



CITY OF RANCHO MIRAGE

69-825 Highway 111
Rancho Mirage, CA 92270
Phone: 760.328.2266

APPENDIX FOR THE RANCHO MONTEREY SPECIFIC PLAN AMENDMENT MITIGATED NEGATIVE DECLARATION

APPENDIX A:

**General Biological Resources Assessment and CVMSHCP
Consistency Analysis, Rancho Monterey Specific Plan Amendment**

James W. Cornett Ecological Consultants

September 2021

GENERAL BIOLOGICAL
RESOURCES ASSESSMENT
and
CVMSHCP CONSISTENCY ANALYSIS

**Rancho Monterey
Specific Plan Amendment**

Located Within
SECTION 30, TOWNSHIP 4 SOUTH, RANGE 6 EAST
(APNs 685-090-002, 685-090-003, 685-090-005,
685-090-006 and 685-090-007)
Rancho Mirage, Riverside County, California

Prepared For:
Mr. Brian Tracy
Retail Net Lease Properties, Inc.
74998 Country Club Drive, Suite 220-345
Palm Desert, CA 92260SA Consultants, Inc.

Field Study and Report Completed By:
JAMES W. CORNETT
Ecological Consultants
P.O. Box 846
Palm Springs, California 92263
(760) 320-8135

September 9, 2021

CONTENTS

Executive Summary 3

Introduction 4

Figure 1, Regional Location Map 5

Figure 2, Area Location Map 6

Figure 3, Project Site Location 7

Figures 4-7, Project Site Images 8

Site and Project Descriptions 9

Study Methods 11

Plant Survey Results 13

Animal Survey Results 15

Findings and Recommendations 18

References 21

Certification Statement 22

Appendix 23

Special Status Terms Used in Report 24

Table 1 - Plant List 25

Table 2 – Animal List 27

EXECUTIVE SUMMARY

A proposed 34.8-acre mixed-use development necessitated a biological survey and impact analysis as required by the city of Rancho Mirage and California Environmental Quality Act. Most sensitive species known to occupy the *stabilized shielded sand fields* habitat that characterizes the project site are covered under the Coachella Valley Multiple Species Habitat Conservation Plan. Impacts to these species are mitigated by payment of a habitat acquisition fee. The current fee amount is determined by the Coachella Valley Association of Governments. This report focuses on species and habitats not covered under the Plan.

Desert washes are not a covered habitat under the CVMSHCP. However, no blue-line stream corridors or desert washes were found within the project boundaries. Therefore, no state or federal streambed alteration permits are required.

Casey's June beetle, a non-covered species and classified as Endangered by the federal government, was not detected. The site is not within the recommended beetle survey area established by the U.S. Fish & Wildlife Service. Therefore, no surveys within, or adjacent to, project boundaries are necessary. The burrowing owl and other migratory bird species are protected under the Migratory Bird Treaty Act and not functionally covered under the Plan. The owl was not detected within or adjacent to the project boundaries. The habitat, however, is suitable and this species could take up residence on site at any time. The California Department of Fish & Wildlife recommends **a burrowing owl clearance survey be conducted not more than 14-days prior to grading, grubbing or other site disturbance.** The site is not considered a significant resource for any other migratory bird species.

The loggerhead shrike, a California Species of Special Concern, is not covered under the Plan. Though the shrike was not observed or detected during biological surveys, it could breed and nest in spring in the future. Therefore, it is recommended that a shrike breeding survey be undertaken if ground disturbance is to occur between February 15 and June 15. The burrowing owl clearance survey and shrike breeding survey may be conducted simultaneously.

Though the desert tortoise is a covered species under the CVMSHCP, clearance surveys to relocate tortoises to alternate locations are necessary prior to site disturbance. Focused, protocol-level surveys, however, revealed no evidence of the desert tortoise within the project site and, therefore, no clearance surveys are necessary.

The project site is not within, or immediately adjacent to, a Conservation Area as shown in the CVMSHCP.

Following the implementation of the required and recommended mitigation described in this report, development of the project site is not expected to have significant adverse impacts upon sensitive species or other biological resources on or adjacent to the project site.

I. INTRODUCTION

On August 3, 2021, James W. Cornett - Ecological Consultants, was retained by Mr. Brian Tracy of Retail Net Lease Properties, Inc., to conduct a biological survey and analysis on a 34.8-acre site located along Monterey Avenue in the city of Rancho Mirage, Riverside County, California. The project site lies within Section 30, Township 4 South, Range 6 East, San Bernardino Baseline and Meridian. Assessor parcel numbers within the project boundaries are 685-090-002, 685-090-003, 685-090-005, 685-090-006 and 685-090-007. The regional location is shown in Figure 1, area location in Figure 2 and specific location with project boundaries in Figure 3. Site photographs are shown in Figures 4-7.

This study was included as part of an environmental assessment mandated by the California Environmental Quality Act (CEQA) and the city of Rancho Mirage. The biological survey and impact analysis were designed to ascertain the impacts of development on the biological resources of the project site and immediate vicinity.

Specific purposes of the biological surveys and impact analysis are listed below.

1. Determine the vascular plant and vertebrate animal species that occur on, and immediately adjacent to, the project site.
2. Ascertain the presence of plant or animal species given special status by government agencies. Emphasis is on non-covered species (under the CVMSHCP) that are (1) state or federally listed, (2) candidates for state or federal listing, and (3) state or federally protected species or communities.
3. Ascertain the existence of other significant biotic elements, corridors, or communities.
4. Consider the site's biological resources as they relate to the CVMSHCP and its Conservation Areas.
5. If necessary and where applicable, recommend measures to mitigate significant adverse impacts of the project on sensitive species and habitats not covered in the Plan but determined to occur within, or adjacent to, the project boundaries.

Figure 1. Regional Location of Project Site



Figure 2. Area Location of Project Site



Figure 3. Project Site Location and Boundaries



Figures 4-7. Project Site Images

Figure 4. View across site to Southwest



Figure 5. View across site to Northeast



Figure 6. View across site to Northeast

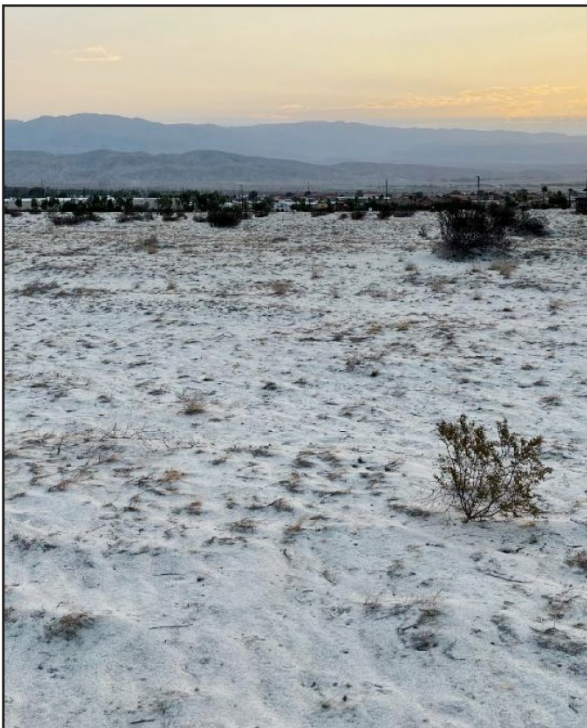
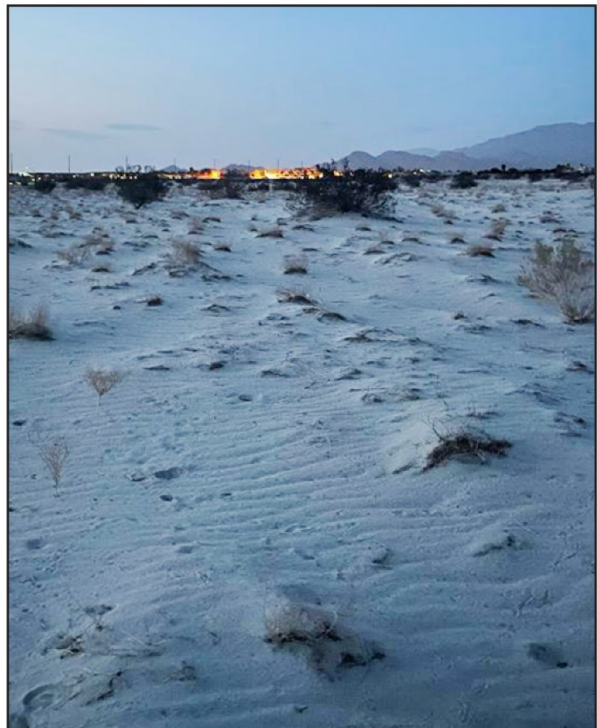


Figure 7. View across site to Southeast



II. SITE AND PROJECT DESCRIPTIONS

Climate

The project area lies within the confines of a geographical region known as the Colorado Desert (Jaeger, 1957). As is typical of this subdivision of the Sonoran Desert, annual rainfall averages approximately five inches (National Climatic Center, 2021). Most precipitation falls during the winter and late spring with occasional summer storms accounting for approximately one-fifth the annual total. Winter days are mild, averaging 71 degrees Fahrenheit. Winter nights occasionally drop to near freezing. July brings the hottest temperatures with daytime highs averaging 109 degrees F.

Physical Features

The elevation of the project site is approximately 270 feet above sea level. The only topographical relief consists of sand hummocks that rise from one to three feet above their base. The hummocks have been formed by shrubs that interrupt the flow of sand carrying wind coming from the northwest off the Whitewater River Floodplain. The shrubs reduce wind velocity and result in sand deposits or *hummocks* on the leeward or easterly side of shrubs. The environment of the project site is included as part of the sand field habitat of the valley floor as described in the Coachella Valley Multiple Species Habitat Conservation Plan.

No naturally occurring springs or permanent aquatic habitats occur in or near the project site. No blue-line stream corridors (streams or dry washes) are shown on U.S. Geological Survey maps for the project site nor are there botanical indicators of such corridors. Thus, there appears to be no need to obtain streambed alteration permits from state or federal governments.

Soil characteristics are uniform over the entire site. Soil is composed of wind-blown alluvium created by historic and persistent air movements from the northwest. This process increased in intensity with the drying out of the Coachella Valley at the close of the Pleistocene epoch ending 10,000 years before present. At the current time residential and commercial developments to the west and north have resulted in some sand stabilization on portions of the site.

Surrounding Lands

The project site and its immediate area are nearly surrounded by residential and commercial (retail outlets) developments including ones to the east, west, north and south. The site and area are nearly an ecological island with little exchange of terrestrial animal species to and from the general area (see Figure 2).

Monterey Avenue, an often-busy thoroughfare, forms the eastern project site boundary. A shopping mall, anchored by Home Depot, forms the entire northern boundary. A dense residential development lies approximately 1,000 feet south of the site (See Figure 3). Another residential development lies approximately 2,000 feet west of the site boundary.

Existing Impacts

Off-road vehicle tracks were noted in and near the project site.

Two occupied homeless encampments were found near the northern edge of the project site. The southernmost encampment was occupied by a middle-aged man who became seriously agitated as we passed by his dwelling while walking transects. It is strongly advised that the man be approached with extreme caution and only when two or more persons are present.

Refuse was found on approximately 2% of the site area.

Noise from Monterey Avenue was distinctive and distracting during daylight and early evening hours.

Project Description

The project proponent intends to grade the entire site and erect a variety of commercial and residential structures (mixed use).

III. STUDY METHODS

Prior to the initiation of field work, reviews of the literature and institutional records were conducted to determine the biological resources that might exist within the general area and to determine the possible occurrence of special-status species. Records, collections, websites and/or staff of the University of California at Riverside Herbarium, the Boyd Deep Canyon Desert Research Center and the Coachella Valley Association of Governments were consulted for specific information as to the occurrence of selected species. The California Department of Fish & Game Natural Diversity Database was also consulted.

Field surveys were initiated in August of 2021. Specific dates of biological surveys were August 7, 11, 14, 16, 19, 21, 23, 25 and September 3 and 4, 2021. Night surveys were conducted on the evenings of September 3 and 4, 2021.

Survey dates were in summer when all perennial plant species and resident vertebrate species were likely to be detected. Reducing the likelihood that any species would be detected was the existence of an unusually dry winter in 2020-21. Drought dictates against the germination of ephemeral plant species and reproduction and survival of all animal species. Despite the severe winter drought, it was concluded the phenomenon did not change findings in this report because (1) species have been recorded at other locations in the area and/or (2) there is no historical information available that contradicts the findings and conclusions of the field surveys and literature review.

Surveys were conducted by walking north/south transects at 10-yard intervals through the project site and 100 yards beyond the south and west boundaries. The survey pattern used has been approved by the U.S. Fish & Wildlife Service for determining the presence or absence of the burrowing owl and desert tortoise and represents an intensive survey effort that resulted in no officially listed or federally protected species being overlooked (see Results section). No offsite surveys were conducted to the north of the project site as the area was occupied by a shopping center. No offsite surveys were conducted to the east of the project site due to the presence of Monterey Avenue, a busy thoroughfare that was considered a barrier to significant animal dispersal.

Animal surveys were conducted simultaneously with plant surveys. In addition, twenty live-animal traps (which capture animals unharmed) for large and small mammals were set within the project site for twenty-four-hour periods on September 3 and 4, 2021.

To determine if large animal corridors existed on the project site special attention was given to observing and identifying animal tracks. In addition, sand sifting and smoothing was done in four areas so that tracks would be more prominent and identifiable. Road kills on Monterey Avenue were monitored on all site visits.

Invertebrate sampling was conducted on the evenings of September 3 and 4, 2021. Two Bioquip Light Traps were used for attracting and live-capturing flying insects and some terrestrial arthropods. Black lights were the attracting mechanism with each trap powered by a 12-volt automobile battery.

Though scientific name changes occur as new discoveries are made in plant and animal taxonomy, the scientific names used in this report are taken from the standard and most available references describing the species found in the desert regions of Southern California—Bruce G. Baldwin's *The Jepson Manual* (Second Edition) published in 2012; D. P. Tibor's *Inventory of rare and endangered vascular plants of California* published in 2001; R. A. Stebbins and S. M. McGinnis' *Field guide to amphibians and reptiles of California* published in 2012; Peterson's *Bird of North America* published in 2008; and E. W. Jameson's and H. J. Peeters' *California mammals* published in 2004. Plant common names used in this report were taken from Baldwin (2012), Jaeger (1969) and Tibor (2001). Animal common names are taken from Stebbins and McGinnis (2012), Peterson (2008) and Jameson and Peeter (2004).

Fieldwork was conducted by James Cornett (M.S.) and Blake Gonzales. Plant identifications were made by Andrew Sanders (B.S.) and Mr. Cornett. Animal remains were identified by Mr. Cornett. The literature review was conducted by Terry Belknap (B.S.). The report was written by Mr. Cornett.

IV. PLANT SURVEY RESULTS

A single plant association or *community* was found on site: the Sonoran creosote bush scrub community as described by Sawyer Keeler-Wolf (1995).

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

Many native and exotic weed species have germinated over most of the site but particularly in disturbed areas such as road shoulders, residential borders and where off-road-vehicles have traversed. These species include Sahara mustard (*Brassica tournefortii*), bugseed (*Dicoria canescens*) and Schismus grass (*Schismus barbatus*). These species are often found throughout the Colorado Desert of southeastern California whenever natural vegetation has been damaged or removed.

The Inventory of Rare and Endangered Vascular Plants of California, published by the California Native Plant Society (2001), the *CNDDDB Special Plant List* (2014) or the *Endangered, Threatened, and Rare Plants of California* (2014) lists a total of five plant species that could conceivably occur on the project site. They are the glandular ditaxis (*Ditaxis clariana*), ribbed cryptantha (*Cryptantha costata*), flat-seeded spurge (*Chamaesyce platysperma*), Coachella Valley milk vetch (*Astragalus lentiginosus coachellae*), and Salton milkvetch (*Astragalus crotalareiae*).

1. The glandular ditaxis, *Ditaxis clariana*, is a rare perennial herb that blooms from December through March. It is restricted to sandy environments in the Sonoran Desert and has been found in the Coachella Valley at elevations like those found on the project site. Since the glandular ditaxis is a perennial, it likely would be detected during the plant surveys. It was not detected and therefore presumed to not occur onsite. This species is not listed as rare, threatened, or endangered by either the state or federal governments nor is it proposed to be listed at this time. Though considered sensitive by the California Native Plant Society, the glandular ditaxis is not a covered species under the Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP).

2. The ribbed cryptantha is an uncommon ephemeral known to occur on sandy soils in the Coachella Valley. The project site can be considered suitable habitat for this species. It was not detected but the surveys were conducted in summer following a winter of severe drought resulting in most ephemeral species not being in evidence. The ribbed cryptantha is not listed as rare, threatened or endangered by either the state or federal governments nor is it proposed to be

listed at this time. The California Native Plant Society considers the ribbed cryptantha a sensitive species. It is not a covered species under the CVMSHCP.

3. The flat-seeded spurge is an extremely rare ephemeral herb known to occur on sandy soils in the Sonoran Desert. There has been at least one specimen found in the Coachella Valley. The species was not detected but the surveys were done in summer following a winter of below average precipitation. The flat-seeded spurge is not listed as rare, threatened or endangered by either the state or federal governments nor is it proposed to be listed at this time. The California Native Plant Society considers it a sensitive species. It is not covered under the CVMSHCP.

4. The Coachella Valley milk vetch is an uncommon, spring-blooming ephemeral herb that is known to occur on sandy soils in the Coachella Valley. Two seeds pods of this species were found within the project boundaries. This species has also been recorded in the area surrounding the project site (Cornett, personal files). The milk vetch is listed as endangered by the U.S. Fish & Wildlife Service. It has no formal state status. Impacts to the milk vetch are fully mitigated by the CVMSHCP through the payment of the Plan mitigation fee. No further action is necessary regarding this species.

5. The Salton milkvetch (*Astragalus crotalariae*) is a perennial herb found in the Sonoran Desert of California and Arizona. No individuals, evidence or records of the Salton milkvetch were found on or near the project boundaries. The Salton milkvetch is neither state nor federally listed. It is a rare plant usually encountered on sandy or gravelly soils below 1,000 feet in elevation. Though considered sensitive by the California Native Plant Society it is not a covered species under the CVMSHCP.

A complete list of vascular plant species found within the project boundaries has been placed in Table 1 of the Appendix. Planted ornamental species are not included within this list. Taxonomic nomenclature follows Baldwin (2012). Common names are taken from Jaeger (1969), Baldwin (2012), Munz (1974) or Tibor (2001).

V. ANIMAL SURVEY RESULTS

The fauna of the project site and surrounding vicinity is composed of species typical of sandy, windswept habitats in the Coachella Valley portion of the Colorado Desert, a desert defined by Jaeger (1957). Animal species associated with residential subdivisions were also recorded from the site.

Arthropods

Encountered arthropods on the site included the harvester ant (*Pogonomyrmex californicus*), ghost beetle (*Asbolus verrucosus*), fuzz beetle (*Edrotes ventricosus*), sand scorpion (*Paruroctonus mesaensis*) and Eleodes beetle (*Eleodes armata*).

Three insect species known to occur within the Coachella Valley have been placed on the California Department of Fish and Game's *Special Animals* list. They are the Coachella giant sand treader cricket (*Macrobaenetes valgum*), Coachella Valley Jerusalem cricket (*Stenopelmatus calhullaensis*) and Coachella Valley grasshopper (*Spaniacris deserticola*). None of these three insect species were found during the surveys and none have any official status with governmental agencies. The Coachella giant sand treader cricket and Jerusalem cricket are covered species under the Plan.

Amphibians and Reptiles

No amphibian species were found during the surveys, and none are expected.

Detected reptiles included the side-blotched lizard (*Uta stansburiana*), western whiptail (*Cnemidophorus tigris*), desert iguana (*Dipsosaurus dorsalis*), western shovel-nosed snake (*Chionactis occipitalis*) and Coachella Valley fringe-toed lizard (*Uma inornata*).

Two observations of the officially threatened Coachella Valley fringe-toed lizard were recorded confirming the habitat was suitable for the species. The isolated nature of the project site area as well as several consecutive drought years has likely reduced the population of this species within the project boundaries. Impacts to the fringe-toed lizard are fully mitigated by the payment of a habitat acquisition fee as required under the Plan.

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

An intensive effort was made to find individuals or sign of the flat-tailed horned lizard, *Phrynosoma mcallii*. No observations or evidence of this species within the project boundaries were recorded. Nevertheless, most of the project site is considered suitable habitat. In 2011, the U.S. Fish & Wildlife Service considered listing the flat-tailed horned lizard but chose to not do so in May of that year. Impacts to the horned lizard are fully mitigated under the Plan.

Birds

Detected birds within the project area were the Say's phoebe (*Sayornis saya*), American kestrel (*Falco sparverius*), common raven (*Corvus corax*), mourning dove (*Zenaida macroura*), and house finch (*Carpodacus mexicanus*).

No observations of LeConte's thrasher (*Toxostoma lecontei*) were recorded during surveys. In the Coachella Valley this species is associated with golden cholla, an arborescent cactus that provides a nesting site for the thrasher. The cactus species was not found onsite and, therefore, it was concluded the thrasher does not occupy the project site. LeConte's thrasher is a covered species under the Plan.

Two functionally non-covered and sensitive avian species were possible occupants of the project site and vicinity: the burrowing owl (*Athene cunicularia*) and loggerhead shrike (*Lanius ludovicianus*).

Burrowing Owl

An intensive survey for the burrowing owl was undertaken following protocols established by state and federal governments. No observations of the owl were recorded, and no evidence of its presence was found. The habitat of the project site is suitable for the owl and active burrows of the species have been found several times within two miles of the project site (Cornett, personal files). Because the project site habitat is considered suitable and owls are known to occur in the immediate area, it was concluded that the burrowing owl could take up residence on the site at any time. The burrowing owl is not functionally covered under the Plan.

Loggerhead Shrike

The loggerhead shrike, a state Species of Special Concern, was not observed or detected on or near the project site. The project site and immediate area, however, are considered suitable habitat for the shrike and it could breed within project site boundaries. The shrike is not a covered species under the Plan.

Mammals

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

No individuals of the desert kit fox (*Vulpes macrotis arsipus*) were seen or detected on or near the project site. Human activity in the area is the likely explanation for its absence. The desert kit fox is fully protected in California and is not a covered species under the Plan.

The Palm Springs Ground Squirrel is the only mammalian covered species discovered within the project boundaries. It was detected six times (burrows) but should be expected throughout the project site as the habitat is suitable. It currently is not a listed species and has a much broader range than was previously thought (Federal Register, 2009). It is, therefore, unlikely that it will be listed in the near future. It is a covered species under the Plan and impacts to the squirrel are mitigated by the payment of the required habitat acquisition fee.

Wildlife Corridors

Smoothing of surfaces to yield tracks was performed on each site visit to determine if important wildlife corridors existed on the site. Tracks of ravens, roadrunners and coyotes were recorded. However, no discernable and routinely used corridors could be found.

A complete list of vertebrate species seen or detected on the project site can be found in Table 2 of the Appendix.

VI. FINDINGS AND RECOMMENDATIONS

An intensive plant and animal survey was conducted within the proposed project boundaries. Evidence of the federally endangered Coachella Valley milk vetch was found onsite and is known from the general region. The site appears to be suitable for the sensitive Coachella Valley Jerusalem cricket, Coachella Valley giant sand-treader cricket and Palm Springs pocket mouse even though they were not detected. The Palm Springs ground squirrel was detected within the site boundaries. Each of the above organisms is *covered* under the Coachella Valley Multiple Species Habitat Conservation Plan. Mitigation for impacts to these species is accomplished through the payment of a fee to the Coachella Valley Association of Governments. Fees vary depending upon the use to which the land is put, acreage and density. Contact the Coachella Valley Association of Governments to determine current fees.

The remaining comments are restricted to those species or habitats not covered under the CVMSHCP or that are not functionally covered.

Casey's June Beetle

Though Casey's June beetle is known to occur in the Coachella Valley, trapping surveys did not detect this species. Thus far, this officially endangered, non-covered species has not been found east of Cathedral City. Therefore, no further surveys are recommended for Casey's June beetle and no mitigation is needed or recommended.

Desert Tortoise

Though the desert tortoise is a covered species under the CVMSHCP, clearance surveys for the tortoise can still be required by the United State Fish & Wildlife Service prior to grubbing, grading or other site disturbance. The desert tortoise occurs in the Coachella Valley but is not currently known to be present on the valley floor. Observations have been on upper bajadas surrounding the valley. In keeping with this distribution pattern, protocol-level surveys revealed no evidence of the desert tortoise within or adjacent to the project site. Therefore, no additional surveys or actions regarding this species are recommended or required.

Desert Dry Wash Woodland

No bodies of standing water, no streams and no washes (as indicated by wash plant species) are present on site. Therefore, streambed alteration permits from state or local agencies should not be necessary.

CVMSHCP and Conservation Areas

The project site lies within the Plan mitigation fee area. Therefore, the project proponent must pay a mitigation fee to the Coachella Valley Association of Governments based upon the density and type of structures erected. The Coachella Valley Association of Governments can be contacted regarding applicable and current mitigation fees.

The project site is not within a Conservation Area as shown in the CVMSHCP. Additionally, the site does not abut a Conservation Area. Therefore, the project is not subject to Plan requirements regarding lands adjoining Conservation Areas.

Indirect Impacts

The project site and immediate area are surrounded by a high-volume roadway and residential and commercial developments. As a result, it is nearly an ecological island with likely little significant biological interaction with natural habitats elsewhere in the Coachella Valley. Therefore, it is concluded the development of the project site will have no significant indirect impacts to biological resources in the region.

Burrowing Owl

The burrowing owl was not seen nor detected on or near project site boundaries. However, site habitat is considered suitable for this species and the owl is known to breed in the area. The burrowing owl could take up residence on the site at any time. For this reason, the State of California recommends in the Staff Report on Burrowing Owl Mitigation (March 7, 2012), that a clearance survey for this species occur not more than 14 days prior to grading, grubbing or other site disturbance.

Loggerhead Shrike

The loggerhead shrike is not a covered species under the Plan and is a state Species of Special Concern. As the project site is considered suitable habitat for the shrike, it is recommended that a

breeding survey for this species be conducted 14 days prior to any construction activities that are planned between February 15 and June 15, the breeding season of the shrike in the Coachella Valley. If a shrike nest is found, a buffer should be established in which construction activities are prohibited until all young have fledged. The width of the buffer should be determined by a qualified biologist. (The shrike breeding survey can be conducted simultaneously with the burrowing owl survey if disturbance is to occur between February 15 and June 15.)

Mitigation Summary

1. Contact CVAG to determine precise mitigation fees applicable under the CVMSHCP.
2. Conduct a loggerhead shrike breeding survey not more than 14 days prior to site disturbance if such disturbance is planned between February 15 and June 15.
3. Conduct a burrowing owl clearance survey not more than 14 days prior to site disturbance.

Conclusion

Development of the proposed project site is not expected to have significant adverse impacts upon biological resources in the region providing the mitigation described in this report is implemented.

VII. REFERENCES

Baldwin, B. G., D. H. Goldman, D. J. Keil, R. Patterson, T. J. Rosatti and D. H. Wilken. 2012. *The Jepson Manual: Vascular Plants of California*. (Second Edition) University of California Press, Berkeley, California.

California Department of Fish & Game. November 2021. Natural Diversity Database.

California Department of Fish & Game. 2021. Staff Report on Burrowing Owl Mitigation. Natural Resources Agency, State of California.

California Department of Fish & Game *Special Animals Report* (2021). Natural Resources Agency, State of California.

California Department of Fish & Wildlife. 2021. State and Federally Listed Endangered, Threatened, and Rare Plants of California. Natural Resources Agency, State of California.

Coachella Valley Association of Governments. 2006. *The Coachella Valley Multiple Species Habitat Conservation Plan*. Coachella Valley Association of Governments, Palm Desert, California.

Fish and Wildlife Service. 2009. Department of the Interior, Fish and Wildlife Service 50 CFR Part 17. Federal Register Vol. 74, No. 215.

Garrett, K. and J. Dunn. 1981. *Birds of Southern California*. Los Angeles Audubon Society, Los Angeles, CA.

Helix Environmental Planning. 2010. *Tribal Habitat Conservation Plan*. Agua Caliente Band of Cahuilla Indians, Palm Springs, California.

Jaeger, E. C. 1957. *The North American deserts*. Stanford University Press, Stanford, California.

Jaeger, E. C. 1969. *Desert wildflowers*. Stanford University Press, Stanford, California.

Jameson, E. W. Jr. and H. J. Peeters. 2004. *Mammals of California*. University of California Press, Berkeley, CA.

Munz, P. A. 1974. *Flora of Southern California*. University of California Press, Berkeley, California.

National Climatic Data Center. 2020. Climatic summaries, Asheville, North Carolina.

Peterson, R. T. 2008. *Peterson field guide to birds of North America*. Houghton Mifflin Company, New York, New York.

Sawyer, J. O. and T. Keeler-Wolf. 1995. *A Manual of California Vegetation*. California Native Plant Society, Sacramento, California.


Stebbins, R. C. and S. M. McGinnis. 2012. *Field guide to amphibians and reptiles of California*. University of California Press, Berkeley, California.

Tibor, D. P. (editor). 2001. *Inventory of rare and endangered plants of California*. California Native Plant Society, Sacramento, California.

Zabriskie, J. G. 1979. *Plant of Deep Canyon*. Philip Boyd Deep Canyon Desert Research Center, University of California, Riverside.

VIII. CERTIFICATION STATEMENT

I, James W. Cornett, hereby certify the statements furnished above and in the attached exhibits present the data and information required for this biological evaluation, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.



September 9, 2021

Date

Principal Investigator

APPENDIX

Species Status Terms Used in This Report

State, Federal, Tribal and local governments, and occasionally private conservation organizations, determine certain plant and animal species are in need of special protection because their numbers are declining, and extinction may be likely. Collectively, such species are referred to as special-status species.

Species or subspecies officially classified as **Endangered** are in imminent danger of becoming extinct. State and federal endangered species laws require that government agencies take direct steps to prevent further decline in the numbers of each endangered species. Persons or companies wishing to develop land on which endangered animal species occur will be required to mitigate adverse impacts to the endangered species so that there is no reduction in numbers and no net loss of the species' habitat. Mitigation may take the form of avoiding development on that part of the site inhabited by the species, acquiring habitat for the species elsewhere (accomplished by the CVMSHCP) or, in rare instances, relocating the project to an alternate site. In certain instances, an endangered species may be adversely impacted even though it does not actually occur on site. If such a finding is made, mitigation will likely be required.

Species or subspecies officially classified as **Threatened** are likely to become endangered if action is not forthcoming from government agencies. These species are not in imminent danger of becoming extinct and there is more time to find ways to prevent their extinction. Mitigation requirements for threatened species are the same as those for endangered species.

The state of California has an additional classification known as **Species of Special Concern**. In brief, these are plant and animal species whose numbers may be declining or whose status may be in jeopardy but there is insufficient data to formerly classify them as threatened or endangered. Mitigation for these species can be required under the California Environmental Quality Act (CEQA) but is not automatic.

Governmental agencies sometimes erect Habitat Conservation Plans (HCPs) that protect selected **Covered** species. Specific mitigation for Covered species may not be required under such a plan. However, occasionally Covered species may not be **functionally** covered because state or federal agencies have refused to allow the taking of such species despite an approved HCP.

If officially threatened or endangered species not fully covered under an HCP are adversely impacted by a development the project proponents should expect to meet with staff of the United States Fish & Wildlife Service and/or the California Department of Fish & Game to review and decide upon mitigation alternatives.

TABLE 1
PLANT SPECIES RECORDED
RANCHO MONTEREY 34.8-ACRE SITE

ANGIOSPERMAE – DICOTYLEDONES

ASTERACEAE - SUNFLOWER FAMILY

Conyza canadensis - Horseweed
Dicoria canescens - Desert Dicoria
Encelia farinosa - Brittlebush
Hymenoclea salsola - Cheese-bush
Palafoxia arida - Spanish Needle
Stephanomeria exigua - Mitra

BORAGINACEAE - BORAGE FAMILY

Cryptantha micrantha - Purple-rooted Forget-me-not
Tiquilia plicata - Plicate Coldenia

BRASSICACEAE - MUSTARD FAMILY

Brassica tournefortii - Sahara Mustard

CHENOPODIACEAE - GOOSEFOOT FAMILY

Atriplex canescens – Wingscale
Salsola tragus - Russian Thistle

EUPHORBIACEAE - SPURGE FAMILY

Croton californicus - Desert Croton
Chamaesyce polycarpa - Sand-mat

FABACEAE - PEA FAMILY

Astragalus lentiginosus coachellae - Coachella Valley milk vetch
Psoralea emoryi - Emory Dalea

GERANIACEAE - GERANIUM FAMILY

Erodium cicutarium – Filaree

NYCTAGINACEAE - FOUR-O'CLOCK FAMILY

Abronia villosa - Hairy Sand-Verbena

PLANTAGINACEAE - Plantain Family
Plantago ovata - Woolly Plantain

SOLANACEAE - NIGHTSHADE FAMILY
Datura metaloides - Jimson Weed

ZYGOPHYLLACEAE - CALTROP FAMILY
Larrea tridentata - Creosote Bush

ANGIOSPERMAE - MONOCOTYLEDONES

POACEAE - GRASS FAMILY
Bromus madritensis - Foxtail Grass
Cynodon dactylon – Bermuda Grass
Panicum urvilleanum - Desert panicgrass
Pennisetum villosum – Fountain Grass
Schismus barbatus - Abu-mashi

TABLE 2
EXPECTED BREEDING OR OBSERVED VERTEBRATES
RANCHO MONTEREY 34.8-ACRE SITE

REPTILES

GEKKONIDAE - GECKOS

Coleonyx variegatus - Western Banded Gecko

IGUANIDAE - IGUANIDS

Dipsosaurus dorsalis - Desert Iguana *

Gambelia wislizenii - Long-nosed Leopard Lizard ?

Phrynosoma mcallii - Flat-tailed Horned Lizard ?

Uma inornata – Coachella Valley Fringe-toed Lizard *

Urosaurus graciosus - Long-Tailed Bush Lizard *

Uta stansburiana - Side-Blotched Lizard *

TEIIDAE - WHIPTAILS

Cnemidophorus tigris - Western Whiptail *

LEPTOTYPHLOPIDAE - BLIND SNAKES

Leptotyphlops humilis - Western Blind Snake

COLUBRIDAE - COLUBRIDS

Arizona elegans - Glossy Snake

Chionactis occipitalis - Western Shovel-nosed Snake *

Lampropeltis getulus - Common Kingsnake ?

Masticophis flagellum – Coachwhip *

Phyllorhynchus decurtatus - Spotted Leaf-nosed Snake ?

VIPERIDAE - VIPERS

Crotalus cerastes - Sidewinder *

BIRDS

ACCIPITRIDAE - OSPREY, HAWKS, EAGLES

Buteo jamaicensis - Red-Tailed Hawk *

FALCONIDAE - FALCONS

Falco sparverius - American Kestrel *

COLUMBIDAE - PIGEONS AND DOVES

Columba livia - Rock Dove *

Zenaida macroura - Mourning Dove *

CUCULIDAE - CUCKOOS

Geococcyx californianus - Greater Roadrunner *

TROCHILIDAE - HUMMINGBIRDS

Calypte costae - Costa's Hummingbird

TYRANNIDAE - TYRANT FLYCATCHERS

Sayornis saya - Say's Phoebe *

CORVIDAE - CROWS AND JAYS

Corvus corax - Common Raven *

MIMIDAE - MOCKINGBIRDS AND THRASHERS

Mimus polyglottos - Northern Mockingbird *

STURNIDAE - STARLINGS

Sturnus vulgaris - European Starling *

ICTERIDAE – BLACKBIRDS AND ORIOLES

Euphagus cyanocephalus - Brewer's Blackbird *

Quiscalus mexicanus – Great-tailed Grackle *

PLOCEIDAE - WEAVER FINCHES

Passer domesticus - House Sparrow *

FRINGILLIDAE - FINCHES

Carpodacus mexicanus - House Finch *

MAMMALS

VESPERTILIONIDAE - EVENING BATS

Pipistrellus hesperus - Western Pipistrelle *

LEPORIDAE - HARES AND RABBITS

Lepus californicus - Black-tailed Jackrabbit *

Sylvilagus audubonii - Audubon Cottontail

SCIURIDAE - SQUIRRELS

Spermophilus tereticaudus chlorus – Palm Springs Ground Squirrel *

GEOMYIDAE - POCKET GOPHERS

Thomomys bottae - Botta Pocket Gopher

HETEROMYIDAE - POCKET MICE, KANGAROO RATS

Dipodomys deserti - Desert Kangaroo Rat *

CRICETIDAE - DEER MICE AND WOODRATS

Peromyscus maniculatus - Deer Mouse *

MURIDAE – RATS, MICE, VOLES

Mus musculus – House Mouse *

CANIDAE - FOXES, WOLVES, AND COYOTES

Canis latrans - Coyote *

* = Sign or individual observed on site

? = Possible occurrence on or near site; not detected during surveys

APPENDIX B:

Historical/Archaeological Resources Survey Report

CRM Tech

April 2022

HISTORICAL/ARCHAEOLOGICAL RESOURCES SURVEY REPORT

REILING TRUST MIXED-USE PROJECT

**Assessor's Parcel Nos. 685-090-002, -003, and -005 to -007
City of Rancho Mirage, Riverside County, California**

For Submittal to:

Development Services Department, Planning Division
City of Rancho Mirage
69-825 Highway 111
Rancho Mirage, CA 92270

Prepared for:

Retail Net Lease Properties, Inc.
74998 Country Club Drive, Suite 220-345
Palm Desert, CA 92260

Prepared by:

CRM TECH
1016 East Cooley Drive, Suite A/B
Colton, CA 92324

Bai "Tom" Tang, Principal Investigator
Michael Hogan, Principal Investigator

April 28, 2022
CRM TECH Contract No. 3760

Title: Historical/Archaeological Resources Survey: Reiling Trust Mixed-Use Project, Assessor's Parcel Nos. 685-090-002, -003, and -005 to -007, City of Rancho Mirage, Riverside County, California

Author(s): Bai "Tom" Tang, Principal Investigator
Ben Kerridge, Archaeologist/Report Writer
Daniel Ballester, Archaeologist/Field Director

Consulting Firm: CRM TECH
1016 East Cooley Drive, Suite A/B
Colton, CA 92324
(909) 824-6400

Date: April 28, 2022

For Submittal to: Development Services Department, Planning Division
City of Rancho Mirage
69-825 Highway 111
Rancho Mirage, CA 92270
(760) 328-2266

Prepared for: Retail Net Lease Properties, Inc.
74998 Country Club Drive, Suite 220-345
Palm Desert, CA 92260
(760) 320-9811

Project Size: Approximately 34.8 acres

USGS Quadrangle: Cathedral City, Calif., 7.5' quadrangle (Section 30, T4S R6E, San Bernardino Baseline and Meridian)

Keywords: Coachella Valley region, western Colorado Desert; Sites 3760-1H, 3760-2H, and 3760-3H (*temporary designations*); Isolates 3760-4H, 3760-5H, 3760-6H, 3760-7H, and 3760-8H; late-historic-period structural remains and refuse items; no "historical resources" under CEQA

MANAGEMENT SUMMARY

Between July 2021 and April 2022, at the request of Retail Net Lease Properties, Inc., CRM TECH performed a cultural resources survey on approximately 34.8 acres of vacant desert land on the northeastern edge of the City of Rancho Mirage, Riverside County, California. The subject property of the study consists of five parcels, namely Assessor's Parcel Nos. 685-090-002, -003, and -005 to -007, located on the west side of Monterey Avenue near its intersection with Dick Kelly Drive, in the northeast quarter of Section 30, T4S R6E, San Bernardino Baseline and Meridian.

The study is part of the environmental review process for a proposed mixed-use development project. The City of Rancho Mirage, as the lead agency for the project, required the study in compliance with the California Environmental Quality Act (CEQA). The purpose of the study is to provide the City with the necessary information and analysis to determine whether the proposed project would cause substantial adverse changes to any "historical resources," as defined by CEQA, that may exist in or around the project area. In order to identify such resources, CRM TECH initiated a historical/archaeological resources records search, pursued historical background research, contacted Native American representatives, and carried out an intensive-level field survey.

As a result of these research procedures, eight cultural resources of historic-period origin, including three archaeological sites and five isolates (i.e., localities with fewer than three artifacts), were recorded within the project area and designated temporarily as 3760-1H to 3760-8H, pending assignment of official identification numbers in the California Historical Resources Inventory. The sites, 3760-1H, 3760-2H, and 3760-3H, consist of the remains of so-called "jackrabbit homesteads" established between 1957 and 1960, while each of the isolates represents a single domestic refuse item.

As late-historic-period features that are virtually ubiquitous in the southern California desert region, Sites 3760-1H, 3760-2H, and 3760-3H do not demonstrate any significant association or special merits to meet any of the criteria for listing in the California Register of Historical Resources, and thus they do qualify as "historical resources" under CEQA provisions. The isolates, 3760-4H to 3760-8H, by definition do not constitute archaeological site due to the lack of depositional context and are therefore not considered potential "historical resources."

Based on these findings, CRM TECH recommends to the City of Rancho Mirage a conclusion that the proposed project will have *No Impact* on any "historical resources." No further cultural resources investigation is recommended for the project unless development plans undergo such changes as to include areas not covered by this study. However, if buried cultural materials are discovered during any earth-moving operations associated with the project, all work within 50 feet of the discovery should be halted or diverted until a qualified archaeologist can evaluate the nature and significance of the finds.

TABLE OF CONTENTS

MANAGEMENT SUMMARY	i
INTRODUCTION	1
SETTING.....	4
Current Natural Setting	4
Cultural Setting	5
Prehistoric Context.....	5
Ethnohistoric Context	5
Historic Context	7
RESEARCH METHODS	8
Records Search.....	8
Native American Participation.....	8
Historical Background Research.....	8
Field Survey	8
RESULTS AND FINDINGS.....	9
Records Search.....	9
Native American Participation.....	9
Historical Background Research.....	9
Field Survey	12
DISCUSSION	13
CONCLUSIONS AND RECOMMENDATIONS	14
REFERENCES	15
APPENDIX 1: Personnel Qualifications	17
APPENDIX 2: Correspondence with Native American Representatives.....	21
APPENDIX 3: California Historical Resources Inventory Record Forms	28

LIST OF FIGURES

Figure 1. Project vicinity.....	1
Figure 2. Project area	2
Figure 3. Aerial image of the project area	3
Figure 4. Typical landscape in the project area	4
Figure 5. Previous cultural resources studies.....	10
Figure 6. The project area and vicinity in 1855-1856.....	11
Figure 7. The project area and vicinity in 1901	11
Figure 8. The project area and vicinity in 1941	11
Figure 9. The project area and vicinity in 1951-1958.....	11
Figure 10. Historic-period glass bottle base at Site 3760-1H	13

INTRODUCTION

Between July 2021 and April 2022, at the request of Retail Net Lease Properties, Inc., CRM TECH performed a cultural resources survey on approximately 34.8 acres of vacant desert land on the northeastern edge of the City of Rancho Mirage, Riverside County, California (Fig. 1). The subject property of the study consists of five parcels, namely Assessor's Parcel Nos. (APNs) 685-090-002, -003, and -005 to -007, located on the west side of Monterey Avenue near its intersection with Dick Kelly Drive, in the northeast quarter of Section 30, T4S R6E, San Bernardino Baseline and Meridian (Figs. 2, 3).

The study is part of the environmental review process for a proposed mixed-use development project. The City of Rancho Mirage, as the lead agency for the project, required the study in compliance with the California Environmental Quality Act (CEQA; PRC §21000, et seq.). The purpose of the study is to provide the City with the necessary information and analysis to determine whether the proposed project would cause substantial adverse changes to any "historical resources," as defined by CEQA, that may exist in or around the project area.

In order to identify such resources, CRM TECH initiated a historical/archaeological resources records search, pursued historical background research, contacted Native American representatives, and carried out an intensive-level field survey. The following report is a complete account of the methods, results, and final conclusion of the study. Personnel who participated in the study are named in the appropriate sections below, and their qualifications are provided in Appendix 1.

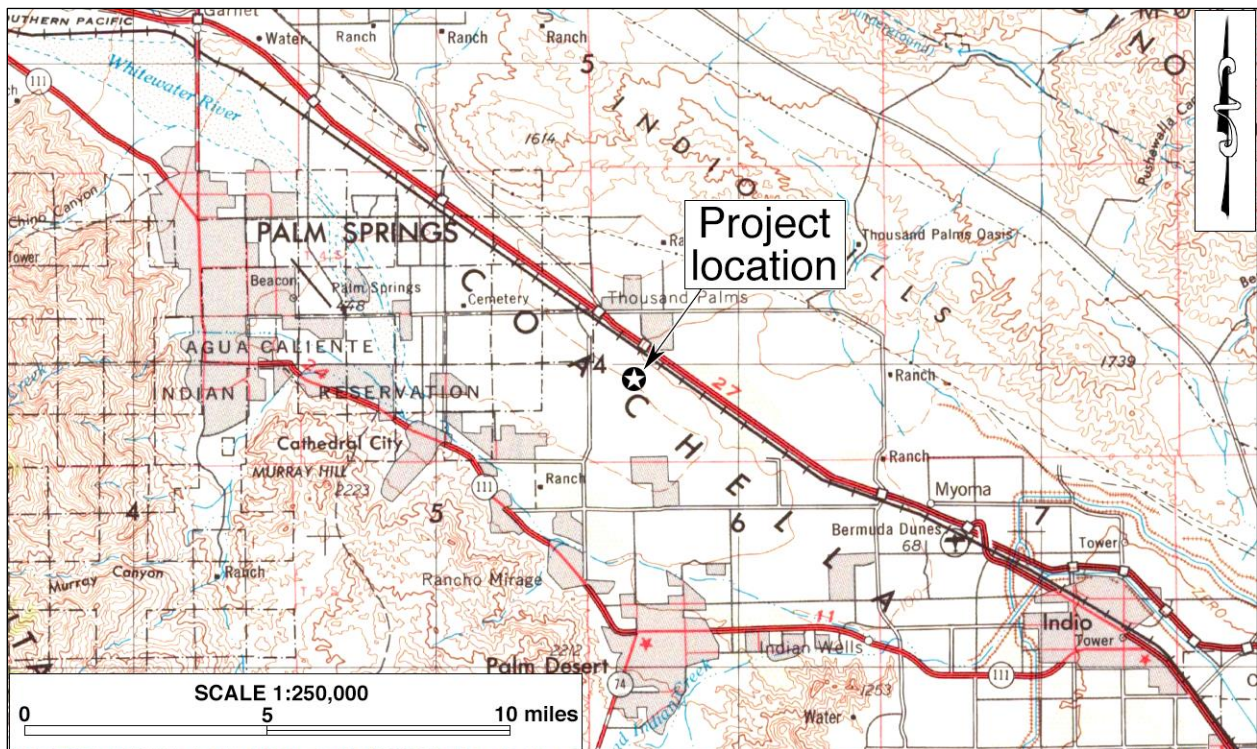


Figure 1. Project vicinity. (Based on USGS Santa Ana, Calif., 120'x60' quadrangle [USGS 1979])

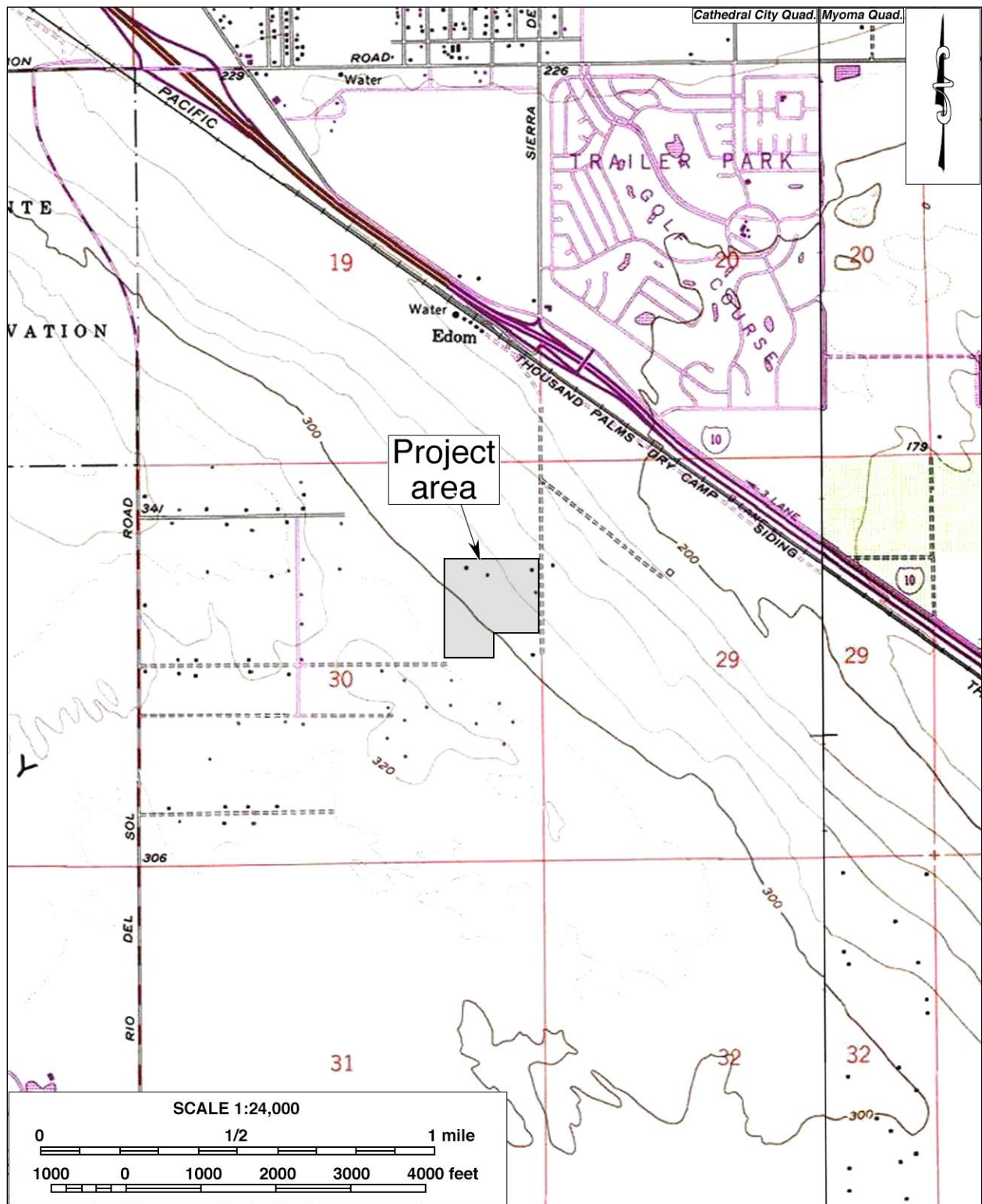


Figure 2. Project area. (Based on USGS Myoma and Cathedral City, Calif., 7.5' quadrangles [USGS 1978; 1981])



Figure 3. Aerial image of the project area.

SETTING

CURRENT NATURAL SETTING

The City of Rancho Mirage is located in the Coachella Valley, a northwest-southeast trending desert valley that constitutes the western end of the Colorado Desert. Dictated by this geographic setting, the climate and environment of the region are typical of the southern California desert country, marked by extremes in temperature and aridity. Temperatures in the region reach over 120 degrees Fahrenheit in summer, and dip to near freezing in winter. Average annual precipitation is less than five inches, and the average annual evaporation rate exceeds three feet.

