq would not exceed the County's 75 dBA L_{eq}(8h) and the City's 75 dBA L_{eq}(12h) noise thresholds for construction activities that occur over an 8-hour period for all land use types (Section 36.409, Sound Level Limitations on Construction Equipment) at the sensitive receptors located to the south/southeast and southwest of the proposed Project site construction area. Therefore, construction noise impacts would be less than significant and no mitigation measures would be required.

Off-Site Construction Activity Noise

Through all phases of construction, it is anticipated that up to 100 trips by haul trucks would be required to transport building materials, trees, and other construction materials to and from the proposed Project site. It is assumed that approximately 20 daily construction workers would be required for each construction phase. The construction haul truck and worker commute trips would be negligible such that it would not result in a measurable increase in peak hour and daily traffic noise levels. A doubling of roadway traffic volumes is required to increase traffic noise levels by 3 dBA. Construction of the proposed Project would not result in a doubling of roadway traffic volumes; therefore, construction traffic noise impacts would be less than significant.

5.1.2 Permanent Increase in Ambient Noise Levels

Impacts from On-Site Stationary Noise Sources

Operation of the proposed Project would result in recreational activities and would include stationary heating, ventilation, and air conditioning (HVAC) mechanical equipment in the outdoor area outside the buildings. The HVAC in outdoor areas would be shielded by fencing and vegetation, and will be designed to comply with both City and County of San Diego noise ordinance requirements. The proposed Project would include the operation of a variety of educational and recreational components, as further detailed below. Noise impacts are evaluated at the nearest and most impacted sensitive receptors in each of the general directions from the proposed Project site. Sensitive receptors that are located further away in each general direction would experience lower noise levels due to distance attenuation, and lower noise impacts.

Back Lawn Area

There are several recreational amenities proposed within the outdoor spaces of the park. The pergola for the back lawn area is located at the northeast corner of the proposed Project site. The plaza in front of the pergola is a flexible event space sized to accommodate movable tables and chairs. The lawn adjacent to the plaza provides additional seating capacity for weddings, receptions, and for other meetings/events.

Currently, the park holds events using both back and front lawn spaces, such as wedding ceremonies, movie nights, private parties, and community educational events with a maximum of 200 people attending the wedding ceremony events. The ambient noise measurements provided in Table 1 were not taken during an event at the park. Therefore, the ambient noise measurements also provide a conservatively low baseline noise level for analysis purposes.

It is estimated that there would be approximately a total of 200 people in the back lawn area at the same time when in use, which is a conservative maximum estimate for a scheduled event and similar to existing operations. It is assumed that half (100) of the attendees would be speaking and the other half (100) would be listening. Crowd noise during an event at the back lawn area has been calculated based on a reference noise level for "shouting" of 89 dBA for 1 event attendee, a reference noise level for "raised" of 65 dBA for 99 of the event attendees at reference distance of 3.3 feet (1 meter) from the source. It is assumed that the event attendees would be spread around the middle of the back lawn area. Therefore, the event attendees are considered to form a group in the vicinity of the pergola.

For 1 person at 89 dBA and 99 people at 65 dBA, the combined noise level would be equal to 90.4 dBA[33] at a distance of 3.3 feet. The nearest residences to the north/northeast are 150 feet from the back lawn area. The nearest residences to the south/southeast are 150 feet from the back lawn area. The nearest residences to the southwest are 300 feet from the back lawn area. The nearest residences to the northwest are 750 feet from the back lawn area. These distances would provide the following reduction in noise due to distance attenuation compared to the noise level measured at 3.3 feet: 150 feet, 33 dBA; 300 feet, 39 dBA; 750 feet, 47 dBA.

Therefore, noise from the back lawn area crowd would be reduced to 57.4 dBA,[34] 57.4 dBA,[35] 51.4 dBA,[36] and 43.4 dBA[37] at the nearest residences to the north/northeast, south/southeast, southwest, and northwest of the back lawn area, respectively.

Because these noise levels used the worst-case scenario for the plaza attendees to be at the center of the back lawn area with the shortest distances to these off-site sensitive receptors, and the attendees in realty would be spread out around the entire area, the estimated noise levels are the highest that can be reached intermittently throughout the period. These projected operational noise levels would also not exceed the ambient plus 3 dBA noise thresholds of 59.2 dBA Leq (at R1 or the nearest residences to the north/northeast), 62.2 dBA Leq (at R2 or the nearest residences to the south/southeast), 64.3 dBA Leq (at R3 or the nearest residences to the southwest), and 66.0 dBA Leq (at R4 or the nearest residences to the northwest). Other sensitive receivers in the neighborhood of these receptor locations would be exposed to noise levels lower than the projected noise levels at these representative receivers because the numbers presented here show noise levels at the closest receiver in their respective neighborhood. Therefore, no significant noise impact would occur from the use of the back lawn area component.

As stated in Section 1 above, park staff currently monitor noise during events using a decibel meter and actively enforce all applicable noise restrictions. With compliance of the County's exterior noise level standard, no significant noise impact would occur.

33 10 Log [$1x10^{8.9} + 99x10^{6.5}$] = 90.4 dBA at a distance of 3.3 feet

34 90 dBA - 33 dBA = 57 dBA at the nearest residences to the north/northeast of the back lawn area.

35 90 dBA - 33 dBA = 57 dBA at the nearest residences to the south/southeast of the back lawn area.

36 90 dBA - 39 dBA = 51 dBA at the nearest residences to the southwest of the back lawn area.

37 90 dBA - 47 dBA = 43 dBA at the nearest residences to the northwest of the back lawn area.

Outdoor Meeting Space

The outdoor meeting space would be located at the south-central area of the proposed Project site and would accommodate up to 200 people for meetings. The nearest residences to the north/northeast are 300 feet from the meeting space. The nearest residences to the south/southeast are 125 feet from the meeting space. The nearest residences to the southwest are 150 feet from the meeting space. The nearest residences to the northwest are 750 feet from the meeting space.