The irregularly shaped project area lies on the generally level and sandy desert floor between the San Jacinto Mountains to the southwest and the Indio Hills to the northeast. The adjacent land features large shopping centers to the north and the east and undeveloped parcels to south and the west, with residential neighborhoods situated further in the latter directions (Fig. 3). Elevations in the project area range roughly from 255 feet to 295 feet above mean sea level, with the terrain sloping gently downward to the southeast.

Vegetation in the vicinity consists mainly of creosote bushes with occasional examples of small grasses and brush. The surface soil is characterized by the lightly undulating, somewhat compact sand dunes and shows a fair amount of prior disturbance (Fig. 4). Sources of the disturbance included past construction activities associated with a basin and several short-lived small residences on the property, while off-road vehicle tracks and evidence of soil removal were also observed.



Figure 4. Typical landscape in the project area. (Photograph taken on September 15, 2021)

CULTURAL SETTING

Prehistoric Context

Numerous investigations on the history of cultural development in southern California have led researchers to propose a number of cultural chronologies for the desert regions. A specific cultural sequence for the Colorado Desert was offered by Schaefer (1994) on the basis of the many archaeological studies conducted in the area. The earliest time period identified is the Paleoindian (ca. 8,000 to 10,000-12,000 years ago), when “small, mobile bands” of hunters and gatherers, who relied on a variety of small and large game animals as well as wild plants for subsistence, roamed the region (*ibid.*:63). These small groups settled “on mesas and terraces overlooking larger washes” (*ibid.*:64). The artifact assemblage of that period typically consists of very simple stone tools, “cleared circles, rock rings, [and] some geoglyph types” (*ibid.*).

The Early Archaic Period follows and dates to ca. 8,000 to 4,000 years ago. It appears that a decrease in population density occurred at this time and that the indigenous groups of the area relied more on foraging than hunting. Very few archaeological remains have been identified to this time period. The ensuing Late Archaic Period (ca. 4,000 to 1,500 years ago) is characterized by continued low population densities and groups of “flexible” sizes that settled near available seasonal food resources and relied on “opportunistic” hunting of game animals. Groundstone artifacts for food processing were prominent during this time period.

The most recent period in Schaefer’s scheme, the Late Prehistoric, dates from ca. 1,500 years ago to the time of the Spanish missions, and saw the continuation of the seasonal settlement pattern. Peoples of the Late Prehistoric Period were associated with the Patayan cultural pattern and relied more heavily on the availability of seasonal “wild plants and animal resources” (Schaefer 1994:66). It was during this period that ceramics and the bow/arrow were introduced into the region.

The shores of Holocene Lake Cahuilla, during times of its presence, attracted much settlement and resource procurement activities. In times of the lake’s desiccation and absence, according to Schaefer (1994:66), the Native people moved away from its receding shores towards rivers, streams, and mountains. Numerous archaeological sites dating to the last high stand of Holocene Lake Cahuilla, roughly between 1600 and 1700 A.D., have been identified along its former shoreline. Testing and mitigative excavations at these sites have recovered brown and buff ware ceramics, a variety of groundstone and projectile point types, ornaments, and cremation remains.

Ethnohistoric Context

The Coachella Valley is a historical center of Native American settlement, where U.S. surveyors noted large numbers of Indian villages and *rancherías*, occupied by the Cahuilla people, in the mid-19th century. The origin of the name “Cahuilla” is unclear, but may originate from their own word *káwiya*, meaning master or boss (Bean 1978). The Takic-speaking Cahuilla are generally divided by anthropologists into three groups, according to their geographic setting: the Pass Cahuilla of the San Gorgonio Pass-Palm Springs area, the Mountain Cahuilla of the San Jacinto and Santa Rosa Mountains and the Cahuilla Valley, and the Desert Cahuilla of the eastern Coachella Valley. The

basic written sources on Cahuilla culture and history include Kroeber (1925), Strong (1929), and Bean (1978), based on information provided by such Cahuilla informants as Juan Siva, Francisco Patencio, Katherine Siva Saubel, and Mariano Saubel. The following ethnohistoric discussion is based primarily on these sources.

The Cahuilla did not have a single name that referred to an all-inclusive tribal affiliation. Instead, membership was in terms of lineages or clans. Each lineage or clan belonged to one of two main divisions of the people, known as moieties. Their moieties were named for the Wildcat, or *Tuktum*, and Coyote, or *Istam*. Members of clans in one moiety had to marry into clans from the other moiety. Individual clans had villages, or central places, and territories they called their own, for purposes of hunting game, and gathering raw materials for food, medicine, ritual, or tool use. They interacted with other clans through trade, intermarriage, and ceremonies.

Cahuilla subsistence was defined by the surrounding landscape and primarily based on the hunting and gathering of wild and cultivated foods, exploiting nearly all of the resources available in a highly developed seasonal mobility system. They were adapted to the arid conditions of the desert floor, the lacustral cycles of Holocene Lake Cahuilla, and the environments of the nearby mountains. When the lake was full, or nearly full, the Cahuilla would take advantage of the resources presented by the body of fresh water, building elaborate stone fish traps. Once the lake had desiccated, they relied on the available terrestrial resources. The cooler temperatures and resources available at higher elevations in the nearby mountains were also taken advantage of.

The Cahuilla diet included seeds, roots, wild fruits and berries, acorns, wild onions, piñon nuts, and mesquite and screw beans. Medicinal plants such as creosote, California sagebrush, yerba buena and elderberry were typically cultivated near villages (Bean and Saubel 1972). Common game animals included deer, antelope, big horn sheep, rabbits, wood rats and, when Holocene Lake Cahuilla was present, fish and waterfowl. The Cahuilla hunted with throwing sticks, clubs, nets, traps, and snares, as well as bows and arrow (Bean 1978; CSRI 2002). Common tools included manos and metates, mortars and pestles, hammerstones, fire drills, awls, arrow-straighteners, and stone knives and scrapers. These lithic tools were made from locally sourced material as well as materials procured through trade or travel. They also used wood, horn, and bone spoons and stirrers; baskets for winnowing, leaching, grinding, transporting, parching, storing, and cooking; and pottery vessels for carrying water, storage, cooking, and serving food and drink (*ibid.*).

As the landscape defined their subsistence practices, the tending and cultivation practices of the Cahuilla helped shape the landscape. Biological studies have recently found evidence that the fan palms found in the Coachella Valley and throughout the southeastern California desert (*Washingtonia filifera*) may not be relics from a paleo-tropical environment, but instead a relatively recent addition brought to the area and cultivated by native populations (Anderson 2005). The planting of palms by the Cahuilla is well-documented, as is their enhancement of palm stands through the practice of controlled burning (*ibid.*; Bean and Saubel 1972). Burning palm stands would increase fruit yield dramatically by eliminating pests such as the palm borer beetle, date scales, and spider mites (Bean and Saubel 1972). It also prevented out-of-control wildfires by eliminating dead undergrowth before it accumulated to dangerous levels. The Cahuilla also burned stands of chia to produce higher yields, and deergrass to yield straighter, more abundant stalks for basketry (*ibid.*; Anderson 2005).

Population data prior to European contact is almost impossible to obtain, but estimates range from 3,600 to as high as 10,000 persons covering a territory of over 2,400 square miles. During the 19th century, the Cahuilla population was decimated as a result of European diseases, most notably smallpox, for which the Native peoples had no immunity. Today, Native Americans of Pass or Desert Cahuilla heritage are mostly affiliated with one or more of the Indian reservations in and near the Coachella Valley, including Agua Caliente, Morongo, Cabazon, Torres Martinez, and Augustine. There has been a resurgence of traditional ceremonies in recent years, and the language, songs, and stories are now being taught to the youngest generations.

Historic Context

In 1823-1825, José Romero, José Maria Estudillo, and Romualdo Pacheco became the first noted European explorers to travel through the Coachella Valley when they led a series of expeditions in search of a route to Yuma (Johnston 1987:92-95). Due to its harsh environment, few non-Indians ventured into the desert valley during the Mexican and early American periods, except those who traveled along the established trails. The most important of these trails was the Cocomaricopa Trail, an ancient Indian trading route that was “discovered” in 1862 by William David Bradshaw and known after that as the Bradshaw Trail (Gunther 1984:71; Ross 1992:25). In much of the Coachella Valley, this historic wagon road traversed a similar course to that of present-day State Route 111. During the 1860s-1870s, the Bradshaw Trail served as the main thoroughfare between coastal southern California and the Colorado River, until the completion of the Southern Pacific Railroad in 1876-1877 brought an end to its heyday (Johnston 1987:185).

Non-Indian settlement in the Coachella Valley began in the 1870s with the establishment of railroad stations along the Southern Pacific Railroad, and spread further in the 1880s after public land was opened for claims under the Homestead Act, the Desert Land Act, and other federal land laws (Laflin 1998:35-36; Robinson 1948:169-171). Farming became the dominant economic activity in the valley thanks to the development of underground water sources, often in the form of artesian wells. Around the turn of the century, the date palm was introduced into the Coachella Valley, and by the late 1910s dates were the main agricultural crop and the tree an iconic image celebrating the region as the “Arabia of America” (Shields Date Gardens 1957). Then, starting in the 1920s, a new industry featuring equestrian camps, resorts, hotels, and eventually country clubs began to spread throughout the Coachella Valley, transforming it into southern California’s premier winter retreat.

In the Rancho Mirage area, the first notable settlement activities occurred in the 1910s-1920s, when several date ranches were established in the present-day city boundary (Love and Tang 1996:7). In 1924, R.P. “Bert” Davie and E.E. McIntyre subdivided the Rancho Rio del Sol Estates around today’s Clancy Lane, creating a small community nicknamed “Little Santa Monica” (*ibid.*:8). Ten years later, Louis Blankenhorn and Laurence Macomber began a new subdivision at the mouth of Magnesia Spring Canyon, and for the first time bestowed the name Rancho Mirage on the community (*ibid.*). After the end of WWII, Rancho Mirage embarked on a period of rapid growth. With the development of the Thunderbird Country Club and the Tamarisk Country Club in 1951-1952, Rancho Mirage set the trend in the post-WWII boom among the five cove communities along Highway 111 (*ibid.*:8-9). This trend has continued into the present and has given rise to the City of Rancho Mirage’s popular reputation as the “country club city.”

RESEARCH METHODS

RECORDS SEARCH

The historical/archaeological resources records search was completed by the Eastern Information Center (EIC) at the University of California, Riverside, on July 21, 2021. During the records search, EIC administrative/coordinator assistant Eulices Lopez examined maps and records on file for previously identified cultural resources and existing cultural resources reports within a half-mile radius of the project location. Previously identified cultural resources include properties designated as California Historical Landmarks, Points of Historical Interest, or Riverside County Historic Landmarks, as well as those listed in the National Register of Historic Places, the California Register of Historical Resources, or the California Historical Resources Inventory.

NATIVE AMERICAN PARTICIPATION

On July 21, 2021, CRM TECH submitted a written request to the State of California Native American Heritage Commission (NAHC) for a records search in the commission's Sacred Lands File. The NAHC is the State of California's trustee agency for the protection of "tribal cultural resources," as defined by California Public Resources Code §21074, and is tasked with identifying and cataloging properties of Native American cultural value throughout the state. In the meantime, CRM TECH notified the nearby Agua Caliente Band of Cahuilla Indians of the upcoming archaeological field survey and invited tribal participation. The correspondence between CRM TECH and the Native American representatives is attached to this report in Appendix 2.

HISTORICAL BACKGROUND RESEARCH

Historical background research for this study was conducted by CRM TECH archaeologist Ben Kerridge on the basis of the following sources:

- Published literature in local and regional history;
- U.S. General Land Office (GLO) land survey plat maps dated 1856, available at the website of the U.S. Bureau of Land Management (BLM);
- U.S. Geological Survey (USGS) topographic maps dated 1904-1981, available at the USGS website;
- Aerial and satellite photographs taken in 1972-2018, available at the Nationwide Environmental Title Research (NETR) Online website and through the Google Earth software;
- Archival records of the GLO and the BLM, available at the BLM website;
- Various online genealogical databases, primarily those available at ancestry.com.

FIELD SURVEY

CRM TECH archaeologists Daniel Ballester and Hunter O'Donnell carried out the field survey of the project area on September 15, 2021. The survey was conducted at an intensive level by walking a series of parallel north-south transects at 15-meter (approximately 50-foot) intervals. In this way, the entire project area was systematically and carefully examined for any evidence of human

activities dating to the prehistoric or historic period (i.e., 50 years or older). Ground visibility was good to excellent (95 to 100 percent) as vegetation was sparse, although a small portion of the project area was obscured by large creosote bushes. In this environment, however, shifting sands are more likely to contribute to obscured cultural remains than is vegetation.

RESULTS AND FINDINGS

RECORDS SEARCH

According to EIC records, a narrow strip of land on the eastern edge of the project area may have been included in two linear surveys completed along Monterey Avenue in the past, but no cultural resources have been recorded within or adjacent to the project boundaries. Within the half-mile scope of the records search, EIC records show 21 additional cultural resources studies on various tracts of land and linear features, in total covering roughly 35 percent of the land surface (Fig. 5).

As a result of these past survey efforts, two historic-period cultural resources, designated Sites 33-005636 and 33-017008 in the California Historical Resources Inventory, have been recorded within the half-mile radius, but no prehistoric—i.e., Native American—cultural remains have been found. Site 33-005636 represents the Southern Pacific (now Union Pacific) Railroad line that runs approximately half a mile to the north of the project area, and Site 33-017008 represents the remains of a collapsed shed located half a mile to the northwest. In view of the distance of these sites from the project location, neither site requires further consideration during this study.

NATIVE AMERICAN PARTICIPATION

In response to CRM TECH's inquiry, the NAHC reported in a letter dated August 19, 2021, that the Sacred Lands File search yielded negative results for Native American cultural resources in the project area. Noting that the absence of specific information would not necessarily indicate the absence of cultural resources, however, the NAHC recommended that local Native American groups be consulted for further information and provided a referral list potential contacts in the region who may have knowledge of such resources. The NAHC's reply is attached in Appendix 2 for reference by the City of Rancho Mirage in future government-to-government consultations with the pertinent Native American representatives, if necessary.

HISTORICAL BACKGROUND RESEARCH

Historical sources consulted for this study yielded no evidence of any settlement or development activities within the project area prior to the mid-20th century (Figs. 6-9). In the late 19th and early 20th centuries, the nearest human-made feature known to be extant was the Southern Pacific Railroad, which was later joined by U.S. Highway 60/70/99, the forerunner of today's Interstate Highway 10 (Figs. 7, 8). By the 1950s, a dirt road had been established along the course of present-day Monterey Avenue, providing access from the highway to a few scattered buildings in the vicinity, including a trio standing in a roughly east-west line along the northern project boundary in what is now APNs 685-090-002, -003, and -005 (Fig. 9)

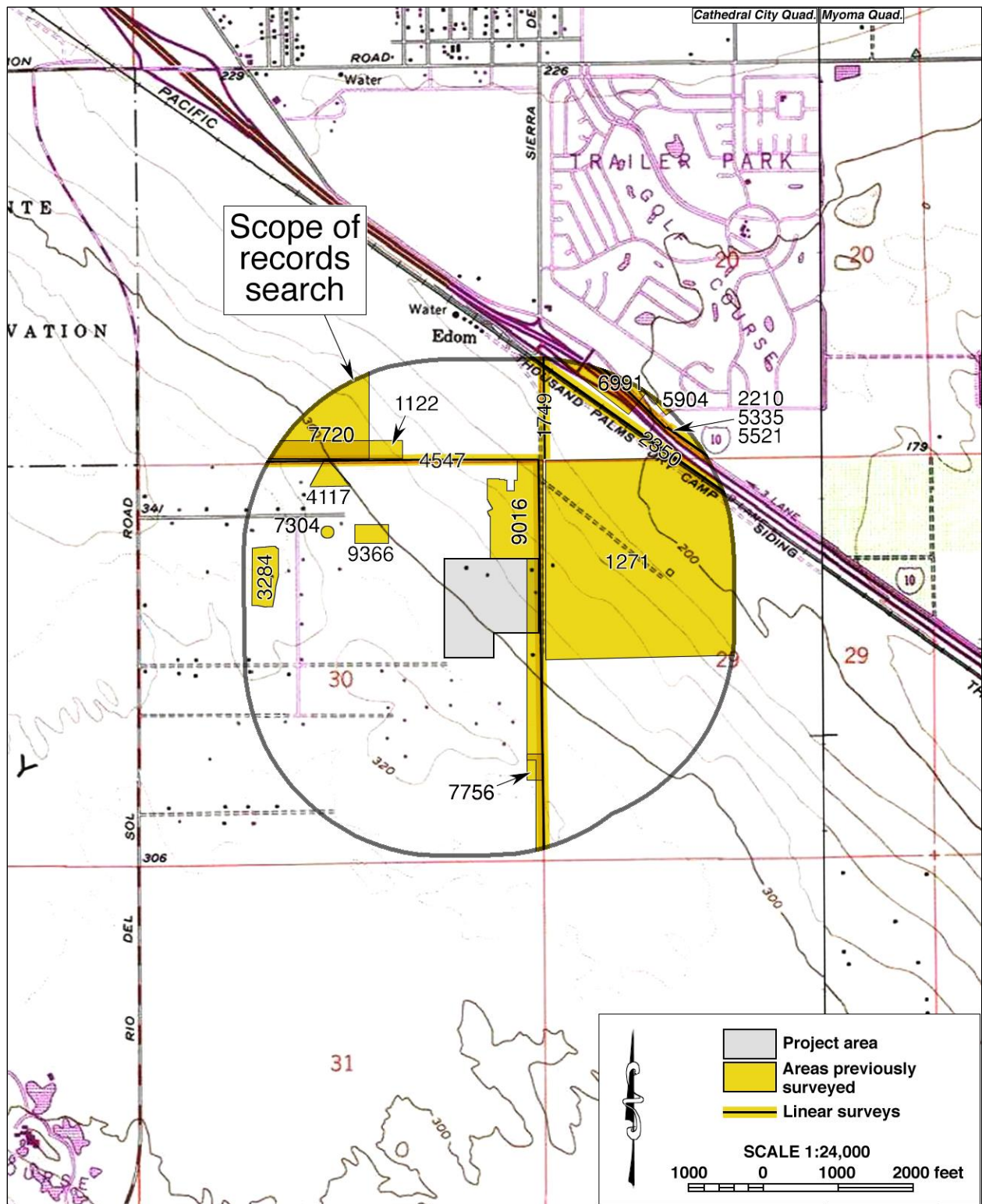


Figure 5. Previous cultural resources studies in the vicinity of the project area, listed by EIC file number. Locations of known historical/archaeological resources are not shown as a protective measure.

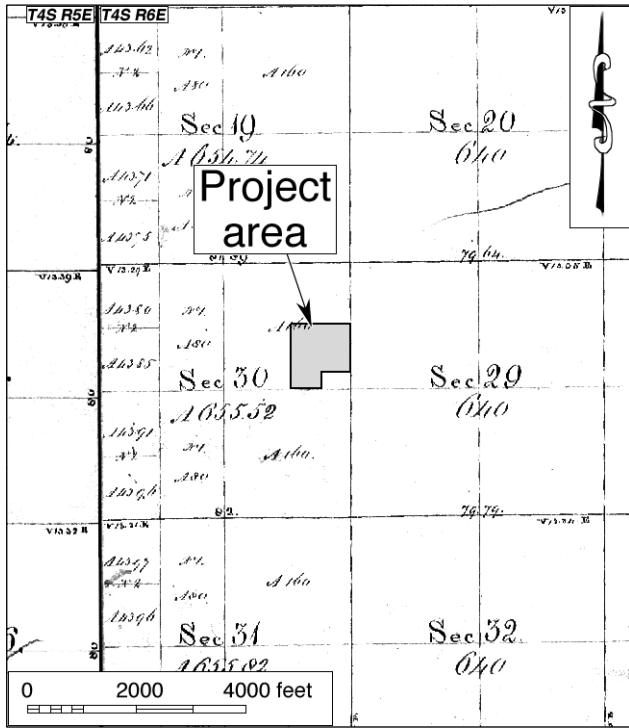


Figure 6. The project area and vicinity in 1855-1856. (Source: GLO 1856a; 1856b)

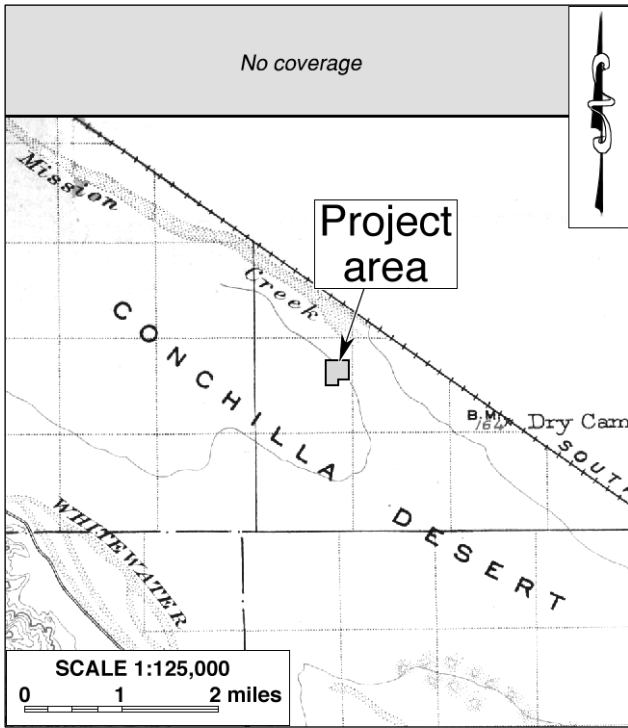


Figure 7. The project area and vicinity in 1901. (Source: USGS 1904)

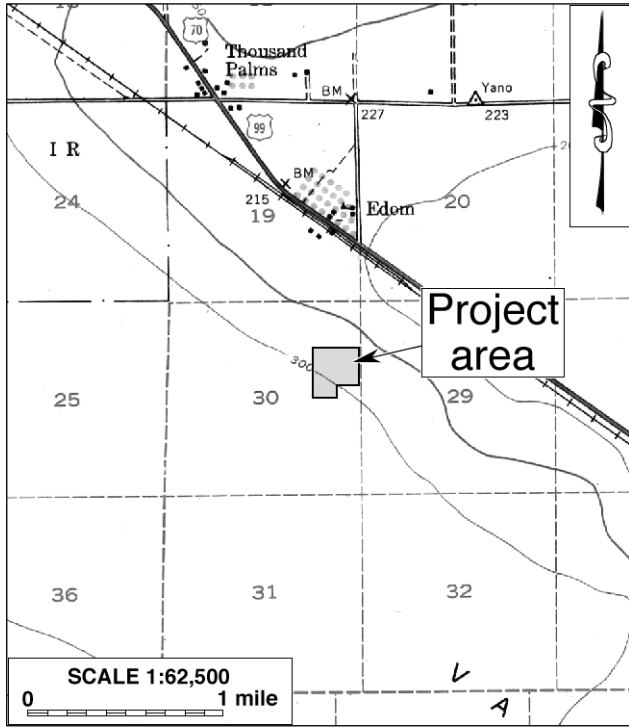


Figure 8. The project area and vicinity in 1941. (Source: USGS 1941)

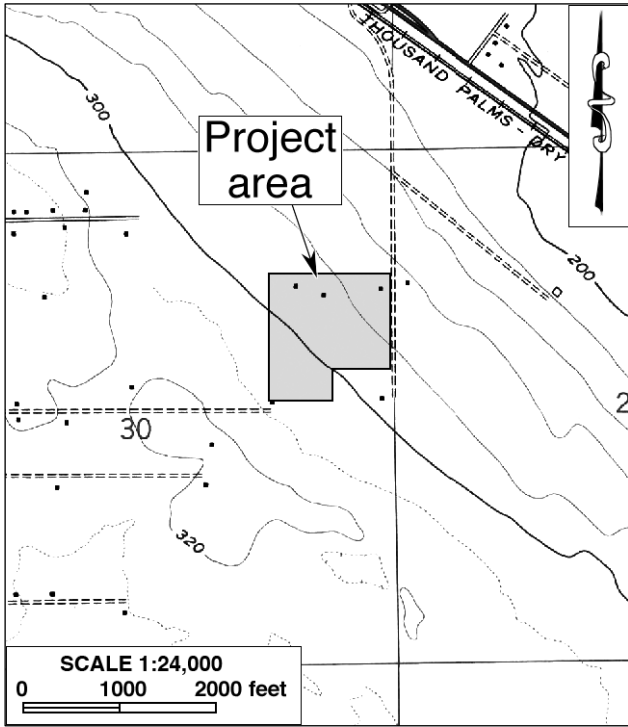


Figure 9. The project area and vicinity in 1951-1958. (Source: USGS 1958)

These three buildings were evidently the result of five-acre small tract land claims filed on what was then U.S. government land. The westernmost of these buildings was located on land that the U.S. government patented to Harold Frederick Neill, Sr., in 1957 (BLM n.d.). A Los Angeles resident, Neill was born in Illinois in 1927, served in the U.S. Army during World War II, married Roberta Chivas in 1953, and died in 1982 (ancestry.com n.d.). Directly to the east, the middle of the three buildings was on land patented to Bernard Elmore in 1958 (BLM n.d.). Born in 1909, Elmore also served in the U.S. Army during the war and died in 1965 (ancestry.com n.d.). In 1959, a patent was issued to Fay Randall Herod for five acres where the third and easternmost of the buildings was in the 1950s (BLM n.d.). Immediately to its south, a fourth patent was issued to Maxwell Elliot Risvold in 1960 (BLM n.d.), and a building was noted at this location by 1978 (Fig. 2). These buildings, among additional buildings outside the project area, can be seen in aerial photographs taken in 1972 (NETR Online 1972), but by 1996 no trace of them could be found any more (NETR Online 1996).

These settlements in the project area were part of a wave of small tract claims on public land in the Coachella Valley following post-WWII streamlining of the Small Tract Act of 1938, whereby the U.S. government granted to private owners five-acre homesteads in the southern California desert, typically for a second residence, with the caveat that construction must occur within two years for a claim to remain valid. The resulting “jackrabbit homesteads,” as they came to be known, were often hastily constructed using subpar materials and building practices, and were often abandoned soon afterwards or fell victim to the harsh climate (Bellisi n.d.; Verdin 2000).

The rest of the project area has remained undeveloped to the present time, even with the proliferation of commercial and residential development nearby after the 1980s and the construction of Monterey Avenue adjacent to the eastern project boundary between 1984 and 1996 (NETR Online 1972-1996). The nearest development, that of the Monterey Marketplace shopping center directly to the north, began in the 1990s and was completed over the ensuing decade (NETR Online 1996-2009). Since then, no major changes have occurred in land uses within or adjacent to the project area (NETR Online 1996-2018).

FIELD SURVEY

During the field survey, a total of eight cultural resources were encountered and recorded within the project area, including three archaeological sites and five isolates (i.e., localities with fewer than three artifacts), all of them dating to the historic period. They were designated temporarily as 3760-1H to 3760-8H, pending assignment of official identification numbers in the California Historical Resources Inventory by the EIC. The sites, 3760-1H, 3760-2H, and 3760-3H, consist of the remains of the “jackrabbit homesteads” discussed above, while each of the isolates represents a single domestic refuse item. The features and artifacts found at these eight localities are listed below, and further details are provided in the standard record forms in Appendix 3.

- **Site 3760-1H:** Site 3760-1H is composed of scattered remains of a residence on Harold Frederick Neill’s 1957 Small Tract claim, such as concrete fragments, metal trim, composite shingles, plate-glass shards, lumber, domestic refuse, and part of the framework of the dwelling. The refuse items include five 16-ounce flat-top beverage cans and a condiment bottle with a “GC” (Glass Containers Corporation) maker’s mark, indicating a manufacturing date between the 1930s and 1950s (Fig. 10).



Figure 10. Historic period glass bottle base at Site 3760-1H. (Photograph taken on September 15, 2021)

- **Site 3760-2H:** Site 3760-2H represents the scattered remains of Bernard Elmore’s 1958 jackrabbit homestead, including concrete fragments, lumber, plate-glass shards, and a brown Anheuser Busch beer bottle fragment from the shoulder portion.
- **Site 3760-3H:** Site 3760-3H represents the scattered remains of Maxwell Elliot Risvold’s 1960 jackrabbit homestead, including concrete fragments, lumber, composite shingles, nails, and plate-glass shards.
- **Isolate 3760-4H:** This isolate consists of an aluminum Hamm’s 12 ounce “drawn” or “punched” can dating to the early 1970s.
- **Isolate 3760-5H:** This isolate consists of a metal sanitary can.
- **Isolate 3760-6H:** This isolate consists of a flat-top beverage can with interlocking seams and opened with a “church key.”
- **Isolate 3760-7H:** This isolate consists of a five-gallon round fuel can measuring 10.5 inches in diameter and 13.5 inches in height.
- **Isolate 3760-8H:** This isolate consists of a brown glass bottle base with orange-peel stippling and a Thatcher Glass Manufacturing Company maker’s mark from 1954.

DISCUSSION

The purpose of this study is to identify any cultural resources within the project area and to assist the City of Rancho Mirage in determining whether such resources meet the official definition of “historical resources,” as provided in the California Public Resources Code, in particular CEQA. According to PRC §5020.1(j), “‘historical resource’ includes, but is not limited to, any object,

building, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California.”

More specifically, CEQA guidelines state that the term “historical resources” applies to any such resources listed in or determined to be eligible for listing in the California Register of Historical Resources, included in a local register of historical resources, or determined to be historically significant by the lead agency (Title 14 CCR §15064.5(a)(1)-(3)). Regarding the proper criteria for the evaluation of historical significance, CEQA guidelines mandate that “generally a resource shall be considered by the lead agency to be ‘historically significant’ if the resource meets the criteria for listing on the California Register of Historical Resources” (Title 14 CCR §15064.5(a)(3)). A resource may be listed in the California Register if it meets any of the following criteria:

- (1) Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage.
- (2) Is associated with the lives of persons important in our past.
- (3) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
- (4) Has yielded, or may be likely to yield, information important in prehistory or history.
(PRC §5024.1(c))

In summary of the research results above, three historic-period archaeological sites and five historic-period isolates were recorded within the project area during this study and designated temporarily as 3760-1H to 3760-8H. The five isolates, 3760-4H to 3760-8H, each consist of a single domestic refuse item. By definition, the isolates do not constitute archaeological site due to the lack of depositional context. Therefore, they are not considered potential “historical resources” and require no further consideration in the CEQA-compliance process.

The sites, 3760-1H, 3760-2H, and 3760-3H, represent the remains of three “jackrabbit homesteads” established in the 1957-1960 era, a very common type of features to be found in the southern California desert region. Historical background research has identified no persons or events of recognized historical significance in association with these sites, nor do the construction materials recorded at these sites demonstrate any particular merits in terms of design, construction, engineering, or aesthetics. Furthermore, such features from the well-documented late historic period, occurring without a substantial artifact deposit, have little potential for important archaeological data. Based on these considerations, the present study concludes that Sites 3760-1H, 3760-2H, and 3760-3H do not appear to meet any of the criteria for listing in the California Register of Historical Resources. Therefore, they do qualify as “historical resources” under CEQA provisions.

CONCLUSIONS AND RECOMMENDATIONS

CEQA establishes that “a project that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment” (PRC §21084.1). “Substantial adverse change,” according to PRC §5020.1(q), “means demolition,

destruction, relocation, or alteration such that the significance of a historical resource would be impaired.”

In conclusion, while a total of eight cultural resources were identified within the project area during this study, none of them appears to meet CEQA’s definition of a “historical resource.” Therefore, CRM TECH concludes that no “historical resources” exist within or adjacent to the project area and presents the following recommendations to the City of Rancho Mirage:

- The proposed project will not cause a substantial adverse change to any known “historical resources.”
- No further cultural resources investigation will be necessary for the project unless development plans undergo such changes as to include areas not covered by this study.
- If any buried cultural materials are encountered during earth-moving operations associated with the project, all work within 50 feet of the discovery should be halted or diverted until a qualified archaeologist can evaluate the nature and significance of the finds.

REFERENCES

Ancestry.com

n.d. Genealogical database entries for Bernard Elmore, Fay Randall Herod, Harold Frederick Neill, and Maxwell Elliot Risvold. <https://www.ancestry.com>.

Anderson, M. Kat

2005 *Tending the Wild: Native American Knowledge and the Management of California’s Natural Resources*. University of California Press, Berkeley.

Bean, Lowell John

1978 Cahuilla. In Robert F. Heizer (ed.): *Handbook of North American Indians*, Vol. 8: *California*; pp. 575-587. Smithsonian Institution, Washington, D.C.

Bean, Lowell John, and Katherine Siva Saubel

1972 *Temalpakh: Cahuilla Indian Knowledge and Usage of Plants*. Malki Museum Press, Banning, California.

Bellisi, Lou

n.d. BLM and the Small Tract Act in the Southern California Desert: A Brief History. http://www.publicland.org/35_archives/documents/doc_1306_bellesi.html.

BLM (Bureau of Land Management, U.S. Department of the Interior)

n.d. The Official Federal Land Records Site. <http://www.glorerecords.blm.gov>.

CSRI (Cultural Systems Research, Inc.)

2002 The Native Americans of Joshua Tree National Park: An Ethnographic Overview and Assessment Study. Http://www.cr.nps.gov/history/online_books/jotr/history6.htm.

GLO (General Land Office, U.S. Department of the Interior)

1856a Plat map: Township No. 4 South Range No. 5 East, SBBM; surveyed in 1855-1856.

1856b Plat map: Township No. 4 South Range No. 6 East, SBBM; surveyed in 1855-1856.

Gunther, Jane Davies

1984 *Riverside County, California, Place Names: Their Origins and Their Stories*. J.D. Gunther, Riverside.

- Johnston, Francis J.
1987 *The Bradshaw Trail*; revised edition. Historical Commission Press, Riverside.
- Kroeber, Alfred L.
1925 *Handbook of the Indians of California*. Bureau of American Ethnology Bulletin 78. Government Printing Office, Washington, D.C.
- Laflin, Patricia
1998 *Coachella Valley California: A Pictorial History*. The Donning Company, Virginia Beach, Virginia.
- Love, Bruce, and Bai "Tom" Tang
1996 Cultural Resources Report: Rancho Mirage General Plan, City of Rancho Mirage, Riverside County, California. On File, Eastern Information Center, University of California, Riverside.
- NETR (Nationwide Environmental Title Research) Online
1972-2018 Aerial photographs of the project vicinity; taken in 1972, 1996, 2002, 2005, 2009, 2010, 2012, 2014, 2016, and 2018. <http://www.historicaerials.com>.
- Robinson, W.W.
1948 *Land in California*. University of California Press, Berkeley.
- Ross, Delmer G.
1992 *Gold Road to La Paz: An Interpretive Guide to the Bradshaw Trail*. Tales of the Mojave Road Publishing Company, Essex, California.
- Schaefer, Jerry
1994 The Challenge of Archaeological Research in the Colorado Desert: Recent Approaches and Discoveries. *Journal of California and Great Basin Anthropology* 16(1):60-80.
- Shields Date Gardens
1957 *Coachella Valley Desert Trails and the Romance and Sex Life of the Date*. Shields Date Gardens, Indio.
- Strong, William Duncan
1929 *Aboriginal Society in Southern California*. University of California Publications in American Archaeology and Ethnology, Vol. 26.
- USGS (United States Geological Survey, U.S. Department of the Interior)
1904 Map: Indio, Calif. (30', 1:125,000); surveyed in 1901.
1941 Map: Edom, Calif. (15', 1:62,500); aerial photographs taken in 1941.
1958 Map: Thousand Palms, Calif. (15', 1:62,500); aerial photographs taken in 1951-1956, field-checked in 1958.
1978 Map: Myoma, Calif. (7.5', 1:24,000); 1958 edition photorevised in 1972, photoinspected in 1978.
1979 Map: Santa Ana, Calif. (120'x60', 1:250,000); 1959 edition revised.
1981 Map: Cathedral City, Calif. (7.5', 1:24,000); 1958 edition photorevised in 1978.
- Verdin, Tom
2000 Homesteader Legacy Leaves Desert Littered with Abandoned Shacks. *The Los Angeles Times* November 5.

**APPENDIX 1:
PERSONNEL QUALIFICATIONS**

**PRINCIPAL INVESTIGATOR/HISTORIAN
Bai “Tom” Tang, M.A.**

Education

- 1988-1993 Graduate Program in Public History/Historic Preservation, University of California, Riverside.
- 1987 M.A., American History, Yale University, New Haven, Connecticut.
- 1982 B.A., History, Northwestern University, Xi’an, China.
- 2000 “Introduction to Section 106 Review,” presented by the Advisory Council on Historic Preservation and the University of Nevada, Reno.
- 1994 “Assessing the Significance of Historic Archaeological Sites,” presented by the Historic Preservation Program, University of Nevada, Reno.

Professional Experience

- 2002- Principal Investigator, CRM TECH, Riverside/Colton, California.
- 1993-2002 Project Historian/Architectural Historian, CRM TECH, Riverside, California.
- 1993-1997 Project Historian, Greenwood and Associates, Pacific Palisades, California.
- 1991-1993 Project Historian, Archaeological Research Unit, University of California, Riverside.
- 1990 Intern Researcher, California State Office of Historic Preservation, Sacramento.
- 1990-1992 Teaching Assistant, History of Modern World, University of California, Riverside.
- 1988-1993 Research Assistant, American Social History, University of California, Riverside.
- 1985-1988 Research Assistant, Modern Chinese History, Yale University.
- 1985-1986 Teaching Assistant, Modern Chinese History, Yale University.
- 1982-1985 Lecturer, History, Xi’an Foreign Languages Institute, Xi’an, China.

Cultural Resources Management Reports

Preliminary Analyses and Recommendations Regarding California’s Cultural Resources Inventory System (with Special Reference to Condition 14 of NPS 1990 Program Review Report). California State Office of Historic Preservation working paper, Sacramento, September 1990.

Numerous cultural resources management reports with the Archaeological Research Unit, Greenwood and Associates, and CRM TECH, since October 1991.

PRINCIPAL INVESTIGATOR/ARCHAEOLOGIST
Michael Hogan, Ph.D., RPA (Registered Professional Archaeologist)

Education

- 1991 Ph.D., Anthropology, University of California, Riverside.
1981 B.S., Anthropology, University of California, Riverside; with honors.
1980-1981 Education Abroad Program, Lima, Peru.
- 2002 “Section 106—National Historic Preservation Act: Federal Law at the Local Level,”
UCLA Extension Course #888.
2002 “Recognizing Historic Artifacts,” workshop presented by Richard Norwood,
Historical Archaeologist.
2002 “Wending Your Way through the Regulatory Maze,” symposium presented by the
Association of Environmental Professionals.
1992 “Southern California Ceramics Workshop,” presented by Jerry Schaefer.
1992 “Historic Artifact Workshop,” presented by Anne Duffield-Stoll.

Professional Experience

- 2002- Principal Investigator, CRM TECH, Riverside/Colton, California.
1999-2002 Project Archaeologist/Field Director, CRM TECH, Riverside, California.
1996-1998 Project Director and Ethnographer, Statistical Research, Inc., Redlands, California.
1992-1998 Assistant Research Anthropologist, University of California, Riverside.
1992-1995 Project Director, Archaeological Research Unit, U.C. Riverside.
1993-1994 Adjunct Professor, Riverside Community College, Mt. San Jacinto College, U.C.
Riverside, Chapman University, and San Bernardino Valley College.
1991-1992 Crew Chief, Archaeological Research Unit, U.C. Riverside.
1984-1998 Project Director, Field Director, Crew Chief, and Archaeological Technician for
various southern California cultural resources management firms.

Research Interests

Cultural Resource Management, Southern Californian Archaeology, Settlement and Exchange
Patterns, Specialization and Stratification, Culture Change, Native American Culture, Cultural
Diversity.

Cultural Resources Management Reports

Principal investigator for, author or co-author of, and contributor to numerous cultural resources
management study reports since 1986.

Memberships

Society for American Archaeology; Society for California Archaeology; Pacific Coast
Archaeological Society; Coachella Valley Archaeological Society.

PROJECT ARCHAEOLOGIST/REPORT WRITER
Ben Kerridge, M.A.

Education

- 2014 Geoarchaeological Field School, Institute for Field Research, Kephallenia, Greece.
- 2010 M.A., Anthropology, California State University, Fullerton.
- 2009 Project Management Training, Project Management Institute/CH2M HILL, Santa Ana, California.
- 2004 B.A., Anthropology, California State University, Fullerton.

Professional Experience

- 2015- Project Archaeologist/Report Writer, CRM TECH, Colton, California.
- 2015 Teaching Assistant, Institute for Field Research, Kephallenia, Greece.
- 2009-2014 Publications Delivery Manager, CH2M HILL, Santa Ana, California.
- 2006-2009 Technical Publishing Specialist, CH2M HILL, Santa Ana, California.

Memberships

Society for California Archaeology; Pacific Coast Archaeological Society.

PROJECT ARCHAEOLOGIST
Hunter C. O'Donnell, B.A.

Education

- 2016- M.A. Program, Applied Archaeology, California State University, San Bernardino.
- 2015 B.A. (*cum laude*), Anthropology, California State University, San Bernardino.
- 2012 A.A., Social and Behavioral Sciences, Mt. San Antonio College, Walnut, California.
- 2011 A.A., Natural Sciences and Mathematics, Mt. San Antonio College, Walnut, California.

Professional Experience

- 2017- Project Archaeologist, CRM TECH, Colton, California.
- 2016-2018 Graduate Research Assistant, Applied Archaeology, California State University, San Bernardino.
- 2016-2017 Cultural Intern, Cultural Department, Pechanga Band of Luiseño Indians, Temecula, California.
- 2015 Archaeological Intern, U.S. Bureau of Land Management, Barstow, California.
- 2015 Peer Research Consultant: African Archaeology, California State University, San Bernardino.

PROJECT ARCHAEOLOGIST/FIELD DIRECTOR
Daniel Ballester, M.S., RPA (Registered Professional Archaeologist)

Education

- 2013 M.S., Geographic Information System (GIS), University of Redlands, California.
- 1998 B.A., Anthropology, California State University, San Bernardino.
- 1997 Archaeological Field School, University of Las Vegas and University of California, Riverside.
- 1994 University of Puerto Rico, Rio Piedras, Puerto Rico.

- 2007 Certificate in Geographic Information Systems (GIS), California State University, San Bernardino.
- 2002 “Historic Archaeology Workshop,” presented by Richard Norwood, Base Archaeologist, Edwards Air Force Base; presented at CRM TECH, Riverside, California.

Professional Experience

- 2002- Field Director/GIS Specialist, CRM TECH, Riverside/Colton, California.
- 2011-2012 GIS Specialist for Caltrans District 8 Project, Garcia and Associates, San Anselmo, California.
- 2009-2010 Field Crew Chief, Garcia and Associates, San Anselmo, California.
- 2009-2010 Field Crew, ECorp, Redlands.
- 1999-2002 Project Archaeologist, CRM TECH, Riverside, California.
- 1998-1999 Field Crew, K.E.A. Environmental, San Diego, California.
- 1998 Field Crew, A.S.M. Affiliates, Encinitas, California.
- 1998 Field Crew, Archaeological Research Unit, University of California, Riverside.

Cultural Resources Management Reports

Field Director, co-author, and contributor to numerous cultural management reports since 2002.

APPENDIX 2

**CORRESPONDENCE WITH
NATIVE AMERICAN REPRESENTATIVES**

SACRED LANDS FILE & NATIVE AMERICAN CONTACTS LIST REQUEST

NATIVE AMERICAN HERITAGE COMMISSION

1550 Harbor Boulevard, Suite 100
West Sacramento, CA 95691
(916)373-3710
(916)373-5471 (Fax)
nahc@nahc.ca.gov

Project: Ms. Carolee Reiling Trust Mixed-Use Project; Assessor's Parcel Numbers 685-090-002, -003, -005, -006, and -007 (CRM TECH No. 3760)

County: Riverside

USGS Quadrangle Name: Cathedral City, Calif.

Township 4 South **Range** 6 East **SB BM; Section(s)** 30

Company/Firm/Agency: CRM TECH

Contact Person: Nina Gallardo

Street Address: 1016 E. Cooley Drive, Suite A/B

City: Colton, CA **Zip:** 92324

Phone: (909) 824-6400 **Fax:** (909) 824-6405

Email: ngallardo@crmtech.us

Project Description: The primary component of the project is a mixed-use development on approximately 34.8 acres of land located on the west side of Monterey Avenue and north of Dick Kelly Drive/35th Avenue (Assessor's Parcel Numbers 685-090-002, -003, -005, -006 and -007), in the City of Rancho Mirage, Riverside County, California.

July 21, 2021

NATIVE AMERICAN HERITAGE COMMISSION

August 19, 2021

Nina Gallardo
CRM TECHVia Email to: ngallardo@crmtech.us**Re: Proposed Ms. Carolee Reiling, Reiling Trust Mixed Use Project, Riverside County**

Dear Ms. Gallardo:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: Andrew.Green@nahc.ca.gov.

Sincerely,

Andrew Green
Cultural Resources Analyst

Attachment

CHAIRPERSON
Laura Miranda
LuiseñoVICE CHAIRPERSON
Reginald Pagaling
ChumashSECRETARY
Merri Lopez-Keifer
LuiseñoPARLIAMENTARIAN
Russell Attebery
KarukCOMMISSIONER
William Mungary
Paiute/White Mountain
ApacheCOMMISSIONER
Julie Tumamait-
Stenslie
ChumashCOMMISSIONER
[Vacant]COMMISSIONER
[Vacant]COMMISSIONER
[Vacant]EXECUTIVE SECRETARY
Christina Snider
Pomo**NAHC HEADQUARTERS**
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

**Native American Heritage Commission
Native American Contact List
Riverside County
8/19/2021**

**Agua Caliente Band of Cahuilla
Indians**

Jeff Grubbe, Chairperson
5401 Dinah Shore Drive
Palm Springs, CA, 92264
Phone: (760) 699 - 6800
Fax: (760) 699-6919
Cahuilla

**Los Coyotes Band of Cahuilla
and Cupeño Indians**

Ray Chapparosa, Chairperson
P.O. Box 189
Warner Springs, CA, 92086-0189
Phone: (760) 782 - 0711
Fax: (760) 782-0712
Cahuilla

**Agua Caliente Band of Cahuilla
Indians**

Patricia Garcia-Plotkin, Director
5401 Dinah Shore Drive
Palm Springs, CA, 92264
Phone: (760) 699 - 6907
Fax: (760) 699-6924
ACBCI-THPO@aguacaliente.net
Cahuilla

**Morongo Band of Mission
Indians**

Ann Brierty, THPO
12700 Pumarra Road
Banning, CA, 92220
Phone: (951) 755 - 5259
Fax: (951) 572-6004
abrierty@morongo-nsn.gov
Cahuilla
Serrano

**Augustine Band of Cahuilla
Mission Indians**

Amanda Vance, Chairperson
P.O. Box 846
Coachella, CA, 92236
Phone: (760) 398 - 4722
Fax: (760) 369-7161
hhaines@augustinetribe.com
Cahuilla

**Morongo Band of Mission
Indians**

Robert Martin, Chairperson
12700 Pumarra Road
Banning, CA, 92220
Phone: (951) 755 - 5110
Fax: (951) 755-5177
abrierty@morongo-nsn.gov
Cahuilla
Serrano

**Cabazon Band of Mission
Indians**

Doug Welmas, Chairperson
84-245 Indio Springs Parkway
Indio, CA, 92203
Phone: (760) 342 - 2593
Fax: (760) 347-7880
jstapp@cabazonindians-nsn.gov
Cahuilla

**Quechan Tribe of the Fort Yuma
Reservation**

Manfred Scott, Acting Chairman
Kw'ts'an Cultural Committee
P.O. Box 1899
Yuma, AZ, 85366
Phone: (928) 750 - 2516
scottmanfred@yahoo.com
Quechan

Cahuilla Band of Indians

Daniel Salgado, Chairperson
52701 U.S. Highway 371
Anza, CA, 92539
Phone: (951) 763 - 5549
Fax: (951) 763-2808
Chairman@cahuilla.net
Cahuilla

**Quechan Tribe of the Fort Yuma
Reservation**

Jill McCormick, Historic
Preservation Officer
P.O. Box 1899
Yuma, AZ, 85366
Phone: (760) 572 - 2423
historicpreservation@quechantribe.com
Quechan

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Proposed Ms. Carolee Reiling, Reiling Trust Mixed Use Project, Riverside County.

**Native American Heritage Commission
Native American Contact List
Riverside County
8/19/2021**

Ramona Band of Cahuilla

John Gomez, Environmental
Coordinator
P. O. Box 391670
Anza, CA, 92539
Phone: (951) 763 - 4105
Fax: (951) 763-4325
jgomez@ramona-nsn.gov

Cahuilla

**Torres-Martinez Desert Cahuilla
Indians**

Michael Mirelez, Cultural
Resource Coordinator
P.O. Box 1160
Thermal, CA, 92274
Phone: (760) 399 - 0022
Fax: (760) 397-8146
mmirelez@tmdci.org

Cahuilla

Ramona Band of Cahuilla

Joseph Hamilton, Chairperson
P.O. Box 391670
Anza, CA, 92539
Phone: (951) 763 - 4105
Fax: (951) 763-4325
admin@ramona-nsn.gov

Cahuilla

**Twenty-Nine Palms Band of
Mission Indians**

Darrell Mike, Chairperson
46-200 Harrison Place
Coachella, CA, 92236
Phone: (760) 863 - 2444
Fax: (760) 863-2449
29chairman@29palmsbomi-
nsn.gov

Chemehuevi

**Santa Rosa Band of Cahuilla
Indians**

Lovina Redner, Tribal Chair
P.O. Box 391820
Anza, CA, 92539
Phone: (951) 659 - 2700
Fax: (951) 659-2228
lsaul@santarosa-nsn.gov

Cahuilla

**Twenty-Nine Palms Band of
Mission Indians**

Anthony Madrigal, Tribal Historic
Preservation Officer
46-200 Harrison Place
Coachella, CA, 92236
Phone: (760) 775 - 3259
amadrigal@29palmsbomi-nsn.gov

Chemehuevi

**Soboba Band of Luiseno
Indians**

Joseph Ontiveros, Cultural
Resource Department
P.O. BOX 487
San Jacinto, CA, 92581
Phone: (951) 663 - 5279
Fax: (951) 654-4198
jontiveros@soboba-nsn.gov

Cahuilla
Luiseno

**Soboba Band of Luiseno
Indians**

Isaiah Vivanco, Chairperson
P. O. Box 487
San Jacinto, CA, 92581
Phone: (951) 654 - 5544
Fax: (951) 654-4198
ivivanco@soboba-nsn.gov

Cahuilla
Luiseno

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Proposed Ms. Carolee Reiling, Reiling Trust Mixed Use Project, Riverside County.

From: Nina Gallardo <ngallardo@crmtech.us>
Sent: Wednesday, July 21, 2021 1:06 PM
To: Agua Caliente Tribal Historic Preservation Office (ACBCI-THPO@aguacaliente.net)
Cc: Heredia, Andreas (TRBL)
Subject: Cultural Resources Study and Participation in Field Survey for the Proposed Ms. Carolee Reiling Trust Mixed-Use Project, APNs 685-090-002, -003, -005, -006 and -007, City of Rancho Mirage (CRM TECH No. 3760)

Hello,

I'm writing to inform you that CRM TECH will be conducting the cultural resources study for the proposed Ms. Carolee Reiling Trust Mixed-Use Project on APNs 685-090-002, -003, -005, -006 and -007 in the City of Rancho Mirage (CRM TECH No. 3760). Specifically, I am contacting you to see if the tribe would like to participate in the archaeological field survey for the project. We will contact you again when we have a specific time and date for the fieldwork after we have received back the RS results from the Eastern Information Center. I'm attaching the project area map and other information. We would also appreciate any information that the tribe can provide about the project location. Please feel free to email back with any questions regarding the project and possible availability for the field survey.

Thank you for your time and input on this project.

Nina Gallardo
(909) 824-6400 (phone)
(909) 824-6405 (fax)
CRM TECH
1016 E. Cooley Drive, Ste. A/B
Colton, CA 92324

From: Nina Gallardo <ngallardo@crmtech.us>
Sent: Wednesday, September 8, 2021 9:00 AM
To: Heredia, Andreas (TRBL)
Cc: Patricia Garcia-Plotkin (ACBCI-THPO@aguacaliente.net)
Subject: FW: Cultural Resources Study and Participation in Field Survey for the Proposed Ms. Carolee Reiling Trust Mixed-Use Project, APNs 685-090-002, -003, -005, -006 and -007, City of Rancho Mirage (CRM TECH No. 3760)

Hello,

I'm emailing you to see if the tribe can join us for this survey possible this Friday morning (9/10) since we just received the RS results from the Eastern Information Center. We would also appreciate any information that the tribe can provide about the project location. Please feel free to email back with any questions regarding the project and possible availability for the field survey.

Thank you for your time and input on this project.

Nina Gallardo

From: Nina Gallardo <ngallardo@crmtech.us>
Sent: Monday, September 13, 2021 2:49 PM
To: Heredia, Andreas (TRBL); lpadilla@aguacaliente.net
Cc: Patricia Garcia-Plotkin (ACBCI-THPO@aguacaliente.net)
Subject: FW: Cultural Resources Study and Participation in Field Survey for the Proposed Ms. Carolee Reiling Trust Mixed-Use Project, APNs 685-090-002, -003, -005, -006 and -007, City of Rancho Mirage (CRM TECH No. 3760)

Hello,

I'm emailing to see if you received my earlier email from last Wednesday about the above-referenced project. Daniel would like to conduct this field survey on Wednesday morning, 9/15. Please feel free to email back with any questions regarding the project and possible availability for the field survey.

Thanks again,

Nina Gallardo
CRM TECH
909-824-6440

APPENDIX 3

**CALIFORNIA HISTORICAL RESOURCES INVENTORY
RECORD FORMS**

**Sites 3760-1H to -3H and Isolates 3760-4H to -8H
(*Temporary Designations*)**

State of California--The Resources Agency
 DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # _____
 HRI # _____
 Trinomial _____
 NRHP Status Code 6Z

Other Listings _____
 Review Code _____ Reviewer _____ Date _____

Page 1 of 4

*Resource Name or # (Assigned by recorder) CRM TECH 3760-1H

- P1. Other Identifier:** _____
- *P2. Location:** Not for Publication Unrestricted ***a. County** Riverside
 and (P2b and P2c or P2d. Attach a Location Map as necessary.)
- *b. USGS 7.5' Quad** Cathedral City, Calif. **Date** 1981
T4S; R6E; NW 1/4 of NW 1/4 SE 1/4 of NE 1/4 of Sec 30 ; S.B. B.M.
Elevation: Approximately 285 feet above mean sea level
- c. Address** N/A **City** Rancho Mirage **Zip** _____
- d. UTM:** (Give more than one for large and/or linear resources) **Zone** 11 ; 556,318 mE/ 3,739,896 mN
UTM Derivation: USGS Quad GPS (NAD 83)
- e. Other Locational Data:** (e.g., parcel #, directions to resource, etc., as appropriate) Located on APN 685-090-002, approximately 1,435 feet south of Dinah Shore Drive and 1,015 feet west of Monterey Avenue
- *P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries): The site represents the remains of a "jackrabbit homestead" from the post-WWII era, such as concrete fragments, plate-glass shards, lumber, domestic refuse, and part of the framework of the dwelling.
- *P3b. Resource Attributes:** (List attributes and codes) AH2: Structural remains; AH4: Trash scatters
- *P4. Resources Present:** Building Structure Object Site District Element of District
 Isolate Other

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



- P5b. Description of Photo:** (view, date, accession #) Taken on September 15, 2021; view to the southwest
- *P6. Date Constructed/Age of Sources:**
 Historic Prehistoric Both
- *P7. Owner and Address:** Retail Net Lease Properties, Inc., 74998 Country Club Drive, Suite 220-345, Palm Desert, CA 92260
- *P8. Recorded by:** (Name, affiliation, and address) Daniel Ballester and Hunter O'Donnell, CRM TECH, 1016 East Cooley Drive, Suite A/B, Colton, CA 92324
- *P9. Date Recorded:** September 15, 2021
- *P10. Survey Type:** (Describe) Intensive-level survey for CEQA-compliance

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") Bai "Tom" Tang, Ben Kerridge, and Daniel Ballester (2022): Historical/Archaeological Resources Survey: Reiling Trust Mixed-Use Project, Assessor's Parcel Nos. 685-090-002, -003, and -005 to -007, City of Rancho Mirage, Riverside County, California

***Attachments:** None Location Map Sketch Map Continuation Sheet Building, Structure, and Object Record
 Archaeological Record District Record Linear Resource Record Milling Station Record Rock Art Record
 Artifact Record Photograph Record Other (List): _____

- A1. Dimensions:** a. Length 140 feet (NE-SW) b. Width 95 feet (NW-SE)
Method of Measurement: Paced Taped Visual estimate Other: GPS
Method of Determination (Check any that apply.): Artifacts Features Soil Vegetation
Topography Cut bank Animal burrow Excavation Property boundary Other (Explain): _____
Reliability of Determination: High Medium Low Explain: _____
Limitations (Check any that apply): Restricted access Paved/built over Site limits incompletely defined
Disturbances Vegetation Other (Explain): _____
- A2. Depth:** None Unknown Method of Determination: _____
- *A3. Human Remains:** Present Absent Possible Unknown (Explain): _____
- *A4. Features:** (Number, briefly describe, indicate size, list associated cultural constituents, and show location of each feature on sketch map.) Portions of the dwelling, namely parts of the framing, are still in situ and broken off at ground level. Concrete rubble, lumber fragments, metal trim, composite shingles, and plate-glass shards are scattered around the feature.
- *A5. Cultural Constituents:** (Describe and quantify artifacts, ecofacts, cultural residues, etc., not associated with features.) Refuse items scattered across the site include five 16-ounce flat-top beverage cans and a condiment bottle with a "GC" (Glass Containers Corporation) maker's mark, indicating a manufacturing date between the 1930s and 1950s.
- *A6. Were Specimens Collected?** No Yes (If yes, attach Artifact Record or catalog and identify where specimens are curated.)
- *A7. Site Condition:** Good Fair Poor (Describe disturbances.): The dwelling is in ruins and scattered across the ground, with no substantial portions remaining standing while the artifacts present are heavily degraded.
- *A8. Nearest Water** (Type, distance, and direction.): The Whitewater River, approximately 3.3 miles to the southwest
- *A9. Elevation:** Approximately 285 feet above mean sea level
- A10. Environmental Setting:** (Describe vegetation, fauna, soils, geology, landform, slope, aspect, exposure, etc.): The site is located on the mostly level desert floor with small sand dune drifts scattered throughout. The soil generally consists of fine to medium-grained sand with occasional eruptions of quartzite scattered throughout the area. Far from the closest hills there is no evidence of regular alluvial action. Vegetation would have been typical desert scrubs and bushes inhabited by fauna native to the area, with creosote being the most dominant vegetation present.
- A11. Historical Information:** In 1938 the Small Tract Act was passed allowing plots of federal land up to five acres in size to be claimed by applicants with the requirement that the land be developed. This resulted in the creation of "jackrabbit homesteads," simple residential structures constructed cheaply for the express purpose of laying claim to the land. These structures began appearing in 1938 but their numbers escalated rapidly after WWII with the sudden availability in building material and the necessity for more housing. This particular claim was patented to Harold Frederick Neill, Sr., of Los Angeles, a WWII veteran, in 1957.
- *A12. Age:** Prehistoric Protohistoric 1542-1769 1769-1848 1848-1880 1880-1914 1914-1945
 Post 1945 Undetermined Describe position in regional prehistoric chronology or factual historic dates if known: The artifacts present at the site also point to a date in the 1950s.
- A13. Interpretations:** (Discuss scientific, interpretive, ethnic, and other values of site, if known) _____
- A14. Remarks:** The site does not appear eligible for listing in the National Register of Historic Places or the California Register of Historical Resources.
- A15. References:** (Documents, informants, maps, and other references.): See Item A11.
- A16. Photographs:** (List subjects, direction of view, and accession numbers or attach a Photograph Record.): _____
Original Media/Negatives Kept at: CRM TECH, Colton, California
- *A17. Form Prepared by:** Ben Kerridge, Hunter O'Donnell, and Daniel Ballester
Date: December 1, 2021
Affiliation and Address: CRM TECH, 1016 East Cooley Drive, Suite A/B, Colton, CA 92324

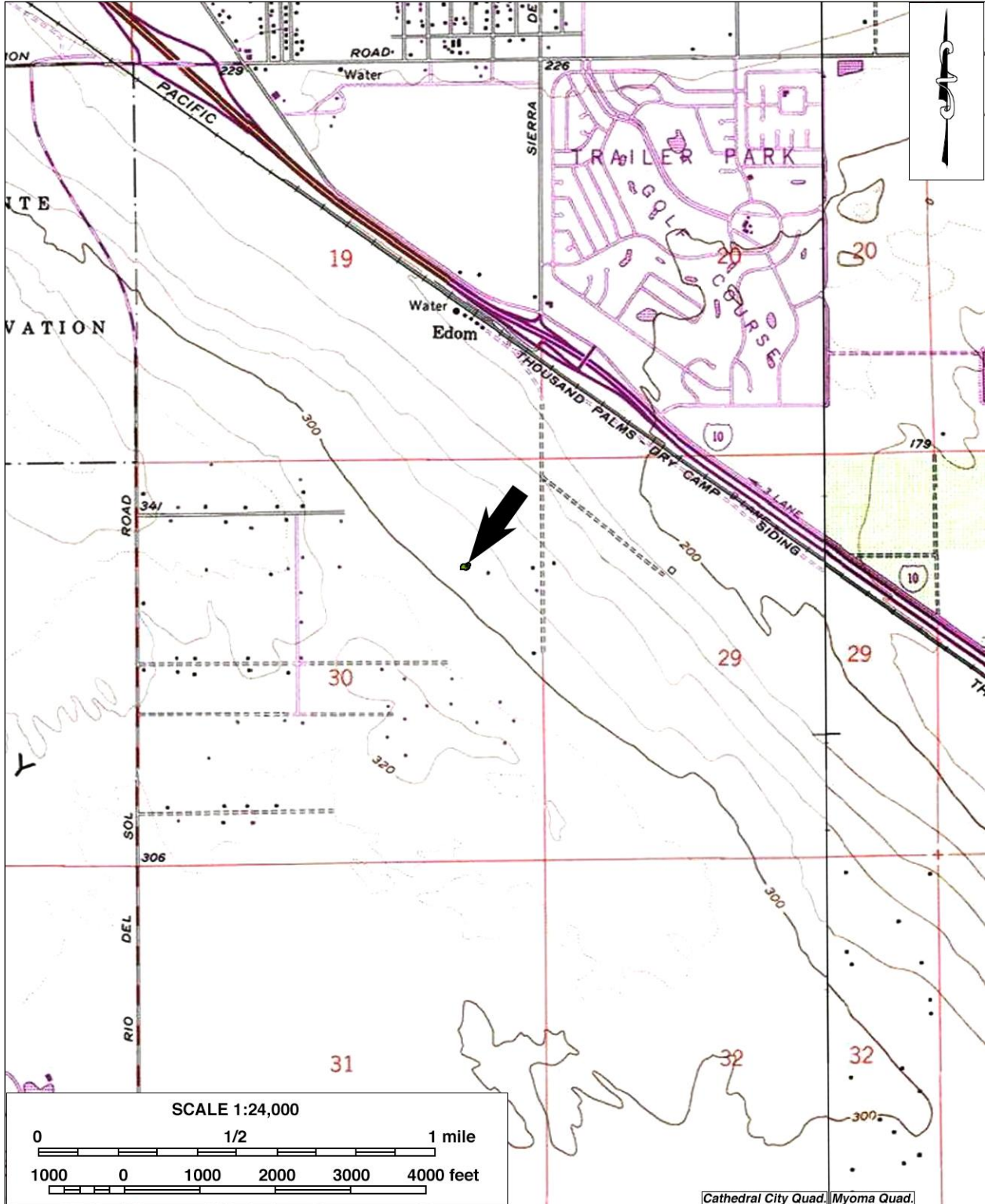
LOCATION MAP

Trinomial _____

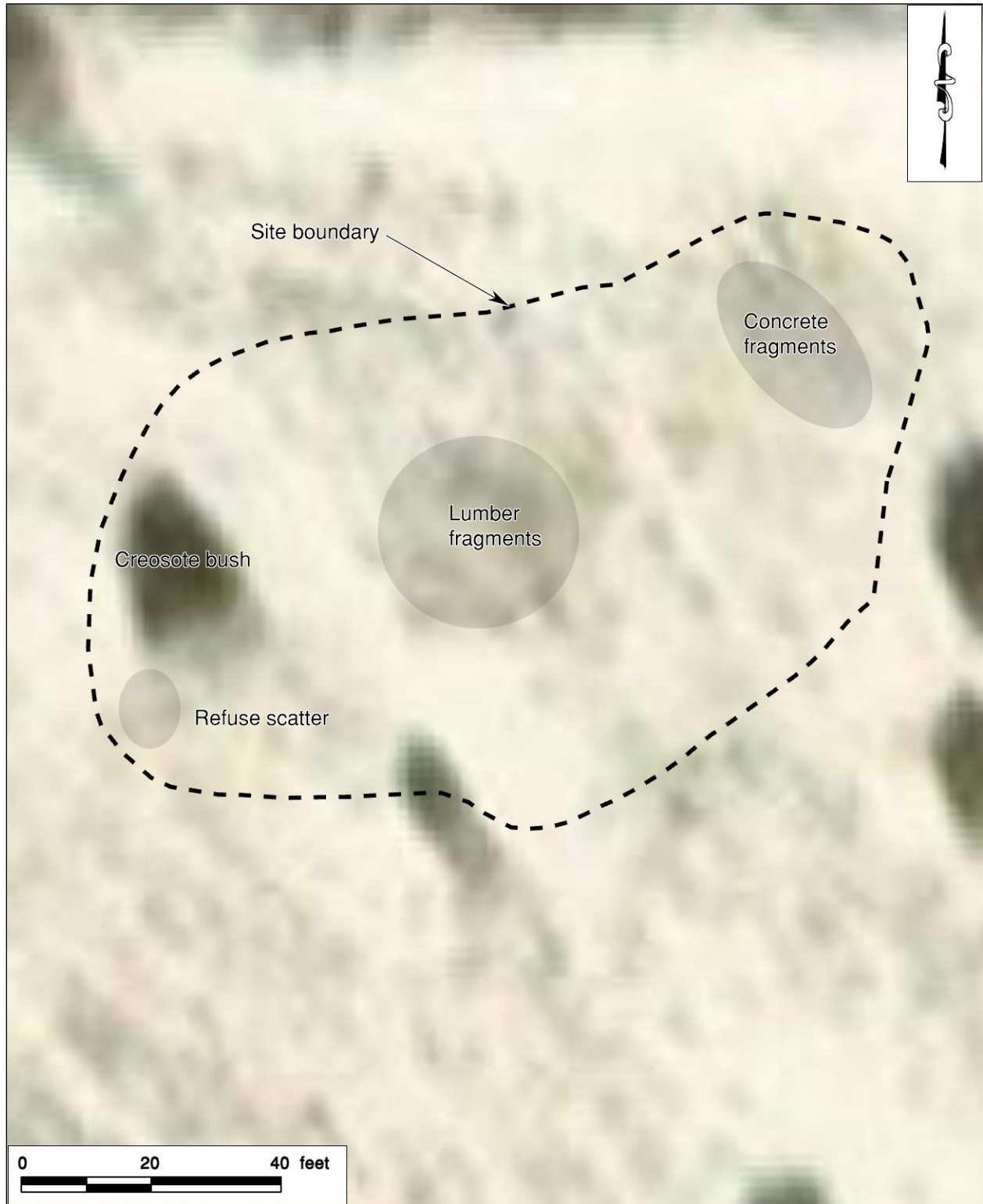
*Map Name: Cathedral City and Myoma, Calif.

*Scale: 1:24,000

*Date of Map: 1978/1981



SKETCH MAP



State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # _____
HRI # _____
Trinomial _____
NRHP Status Code 6Z

Other Listings _____
Review Code _____ Reviewer _____ Date _____

Page 1 of 4

*Resource Name or # (Assigned by recorder) CRM TECH 3760-2H

P1. Other Identifier: _____
***P2. Location:** Not for Publication Unrestricted ***a. County** Riverside
and (P2b and P2c or P2d. Attach a Location Map as necessary.)
***b. USGS 7.5' Quad** Cathedral City, Calif. **Date** 1981
T4S; R6E; NW 1/4 of NE 1/4 SE 1/4 of NE 1/4 of Sec 30 ; S.B. B.M.
Elevation: Approximately 277 feet above mean sea level
c. Address N/A **City** Rancho Mirage **Zip** _____
d. UTM: (Give more than one for large and/or linear resources) **Zone** 11 ; 556,406 mE/ 3,739,888 mN
UTM Derivation: USGS Quad GPS (NAD 83)
e. Other Locational Data: (e.g., parcel #, directions to resource, etc., as appropriate) Located on APN 685-090-003, approximately 1,470 feet south of Dinah Shore Drive and 730 feet west of Monterey Avenue

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries): The site represents the scattered remains of a "jackrabbit homestead" from the post-WWII era, including concrete fragments, lumber, plate-glass fragments, and a glass bottle fragment. The bottle shoulder fragment belonged to a brown Anheuser Busch beer bottle.

***P3b. Resource Attributes:** (List attributes and codes) AH2: Structural remains; AH4: Trash scatters

***P4. Resources Present:** Building Structure Object Site District Element of District
 Isolate Other

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



P5b. Description of Photo: (view, date, accession #) Taken on September 15, 2021; view to the east

***P6. Date Constructed/Age of Sources:**
 Historic Prehistoric Both

***P7. Owner and Address:** Retail Net Lease Properties, Inc., 74998 Country Club Drive, Suite 220-345, Palm Desert, CA 92260

***P8. Recorded by:** (Name, affiliation, and address) Daniel Ballester and Hunter O'Donnell, CRM TECH, 1016 East Cooley Drive, Suite A/B, Colton, CA 92324

***P9. Date Recorded:** September 15, 2021

***P10. Survey Type:** (Describe) Intensive-level survey for CEQA-compliance

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") Bai "Tom" Tang, Ben Kerridge, and Daniel Ballester (2022): Historical/Archaeological Resources Survey: Reiling Trust Mixed-Use Project, Assessor's Parcel Nos. 685-090-002, -003, and -005 to -007, City of Rancho Mirage, Riverside County, California

***Attachments:** None Location Map Sketch Map Continuation Sheet Building, Structure, and Object Record
 Archaeological Record District Record Linear Resource Record Milling Station Record Rock Art Record
 Artifact Record Photograph Record Other (List): _____

- A1. Dimensions:** a. Length 95 feet (N-S) b. Width 85 feet (E-W)
Method of Measurement: Paced Taped Visual estimate Other: GPS
Method of Determination (Check any that apply.): Artifacts Features Soil Vegetation
Topography Cut bank Animal burrow Excavation Property boundary Other (Explain): _____
Reliability of Determination: High Medium Low Explain: _____
Limitations (Check any that apply): Restricted access Paved/built over Site limits incompletely defined
Disturbances Vegetation Other (Explain): _____
- A2. Depth:** _____ None Unknown Method of Determination: _____
- *A3. Human Remains:** Present Absent Possible Unknown (Explain): _____
- *A4. Features:** (Number, briefly describe, indicate size, list associated cultural constituents, and show location of each feature on sketch map.) Portions of the dwelling, namely parts of the framing, are still in situ and broken off at ground level. An assortment of building materials, such as concrete rubble, lumber fragments, metal trim, plate-glass shards, and composite shingles, are scattered throughout the site.
- *A5. Cultural Constituents:** (Describe and quantify artifacts, ecofacts, cultural residues, etc., not associated with features.) The most notable artifact is a brown Anheuser Busch beer bottle fragment from the shoulder portion.
- *A6. Were Specimens Collected?** No Yes (If yes, attach Artifact Record or catalog and identify where specimens are curated.)
- *A7. Site Condition:** Good Fair Poor (Describe disturbances.): The dwelling is in ruins and scattered across the ground, with no substantial portions remaining standing while the artifacts present are heavily degraded.
- *A8. Nearest Water** (Type, distance, and direction.): The Whitewater River is approximately 3.3 miles to the southwest.
- *A9. Elevation:** Approximately 277 feet above mean sea level
- A10. Environmental Setting:** (Describe vegetation, fauna, soils, geology, landform, slope, aspect, exposure, etc.): The site is located on the mostly level desert floor with small sand dune drifts scattered throughout. The soil generally consists of fine to medium-grained sand with occasional eruptions of quartzite scattered throughout the area. Far from the closest hills there is no evidence of regular alluvial action. Vegetation would have been typical desert scrubs and bushes inhabited by fauna native to the area, with creosote being the most dominant vegetation present.
- A11. Historical Information:** In 1938 the Small Tract Act was passed allowing plots of federal land up to five acres in size to be claimed by applicants with the requirement that the land be developed. This resulted in the creation of "jackrabbit homesteads," simple residential structures constructed cheaply for the express purpose of laying claim to the land. These structures began appearing in 1938 but their numbers escalated rapidly after WWII with the sudden availability in building material and the necessity for more housing. This particular dwelling appears to have been associated with a 1958 patent obtained by Bernard Elmore, a WWII veteran.
- *A12. Age:** Prehistoric Protohistoric 1542-1769 1769-1848 1848-1880 1880-1914 1914-1945
 Post 1945 Undetermined Describe position in regional prehistoric chronology or factual historic dates if known: The artifacts present at the site also point to a date in the 1950s.
- A13. Interpretations:** (Discuss scientific, interpretive, ethnic, and other values of site, if known) _____
- A14. Remarks:** The site does not appear eligible for listing in the National Register of Historic Places or the California Register of Historical Resources.
- A15. References:** (Documents, informants, maps, and other references.): See Item A11.
- A16. Photographs:** (List subjects, direction of view, and accession numbers or attach a Photograph Record.): _____
Original Media/Negatives Kept at: CRM TECH, Colton, California
- *A17. Form Prepared by:** Ben Kerridge, Hunter O'Donnell, and Daniel Ballester
Date: December 1, 2021
Affiliation and Address: CRM TECH, 1016 East Cooley Drive, Suite A/B, Colton, CA 92324

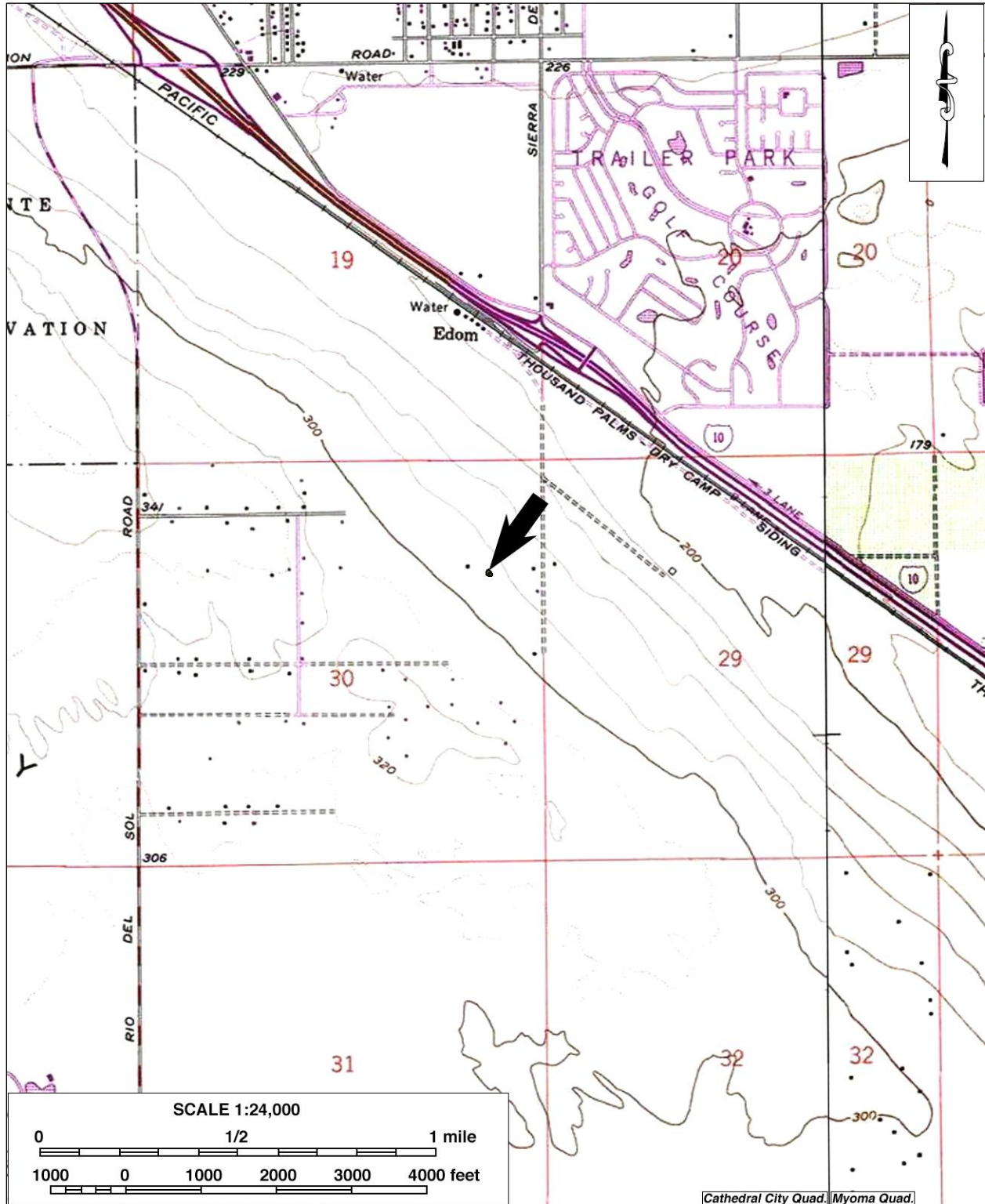
LOCATION MAP

Trinomial _____

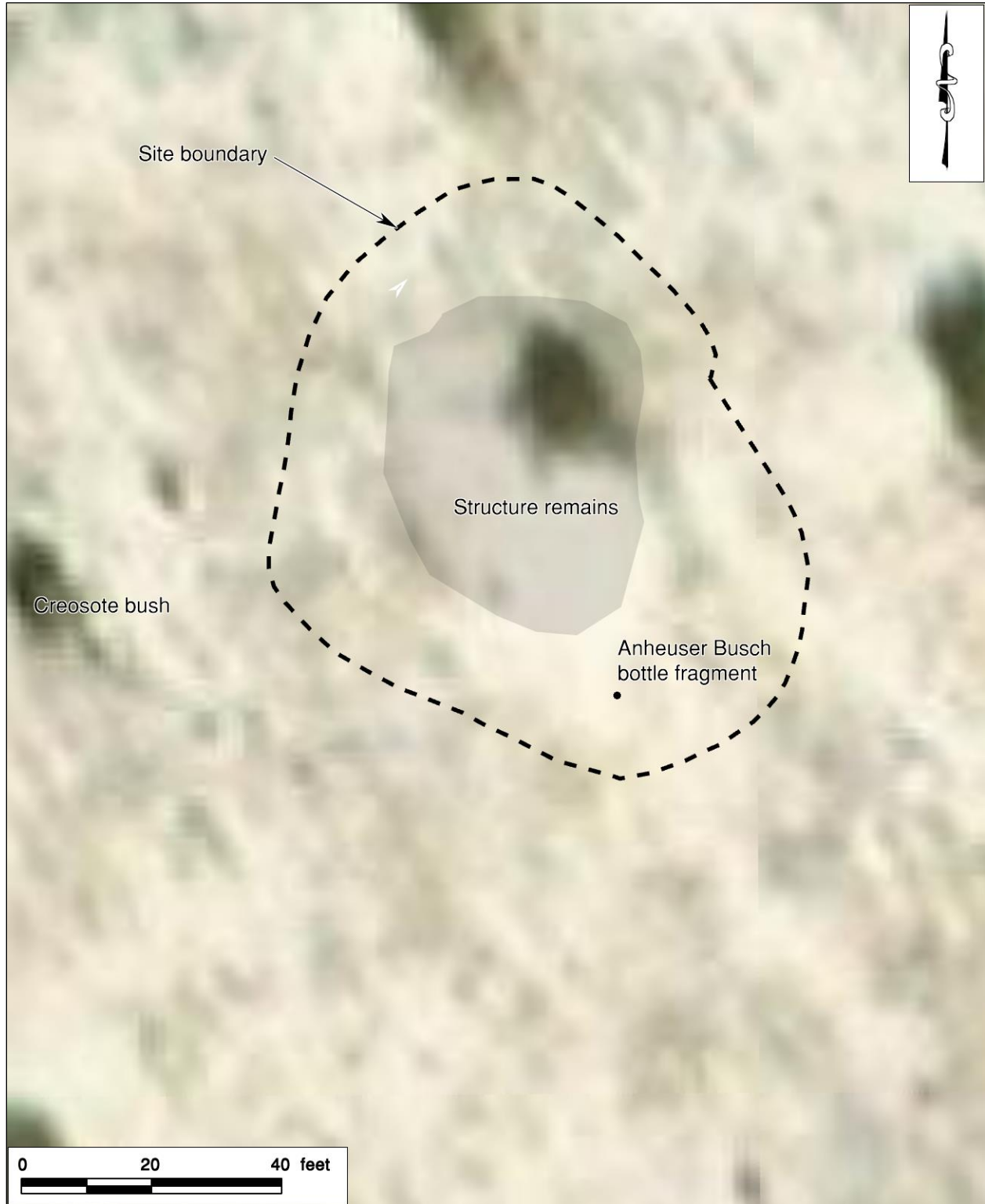
*Map Name: Cathedral City and Myoma, Calif.

*Scale: 1:24,000

*Date of Map: 1978/1981



SKETCH MAP



State of California--The Resources Agency
 DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # _____
 HRI # _____
 Trinomial _____
 NRHP Status Code 6Z

Other Listings _____
 Review Code _____ Reviewer _____ Date _____

Page 1 of 4 *Resource Name or # (Assigned by recorder) CRM TECH 3760-3H

P1. Other Identifier: _____
***P2. Location:** Not for Publication Unrestricted *a. County Riverside
 and (P2b and P2c or P2d. Attach a Location Map as necessary.)
 *b. USGS 7.5' Quad Cathedral City, Calif. Date 1981
T4S; 66E; SE 1/4 of NE 1/4 SE 1/4 of NE 1/4 of Sec 30 ; S.B. B.M.
 Elevation: Approximately 265 feet above mean sea level
 c. Address N/A City Rancho Mirage Zip _____
 d. UTM: (Give more than one for large and/or linear resources) Zone 11 ; 556,605 mE/ 3,739,824 mN
 UTM Derivation: USGS Quad GPS (NAD 83)
 e. Other Locational Data: (e.g., parcel #, directions to resource, etc., as appropriate) Located on APN 685-090-005, approximately 1,700 feet south of Dinah Shore Drive and 20 feet west of Monterey Avenue

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries): The site is composed of the scattered remains of a "jackrabbit homestead" from the post-WWII era, including concrete fragments, lumber, composite shingles, nails, and plate-glass shards.

***P3b. Resource Attributes:** (List attributes and codes) AH2: Structural remains
***P4. Resources Present:** Building Structure Object Site District Element of District
Isolate Other

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



P5b. Description of Photo: (view, date, accession #) Taken on September 15, 2021; view to the south
***P6. Date Constructed/Age of Sources:** Historic Prehistoric Both
***P7. Owner and Address:** Retail Net Lease Properties, Inc., 74998 Country Club Drive, Suite 220-345, Palm Desert, CA 92260
***P8. Recorded by:** (Name, affiliation, and address) Daniel Ballester and Hunter O'Donnell, CRM TECH, 1016 East Cooley Drive, Suite A/B, Colton, CA 92324
***P9. Date Recorded:** September 15, 2021
***P10. Survey Type:** (Describe) Intensive-level survey for CEQA-compliance

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") Bai "Tom" Tang, Ben Kerridge, and Daniel Ballester (2022): Historical/Archaeological Resources Survey: Reiling Trust Mixed-Use Project, Assessor's Parcel Nos. 685-090-002, -003, and -005 to -007, City of Rancho Mirage, Riverside County, California

***Attachments:** None Location Map Sketch Map Continuation Sheet Building, Structure, and Object Record
 Archaeological Record District Record Linear Resource Record Milling Station Record Rock Art Record
Artifact Record Photograph Record Other (List): _____

- A1. Dimensions:** a. Length 75 feet (NW-SE) b. Width 50 feet (NE-SW)
Method of Measurement: Paced Taped Visual estimate Other: GPS
Method of Determination (Check any that apply.): Artifacts Features Soil Vegetation
Topography Cut bank Animal burrow Excavation Property boundary Other (Explain): _____
Reliability of Determination: High Medium Low Explain: _____
Limitations (Check any that apply): Restricted access Paved/built over Site limits incompletely defined
Disturbances Vegetation Other (Explain): _____
- A2. Depth:** _____ None Unknown Method of Determination: _____
- *A3. Human Remains:** Present Absent Possible Unknown (Explain): _____
- *A4. Features:** (Number, briefly describe, indicate size, list associated cultural constituents, and show location of each feature on sketch map.) Portions of the dwelling, namely parts of the framing, are still in situ and broken off at ground level. Composite shingles, concrete fragments, nails, lumber, plate-glass shards are scattered around the feature.
- *A5. Cultural Constituents:** (Describe and quantify artifacts, ecofacts, cultural residues, etc., not associated with features.)
None
- *A6. Were Specimens Collected?** No Yes (If yes, attach Artifact Record or catalog and identify where specimens are curated.)
- *A7. Site Condition:** Good Fair Poor (Describe disturbances.): The dwelling is in ruins and scattered across the ground, with no substantial portions remaining standing while the artifacts present are heavily degraded.
- *A8. Nearest Water** (Type, distance, and direction.): The Whitewater River is approximately 3.3 miles to the southwest.
- *A9. Elevation:** Varies from approximately 265 feet above mean sea level
- A10. Environmental Setting:** (Describe vegetation, fauna, soils, geology, landform, slope, aspect, exposure, etc.): The site is located on the mostly level desert floor with small sand dune drifts scattered throughout. The soil generally consists of fine to medium-grained sand with occasional eruptions of quartzite scattered throughout the area. Far from the closest hills there is no evidence of regular alluvial action. Vegetation would have been typical desert scrubs and bushes inhabited by fauna native to the area, with creosote being the most dominant vegetation present.
- A11. Historical Information:** In 1938 the Small Tract Act was passed allowing plots of federal land up to five acres in size to be claimed by applicants with the requirement that the land be developed. This resulted in the creation of "jackrabbit homesteads," simple residential structures constructed cheaply for the express purpose of laying claim to the land. These structures began appearing in 1938 but their numbers escalated rapidly after WWII with the sudden availability in building material and the necessity for more housing. This particular claim was patented to Maxwell Elliot Risvold in 1960.
- *A12. Age:** Prehistoric Protohistoric 1542-1769 1769-1848 1848-1880 1880-1914 1914-1945
 Post 1945 Undetermined Describe position in regional prehistoric chronology or factual historic dates if known: _____
- A13. Interpretations:** (Discuss scientific, interpretive, ethnic, and other values of site, if known) _____
- A14. Remarks:** The site does not appear eligible for listing in the National Register of Historic Places or the California Register of Historical Resources.
- A15. References:** (Documents, informants, maps, and other references.): See Item A11.
- A16. Photographs:** (List subjects, direction of view, and accession numbers or attach a Photograph Record.): _____
Original Media/Negatives Kept at: CRM TECH, Colton, California
- *A17. Form Prepared by:** Ben Kerridge, Hunter O'Donnell, and Daniel Ballester
Date: December 1, 2021
Affiliation and Address: CRM TECH, 1016 East Cooley Drive, Suite A/B, Colton, CA 92324

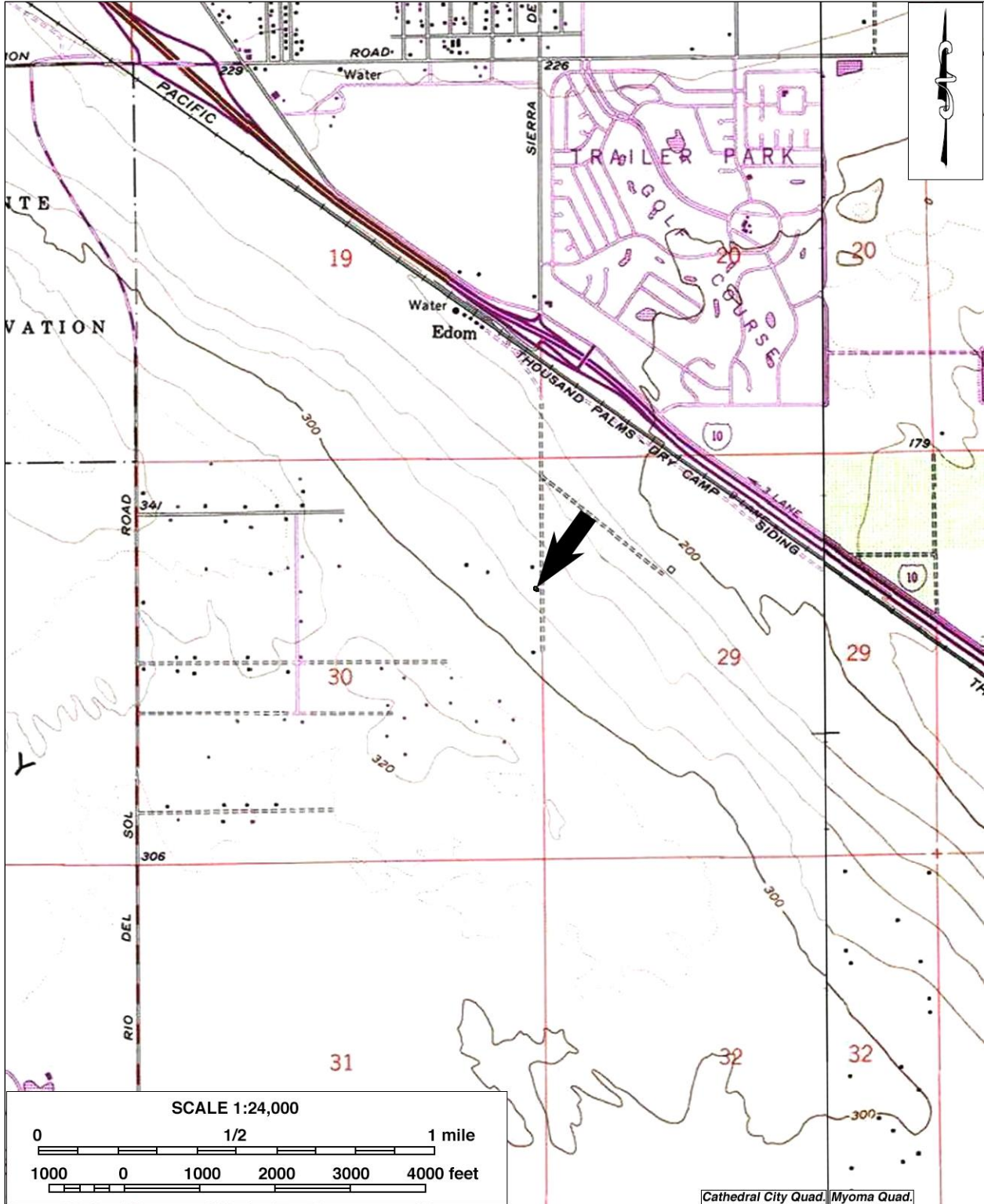
LOCATION MAP

Trinomial _____

*Map Name: Cathedral City and Myoma, Calif.

*Scale: 1:24,000

*Date of Map: 1978/1981



SKETCH MAP



State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # _____
HRI # _____
Trinomial _____
NRHP Status Code 6Z

Other Listings _____
Review Code _____ Reviewer _____ Date _____

Page 1 of 2 *Resource Name or # (Assigned by recorder) CRM TECH 3760-4H ISO

P1. Other Identifier: MC-01

*P2. Location: Not for Publication Unrestricted *a. County Riverside
and (P2b and P2c or P2d. Attach a Location Map as necessary.)

*b. USGS 7.5' Quad Cathedral City, Calif. Date 1981

T4S; R6E; SE 1/4 of NE 1/4 of Sec 30; S.B. B.M.

Elevation: Approximately 295 feet above mean sea level

c. Address N/A City Rancho Mirage Zip _____

d. UTM:(Give more than one for large and/or linear resources) Zone 11; 556,324 mE / 3,739,577 mN

UTM Derivation: USGS Quad GPS (NAD 83)

e. Other Locational Data: (e.g., parcel #, directions to resource, etc., as appropriate) _____

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) This isolate consists of a single aluminum Hamm's 12 ounce "drawn" or "punched" can dating to the early 1970s.

*P3b. Resource Attributes: (List attributes and codes) AH16: Other (isolated refuse item)

*P4. Resources Present: Building Structure Object Site District Element of District
 Isolate Other

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



P5b. Description of Photo: (view, date, accession #) Taken on September 15, 2021

*P6. Date Constructed/Age of Sources:
 Historic Prehistoric Both

*P7. Owner and Address: Retail Net Lease Properties, Inc., 74998 Country Club Drive, Suite 220-345, Palm Desert, CA 92260

*P8. Recorded by: (Name, affiliation, and address) Daniel Ballester and Hunter O'Donnell, CRM TECH, 1016 East Cooley Drive, Suite A/B, Colton, CA 92324

*P9. Date Recorded: September 15, 2021

*P10. Survey Type: (Describe) Intensive-level survey for CEQA-compliance

*P11. Report Citation: (Cite survey report and other sources, or enter "none.") Bai "Tom" Tang, Ben Kerridge, and Daniel Ballester (2022): Historical/Archaeological Resources Survey: Reiling Trust Mixed-Use Project, Assessor's Parcel Nos. 685-090-002, -003, and -005 to -007, City of Rancho Mirage, Riverside County, California

*Attachments: None Location Map Sketch Map Continuation Sheet Building, Structure, and Object Record Archaeological Record District Record Linear Resource Record Milling Station Record Rock Art Record Artifact Record Photograph Record Other (List): _____

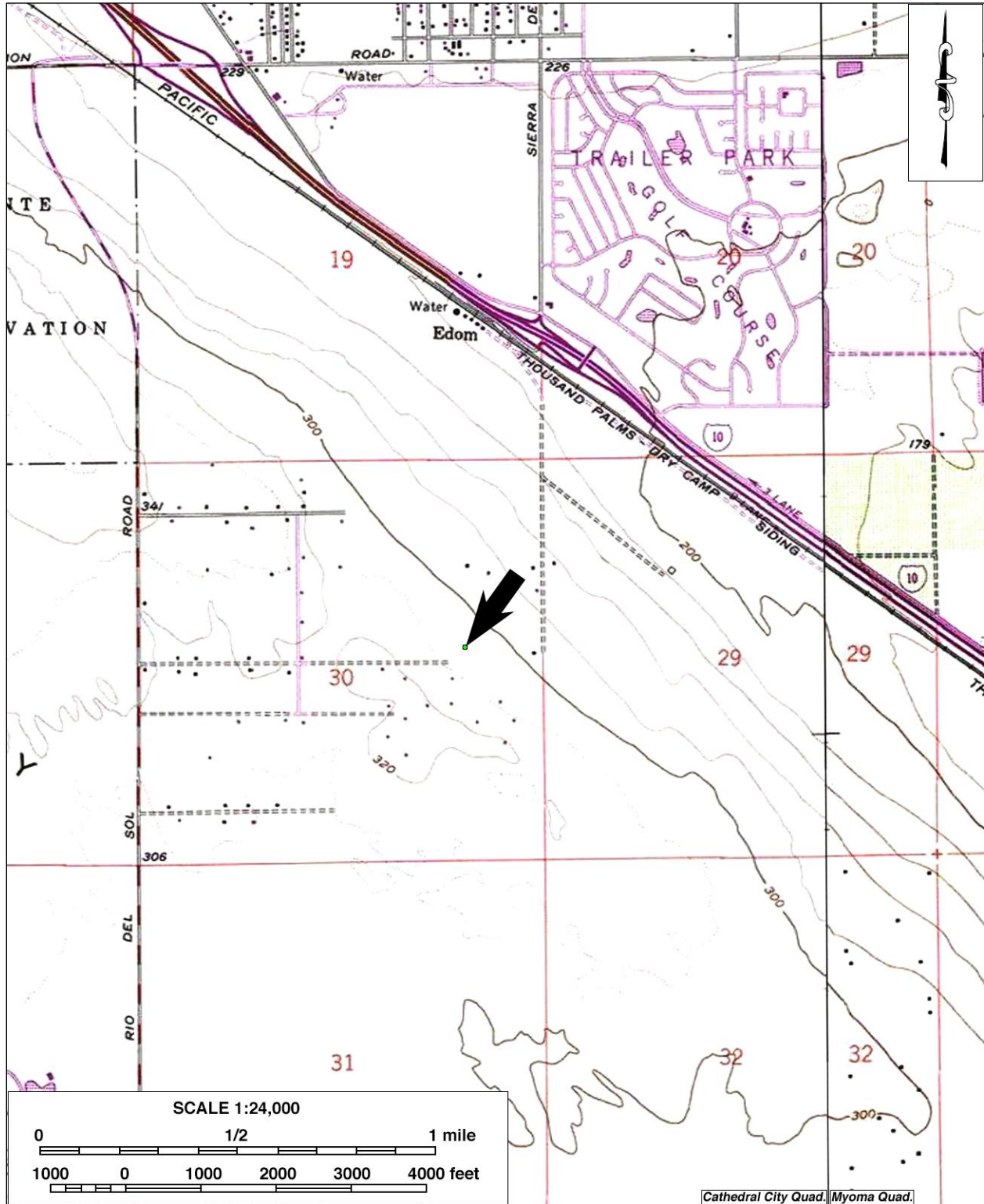
LOCATION MAP

Trinomial _____

*Map Name: Cathedral City and Myoma, Calif.

*Scale: 1:24,000

*Date of Map: 1978/1981



State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # _____
HRI # _____
Trinomial _____
NRHP Status Code 6Z

Other Listings _____
Review Code _____ Reviewer _____ Date _____

Page 1 of 2 *Resource Name or # (Assigned by recorder) CRM TECH 3760-5H ISO

P1. Other Identifier: MC-02

*P2. Location: Not for Publication Unrestricted *a. County Riverside
and (P2b and P2c or P2d. Attach a Location Map as necessary.)

*b. USGS 7.5' Quad Cathedral City, Calif. Date 1981

T4S; R6E; SE 1/4 of NE 1/4 of Sec 30; S.B. B.M.

Elevation: Approximately 295 feet above mean sea level

c. Address N/A City Rancho Mirage Zip _____

d. UTM:(Give more than one for large and/or linear resources) Zone 11; 556,315 mE / 3,739,551 mN

UTM Derivation: USGS Quad GPS (NAD 83)

e. Other Locational Data: (e.g., parcel #, directions to resource, etc., as appropriate) _____

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) This isolate consists of a single metal sanitary can.

*P3b. Resource Attributes: (List attributes and codes) AH16: Other (isolated refuse item)

*P4. Resources Present: Building Structure Object Site District Element of District
 Isolate Other

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)

P5b. Description of Photo: (view, date, accession #) Taken on September 15, 2021

*P6. Date Constructed/Age of Sources:
 Historic Prehistoric Both

*P7. Owner and Address: Retail Net Lease Properties, Inc., 74998 Country Club Drive, Suite 220-345, Palm Desert, CA 92260

*P8. Recorded by: (Name, affiliation, and address) Daniel Ballester and Hunter O'Donnell, CRM TECH, 1016 East Cooley Drive, Suite A/B, Colton, CA 92324

*P9. Date Recorded: September 15, 2021

*P10. Survey Type: (Describe)
Intensive-level survey for CEQA-compliance

*P11. Report Citation: (Cite survey report and other sources, or enter "none.") Bai "Tom" Tang, Ben Kerridge, and Daniel Ballester (2022): Historical/Archaeological Resources Survey: Reiling Trust Mixed-Use Project, Assessor's Parcel Nos. 685-090-002, -003, and -005 to -007, City of Rancho Mirage, Riverside County, California

*Attachments: None Location Map Sketch Map Continuation Sheet Building, Structure, and Object Record
 Archaeological Record District Record Linear Resource Record Milling Station Record Rock Art Record
 Artifact Record Photograph Record Other (List): _____

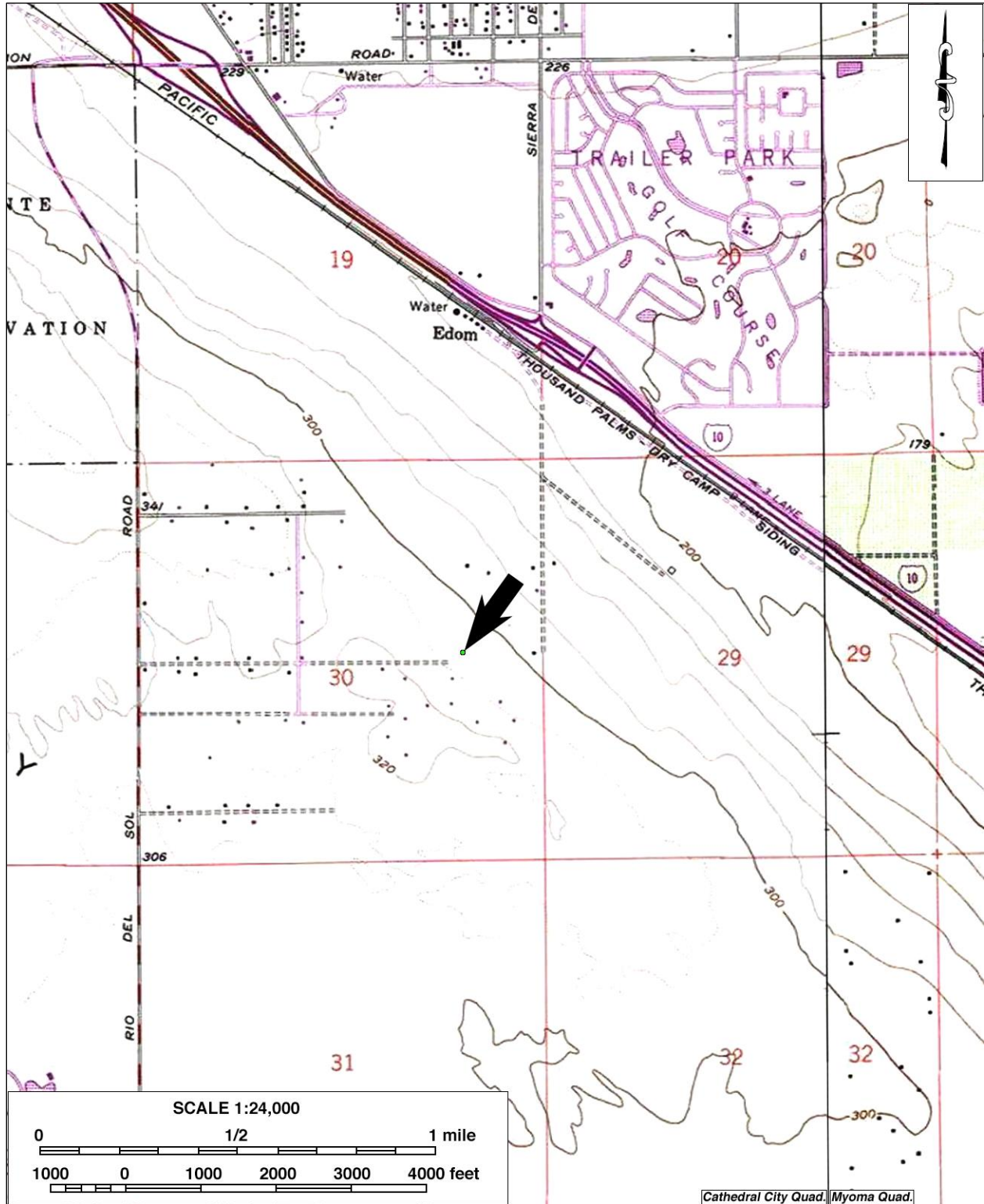
LOCATION MAP

Trinomial _____

*Map Name: Cathedral City and Myoma, Calif.