It is estimated that there would be approximately a total of 200 people in the meeting space at the same time when in use. It is assumed that half (100) of the attendees would be speaking and the other half (100) would be listening. Crowd noise during an event at the meeting space has been calculated based on a reference noise level for "shouting" of 89 dBA for 1 of the event attendees, a reference noise level for "raised" of 65 dBA for 99 of the event attendees at reference distance of 3.3 feet (1 meter) from the source. It is assumed that the event attendees would be spread around the middle of the meeting space. Therefore, the event attendees are considered to form a group centered in the middle of the outdoor meeting space.

For 1 person at 89 dBA and 99 people at 65 dBA, the combined noise level would be equal to 90.4 dBA[38] at a distance of 3.3 feet. Therefore, noise from the meeting space crowd would be reduced to 50.4 dBA,[39] 58.0 dBA,[40] 56.4 dBA,[41] and 42.5 dBA[42] at the nearest residences to the north/northeast, south/southeast, southwest, and northwest of the proposed meeting space, respectively.

The noise analysis is based on conservative modeling assumptions for the meeting space, which assumes that the attendees would be located at the center of the outdoor meeting space with the shortest distances to the off-site sensitive receptors. In reality, the attendees would be located throughout the entire meeting space, which means that noise would not be concentrated at the portion of the outdoor meeting space closest to the off-site sensitive receptors. Therefore, the analysis provides an upper range of the noise levels that could occur. These projected operational noise levels would not exceed the ambient plus 3 dBA noise thresholds of 59.2 dBA Leq at R1, 62.2 dBA Leq at R2, 64.3 dBA Leq at R3, and 66.0 dBA Leq at R4. Therefore, no significant noise impact would occur from the use of the proposed outdoor meeting space.

As stated in Section 1 above, park staff currently monitor noise during events using a decibel meter and actively enforce all applicable noise restrictions. With compliance of the City's and County's exterior noise level standard, no significant noise impact would occur.

Off-Site Project Traffic

Table 9 presents the calculated CNEL levels from the existing plus proposed Project traffic volumes in the vicinity of the proposed Project site. The proposed Project would contribute approximately 192 average daily trips (ADTs), with 10 morning peak hour trips and 13 afternoon

38 10 Log [$1x10^{8.9} + 32x10^{6.5}$] = 89.5 dBA at a distance of 3.3 feet

39 89.5 dBA - 39 dBA = 50.5 dBA at the nearest residences to the north/northeast of the proposed meeting space.

40 89.5 dBA - 32 dBA = 57.5 dBA at the nearest residences to the south/southeast of the proposed meeting space.

41 89.5 dBA - 38 dBA = 51.5 dBA at the nearest residences to the southwest of the proposed meeting space.

42 89.5 dBA - 47 dBA = 42.5 dBA at the nearest residences to the northwest of the proposed meeting space.

peak hour trips. Table 9 shows that proposed Project-related traffic would not result in an audible increase in traffic noise over the existing baseline to the roadway segments in the proposed Project vicinity.

TABLE 9
EXISTING PLUS PROJECT VEHICULAR TRAFFIC NOISE LEVELS

Roadway Segment	Existing CNEL (dBA) at the 30 feet from Roadway	Existing with Project CNEL (dBA) at 30 feet from Roadway	Increase over Existing Baseline CNEL (dBA) at 30 feet from roadway
Juan Street			
Between Harney Street and San Juan Road	71.4	71.4	0.0
Between Harney Street and Twiggs Street	73.0	73.0	0.0
Harney Street			
Between Calhoun Street and Juan Street	72.0	72.0	0.0

Detailed construction and operational noise data is included as Appendix B.
SOURCE: ESA, 2022; City of San Diego, 2003

The traffic noise level would be below the barely perceptible threshold of 3 dBA and well below a "clearly noticeable" increase of 5 dBA CNEL in an area characterized by normally acceptable noise levels. Therefore, proposed Project-related noise increases would be less than the applicable threshold and therefore less than significant, and no mitigation measures would be required.

Mitigation Measures: None required.

Construction Noise

No mitigation measures would be required.

Operational Noise

No mitigation measures would be required.

Significance Determination: Less than Significant.

5.2 Groundborne Vibration

Threshold NOI-2: Generation of excessive groundborne vibration or groundborne noise levels?

Impact Statement NOI-2: The Project would not generate excessive groundborne vibration during construction or operations. However, groundborne noise would create a potential human annoyance impact on nearby sensitive receptors during construction and the impact would be potentially significant. With Project Design Features, the groundborne noise impact would be reduced to less than significant.

Vibration levels in root-mean-square (RMS) form is best for characterizing human response to building vibration and vibration level in PPV is best used to characterize potential for damage, this construction vibration impact analysis will discuss the human annoyance using vibration levels in VdB and will assess the potential for building damages using vibration levels in PPV (inch/sec).

Because vibration impacts occur normally within the buildings, the distance to the nearest sensitive uses, for vibration impact analysis purposes, is measured between the nearest off-site sensitive use buildings and the proposed Project boundary (assuming the construction equipment would be used at or near the proposed Project boundary).

5.2.1 Structural Damage

Construction

Construction activities can generate varying degrees of groundborne 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 effect on buildings located in the vicinity of the construction site varies depending on soil type, ground strata, and construction characteristics of the receptor buildings. 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. Groundborne vibration from construction activities rarely reaches levels that damage structures. The Caltrans guidance manual incorporates FTA standard vibration velocities for construction equipment operations (Table 18 of the Caltrans guidance manual). The PPV for construction equipment pieces anticipated to be used during proposed Project construction are listed in **Table 10**, *Reference Vibration Velocities for Typical Construction Equipment*.