*Scale: 1:24,000

*Date of Map: 1978/1981



State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # _____
HRI # _____
Trinomial _____
NRHP Status Code 6Z

Other Listings _____
Review Code _____ Reviewer _____ Date _____

Page 1 of 2 *Resource Name or # (Assigned by recorder) CRM TECH 3760-6H ISO

P1. Other Identifier: MC-03

*P2. Location: Not for Publication Unrestricted *a. County Riverside
and (P2b and P2c or P2d. Attach a Location Map as necessary.)

*b. USGS 7.5' Quad Cathedral City, Calif. Date 1981

T4S; R6E; SE 1/4 of NE 1/4 of Sec 30; S.B. B.M.

Elevation: Approximately 295 feet above mean sea level

c. Address N/A City Rancho Mirage Zip _____

d. UTM:(Give more than one for large and/or linear resources) Zone 11; 556,370 mE / 3,739,880 mN

UTM Derivation: USGS Quad GPS (NAD 83)

e. Other Locational Data: (e.g., parcel #, directions to resource, etc., as appropriate) _____

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) This isolate consists of a single flat-top beverage can with interlocking seams and opened with a "church key."

*P3b. Resource Attributes: (List attributes and codes) AH16: Other (isolated refuse item)

*P4. Resources Present: Building Structure Object Site District Element of District
 Isolate Other

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)

P5b. Description of Photo: (view, date, accession #) Taken on September 15, 2021

*P6. Date Constructed/Age of Sources:
 Historic Prehistoric Both

*P7. Owner and Address: Retail Net Lease Properties, Inc., 74998 Country Club Drive, Suite 220-345, Palm Desert, CA 92260

*P8. Recorded by: (Name, affiliation, and address) Daniel Ballester and Hunter O'Donnell, CRM TECH, 1016 East Cooley Drive, Suite A/B, Colton, CA 92324

*P9. Date Recorded: September 15, 2021

*P10. Survey Type: (Describe) Intensive-level survey for CEQA-compliance

*P11. Report Citation: (Cite survey report and other sources, or enter "none.") Bai "Tom" Tang, Ben Kerridge, and Daniel Ballester (2022): Historical/Archaeological Resources Survey: Reiling Trust Mixed-Use Project, Assessor's Parcel Nos. 685-090-002, -003, and -005 to -007, City of Rancho Mirage, Riverside County, California

*Attachments: None Location Map Sketch Map Continuation Sheet Building, Structure, and Object Record Archaeological Record District Record Linear Resource Record Milling Station Record Rock Art Record Artifact Record Photograph Record Other (List): _____

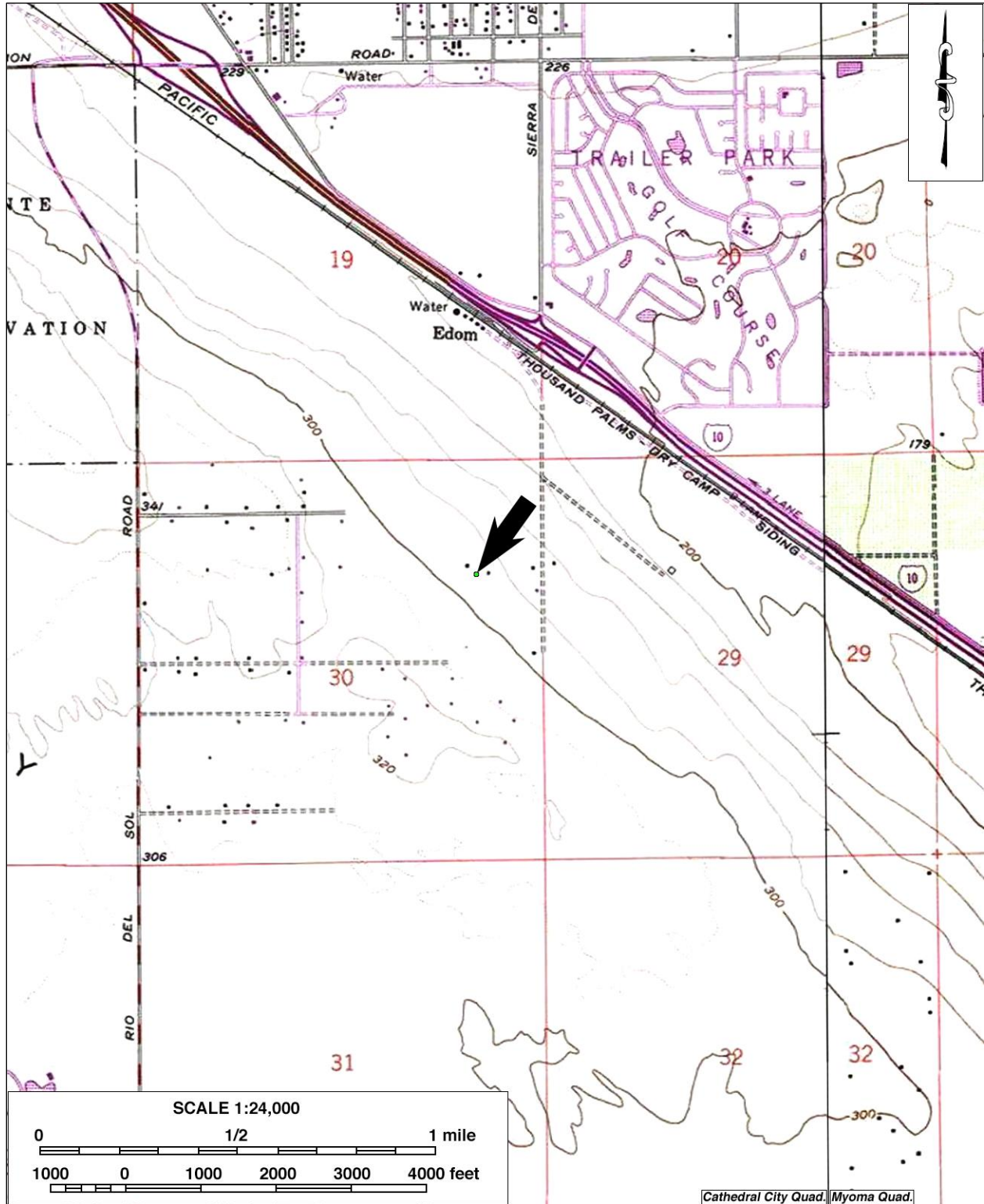
LOCATION MAP

Trinomial _____

*Map Name: Cathedral City and Myoma, Calif.

*Scale: 1:24,000

*Date of Map: 1978/1981



State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # _____
HRI # _____
Trinomial _____
NRHP Status Code 6Z

Other Listings _____
Review Code _____ Reviewer _____ Date _____

Page 1 of 2 *Resource Name or # (Assigned by recorder) CRM TECH 3760-7H ISO

P1. Other Identifier: MC-04

*P2. Location: Not for Publication Unrestricted *a. County Riverside
and (P2b and P2c or P2d. Attach a Location Map as necessary.)

*b. USGS 7.5' Quad Cathedral City, Calif. Date 1981

T4S; R6E; SE 1/4 of NE 1/4 of Sec 30; S.B. B.M.

Elevation: Approximately 295 feet above mean sea level

c. Address N/A City Rancho Mirage Zip _____

d. UTM:(Give more than one for large and/or linear resources) Zone 11; 556,499 mE / 3,739,672 mN

UTM Derivation: USGS Quad GPS (NAD 83)

e. Other Locational Data: (e.g., parcel #, directions to resource, etc., as appropriate) _____

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) This isolate consists of a single five-gallon round fuel can measuring 10.5 inches in diameter and 13.5 inches in height.

*P3b. Resource Attributes: (List attributes and codes) AH16: Other (isolated refuse item)

*P4. Resources Present: Building Structure Object Site District Element of District
 Isolate Other

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



P5b. Description of Photo: (view, date, accession #) Taken on September 15, 2021

*P6. Date Constructed/Age of Sources:
 Historic Prehistoric Both

*P7. Owner and Address: Retail Net Lease Properties, Inc., 74998 Country Club Drive, Suite 220-345, Palm Desert, CA 92260

*P8. Recorded by: (Name, affiliation, and address) Daniel Ballester and Hunter O'Donnell, CRM TECH, 1016 East Cooley Drive, Suite A/B, Colton, CA 92324

*P9. Date Recorded: September 15, 2021

*P10. Survey Type: (Describe) Intensive-level survey for CEQA-compliance

*P11. Report Citation: (Cite survey report and other sources, or enter "none.") Bai "Tom" Tang, Ben Kerridge, and Daniel Ballester (2022): Historical/Archaeological Resources Survey: Reiling Trust Mixed-Use Project, Assessor's Parcel Nos. 685-090-002, -003, and -005 to -007, City of Rancho Mirage, Riverside County, California

*Attachments: None Location Map Sketch Map Continuation Sheet Building, Structure, and Object Record Archaeological Record District Record Linear Resource Record Milling Station Record Rock Art Record Artifact Record Photograph Record Other (List): _____

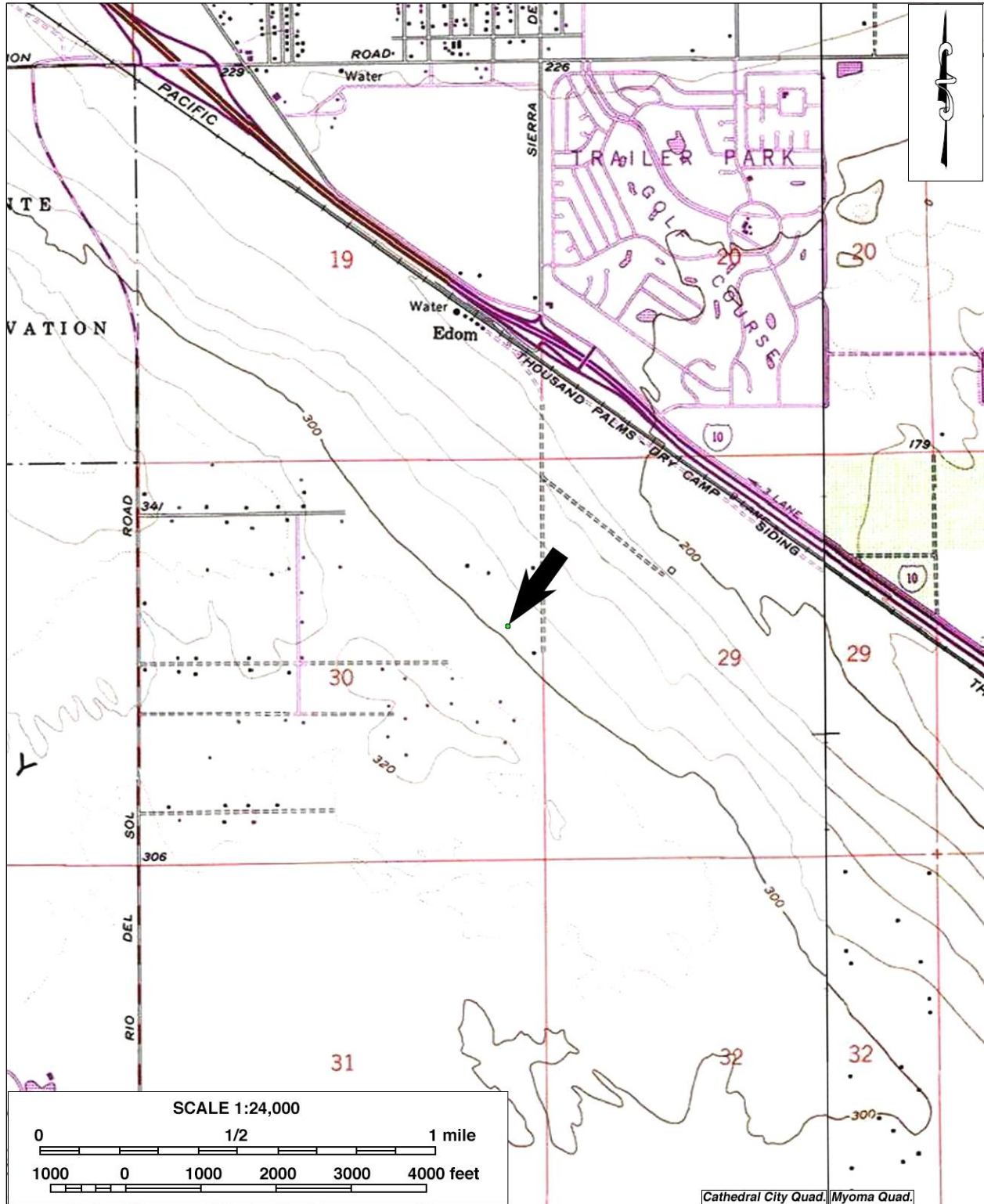
LOCATION MAP

Trinomial _____

*Map Name: Cathedral City and Myoma, Calif.

*Scale: 1:24,000

*Date of Map: 1978/1981



State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # _____
HRI # _____
Trinomial _____
NRHP Status Code 6Z

Other Listings _____
Review Code _____ Reviewer _____ Date _____

Page 1 of 2 *Resource Name or # (Assigned by recorder) CRM TECH 3760-8H ISO

P1. Other Identifier: MC-05

*P2. Location: Not for Publication Unrestricted *a. County Riverside
and (P2b and P2c or P2d. Attach a Location Map as necessary.)
*b. USGS 7.5' Quad Cathedral City, Calif. Date 1981
T4S; R6E; SE 1/4 of NE 1/4 of Sec 30; S.B. B.M.
Elevation: Approximately 295 feet above mean sea level
c. Address N/A City Rancho Mirage Zip _____
d. UTM:(Give more than one for large and/or linear resources) Zone 11; 556,540 mE / 3,739,924 mN
UTM Derivation: USGS Quad GPS (NAD 83)
e. Other Locational Data: (e.g., parcel #, directions to resource, etc., as appropriate) _____

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) This isolate consists of a single brown glass bottle base with orange-peel stippling and a Thatcher Glass Manufacturing Company maker's mark from 1954.

*P3b. Resource Attributes: (List attributes and codes) AH16: Other (isolated refuse item)

*P4. Resources Present: Building Structure Object Site District Element of District
 Isolate Other

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



P5b. Description of Photo: (view, date, accession #) Taken on September 15, 2021

*P6. Date Constructed/Age of Sources:
 Historic Prehistoric Both

*P7. Owner and Address: Retail Net Lease Properties, Inc., 74998 Country Club Drive, Suite 220-345, Palm Desert, CA 92260

*P8. Recorded by: (Name, affiliation, and address) Daniel Ballester and Hunter O'Donnell, CRM TECH, 1016 East Cooley Drive, Suite A/B, Colton, CA 92324

*P9. Date Recorded: September 15, 2021

*P10. Survey Type: (Describe) Intensive-level survey for CEQA-compliance

*P11. Report Citation: (Cite survey report and other sources, or enter "none.") Bai "Tom" Tang, Ben Kerridge, and Daniel Ballester (2022): Historical/Archaeological Resources Survey: Reiling Trust Mixed-Use Project, Assessor's Parcel Nos. 685-090-002, -003, and -005 to -007, City of Rancho Mirage, Riverside County, California

*Attachments: None Location Map Sketch Map Continuation Sheet Building, Structure, and Object Record Archaeological Record District Record Linear Resource Record Milling Station Record Rock Art Record Artifact Record Photograph Record Other (List): _____

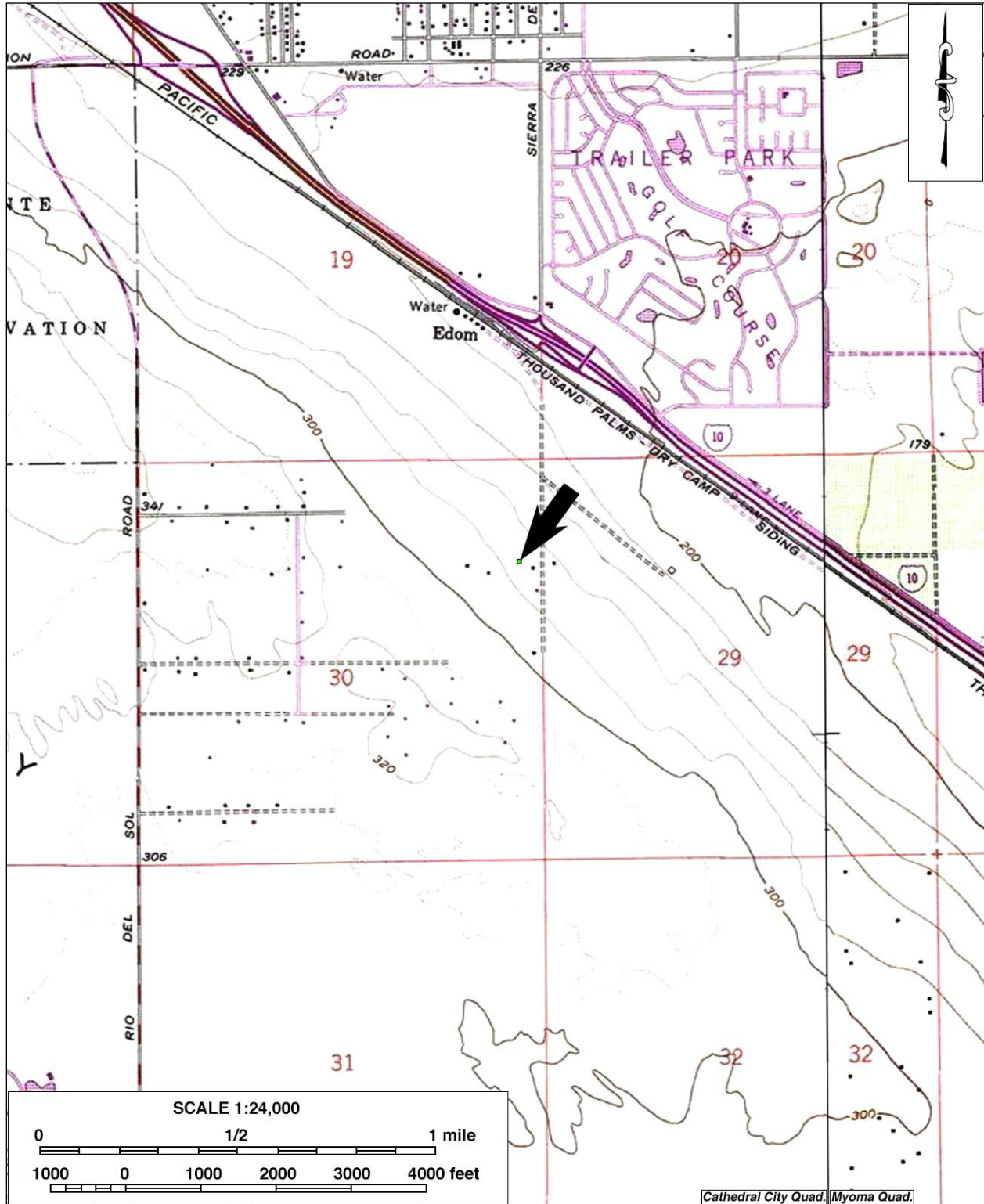
LOCATION MAP

Trinomial _____

*Map Name: Cathedral City and Myoma, Calif.

*Scale: 1:24,000

*Date of Map: 1978/1981



APPENDIX C:

**Rancho Monterey Specific Plan Amendment County of Riverside
Climate Action Plan (CAP) Greenhouse Gas Assessment**

Meridian Consultants

November 2022



Los Angeles Office
706 S. Hill Street, 11th Floor
Los Angeles, CA 90014

Westlake Village Office
920 Hampshire Road, Suite A5
Westlake Village, CA 91361

Date: November 16, 2022

To: Ben and Judy Reiling Revocable Trust
c/o Carolee Reiling
774 S. Hudson Avenue
Pasadena, CA 91106

Cc: Paul DePalatis, AICP
MSA Consulting, Inc.

From: Christ Kirikian
Principal | Director of Air Quality & Acoustics

Subject: Rancho Monterey Specific Plan Amendment
County of Riverside Climate Action Plan (CAP) Greenhouse Gas Assessment

Introduction

This memorandum includes a greenhouse gas consistency assessment of the Rancho Monterey Specific Plan Amendment (SPA) with the County of Riverside Climate Action Plan (CAP) Screening Table.

Pursuant to CEQA Guidelines Section 15064.4, the methods suitable for analysis of GHG emissions are:

- Use a model or methodology to quantify greenhouse gas emissions resulting from a project. The Lead Agency has discretion to select the model it considers most appropriate provided it supports its decision with substantial evidence. The Lead Agency should explain the limitation of the particular model or methodology selected for use.
- Rely on a qualitative analysis or performance-based standards

The City has not adopted a numerical significance threshold for assessing impacts related to GHG emissions. Nor have South Coast Air Quality Management District (SCAQMD), Office of Planning and Research (OPR), California Air Resources Board (CARB), California Air Pollution Control Officers Association (CAPCOA), or any other state or regional agency adopted a numerical significance threshold for assessing GHG emissions that is applicable to the Project.

Assessing the significance of a project's contribution to cumulative global climate change involves: (1) developing pertinent inventories of GHG emissions, and (2) considering project consistency with applicable emission reduction strategies and goals. This evaluation of consistency with such plans is the sole basis for determining the significance of the Project's GHG-related impacts on the environment.

In March 2013, the City adopted the 2013 Sustainability Action Plan: Leadership in Energy Efficiency (Sustainability Plan) in order to set GHG reduction goals and measures. The Sustainability Plan is a

framework for the documenting and implementation of policies and programs designed to reduce the City's GHG emissions. However, these policies and programs were meant to work towards the previous Statewide target of 1990 levels by 2020, set by Assembly Bill (AB) 32.

The County of Riverside has a CAP (recently updated in December 2019) that addresses current GHG emissions reduction in concert with AB 32, Senate Bill (SB) 32 and Executive Order (EO) S-3-05, and international efforts to address global climate change, including specific local requirements that would substantially lessen the cumulative problem. Thus, the CAP update fulfills the description of mitigation found in CEQA Guidelines §15130(a)(3) and §15183.5. The CAP provides a methodology for determining whether implementation of a project will result in significant GHG emissions and air quality impacts. The SCAQMD unofficially recommended a 3,000 MTCO_{2e} per year initial screening threshold for individual projects. This screening criterion was incorporated into the CAP but does not apply for large-scale developments, such as the proposed Specific Plan Amendment. For those projects exceeding the 3,000 MTCO_{2e} screening criterion, or those that are too large to evaluate against a simple metric, the CAP offers the screening table assessment to demonstrate compliance with AB 32.

The SPA proposes to develop a mixed-use community on approximately 35 acres that would provide a variety of residential housing options and commercial retail uses. The SPA would consist of a combination of residential uses (up to 400 dwelling units) including multi-family and senior apartments, and/or commercial retail uses (up to 150,000 square feet of retail space) including drive-through restaurants, or an approved combination of the residential and commercial component along with open space, parks, retention areas and associated improvements.

Riverside County Climate Action Plan (CAP)

The County adopted a CAP for the unincorporated areas in the County in 2012. The CAP establishes a programmatic approach to reducing GHG emissions associated with the continued growth of the County and set a framework for a comprehensive plan that addresses the GHG impacts of future development and County operations. Through the CAP, the County has established goals and policies that incorporate environmental responsibility into its daily management of residential, commercial, and industrial growth, education, energy and water use, air quality, transportation, waste reduction, economic development, and open space and natural habitats. The 2019 CAP Update was approved on December 17, 2019. The 2019 CAP update refines the County's efforts to meet greenhouse gas (GHG) reduction strategies, specifically for the years 2035 and 2050. The 2019 CAP update builds upon the GHG reduction strategies in the 2015 CAP.

As part of the CAP, the County of Riverside published a guidance document entitled "Greenhouse Gas Emissions, Screening Tables, County of Riverside, California." As part of this guidance, the County established a threshold of GHG emission levels required for analysis. The County determined that projects with emissions less than 3,000 metric tons of carbon dioxide equivalents (MTCO_{2e}) 3,000 MTCO_{2e} per year, when combined with modest energy efficiency measures (i.e., energy efficient at least five percent greater than 2010 Title 24 requirements and water conservation measures that match the January 2011

California Green Building Code) are considered less than significant and do not require any further analysis.

If the project exceeds 3,000 MTCO₂e per year, then: (1) project emissions need to be reduced by 25 percent from year 2011 emissions levels or (2) alternatively, the project would need to achieve a minimum of 100 points pursuant to the CAP Screening Tables. The Screening Tables also allow developers to tailor their mitigation measures to the project's needs, rather than have them be subject to "one-size fits all" mitigation measures that may not be appropriate.

The screening table method assigns points for each option incorporated into a project as mitigation or a project design feature (collectively referred to as "feature"). The point values correspond to the minimum emissions reduction expected from each feature. The menu of features allows maximum flexibility and options for how development projects can implement the GHG reduction measures. Projects that garner at least 100 points will be consistent with the reduction quantities anticipated in the County's CAP Update and would not require quantification of project-specific GHG emissions. Consistent with CEQA Guidelines, such projects would be determined to have a less than significant individual and cumulative impact for GHG emissions. Similar approach was used by Meridian Consultants for recent development projects within the City including the Section 31 Specific Plan EIR (NOD dated December 6, 2019).

Analysis

The analysis of the impacts associated with the proposed Specific Plan followed the two-step CAP process described above. Based on the Project-specific analysis, the operational plus amortized construction emissions associated with the proposed Specific Plan would exceed the CAP's screening threshold of 3,000 MTCO₂e per year without implementing features from the screening tables to reduce the emissions associated with the proposed Specific Plan.

According to the CAP, mixed-use projects (regardless of size) that garner at least 100 points will be consistent with the reduction quantities in the County's CAP Update and would be considered less than significant for GHG emissions. As such, the option selected to determine GHG impacts is an analysis pursuant to the Screening Tables, as shown in **Table 1: County of Riverside Greenhouse Gas Screening Table**. It is important to note the features presented in **Table 1** below represent adherence to regulatory compliance measures such as the General Plan, CalGreen Building Codes, Title 24 requirements and the City's Municipal Code. Based on the proposed features for residential and commercial projects, the Project would result in a minimum total of 126 points. With adherence to regulatory compliance measures and incorporation of these features and given that the Project garners more than 100 points (by including GHG-reducing elements), the Project incorporates sufficient GHG reduction design features to be consistent with the Countywide plan for reducing emissions. As such, no mitigation would be required.

**TABLE 1
COUNTY OF RIVERSIDE GREENHOUSE GAS SCREENING TABLE**

Feature	Description	Project Consistency	Points
Screening for GHG Implementation Measures for Residential Development			
EE5.A.2 Windows	<ul style="list-style-type: none"> Enhanced Window (0.32 U-Factor, 0.25 SHGC) 	The Project will satisfy this measure by adhering to the California Title 24 Update which requires the maximum U-factor for windows to be 0.30.	4
EE10.A.3 Cool Roofs	<ul style="list-style-type: none"> Enhanced Cool Roof (CRRC 0.2 aged solar reflectance, 0.75 thermal emittance) 	The Project will satisfy this measure by adhering to the current Building Energy Efficiency Standards for residential development within climate zones 10-15, which requires a solar reflectance of 0.2 and a thermal emittance of 0.75.	7
EE5.B.1 Heating/Cooling Distribution System	<ul style="list-style-type: none"> Modest Duct Insulation (R-6) Enhanced Duct insulation (R-8) 	The Project will satisfy this measure by adhering to the 2019 Energy Code Insulation and QII Requirements which requires duct insulated to R-6 or R-8.	4
EE5.B.3 Water Heaters	<ul style="list-style-type: none"> Improved Efficiency Water Heater (0.675 Energy Factor) 	The Project will satisfy this measure as typical gas storage water heaters have uniform energy factor (UEF) of 0.60-0.76, electric storage water heaters approximately 0.90, and gas instantaneous units approximately 0.80-0.94.	7
EE5.B.5 Artificial Lighting	<ul style="list-style-type: none"> High Efficiency Lights (50% of in-unit fixtures are high efficiency). 	The project will satisfy this measure by adhering to the requirements of the current CalGreen Building Code Section 150(k) 1A which requires all luminaries or light sources be high efficacy and by permanently installing lighting within the interior common areas in the buildings that are high efficacy luminaries, controlled by an occupant sensor.	6
W2.A.1 Water Efficient Landscaping	<ul style="list-style-type: none"> Only California Native Plants that requires no irrigation or some supplemental irrigation 	Adherence to Section 17.24.070 of the City's Municipal Code requires landscape design plans include water efficient, drought tolerant, and native plant material. Invasive plants or escaped exotics shall be avoided.	5
W2.A.2 Water Efficient Irrigation Systems	<ul style="list-style-type: none"> Weather based irrigation control systems or moisture sensors 	Per Rancho Mirage Municipal Code 17.24.025, the City adopted CVWD's Model Water Efficient Landscape Ordinance (MWELO) which establishes landscape and irrigation system design criteria to ensure sustainable landscape design. This requires new landscape plans be designed to incorporate more native and locally compatible drought tolerant planting materials and efficient irrigation systems. The Project will satisfy this measure by adhering to the requirements of	2

**TABLE 1
COUNTY OF RIVERSIDE GREENHOUSE GAS SCREENING TABLE**

Feature	Description	Project Consistency	Points
		the 2022 CalGreen Building Code Section 4.304.1 and complying with MWEL0 as required by Riverside County Ordinance Section 859.2, resulting in a minimum of 20 percent reduced water use for outdoor irrigation	
W2.B.1 Showers	Water Efficient Showerheads (2.0 gpm)	The Project will satisfy this measure by adhering to the requirements of the current CalGreen Building Code Section 4.303.1 by installing showerheads not exceeding 2.0 gpm at 80 psi.	2
W2.B.2 Toilets	Water Efficient Toilets (1.5 gpm)	The Project will satisfy this measure by adhering to the requirements of the current CalGreen Building Code Section 4.303.1 by installing water efficient toilets less than or equal to 1.28 gal/flush.	2
W2.B.3 Faucets	Water Efficient faucets (1.28 gpm)	The Project will satisfy this measure by adhering to the requirements of the current CalGreen Building Code Section 4.303.1 by installing water efficient faucets for the lavatories, metering, and kitchen.	2
W2.B.4 Dishwasher	Water Efficient Dishwasher (6 gallons per cycle or less)	The Project will satisfy this measure by adhering to the requirements of the current CalGreen Building Code Section 110.1 to install dishwashers that meet or exceed the ENERGY STAR Program requirements.	1
W2.B.5 Washing Machine	Water Efficient Washing Machine (Water factor <5.5)	Compliant to the current Building Codes, buildings required to house Energy Star appliances. Additionally, The Project will satisfy this measure by adhering to the Riverside County General Plan Energy Efficiency and Conservation policy AQ 5.2 which adopts incentives and/or regulations to enact energy conservation requirements for private and public developments.	1
T2.A.1 Sidewalks	<ul style="list-style-type: none"> Provide pedestrian linkage between residential and commercial uses within 1 mile 	<p>Per Section 4.4 of the SPA, perimeter streets and edge conditions shall include landscape screening and buffering for successfully integrating into the surrounding area. Monterey Avenue will include a 25-foot landscape area with 8-foot meandering sidewalk.</p> <p>The proposed residential community is located within a mile-radius to existing restaurants and services along Monterey Avenue, east of the project. Additionally, the project proposes up to 150,000 square feet of commercial/retail space. On-site sidewalk improvements will be implemented to improve pedestrian connectivity to the surroundings. Additionally, the project would provide a pedestrian access network to link areas of the project site, encouraging people to walk instead of drive.</p>	3

**TABLE 1
COUNTY OF RIVERSIDE GREENHOUSE GAS SCREENING TABLE**

Feature	Description	Project Consistency	Points
T2.A.2 Bicycle paths	<ul style="list-style-type: none"> Provide bicycle paths within project boundaries Provide bicycle path linkages between residential and other land uses 	There is currently an existing Class II Bicycle Lane and a proposed sidewalk on the project side of Monterey Avenue. Improvements resulting from the Project are expected to enhance, rather than obstruct or conflict with the City's established goals on bicycle or pedestrian transportation or with any existing facilities. A new 8-foot bicycle/pedestrian trail is proposed along Via Vail and Monterey Avenue.	2
T4.A.1 Electric Vehicle Recharging	<ul style="list-style-type: none"> Provide circuit and capacity in garages of residential units for use by an electric vehicle. Charging stations are for on-road electric vehicles legally able to drive on all roadways including Interstate Highways and freeways 	Pursuant to Section 17.26.030 of the City's Municipal Code, all new buildings shall be electric vehicle charging station ready. Additionally, the Project will satisfy this measure by adhering to the requirements of the current CalGreen Building Code Section 4.106.4.1 to install a raceway to accommodate a dedicated 208/240-volt branch circuit for each dwelling unit.	1
Subtotal Points Earned by Residential Project			49
Screening for GHG Implementation Measures for Commercial Development and Public Facilities			
EE10.A.2 Windows	<ul style="list-style-type: none"> Enhanced Window Insulation (0.32 U-factor, 0.25 SHGC) 	The Project will satisfy this measure by adhering to the California Title 24 Update which requires the maximum U-factor for windows to be 0.30.	5
EE10.B.1 Heating/Cooling Distribution System	<ul style="list-style-type: none"> Modest Duct insulation (R-6) Enhanced Duct Insulation (R-8) 	The Project will satisfy this measure by adhering to the current Energy Code Insulation and QII Requirements which requires duct insulated to R-6 or R-8.	5
EE10.B.4 Water Heaters	<ul style="list-style-type: none"> Improved Efficiency Water Heater (0.675 Energy Factor) 	The Project will satisfy this measure as typical gas storage water heaters have uniform energy factor (UEF) of 0.60-0.76, electric storage water heaters approximately 0.90, and gas instantaneous units approximately 0.80-0.94.	8
EE10.B.6 Artificial Lighting	<ul style="list-style-type: none"> High Efficiency Lights (50% of in-unit fixtures are high efficiency). 	The project will satisfy this measure by adhering to the requirements of the current CalGreen Building Code Section 150(k) 1A which requires all luminaries or light sources be high efficacy and by permanently installing lighting within the interior common areas in the buildings that are high efficacy luminaries, controlled by an occupant sensor.	7
W2.D.1 Water Efficient Landscaping	<ul style="list-style-type: none"> Only California Native Plants that requires no or only supplemental irrigation 	Adherence to Section 17.24.070 of the City's Municipal Code requires landscape design plans include water efficient, drought tolerant, and	5

**TABLE 1
COUNTY OF RIVERSIDE GREENHOUSE GAS SCREENING TABLE**

Feature	Description	Project Consistency	Points
		native plant material. Invasive plants or escaped exotics shall be avoided.	
W2.E.1 Showers	Water Efficient Showerheads (2.0 gpm)	The Project will satisfy this measure by adhering to the requirements of the current CalGreen Building Code Section 4.303.1 by installing showerheads not exceeding 2.0 gpm at 80 psi.	2
W2.E.2 Toilets	Water Efficient Toilets/Urinals (1.5 gpm)	The Project will satisfy this measure by adhering to the requirements of the current CalGreen Building Code Section 4.303.1 by installing water efficient toilets less than or equal to 1.28 gal/flush.	3
W2.E.3 Faucets	Water Efficient faucets (1.28 gpm)	The Project will satisfy this measure by adhering to the requirements of the current CalGreen Building Code Section 4.303.1 by installing water efficient faucets for the lavatories, metering, and kitchen.	2
W2.E.4 Commercial Dishwashers	Water Efficient dishwashers (20% water savings)	The Project will satisfy this measure by adhering to the requirements of the current CalGreen Building Code Section 110.1 to install dishwashers that meet or exceed the ENERGY STAR Program requirements, providing a minimum savings of 20% or greater.	2
T3.A.3 Employee Bicycle/Pedestrian Programs	<ul style="list-style-type: none"> Complete sidewalk to residential within ½ mile 	<p>Per Section 4.4 of the SPA, perimeter streets and edge conditions shall include landscape screening and buffering for successfully integrating into the surrounding area. Monterey Avenue will include a 25-foot landscape area with 8-foot meandering sidewalk.</p> <p>There is currently an existing Class II Bicycle Lane and a proposed sidewalk on the project side of Monterey Avenue. Improvements resulting from the Project are expected to enhance, rather than obstruct or conflict with the City's established goals on bicycle or pedestrian transportation or with any existing facilities. A new 8-foot bicycle/pedestrian trail is proposed along Via Vail and Monterey Avenue.</p>	1
T1.F.1 Parking	<ul style="list-style-type: none"> Provide reserved preferential parking spaces for car-share, carpool, and ultra-low or zero emission vehicles. 	Adherence to Section 17.26.030 of the City's Municipal Code requires designated parking for any combination of low-emitting, fuel-efficient and carpool/van pool vehicles consistent with the adopted building code.	1
T2.B.1 Sidewalks	<ul style="list-style-type: none"> Provide bicycle path linkages between commercial and residential land uses within 1 mile. 	Per Section 4.4 of the SPA, perimeter streets and edge conditions shall include landscape screening and buffering for successfully integrating into the surrounding area. Monterey Avenue will include a 25-foot landscape area with 8-foot meandering sidewalk.	2

**TABLE 1
COUNTY OF RIVERSIDE GREENHOUSE GAS SCREENING TABLE**

Feature	Description	Project Consistency	Points
		The proposed residential community is located within a mile-radius to existing restaurants and services along Monterey Avenue, east of the project. Additionally, the project proposes up to 150,000 square feet of commercial/retail space. On-site sidewalk improvements will be implemented to improve pedestrian connectivity to the surroundings. Additionally, the project would provide a pedestrian access network to link areas of the project site, encouraging people to walk instead of drive.	
T2.B.2 Bicycle Paths	<ul style="list-style-type: none"> • Provide bicycle paths within project boundaries • Provide bicycle path linkages between commercial and other land uses 	There is currently an existing Class II Bicycle Lane and a proposed sidewalk on the project side of Monterey Avenue. Improvements resulting from the Project are expected to enhance, rather than obstruct or conflict with the City's established goals on bicycle or pedestrian transportation or with any existing facilities. A new 8-foot bicycle/pedestrian trail is proposed along Via Vail and Monterey Avenue.	2
T4.B.1 Electric Vehicle Recharging	<ul style="list-style-type: none"> • Provide circuit and capacity in garages/parking areas for installation of electric vehicle charging stations. • Install electric vehicle charging stations in garages/parking areas 	Adherence to Section 17.26.030 of the City's Municipal Code requires new construction and projects requiring discretionary action to provide electric vehicle charging stations. At the minimum, 4 vehicle charging stations would be required for 201 and over parking spaces.	32
Subtotal Points Earned by Commercial/Industrial Project			77
TOTAL POINTS Earned by Residential and Commercial/Industrial Project			126

Note: According to the CEQA Thresholds and Screening Tables Instructions for Project Application, for mixed-use projects both Screening Tables for GHG Implementation Measures for Residential Development and for Commercial Development and Public Facilities are to be filled out, but the points should be proportionally identical to the proportioning of the mix of uses.

Certification

The contents of this greenhouse gas assessment represent an accurate depiction of the consistency with the County of Riverside CAP associated with the Rancho Monterey SPA. The information contained in this memorandum is based on the best available information at the time of preparation. If you have any questions, please contact me directly at (818) 415-7274.

Sincerely,



Christ Kirikian, INCE
Principal | Director of Air Quality & Acoustics
ckirikian@meridianconsultantsllc.com

APPENDIX D:

Rancho Monterey Specific Plan Noise and Vibration Impact Analysis

Urban Crossroads, Inc.

May 2022



Rancho Monterey Specific Plan

**NOISE AND VIBRATION IMPACT ANALYSIS
CITY OF RANCHO MIRAGE**

PREPARED BY:

Bill Lawson, PE, INCE
blawson@urbanxroads.com
(949) 584-3148

MAY 2, 2022

TABLE OF CONTENTS

TABLE OF CONTENTS	III
APPENDICES	IV
LIST OF EXHIBITS	V
LIST OF TABLES	V
LIST OF ABBREVIATED TERMS	VI
EXECUTIVE SUMMARY	1
1 INTRODUCTION	3
1.1 Site Location.....	3
1.2 Project Description.....	3
2 FUNDAMENTALS	7
2.1 Range of Noise	7
2.2 Noise Descriptors	8
2.3 Sound Propagation.....	8
2.4 Noise Control	9
2.5 Noise Barrier Attenuation	9
2.6 Land Use Compatibility With Noise	10
2.7 Community Response to Noise	10
2.8 Vibration	11
3 REGULATORY SETTING	13
3.1 State of California Noise Requirements.....	13
3.2 City of Rancho Mirage General Plan Noise Element.....	14
3.3 Operational Noise Standards	15
3.4 Construction Noise Standards	17
3.5 Vibration Standards	17
4 SIGNIFICANCE CRITERIA	19
4.1 Noise Level Increases (Threshold A)	19
4.2 Vibration (Threshold B).....	20
4.3 CEQA Guidelines Not Further Analyzed (Threshold C)	20
4.4 Significance Criteria Summary	21
5 EXISTING NOISE LEVEL MEASUREMENTS	23
5.1 Measurement Procedure and Criteria	23
5.2 Noise Measurement Locations	23
5.3 Noise Measurement Results	24
6 TRAFFIC NOISE METHODS AND PROCEDURES	27
6.1 FHWA Traffic Noise Prediction Model	27
7 OFF-SITE TRAFFIC NOISE ANALYSIS	31
7.1 Noise Contours.....	31
7.2 Existing (2022) Project Traffic Noise Level Increases.....	41
7.3 OY (2023) Project Traffic Noise Level Increases.....	41
7.4 FY (2040) Project Traffic Noise Level Increases	41
8 RECEIVER LOCATIONS	49
9 OPERATIONAL NOISE IMPACTS	51

9.1 Operational Noise Sources..... 51

9.2 Reference Noise Levels 51

9.3 CadnaA Noise Prediction Model 54

9.4 Project Operational Noise Levels..... 54

9.6 Project Operational Noise Level Increases 55

10 CONSTRUCTION IMPACTS..... 59

10.1 Construction Noise Levels..... 59

10.2 Construction Reference Noise Levels 59

10.3 Construction Noise Analysis..... 61

10.4 Construction Noise Level Compliance 62

10.5 Construction Vibration Analysis..... 63

11 REFERENCES..... 65

12 CERTIFICATION..... 67

APPENDICES

- APPENDIX 3.1: CITY OF RANCHO MIRAGE MUNICIPAL CODE**
- APPENDIX 5.1: STUDY AREA PHOTOS**
- APPENDIX 5.2: NOISE LEVEL MEASUREMENT WORKSHEETS**
- APPENDIX 7.1: OFF-SITE TRAFFIC NOISE LEVEL CALCULATIONS**
- APPENDIX 9.1: CADNAA OPERATIONAL NOISE MODEL INPUTS**
- APPENDIX 10.1: CADNAA CONSTRUCTION NOISE MODEL INPUTS**

LIST OF EXHIBITS

EXHIBIT 1-A: LOCATION MAP	4
EXHIBIT 1-B: SITE PLAN	5
EXHIBIT 2-A: TYPICAL NOISE LEVELS	7
EXHIBIT 2-B: NOISE LEVEL INCREASE PERCEPTION	10
EXHIBIT 2-C: TYPICAL LEVELS OF GROUND-BORNE VIBRATION	12
EXHIBIT 3-A: NOISE LEVEL AND LAND USE COMPATIBILITY	16
EXHIBIT 5-A: NOISE MEASUREMENT LOCATIONS	25
EXHIBIT 8-A: RECEIVER LOCATIONS	50
EXHIBIT 9-A: STATIONARY SOURCE NOISE LOCATIONS	52
EXHIBIT 10-A: TYPICAL CONSTRUCTION NOISE SOURCE LOCATIONS	60

LIST OF TABLES

TABLE ES-1: SUMMARY OF CEQA SIGNIFICANCE FINDINGS	1
TABLE 3-1: OPERATIONAL NOISE STANDARDS	15
TABLE 4-1: SIGNIFICANCE CRITERIA SUMMARY	21
TABLE 5-1: AMBIENT NOISE LEVEL MEASUREMENTS	24
TABLE 6-1: OFF-SITE ROADWAY PARAMETERS	28
TABLE 6-2: AVERAGE DAILY TRAFFIC VOLUMES	29
TABLE 6-3: TIME OF DAY VEHICLE SPLITS	30
TABLE 6-4: TRAFFIC FLOW BY VEHICLE TYPE (VEHICLE MIX)	30
TABLE 7-1: EXISTING WITHOUT PROJECT CONTOURS	32
TABLE 7-2: EXISTING WITH PROJECT ALT1 CONTOURS	33
TABLE 7-3: EXISTING WITH PROJECT ALT2 CONTOURS	34
TABLE 7-4: OY (2023) WITHOUT PROJECT CONTOURS	35
TABLE 7-5: OY WITH PROJECT ALT1 CONTOURS	36
TABLE 7-6: OY WITH PROJECT ALT2 CONTOURS	37
TABLE 7-7: FY (2040) WITHOUT PROJECT CONTOURS	38
TABLE 7-8: FY WITH PROJECT ALT1 CONTOURS	39
TABLE 7-9: FY WITH PROJECT ALT2 CONTOURS	40
TABLE 7-10: EXISTING WITH PROJECT ALT1 TRAFFIC NOISE LEVEL INCREASES	42
TABLE 7-11: EXISTING WITH PROJECT ALT2 TRAFFIC NOISE LEVEL INCREASES	43
TABLE 7-12: OY WITH PROJECT ALT1 TRAFFIC NOISE LEVEL INCREASES	44
TABLE 7-13: OY WITH PROJECT ALT2 TRAFFIC NOISE LEVEL INCREASES	45
TABLE 7-14: FY WITH PROJECT ALT1 TRAFFIC NOISE LEVEL INCREASES	46
TABLE 7-15: FY WITH PROJECT ALT2 TRAFFIC NOISE LEVEL INCREASES	47
TABLE 9-1: REFERENCE NOISE LEVEL MEASUREMENTS	53
TABLE 9-2: PROJECT OPERATIONAL NOISE LEVELS	55
TABLE 9-3: DAYTIME PROJECT STATIONARY SOURCE NOISE LEVEL INCREASES	56
TABLE 9-4: EVENING PROJECT STATIONARY SOURCE NOISE LEVEL INCREASES	56
TABLE 9-5: NIGHTTIME PROJECT STATIONARY SOURCE NOISE LEVEL INCREASES	57
TABLE 10-1: CONSTRUCTION REFERENCE NOISE LEVELS	61
TABLE 10-2: CONSTRUCTION EQUIPMENT NOISE LEVEL SUMMARY	62

TABLE 10-3: CONSTRUCTION NOISE LEVEL COMPLIANCE 62
TABLE 10-4: VIBRATION SOURCE LEVELS FOR CONSTRUCTION EQUIPMENT 63
TABLE 10-5: PROJECT CONSTRUCTION VIBRATION LEVELS 64

LIST OF ABBREVIATED TERMS

(1)	Reference
ANSI	American National Standards Institute
Calveno	California Vehicle Noise
CEQA	California Environmental Quality Act
CNEL	Community Noise Equivalent Level
dBA	A-weighted decibels
EPA	Environmental Protection Agency
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
INCE	Institute of Noise Control Engineering
L_{eq}	Equivalent continuous (average) sound level
L_{max}	Maximum level measured over the time interval
mph	Miles per hour
PPV	Peak Particle Velocity
Project	Rancho Monterey Specific Plan
REMEL	Reference Energy Mean Emission Level
RMS	Root-mean-square
VdB	Vibration Decibels

EXECUTIVE SUMMARY

Urban Crossroads, Inc. has prepared this noise study to determine the noise exposure and the necessary noise mitigation measures for the proposed Rancho Monterey Specific Plan development (“Project”). The Project site is located to the west of Monterey Avenue and east of Key Largo Avenue in the City of Rancho Mirage. The Project proposes to develop approximately 35 acres to include approximately 150,000 square feet of commercial use and up to 400 dwelling units. This noise study has been prepared to satisfy applicable City of Rancho Mirage noise standards and significance criteria based on Appendix G of the California Environmental Quality Act (CEQA) Guidelines (1).

The results of this Noise and Vibration Impact Analysis are summarized below based on the significance criteria in Section 4 of this report consistent with Appendix G of the California Environmental Quality Act (CEQA) Guidelines. (1) Table ES-1 shows the findings of significance for each potential noise and/or vibration impact under CEQA before and after any required mitigation measures.

TABLE ES-1: SUMMARY OF CEQA SIGNIFICANCE FINDINGS

Analysis	Report Section	Significance Findings	
		Unmitigated	Mitigated
Off-Site Traffic Noise	7	<i>Less Than Significant</i>	-
Operational Noise	9	<i>Less Than Significant</i>	-
Construction Noise	10	<i>Less Than Significant</i>	-
Construction Vibration		<i>Less Than Significant</i>	-

This page intentionally left blank

1 INTRODUCTION

This noise analysis has been completed to determine the noise impacts associated with the development of the proposed Rancho Monterey Specific Plan (“Project”). This noise study briefly describes the proposed Project, provides information regarding noise fundamentals, sets out the regulatory setting, presents the study methods and procedures for transportation related CNEL traffic noise analysis, and evaluates the future exterior noise environment. In addition, this study includes an analysis of the potential Project-related long-term stationary-source stationary source noise and short-term construction noise and vibration impacts.

1.1 SITE LOCATION

The proposed Project is located to the west of Monterey Avenue and east of Key Largo Avenue in the City of Rancho Mirage, as shown on Exhibit 1-A. The Project area is a 35-acre planning area on the west side of Monterey Avenue that allows for medium density residential and commercial uses.

1.2 PROJECT DESCRIPTION

The Project is a 35-acre planning area within the Monterey Specific Plan that proposes a mixed-use project on the west side of Monterey Avenue within the corporate limits of City of Rancho Mirage. This Project would replace this portion of the existing Specific Plan and establish site-specific development standards, land use regulations, and programs to guide the development of the property in a manner that is consistent with the Rancho Mirage General Plan while also maintaining flexibility to respond to changing conditions that factor in any long-term development.

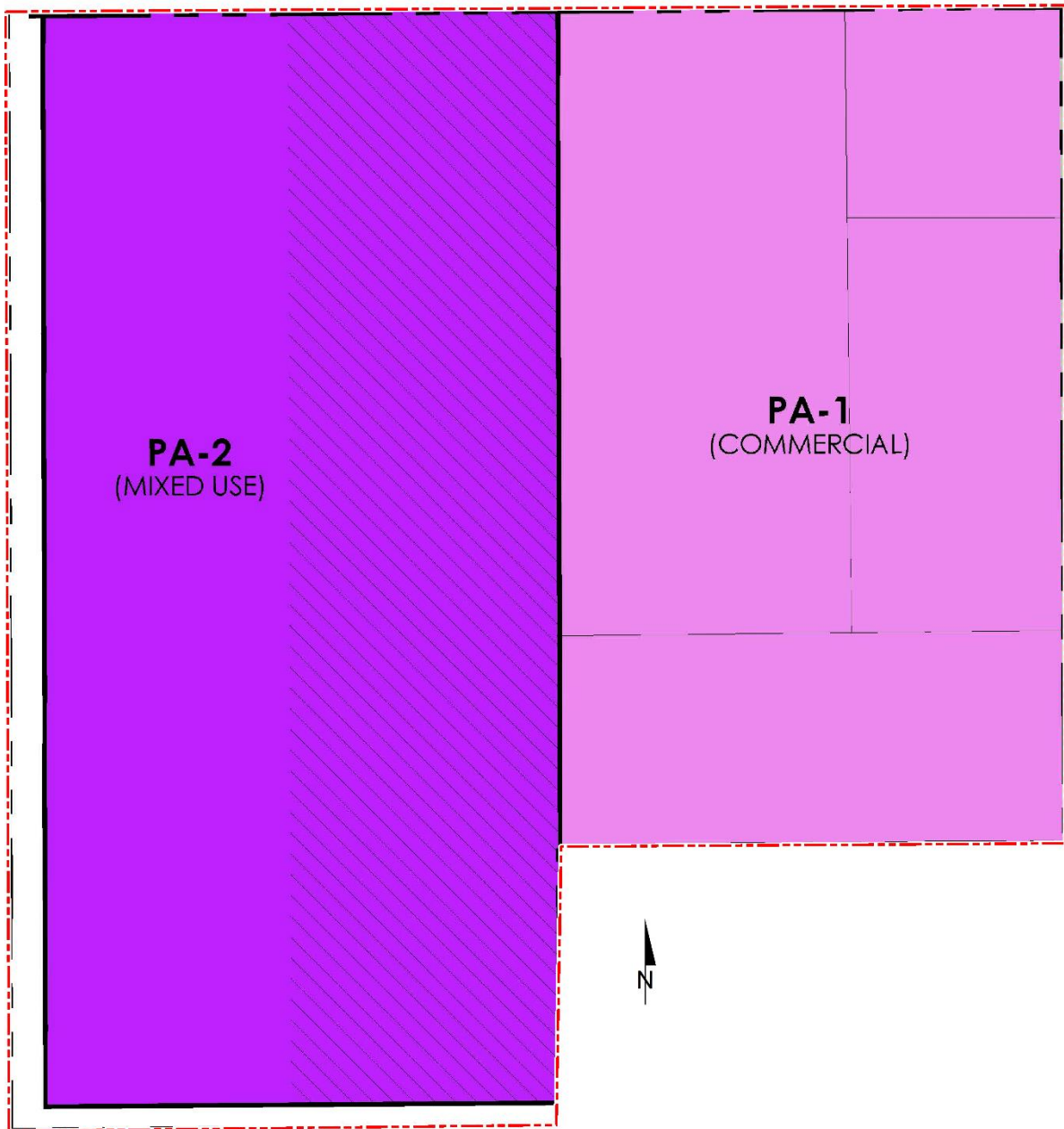
The Project proposes a mixed-use development, as shown in Exhibit 1-B, that would allow up to the following land uses:

- 400 medium rise dwelling units (2-3 stories)
- 150,000 square feet of retail use

EXHIBIT 1-A: LOCATION MAP



EXHIBIT 1-B: SITE PLAN



This page intentionally left blank

2 FUNDAMENTALS

Noise is simply defined as "unwanted sound." Sound becomes unwanted when it interferes with normal activities, when it causes actual physical harm or when it has adverse effects on health. Noise is measured on a logarithmic scale of sound pressure level known as a decibel (dB). A-weighted decibels (dBA) approximate the subjective response of the human ear to broad frequency noise source by discriminating against very low and very high frequencies of the audible spectrum. They are adjusted to reflect only those frequencies which are audible to the human ear. Exhibit 2-A presents a summary of the typical noise levels and their subjective loudness and effects that are described in more detail below.

EXHIBIT 2-A: TYPICAL NOISE LEVELS

COMMON OUTDOOR ACTIVITIES	COMMON INDOOR ACTIVITIES	A - WEIGHTED SOUND LEVEL dBA	SUBJECTIVE LOUDNESS	EFFECTS OF NOISE
THRESHOLD OF PAIN		140	INTOLERABLE OR DEAFENING	HEARING LOSS
NEAR JET ENGINE		130		
		120		
JET FLY-OVER AT 300m (1000 ft)	ROCK BAND	110		
LOUD AUTO HORN		100	VERY NOISY	SPEECH INTERFERENCE
GAS LAWN MOWER AT 1m (3 ft)		90		
DIESEL TRUCK AT 15m (50 ft), at 80 km/hr (50 mph)	FOOD BLENDER AT 1m (3 ft)	80	LOUD	
NOISY URBAN AREA, DAYTIME	VACUUM CLEANER AT 3m (10 ft)	70		
HEAVY TRAFFIC AT 90m (300 ft)	NORMAL SPEECH AT 1m (3 ft)	60	MODERATE	SLEEP DISTURBANCE
QUIET URBAN DAYTIME	LARGE BUSINESS OFFICE	50		
QUIET URBAN NIGHTTIME	THEATER, LARGE CONFERENCE ROOM (BACKGROUND)	40	FAINT	NO EFFECT
QUIET SUBURBAN NIGHTTIME	LIBRARY	30		
QUIET RURAL NIGHTTIME	BEDROOM AT NIGHT, CONCERT HALL (BACKGROUND)	20		
	BROADCAST/RECORDING STUDIO	10	VERY FAINT	
LOWEST THRESHOLD OF HUMAN HEARING	LOWEST THRESHOLD OF HUMAN HEARING	0		

Source: Environmental Protection Agency Office of Noise Abatement and Control, Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety (EPA/ONAC 550/9-74-004) March 1974.

2.1 RANGE OF NOISE

Since the range of intensities that the human ear can detect is so large, the scale frequently used to measure intensity is a scale based on multiples of 10, the logarithmic scale. The scale for measuring intensity is the decibel scale. Each interval of 10 decibels indicates a sound energy ten times greater than before, which is perceived by the human ear as being roughly twice as loud. (2) The most common sounds vary between 40 dBA (very quiet) to 100 dBA (very loud). Normal conversation at three feet is roughly at 60 dBA, while loud jet engine noises equate to 110 dBA

at approximately 1,000 feet, which can cause serious discomfort. (3) Another important aspect of noise is the duration of the sound and the way it is described and distributed in time.

2.2 NOISE DESCRIPTORS

Environmental noise descriptors are generally based on averages, rather than instantaneous, noise levels. The most used metric is the equivalent level (L_{eq}). Equivalent sound levels are not measured directly but are calculated from sound pressure levels typically measured in A-weighted decibels (dBA). The equivalent sound level (L_{eq}) represents a steady state sound level containing the same total energy as a time varying signal over a given sample period and is commonly used to describe the “average” noise levels within the environment.

Peak hour or average noise levels, while useful, do not completely describe a given noise environment. Noise levels lower than peak hour may be disturbing if they occur during times when quiet is most desirable, namely evening and nighttime (sleeping) hours. To account for this, the Community Noise Equivalent Level (CNEL), representing a composite 24-hour noise level is utilized. The CNEL is the weighted average of the intensity of a sound, with corrections for time of day, and averaged over 24 hours. The time-of-day corrections require the addition of 5 decibels to dBA L_{eq} sound levels in the evening from 7:00 p.m. to 10:00 p.m., and the addition of 10 decibels to dBA L_{eq} sound levels at night between 10:00 p.m. and 7:00 a.m. These additions are made to account for the noise sensitive time periods during the evening and night hours when noise can become more intrusive. CNEL does not represent the actual sound level heard at any time, but rather represents the total sound exposure. The City of Rancho Mirage relies on the 24-hour CNEL level to assess land use compatibility with transportation related noise sources.

2.3 SOUND PROPAGATION

When sound propagates over a distance, it changes in level and frequency content. The way noise reduces with distance depends on the following factors.

2.3.1 GEOMETRIC SPREADING

Sound from a localized source (i.e., a stationary point source) propagates uniformly outward in a spherical pattern. The sound level attenuates (or decreases) at a rate of 6 dB for each doubling of distance from a point source. Highways consist of several localized noise sources on a defined path and hence can be treated as a line source, which approximates the effect of several point sources. Noise from a line source propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of 3 dB for each doubling of distance from a line source. (2)

2.3.2 GROUND ABSORPTION

The propagation path of noise from a highway to a receiver is usually very close to the ground. Noise attenuation from ground absorption and reflective wave canceling adds to the attenuation associated with geometric spreading. Traditionally, the excess attenuation has also been expressed in terms of attenuation per doubling of distance. This approximation is usually

sufficiently accurate for distances of less than 200 ft. For acoustically hard sites (i.e., sites with a reflective surface between the source and the receiver, such as a parking lot or body of water), no excess ground attenuation is assumed. For acoustically absorptive or soft sites (i.e., those sites with an absorptive ground surface between the source and the receiver such as soft dirt, grass, or scattered bushes and trees), an excess ground attenuation value of 1.5 dB per doubling of distance is normally assumed. When added to the cylindrical spreading, the excess ground attenuation results in an overall drop-off rate of 4.5 dB per doubling of distance from a line source. (4)

2.3.3 ATMOSPHERIC EFFECTS

Receivers located downwind from a source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lowered noise levels. Sound levels can be increased at large distances (e.g., more than 500 feet) due to atmospheric temperature inversion (i.e., increasing temperature with elevation). Other factors such as air temperature, humidity, and turbulence can also have significant effects. (2)

2.3.4 SHIELDING

A large object or barrier in the path between a noise source and a receiver can substantially attenuate noise levels at the receiver. The amount of attenuation provided by shielding depends on the size of the object and the frequency content of the noise source. Shielding by trees and other such vegetation typically only has an “out of sight, out of mind” effect. That is, the perception of noise impact tends to decrease when vegetation blocks the line-of-sight to nearby residents. However, for vegetation to provide a substantial, or even noticeable, noise reduction, the vegetation area must be at least 15 feet in height, 100 feet wide and dense enough to completely obstruct the line-of-sight between the source and the receiver. This size of vegetation may provide up to 5 dBA of noise reduction. The Federal Highway Administration (FHWA) does not consider the planting of vegetation to be a noise abatement measure. (5)

2.4 NOISE CONTROL

Noise control is the process of obtaining an acceptable noise environment for an observation point or receiver by controlling the noise source, transmission path, receiver, or all three. This concept is known as the source-path-receiver concept. In general, noise control measures can be applied to these three elements.

2.5 NOISE BARRIER ATTENUATION

Effective noise barriers can reduce noise levels by 10 to 15 dBA, cutting the loudness of traffic noise in half. A noise barrier is most effective when placed close to the noise source or receiver. Noise barriers, however, do have limitations. For a noise barrier to work, it must block the line-of-sight path of sound from the noise source.

2.6 LAND USE COMPATIBILITY WITH NOISE

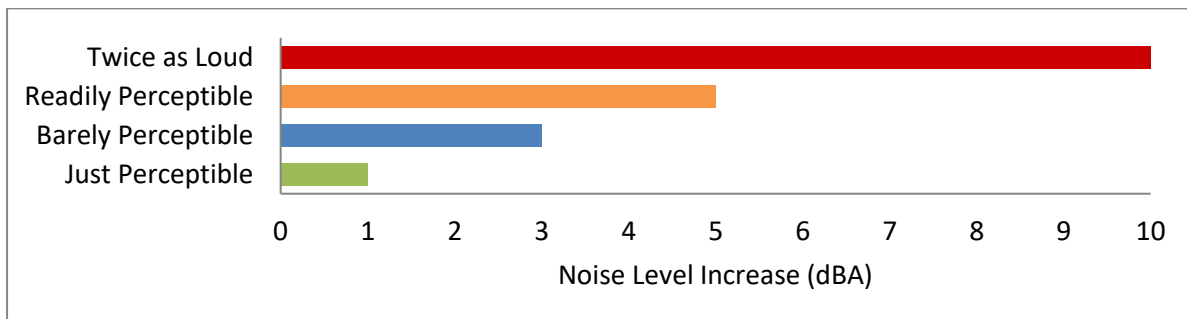
Some land uses are more tolerant of noise than others. For example, schools, hospitals, churches, and residences are more sensitive to noise intrusion than are commercial or industrial developments and related activities. As ambient noise levels affect the perceived amenity or livability of a development, so too can the mismanagement of noise impacts impair the economic health and growth potential of a community by reducing the area’s desirability as a place to live, shop and work. For this reason, land use compatibility with the noise environment is an important consideration in the planning and design process. The FHWA encourages State and Local government to regulate land development in such a way that noise-sensitive land uses are either prohibited from being located adjacent to a highway, or that the developments are planned, designed, and constructed in such a way that noise impacts are minimized. (6)

2.7 COMMUNITY RESPONSE TO NOISE

Approximately sixteen percent of the population has a very low tolerance for noise and will object to any noise not of their making. Consequently, even in the quietest environment, some complaints may occur. Twenty to thirty percent of the population will not complain even in very severe noise environments. (7 pp. 8-6) Thus, a variety of reactions can be expected from people exposed to any given noise environment.

Surveys have shown that community response to noise varies from no reaction to vigorous action for newly introduced noises averaging from 10 dB below existing to 25 dB above existing. (8) According to research originally published in the Noise Effects Handbook (7), the percentage of high annoyance ranges from approximately 0 percent at 45 dB or less, 10 percent are highly annoyed around 60 dB, and increases rapidly to approximately 70 percent being highly annoyed at approximately 85 dB or greater. Despite this variability in behavior on an individual level, the population can be expected to exhibit the following responses to changes in noise levels as shown on Exhibit 2-B. A change of 3 dBA is considered barely perceptible, and changes of 5 dBA are considered readily perceptible. (4)

EXHIBIT 2-B: NOISE LEVEL INCREASE PERCEPTION



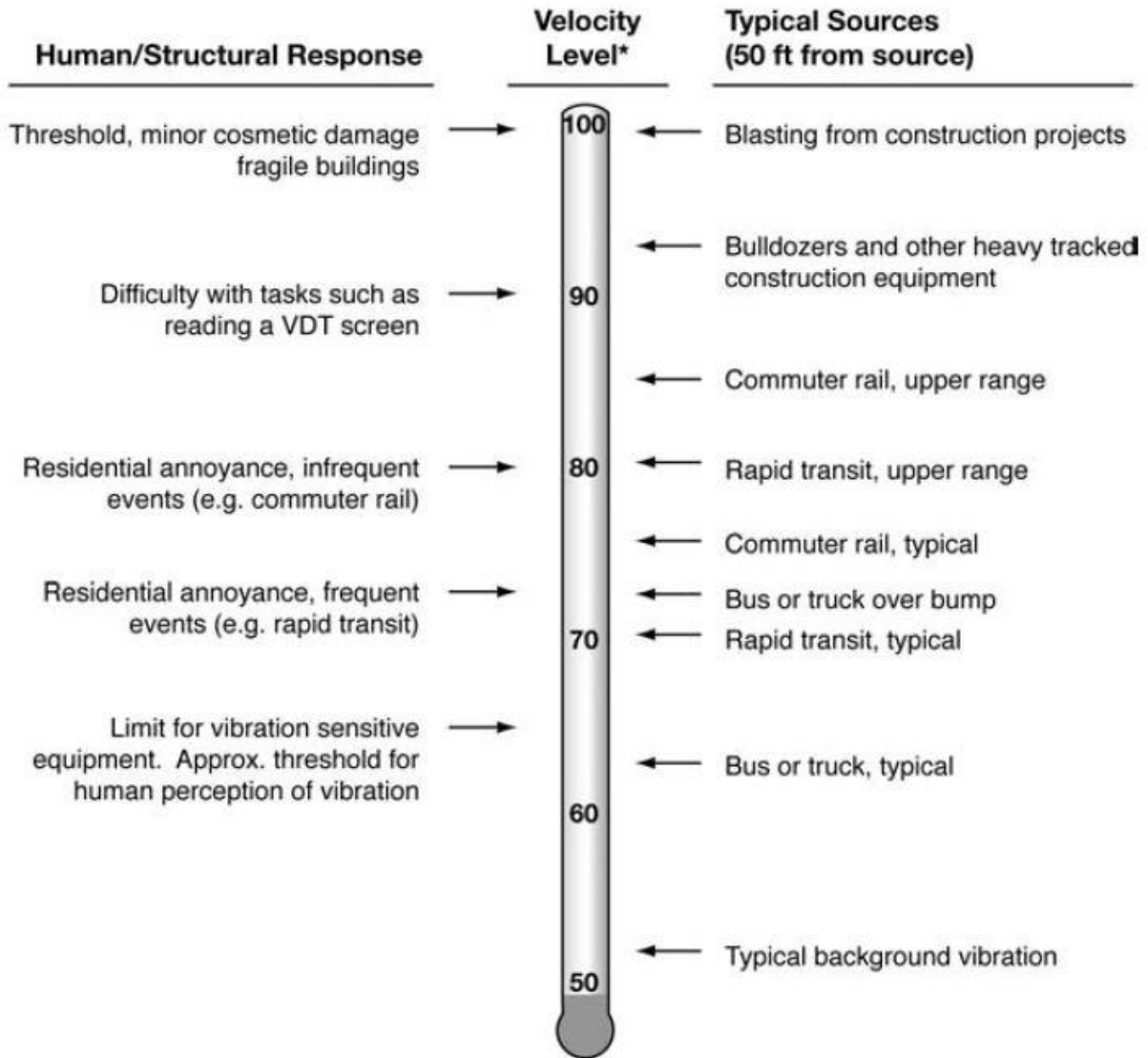
2.8 VIBRATION

Per the Federal Transit Administration (FTA) *Transit Noise Impact and Vibration Impact Assessment Manual* (8), vibration is the periodic oscillation of a medium or object. The rumbling sound caused by the vibration of room surfaces is called structure-borne noise. Sources of ground-borne vibrations include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) or human-made causes (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous, such as factory machinery, or transient, such as explosions. As is the case with airborne sound, ground-borne vibrations may be described by amplitude and frequency.

There are several different methods that are used to quantify vibration. The peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal. The PPV is most frequently used to describe vibration impacts to buildings but is not always suitable for evaluating human response (annoyance) because it takes some time for the human body to respond to vibration signals. Instead, the human body responds to average vibration amplitude often described as the root mean square (RMS). The RMS amplitude is defined as the average of the squared amplitude of the signal and is most frequently used to describe the effect of vibration on the human body. Decibel notation (VdB) is commonly used to measure RMS. Decibel notation (VdB) serves to reduce the range of numbers used to describe human response to vibration. Typically, ground-borne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration. Sensitive receivers for vibration include structures (especially older masonry structures), people (especially residents, the elderly, and sick), and vibration-sensitive equipment and/or activities.

The background vibration-velocity level in residential areas is generally 50 VdB. Ground-borne vibration is normally perceptible to humans at approximately 65 VdB. For most people, a vibration-velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels. Typical outdoor sources of perceptible ground-borne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the ground-borne vibration is rarely perceptible. The range of interest is from approximately 50 VdB, which is the typical background vibration-velocity level, to 100 VdB, which is the general threshold where minor damage can occur in fragile buildings. Exhibit 2-C illustrates common vibration sources and the human and structural response to ground-borne vibration.

EXHIBIT 2-C: TYPICAL LEVELS OF GROUND-BORNE VIBRATION



* RMS Vibration Velocity Level in VdB relative to 10^{-6} inches/second

Source: Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual.

3 REGULATORY SETTING

To limit population exposure to physically and/or psychologically damaging as well as intrusive noise levels, the federal government, the State of California, various county governments, and most municipalities in the state have established standards and ordinances to control noise. In most areas, automobile and truck traffic is the major source of environmental noise. Traffic activity generally produces an average sound level that remains constant with time. Air and rail traffic, and commercial and industrial activities are also major sources of noise in some areas. Federal, state, and local agencies regulate different aspects of environmental noise. Federal and state agencies generally set noise standards for mobile sources such as aircraft and motor vehicles, while regulation of stationary sources is left to local agencies.

3.1 STATE OF CALIFORNIA NOISE REQUIREMENTS

The State of California regulates freeway noise, sets standards for sound transmission, provides occupational noise control criteria, identifies noise standards, and provides guidance for local land use compatibility. State law requires that each county and city adopt a General Plan that includes a Noise Element which is to be prepared per guidelines adopted by the Governor's Office of Planning and Research (OPR). (9) The purpose of the Noise Element is to *limit the exposure of the community to excessive noise levels*. In addition, the California Environmental Quality Act (CEQA) requires that all known environmental effects of a project be analyzed, including environmental noise impacts.

3.1.1 RESIDENTIAL CONSTRUCTION

The State of California's noise insulation standards for all residential units are codified in the California Code of Regulations (CCR), Title 24, Building Standards Administrative Code, Section 1206 to 1207.11.2. These noise standards are applied to new construction that contains dwelling units or sleeping units, such as residential and hotel or motel uses, in California for controlling interior noise levels resulting from exterior noise sources. For new buildings, the acceptable interior noise limit is 45 dBA CNEL in habitable rooms (10).

3.1.2 NON-RESIDENTIAL CONSTRUCTION

The State of California's Green Building Standards Code contains mandatory measures for non-residential building construction in Section 5.507 on Environmental Comfort (11). These noise standards are applied to new construction in California for controlling interior noise levels resulting from exterior noise sources. The regulations specify that acoustical studies must be prepared when non-residential structures are developed in areas where the exterior noise levels exceed 65 dBA CNEL, such as within a noise contour of an airport, freeway, railroad, and other noise source. If the development falls within an airport or freeway 65 dBA CNEL noise contour, buildings shall be constructed to provide an interior noise level environment attributable to exterior sources that does not exceed an hourly equivalent level of 50 dBA L_{eq} in occupied areas during any hour of operation.

3.2 CITY OF RANCHO MIRAGE GENERAL PLAN NOISE ELEMENT

The City of Rancho Mirage has adopted a Noise Element of the General Plan (2017) to control and abate environmental noise, and to protect the citizens of and visitors to the City of Rancho Mirage from excessive exposure to noise. The Noise Element is intended to help align the community’s various land uses with the existing and future noise environment and thus ensure that any negative effects of noise are minimized or completely avoided.

The noise criteria identified in the City of Rancho Mirage Noise Element are guidelines to evaluate the land use compatibility of transportation related noise. To assist the City in the planning compatible uses, a range of exterior noise thresholds for various land uses have been developed. Particularly sensitive land uses include residences, schools, libraries, churches, hospitals and nursing homes, and destination resort areas. In addition, parks, golf courses, and other outdoor activity areas can be sensitive to noise disturbances. Less sensitive land uses include commercial uses, conventional hotels and motels, and playgrounds. Least sensitive to noise are heavy commercial uses, transportation, communication, and utility land uses.

To protect noise sensitive land uses, and minimize the effects of excessive and nuisance noise, the City of Rancho Mirage General Plan Noise Element has outlined the following noise policies with the goal (Goal N 1) of a noise environment providing peace and quiet that complements and is consistent with Rancho Mirage’s resort residential character:

- Policy N 1.1: Land use patterns, associated traffic and its distribution, and individual developments shall be assessed for their potential to generate adverse and incompatible noise impacts. Noise exceeding normally acceptable levels shall be appropriately mitigated.
- Policy N 1.2 Noise sensitive land uses, including residences, resorts, community open space, schools, libraries, churches, hospitals, and convalescent homes, shall be protected from high noise levels emitted by both existing and future noise sources.
- Policy N 1.3 Project designs shall be required to include measures that assure that interior noise levels for residential development do not exceed 45 dBA CNEL.
- Policy N 1.4 Land uses allowed adjacent to Rancho Mirage’s major arterial roads and highways, or the Southern Pacific Railroad/I-10 corridor, should generally be limited to those that are compatible with higher noise levels to maximize noise-related land use compatibility.
- Policy N 1.5 Develop and maintain a circulation plan that is consistent with the resort residential character of Rancho Mirage, avoids impacts to existing and planned sensitive receptors/uses, and provides fixed routes for existing and future truck traffic.

The Noise Level and Land Use Compatibility matrix in the Noise Element shown on Exhibit 3-A provides guidelines to evaluate the acceptability of the transportation related noise level impacts. Single-family residential land uses are considered *normally acceptable* with exterior noise levels below 60 dBA CNEL and *conditionally acceptable* with noise levels below 70 dBA CNEL. Multi-family residential land uses are considered *normally acceptable* with exterior noise levels below 65 dBA CNEL and *conditionally acceptable* with noise levels below 70 dBA CNEL. For

conditionally acceptable land use, new construction or development undertaken only after a detailed analysis of the noise reduction requirements is made and necessary noise insulation features are included in the design. Conventional construction, but with closed windows and fresh air supply system or air conditioning will normally suffice. Outdoor environment will seem noisy.

3.3 OPERATIONAL NOISE STANDARDS

To analyze noise impacts originating from a designated fixed location or private property such as the Rancho Monterey Specific Plan Project, stationary-source (operational) noise such as the expected outdoor seating activity, trash enclosure activity, roof-top air conditioning units, and parking lot activity are typically evaluated against standards established under a jurisdiction’s Municipal Code. The City of Rancho Mirage Municipal Code noise standards are provided in Appendix 3.1. The City of Rancho Mirage Municipal Code (RMMC), Chapter 8.45 establishes the noise level standards for stationary noise sources. The Project’s land use will potentially impact nearby noise-sensitive uses in the Project study area. For nearby noise-sensitive residential land uses in the Project study area, Section 8.45.030 identifies the base exterior noise level standard of 55 dBA L_{eq} during the daytime hours (7:00 a.m. to 6:00 p.m.), 50 dBA L_{eq} during the evening hours (6:00 p.m. to 10:00 p.m.) and 45 dBA L_{eq} during the nighttime hours (10:00 p.m. to 7:00 a.m.). (12) Table 3-1 provides a summary of the City of Rancho Mirage operational exterior noise level standards for all land use types.

TABLE 3-1: OPERATIONAL NOISE STANDARDS

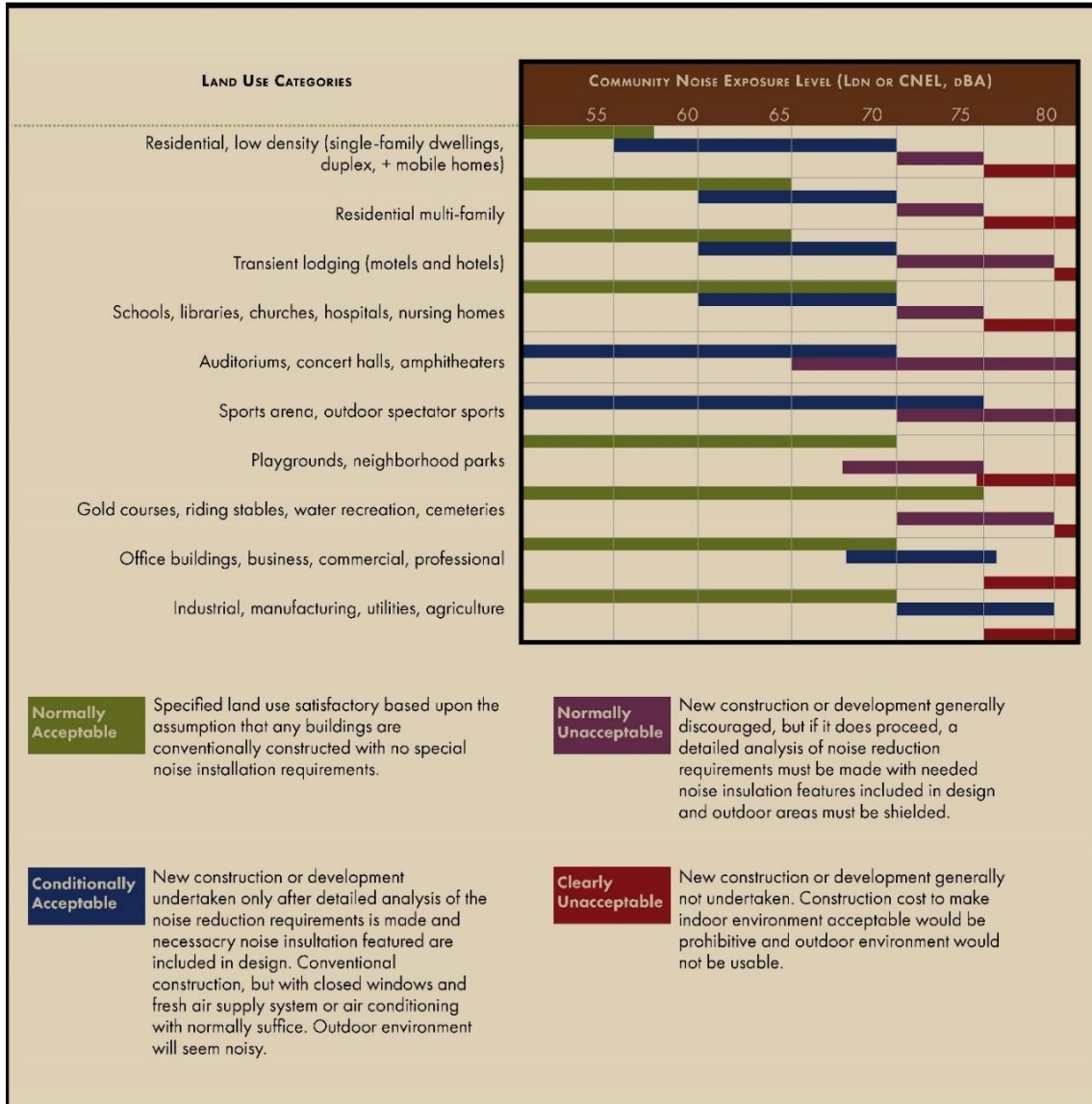
Land Use ¹	Zone ²	Time Period	Exterior Noise Level Standards (dBA L_{eq}) ³
Residential (Low Density)	R-E, H-R, R-L-2, R-L-3	Daytime (7:00 a.m. to 6:00 p.m.)	55
		Evening (6:00 p.m. to 10:00 p.m.)	50
		Nighttime (10:00 p.m. to 7:00 a.m.)	45
Residential (Medium and High Density, Hospital, Open Space)	OS, R-M, R-H, MHP	Daytime (7:00 a.m. to 6:00 p.m.)	60
		Evening (6:00 p.m. to 10:00 p.m.)	55
		Nighttime (10:00 p.m. to 7:00 a.m.)	50
Commercial Office, Resort Commercial, Mixed Use, Institutional	O, P, RS-H, M-U	Daytime (7:00 a.m. to 6:00 p.m.)	65
		Evening (6:00 p.m. to 10:00 p.m.)	60
		Nighttime (10:00 p.m. to 7:00 a.m.)	55
Commercial Neighborhood, General Commercial, Commercial Recreation, Light Industrial	C-N, C-G, I-L	Daytime (7:00 a.m. to 6:00 p.m.)	70
		Evening (6:00 p.m. to 10:00 p.m.)	65
		Nighttime (10:00 p.m. to 7:00 a.m.)	60

¹ City of Rancho Mirage Municipal Code, Section 8.45.030 Exterior noise level limits (Appendix 3.1).

² City of Rancho Mirage Land Use and Zoning Map

³ L_{eq} represents a steady state sound level containing the same total energy as a time varying signal over a given sample period.

EXHIBIT 3-A: NOISE LEVEL AND LAND USE COMPATIBILITY



Source: City of Rancho Mirage General Plan Noise Element (2017) Exhibit 20

3.4 CONSTRUCTION NOISE STANDARDS

To analyze noise impacts originating from the construction of Rancho Monterey Specific Plan, noise from construction activities is typically evaluated against standards established under a City's Municipal Code. To control noise impacts associated with the construction of the proposed Project, the City has established limits to the hours of operation. The RMMC Section 15.04.030[A][11] indicates that construction, shall be limited to the hours of 7:00 a.m. and 7:00 p.m. with no activity on Sundays and holidays (13). The City recognizes that construction noise is difficult to control and restricts allowable hours for this intrusion. Still, construction, even when restricted to within these hours, presents a nuisance value when conducted in proximity to sensitive receptors (14). However, neither the City of Rancho Mirage General Plan nor Municipal Code establish numeric maximum acceptable construction source noise levels at potentially affected receivers. Therefore, a numerical construction threshold based on Federal Transit Administration (FTA) *Transit Noise and Vibration Impact Assessment Manual* is used for analysis of daytime construction impacts, as discussed below.

According to the FTA, local noise ordinances are typically not very useful in evaluating construction noise. They usually relate to nuisance and hours of allowed activity, and sometimes specify limits in terms of maximum levels, but are generally not practical for assessing the impact of a construction project. Project construction noise criteria should account for the existing noise environment, the absolute noise levels during construction activities, the duration of the construction, and the adjacent land use. Due to the lack of standardized construction noise thresholds, the FTA provides guidelines that can be considered reasonable criteria for construction noise assessment. The FTA considers a daytime exterior construction noise level of 80 dBA L_{eq} as a reasonable threshold for noise sensitive residential land use (8 p. 179).

3.5 VIBRATION STANDARDS

Construction activity can result in varying degrees of ground-borne vibration, depending on the equipment and methods used, distance to the affected structures and soil type. Construction vibration is generally associated with pile driving and rock blasting. Other construction equipment such as air compressors, light trucks, hydraulic loaders, etc., generates little or no ground vibration (8).

To analyze vibration impacts associated with the Rancho Monterey Specific Plan, vibration-generating activities are appropriately evaluated against standards established under a City's Municipal Code if such standards exist. While Section 17.18.080 of the RMMC requires that *no vibration associated with any use shall be allowed which is discernable beyond the boundary line of the subject property*, the City of Rancho Mirage does not identify specific construction vibration level limits. Therefore, for analysis purposes, the Caltrans *Transportation and Construction Vibration Guidance Manual*, (15 p. 38) Table 19, vibration damage are used in this noise study to assess potential temporary construction-related impacts at adjacent building locations. The nearest noise sensitive buildings adjacent to the Project site can best be described as "older residential structures" with a maximum acceptable continuous vibration threshold of 0.3 PPV (in/sec).

This page intentionally left blank

4 SIGNIFICANCE CRITERIA

The following significance criteria are based on currently adopted guidance provided by Appendix G of the California Environmental Quality Act (CEQA) Guidelines (1). For the purposes of this report, impacts would be potentially significant if the Project results in or causes:

- A. 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?
- B. Generation of excessive ground-borne vibration or ground-borne noise levels?
- C. 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?

4.1 NOISE LEVEL INCREASES (THRESHOLD A)

Noise level increases resulting from the Project are evaluated based on the Appendix G CEQA Guidelines described above at the closest sensitive receiver locations. Under CEQA, consideration must be given to the magnitude of the increase, the existing ambient noise levels, and the location of noise-sensitive receivers to determine if a noise increase represents a significant adverse environmental impact. This approach *recognizes that there is no single noise increase that renders the noise impact significant.* (16) This is primarily because of the wide variation in individual thresholds of annoyance and differing individual experiences with noise. Thus, an important way of determining a person's subjective reaction to a new noise is the comparison of it to the existing environment to which one has adapted—the so-called *ambient* environment.

In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will typically be judged. The Federal Interagency Committee on Noise (FICON) (17) developed guidance to be used for the assessment of project-generated increases in noise levels that consider the ambient noise level. The FICON recommendations are based on studies that relate aircraft noise levels to the percentage of persons highly annoyed by aircraft noise. Although the FICON recommendations were specifically developed to assess aircraft noise impacts, these recommendations are often used in environmental noise impact assessments involving the use of cumulative noise exposure metrics, such as the average-daily noise level (CNEL) and equivalent continuous noise level (L_{eq}). The FICON guidance provides an established source of criteria to assess the impacts of substantial temporary or permanent increase in ambient noise levels. Based on the FICON criteria, the amount to which a given noise level increase is considered acceptable is reduced when the without Project noise levels are already shown to exceed certain land-use specific exterior noise level criteria. The specific levels are based on typical responses to noise level increases of 5 dBA or *readily perceptible*, 3 dBA or *barely perceptible*, and 1.5 dBA depending on the underlying without Project noise levels for noise-sensitive uses. These levels of increases and their perceived acceptance are consistent with guidance provided by both the Federal Highway Administration (4 p. 9) and Caltrans (18 p. 2_48).

4.2 VIBRATION (THRESHOLD B)

As described in Section 3.5, the vibration impacts originating from the construction of the Rancho Monterey Specific Plan, vibration-generating activities are appropriately evaluated using the Caltrans vibration damage thresholds to assess potential temporary construction-related impacts at adjacent building locations. The nearest noise sensitive buildings adjacent to the Project site can best be described as “older residential structures” with a maximum acceptable continuous vibration threshold of 0.3 PPV (in/sec).

4.3 CEQA GUIDELINES NOT FURTHER ANALYZED (THRESHOLD C)

CEQA Noise Threshold C applies when there are nearby public and private airports and/or air strips and focuses on land use compatibility of the Project to nearby airports and airstrips. The Project site is not located within two miles of an airport or airstrip. The closest airport is the Palm Springs International Airport located approximately 5.9 miles northwest of the Project site. As such, the Project site would not be exposed to excessive noise levels from airport operations, and therefore, impacts are considered *less than significant*, and no further noise analysis is conducted in relation to Appendix G to the CEQA Guidelines, Noise Threshold C.

4.4 SIGNIFICANCE CRITERIA SUMMARY

Noise impacts shall be considered significant if any of the following occur as a direct result of the proposed development. Table 4-1 shows the significance criteria summary matrix that includes the allowable criteria used to identify potentially significant incremental noise level increases.

TABLE 4-1: SIGNIFICANCE CRITERIA SUMMARY

Analysis	Receiving Land Use	Condition(s)	Significance Criteria
Off-Site Traffic	Noise-Sensitive ¹	If ambient is < 60 dBA CNEL	≥ 5 dBA CNEL Project increase
		If ambient is 60 - 65 dBA CNEL	≥ 3 dBA CNEL Project increase
		If ambient is > 65 dBA CNEL	≥ 1.5 dBA CNEL Project increase
	Non-Noise-Sensitive ^{1,2}	If ambient is < 70 dBA CNEL	≥ 5 dBA CNEL Project increase
		If ambient is > 70 dBA CNEL	≥ 3 dBA CNEL Project increase
Operational	All ³	Exterior Noise Level Standards	See Table 3-1
Construction	Noise-Sensitive	Shall be limited to the hours of 7:00 a.m. and 7:00 p.m. with no activity on Sundays and holidays ⁴	
		Noise Level Threshold ⁵	80 dBA Leq
	All	Vibration Level Threshold ⁶	0.3 PPV (in/sec)

¹ FICON, 1992.

² City of Rancho Mirage General Plan Noise Element.

³ City of Rancho Mirage General Plan Municipal Code, Section 8.45.030

⁴ City of Rancho Mirage General Plan Municipal Code, Section 15.04.030[A][10].

⁵ Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual.

⁶ Caltrans Transportation and Construction Vibration Manual, April 2020 Table 19.

"Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.

This page intentionally left blank

5 EXISTING NOISE LEVEL MEASUREMENTS

To assess the existing noise level environment, 24-hour noise level measurements were taken at six locations in the Project study area. The receiver locations were selected to describe and document the existing noise environment within the Project study area. Exhibit 5-A provides the boundaries of the Project study area and the noise level measurement locations. To fully describe the existing noise conditions, noise level measurements were collected by Urban Crossroads, Inc. on Wednesday, August 11, 2021. Appendix 5.1 includes study area photos.

5.1 MEASUREMENT PROCEDURE AND CRITERIA

To describe the existing noise environment, the hourly noise levels were measured during typical weekday conditions over a 24-hour period. By collecting individual hourly noise level measurements, it is possible to describe the equivalent daytime and nighttime hourly noise levels. The long-term noise readings were recorded using Piccolo Type 2 integrating sound level meter and dataloggers. The Piccolo sound level meters were calibrated using a Larson-Davis calibrator, Model CAL 150. All noise meters were programmed in "slow" mode to record noise levels in "A" weighted form. The sound level meters and microphones were equipped with a windscreen during all measurements. All noise level measurement equipment satisfies the American National Standards Institute (ANSI) standard specifications for sound level meters ANSI S1.4-2014/IEC 61672-1:2013. (19)

5.2 NOISE MEASUREMENT LOCATIONS

The long-term noise level measurements were positioned as close to the nearest sensitive receiver locations as possible to assess the existing ambient hourly noise levels surrounding the Project site. Both Caltrans and the FTA recognize that it is not reasonable to collect noise level measurements that can fully represent every part of a private yard, patio, deck, or balcony normally used for human activity when estimating impacts for new development projects. This is demonstrated in the Caltrans general site location guidelines which indicate that, *sites must be free of noise contamination by sources other than sources of interest. Avoid sites located near sources such as barking dogs, lawnmowers, pool pumps, and air conditioners unless it is the express intent of the analyst to measure these sources.* (2) Further, FTA guidance states, *that it is not necessary nor recommended that existing noise exposure be determined by measuring at every noise-sensitive location in the project area. Rather, the recommended approach is to characterize the noise environment for clusters of sites based on measurements or estimates at representative locations in the community* (8).

Based on recommendations of Caltrans and the FTA, it is not necessary to collect measurements at each individual building or residence, because each receiver measurement represents a group of buildings that share acoustical equivalence (8). In other words, the area represented by the receiver shares similar shielding, terrain, and geometric relationship to the reference noise source. Receivers represent a location of noise sensitive areas and are used to estimate the future noise level impacts. Collecting reference ambient noise level measurements at the nearby sensitive receiver locations allows for a comparison of the before and after Project noise levels

and is necessary to assess potential noise impacts due to the Project’s contribution to the ambient noise levels.

5.3 NOISE MEASUREMENT RESULTS

The noise measurements presented below focus on the equivalent or the hourly energy average sound levels (L_{eq}). The equivalent sound level (L_{eq}) represents a steady state sound level containing the same total energy as a time varying signal over a given sample period. Table 5-1 identifies the hourly daytime (7:00 a.m. to 6:00 p.m.), evening (6:00 p.m. to 10:00 p.m.) and nighttime (10:00 p.m. to 7:00 a.m.) noise levels at each noise level measurement location.

TABLE 5-1: AMBIENT NOISE LEVEL MEASUREMENTS

Location ¹	Description	Energy Average Noise Level (dBA L_{eq}) ²		
		Daytime	Evening	Nighttime
L1	Located north of the Project site near SJVC Rancho Mirage at 34275 Monterey Avenue.	55.0	53.1	49.4
L2	Located southeast of the Project site near The Enclave Condominium Rentals at 35751 Gateway Drive.	54.4	52.4	50.1
L3	Located south of the Project site near single-family residence at 12 Chandon Court.	52.0	49.0	48.6
L4	Located south of the Project site near single-family residence at 72740 Via Florencia.	45.7	44.8	45.9
L5	Located west of the Project site near single-family residence at 34620 Via Josefina.	44.8	45.8	47.0
L6	Located northwest of the Project site near Rancho Mirage Dog Park at 34100 Key Largo Avenue.	50.7	49.9	49.3

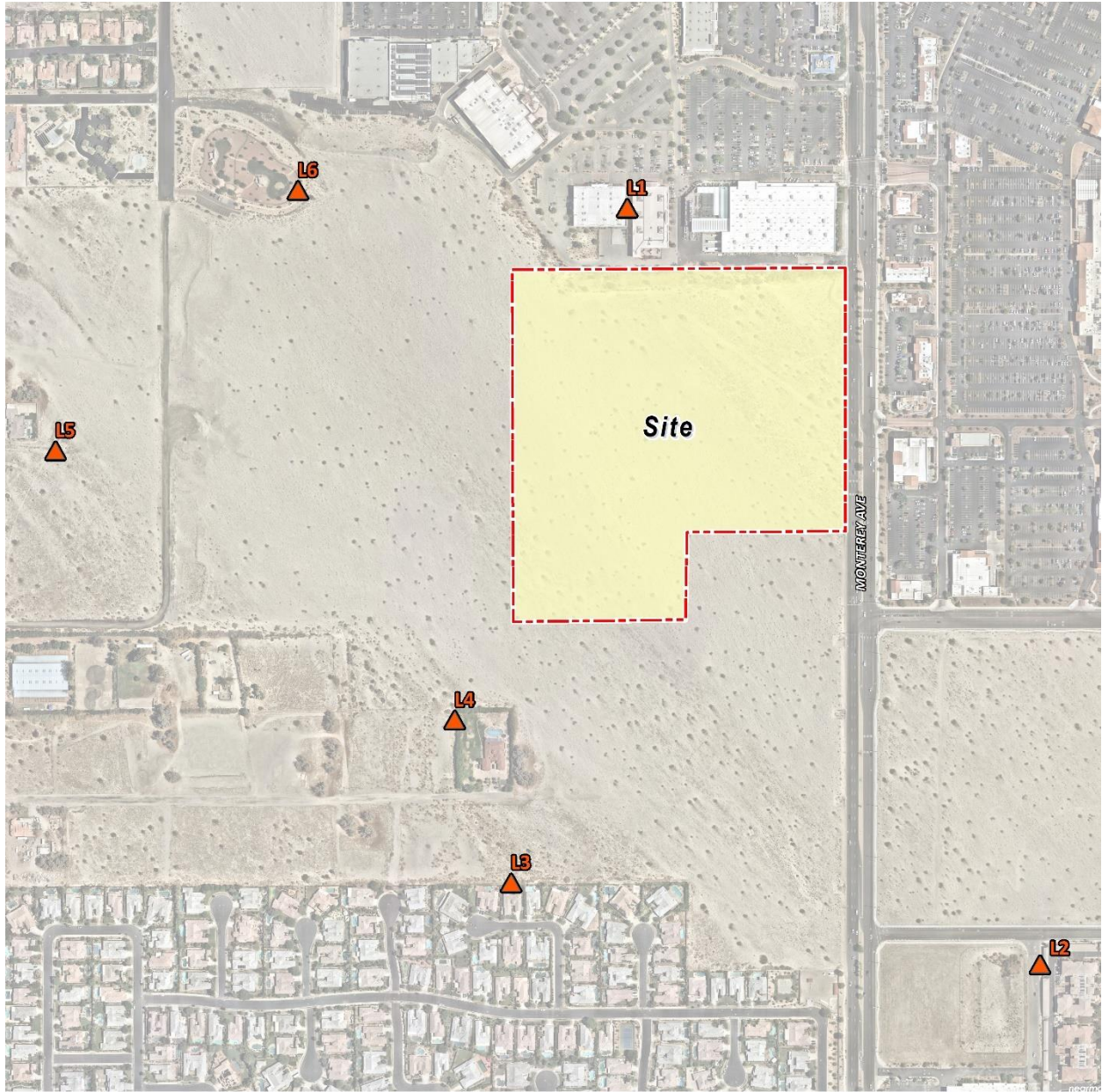
¹ See Exhibit 5-A for the noise level measurement locations.

² Energy (logarithmic) average levels. The long-term 24-hour measurement worksheets are included in Appendix 5.2.

"Day" = 7:00 a.m. to 6:00 p.m.; "Evening" = 6:00 p.m. to 10:00 p.m.; "Night" = 10:00 p.m. to 7:00 a.m.

Table 5-1 provides the equivalent noise levels used to describe the daytime, evening, and nighttime ambient conditions. These daytime and nighttime energy average noise levels represent the average of all hourly noise levels observed during these time periods expressed as a single number. Appendix 5.2 provides summary worksheets of the noise levels for each of the daytime and nighttime hours.

EXHIBIT 5-A: NOISE MEASUREMENT LOCATIONS



LEGEND:
N ▲ Measurement Locations

This page intentionally left blank

6 TRAFFIC NOISE METHODS AND PROCEDURES

The following section outlines the methods and procedures used to estimate and analyze the future traffic noise environment. Consistent with the City of Rancho Mirage *Land Use Compatibility* guidelines, all transportation related noise levels are presented in terms of the 24-hour CNELs.

6.1 FHWA TRAFFIC NOISE PREDICTION MODEL

The expected roadway noise level increases from vehicular traffic were calculated by Urban Crossroads, Inc. using a computer program that replicates the Federal Highway Administration (FHWA) Traffic Noise Prediction Model- FHWA-RD-77-108. (20) The FHWA Model arrives at a predicted noise level through a series of adjustments to the Reference Energy Mean Emission Level (REMEL). In California, the national REMELs are substituted with the California Vehicle Noise (Calveno) Emission Levels. (21) Adjustments are then made to the REMEL to account for: the roadway classification (e.g., collector, secondary, major or arterial), the roadway active width (i.e., the distance between the center of the outermost travel lanes on each side of the roadway), the total average daily traffic (ADT), the travel speed, the percentages of automobiles, medium trucks, and heavy trucks in the traffic volume, the roadway grade, the angle of view (e.g., whether the roadway view is blocked), the site conditions ("hard" or "soft" relates to the absorption of the ground, pavement, or landscaping), and the percentage of total ADT which flows each hour throughout a 24-hour period. Research conducted by Caltrans has shown that the use of soft site conditions is appropriate for the application of the FHWA traffic noise prediction model used in this analysis. (22)

6.1.1 OFF-SITE TRAFFIC NOISE PREDICTION MODEL INPUTS

Table 6-1 presents the roadway parameters used to assess the Project's off-site transportation noise impacts. Table 6-1 identifies the 19 off-site study area roadway segments, the distance from the centerline to adjacent receiving land use based on the functional roadway classifications per the City of Rancho Mirage and City of Palm Desert General Plans Circulation Element, and the vehicle speeds. The ADT volumes used in this study are presented on Table 6-2 are based on the *Rancho Monterey Specific Plan Draft Transportation Impact Assessment*, prepared by Fehr & Peers (23) for the following traffic conditions:

- Existing (2022) Without Project Conditions
- Existing With Project Alternative 1 Conditions (with a proposed roadway connection completed) (E+P Alt1)
- Existing With Project Alternative 2 Conditions (with no proposed roadway connection) (E+P Alt2)
- Opening Year (2023) Without Project Conditions
- Opening Year With Project Alternative 1 Conditions (with a proposed roadway connection completed) (OYP Alt1)
- Opening Year With Project Alternative 2 Conditions (with no proposed roadway connection) (OYP Alt2)

- Future Year (2040) Without Project Conditions
- Future Year With Project Alternative 1 Conditions (with a proposed roadway connection completed) (FYP Alt1)
- Future Year With Project Alternative 2 Conditions (with no proposed roadway connection) (FYP Alt2)

TABLE 6-1: OFF-SITE ROADWAY PARAMETERS

ID	Roadway	Segment	Classification ¹	Distance from Centerline to Receiving Land Use (Feet) ³	Vehicle Speed (mph)
1	Monterey Av.	n/o Varner Rd.	Thoroughfare	59'	55
2	Monterey Av.	s/o Varner Rd.	Thoroughfare	59'	55
3	Monterey Av.	n/o Dinah Shore Dr.	Arterial Street	75'	55
4	Dinah Shore Dr.	w/o Key Largo Av.	Major Arterial	60'	45
5	Dinah Shore Dr.	e/o Key Largo Av.	Major Arterial	60'	45
6	Dinah Shore Dr.	e/o Monterey Av.	Arterial Street	75'	45
7	Key Largo Av.	s/o Dinah Shore Dr.	Local	30'	45
8	Monterey Av.	s/o Dinah Shore Dr.	Major Arterial	60'	55
9	Dick Kelly Dr.	e/o Monterey Av.	Secondary Street	54'	45
10	Monterey Av.	s/o Dick Kelly Dr.	Major Arterial	60'	55
11	Gerald Ford Dr.	w/o Monterey Av.	Minor Arterial	55'	50
12	Gerald Ford Dr.	e/o Monterey Av.	Arterial Street	75'	50
13	Monterey Av.	s/o Gerald Ford Dr.	Major Arterial	60'	55
14	Frank Sinatra Dr.	w/o Monterey Av.	Minor Arterial	55'	55
15	Frank Sinatra Dr.	e/o Monterey Av.	Arterial Street	75'	50
16	Monterey Av.	s/o Frank Sinatra Dr.	Major Arterial	60'	55
17	Country Club Dr.	w/o Monterey Av.	Minor Arterial	55'	50
18	Country Club Dr.	e/o Monterey Av.	Arterial Street	75'	45
19	Monterey Av.	s/o Country Club Dr.	Minor Arterial	55'	50

¹ City of Rancho Mirage and City of Palm Desert General Plans Circulation Element

² Distance to receiving land use is based upon the right-of-way distances.