TABLE 10
REFERENCE VIBRATION VELOCITIES FOR TYPICAL CONSTRUCTION EQUIPMENT

	Approximate PPV (in/sec)				
Equipment	**25 Feet**	**50 Feet**	**60 Feet**	**75 Feet**	**100 Feet**
Large Bulldozer	0.089	0.031	0.024	0.017	0.011
Loaded Trucks	0.076	0.027	0.020	0.015	0.010
Jackhammer	0.035	0.012	0.009	0.007	0.004
Small Bulldozer	0.003	0.001	0.0008	0.0006	0.0004

SOURCE: FTA, Transit Noise and Vibration Impact Assessment, September 2018; ESA, 2022.

The proposed Project does not propose any major, new or expanded infrastructure such as mass transit, highways or major roadways or intensive extractive industry that could generate excessive groundborne vibration or groundborne noise levels on site or in the surrounding area.

Construction of the proposed Project would generate groundborne construction vibration during site clearing and grading activities. Based on the reference vibration velocities provided in Table 10, vibration velocities from construction equipment would range from approximately 0.0006 to 0.017 in/sec PPV at 75 feet from the source of activity. Relative to the proposed Project site's construction area boundary, residential uses are located to the north/northeast (150 feet), south/southeast (75 feet), southwest (75 feet), and northwest (200 feet). Vibration levels at these off-site sensitive uses would be up to 0.017 in/sec PPV at 75 feet, and would decrease at distances greater than 75 feet from the source.

On-Site buildings: The property includes seven Victorian structures, which are shown below in **Table 11** with their corresponding distances to the back lawn area and outdoor meeting space , and the associated maximum groundborne vibration levels from construction at the corresponding distances.

TABLE 11
CONSTRUCTION VIBRATION LEVELS AT ONSITE BUILDINGS

Onsite Building	**Distance to Back Lawn Area, feet**	**Vibration Level at Building from Back Lawn Area Construction, in/sec**	**Distance to Meeting Space, feet**	**Vibration Level at Building from Meeting Space Construction, in/sec**
Senlis Cottage	425	0.0013	375	0.0015
Sherman-Gilbert House	350	0.0017	300	0.0021
Bushyhead House	300	0.0021	200	0.0040
Burton House	275	0.0024	175	0.0048
Christian House	225	0.0033	200	0.004
Temple Beth Israel	375	0.0015	275	0.0024
McConaughy House	100	0.011	115	0.009

SOURCE: ESA, 2022;

The vibration levels that would be experienced at the seven on-site buildings from construction at the proposed on-site outdoor amenity area would range from 0.0013 in/sec PPV to 0.011 in/sec PPV. This range of vibration would be much lower than the building damage threshold of 0.2 in/sec for fragile buildings and 0.5 in/sec threshold for historic buildings.

Typically, heavy-duty construction equipment used for demolition, earth-moving, and compaction for paving would generate localized vibration levels, which, depending upon distance, could potentially cause damage to structures. Similar to noise levels, vibration levels diminish with increasing distance away from the source (FTA, 2018). Proposed Project construction would use small-scale construction equipment over a 24-month period, where construction activities would vary from day-to-day and include clearing, grading, landscaping, as well as installation of park features.

All grading activities would be surficial. Due to the use of small-scale construction equipment, the amount of vibration generated during construction would be minimal and would dissipate as distance from the activity increased. Therefore, while limited amounts of vibration might be perceivable at the residences that are adjacent to the site during certain construction activities occurring at the closest boundary of the proposed Project site, those construction activities would occur on a short-term basis and would be intermittent throughout the day depending on the distance from the site boundary. Construction equipment tend to move through a construction site area during a construction workday; therefore, construction vibrations would typically not be concentrated at a single location. Vibration generated by the proposed Project would not be substantial enough to exceed applicable significance thresholds.

Once construction is completed, the proposed Project would have no potential to generate vibration during operation as the proposed Project would not introduce new sources of vibration to the proposed Project site relative to existing conditions. Therefore, proposed Project construction would not generate vibration velocities in excess of the significance thresholds and impacts would be less than significant.

Operation

The primary sources of transient vibration would include passenger vehicle circulation within the existing parking area that would be used by the proposed on-site uses. Groundborne vibration generated by each of the above-mentioned activities would generate approximately up to 0.005 in/sec PPV adjacent to the proposed Project site.[43] The potential vibration levels from all proposed Project operational sources at the closest existing sensitive receptor locations would be less than the significance threshold of 0.2 in/sec PPV significance threshold for potential residential building damage.

As such, vibration impacts associated with operation of the proposed Project would be below the significance threshold and impacts would be less than significant.

[43] This vibration estimate is based on data presented in the USDOT Federal Transit Administration Transit Noise and Vibration Impact Assessment, 2018.

5.2.2 Human Annoyance

Construction

The County's *Guidelines for Determining Significance* identifies residences, schools, hotels, resorts, libraries, hospitals, or similar facilities where quiet is an important attribute of the environment as sensitive uses (County of San Diego, 2009). Off-site non-residential uses such as retail and commercial uses are not considered vibration sensitive receptors for human annoyance under CEQA. **Table 12** shows vibration level for typical construction equipment.

TABLE 12
REFERENCE VIBRATION SOURCE AMPLITUDES FOR TYPICAL CONSTRUCTION EQUIPMENT

	Reference PPV/LV at 25 Feet	
Equipment	**PPV (inch/sec)**	**LV (VdB)**
Large Bulldozer	0.089	87
Hoe Ram	0.089	87
Caisson Drilling	0.089	87
Loaded Trucks	0.076	86
Jackhammer	0.035	79
Small Bulldozer	0.003	58

NOTES:
PPV = peak particle velocity; L_V = velocity in decibels; inch/sec = inches per second; VdB = vibration velocity decibels
SOURCE: Federal Transit Administration, *Transit Noise and Vibration Impact Assessment* (2018), Table 7-4.