TABLE 6-2: AVERAGE DAILY TRAFFIC VOLUMES

ID	Roadway	Segment	Average Daily Traffic Volumes ¹											
			Existing (Alt 1)		Existing (Alt 2)		OY (Alt 1)		OY (Alt 2)		FY (Alt 1)		FY (Alt 2)	
			Without Project	With Project	Without Project	With Project	Without Project	With Project	Without Project	With Project	Without Project	With Project	Without Project	With Project
1	Monterey Av.	n/o Varner Rd.	15,500	15,800	15,500	15,800	15,300	15,600	15,300	15,600	16,000	16,300	16,000	16,300
2	Monterey Av.	s/o Varner Rd.	30,800	32,000	30,800	32,100	31,000	32,200	31,000	32,200	34,700	35,900	34,700	36,000
3	Monterey Av.	n/o Dinah Shore Dr.	51,900	55,200	51,900	55,200	51,500	54,700	51,500	54,700	59,100	62,400	59,100	62,400
4	Dinah Shore Dr.	w/o Key Largo Av.	26,900	28,900	26,900	27,500	22,900	23,500	22,900	23,500	27,600	29,600	27,600	28,200
5	Dinah Shore Dr.	e/o Key Largo Av.	31,000	32,200	31,000	32,400	27,900	28,400	27,900	29,300	32,300	33,500	32,300	33,700
6	Dinah Shore Dr.	e/o Monterey Av.	24,800	24,800	24,800	24,800	22,700	22,700	22,700	22,700	25,000	25,000	25,000	25,000
7	Key Largo Av.	s/o Dinah Shore Dr.	1,600	2,800	1,600	2,600	1,900	3,000	1,900	2,900	6,500	7,700	6,500	7,500
8	Monterey Av.	s/o Dinah Shore Dr.	32,600	35,100	32,600	35,100	33,400	35,800	33,400	35,900	40,000	42,500	40,000	42,500
9	Dick Kelly Dr.	e/o Monterey Av.	5,400	5,800	5,400	5,800	5,500	5,900	5,500	5,900	5,300	5,700	5,300	5,700
10	Monterey Av.	s/o Dick Kelly Dr.	32,900	36,800	32,900	35,800	33,400	36,500	33,400	36,500	39,500	43,400	39,500	42,400
11	Gerald Ford Dr.	w/o Monterey Av.	16,500	17,800	16,500	17,000	15,700	16,200	15,700	16,200	24,700	26,000	24,700	25,200
12	Gerald Ford Dr.	e/o Monterey Av.	14,500	15,700	14,500	15,000	13,300	13,800	13,300	13,800	19,300	20,500	19,300	19,800
13	Monterey Av.	s/o Gerald Ford Dr.	33,300	36,200	33,300	35,200	34,100	36,000	34,100	36,000	39,400	42,300	39,400	41,300
14	Frank Sinatra Dr.	w/o Monterey Av.	16,100	16,500	16,100	16,500	15,400	15,700	15,400	15,700	20,800	21,200	20,800	21,200
15	Frank Sinatra Dr.	e/o Monterey Av.	16,000	16,300	16,000	16,300	15,500	15,900	15,500	15,900	21,300	21,600	21,300	21,600
16	Monterey Av.	s/o Frank Sinatra Dr.	35,800	37,100	35,800	37,100	36,600	37,900	36,600	37,900	44,200	45,500	44,200	45,500
17	Country Club Dr.	w/o Monterey Av.	24,900	25,200	24,900	25,200	22,800	23,100	22,800	23,100	25,100	25,400	25,100	25,400
18	Country Club Dr.	e/o Monterey Av.	24,900	25,100	24,900	25,100	23,100	23,400	23,100	23,400	26,500	26,700	26,500	26,700
19	Monterey Av.	s/o Country Club Dr.	38,000	38,700	38,000	38,700	37,700	38,400	37,700	38,400	42,500	43,200	42,500	43,200

¹ Rancho Monterey Specific Plan Draft Transportation Impact Assessment, Fehr & Peers.

The ADT volumes vary for each roadway segment based on the existing traffic volumes and the combination of project traffic distributions. Table 6-3 provides the time of day (daytime, evening, and nighttime) vehicle splits and Table 6-4 presents the traffic flow distributions (vehicle mix) used for this analysis. The vehicle mix provides the hourly distribution percentages of automobile, medium trucks, and heavy trucks for input into the FHWA noise prediction model.

TABLE 6-3: TIME OF DAY VEHICLE SPLITS

Vehicle Type	Time of Day Splits ¹			Total of Time of Day Splits
	Daytime	Evening	Nighttime	
Autos	77.50%	12.90%	9.60%	100.00%
Medium Trucks	84.80%	4.90%	10.30%	100.00%
Heavy Trucks	86.50%	2.70%	10.80%	100.00%

¹ Typical Southern California vehicle mix.

"Daytime" = 7:00 a.m. to 7:00 p.m.; "Evening" = 7:00 p.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.

TABLE 6-4: TRAFFIC FLOW BY VEHICLE TYPE (VEHICLE MIX)

Classification	Total % Traffic Flow			Total
	Autos	Medium Trucks	Heavy Trucks	
All Roadways ¹	97.42%	1.84%	0.74%	100.00%

¹ Typical Southern California vehicle mix.

7 OFF-SITE TRAFFIC NOISE ANALYSIS

To assess the off-site transportation CNEL noise level impacts associated with development of the proposed Project, noise contours were developed based on the Rancho Monterey Specific Plan Draft Transportation Impact Assessment. (23) Noise contour boundaries represent the equal levels of noise exposure and are measured in CNEL from the center of the roadway.

7.1 NOISE CONTOURS

Noise contours were used to assess the Project's incremental 24-hour dBA CNEL traffic-related noise impacts at receiving land uses adjacent to roadways conveying Project traffic. The noise contours represent the distance to noise levels of a constant value and are measured from the center of the roadway for the 70, 65, and 60 dBA CNEL noise levels. The noise contours do not consider the effect of any existing noise barriers or topography that may attenuate ambient noise levels. In addition, because the noise contours reflect modeling of vehicular noise on area roadways, they appropriately do not reflect noise contributions from the surrounding stationary noise sources within the Project study area.

Tables 7-1 through 7-9 present a summary of the exterior dBA CNEL traffic noise levels without barrier attenuation. Roadway segments are analyzed from the without Project to the with Project conditions in each of the following timeframes:

- Existing (2022) Without Project Conditions
- Existing With Project Alternative 1 Conditions (with a proposed roadway connection completed) (E+P Alt1)
- Existing With Project Alternative 2 Conditions (with no proposed roadway connection) (E+P Alt2)
- Opening Year (2023) Without Project Conditions
- Opening Year With Project Alternative 1 Conditions (with a proposed roadway connection completed) (OYP Alt1)
- Opening Year With Project Alternative 2 Conditions (with no proposed roadway connection) (OYP Alt2)
- Future Year (2040) Without Project Conditions
- Future Year With Project Alternative 1 Conditions (with a proposed roadway connection completed) (FYP Alt1)
- Future Year With Project Alternative 2 Conditions (with no proposed roadway connection) (FYP Alt2)

Appendix 7.1 includes a summary of the dBA CNEL traffic noise level contours for each of the traffic scenarios.

TABLE 7-1: EXISTING WITHOUT PROJECT CONTOURS

ID	Road	Segment	CNEL at Receiving Land Use (dBA) ¹	Distance to Contour from Centerline (Feet)		
				70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Monterey Av.	n/o Varner Rd.	70.2	61	132	284
2	Monterey Av.	s/o Varner Rd.	73.2	97	208	449
3	Monterey Av.	n/o Dinah Shore Dr.	74.2	143	308	663
4	Dinah Shore Dr.	w/o Key Largo Av.	71.9	80	173	372
5	Dinah Shore Dr.	e/o Key Largo Av.	72.5	88	190	409
6	Dinah Shore Dr.	e/o Monterey Av.	68.8	62	134	289
7	Key Largo Av.	s/o Dinah Shore Dr.	61.9	9	19	40
8	Monterey Av.	s/o Dinah Shore Dr.	74.9	128	275	593
9	Dick Kelly Dr.	e/o Monterey Av.	64.0	21	46	100
10	Monterey Av.	s/o Dick Kelly Dr.	75.0	129	277	597
11	Gerald Ford Dr.	w/o Monterey Av.	70.2	57	122	263
12	Gerald Ford Dr.	e/o Monterey Av.	67.6	52	112	241
13	Monterey Av.	s/o Gerald Ford Dr.	75.0	130	279	602
14	Frank Sinatra Dr.	w/o Monterey Av.	71.1	66	141	305
15	Frank Sinatra Dr.	e/o Monterey Av.	68.0	55	119	257
16	Monterey Av.	s/o Frank Sinatra Dr.	75.3	136	293	631
17	Country Club Dr.	w/o Monterey Av.	72.0	75	161	347
18	Country Club Dr.	e/o Monterey Av.	68.8	62	134	290
19	Monterey Av.	s/o Country Club Dr.	73.8	99	213	459

¹ The CNEL is calculated at the boundary of the right-of-way of the receiving adjacent land use.
 "RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-2: EXISTING WITH PROJECT ALT1 CONTOURS

ID	Road	Segment	CNEL at Receiving Land Use (dBA) ¹	Distance to Contour from Centerline (Feet)		
				70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Monterey Av.	n/o Varner Rd.	70.3	62	134	288
2	Monterey Av.	s/o Varner Rd.	73.4	99	214	461
3	Monterey Av.	n/o Dinah Shore Dr.	74.5	149	320	690
4	Dinah Shore Dr.	w/o Key Largo Av.	72.2	84	181	391
5	Dinah Shore Dr.	e/o Key Largo Av.	72.7	90	195	420
6	Dinah Shore Dr.	e/o Monterey Av.	68.8	62	134	289
7	Key Largo Av.	s/o Dinah Shore Dr.	64.3	13	27	58
8	Monterey Av.	s/o Dinah Shore Dr.	75.2	134	289	623
9	Dick Kelly Dr.	e/o Monterey Av.	64.3	22	48	104
10	Monterey Av.	s/o Dick Kelly Dr.	75.5	139	299	643
11	Gerald Ford Dr.	w/o Monterey Av.	70.5	60	129	277
12	Gerald Ford Dr.	e/o Monterey Av.	67.9	55	118	254
13	Monterey Av.	s/o Gerald Ford Dr.	75.4	137	295	636
14	Frank Sinatra Dr.	w/o Monterey Av.	71.3	67	144	310
15	Frank Sinatra Dr.	e/o Monterey Av.	68.1	56	121	261
16	Monterey Av.	s/o Frank Sinatra Dr.	75.5	139	300	647
17	Country Club Dr.	w/o Monterey Av.	72.0	75	162	349
18	Country Club Dr.	e/o Monterey Av.	68.8	63	135	291
19	Monterey Av.	s/o Country Club Dr.	73.9	100	216	465

¹ The CNEL is calculated at the boundary of the right-of-way of the receiving adjacent land use.

"RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-3: EXISTING WITH PROJECT ALT2 CONTOURS

ID	Road	Segment	CNEL at Receiving Land Use (dBA) ¹	Distance to Contour from Centerline (Feet)		
				70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Monterey Av.	n/o Varner Rd.	70.3	62	134	288
2	Monterey Av.	s/o Varner Rd.	73.4	99	214	461
3	Monterey Av.	n/o Dinah Shore Dr.	74.5	149	320	690
4	Dinah Shore Dr.	w/o Key Largo Av.	72.0	81	175	378
5	Dinah Shore Dr.	e/o Key Largo Av.	72.7	91	196	421
6	Dinah Shore Dr.	e/o Monterey Av.	68.8	62	134	289
7	Key Largo Av.	s/o Dinah Shore Dr.	64.0	12	26	56
8	Monterey Av.	s/o Dinah Shore Dr.	75.2	134	289	623
9	Dick Kelly Dr.	e/o Monterey Av.	64.3	22	48	104
10	Monterey Av.	s/o Dick Kelly Dr.	75.3	136	293	631
11	Gerald Ford Dr.	w/o Monterey Av.	70.3	58	125	269
12	Gerald Ford Dr.	e/o Monterey Av.	67.8	53	114	246
13	Monterey Av.	s/o Gerald Ford Dr.	75.3	135	290	624
14	Frank Sinatra Dr.	w/o Monterey Av.	71.3	67	144	310
15	Frank Sinatra Dr.	e/o Monterey Av.	68.1	56	121	261
16	Monterey Av.	s/o Frank Sinatra Dr.	75.5	139	300	647
17	Country Club Dr.	w/o Monterey Av.	72.0	75	162	349
18	Country Club Dr.	e/o Monterey Av.	68.8	63	135	291
19	Monterey Av.	s/o Country Club Dr.	73.9	100	216	465

¹ The CNEL is calculated at the boundary of the right-of-way of the receiving adjacent land use.

"RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-4: OY (2023) WITHOUT PROJECT CONTOURS

ID	Road	Segment	CNEL at Receiving Land Use (dBA) ¹	Distance to Contour from Centerline (Feet)		
				70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Monterey Av.	n/o Varner Rd.	70.2	61	131	282
2	Monterey Av.	s/o Varner Rd.	73.2	97	209	451
3	Monterey Av.	n/o Dinah Shore Dr.	74.2	142	306	659
4	Dinah Shore Dr.	w/o Key Largo Av.	71.2	72	155	334
5	Dinah Shore Dr.	e/o Key Largo Av.	72.0	82	177	381
6	Dinah Shore Dr.	e/o Monterey Av.	68.4	59	126	272
7	Key Largo Av.	s/o Dinah Shore Dr.	62.6	10	21	45
8	Monterey Av.	s/o Dinah Shore Dr.	75.0	130	280	603
9	Dick Kelly Dr.	e/o Monterey Av.	64.1	22	47	101
10	Monterey Av.	s/o Dick Kelly Dr.	75.0	130	280	603
11	Gerald Ford Dr.	w/o Monterey Av.	70.0	55	118	255
12	Gerald Ford Dr.	e/o Monterey Av.	67.2	49	106	227
13	Monterey Av.	s/o Gerald Ford Dr.	75.1	132	284	611
14	Frank Sinatra Dr.	w/o Monterey Av.	71.0	64	137	296
15	Frank Sinatra Dr.	e/o Monterey Av.	67.9	54	117	252
16	Monterey Av.	s/o Frank Sinatra Dr.	75.4	138	297	641
17	Country Club Dr.	w/o Monterey Av.	71.6	70	152	327
18	Country Club Dr.	e/o Monterey Av.	68.5	59	128	275
19	Monterey Av.	s/o Country Club Dr.	73.8	98	212	457

¹ The CNEL is calculated at the boundary of the right-of-way of the receiving adjacent land use.
 "RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-5: OY WITH PROJECT ALT1 CONTOURS

ID	Road	Segment	CNEL at Receiving Land Use (dBA) ¹	Distance to Contour from Centerline (Feet)		
				70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Monterey Av.	n/o Varner Rd.	70.3	61	132	285
2	Monterey Av.	s/o Varner Rd.	73.4	100	215	462
3	Monterey Av.	n/o Dinah Shore Dr.	74.4	148	318	686
4	Dinah Shore Dr.	w/o Key Largo Av.	71.3	73	158	340
5	Dinah Shore Dr.	e/o Key Largo Av.	72.1	83	179	386
6	Dinah Shore Dr.	e/o Monterey Av.	68.4	59	126	272
7	Key Largo Av.	s/o Dinah Shore Dr.	64.6	13	28	61
8	Monterey Av.	s/o Dinah Shore Dr.	75.3	136	293	631
9	Dick Kelly Dr.	e/o Monterey Av.	64.4	23	49	106
10	Monterey Av.	s/o Dick Kelly Dr.	75.4	138	297	640
11	Gerald Ford Dr.	w/o Monterey Av.	70.1	56	121	260
12	Gerald Ford Dr.	e/o Monterey Av.	67.4	50	108	233
13	Monterey Av.	s/o Gerald Ford Dr.	75.4	137	294	634
14	Frank Sinatra Dr.	w/o Monterey Av.	71.0	65	139	299
15	Frank Sinatra Dr.	e/o Monterey Av.	68.0	55	119	256
16	Monterey Av.	s/o Frank Sinatra Dr.	75.6	141	304	656
17	Country Club Dr.	w/o Monterey Av.	71.7	71	153	330
18	Country Club Dr.	e/o Monterey Av.	68.5	60	129	278
19	Monterey Av.	s/o Country Club Dr.	73.9	100	215	463

¹ The CNEL is calculated at the boundary of the right-of-way of the receiving adjacent land use.

"RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-6: OY WITH PROJECT ALT2 CONTOURS

ID	Road	Segment	CNEL at Receiving Land Use (dBA) ¹	Distance to Contour from Centerline (Feet)		
				70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Monterey Av.	n/o Varner Rd.	70.3	61	132	285
2	Monterey Av.	s/o Varner Rd.	73.4	100	215	462
3	Monterey Av.	n/o Dinah Shore Dr.	74.4	148	318	686
4	Dinah Shore Dr.	w/o Key Largo Av.	71.3	73	158	340
5	Dinah Shore Dr.	e/o Key Largo Av.	72.3	85	183	394
6	Dinah Shore Dr.	e/o Monterey Av.	68.4	59	126	272
7	Key Largo Av.	s/o Dinah Shore Dr.	64.5	13	28	60
8	Monterey Av.	s/o Dinah Shore Dr.	75.3	136	294	633
9	Dick Kelly Dr.	e/o Monterey Av.	64.4	23	49	106
10	Monterey Av.	s/o Dick Kelly Dr.	75.4	138	297	640
11	Gerald Ford Dr.	w/o Monterey Av.	70.1	56	121	260
12	Gerald Ford Dr.	e/o Monterey Av.	67.4	50	108	233
13	Monterey Av.	s/o Gerald Ford Dr.	75.4	137	294	634
14	Frank Sinatra Dr.	w/o Monterey Av.	71.0	65	139	299
15	Frank Sinatra Dr.	e/o Monterey Av.	68.0	55	119	256
16	Monterey Av.	s/o Frank Sinatra Dr.	75.6	141	304	656
17	Country Club Dr.	w/o Monterey Av.	71.7	71	153	330
18	Country Club Dr.	e/o Monterey Av.	68.5	60	129	278
19	Monterey Av.	s/o Country Club Dr.	73.9	100	215	463

¹ The CNEL is calculated at the boundary of the right-of-way of the receiving adjacent land use.
 "RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-7: FY (2040) WITHOUT PROJECT CONTOURS

ID	Road	Segment	CNEL at Receiving Land Use (dBA) ¹	Distance to Contour from Centerline (Feet)		
				70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Monterey Av.	n/o Varner Rd.	70.4	63	135	290
2	Monterey Av.	s/o Varner Rd.	73.7	105	226	486
3	Monterey Av.	n/o Dinah Shore Dr.	74.8	156	335	722
4	Dinah Shore Dr.	w/o Key Largo Av.	72.0	82	176	379
5	Dinah Shore Dr.	e/o Key Largo Av.	72.7	91	195	421
6	Dinah Shore Dr.	e/o Monterey Av.	68.8	63	135	290
7	Key Largo Av.	s/o Dinah Shore Dr.	68.0	22	47	102
8	Monterey Av.	s/o Dinah Shore Dr.	75.8	146	316	680
9	Dick Kelly Dr.	e/o Monterey Av.	63.9	21	46	98
10	Monterey Av.	s/o Dick Kelly Dr.	75.8	145	313	674
11	Gerald Ford Dr.	w/o Monterey Av.	72.0	74	160	345
12	Gerald Ford Dr.	e/o Monterey Av.	68.8	63	135	292
13	Monterey Av.	s/o Gerald Ford Dr.	75.7	145	312	673
14	Frank Sinatra Dr.	w/o Monterey Av.	72.3	78	168	361
15	Frank Sinatra Dr.	e/o Monterey Av.	69.3	67	145	311
16	Monterey Av.	s/o Frank Sinatra Dr.	76.2	157	337	727
17	Country Club Dr.	w/o Monterey Av.	72.0	75	162	349
18	Country Club Dr.	e/o Monterey Av.	69.1	65	140	302
19	Monterey Av.	s/o Country Club Dr.	74.3	107	230	495

¹ The CNEL is calculated at the boundary of the right-of-way of the receiving adjacent land use.
 "RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-8: FY WITH PROJECT ALT1 CONTOURS

ID	Road	Segment	CNEL at Receiving Land Use (dBA) ¹	Distance to Contour from Centerline (Feet)		
				70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Monterey Av.	n/o Varner Rd.	70.5	63	136	294
2	Monterey Av.	s/o Varner Rd.	73.9	107	231	497
3	Monterey Av.	n/o Dinah Shore Dr.	75.0	161	348	749
4	Dinah Shore Dr.	w/o Key Largo Av.	72.3	85	184	397
5	Dinah Shore Dr.	e/o Key Largo Av.	72.8	93	200	431
6	Dinah Shore Dr.	e/o Monterey Av.	68.8	63	135	290
7	Key Largo Av.	s/o Dinah Shore Dr.	68.7	25	53	114
8	Monterey Av.	s/o Dinah Shore Dr.	76.1	153	329	708
9	Dick Kelly Dr.	e/o Monterey Av.	64.2	22	48	103
10	Monterey Av.	s/o Dick Kelly Dr.	76.2	155	333	718
11	Gerald Ford Dr.	w/o Monterey Av.	72.2	77	166	357
12	Gerald Ford Dr.	e/o Monterey Av.	69.1	65	141	304
13	Monterey Av.	s/o Gerald Ford Dr.	76.1	152	328	706
14	Frank Sinatra Dr.	w/o Monterey Av.	72.3	79	170	366
15	Frank Sinatra Dr.	e/o Monterey Av.	69.3	68	146	314
16	Monterey Av.	s/o Frank Sinatra Dr.	76.4	160	344	741
17	Country Club Dr.	w/o Monterey Av.	72.1	76	163	351
18	Country Club Dr.	e/o Monterey Av.	69.1	65	141	303
19	Monterey Av.	s/o Country Club Dr.	74.4	108	232	501

¹ The CNEL is calculated at the boundary of the right-of-way of the receiving adjacent land use.
 "RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-9: FY WITH PROJECT ALT2 CONTOURS

ID	Road	Segment	CNEL at Receiving Land Use (dBA) ¹	Distance to Contour from Centerline (Feet)		
				70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Monterey Av.	n/o Varner Rd.	70.5	63	136	294
2	Monterey Av.	s/o Varner Rd.	73.9	107	231	498
3	Monterey Av.	n/o Dinah Shore Dr.	75.0	161	348	749
4	Dinah Shore Dr.	w/o Key Largo Av.	72.1	83	178	384
5	Dinah Shore Dr.	e/o Key Largo Av.	72.9	93	201	433
6	Dinah Shore Dr.	e/o Monterey Av.	68.8	63	135	290
7	Key Largo Av.	s/o Dinah Shore Dr.	68.6	24	52	112
8	Monterey Av.	s/o Dinah Shore Dr.	76.1	153	329	708
9	Dick Kelly Dr.	e/o Monterey Av.	64.2	22	48	103
10	Monterey Av.	s/o Dick Kelly Dr.	76.1	152	328	707
11	Gerald Ford Dr.	w/o Monterey Av.	72.0	75	162	349
12	Gerald Ford Dr.	e/o Monterey Av.	69.0	64	138	297
13	Monterey Av.	s/o Gerald Ford Dr.	76.0	150	322	695
14	Frank Sinatra Dr.	w/o Monterey Av.	72.3	79	170	366
15	Frank Sinatra Dr.	e/o Monterey Av.	69.3	68	146	314
16	Monterey Av.	s/o Frank Sinatra Dr.	76.4	160	344	741
17	Country Club Dr.	w/o Monterey Av.	72.1	76	163	351
18	Country Club Dr.	e/o Monterey Av.	69.1	65	141	303
19	Monterey Av.	s/o Country Club Dr.	74.4	108	232	501

¹ The CNEL is calculated at the boundary of the right-of-way of the receiving adjacent land use.
 "RW" = Location of the respective noise contour falls within the right-of-way of the road.

7.2 EXISTING (2022) PROJECT TRAFFIC NOISE LEVEL INCREASES

An analysis of existing traffic noise levels plus traffic noise generated by the proposed Project has been included in this report to fully analyze all the existing traffic scenarios identified in the *Rancho Monterey Specific Plan Specific Plan Traffic Analysis*. This condition is provided solely for informational purposes and will not occur, since the Project will not be fully developed and occupied under Existing conditions. Table 7-1 shows the Existing without Project conditions CNEL noise levels. The Existing without Project exterior noise levels are expected to range from 61.9 to 75.3 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 7-2 shows the Existing with Project Alt1 conditions will range from 64.3 to 75.5 dBA CNEL. Table 7-3 shows the Existing with Project Alt2 conditions will range from 64.0 to 75.5 dBA CNEL. Table 7-10 shows that the Project Alt1 off-site traffic noise level impacts will range from 0.0 to 2.4 dBA CNEL. Table 7-11 shows that the Project Alt2 off-site traffic noise level impacts will range from 0.0 to 2.1 dBA CNEL. Based on the significance criteria for off-site traffic noise presented in Table 4-1, land uses adjacent to the study area roadway segments would experience *less than significant* noise level impacts due to unmitigated Project-related traffic noise levels.

7.3 OY (2023) PROJECT TRAFFIC NOISE LEVEL INCREASES

Table 7-4 presents the Opening Year (2023) without Project conditions CNEL noise levels. The Opening Year (2023) without Project exterior noise levels are expected to range from 62.6 to 75.4 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 7-5 shows the Opening Year (2023) with Project Alt1 conditions will range from 64.4 to 75.6 dBA CNEL. Table 7-6 shows the Opening Year (2023) with Project Alt2 conditions will range from 64.4 to 75.6 dBA CNEL. Table 7-12 shows that the Project Alt1 off-site traffic noise level increases will range from 0.0 to 2.0 dBA CNEL. Table 7-13 shows that the Project Alt2 off-site traffic noise level increases will range from 0.0 to 1.9 dBA CNEL. Based on the significance criteria for off-site traffic noise presented in Table 4-1, land uses adjacent to the study area roadway segments would experience *less than significant* noise level impacts due to unmitigated Project-related traffic noise levels.

7.4 FY (2040) PROJECT TRAFFIC NOISE LEVEL INCREASES

Table 7-7 presents the Future Year (2040) without Project conditions CNEL noise levels. The Future Year (2040) without Project exterior noise levels are expected to range from 63.9 to 76.2 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 7-8 shows the Future Year (2040) with Project Alt1 conditions will range from 64.2 to 76.4 dBA CNEL. Table 7-9 shows the Future Year (2040) with Project Alt2 conditions will range from 64.2 to 76.4 dBA CNEL. Table 7-14 shows that the Project Alt1 off-site traffic noise level increases will range from 0.0 to 0.7 dBA CNEL. Table 7-15 shows that the Project Alt2 off-site traffic noise level increases will range from 0.0 to 0.6 dBA CNEL. Based on the significance criteria for off-site traffic noise presented in Table 4-1, land uses adjacent to the study area roadway segments would experience *less than significant* noise level impacts due to unmitigated Project-related traffic noise levels.

TABLE 7-10: EXISTING WITH PROJECT ALT1 TRAFFIC NOISE LEVEL INCREASES

ID	Road	Segment	CNEL at Receiving Land Use (dBA) ¹			Incremental Noise Level Increase Threshold ²	
			No Project	With Project	Project Addition	Limit	Exceeded?
1	Monterey Av.	n/o Varner Rd.	70.2	70.3	0.1	1.5	No
2	Monterey Av.	s/o Varner Rd.	73.2	73.4	0.2	1.5	No
3	Monterey Av.	n/o Dinah Shore Dr.	74.2	74.5	0.3	1.5	No
4	Dinah Shore Dr.	w/o Key Largo Av.	71.9	72.2	0.3	1.5	No
5	Dinah Shore Dr.	e/o Key Largo Av.	72.5	72.7	0.2	1.5	No
6	Dinah Shore Dr.	e/o Monterey Av.	68.8	68.8	0.0	1.5	No
7	Key Largo Av.	s/o Dinah Shore Dr.	61.9	64.3	2.4	3.0	No
8	Monterey Av.	s/o Dinah Shore Dr.	74.9	75.2	0.3	1.5	No
9	Dick Kelly Dr.	e/o Monterey Av.	64.0	64.3	0.3	3.0	No
10	Monterey Av.	s/o Dick Kelly Dr.	75.0	75.5	0.5	1.5	No
11	Gerald Ford Dr.	w/o Monterey Av.	70.2	70.5	0.3	1.5	No
12	Gerald Ford Dr.	e/o Monterey Av.	67.6	67.9	0.3	1.5	No
13	Monterey Av.	s/o Gerald Ford Dr.	75.0	75.4	0.4	1.5	No
14	Frank Sinatra Dr.	w/o Monterey Av.	71.1	71.3	0.2	1.5	No
15	Frank Sinatra Dr.	e/o Monterey Av.	68.0	68.1	0.1	1.5	No
16	Monterey Av.	s/o Frank Sinatra Dr.	75.3	75.5	0.2	1.5	No
17	Country Club Dr.	w/o Monterey Av.	72.0	72.0	0.0	1.5	No
18	Country Club Dr.	e/o Monterey Av.	68.8	68.8	0.0	1.5	No
19	Monterey Av.	s/o Country Club Dr.	73.8	73.9	0.1	1.5	No

¹ The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use.

² Does the Project create an incremental noise level increase exceeding the significance criteria (Table 4-1)?

TABLE 7-11: EXISTING WITH PROJECT ALT2 TRAFFIC NOISE LEVEL INCREASES

ID	Road	Segment	CNEL at Receiving Land Use (dBA) ¹			Incremental Noise Level Increase Threshold ²	
			No Project	With Project	Project Addition	Limit	Exceeded?
1	Monterey Av.	n/o Varner Rd.	70.2	70.3	0.1	1.5	No
2	Monterey Av.	s/o Varner Rd.	73.2	73.4	0.2	1.5	No
3	Monterey Av.	n/o Dinah Shore Dr.	74.2	74.5	0.3	1.5	No
4	Dinah Shore Dr.	w/o Key Largo Av.	71.9	72.0	0.1	1.5	No
5	Dinah Shore Dr.	e/o Key Largo Av.	72.5	72.7	0.2	1.5	No
6	Dinah Shore Dr.	e/o Monterey Av.	68.8	68.8	0.0	1.5	No
7	Key Largo Av.	s/o Dinah Shore Dr.	61.9	64.0	2.1	3.0	No
8	Monterey Av.	s/o Dinah Shore Dr.	74.9	75.2	0.3	1.5	No
9	Dick Kelly Dr.	e/o Monterey Av.	64.0	64.3	0.3	3.0	No
10	Monterey Av.	s/o Dick Kelly Dr.	75.0	75.3	0.3	1.5	No
11	Gerald Ford Dr.	w/o Monterey Av.	70.2	70.3	0.1	1.5	No
12	Gerald Ford Dr.	e/o Monterey Av.	67.6	67.8	0.2	1.5	No
13	Monterey Av.	s/o Gerald Ford Dr.	75.0	75.3	0.3	1.5	No
14	Frank Sinatra Dr.	w/o Monterey Av.	71.1	71.3	0.2	1.5	No
15	Frank Sinatra Dr.	e/o Monterey Av.	68.0	68.1	0.1	1.5	No
16	Monterey Av.	s/o Frank Sinatra Dr.	75.3	75.5	0.2	1.5	No
17	Country Club Dr.	w/o Monterey Av.	72.0	72.0	0.0	1.5	No
18	Country Club Dr.	e/o Monterey Av.	68.8	68.8	0.0	1.5	No
19	Monterey Av.	s/o Country Club Dr.	73.8	73.9	0.1	1.5	No

¹ The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use.

² Does the Project create an incremental noise level increase exceeding the significance criteria (Table 4-1)?

TABLE 7-12: OY WITH PROJECT ALT1 TRAFFIC NOISE LEVEL INCREASES

ID	Road	Segment	CNEL at Receiving Land Use (dBA) ¹			Incremental Noise Level Increase Threshold ²	
			No Project	With Project	Project Addition	Limit	Exceeded?
1	Monterey Av.	n/o Varner Rd.	70.2	70.3	0.1	1.5	No
2	Monterey Av.	s/o Varner Rd.	73.2	73.4	0.2	1.5	No
3	Monterey Av.	n/o Dinah Shore Dr.	74.2	74.4	0.2	1.5	No
4	Dinah Shore Dr.	w/o Key Largo Av.	71.2	71.3	0.1	1.5	No
5	Dinah Shore Dr.	e/o Key Largo Av.	72.0	72.1	0.1	1.5	No
6	Dinah Shore Dr.	e/o Monterey Av.	68.4	68.4	0.0	1.5	No
7	Key Largo Av.	s/o Dinah Shore Dr.	62.6	64.6	2.0	3.0	No
8	Monterey Av.	s/o Dinah Shore Dr.	75.0	75.3	0.3	1.5	No
9	Dick Kelly Dr.	e/o Monterey Av.	64.1	64.4	0.3	3.0	No
10	Monterey Av.	s/o Dick Kelly Dr.	75.0	75.4	0.4	1.5	No
11	Gerald Ford Dr.	w/o Monterey Av.	70.0	70.1	0.1	1.5	No
12	Gerald Ford Dr.	e/o Monterey Av.	67.2	67.4	0.2	1.5	No
13	Monterey Av.	s/o Gerald Ford Dr.	75.1	75.4	0.3	1.5	No
14	Frank Sinatra Dr.	w/o Monterey Av.	71.0	71.0	0.0	1.5	No
15	Frank Sinatra Dr.	e/o Monterey Av.	67.9	68.0	0.1	1.5	No
16	Monterey Av.	s/o Frank Sinatra Dr.	75.4	75.6	0.2	1.5	No
17	Country Club Dr.	w/o Monterey Av.	71.6	71.7	0.1	1.5	No
18	Country Club Dr.	e/o Monterey Av.	68.5	68.5	0.0	1.5	No
19	Monterey Av.	s/o Country Club Dr.	73.8	73.9	0.1	1.5	No

¹ The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use.

² Does the Project create an incremental noise level increase exceeding the significance criteria (Table 4-1)?

TABLE 7-13: OY WITH PROJECT ALT2 TRAFFIC NOISE LEVEL INCREASES

ID	Road	Segment	CNEL at Receiving Land Use (dBA) ¹			Incremental Noise Level Increase Threshold ²	
			No Project	With Project	Project Addition	Limit	Exceeded?
1	Monterey Av.	n/o Varner Rd.	70.2	70.3	0.1	1.5	No
2	Monterey Av.	s/o Varner Rd.	73.2	73.4	0.2	1.5	No
3	Monterey Av.	n/o Dinah Shore Dr.	74.2	74.4	0.2	1.5	No
4	Dinah Shore Dr.	w/o Key Largo Av.	71.2	71.3	0.1	1.5	No
5	Dinah Shore Dr.	e/o Key Largo Av.	72.0	72.3	0.3	1.5	No
6	Dinah Shore Dr.	e/o Monterey Av.	68.4	68.4	0.0	1.5	No
7	Key Largo Av.	s/o Dinah Shore Dr.	62.6	64.5	1.9	3.0	No
8	Monterey Av.	s/o Dinah Shore Dr.	75.0	75.3	0.3	1.5	No
9	Dick Kelly Dr.	e/o Monterey Av.	64.1	64.4	0.3	3.0	No
10	Monterey Av.	s/o Dick Kelly Dr.	75.0	75.4	0.4	1.5	No
11	Gerald Ford Dr.	w/o Monterey Av.	70.0	70.1	0.1	1.5	No
12	Gerald Ford Dr.	e/o Monterey Av.	67.2	67.4	0.2	1.5	No
13	Monterey Av.	s/o Gerald Ford Dr.	75.1	75.4	0.3	1.5	No
14	Frank Sinatra Dr.	w/o Monterey Av.	71.0	71.0	0.0	1.5	No
15	Frank Sinatra Dr.	e/o Monterey Av.	67.9	68.0	0.1	1.5	No
16	Monterey Av.	s/o Frank Sinatra Dr.	75.4	75.6	0.2	1.5	No
17	Country Club Dr.	w/o Monterey Av.	71.6	71.7	0.1	1.5	No
18	Country Club Dr.	e/o Monterey Av.	68.5	68.5	0.0	1.5	No
19	Monterey Av.	s/o Country Club Dr.	73.8	73.9	0.1	1.5	No

¹ The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use.

² Does the Project create an incremental noise level increase exceeding the significance criteria (Table 4-1)?

TABLE 7-14: FY WITH PROJECT ALT1 TRAFFIC NOISE LEVEL INCREASES

ID	Road	Segment	CNEL at Receiving Land Use (dBA) ¹			Incremental Noise Level Increase Threshold ²	
			No Project	With Project	Project Addition	Limit	Exceeded?
1	Monterey Av.	n/o Varner Rd.	70.4	70.5	0.1	1.5	No
2	Monterey Av.	s/o Varner Rd.	73.7	73.9	0.2	1.5	No
3	Monterey Av.	n/o Dinah Shore Dr.	74.8	75.0	0.2	1.5	No
4	Dinah Shore Dr.	w/o Key Largo Av.	72.0	72.3	0.3	1.5	No
5	Dinah Shore Dr.	e/o Key Largo Av.	72.7	72.8	0.1	1.5	No
6	Dinah Shore Dr.	e/o Monterey Av.	68.8	68.8	0.0	1.5	No
7	Key Largo Av.	s/o Dinah Shore Dr.	68.0	68.7	0.7	1.5	No
8	Monterey Av.	s/o Dinah Shore Dr.	75.8	76.1	0.3	1.5	No
9	Dick Kelly Dr.	e/o Monterey Av.	63.9	64.2	0.3	3.0	No
10	Monterey Av.	s/o Dick Kelly Dr.	75.8	76.2	0.4	1.5	No
11	Gerald Ford Dr.	w/o Monterey Av.	72.0	72.2	0.2	1.5	No
12	Gerald Ford Dr.	e/o Monterey Av.	68.8	69.1	0.3	1.5	No
13	Monterey Av.	s/o Gerald Ford Dr.	75.7	76.1	0.4	1.5	No
14	Frank Sinatra Dr.	w/o Monterey Av.	72.3	72.3	0.0	1.5	No
15	Frank Sinatra Dr.	e/o Monterey Av.	69.3	69.3	0.0	1.5	No
16	Monterey Av.	s/o Frank Sinatra Dr.	76.2	76.4	0.2	1.5	No
17	Country Club Dr.	w/o Monterey Av.	72.0	72.1	0.1	1.5	No
18	Country Club Dr.	e/o Monterey Av.	69.1	69.1	0.0	1.5	No
19	Monterey Av.	s/o Country Club Dr.	74.3	74.4	0.1	1.5	No

¹ The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use.

² Does the Project create an incremental noise level increase exceeding the significance criteria (Table 4-1)?

TABLE 7-15: FY WITH PROJECT ALT2 TRAFFIC NOISE LEVEL INCREASES

ID	Road	Segment	CNEL at Receiving Land Use (dBA) ¹			Incremental Noise Level Increase Threshold ²	
			No Project	With Project	Project Addition	Limit	Exceeded?
1	Monterey Av.	n/o Varner Rd.	70.4	70.5	0.1	1.5	No
2	Monterey Av.	s/o Varner Rd.	73.7	73.9	0.2	1.5	No
3	Monterey Av.	n/o Dinah Shore Dr.	74.8	75.0	0.2	1.5	No
4	Dinah Shore Dr.	w/o Key Largo Av.	72.0	72.1	0.1	1.5	No
5	Dinah Shore Dr.	e/o Key Largo Av.	72.7	72.9	0.2	1.5	No
6	Dinah Shore Dr.	e/o Monterey Av.	68.8	68.8	0.0	1.5	No
7	Key Largo Av.	s/o Dinah Shore Dr.	68.0	68.6	0.6	1.5	No
8	Monterey Av.	s/o Dinah Shore Dr.	75.8	76.1	0.3	1.5	No
9	Dick Kelly Dr.	e/o Monterey Av.	63.9	64.2	0.3	3.0	No
10	Monterey Av.	s/o Dick Kelly Dr.	75.8	76.1	0.3	1.5	No
11	Gerald Ford Dr.	w/o Monterey Av.	72.0	72.0	0.0	1.5	No
12	Gerald Ford Dr.	e/o Monterey Av.	68.8	69.0	0.2	1.5	No
13	Monterey Av.	s/o Gerald Ford Dr.	75.7	76.0	0.3	1.5	No
14	Frank Sinatra Dr.	w/o Monterey Av.	72.3	72.3	0.0	1.5	No
15	Frank Sinatra Dr.	e/o Monterey Av.	69.3	69.3	0.0	1.5	No
16	Monterey Av.	s/o Frank Sinatra Dr.	76.2	76.4	0.2	1.5	No
17	Country Club Dr.	w/o Monterey Av.	72.0	72.1	0.1	1.5	No
18	Country Club Dr.	e/o Monterey Av.	69.1	69.1	0.0	1.5	No
19	Monterey Av.	s/o Country Club Dr.	74.3	74.4	0.1	1.5	No

¹ The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use.

² Does the Project create an incremental noise level increase exceeding the significance criteria (Table 4-1)?

This page intentionally left blank

8 RECEIVER LOCATIONS

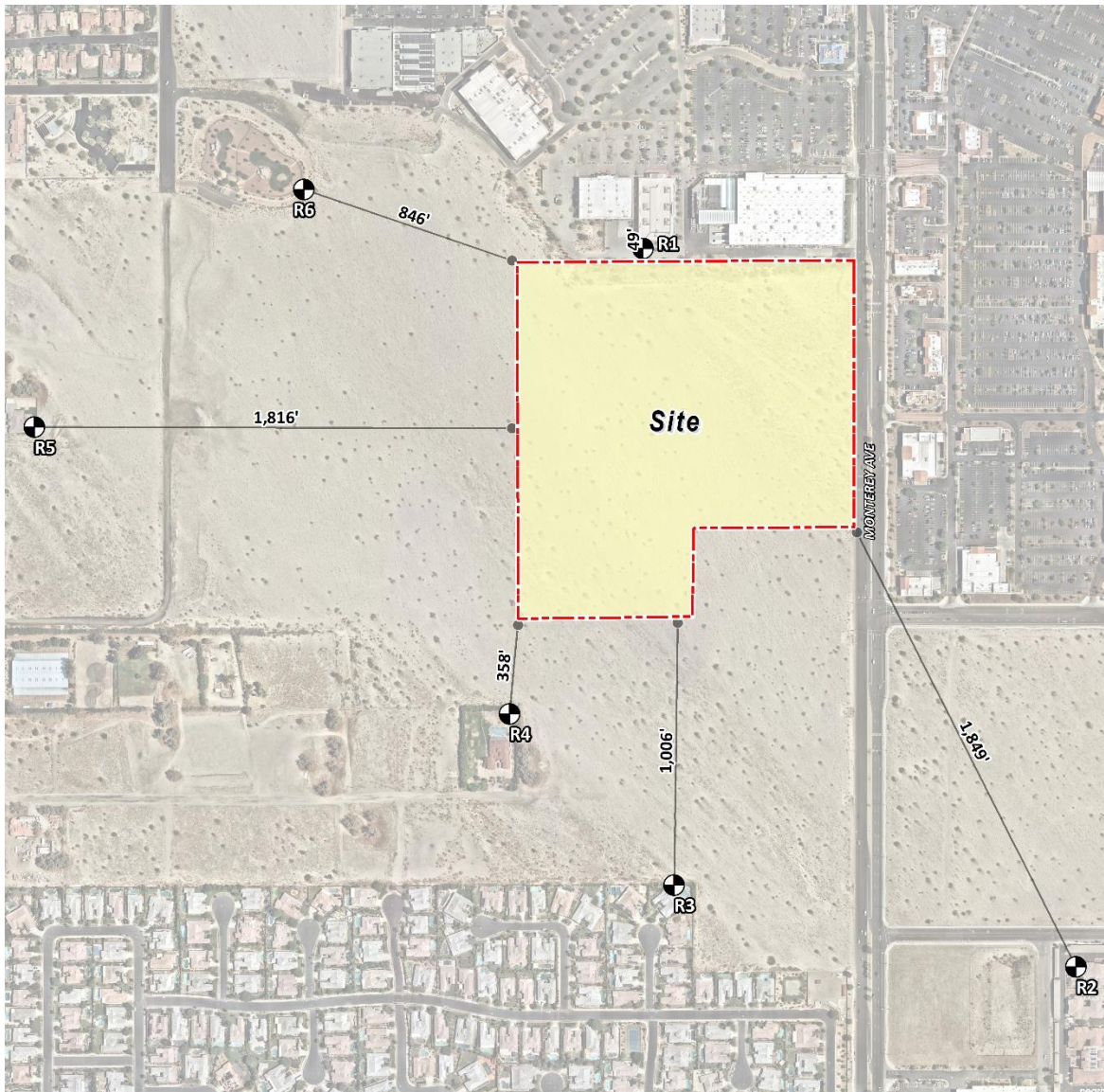
To assess the potential for long-term stationary source and short-term construction noise impacts, the following receiver locations, as shown on Exhibit 8-A, were identified as representative locations for analysis. Sensitive receivers are generally defined as locations where people reside or where the presence of unwanted sound could otherwise adversely affect the use of the land. Noise-sensitive land uses are generally considered to include schools, hospitals, single-family dwellings, mobile home parks, churches, libraries, and recreation areas. Moderately noise-sensitive land uses typically include multi-family dwellings, hotels, motels, dormitories, out-patient clinics, cemeteries, golf courses, country clubs, athletic/tennis clubs, and equestrian clubs. Land uses that are considered relatively insensitive to noise include business, commercial, and professional developments. Land uses that are typically not affected by noise include: industrial, manufacturing, utilities, agriculture, undeveloped land, parking lots, warehousing, liquid and solid waste facilities, salvage yards, and transit terminals.

To describe the potential Project noise levels, six receiver locations in the vicinity of the Project site were identified. All distances are measured from the Project site boundary to the outdoor living areas (e.g., private backyards) or at the building façade, whichever is closer to the Project site. The selection of receiver locations is based on FHWA guidelines and is consistent with additional guidance provided by Caltrans and the FTA, as previously described in Section 5.2. Other sensitive land uses in the Project study area that are located at greater distances than those identified in this noise study will experience lower noise levels than those presented in this report due to the additional attenuation from distance and the shielding of intervening structures. Distance is measured in a straight line from the project boundary to each receiver location.

- R1: Location R1 represents the existing noise sensitive SJVC Rancho Mirage (college) at 34275 Monterey Avenue, approximately 49 feet north of the Project site. Since there are no private outdoor living areas (backyards) facing the Project site, receiver R1 is placed at the building façade. A 24-hour noise measurement was taken near this location, L1, to describe the existing ambient noise environment.
- R2: Location R2 represents the existing noise sensitive residence at The Enclave Condominium Rentals at 35751 Gateway Drive, approximately 1,849 feet southeast of the Project site. Since there are no private outdoor living areas (backyards) facing the Project site, receiver R2 is placed at the building façade. A 24-hour noise measurement was taken near this location, L2, to describe the existing ambient noise environment.
- R3: Location R3 represents the existing noise sensitive residence at 10 Picasso Court, approximately 1,006 feet south of the Project site. R3 is placed in the private outdoor living areas (backyard) facing the Project site. A 24-hour noise measurement was taken near this location, L3, to describe the existing ambient noise environment.
- R4: Location R4 represents the existing noise sensitive residence at 72740 Via Florencia, approximately 358 feet south of the Project site. R4 is placed in the private outdoor living areas (backyard) facing the Project site. A 24-hour noise measurement was taken near this location, L4, to describe the existing ambient noise environment.

- R5: Location R5 represents the existing noise sensitive residence at 34620 Via Josefina., approximately 1,816 feet west of the Project site. R5 is placed in the private outdoor living areas (backyard) facing the Project site. A 24-hour noise measurement was taken near this location, L5, to describe the existing ambient noise environment.
- R6: Location R6 represents the existing noise sensitive Rancho Mirage Dog Park at 34100 Key Largo Avenue, approximately 846 feet northwest of the Project site. R6 is placed in the private outdoor living areas (backyard) facing the Project site. A 24-hour noise measurement was taken near this location, L6, to describe the existing ambient noise environment.

EXHIBIT 8-A: RECEIVER LOCATIONS



LEGEND:
 ● Receiver Locations
 — Distance from receiver to Project site boundary (in feet)

9 OPERATIONAL NOISE IMPACTS

This section analyzes the potential stationary-source operational noise impacts at the nearest receiver locations, identified in Section 8, resulting from the operation of uses allowed by the Rancho Monterey Specific Plan. The residential areas within the Rancho Monterey Specific Plan are considered a noise-sensitive receiving land use and are not expected to include any meaningful sources of noise activity. Therefore, no potential operational noise impacts for the residential land use are analyzed in the noise study. Exhibit 9-A identifies the representative noise source activities used to assess the commercial and park land use noise source activities.

9.1 OPERATIONAL NOISE SOURCES

This operational noise analysis is intended to describe noise level impacts associated with the expected typical daytime and nighttime activities at the Project site. The on-site Project-related noise sources are expected to include: outdoor seating activity, trash enclosure activity, roof-top air conditioning units, and parking lot activity.

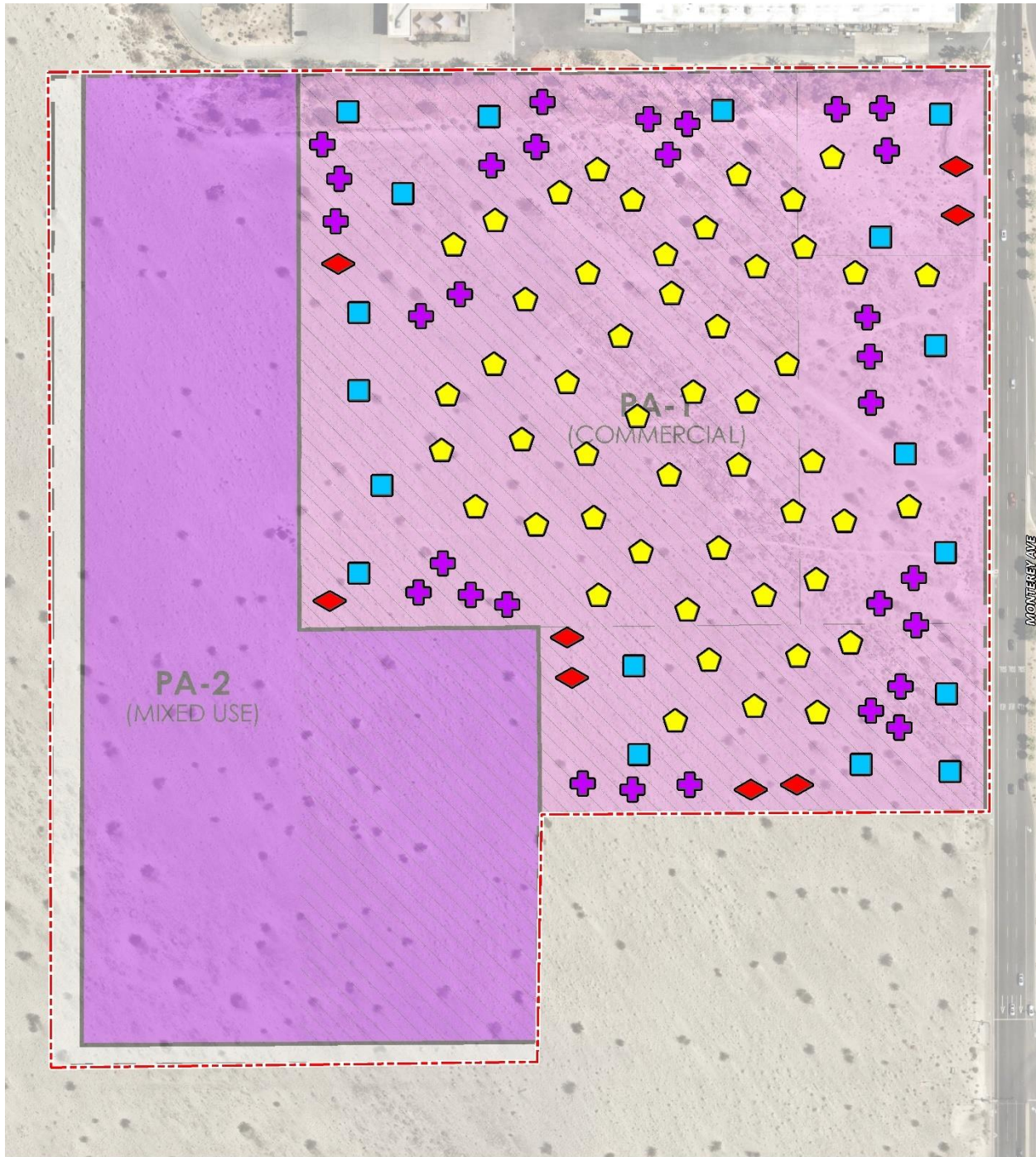
9.2 REFERENCE NOISE LEVELS

To estimate the Project operational noise impacts, reference noise level measurements were collected from similar types of activities to represent the noise levels expected with the development of the proposed Project. This section provides a detailed description of the reference noise level measurements shown on Table 9-1 used to estimate the Project operational noise impacts. It is important to note that the following projected noise levels assume the worst-case noise environment with the outdoor seating activity, trash enclosure activity, roof-top air conditioning units, and parking lot activity all operating at the same time. These sources of noise activity will likely vary throughout the day.

9.2.1 MEASUREMENT PROCEDURES

The reference noise level measurements presented in this section were collected using a Larson Davis LxT Type 1 precision sound level meter (serial number 01146). The LxT sound level meter was calibrated using a Larson-Davis calibrator, Model CAL 200, was programmed in "slow" mode to record noise levels in "A" weighted form and was located at approximately five feet above the ground elevation for each measurement. The sound level meters and microphones were equipped with a windscreen during all measurements. All noise level measurement equipment satisfies the American National Standards Institute (ANSI) standard specifications for sound level meters ANSI S1.4-2014/IEC 61672-1:2013. (19)

EXHIBIT 9-A: STATIONARY SOURCE NOISE LOCATIONS



- LEGEND:**
-  N
 -  Site Boundary
 -  Outdoor Activity Area
 -  Parking Lot Vehicle Movements
 -  Roof-Top Air Conditioning Unit
 -  Trash Enclosure Activity

TABLE 9-1: REFERENCE NOISE LEVEL MEASUREMENTS

Noise Source ¹	Noise Source Height (Feet)	Min./Hour ²			Reference Noise Level @50 feet (dBA L _{eq})	Sound Power Level (dBA) ³
		Day	Eve.	Night		
Outdoor Seating Activity	4'	60'	60'	0'	59.8	91.5
Trash Enclosure Activity	5'	10'	10'	10'	56.8	89.0
Roof-Top Air Conditioning Units	5'	39'	39'	28'	57.2	88.9
Parking Lot Activity	5'	60'	60'	30'	56.1	87.8

¹ As measured by Urban Crossroads, Inc.

² Anticipated duration (minutes within the hour) of noise activity during typical hourly conditions expected at the Project site. "Day" = 7:00 a.m. to 6:00 p.m.; "Evening" = 6:00 p.m. to 10:00 p.m.; "Night" = 10:00 p.m. to 7:00 a.m.

³ Sound power level represents the total amount of acoustical energy (noise level) produced by a sound source independent of distance or surroundings. Sound power levels calculated using the CadnaA noise model at the reference distance to the noise source.

9.2.1 OUTDOOR SEATING ACTIVITY

To describe the outdoor common area courtyards activity areas, a reference noise level measurement was taken. At 50 feet, the reference noise level is 59.8 dBA L_{eq} at a noise source height of 5 feet. The reference noise level measurement includes outdoor eating, drinking, with laughing and talking. Outdoor common area activities are limited to the daytime hours only.

9.2.2 TRASH ENCLOSURE ACTIVITY

To describe the noise levels associated with a trash enclosure activity, Urban Crossroads collected a reference noise level measurement at an existing trash enclosure containing two dumpster bins. The trash enclosure noise levels describe metal gates opening and closing, metal scraping against concrete floor sounds, dumpster movement on metal wheels, and trash dropping into the metal dumpster. The reference noise levels describe trash enclosure noise activities when trash is dropped into an empty metal dumpster, as would occur at the Project site. The measured reference noise level at the uniform 50-foot reference distance is 56.8 dBA L_{eq} for the trash enclosure activity. The reference noise level describes the expected noise source activities associated with the trash enclosures for the Project’s proposed buildings. Typical trash enclosure activities are estimated to occur for 10 minutes per hour.

9.2.3 ROOF-TOP AIR CONDITIONING UNITS

To assess the noise levels created by the roof-top air conditioning units, reference noise level measurements were collected from a Lennox SCA120 series 10-ton model packaged air conditioning unit. At the uniform reference distance of 50 feet, the reference noise levels are 57.2 dBA L_{eq}. Based on the typical operating conditions observed over a four-day measurement period, the roof-top air conditioning units are estimated to operate for an average of 39 minutes per hour during the daytime hours, and 28 minutes per hour during the nighttime hours. For this noise analysis, the air conditioning units are expected to be located on the roof of the proposed building. This reference noise level describes the expected roof-top air conditioning units located 5 feet above the roof for the planned air conditioning units at the Project site.

9.2.4 PARKING LOT ACTIVITY

To describe the on-site parking lot activity a reference noise level of 56.1 dBA L_{eq} at 50 feet is used. Parking lot activity are expected to take place during the full hour (60 minutes) throughout the daytime and evening hours with 30 minutes of activity during the nighttime hours. The parking lot noise levels are mainly due to cars pulling in and out of parking spaces.

9.3 CADNAA NOISE PREDICTION MODEL

To fully describe the exterior operational noise levels from the Project, Urban Crossroads, Inc. developed a noise prediction model using the CadnaA (Computer Aided Noise Abatement) computer program. CadnaA can analyze multiple types of noise sources using the spatially accurate Project site plan, georeferenced Nearmap aerial imagery, topography, buildings, and barriers in its calculations to predict outdoor noise levels.

Using the ISO 9613-2 protocol, CadnaA will calculate the distance from each noise source to the noise receiver locations, using the ground absorption, distance, and barrier/building attenuation inputs to provide a summary of noise level at each receiver and the partial noise level contributions by noise source. Consistent with the ISO 9613-2 protocol, the CadnaA noise prediction model relies on the reference sound power level (L_w) to describe individual noise sources. While sound pressure levels (e.g., L_{eq}) quantify in decibels the intensity of given sound sources at a reference distance, sound power levels (L_w) are connected to the sound source and are independent of distance. Sound pressure levels vary substantially with distance from the source and diminish because of intervening obstacles and barriers, air absorption, wind, and other factors. Sound power is the acoustical energy emitted by the sound source and is an absolute value that is not affected by the environment. The operational noise level calculations provided in this noise study account for the distance attenuation provided due to geometric spreading, when sound from a localized stationary source (i.e., a point source) propagates uniformly outward in a spherical pattern. A default ground attenuation factor of 0.5 was used in the noise analysis to account for mixed ground representing a combination of hard and soft surfaces.

9.4 PROJECT OPERATIONAL NOISE LEVELS

Using the reference noise levels to represent the proposed Project operations that include, Urban Crossroads, Inc. calculated the operational source noise levels that are expected to be generated from the Project site and the Project-related noise level increases that would be experienced at each of the sensitive receiver locations. Tables 9-2 shows the calculated Project operational noise levels during the daytime hours of 7:00 a.m. to 6:00 p.m., evening hours of 6:00 p.m. to 10:00 p.m. and the nighttime hours of 10:00 p.m. to 7:00 a.m. Table 9-2 shows that the Project operational noise levels will range from 29.8 to 47.2 dBA L_{eq} .

TABLE 9-2: PROJECT OPERATIONAL NOISE LEVELS

Receiver Location ¹	Project Operational Noise Levels (dBA Leq) ²			Noise Level Standards (dBA Leq) ³			Threshold Exceeded? ⁴		
	Day	Eve.	Night	Day	Eve.	Night	Day	Eve.	Night
R1	47.2	47.2	42.4	65	60	55	No	No	No
R2	34.5	34.5	30.2	55	50	45	No	No	No
R3	38.6	38.6	34.1	55	50	45	No	No	No
R4	40.8	40.8	35.8	55	50	45	No	No	No
R5	34.7	34.7	29.8	55	50	45	No	No	No
R6	37.8	37.8	33.4	65	60	55	No	No	No

¹ See Exhibit 8-A for the receiver locations.

² Proposed Project operational noise level calculations included in Appendix 9.1.

³ City of Rancho Mirage exterior noise level standards by land use, as shown on Table 3-1.

⁴ Do the estimated Project operational noise source activities exceed the noise level standards?

"Day" = 7:00 a.m. to 6:00 p.m.; "Evening" = 6:00 p.m. to 10:00 p.m.; "Night" = 10:00 p.m. to 7:00 a.m.

To demonstrate compliance with local noise regulations, the Project-only operational noise levels are evaluated against exterior noise level thresholds based on the City of Rancho Mirage exterior noise level standards at nearby noise-sensitive receiver locations. Table 9-2 shows that the operational noise levels associated with Rancho Monterey Specific Plan Project will satisfy the City of Rancho Mirage daytime, evening, and nighttime exterior noise level standards at all nearby receiver locations. Therefore, the operational noise impacts are considered *less than significant* at the nearby noise-sensitive receiver locations.

9.6 PROJECT OPERATIONAL NOISE LEVEL INCREASES

To describe the Project operational noise level increases, the Project operational noise levels are combined with the existing ambient noise levels measurements for the nearby receiver locations potentially impacted by Project operational noise sources. Since the units used to measure noise, decibels (dB), are logarithmic units, the Project-stationary source and existing ambient noise levels cannot be combined using standard arithmetic equations. (2) Instead, they must be logarithmically added using the following base equation:

$$SPL_{Total} = 10\log_{10}[10^{SPL1/10} + 10^{SPL2/10} + \dots 10^{SPLn/10}]$$

Where "SPL1," "SPL2," etc. are equal to the sound pressure levels being combined, or in this case, the Project operational and existing ambient noise levels. The difference between the combined Project and ambient noise levels describes the Project noise level increases to the existing ambient noise environment. Noise levels that would be experienced at receiver locations when Project-source noise is added to the daytime, evening, and nighttime ambient conditions are presented on Tables 9-3, 9-4, and 9-5, respectively. As indicated on Tables 9-3, 9-4 and 9-5, the Project will generate an unmitigated operational noise level increases ranging from 0.0 to 2.0 dBA Leq at the nearby receiver locations.

Tables 9-3, 9-4 and 9-5 show that the Project operational noise level contributions satisfy the operational noise level increase significance criteria presented in Table 4-1. Therefore, the

Project related operational noise level increases at all sensitive receiver locations will be *less than significant*.

TABLE 9-3: DAYTIME PROJECT STATIONARY SOURCE NOISE LEVEL INCREASES

Receiver Location ¹	Total Project Operational Noise Level ²	Measurement Location ³	Reference Ambient Noise Levels ⁴	Combined Project and Ambient ⁵	Project Increase ⁶	Increase Criteria ⁷	Increase Criteria Exceeded? ⁷
R1	47.2	L1	55.0	55.7	0.7	5.0	No
R2	34.5	L2	54.4	54.4	0.0	5.0	No
R3	38.6	L3	52.0	52.2	0.2	5.0	No
R4	40.8	L4	45.7	46.9	1.2	5.0	No
R5	34.7	L5	44.8	45.2	0.4	5.0	No

¹ See Exhibit 8-A for the receiver locations.

² Total Project operational noise levels as shown on Table 9-2.

³ Reference noise level measurement locations as shown on Exhibit 5-A.

⁴ Observed daytime ambient noise levels as shown on Table 5-1.

⁵ Represents the combined ambient conditions plus the Project activities.

⁶ The noise level increase expected with the addition of the proposed Project activities.

⁷ Significance Criteria as defined in Section 4.

TABLE 9-4: EVENING PROJECT STATIONARY SOURCE NOISE LEVEL INCREASES

Receiver Location ¹	Total Project Operational Noise Level ²	Measurement Location ³	Reference Ambient Noise Levels ⁴	Combined Project and Ambient ⁵	Project Increase ⁶	Increase Criteria ⁷	Increase Criteria Exceeded? ⁷
R1	47.2	L1	53.1	54.1	1.0	5.0	No
R2	34.5	L2	52.4	52.5	0.1	5.0	No
R3	38.6	L3	49.0	49.4	0.4	5.0	No
R4	40.8	L4	44.8	46.3	1.5	5.0	No
R5	34.7	L5	45.8	46.1	0.3	5.0	No

¹ See Exhibit 8-A for the receiver locations.

² Total Project operational noise levels as shown on Table 9-2.

³ Reference noise level measurement locations as shown on Exhibit 5-A.

⁴ Observed evening ambient noise levels as shown on Table 5-1.

⁵ Represents the combined ambient conditions plus the Project activities.

⁶ The noise level increase expected with the addition of the proposed Project activities.

⁷ Significance Criteria as defined in Section 4.

TABLE 9-5: NIGHTTIME PROJECT STATIONARY SOURCE NOISE LEVEL INCREASES

Receiver Location ¹	Total Project Operational Noise Level ²	Measurement Location ³	Reference Ambient Noise Levels ⁴	Combined Project and Ambient ⁵	Project Increase ⁶	Increase Criteria ⁷	Increase Criteria Exceeded? ⁷
R1	47.2	L1	49.4	51.4	2.0	5.0	No
R2	34.5	L2	50.1	50.2	0.1	5.0	No
R3	38.6	L3	48.6	49.0	0.4	5.0	No
R4	40.8	L4	45.9	47.1	1.2	5.0	No
R5	34.7	L5	47.0	47.2	0.2	5.0	No

¹ See Exhibit 8-A for the receiver locations.

² Total Project operational noise levels as shown on Table 9-2.

³ Reference noise level measurement locations as shown on Exhibit 5-A.

⁴ Observed nighttime ambient noise levels as shown on Table 5-1.

⁵ Represents the combined ambient conditions plus the Project activities.

⁶ The noise level increase expected with the addition of the proposed Project activities.

⁷ Significance Criteria as defined in Section 4.

This page intentionally left blank

10 CONSTRUCTION IMPACTS

This section analyzes potential impacts resulting from the short-term construction activities associated with the development of the Project. Exhibit 10-A shows the construction noise source locations in relation to the nearest sensitive receiver locations previously described in Section 8.

10.1 CONSTRUCTION NOISE LEVELS

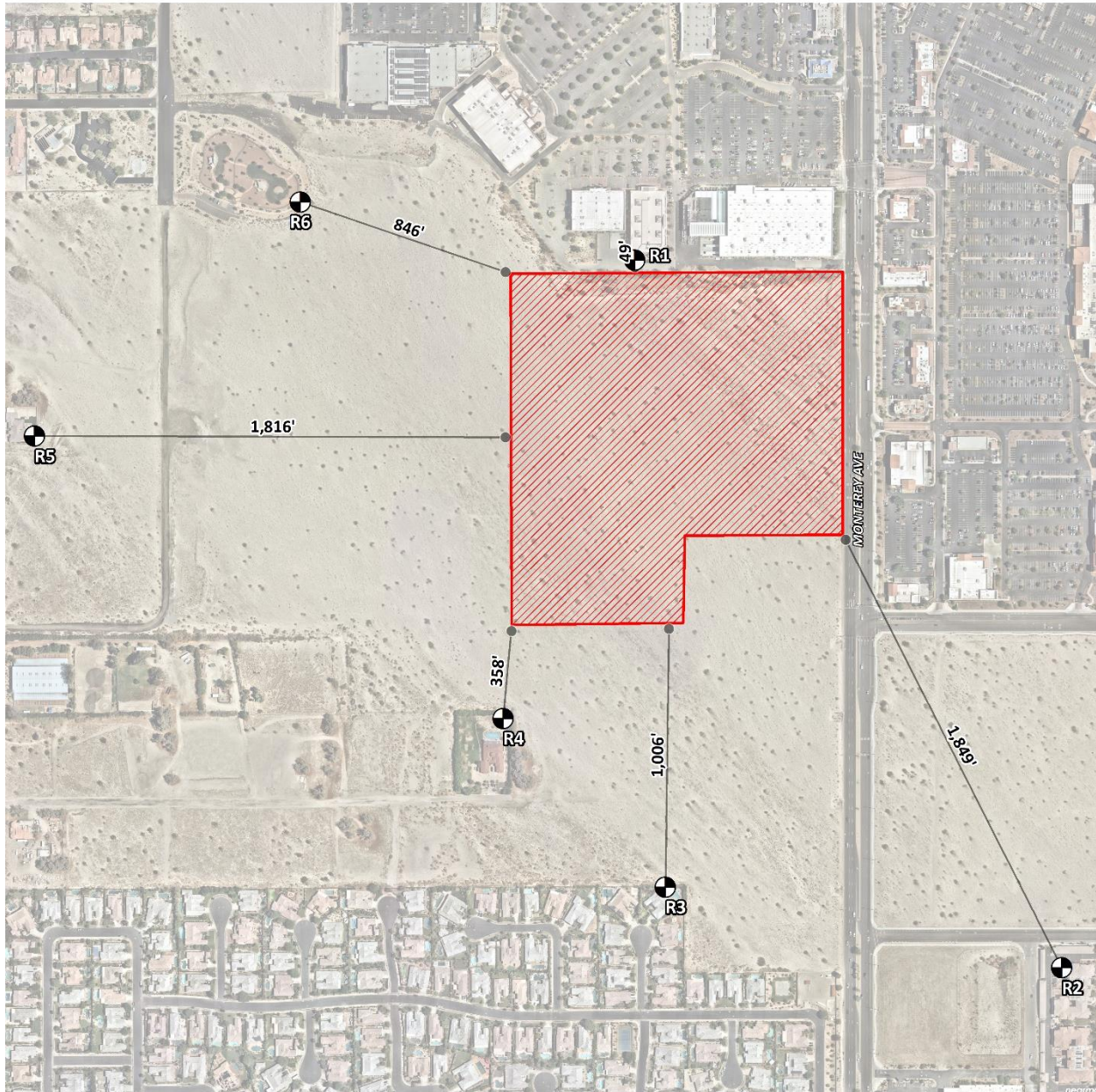
The FTA *Transit Noise and Vibration Impact Assessment Manual* recognizes that construction projects are accomplished in several different stages and outlines the procedures for assessing noise impacts during construction. Each stage has a specific equipment mix, depending on the work to be completed during that stage. As a result of the equipment mix, each stage has its own noise characteristics; some stages have higher continuous noise levels than others, and some have higher impact noise levels than others. The Project construction activities are expected to occur in the following stages:

- Site Preparation
- Grading
- Building Construction
- Paving
- Architectural Coating

10.2 CONSTRUCTION REFERENCE NOISE LEVELS

To describe construction noise activities, this construction noise analysis was prepared using reference construction equipment noise levels from the Federal Highway Administration (FHWA) published the Roadway Construction Noise Model (RCNM), which includes a national database of construction equipment reference noise emission levels. (25) The RCNM equipment database, provides a comprehensive list of the noise generating characteristics for specific types of construction equipment. In addition, the database provides an acoustical usage factor to estimate the fraction of time each piece of construction equipment is operating at full power (i.e., its loudest condition) during a construction operation.

EXHIBIT 10-A: TYPICAL CONSTRUCTION NOISE SOURCE LOCATIONS



LEGEND:

- N
- Construction Activity
- Receiver Locations
- Distance from receiver to construction activity (in feet)

10.3 CONSTRUCTION NOISE ANALYSIS

Using the reference construction equipment noise levels and the CadnaA noise prediction model, calculations of the Project construction noise level impacts at the nearby sensitive receiver locations were completed. Consistent with FTA guidance for general construction noise assessment, Table 10-1 presents the combined noise levels for the loudest construction equipment, assuming they operate at the same time. As shown on Table 10-2, the construction noise levels are expected to range from 38.7 to 60.4 dBA L_{eq} at the nearby receiver locations. Appendix 10.1 includes the detailed CadnaA construction noise model inputs.

TABLE 10-1: CONSTRUCTION REFERENCE NOISE LEVELS

Construction Stage	Reference Construction Activity	Reference Noise Level @ 50 Feet (dBA L_{eq}) ¹	Combined Noise Level (dBA L_{eq}) ²	Combined Sound Power Level (PWL) ³
Site Preparation	Crawler Tractors	78	80	112
	Hauling Trucks	72		
	Rubber Tired Dozers	75		
Grading	Graders	81	83	115
	Excavators	77		
	Compactors	76		
Building Construction	Cranes	73	81	113
	Tractors	80		
	Welders	70		
Paving	Pavers	74	83	115
	Paving Equipment	82		
	Rollers	73		
Architectural Coating	Cranes	73	77	109
	Air Compressors	74		
	Generator Sets	70		

¹ FHWA Roadway Construction Noise Model (RCNM).

² Represents the combined noise level for all equipment assuming they operate at the same time consistent with FTA Transit Noise and Vibration Impact Assessment guidance.

³ Sound power level represents the total amount of acoustical energy (noise level) produced by a sound source independent of distance or surroundings. Sound power levels calibrated using the CadnaA noise model at the reference distance to the noise source.

TABLE 10-2: CONSTRUCTION EQUIPMENT NOISE LEVEL SUMMARY

Receiver Location ¹	Construction Noise Levels (dBA Leq)					
	Site Preparation	Grading	Building Construction	Paving	Architectural Coating	Highest Levels ²
R1	57.4	60.4	58.4	60.4	54.4	60.4
R2	41.7	44.7	42.7	44.7	38.7	44.7
R3	45.7	48.7	46.7	48.7	42.7	48.7
R4	49.7	52.7	50.7	52.7	46.7	52.7
R5	42.4	45.4	43.4	45.4	39.4	45.4
R6	46.2	49.2	47.2	49.2	43.2	49.2

¹ Noise receiver locations are shown on Exhibit 10-A.

² Construction noise level calculations based on distance from the construction activity, which is measured from the Project site boundary to the nearest receiver locations. CadnaA construction noise model inputs are included in Appendix 10.1.

10.4 CONSTRUCTION NOISE LEVEL COMPLIANCE

To evaluate whether the Project will generate potentially significant short-term noise levels at nearest receiver locations, a construction-related daytime noise level threshold of 80 dBA Leq is used as a reasonable threshold to assess the daytime construction noise level impacts. The construction noise analysis shows that the nearest receiver locations will satisfy the reasonable daytime 80 dBA Leq significance threshold during Project construction activities as shown on Table 10-3. Therefore, the noise impacts due to Project construction noise are considered *less than significant* at all receiver locations.

TABLE 10-3: CONSTRUCTION NOISE LEVEL COMPLIANCE

Receiver Location ¹	Construction Noise Levels (dBA Leq)		
	Highest Construction Noise Levels ²	Threshold ³	Threshold Exceeded? ⁴
R1	60.4	80	No
R2	44.7	80	No
R3	48.7	80	No
R4	52.7	80	No
R5	45.4	80	No
R6	49.2	80	No

¹ Noise receiver locations are shown on Exhibit 10-A.

² Highest construction noise level calculations based on distance from the construction noise source activity to the nearest receiver locations as shown on Table 10-2.

³ Construction noise level thresholds as shown on Table 4-1.

⁴ Do the estimated Project construction noise levels exceed the construction noise level threshold?

10.5 CONSTRUCTION VIBRATION ANALYSIS

Construction activity can result in varying degrees of ground vibration, depending on the equipment and methods employed. Operation of construction equipment causes ground vibrations that spread through the ground and diminish in strength with distance. Ground vibration levels associated with various types of construction equipment are summarized on Table 10-4. Based on the representative vibration levels presented for various construction equipment types, it is possible to estimate the potential for human response (annoyance) and building damage using the following vibration assessment methods defined by the FTA. To describe the vibration impacts the FTA provides the following equation: $PPV_{\text{equip}} = PPV_{\text{ref}} \times (25/D)^{1.5}$

TABLE 10-4: VIBRATION SOURCE LEVELS FOR CONSTRUCTION EQUIPMENT

Equipment	PPV (in/sec) at 25 feet
Small bulldozer	0.003
Jackhammer	0.035
Loaded Trucks	0.076
Large bulldozer	0.089
Vibratory Roller	0.210

Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual

Table 10-5 presents the expected Project related vibration levels at the nearby receiver building façade locations. At distances ranging from 49 to 1,849 feet from the building façade to the Project construction activities, construction vibration velocity levels are estimated to range from 0.000 to 0.077 in/sec PPV. Based on maximum acceptable continuous vibration threshold of 0.3 PPV (in/sec), the typical Project construction vibration levels will fall below the building damage thresholds at all the noise sensitive receiver locations. Therefore, the Project-related vibration impacts are considered *less than significant* during typical construction activities at the Project site. Moreover, the vibration levels reported at the sensitive receiver locations are unlikely to be sustained during the entire construction period but will occur rather only during the times that heavy construction equipment is operating adjacent to the Project site perimeter.

TABLE 10-5: PROJECT CONSTRUCTION VIBRATION LEVELS

Location ¹	Distance to Const. Activity (Feet) ²	Typical Construction Vibration Levels PPV (in/sec) ³						Thresholds PPV (in/sec) ⁴	Thresholds Exceeded? ⁵
		Small bulldozer	Jackhammer	Loaded Trucks	Large bulldozer	Vibratory Roller	Highest Vibration Level		
R1	49'	0.001	0.013	0.028	0.032	0.077	0.077	0.3	No
R2	1,849'	0.000	0.000	0.000	0.000	0.000	0.000	0.3	No
R3	1,006'	0.000	0.000	0.000	0.000	0.001	0.001	0.3	No
R4	358'	0.000	0.001	0.001	0.002	0.004	0.004	0.3	No
R5	1,816'	0.000	0.000	0.000	0.000	0.000	0.000	0.3	No
R6	846'	0.000	0.000	0.000	0.000	0.001	0.001	0.3	No

¹ Receiver locations are shown on Exhibit 10-A.

² Distance from receiver building facade to Project construction boundary (Project site boundary).

³ Based on the Vibration Source Levels of Construction Equipment (Table 10-4).

⁴ Caltrans Transportation and Construction Vibration Guidance Manual, April 2020, Table 19, p. 38.

⁵ Does the peak vibration exceed the acceptable vibration thresholds?

"PPV" = Peak Particle Velocity

Moreover, the impacts at the site of the nearest sensitive receiver locations are unlikely to be sustained during the entire construction period but will occur rather only during the times that heavy construction equipment is operating adjacent to the Project site perimeter.

11 REFERENCES

1. **State of California.** *California Environmental Quality Act, Appendix G.* 2018.
2. **California Department of Transportation Environmental Program.** *Technical Noise Supplement - A Technical Supplement to the Traffic Noise Analysis Protocol.* Sacramento, CA : s.n., September 2013.
3. **Environmental Protection Agency Office of Noise Abatement and Control.** *Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety.* March 1974. EPA/ONAC 550/9/74-004.
4. **U.S. Department of Transportation, Federal Highway Administration, Office of Environment and Planning, Noise and Air Quality Branch.** *Highway Traffic Noise Analysis and Abatement Policy and Guidance.* December 2011.
5. **U.S. Department of Transportation Federal Highway Administration.** *Highway Noise Barrier Design Handbook.* 2001.
6. **U.S. Department of Transportation, Federal Highway Administration.** *Highway Traffic Noise in the United States, Problem and Response.* April 2000. p. 3.
7. **U.S. Environmental Protection Agency Office of Noise Abatement and Control.** *Noise Effects Handbook-A Desk Reference to Health and Welfare Effects of Noise.* October 1979 (revised July 1981). EPA 550/9/82/106.
8. **U.S. Department of Transportation, Federal Transit Administration.** *Transit Noise and Vibration Impact Assessment Manual.* September 2018.
9. **Office of Planning and Research.** *State of California General Plan Guidelines.* October 2017.
10. **State of California.** California Code of Regulations, Title 24, Part 2, Volume 1, Chapter 12, Section 1206.4, Allowable Interior Noise Level. *ICC Digital Coes.* [Online] 2019. <https://codes.iccsafe.org/content/CABCV12019/chapter-12-interior-environment>.
11. —. *2019 California Green Building Standards Code.* January 2020.
12. **City of Rancho Mirage.** *Municipal Code, Chapter 8.45 Noise.*
13. —. *Municipal Code, Sections 15.04.030.*
14. —. *General Plan Update Draft Environmental Impact Report.* 2005.
15. **California Department of Transportation.** *Transportation and Construction Vibration Guidance Manual.* April 2020.
16. **California Court of Appeal.** *Gray v. County of Madera, F053661.* 167 Cal.App.4th 1099; - Cal.Rptr.3d, October 2008.
17. **Federal Interagency Committee on Noise.** *Federal Agency Review of Selected Airport Noise Analysis Issues.* August 1992.
18. **California Department of Transportation.** *Technical Noise Supplement.* November 2009.
19. **American National Standards Institute (ANSI).** *Specification for Sound Level Meters ANSI S1.4-2014/IEC 61672-1:2013.*
20. **U.S. Department of Transportation, Federal Highway Administration.** *FHWA Highway Traffic Noise Prediction Model.* December 1978. FHWA-RD-77-108.

21. **California Department of Transportation Environmental Program, Office of Environmental Engineering.** *Use of California Vehicle Noise Reference Energy Mean Emission Levels (Calveno REMELs) in FHWA Highway Traffic Noise Prediction.* September 1995. TAN 95-03.
22. **California Department of Transportation.** *Traffic Noise Attenuation as a Function of Ground and Vegetation Final Report.* June 1995. FHWA/CA/TL-95/23.
23. **Fehr & Peers.** *Rancho Monterey Specific Plan Draft Transportation Impact Assessment.* March 2022.
24. **U.S. Department of Transportation, Federal Highway Administration, Office of Environment and Planning.** *FHWA Roadway Construction Noise Model.* January, 2006.

12 CERTIFICATION

The contents of this noise study report represent an accurate depiction of the noise environment and impacts associated with the proposed Rancho Monterey Specific Plan Project. The information contained in this noise study report is based on the best available data at the time of preparation. If you have any questions, please contact me directly at (949) 584-3148.

Bill Lawson, P.E., INCE
Principal
URBAN CROSSROADS, INC.
1133 Camelback #8329
Newport Beach, CA 92658
(949) 581-3148
blawson@urbanxroads.com



EDUCATION

Master of Science in Civil and Environmental Engineering
California Polytechnic State University, San Luis Obispo • December, 1993

Bachelor of Science in City and Regional Planning
California Polytechnic State University, San Luis Obispo • June, 1992

PROFESSIONAL REGISTRATIONS

PE – Registered Professional Traffic Engineer – TR 2537 • January, 2009
AICP – American Institute of Certified Planners – 013011 • June, 1997–January 1, 2012
PTP – Professional Transportation Planner • May, 2007 – May, 2013
INCE – Institute of Noise Control Engineering • March, 2004

PROFESSIONAL AFFILIATIONS

ASA – Acoustical Society of America
ITE – Institute of Transportation Engineers

PROFESSIONAL CERTIFICATIONS

Certified Acoustical Consultant – County of San Diego • March, 2018
Certified Acoustical Consultant – County of Orange • February, 2011
FHWA-NHI-142051 Highway Traffic Noise Certificate of Training • February, 2013

This page intentionally left blank

APPENDIX 3.1:

CITY OF RANCHO MIRAGE MUNICIPAL CODE

This page intentionally left blank

Rancho Mirage Municipal Code

[Up](#) [Previous](#) [Next](#) [Main](#) [Collapse](#) [Search](#) [Print](#) [No Frames](#)

[Title 8 HEALTH AND SAFETY](#)

Chapter 8.45 NOISE

8.45.010 Purpose.

The city has established a quality of life and environment in which peace and quiet is highly valued by its residents, visitors and businesses. The existence of excessive noise within the city is a condition which is detrimental to the health, safety, comfort, welfare and quality of life of the citizenry and shall be regulated in the public interest. This chapter has been created to implement the goals and policies of the noise element of the city’s general plan and to prohibit undesirable noises in the community. This chapter shall be referred to and cited as the Rancho Mirage noise ordinance. (Ord. 633 § 1(Exh. A), 1995)

8.45.020 Definitions.

Ambient noise level means the all encompassing noise level associated with a given environment, being a composite of sounds from all sources, excluding the alleged offensive noise, at the location and approximate time at which a comparison with the alleged offensive noise is to be made.

Cumulative period means an additive period of time consisting of individual time segments which may be continuous or interrupted.

Decibel (dBA) means a unit of sound level measured on a sound level meter using the A-weighting network.

Emergency means any occurrence or set of circumstances involving actual or imminent physical danger, crisis, trauma or property damage which demands immediate action.

Noise level means the same as sound level the terms are interchangeable.

Person means any individual, association, partnership, corporation, organization, or public agency, including associated officer(s), employee(s) or department(s).

Sound level means the quantity of decibels measured using the frequency weighting of A of a sound level meter.

Sound level meter means an instrument meeting the American National Standards Institute’s standard S1.4-1983 or later revision, for Type 1 or Type 2 specifications; or an instrument and the associated recording and analyzing equipment which will provide equivalent data. (Ord. 633 § 1(Exh. A), 1995)

8.45.030 Exterior noise level limits.

No person shall operate or cause to be operated any source of sound or allow the creation of sound or noise on property owned, leased, occupied or otherwise controlled by such person which causes the noise level, as measured on any other property, to exceed:

A. The noise level for the applicable zone specified in Table A-1 for a cumulative period of more than thirty minutes in any hour of the applicable time period.

Table A-1

Land Use/Zone	Time of Day	Noise Level (dBA)
Residential, Low Density (R-E, H-R, R-L-2, R-L-3)	7:00 a.m. to 6:00 p.m.	55
	6:00 p.m. to 10:00 p.m.	50
	10:00 p.m. to 7:00 a.m.	45
Residential, Medium and High Density, Hospital, Open Space (OS, R-M, R-H, MHP)	7:00 a.m. to 6:00 p.m.	60
	6:00 p.m. to 10:00 p.m.	55

	10:00 p.m. to 7:00 a.m.	50
Commercial Office, Resort Commercial, Mixed Use, Institutional (O, P, Rs-H, M-U)	7:00 a.m. to 6:00 p.m.	65
	6:00 p.m. to 10:00 p.m.	60
	10:00 p.m. to 7:00 a.m.	55
Commercial Neighborhood, General Commercial, Commercial Recreation, Light Industrial (C-N, C-G, I-L)	7:00 a.m. to 6:00 p.m.	70
	6:00 p.m. to 10:00 p.m.	65
	10:00 p.m. to 7:00 a.m.	60

B. For cumulative periods of time less than thirty minutes in an hour, all the noise standards in Table A-1 are increased according to Table B-1.

Table B-1

Duration of Sound	dBa Adjustment
15—30 minutes per hour	+ 3
10—15 minutes per hour	+ 5
5—10 minutes per hour	+ 10
1—5 minutes per hour	+ 15
Any period of time less than 1 minute per hour	+ 20

C. If the measured ambient noise level exceeds the dBA limits in Table A-1, the noise limits and their adjustments for the first three categories in Table B-1 shall be increased in five dBA increments as needed to encompass or reflect said ambient noise level. The maximum noise level under the last two categories in Table B-1 shall be increased, if necessary, only to equal the ambient noise level. (Ord. 1015 § 2, 2011; Ord. 633 § 1(Exh. A), 1995)

8.45.040 Noise level measurement.

A. The location selected for measuring exterior noise levels shall be at the point of the property line of the affected property nearest the alleged offending noise source. If possible, the ambient noise shall be measured at the same location along the property line.

B. If the measurement location is on a boundary between two different locations, the noise level limit applicable to the lower noise zone shall apply.

C. Upon receipt of a complaint or a request to investigate, the code compliance officer, equipped with an American National Standards Institute Type 2 or better sound level meter, may investigate the complaint. The investigation shall consist of measurements and the gathering of data to adequately define the noise problem and shall include the following:

1. Type and measurement of noise source;
2. Location of noise source relative to complainant’s or affected property;
3. Time period during which noise source is considered to be intrusive;
4. Total duration of noise levels measured;
5. Date(s) and time(s) of noise measurement survey. (Ord. 633 § 1(Exh. A), 1995)

8.45.050 Special provisions and exemptions.

The following activities and noise sources shall be exempted from the provisions of this chapter:

- A. School bands, school athletic and other activities occurring on a school campus;

- B. Outdoor gatherings, dance, shows, entertainment for events authorized through the city's special events process;
- C. Activities conducted in public parks and public playgrounds that are dependent upon such facilities for their operation;
- D. Any emission of sound for purposes of alerting persons to an emergency or the general emission of sound during performance of emergency work;
- E. Construction, alteration, repair, grading or improvement of any building, structure, road or improvement to real property for which a permit has been issued by the city if said construction occurs within the allowable hours set forth in Section 15.04.030(A)(10);
- F. The operation of any equipment and machinery at any time within any zone by the city, its employees, or any agent or franchisee of the city in the course of performing maintenance, construction or trash collection. (Ord. 633 § 1(Exh. A), 1995)

8.45.060 Additional prohibition.

It is unlawful and a nuisance for any person to keep, maintain or permit upon any lot or parcel of land within the city under his or her control any animal, including any fowl, which by any sound or cry shall habitually disturb the peace and comfort of any person in the reasonable and comfortable enjoyment of life or property. (Ord. 633 § 1(Exh. A), 1995)

8.45.065 Landscape maintenance.

A. It is unlawful and a public nuisance for any person to permit or perform for-hire landscape and non-emergency exterior hardscape maintenance activities such as, but not limited to, tree trimming, re-seeding, lawn mowing, leaf blowing, dust and debris clearing and any other landscaping or nonemergency exterior hardscape maintenance activities which utilize any motorized saw, sander, drill, grinder, leaf-blower, lawnmower, hedge trimmer, edger, or any other similar tool or device any time on Saturday and Sunday and between the hours of six p.m. and seven a.m. the next day during weekdays, unless otherwise provided in this section.

B. The regular mowing or grooming of golf courses, grass tennis courts, grass croquet courts, and lawn bowling areas shall be exempt from the restrictions set forth in this section. The allowed work hours for mowing or green preparation for golf courses, grass tennis courts, grass croquet courts, and lawn bowling areas shall be between five thirty a.m. and seven p.m., seven days per week and during all seasons of the year.

C. Nothing set forth in this section shall permit any person from engaging in any activities that exceed the exterior noise level limits set forth in Section 8.45.030 or otherwise constitute a public nuisance as set forth in Section 14.60.325 of the Municipal Code. (Ord. 979, § 1, 2009; Ord. 936, § 3, 2006)

8.45.070 Administration.

The noise control program established by this chapter shall be administered by and is the responsibility of the code compliance division as directed by the director of the community development department. (Ord. 633 § 1(Exh. A), 1995)

8.45.080 Violations and enforcement procedures.

Violations of this chapter are declared to be a nuisance and subject to the procedures, remedies and penalties set forth in Title 14. (Ord. 916 §4, 2006; Ord. 633 § 1(Exh. A), 1995)

View the [mobile version](#).

Rancho Mirage Municipal Code

[Up](#)
[Previous](#)
[Next](#)
[Main](#)
[Search](#)
[Print](#)
[No Frames](#)
[Title 15 BUILDINGS AND CONSTRUCTION](#)
[Chapter 15.04 CALIFORNIA BUILDING CODE, 2019 EDITION](#)

15.04.030 Adoption, modifications, amendments and deletions to Chapter 1 of the Building Code.

A. Except as otherwise provided in this chapter, the California Building Code, Title 24, California Code of Regulations, Part 2, Volume 1, Chapter 1, Division II, "Scope and Administration," including any and all amendments thereto that may hereafter be made and adopted by the state of California, is hereby adopted as the Administrative Code of the city. This administrative chapter shall apply to all codes listed in this title.

1. Section 101.1 is deleted in its entirety.
2. Section 101.5 is added to define the term "Holiday" and shall read as follows:

101.5 Holidays. "Holiday" as used in the Building Code shall mean New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving, and Christmas.

3. Section 102.2 is amended to read as follows:

102.2 Other laws. The provisions of this code shall not be deemed to nullify any provisions of local, state or federal law. In the event of discrepancies between this chapter and Chapter 1, General Code Provision, the latter shall take precedence.

4. Section 103.1 is amended to read as follows:

103.1 Creation of enforcement agency. There is established within the City, a division of the Administrative Services Department to be known as the "Building and Safety Division" which shall be under the administrative and operational control of the City Building Official hereinafter referred to as the building official.

5. Section 105.2 is amended by adding a new exemption to the list of structures for which a permit shall not be required:

14. Masonry freestanding block walls not over 30" above grade.

(The other provisions of Section 105.2 remain the same)

6. Section 105.5 is amended to read as follows:

105.5 Expiration. Every permit issued shall become invalid unless the work on the site authorized by such permit is commenced within 180 days after its issuance, or if the work authorized on the site by such permit is suspended or abandoned for a period of 180 days after the time the work is commenced. The building official is authorized to grant, in writing, one or more extensions of time, for periods not more than 180 days each. The extension shall be requested in writing and justifiable cause demonstrated.

Exception: For residential occupancies a permit shall remain valid for the purposes of this part if the work on the site authorized by that permit is commenced within 12 months after its issuance, unless the permittee has abandoned the work authorized by the permit.

7. Section 109.1 is amended to read as follows:

109.1 Payment of fees. On buildings, structures, electrical, gas, mechanical, and plumbing systems or alterations requiring a permit under this Building Code, a fee for each permit shall be paid as required, in accordance with the fees set forth in the City of Rancho Mirage Master Fee Schedule, a copy of which is on file with the Division of Building and Safety.

8. Section 113.4 is added to provide for the filing of appeals and shall read as follows:

113.4 Filing of appeals. All appeals shall be made in writing and shall specify the order, decision or determination made by the building official which is being appealed and wherein the building official erred in making the order, decision or determination. The appeal shall be accompanied by a fee as established by the City Council. If, after reviewing the information submitted, the building official determines the appeal does not merit a change in his or her order, decision, or determination, the building official shall schedule a hearing by the Appeals Board and the appellant shall be notified in writing of the date and time of the hearing.

9. Section 114 is amended to read as follows:

Section 114 VIOLATIONS.

114.1 Unlawful acts. It shall be unlawful for any person, firm, or corporation to erect, construct, alter, extend, repair, move, remove, demolish or occupy any building, structure or equipment regulated by this code, or to cause the same to be done, in conflict with or in violation of any provisions of this code. It shall be unlawful for any person to erect, construct, alter or repair a building or structure in violation of the approved construction documents or directive of the building official or of a permit or certificate issued under the provisions of this code.

114.2 Public nuisance; Abatement. Any violation of this Building Code, including the adopted appendices, is a public nuisance and may be abated in accordance with Title 14 of the City's Municipal Code.

114.3 Penalties. Any person who violates a provision of this Building Code, including the adopted appendices, or fails to comply with any of the requirements thereof or who erects, constructs, alters or repairs a building or structure in violation of the approved construction documents or directive of the building official, or of a permit or certificate issued under the provisions of this Building Code shall be guilty of an infraction violation, and the violator shall be subject to the provisions set forth in Chapter 14.100 (Infractions) of the City's Municipal Code, including, but not limited to, the imposition of any and all civil and criminal penalties set forth therein.

10. Section 116 is amended to read as follows:

Section 116 UNSAFE STRUCTURES AND EQUIPMENT.

116.1 Conditions. Structures or existing equipment that are or hereafter become unsafe, unsanitary or deficient because of inadequate means of egress facilities, inadequate light and ventilation, or which constitute a fire hazard, or are otherwise dangerous to human life or the public welfare, or that involve illegal or improper occupancy or inadequate maintenance shall be deemed an unsafe condition.

116.1.1 Unlawful acts. It shall be unlawful for any person, firm, or corporation to maintain as unsafe structures or equipment regulated by this code, or cause the same to be done in conflict with or in violation of any provisions of this

code.

11. Section 117 is added to limit the hours of construction work and shall read as follows:

Section 117 HOURS OF WORK.

117.1. Restricted hours; Construction work. Except as otherwise provided herein, no person other than the person actually occupying any buildings to be altered, repaired or improved, shall be engaged or employed, nor shall any person cause any other person to be engaged or employed in any work of construction, erection, alteration, repair, addition to or improvement of any building, structure, road or improvement to realty, between the hours of seven p.m. of each day and seven a.m. of the next succeeding day or on Sundays and holidays, without written permission of the Building Official being first obtained. The Building Official may grant permission to work during those periods under appropriate circumstances after first having determined that such work will not unduly or unreasonably interfere with the peaceful enjoyment of property adjacent to such work.

117.2 Restricted hours; Landscape maintenance. Within gated communities, shopping centers, commercial centers, vacant residential or commercial parcels, or developed residential or commercial parcels, landscape activities such as leaf blowing, tree trimming, re-seeding, or mowing of grass as associated with the re-seeding process and any other landscaping activities which generate unusual noise, are prohibited between the hours of seven p.m. of each day and seven a.m. of the next succeeding day or on Sundays or on holidays.

117.3 Restricted hours; Golf courses. In order to assure the excellence and readiness of golf courses within the City, mowing and green preparation of golf courses is permitted between 5:30 a.m. and 7 p.m., seven days per week and during all seasons of the year.

12. Section 118 is added to require removal and disposal of trash and debris at building sites and shall read as follows:

Section 118 REMOVAL AND DISPOSAL OF TRASH AND DEBRIS.

118.1 Required removal. Any person to whom a building permit has been issued shall keep the building site free and clear of trash and debris. As used in this section, trash and debris shall include papers, cartons, bottles, cans, garbage, roofing materials, plaster, concrete and other substances that may accumulate as a result of construction activities.

118.2 Container. A trash container shall be located on every construction site and shall remain in place until construction is completed. The container shall be adequate in size to store the trash and debris generated on the building site until it can be removed.

118.3 Disposal. Trash and debris shall be removed from the site and transported to a legally established dump site either by the City's refuse contractor or the permittee.

(Ord. 1161 § 3, 2019; Ord. 1109 § 3, 2016; Ord. 1075 § 2, 2013; Ord. 1051 § 1, 2012; Ord. 1001 § 2, 2010; Ord. 973 § 1, 2009; Ord. 961 § 2, 2007)

View the [mobile version](#).

APPENDIX 5.1:
STUDY AREA PHOTOS

This page intentionally left blank

JN: 14271 Study Area Photos



L1_E
33, 47' 55.620000"116, 23' 27.900000"



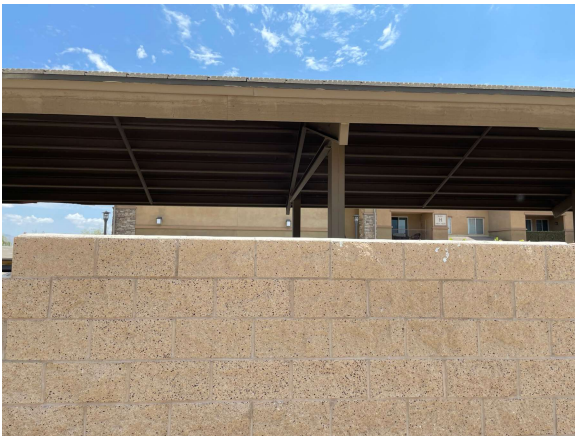
L1_N
33, 47' 55.790000"116, 23' 27.900000"



L1_S
33, 47' 55.750000"116, 23' 27.870000"



L1_W
33, 47' 55.620000"116, 23' 27.930000"



L2_E
33, 47' 27.290000"116, 23' 9.220000"

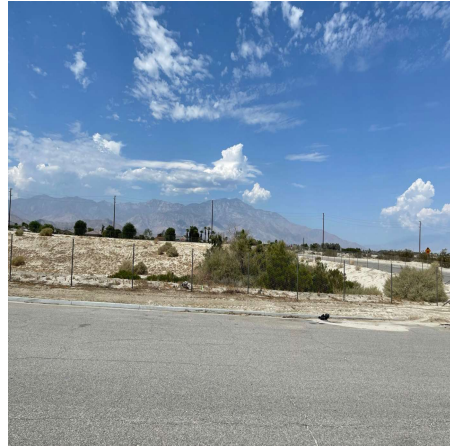


L2_N
33, 47' 27.380000"116, 23' 9.280000"

JN: 14271 Study Area Photos



L2_S
33, 47' 27.350000"116, 23' 9.170000"



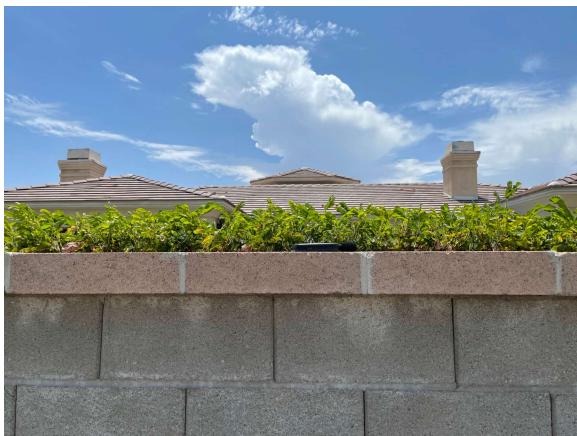
L2_W
33, 47' 27.290000"116, 23' 9.300000"



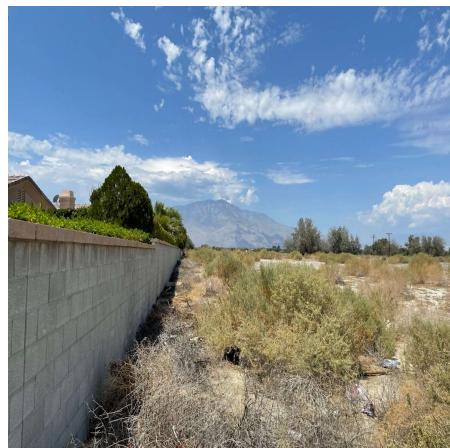
L3_E
33, 47' 30.390000"116, 23' 33.010000"



L3_N
33, 47' 30.420000"116, 23' 33.090000"



L3_S
33, 47' 30.390000"116, 23' 33.030000"



L3_W
33, 47' 30.390000"116, 23' 33.030000"

JN: 14271 Study Area Photos



L4_E
33, 47' 36.560000"116, 23' 35.640000"



L4_N
33, 47' 36.560000"116, 23' 35.640000"



L4_S
33, 47' 36.540000"116, 23' 35.640000"



L4_W
33, 47' 36.540000"116, 23' 35.640000"



L5_E
33, 47' 46.620000"116, 23' 53.610000"



L5_N
33, 47' 46.640000"116, 23' 53.630000"

JN: 14271 Study Area Photos



L5_S
33, 47' 46.620000"116, 23' 53.630000"



L5_W
33, 47' 46.620000"116, 23' 53.610000"



L6_E
33, 47' 56.410000"116, 23' 42.670000"



L6_N
33, 47' 56.440000"116, 23' 42.730000"



L6_S
33, 47' 56.410000"116, 23' 42.700000"



L6_W
33, 47' 56.370000"116, 23' 42.700000"

APPENDIX 5.2:
NOISE LEVEL MEASUREMENT WORKSHEETS

This page intentionally left blank

24-Hour Noise Level Measurement Summary

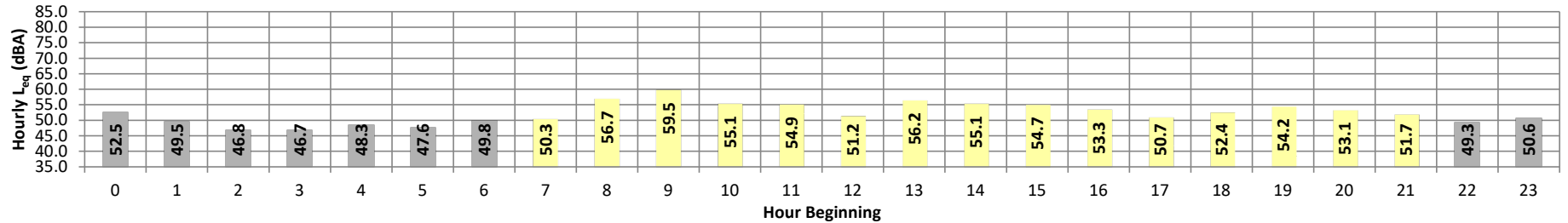
Date: Wednesday, August 11, 2021
Project: Rancho Monterey Specific Plan

Location: L1 - Located north of the Project site near SJVC Rancho
Source: Mirage at 34275 Monterey Avenue.