The reference vibration source amplitudes in Table 12, *Reference Vibration Source Amplitudes for Typical Construction Equipment*, show the vibration levels from various pieces of construction equipment would range from 60 VdB to 73 VdB at the nearest off-site sensitive receptors. Construction equipment vibration levels would not exceed the FTA's 78 VdB threshold for annoyance at the nearest residential sensitive receptor locations during daytime hours.

Vibration level (VdB) attenuation through soil is represented by the following equation:

$$\text{LvdB (D)} = \text{LvdB (25 feet)} - 30 \text{ Log (D/25)}$$

Where D is the distance between the vibration source and the receiver. LvdB (25 feet) is the source vibration level measured at 25 feet. Based on the equation above, a vibration level at 50 feet is 9 VdB lower than the vibration level at 25 feet.

Relative to the proposed Project site's construction area boundary, residential uses are located to the north/northeast (150 feet), south/southeast (75 feet), southwest (75 feet), and northwest (200 feet). Vibration generated by a dozer would be 87 VdB at 25 feet. Based on the formula above, and the reference vibration level of 87 VdB at 25 feet, these off-site sensitive receptors may be exposed to vibration levels ranging from 60 VdB to 73 VdB. Construction equipment vibration levels would not exceed the FTA's 78 VdB threshold for annoyance at the nearest residential sensitive receptor locations during daytime hours.

Operation

The potential groundborne noise levels from all proposed Project operational sources at the closest existing sensitive receptor locations would be less than the significance threshold of 0.04 in/sec PPV for perceptibility. As discussed above, operation of the proposed Project would result in vibration levels substantially less than the significance threshold for groundborne vibration at vibration-sensitive receptors. For typical buildings, groundborne vibration results in groundborne noise levels approximately 25 to 40 dB lower than the velocity level.[44] Given that the vibration level would be much lower than the perceptibility threshold at vibration-sensitive uses, and given that groundborne noise would be approximately 25 to 40 dB lower than the velocity level, operational groundborne noise impacts would also be less than significant at vibration-sensitive uses.

Mitigation Measures: None required.

Construction Vibration

No mitigation measures would be required.

Operational Vibration

No mitigation measures would be required.

Significance Determination: Less than Significant.

5.3 Airport Vicinity

Threshold NOI-3: For a project located within the vicinity of a private airstrip or 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, would the project expose people residing or working in the project area to excessive noise levels?

Impact Statement NOI-3: The Project is not located within the 65 dBA CNEL impact zone of a private airstrip or airport land use plan. (No Impact)

The proposed Project site is approximately 1.2 miles to the north of the San Diego International Airport. However, the runways at the San Diego International Airport are oriented in a northwest to southeast direction. The proposed Project site is not within the 65 dBA CNEL zone of the San Diego International Airport (San Diego International Airport, 2020). As such, the proposed Project would not be impacted by the airport noise or any other applicable rules and regulations that pertain to airports and excessive noise. Therefore, no impact would occur with implementation of the proposed Project.

Mitigation Measures: None required.

[44] Federal Transit Administration, *Noise and Vibration Manual*, 2018, Page 120.

Construction

No mitigation measures would be required.

Operation

No mitigation measures would be required.

Significance Determination: Less than Significant.

5.4 Cumulative Impacts

Threshold NOI-4: Would concurrent construction and operation of the Project and related projects in the geographic scope result in cumulative impacts to noise and vibration?

Impact Statement NOI-4: Would concurrent construction and operation of the Plan and related projects in the geographic scope result in cumulative impacts to noise and vibration? (Less than Significant Impact)

Under cumulative conditions, potential impacts would be similar to those discussed under the proposed Project-level analysis. Because noise and vibration impacts are localized and dissipate quickly as the distance from the source increases, locations at a distance away would not be significantly affected by noise associated with one project site. For example, the standard noise drop-off rate is 6 dBA per doubling of distance from the source. Therefore, at a distance of 200 feet, noise level attributed to this source would be reduced by 12 dBA when compared to the noise level measured at 50 feet from the same noise source. Since noise levels are in terms of logarithmic scale, the combined noise level from two noise sources with one noise source that is at least 10 dBA higher than the other noise source, would be the same as the noise level of the source with the (10 dBA or more) higher (than the source with lower) noise level. The second, lower noise source would not contribute measurably to the combined noise level. Therefore, when two noise sources are 400 feet apart, noise generated at one site would be attenuated to reduce by 18 dBA when measured at the other site, and therefore, they do not contribute to the cumulative noise impact of each other. There were no cumulative projects identified within 400 feet of the proposed Project site at the time of this noise impact analysis. Therefore, no cumulative noise impacts would occur.

Similarly, vibration level drops off at a rate of 9 VdB per doubling of the distance from a source. This drop off rate is higher than that of the noise drop off rate. Based on the above discussion, no significant cumulative vibration impacts would occur.

Mitigation Measures: None required.

Construction

No mitigation measures would be required.

Operation

No mitigation measures would be required.

Significance Determination: Less than Significant.

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REFERENCES

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USEPA, Protective Noise Levels, Condensed Version of EPA Levels Document (EPA 550/9-79-100, November 1978).

Appendix A
Ambient Noise Data

ESA

Summary

File Name on Meter	LxT_Data.140.s
File Name on PC	LxT_0004983-20220225 141256-LxT_Data.140.ldbin
Serial Number	0004983
Model	SoundTrack LxT®
Firmware Version	2.302
User	
Location	
Job Description	
Note	

Measurement

Description	
Start	2022-02-25 14:12:56
Stop	2022-02-26 15:41:23
Duration	25:28:26.297
Run Time	25:28:26.297
Pause	00:00:00.0
Pre-Calibration	2022-02-25 14:04:28
Post-Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamplifier	PRMLxT1
Microphone Correction	Off
Integration Method	Exponential
Overload	144.4 dB

	A	**C**	**Z**
Under Range Peak	**100.6**	97.6	102.6 dB
Under Range Limit	**49.6**	47.6	55.6 dB
Noise Floor	36.5	37.1	44.7 dB

Results

LA_{Seq}	56.2	
LASE	105.8	
EAS	4.206 mPa²h	
EAS8	1.321 mPa²h	
EAS40	6.605 mPa²h	
$LAS_{peak\ (max)}$	2022-02-26 15:40:33	101.8 dB
LAS_{max}	2022-02-26 15:40:33	77.2 dB
LAS_{min}	2022-02-26 03:26:11	40.8 dB
SEA	-99.9 dB	
LAS > 85.0 dB (Exceedance Counts / Duration)	0	0.0 s
LAS > 115.0 dB (Exceedance Counts / Duration)	0	0.0 s
LA_{peak} > 135.0 dB (Exceedance Counts / Duration)	0	0.0 s
LA_{peak} > 137.0 dB (Exceedance Counts / Duration)	0	0.0 s
LA_{peak} > 140.0 dB (Exceedance Counts / Duration)	0	0.0 s
LC_{Seq}	62.5 dB	
LA_{Seq}	56.2 dB	
LC_{Seq} - LA_{Seq}	6.4 dB	
LAI_{eq}	57.5 dB	
LA_{eq}	56.2 dB	
LAI_{eq} - LA_{eq}	1.3 dB	

	A		**C**		**Z**	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
L_{eq}	56.2					
$L_{S(max)}$	77.2	2022/02/26 15:40:33				
$L_{S(min)}$	40.8	2022/02/26 3:26:11				
$L_{Peak(max)}$	101.8	2022/02/26 15:40:33				

Overload Count	0
Overload Duration	0.0 s

Dose Settings

Dose Name	OSHA-1	OSHA-2
Exchange Rate	5	5 dB
Threshold	90	80 dB
Criterion Level	90	90 dB
Criterion Duration	8	8 h

Results

Dose	-99.94	-99.94 %
Projected Dose	-99.94	-99.94 %
TWA (Projected)	-99.9	-99.9 dB
TWA (t)	-99.9	-99.9 dB
Lep (t)	61.2	61.2 dB

Statistics

LAS5.00	59.7 dB
LAS10.00	58.7 dB
LAS33.30	56.8 dB
LAS50.00	55.3 dB
LAS66.60	53.0 dB
LAS90.00	47.8 dB

Summary

File Name on Meter	LxT_Data.138.s
File Name on PC	LxT_0004983-20220224 123031-LxT_Data.138.ldbin
Serial Number	0004983
Model	SoundTrack LxT®
Firmware Version	2.302
User	
Location	
Job Description	
Note	

Measurement

Description	
Start	2022-02-24 12:30:31
Stop	2022-02-25 13:15:31
Duration	24:44:59.695
Run Time	24:44:58.797
Pause	00:00:00.9
Pre-Calibration	2022-02-24 12:25:08
Post-Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamplifier	PRMLxT1
Microphone Correction	Off
Integration Method	Exponential
Overload	144.7 dB

	A	C	Z
Under Range Peak	**101.0**	98.0	103.0 dB
Under Range Limit	**50.0**	48.0	56.0 dB
Noise Floor	36.8	37.5	45.1 dB

Results

LA_{Seq}	59.2	
LASE	108.7	
EAS	8.160 mPa²h	
EAS8	2.638 mPa²h	
EAS40	13.188 mPa²h	
$LAS_{peak\ (max)}$	2022-02-24 13:41:18	111.5 dB
LAS_{max}	2022-02-24 13:41:18	97.9 dB
LAS_{min}	2022-02-25 02:08:18	35.7 dB
SEA	-99.9 dB	
LAS > 85.0 dB (Exceedance Counts / Duration)	5	40.1 s
LAS > 115.0 dB (Exceedance Counts / Duration)	0	0.0 s
LAS_{peak} > 135.0 dB (Exceedance Counts / Duration)	0	0.0 s
LAS_{peak} > 137.0 dB (Exceedance Counts / Duration)	0	0.0 s
LAS_{peak} > 140.0 dB (Exceedance Counts / Duration)	0	0.0 s
LC_{Seq}	65.8 dB	
LA_{Seq}	59.2 dB	
LC_{Seq} - LA_{Seq}	6.7 dB	
LAI_{eq}	62.3 dB	
LA_{eq}	59.2 dB	
LAI_{eq} - LA_{eq}	3.1 dB	

	A		C		Z	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
L_{eq}	59.2					
$L_{S(max)}$	97.9	2022/02/24 13:41:18				
$L_{S(min)}$	35.7	2022/02/25 2:08:18				
$L_{Peak(max)}$	111.5	2022/02/24 13:41:18				

Overload Count	0
Overload Duration	0.0 s

Dose Settings

Dose Name	OSHA-1	OSHA-2
Exchange Rate	5	5 dB
Threshold	90	80 dB
Criterion Level	90	90 dB
Criterion Duration	8	8 h

Results

Dose	0.02	0.17 %
Projected Dose	0.01	0.06 %
TWA (Projected)	20.5	36.0 dB
TWA (t)	28.6	44.1 dB
Lep (t)	64.1	64.1 dB

Statistics

LAS5.00	58.5 dB
LAS10.00	57.3 dB
LAS33.30	55.3 dB
LAS50.00	54.0 dB
LAS66.60	51.3 dB
LAS90.00	42.3 dB

Summary

File Name on Meter	LxT_Data.109.s
File Name on PC	LxT_0005055-20220224 114820-LxT_Data.109.ldbin
Serial Number	0005055
Model	SoundTrack LxT®
Firmware Version	2.404
User	
Location	
Job Description	
Note	

Measurement

Description	
Start	2022-02-24 11:48:20
Stop	2022-02-25 13:02:07
Duration	25:13:47.500
Run Time	25:13:47.500
Pause	00:00:00.0
Pre-Calibration	2020-05-14 15:30:12
Post-Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting		
Peak Weight	A Weighting		
Detector	Slow		
Preamplifier	PRMLxT1		
Microphone Correction	Off		
Integration Method	Exponential		
OBA Range	Normal		
OBA Bandwidth	None		
OBA Frequency Weighting	A Weighting		
OBA Max Spectrum	Bin Max		
Overload	144.7 dB		
	A	**C**	**Z**
Under Range Peak	**100.6**	97.6	102.6 dB
Under Range Limit	**37.8**	37.5	44.5 dB
Noise Floor	28.7	28.3	35.4 dB

Results

LA_{eq}	61.3	
LASE	110.8	
EAS	13.498 mPa^2h	
EAS8	4.280 mPa^2h	
EAS40	21.401 mPa^2h	
$LAS_{peak\ (max)}$	2022-02-24 11:48:26	109.5 dB
LAS_{max}	2022-02-25 05:50:10	91.7 dB
LAS_{min}	2022-02-25 02:06:49	42.5 dB
SEA	-99.9 dB	
LAS > 85.0 dB (Exceedance Counts / Duration)	3	9.3 s
LAS > 115.0 dB (Exceedance Counts / Duration)	0	0.0 s
LAS_{peak} > 135.0 dB (Exceedance Counts / Duration)	0	0.0 s
LAS_{peak} > 137.0 dB (Exceedance Counts / Duration)	0	0.0 s
LAS_{peak} > 140.0 dB (Exceedance Counts / Duration)	0	0.0 s
LCS_{eq}	70.0 dB	
LAS_{eq}	61.3 dB	
LCS_{eq} - LAS_{eq}	8.7 dB	
LAI_{eq}	63.5 dB	
LA_{eq}	61.3 dB	
LAI_{eq} - LA_{eq}	2.2 dB	

	A		C		Z	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
L_{eq}	61.3					
$L_{S(max)}$	91.7	2022/02/25 5:50:10				
$L_{S(min)}$	42.5	2022/02/25 2:06:49				
$L_{Peak(max)}$	109.5	2022/02/24 11:48:26				

Overload Count	0
Overload Duration	0.0 s

Dose Settings

Dose Name	OSHA-1	OSHA-2
Exchange Rate	5	5 dB
Threshold	90	80 dB
Criterion Level	90	90 dB
Criterion Duration	8	8 h

Results

Dose	0.01	0.07 %
Projected Dose	0.00	0.02 %
TWA (Projected)	16.4	29.0 dB
TWA (t)	24.7	37.3 dB
Lep (t)	66.3	66.3 dB

Statistics

LAS5.00	65.5 dB
LAS10.00	63.2 dB
LAS33.30	59.6 dB
LAS50.00	58.4 dB
LAS66.60	56.7 dB
LAS90.00	48.3 dB

Summary

File Name on Meter	LxT_Data.234.s
File Name on PC	LxT_0004285-20220224 115623-LxT_Data.234.ldbin
Serial Number	0004285
Model	SoundTrack LxT®
Firmware Version	2.404
User	
Location	
Job Description	
Note	

Measurement

Description	
Start	2022-02-24 11:56:23
Stop	2022-02-24 12:11:23
Duration	00:15:00.0
Run Time	00:15:00.0
Pause	00:00:00.0
Pre-Calibration	2022-02-24 10:54:51
Post-Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamplifier	PRMLxT2B
Microphone Correction	Off
Integration Method	Exponential
Overload	144.7 dB

	A	**C**	**Z**
Under Range Peak	**100.9**	97.9	102.9 dB
Under Range Limit	**39.2**	38.8	45.6 dB
Noise Floor	30.1	29.7	36.5 dB

Results

LA_{Seq}	63.0	
LASE	92.6	
EAS	201.235 µPa²h	
EAS8	6.440 mPa²h	
EAS40	32.198 mPa²h	
$LAS_{peak\ (max)}$	2022-02-24 12:08:15	94.2 dB
LAS_{max}	2022-02-24 12:08:15	77.3 dB
LAS_{min}	2022-02-24 12:06:43	57.8 dB
SEA	-99.9 dB	
LAS > 85.0 dB (Exceedance Counts / Duration)	0	0.0 s
LAS > 115.0 dB (Exceedance Counts / Duration)	0	0.0 s
LAS_{peak} > 135.0 dB (Exceedance Counts / Duration)	0	0.0 s
LAS_{peak} > 137.0 dB (Exceedance Counts / Duration)	0	0.0 s
LAS_{peak} > 140.0 dB (Exceedance Counts / Duration)	0	0.0 s
LCS_{eq}	70.7 dB	
LAS_{eq}	63.0 dB	
LCS_{eq} - LAS_{eq}	7.7 dB	
LAI_{eq}	65.6 dB	
LA_{eq}	63.0 dB	
LAI_{eq} - LA_{eq}	2.6 dB	

	A		**C**		**Z**	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
L_{eq}	63.0					
$L_{S(max)}$	77.3	2022/02/24 12:08:15				
$L_{S(min)}$	57.8	2022/02/24 12:06:43				
$L_{Peak(max)}$	94.2	2022/02/24 12:08:15				

Overload Count	0
Overload Duration	0.0 s

Dose Settings

Dose Name	OSHA-1	OSHA-2
Exchange Rate	5	5 dB
Threshold	90	80 dB
Criterion Level	90	90 dB
Criterion Duration	8	8 h

Results

Dose	-99.94	-99.94 %
Projected Dose	-99.94	-99.94 %
TWA (Projected)	-99.9	-99.9 dB
TWA (t)	-99.9	-99.9 dB
Lep (t)	48.0	48.0 dB

Statistics

LAS5.00	67.2 dB
LAS10.00	65.7 dB
LAS33.30	62.2 dB
LAS50.00	61.0 dB
LAS66.60	60.2 dB
LAS90.00	59.4 dB

Appendix B

Construction and Operational Noise Calculations

ESA

Project: Heritage Park

Construction Noise Impact on Sensitive Receptors

Parameters

Construction Hours:	8	Daytime hours (7 am to 7 pm)
	0	Evening hours (7 pm to 10 pm)
	0	Nighttime hours (10 pm to 7 am)
Leq to L10 factor	3	

				R1					R2					R3					R4				
Construction Phase **Equipment Type**	**No. of Equip.**	**Reference Noise Level at 50ft, Lmax**	**Acoustical Usage Factor**	**Distance (ft)**	**Lmax**	**Leq**	**L10**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L12**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L11**	**Estimated Noise Shielding, dBA**
Phase 1 Building A& B					***69***	***64***		**0**		***66***	***60***				***69***	***64***				***69***	***64***		
Man Lift	1	75	20%	400	57	50	53	0	550	54	47	50	0	400	57	50	53	0	400	57	50	53	0
Tractor/Loader/Backhoe	1	78	40%	400	60	56	59	0	550	57	53	56	0	400	60	56	59	0	400	60	56	59	0
Tractor/Loader/Backhoe	1	78	40%	350	61	57	60	0	500	58	54	57	0	350	61	57	60	0	350	61	57	60	0
Forklift	1	75	10%	350	58	48	51	0	500	55	45	48	0	350	58	48	51	0	350	58	48	51	0
Crane	1	81	16%	300	65	57	60	0	460	62	54	57	0	300	65	57	60	0	300	65	57	60	0
Concrete Mixer Truck	1	79	40%	350	62	58	61	0	500	59	55	58	0	350	62	58	61	0	350	62	58	61	0
Phase 2 Building C & D					***71***	***65***				***68***	***63***				***74***	***68***				***66***	***60***		
Man Lift	1	75	20%	350	58	51	54	0	440	56	49	52	0	300	59	52	55	0	550	54	47	50	0
Tractor/Loader/Backhoe	1	78	40%	350	61	57	60	0	440	59	55	58	0	300	62	58	61	0	550	57	53	56	0
Tractor/Loader/Backhoe	1	78	40%	300	62	58	61	0	390	60	56	59	0	200	66	62	65	0	500	58	54	57	0
Forklift	1	75	10%	300	59	49	52	0	390	57	47	50	0	200	63	53	56	0	500	55	45	48	0
Crane	1	81	16%	250	67	59	62	0	340	64	56	59	0	150	71	63	66	0	475	61	53	56	0
Concrete Mixer Truck	1	79	40%	300	63	59	62	0	390	61	57	60	0	200	67	63	66	0	500	59	55	58	0
Phase 3 Building E					***74***	***68***				***69***	***63***				***71***	***66***				***65***	***59***		
Man Lift	1	75	20%	250	61	54	57	0	390	57	50	53	0	275	60	53	56	0	650	53	46	49	0
Tractor/Loader/Backhoe	1	78	40%	250	64	60	63	0	390	60	56	59	0	275	63	59	62	0	650	56	52	55	0
Tractor/Loader/Backhoe	1	78	40%	250	64	60	63	0	390	60	56	59	0	275	63	59	62	0	650	56	52	55	0
Forklift	1	75	10%	250	61	51	54	0	390	57	47	50	0	275	60	50	53	0	650	53	43	46	0
Crane	1	81	16%	150	71	63	66	0	340	64	56	59	0	250	67	59	62	0	500	61	53	56	0
Concrete Mixer Truck	1	79	40%	250	65	61	64	0	390	61	57	60	0	275	64	60	63	0	650	57	53	56	0
Site Development					***78***	***74***				***83***	***79***				***83***	***79***				***74***	***70***		
Tractor/Loader/Backhoe	1	78	40%	250	64	60	63	0	200	66	62	65	0	200	66	62	65	0	300	62	58	61	0
Tractor/Loader/Backhoe	1	78	40%	200	66	62	65	0	120	70	66	69	0	75	74	70	73	0	200	66	62	65	0
Excavator	1	81	40%	200	69	65	68	0	120	73	69	72	0	75	77	73	76	0	200	69	65	68	0
Grader	1	85	40%	150	75	71	74	0	75	81	77	80	0	100	79	75	78	0	400	67	63	66	0
Roller	1	80	20%	250	66	59	62	0	200	68	61	64	0	200	68	61	64	0	300	64	57	60	0
Concrete Mixer Truck	1	79	40%	200	67	63	66	0	120	71	67	70	0	75	75	71	74	0	200	67	63	66	0
Overlapping Phases																							
Phase 1 & Site Development						***74***					***79***					***79***					***71***		
Phase 2 & Site Development						***74***					***79***					***79***					***70***		
Phase 3 & Site Development						***75***					***79***					***79***					***70***		
Maximum Combined Noise Levels						**74.5**					**79.0**					**79.5**					**70.9**		

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

TRAFFIC NOISE ANALYSIS TOOL

Project Name: Heritage Park
Analysis Scenario: Baseline
Source of Traffic Volumes: https://data.sandiego.gov/datasets/traffic-volumes/

Segment	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Noise Level dBA CNEL
			Auto	MT	HT	Auto	MT	HT		
Juan Street between Harney Street and San Juan Road	Hard	30	35	35	30	2493	51	26	71.1	71.4
Juan Street between Harney Street and Twiggs Street	Hard	30	35	35	30	3592	74	37	72.7	73.0
Harney Street between Calhoun Street and Juan Street	Hard	30	35	35	30	2876	59	30	71.7	72.0

TRAFFIC NOISE ANALYSIS TOOL

Project Name: Heritage Park
Analysis Scenario: Baseline + Project
Source of Traffic Volumes: https://data.sandiego.gov/datasets/traffic-volumes/

Segment	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Noise Level dBA CNEL
			Auto	MT	HT	Auto	MT	HT		
Juan Street between Harney Street and San Juan Road	Hard	30	35	35	30	2505	52	26	71.1	71.4
Juan Street between Harney Street and Twiggs Street	Hard	30	35	35	30	3604	74	37	72.7	73.0
Harney Street between Calhoun Street and Juan Street	Hard	30	35	35	30	2888	60	30	71.7	72.0

Summary of Event Space Noise Levels

Location	Receptor	# of People Speaking	Combined Noise Level at 3 ft (dBA)	Distance to Receptor (ft)	Noise Level at Receptor (dBA)	Noise Threshold (Ambient plus 3 dBA)	Exceeds Threshold?
Back Lawn Event Plaza	Northeast	100	90.4	150	56.5	59.2	No
	Southeast			150	56.5	62.2	No
	South/Southwest			300	50.4	64.3	No
	Northwest			750	42.5	66.0	No
Speaker/teacher/Lecturer	Northeast	33	89.5	300	49.5	59.2	No
	Southeast			125	57.1	62.2	No
	South/Southwest			150	55.5	64.3	No
	Northwest			750	41.6	66.0	No

Heritage Park
Back Lawn Event Space Noise Calculation

Northeast							
Category	**# of Individuals (estimated capacity)**	**# of Individuals Speaking (half of estimated capacity)**	**Reference Distance (ft)[1]**	**Reference Noise Level (dBA)[1]**	**Combined Noise Level (dBA)**	**Distance to Receptor (ft)**	**Noise Level at Receptor (dBA)**
Shouting	1	1	3	89	89.0	150	55.0
Raised	99	99	3	65	85.0	150	51.0
Total	**100**	**100**	**-**	**-**	**90.4**	**-**	**56.5**

Source:

[1] American Journal of Audiology Vol. 7, p. 3 (1998)

Southeast							
Category	**# of Individuals (estimated capacity)**	**# of Individuals Speaking (half of estimated capacity)**	**Reference Distance (ft)[1]**	**Reference Noise Level (dBA)[1]**	**Combined Noise Level (dBA)**	**Distance to Receptor (ft)**	**Noise Level at Receptor (dBA)**
Shouting	1	1	3	89	89.0	150	55.0
Raised	99	99	3	65	85.0	150	51.0
Total	**100**	**100**	**-**	**-**	**90.4**	**-**	**56.5**

Source:

[1] American Journal of Audiology Vol. 7, p. 3 (1998)

South/Southwest							
Category	**# of Individuals (estimated capacity)**	**# of Individuals Speaking (half of estimated capacity)**	**Reference Distance (ft)[1]**	**Reference Noise Level (dBA)[1]**	**Combined Noise Level (dBA)**	**Distance to Receptor (ft)**	**Noise Level at Receptor (dBA)**
Shouting	1	1	3	89	89.0	300	49.0
Raised	99	99	3	65	85.0	300	45.0
Total	**100**	**100**	**-**	**-**	**90.4**	**-**	**50.4**

Source:

[1] American Journal of Audiology Vol. 7, p. 3 (1998)

Northwest							
Category	**# of Individuals (estimated capacity)**	**# of Individuals Speaking (half of estimated capacity)**	**Reference Distance (ft)[1]**	**Reference Noise Level (dBA)[1]**	**Combined Noise Level (dBA)**	**Distance to Receptor (ft)**	**Noise Level at Receptor (dBA)**
Shouting	1	1	3	89	89.0	750	41.0
Raised	99	99	3	65	85.0	750	37.0
Total	**100**	**100**	**-**	**-**	**90.4**	**-**	**42.5**

Source:

[1] American Journal of Audiology Vol. 7, p. 3 (1998)

Heritage Park
Speaker/Teacher/Lecturer Noise Calculation

Northeast							
Category	**# of Individuals (estimated capacity)**	**# of Individuals Speaking (half of estimated capacity)**	**Reference Distance (ft)[1]**	**Reference Noise Level (dBA)[1]**	**Combined Noise Level (dBA)**	**Distance to Receptor (ft)**	**Noise Level at Receptor (dBA)**
Shouting	1	1	3	89	89.0	300	49.0
Raised	32	32	3	65	80.1	300	40.1
Total	**33**	**33**	**-**	**-**	**89.5**	**-**	**49.5**

Source:

[1] American Journal of Audiology Vol. 7, p. 3 (1998)

Southeast							
Category	**# of Individuals (estimated capacity)**	**# of Individuals Speaking (half of estimated capacity)**	**Reference Distance (ft)[1]**	**Reference Noise Level (dBA)[1]**	**Combined Noise Level (dBA)**	**Distance to Receptor (ft)**	**Noise Level at Receptor (dBA)**
Shouting	1	1	3	89	89.0	125	56.6
Raised	32	32	3	65	80.1	125	47.7
Total	**33**	**33**	**-**	**-**	**89.5**	**-**	**57.1**

Source:

[1] American Journal of Audiology Vol. 7, p. 3 (1998)

South/Southwest							
Category	**# of Individuals (estimated capacity)**	**# of Individuals Speaking (half of estimated capacity)**	**Reference Distance (ft)[1]**	**Reference Noise Level (dBA)[1]**	**Combined Noise Level (dBA)**	**Distance to Receptor (ft)**	**Noise Level at Receptor (dBA)**
Shouting	1	1	3	89	89.0	150	55.0
Raised	32	32	3	65	80.1	150	46.1
Total	**33**	**33**	**-**	**-**	**89.5**	**-**	**55.5**

Source:

[1] American Journal of Audiology Vol. 7, p. 3 (1998)

Northwest							
Category	**# of Individuals (estimated capacity)**	**# of Individuals Speaking (half of estimated capacity)**	**Reference Distance (ft)[1]**	**Reference Noise Level (dBA)[1]**	**Combined Noise Level (dBA)**	**Distance to Receptor (ft)**	**Noise Level at Receptor (dBA)**
Shouting	1	1	3	89	89.0	750	41.0
Raised	32	32	3	65	80.1	750	32.1
Total	**33**	**33**	**-**	**-**	**89.5**	**-**	**41.6**

Source:

[1] American Journal of Audiology Vol. 7, p. 3 (1998)