Meter: Piccolo II

JN: 14271
Analyst: A. Khan

Hourly L_{eq} dBA Readings (unadjusted)



Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L_{eq}	Adj.	Adj. L_{eq}
Night	0	52.5	56.3	50.6	55.9	55.6	54.9	54.4	52.8	52.1	51.2	51.0	50.7	52.5	10.0	62.5
	1	49.5	51.1	48.4	50.9	50.8	50.4	50.3	49.7	49.3	48.8	48.6	48.5	49.5	10.0	59.5
	2	46.8	47.8	46.0	47.7	47.6	47.4	47.3	47.0	46.7	46.3	46.2	46.0	46.8	10.0	56.8
	3	46.7	48.4	45.6	48.2	48.1	47.8	47.7	47.0	46.6	46.0	45.9	45.7	46.7	10.0	56.7
	4	48.3	50.0	47.2	49.8	49.7	49.3	49.1	48.6	48.2	47.6	47.4	47.3	48.3	10.0	58.3
	5	47.6	50.6	46.3	50.2	49.9	49.1	48.7	48.0	47.4	46.7	46.6	46.4	47.6	10.0	57.6
Day	6	49.8	52.9	48.2	52.6	52.4	51.9	51.5	50.2	49.3	48.6	48.4	48.3	49.8	10.0	59.8
	7	50.3	52.5	48.9	52.3	52.0	51.7	51.4	50.7	50.0	49.3	49.2	49.0	50.3	0.0	50.3
	8	56.7	62.7	54.3	62.0	61.5	58.9	57.6	57.1	56.6	54.6	54.5	54.4	56.7	0.0	56.7
	9	59.5	65.2	57.5	64.5	63.8	61.3	60.5	59.7	59.3	57.8	57.7	57.6	59.5	0.0	59.5
	10	55.1	59.7	52.9	59.2	58.7	57.7	57.0	55.5	54.6	53.4	53.2	52.9	55.1	0.0	55.1
	11	54.9	57.1	53.3	56.8	56.7	56.3	56.1	55.4	54.8	53.7	53.6	53.4	54.9	0.0	54.9
	12	51.2	56.0	49.6	55.2	54.5	53.2	52.6	51.4	50.9	50.1	49.9	49.7	51.2	0.0	51.2
	13	56.2	58.6	54.3	58.5	58.2	57.7	57.5	56.8	56.8	55.9	54.7	54.6	54.4	0.0	56.2
	14	55.1	58.4	53.2	58.0	57.7	57.1	56.8	55.7	54.8	53.6	53.5	53.3	55.1	0.0	55.1
	15	54.7	56.5	53.4	56.4	56.2	55.9	55.7	55.1	54.6	53.8	53.7	53.5	54.7	0.0	54.7
	16	53.3	55.9	51.5	55.7	55.5	55.2	54.9	53.7	53.0	52.0	51.8	51.6	53.3	0.0	53.3
	17	50.7	52.4	49.4	52.2	52.0	51.8	51.6	51.1	50.6	49.9	49.7	49.5	50.7	0.0	50.7
	18	52.4	54.5	50.6	54.4	54.2	53.9	53.7	53.0	52.2	51.0	50.9	50.7	52.4	0.0	52.4
	19	54.2	55.7	53.1	55.6	55.4	55.1	55.0	54.5	54.1	53.5	53.3	53.2	54.2	5.0	59.2
	20	53.1	55.5	51.7	55.3	55.1	54.7	54.4	53.4	52.8	52.1	52.0	51.7	53.1	5.0	58.1
	21	51.7	54.9	50.2	54.5	54.2	53.4	52.9	52.0	51.4	50.8	50.6	50.3	51.7	5.0	56.7
Night	22	49.3	52.3	47.8	52.0	51.7	51.2	50.8	49.6	49.0	48.2	48.1	47.9	49.3	10.0	59.3
Night	23	50.6	53.7	48.5	53.5	53.3	52.8	52.3	51.2	50.4	49.1	48.8	48.6	50.6	10.0	60.6
Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L_{eq} (dBA)		
Day	Min	50.3	52.4	48.9	52.2	52.0	51.7	51.4	50.7	50.0	49.3	49.2	49.0	24-Hour	Daytime (7am-10pm)	Nighttime (10pm-7am)
	Max	59.5	65.2	57.5	64.5	63.8	61.3	60.5	59.7	59.3	57.8	57.7	57.6			
Energy Average		54.7	Average:		56.7	56.4	55.6	55.2	54.3	53.7	52.7	52.5	52.3	53.3	54.7	49.4
Night	Min	46.7	47.8	45.6	47.7	47.6	47.4	47.3	47.0	46.6	46.0	45.9	45.7			
	Max	52.5	56.3	50.6	55.9	55.6	54.9	54.4	52.8	52.1	51.2	51.0	50.7			
Energy Average		49.4	Average:		51.2	51.0	50.5	50.2	49.3	48.8	48.0	47.9	47.7			

24-Hour Noise Level Measurement Summary

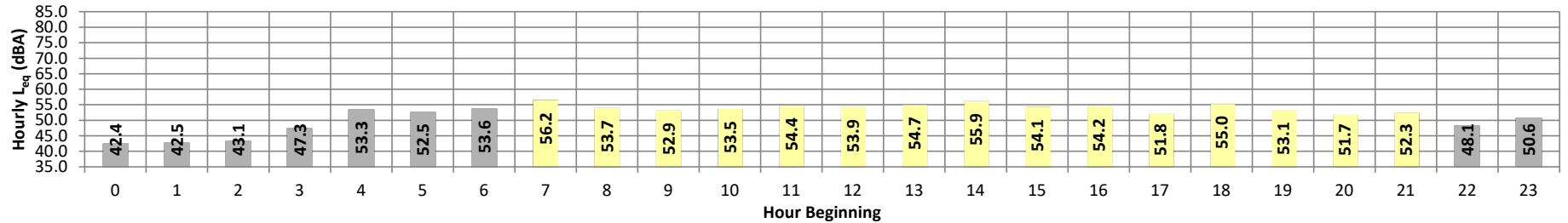
Date: Wednesday, August 11, 2021
Project: Rancho Monterey Specific Plan

Location: L2 - Located southeast of the Project site near The Enclave
Source: Condominium Rentals at 35751 Gateway Drive.

Meter: Piccolo II

JN: 14271
Analyst: A. Khan

Hourly L_{eq} dBA Readings (unadjusted)



Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L_{eq}	Adj.	Adj. L_{eq}
Night	0	42.4	46.2	39.6	46.0	45.6	44.8	44.4	43.1	42.0	40.4	40.0	39.7	42.4	10.0	52.4
	1	42.5	53.3	38.3	52.5	51.4	48.3	45.4	41.1	39.9	38.8	38.6	38.4	42.5	10.0	52.5
	2	43.1	52.8	38.9	51.5	50.4	47.0	45.7	43.4	41.4	39.4	39.2	39.0	43.1	10.0	53.1
	3	47.3	53.1	43.3	52.8	52.5	51.4	50.6	48.3	45.6	43.9	43.7	43.4	47.3	10.0	57.3
	4	53.3	59.6	50.1	59.3	58.8	57.4	56.2	53.3	52.2	50.8	50.5	50.2	53.3	10.0	63.3
	5	52.5	56.7	49.9	56.4	56.1	55.3	54.8	53.2	51.8	50.5	50.3	50.1	52.5	10.0	62.5
Day	6	53.6	62.1	47.7	61.4	60.8	58.8	57.7	53.7	51.3	48.6	48.2	47.9	53.6	10.0	63.6
	7	56.2	67.4	49.6	67.0	66.6	64.7	62.7	58.6	53.8	50.5	50.1	49.7	56.2	0.0	56.2
	8	53.7	63.9	46.7	63.4	62.8	60.4	58.7	53.8	51.0	47.8	47.2	46.8	53.7	0.0	53.7
	9	52.9	64.6	46.6	64.2	63.8	61.3	58.6	52.7	50.2	47.4	47.1	46.7	52.9	0.0	52.9
	10	53.5	68.3	45.8	67.9	67.4	65.5	64.0	55.1	49.3	46.6	46.3	45.9	53.5	0.0	53.5
	11	54.4	66.9	47.3	66.7	66.3	64.1	62.3	56.5	52.1	48.2	47.9	47.5	54.4	0.0	54.4
	12	53.9	69.6	54.0	69.2	68.5	66.5	65.2	59.0	56.1	54.5	54.3	54.1	53.9	0.0	53.9
	13	54.7	66.2	52.6	65.9	65.4	63.8	62.4	57.2	54.8	53.0	52.9	52.7	54.7	0.0	54.7
	14	55.9	64.9	50.4	64.6	64.1	62.2	60.4	55.3	52.6	51.0	50.8	50.5	55.9	0.0	55.9
	15	54.1	64.4	47.3	63.9	63.2	60.5	58.3	53.1	50.5	48.0	47.7	47.4	54.1	0.0	54.1
	16	54.2	62.9	47.6	62.5	62.0	60.6	59.0	53.6	51.1	48.4	48.1	47.7	54.2	0.0	54.2
	17	51.8	61.3	46.1	60.8	59.9	57.6	56.0	51.2	49.3	46.9	46.5	46.2	51.8	0.0	51.8
	18	55.0	62.0	51.9	61.6	61.2	59.4	57.6	55.1	53.8	52.5	52.3	52.1	55.0	0.0	55.0
	19	53.1	63.1	48.2	62.6	62.3	61.0	60.0	54.6	51.2	49.0	48.7	48.4	53.1	5.0	58.1
	20	51.7	59.2	45.9	59.0	58.6	57.1	55.7	52.2	49.5	46.6	46.3	46.0	51.7	5.0	56.7
21	52.3	60.9	48.1	60.6	60.0	57.7	55.9	51.8	50.0	48.6	48.4	48.2	52.3	5.0	57.3	
Night	22	48.1	56.2	41.9	55.7	54.9	53.3	52.2	48.8	45.7	42.7	42.4	42.1	48.1	10.0	58.1
Night	23	50.6	58.5	45.4	58.2	57.7	55.7	54.1	51.0	48.6	46.2	45.9	45.5	50.6	10.0	60.6
Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L_{eq} (dBA)		
Day	Min	51.7	59.2	45.8	59.0	58.6	57.1	55.7	51.2	49.3	46.6	46.3	45.9	24-Hour	Daytime (7am-10pm)	Nighttime (10pm-7am)
	Max	56.2	69.6	54.0	69.2	68.5	66.5	65.2	59.0	56.1	54.5	54.3	54.1			
Energy Average		54.0	Average:		64.0	63.5	61.5	59.8	54.7	51.7	49.3	49.0	48.7	52.9	54.0	50.1
Night	Min	42.4	46.2	38.3	46.0	45.6	44.8	44.4	41.1	39.9	38.8	38.6	38.4			
		Max	53.6	62.1	50.1	61.4	60.8	58.8	57.7	53.7	52.2	50.8	50.5	50.2		
Energy Average		50.1	Average:		54.9	54.2	52.4	51.2	48.4	46.5	44.6	44.3	44.0			

24-Hour Noise Level Measurement Summary

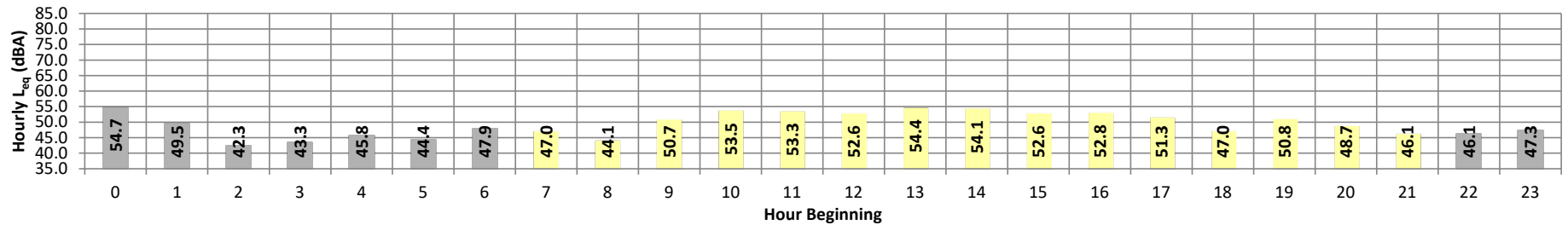
Date: Wednesday, August 11, 2021
Project: Rancho Monterey Specific Plan

Location: L3 - Located south of the Project site near single-family
Source: residence at 12 Chandon Court.

Meter: Piccolo II

JN: 14271
Analyst: A. Khan

Hourly L_{eq} dBA Readings (unadjusted)



Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L_{eq}	Adj.	Adj. L_{eq}
Night	0	54.7	59.4	51.1	58.8	58.1	57.3	56.9	55.6	54.3	52.1	51.7	51.2	54.7	10.0	64.7
	1	49.5	54.7	46.1	53.8	53.0	52.0	51.5	50.3	49.1	47.1	46.7	46.3	49.5	10.0	59.5
	2	42.3	44.6	40.9	44.3	44.2	43.9	43.5	42.9	41.9	41.2	41.1	41.0	42.3	10.0	52.3
	3	43.3	45.8	41.8	45.6	45.4	45.1	44.9	43.7	43.0	42.1	42.0	41.8	43.3	10.0	53.3
	4	45.8	47.6	44.2	47.5	47.3	47.0	46.8	46.2	45.7	44.7	44.5	44.3	45.8	10.0	55.8
	5	44.4	47.0	42.8	46.8	46.5	46.0	45.7	44.9	44.2	43.3	43.0	42.8	44.4	10.0	54.4
Day	6	47.9	54.2	45.0	53.8	53.5	52.8	52.1	49.8	47.7	45.5	45.3	45.1	47.9	10.0	57.9
	7	47.0	52.5	44.3	51.9	51.3	50.0	49.2	47.6	46.4	44.8	44.6	44.4	47.0	0.0	47.0
	8	44.1	53.1	41.4	52.7	52.3	51.1	50.4	46.7	44.2	41.9	41.7	41.5	44.1	0.0	44.1
	9	50.7	52.9	48.7	52.7	52.5	52.2	52.0	51.3	50.6	49.4	49.1	48.8	50.7	0.0	50.7
	10	53.5	55.1	52.4	54.9	54.7	54.5	54.3	53.8	53.4	52.7	52.6	52.4	53.5	0.0	53.5
	11	53.3	59.0	52.3	58.6	58.2	57.4	56.7	54.5	53.1	52.6	52.5	52.4	53.3	0.0	53.3
	12	52.6	55.7	51.3	55.3	55.0	54.5	54.2	53.1	52.1	51.4	51.4	51.3	52.6	0.0	52.6
	13	54.4	56.2	53.1	56.0	55.9	55.6	55.4	54.8	54.2	53.5	53.3	53.1	54.4	0.0	54.4
	14	54.1	57.4	52.5	56.7	56.7	56.3	56.1	54.7	53.5	52.8	52.7	52.5	54.1	0.0	54.1
	15	52.6	53.6	51.9	53.5	53.5	53.3	53.2	52.9	52.6	52.1	52.1	52.0	52.6	0.0	52.6
	16	52.8	57.5	51.5	57.2	56.9	56.4	55.9	53.2	52.3	51.7	51.7	51.6	52.8	0.0	52.8
	17	51.3	52.5	50.7	52.3	52.2	51.9	51.8	51.5	51.3	50.9	50.9	50.7	51.3	0.0	51.3
	18	47.0	50.0	45.2	49.6	49.3	48.8	48.4	47.5	46.7	45.7	45.5	45.3	47.0	0.0	47.0
	19	50.8	53.8	49.7	52.9	52.5	52.0	51.7	51.1	50.7	50.0	49.9	49.7	50.8	5.0	55.8
	20	48.7	53.3	46.3	52.9	52.7	52.0	51.5	49.0	47.8	46.7	46.6	46.3	48.7	5.0	53.7
21	46.1	49.5	44.3	49.3	49.1	48.5	47.8	46.5	45.7	44.7	44.6	44.4	46.1	5.0	51.1	
Night	22	46.1	49.9	43.8	49.5	49.2	48.7	48.3	46.8	45.5	44.3	44.1	43.9	46.1	10.0	56.1
Night	23	47.3	51.2	44.9	50.8	50.4	49.5	49.0	47.8	46.9	45.6	45.2	45.0	47.3	10.0	57.3
Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L_{eq} (dBA)		
Day	Min	44.1	49.5	41.4	49.3	49.1	48.5	47.8	46.5	44.2	41.9	41.7	41.5	24-Hour	Daytime (7am-10pm)	Nighttime (10pm-7am)
	Max	54.4	59.0	53.1	58.6	58.2	57.4	56.7	54.8	54.2	53.5	53.3	53.1			
Energy Average		51.6	Average:		53.8	53.5	53.0	52.6	51.2	50.3	49.4	49.3	49.1	50.7	51.6	48.6
Night	Min	42.3	44.6	40.9	44.3	44.2	43.9	43.5	42.9	41.9	41.2	41.1	41.0			
		Max	54.7	59.4	51.1	58.8	58.1	57.3	56.9	55.6	54.3	52.1	51.7	51.2		
Energy Average		48.6	Average:		50.1	49.7	49.1	48.7	47.6	46.5	45.1	44.9	44.6			

24-Hour Noise Level Measurement Summary

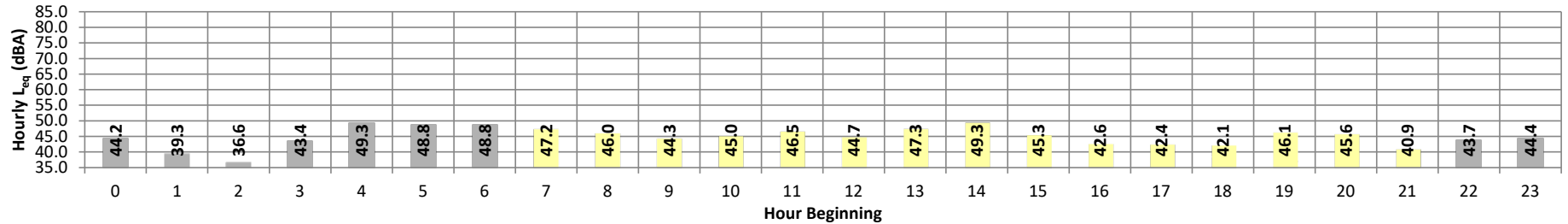
Date: Wednesday, August 11, 2021
Project: Rancho Monterey Specific Plan

Location: L4 - Located south of the Project site near single-family
Source: residence at 72740 Via Florencia.

Meter: Piccolo II

JN: 14271
Analyst: A. Khan

Hourly L_{eq} dBA Readings (unadjusted)



Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L_{eq}	Adj.	Adj. L_{eq}
Night	0	44.2	51.9	40.4	50.6	49.4	47.4	46.6	44.8	43.3	41.1	40.8	40.5	44.2	10.0	54.2
	1	39.3	43.1	37.2	42.8	42.5	41.8	41.2	39.7	38.9	37.7	37.5	37.2	39.3	10.0	49.3
	2	36.6	40.4	34.9	39.9	39.5	38.8	38.3	37.0	36.3	35.4	35.2	35.0	36.6	10.0	46.6
	3	43.4	49.8	39.8	49.4	48.7	47.6	47.0	44.2	41.8	40.4	40.1	39.9	43.4	10.0	53.4
	4	49.3	52.6	46.8	52.4	52.1	51.4	51.0	49.9	48.9	47.5	47.2	46.9	49.3	10.0	59.3
	5	48.8	51.5	46.9	51.3	51.0	50.5	50.2	49.3	48.6	47.5	47.3	47.0	48.8	10.0	58.8
Day	6	48.8	58.1	44.1	57.5	57.0	56.1	55.5	52.0	48.3	45.0	44.6	44.3	48.8	10.0	58.8
	7	47.2	52.1	43.2	51.7	51.4	50.8	50.4	48.4	45.8	43.8	43.6	43.4	47.2	0.0	47.2
	8	46.0	54.0	40.2	53.8	53.4	52.9	52.4	49.1	46.2	41.1	40.7	40.4	46.0	0.0	46.0
	9	44.3	49.3	40.4	49.0	48.8	47.9	47.3	45.1	43.5	41.0	40.8	40.5	44.3	0.0	44.3
	10	45.0	50.3	41.1	49.9	49.4	48.4	47.7	45.8	44.3	41.7	41.5	41.3	45.0	0.0	45.0
	11	46.5	56.6	41.6	56.1	55.8	55.1	54.0	49.7	46.4	42.8	42.3	41.8	46.5	0.0	46.5
	12	44.7	53.9	37.6	53.2	52.6	52.0	51.3	47.7	42.2	38.6	38.2	37.7	44.7	0.0	44.7
	13	47.3	54.8	45.0	54.0	53.4	52.3	51.2	48.8	47.1	45.6	45.4	45.1	47.3	0.0	47.3
	14	49.3	58.0	45.6	57.6	57.0	56.1	55.3	51.9	48.4	46.1	45.9	45.7	49.3	0.0	49.3
	15	45.3	51.2	42.5	50.7	50.3	49.0	48.4	46.0	44.1	42.9	42.7	42.6	45.3	0.0	45.3
	16	42.6	60.0	43.5	59.4	58.9	57.8	56.1	50.3	47.0	44.5	44.1	43.6	42.6	0.0	42.6
	17	42.4	48.1	39.4	47.4	46.6	45.4	44.8	43.1	41.5	40.0	39.8	39.5	42.4	0.0	42.4
	18	42.1	46.4	39.6	46.0	45.4	44.5	44.0	42.7	41.6	40.3	40.0	39.7	42.1	0.0	42.1
	19	46.1	50.2	43.4	50.0	49.6	49.0	48.7	47.0	45.2	43.8	43.7	43.5	46.1	5.0	51.1
	20	45.6	53.2	39.2	52.8	52.3	51.3	50.5	46.3	42.6	39.9	39.6	39.3	45.6	5.0	50.6
21	40.9	47.6	37.7	46.6	45.5	44.0	43.3	41.4	39.9	38.2	38.0	37.8	40.9	5.0	45.9	
Night	22	43.7	49.7	37.7	49.4	49.0	48.4	47.8	45.4	41.5	38.5	38.2	37.8	43.7	10.0	53.7
Night	23	44.4	48.7	41.5	48.2	47.8	47.1	46.7	45.3	43.8	42.1	41.9	41.6	44.4	10.0	54.4
Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L_{eq} (dBA)		
Day	Min	40.9	46.4	37.6	46.0	45.4	44.0	43.3	41.4	39.9	38.2	38.0	37.7	24-Hour	Daytime (7am-10pm)	Nighttime (10pm-7am)
	Max	49.3	60.0	45.6	59.4	58.9	57.8	56.1	51.9	48.4	46.1	45.9	45.7			
Energy Average		45.6	Average:		51.9	51.4	50.4	49.7	46.9	44.4	42.0	41.8	41.5	45.7	45.6	45.9
Night	Min	36.6	40.4	34.9	39.9	39.5	38.8	38.3	37.0	36.3	35.4	35.2	35.0			
	Max	49.3	58.1	46.9	57.5	57.0	56.1	55.5	52.0	48.9	47.5	47.3	47.0			
Energy Average		45.9	Average:		49.0	48.6	47.7	47.2	45.3	43.5	41.7	41.4	41.1			

24-Hour Noise Level Measurement Summary

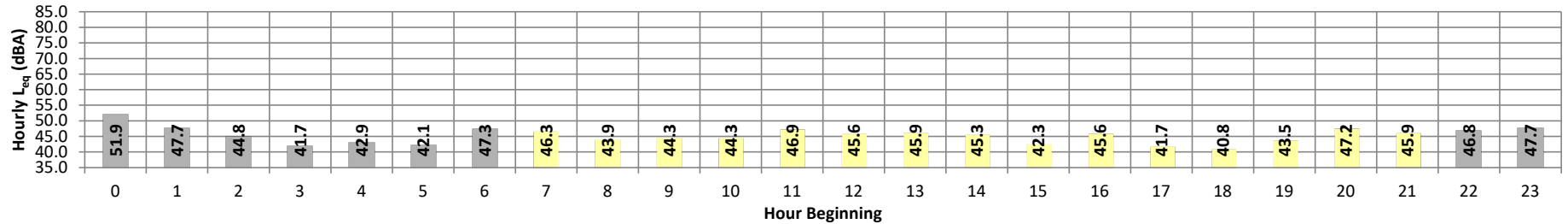
Date: Wednesday, August 11, 2021
Project: Rancho Monterey Specific Plan

Location: L5 - Located west of the Project site near single-family
Source: residence at 34620 Via Josefina.

Meter: Piccolo II

JN: 14271
Analyst: A. Khan

Hourly L_{eq} dBA Readings (unadjusted)



Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L_{eq}	Adj.	Adj. L_{eq}
Night	0	51.9	56.3	48.0	56.1	55.8	55.0	54.5	52.8	51.2	49.1	48.7	48.2	51.9	10.0	61.9
	1	47.7	52.3	44.6	51.8	51.4	50.5	49.9	48.3	47.1	45.3	45.0	44.7	47.7	10.0	57.7
	2	44.8	47.9	42.6	47.7	47.5	46.8	46.4	45.4	44.5	43.3	43.0	42.7	44.8	10.0	54.8
	3	41.7	46.0	39.0	45.6	45.1	44.5	43.9	42.4	41.1	39.6	39.4	39.1	41.7	10.0	51.7
	4	42.9	46.2	40.8	45.9	45.6	44.9	44.5	43.3	42.6	41.4	41.2	40.9	42.9	10.0	52.9
	5	42.1	46.3	39.7	46.0	45.6	45.0	44.5	42.6	41.6	40.2	40.0	39.8	42.1	10.0	52.1
Day	6	47.3	53.2	44.4	52.7	52.3	51.6	51.1	49.6	47.2	45.1	44.8	44.5	47.3	10.0	57.3
	7	46.3	49.6	44.1	49.3	49.0	48.5	48.2	47.0	45.9	44.6	44.4	44.2	46.3	0.0	46.3
	8	43.9	51.4	40.0	51.0	50.6	49.8	49.1	46.1	43.7	40.8	40.5	40.2	43.9	0.0	43.9
	9	44.3	49.6	40.5	49.3	48.8	47.9	47.3	45.3	43.0	41.2	40.9	40.6	44.3	0.0	44.3
	10	44.3	48.7	41.8	48.3	47.8	46.8	46.2	44.8	43.9	42.5	42.3	42.0	44.3	0.0	44.3
	11	46.9	53.9	43.8	53.6	53.1	52.2	51.7	49.6	46.7	44.5	44.2	43.9	46.9	0.0	46.9
	12	45.6	51.2	42.1	50.8	50.4	49.8	49.3	47.6	45.7	42.8	42.6	42.3	45.6	0.0	45.6
	13	45.9	51.6	42.0	51.2	50.7	49.5	48.9	46.7	44.7	42.9	42.6	42.1	45.9	0.0	45.9
	14	45.3	55.3	40.0	54.7	54.1	53.3	52.6	49.6	46.1	41.3	40.7	40.1	45.3	0.0	45.3
	15	42.3	50.0	38.7	49.3	47.8	46.0	44.8	42.6	41.3	39.3	39.1	38.9	42.3	0.0	42.3
	16	45.6	56.1	39.2	55.7	55.2	54.4	53.1	48.1	44.0	40.7	40.1	39.6	45.6	0.0	45.6
	17	41.7	45.9	38.9	45.6	45.2	44.4	43.9	42.3	41.3	39.6	39.3	39.1	41.7	0.0	41.7
	18	40.8	45.2	38.0	44.9	44.5	43.8	43.3	41.5	40.2	38.5	38.3	38.1	40.8	0.0	40.8
	19	43.5	47.9	40.4	47.5	47.2	46.5	45.9	44.4	42.8	41.0	40.8	40.5	43.5	5.0	48.5
	20	47.2	52.4	44.2	52.0	51.5	50.7	50.0	47.9	46.3	44.7	44.5	44.3	47.2	5.0	52.2
	21	45.9	50.9	43.6	50.1	49.1	48.3	47.8	46.3	45.3	44.2	44.0	43.7	45.9	5.0	50.9
Night	22	46.8	51.9	43.7	51.5	51.2	50.1	49.3	47.5	46.0	44.4	44.1	43.8	46.8	10.0	56.8
Night	23	47.7	50.5	45.4	50.3	50.1	49.6	49.3	48.2	47.4	46.2	45.9	45.5	47.7	10.0	57.7
Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L_{eq} (dBA)		
Day	Min	40.8	45.2	38.0	44.9	44.5	43.8	43.3	41.5	40.2	38.5	38.3	38.1	24-Hour	Daytime (7am-10pm)	Nighttime (10pm-7am)
	Max	47.2	56.1	44.2	55.7	55.2	54.4	53.1	49.6	46.7	44.7	44.5	44.3			
Energy Average		45.0	Average:		50.2	49.7	48.8	48.1	46.0	44.1	41.9	41.6	41.3	45.9	45.0	47.0
Night	Min	41.7	46.0	39.0	45.6	45.1	44.5	43.9	42.4	41.1	39.6	39.4	39.1			
		Max	51.9	56.3	48.0	56.1	55.8	55.0	54.5	52.8	51.2	49.1	48.7	48.2		
Energy Average		47.0	Average:		49.7	49.4	48.7	48.2	46.7	45.4	43.8	43.6	43.2			

24-Hour Noise Level Measurement Summary

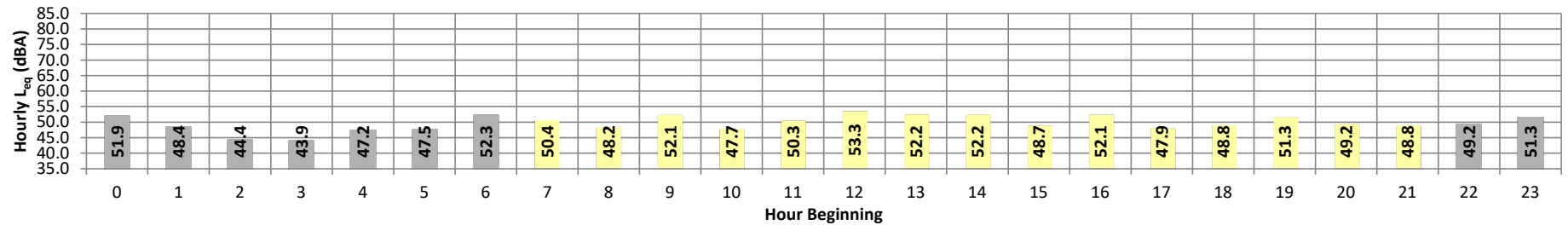
Date: Wednesday, August 11, 2021
Project: Rancho Monterey Specific Plan

Location: L6 - Located northwest of the Project site near Rancho Mirage
Source: Dog Park at 34100 Key Largo Avenue.

Meter: Piccolo II

JN: 14271
Analyst: A. Khan

Hourly L_{eq} dBA Readings (unadjusted)



Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L_{eq}	Adj.	Adj. L_{eq}
Night	0	51.9	55.4	49.6	55.3	55.0	54.5	54.1	52.9	51.7	50.4	50.1	49.7	51.9	10.0	61.9
	1	48.4	52.9	46.3	52.0	51.2	50.2	49.8	48.8	48.0	47.0	46.7	46.4	48.4	10.0	58.4
	2	44.4	46.9	42.4	46.8	46.6	46.1	45.8	44.9	44.2	43.0	42.7	42.5	44.4	10.0	54.4
	3	43.9	47.9	41.4	47.6	47.2	46.5	46.0	44.6	43.3	42.0	41.8	41.5	43.9	10.0	53.9
	4	47.2	50.2	45.0	50.0	49.7	49.1	48.8	47.7	46.8	45.7	45.5	45.1	47.2	10.0	57.2
	5	47.5	54.2	44.1	53.3	52.7	51.6	50.9	48.0	46.0	44.7	44.5	44.2	44.5	44.2	10.0
Day	6	52.3	76.7	47.9	75.0	72.6	68.4	66.8	53.5	50.4	48.6	48.4	48.1	52.3	10.0	62.3
	7	50.4	65.0	47.5	63.3	62.0	59.5	57.5	50.6	49.3	48.0	47.8	47.6	50.4	0.0	50.4
	8	48.2	53.2	44.8	52.7	52.2	51.3	50.9	49.2	47.2	45.4	45.2	44.9	48.2	0.0	48.2
	9	52.1	57.7	52.3	57.5	57.3	57.0	56.7	55.9	55.2	53.7	52.8	52.4	52.1	0.0	52.1
	10	47.7	53.3	45.3	52.7	51.9	50.4	49.8	48.1	47.1	45.8	45.6	45.4	47.7	0.0	47.7
	11	50.3	55.0	47.4	54.5	54.1	53.3	52.8	51.1	49.4	48.0	47.8	47.5	50.3	0.0	50.3
	12	53.3	57.9	52.0	57.5	57.2	56.8	56.6	55.6	54.7	52.5	52.2	52.1	53.3	0.0	53.3
	13	52.2	56.3	49.0	55.7	55.3	54.5	54.2	53.0	51.8	49.8	49.5	49.1	49.1	0.0	52.2
	14	52.2	57.7	48.4	56.9	56.2	55.2	54.7	53.3	51.3	48.9	48.8	48.5	52.2	0.0	52.2
	15	48.7	56.9	45.8	56.8	56.7	56.6	56.5	55.4	54.4	48.0	47.6	46.3	48.7	0.0	48.7
	16	52.1	58.1	50.1	57.9	57.7	57.1	56.9	55.2	53.5	50.6	50.4	50.2	52.1	0.0	52.1
	17	47.9	53.8	49.2	53.6	53.4	53.1	52.7	52.0	50.1	49.6	49.5	49.3	47.9	0.0	47.9
	18	48.8	55.3	49.4	54.8	54.4	53.8	53.5	51.4	50.9	49.9	49.8	49.6	48.8	0.0	48.8
	19	51.3	60.6	53.3	59.9	59.4	58.3	57.6	56.1	55.4	53.7	53.6	53.3	51.3	5.0	56.3
	20	49.2	53.6	47.0	53.1	52.8	51.9	51.3	49.8	48.6	47.5	47.3	47.1	49.2	5.0	54.2
	21	48.8	51.9	47.0	51.6	51.4	50.8	50.4	49.2	48.4	47.5	47.3	47.1	48.8	5.0	53.8
Night	22	49.2	53.9	46.8	53.4	52.8	51.6	51.1	49.8	48.7	47.4	47.2	46.9	49.2	10.0	59.2
Night	23	51.3	53.9	49.0	53.7	53.5	53.0	52.8	51.9	51.1	49.6	49.4	49.1	51.3	10.0	61.3
Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L_{eq} (dBA)		
Day	Min	47.7	51.9	44.8	51.6	51.4	50.4	49.8	48.1	47.1	45.4	45.2	44.9	24-Hour	Daytime (7am-10pm)	Nighttime (10pm-7am)
	Max	53.3	65.0	53.3	63.3	62.0	59.5	57.6	56.1	55.4	53.7	53.6	53.3			
Energy Average		50.6	Average:		55.9	55.5	54.6	54.1	52.4	51.2	49.3	49.0	48.7	50.1	50.6	49.3
Night	Min	43.9	46.9	41.4	46.8	46.6	46.1	45.8	44.6	43.3	42.0	41.8	41.5			
	Max	52.3	76.7	49.6	75.0	72.6	68.4	66.8	53.5	51.7	50.4	50.1	49.7			
Energy Average		49.3	Average:		54.1	53.5	52.3	51.8	49.1	47.8	46.5	46.2	45.9			

APPENDIX 7.1:
OFF-SITE TRAFFIC NOISE LEVEL CALCULATIONS

This page intentionally left blank

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: Existing Road Name: Monterey Av. Road Segment: n/o Varner Rd.			Project Name: Rancho Monterey Specific Job Number: 14271					
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS					
Highway Data			Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 15,500 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 1,550 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 54 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data			Vehicle Mix					
			VehicleType	Day	Evening	Night	Daily	
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%					
			Noise Source Elevations (in feet)					
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0					
			Lane Equivalent Distance (in feet)					
			Autos: 52.697 Medium Trucks: 52.529 Heavy Trucks: 52.546					
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	71.78	-0.92	-0.45	-1.20	-4.69	0.000	0.000	
Medium Trucks:	82.40	-18.16	-0.42	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	86.40	-22.11	-0.43	-1.20	-5.35	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	69.2	67.3	65.6	59.5	68.1	68.7		
Medium Trucks:	62.6	61.1	54.8	53.2	61.7	61.9		
Heavy Trucks:	62.7	61.2	52.2	53.4	61.8	61.9		
Vehicle Noise:	70.8	69.0	66.1	61.2	69.8	70.2		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			57	123	264	569		
CNEL:			61	132	284	612		

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: Existing Road Name: Monterey Av. Road Segment: n/o Dinah Shore Dr.			Project Name: Rancho Monterey Specific Job Number: 14271					
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS					
Highway Data			Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 51,900 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 5,190 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 78 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data			Vehicle Mix					
			VehicleType	Day	Evening	Night	Daily	
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 75.0 feet Centerline Dist. to Observer: 75.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%					
			Noise Source Elevations (in feet)					
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0					
			Lane Equivalent Distance (in feet)					
			Autos: 64.257 Medium Trucks: 64.119 Heavy Trucks: 64.133					
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	71.78	4.33	-1.74	-1.20	-4.73	0.000	0.000	
Medium Trucks:	82.40	-12.91	-1.72	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	86.40	-16.87	-1.73	-1.20	-5.25	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	73.2	71.3	69.5	63.5	72.1	72.7		
Medium Trucks:	66.6	65.1	58.7	57.2	65.6	65.8		
Heavy Trucks:	66.6	65.2	56.1	57.4	65.8	65.9		
Vehicle Noise:	74.8	73.0	70.0	65.2	73.7	74.2		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			133	286	616	1,327		
CNEL:			143	308	663	1,427		

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: Existing Road Name: Monterey Av. Road Segment: s/o Varner Rd.			Project Name: Rancho Monterey Specific Job Number: 14271					
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS					
Highway Data			Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 30,800 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 3,080 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 54 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data			Vehicle Mix					
			VehicleType	Day	Evening	Night	Daily	
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%					
			Noise Source Elevations (in feet)					
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0					
			Lane Equivalent Distance (in feet)					
			Autos: 52.697 Medium Trucks: 52.529 Heavy Trucks: 52.546					
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	71.78	2.06	-0.45	-1.20	-4.69	0.000	0.000	
Medium Trucks:	82.40	-15.18	-0.42	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	86.40	-19.13	-0.43	-1.20	-5.35	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	72.2	70.3	68.5	62.5	71.1	71.7		
Medium Trucks:	65.6	64.1	57.7	56.2	64.7	64.9		
Heavy Trucks:	65.6	64.2	55.2	56.4	64.8	64.9		
Vehicle Noise:	73.8	72.0	69.1	64.2	72.7	73.2		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			90	194	417	899		
CNEL:			97	208	449	967		

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: Existing Road Name: Dinah Shore Dr. Road Segment: w/o Key Largo Av.			Project Name: Rancho Monterey Specific Job Number: 14271					
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS					
Highway Data			Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 26,900 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 2,690 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 86 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data			Vehicle Mix					
			VehicleType	Day	Evening	Night	Daily	
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 60.0 feet Centerline Dist. to Observer: 60.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%					
			Noise Source Elevations (in feet)					
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0					
			Lane Equivalent Distance (in feet)					
			Autos: 42.143 Medium Trucks: 41.932 Heavy Trucks: 41.953					
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	68.46	2.35	1.01	-1.20	-4.69	0.000	0.000	
Medium Trucks:	79.45	-14.89	1.04	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	84.25	-18.85	1.04	-1.20	-5.34	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	70.6	68.7	67.0	60.9	69.5	70.1		
Medium Trucks:	64.4	62.9	56.5	55.0	63.4	63.7		
Heavy Trucks:	65.2	63.8	54.8	56.0	64.4	64.5		
Vehicle Noise:	72.5	70.7	67.6	62.9	71.4	71.9		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			75	161	347	748		
CNEL:			80	173	372	802		

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: Existing Road Name: Dinah Shore Dr. Road Segment: e/o Key Largo Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 31,000 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 3,100 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 86 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 60.0 feet Centerline Dist. to Observer: 60.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 42.143 Medium Trucks: 41.932 Heavy Trucks: 41.953				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	2.96	1.01	-1.20	-4.69	0.000	0.000
Medium Trucks:	79.45	-14.28	1.04	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-18.23	1.04	-1.20	-5.34	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	71.2	69.3	67.6	61.5	70.1	70.7	
Medium Trucks:	65.0	63.5	57.1	55.6	64.1	64.3	
Heavy Trucks:	65.9	64.4	55.4	56.7	65.0	65.1	
Vehicle Noise:	73.1	71.3	68.2	63.5	72.1	72.5	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			82	177	382	822	
CNEL:			88	190	409	882	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: Existing Road Name: Key Largo Av. Road Segment: s/o Dinah Shore Dr.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 1,600 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 160 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 12 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 30.0 feet Centerline Dist. to Observer: 30.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 29.816 Medium Trucks: 29.518 Heavy Trucks: 29.547				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-9.91	3.26	-1.20	-4.49	0.000	0.000
Medium Trucks:	79.45	-27.15	3.33	-1.20	-4.86	0.000	0.000
Heavy Trucks:	84.25	-31.10	3.32	-1.20	-5.77	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	60.6	58.7	56.9	50.9	59.5	60.1	
Medium Trucks:	54.4	52.9	46.6	45.0	53.5	53.7	
Heavy Trucks:	55.3	53.9	44.8	46.1	54.4	54.5	
Vehicle Noise:	62.5	60.7	57.6	52.9	61.4	61.9	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			8	17	37	81	
CNEL:			9	19	40	87	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: Existing Road Name: Dinah Shore Dr. Road Segment: e/o Monterey Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 24,800 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 2,480 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 78 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 75.0 feet Centerline Dist. to Observer: 75.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 64.257 Medium Trucks: 64.119 Heavy Trucks: 64.133				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	1.99	-1.74	-1.20	-4.73	0.000	0.000
Medium Trucks:	79.45	-15.24	-1.72	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-19.20	-1.73	-1.20	-5.25	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	67.5	65.6	63.9	57.8	66.4	67.0	
Medium Trucks:	61.3	59.8	53.4	51.9	60.3	60.6	
Heavy Trucks:	62.1	60.7	51.7	52.9	61.3	61.4	
Vehicle Noise:	69.4	67.6	64.5	59.8	68.3	68.8	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			58	125	269	580	
CNEL:			62	134	289	622	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: Existing Road Name: Monterey Av. Road Segment: s/o Dinah Shore Dr.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 32,600 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 3,260 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 86 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 60.0 feet Centerline Dist. to Observer: 60.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 42.143 Medium Trucks: 41.932 Heavy Trucks: 41.953				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	2.31	1.01	-1.20	-4.69	0.000	0.000
Medium Trucks:	82.40	-14.93	1.04	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-18.88	1.04	-1.20	-5.34	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	73.9	72.0	70.2	64.2	72.8	73.4	
Medium Trucks:	67.3	65.8	59.4	57.9	66.4	66.6	
Heavy Trucks:	67.4	65.9	56.9	58.1	66.5	66.6	
Vehicle Noise:	75.5	73.7	70.8	65.9	74.5	74.9	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			119	256	551	1,188	
CNEL:			128	275	593	1,278	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: Existing Road Name: Dick Kelly Dr. Road Segment: e/o Monterey Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 5,400 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 540 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 48 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 54.0 feet Centerline Dist. to Observer: 54.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 48.631 Medium Trucks: 48.449 Heavy Trucks: 48.467				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-4.63	0.08	-1.20	-4.67	0.000	0.000
Medium Trucks:	79.45	-21.87	0.10	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-25.82	0.10	-1.20	-5.39	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	62.7	60.8	59.0	53.0	61.6	62.2	
Medium Trucks:	56.5	55.0	48.6	47.1	55.5	55.8	
Heavy Trucks:	57.3	55.9	46.9	48.1	56.5	56.6	
Vehicle Noise:	64.6	62.8	59.7	55.0	63.5	64.0	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			20	43	93	200	
CNEL:			21	46	100	214	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: Existing Road Name: Gerald Ford Dr. Road Segment: w/o Monterey Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 16,500 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 1,650 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 58 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 55.0 feet Centerline Dist. to Observer: 55.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 47.000 Medium Trucks: 46.811 Heavy Trucks: 46.830				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-0.23	0.30	-1.20	-4.67	0.000	0.000
Medium Trucks:	81.00	-17.47	0.33	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-21.43	0.32	-1.20	-5.38	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	69.1	67.2	65.4	59.4	68.0	68.6	
Medium Trucks:	62.7	61.1	54.8	53.2	61.7	61.9	
Heavy Trucks:	63.1	61.7	52.6	53.9	62.2	62.3	
Vehicle Noise:	70.8	69.0	66.0	61.2	69.7	70.2	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			53	114	245	528	
CNEL:			57	122	263	568	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: Existing Road Name: Monterey Av. Road Segment: s/o Dick Kelly Dr.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 32,900 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 3,290 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 86 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 60.0 feet Centerline Dist. to Observer: 60.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 42.143 Medium Trucks: 41.932 Heavy Trucks: 41.953				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	2.35	1.01	-1.20	-4.69	0.000	0.000
Medium Trucks:	82.40	-14.89	1.04	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-18.84	1.04	-1.20	-5.34	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	73.9	72.0	70.3	64.2	72.8	73.4	
Medium Trucks:	67.4	65.8	59.5	57.9	66.4	66.6	
Heavy Trucks:	67.4	66.0	56.9	58.2	66.5	66.7	
Vehicle Noise:	75.5	73.8	70.8	65.9	74.5	75.0	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			120	258	555	1,195	
CNEL:			129	277	597	1,286	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: Existing Road Name: Gerald Ford Dr. Road Segment: e/o Monterey Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 14,500 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 1,450 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 78 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 75.0 feet Centerline Dist. to Observer: 75.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 64.257 Medium Trucks: 64.119 Heavy Trucks: 64.133				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-0.79	-1.74	-1.20	-4.73	0.000	0.000
Medium Trucks:	81.00	-18.03	-1.72	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-21.99	-1.73	-1.20	-5.25	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	66.5	64.6	62.8	56.8	65.4	66.0	
Medium Trucks:	60.0	58.5	52.2	50.6	59.1	59.3	
Heavy Trucks:	60.5	59.0	50.0	51.3	59.6	59.7	
Vehicle Noise:	68.2	66.4	63.4	58.6	67.1	67.6	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			48	104	224	483	
CNEL:			52	112	241	519	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: Existing Road Name: Monterey Av. Road Segment: s/o Gerald Ford Dr.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 33,300 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 3,330 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 86 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 60.0 feet Centerline Dist. to Observer: 60.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 42.143 Medium Trucks: 41.932 Heavy Trucks: 41.953				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	2.40	1.01	-1.20	-4.69	0.000	0.000
Medium Trucks:	82.40	-14.84	1.04	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-18.79	1.04	-1.20	-5.34	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	74.0	72.1	70.3	64.3	72.9	73.5	
Medium Trucks:	67.4	65.9	59.5	58.0	66.5	66.7	
Heavy Trucks:	67.4	66.0	57.0	58.2	66.6	66.7	
Vehicle Noise:	75.6	73.8	70.9	66.0	74.5	75.0	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			121	260	559	1,205	
CNEL:			130	279	602	1,296	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: Existing Road Name: Frank Sinatra Dr. Road Segment: e/o Monterey Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 16,000 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 1,600 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 78 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 75.0 feet Centerline Dist. to Observer: 75.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 64.257 Medium Trucks: 64.119 Heavy Trucks: 64.133				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-0.37	-1.74	-1.20	-4.73	0.000	0.000
Medium Trucks:	81.00	-17.61	-1.72	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-21.56	-1.73	-1.20	-5.25	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	66.9	65.0	63.2	57.2	65.8	66.4	
Medium Trucks:	60.5	59.0	52.6	51.1	59.5	59.8	
Heavy Trucks:	60.9	59.5	50.4	51.7	60.0	60.2	
Vehicle Noise:	68.6	66.8	63.8	59.0	67.6	68.0	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			52	111	240	516	
CNEL:			55	119	257	554	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: Existing Road Name: Frank Sinatra Dr. Road Segment: w/o Monterey Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 16,100 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 1,610 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 58 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 55.0 feet Centerline Dist. to Observer: 55.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 47.000 Medium Trucks: 46.811 Heavy Trucks: 46.830				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	-0.75	0.30	-1.20	-4.67	0.000	0.000
Medium Trucks:	82.40	-17.99	0.33	-1.20	-4.87	0.000	0.000
Heavy Trucks:	86.40	-21.95	0.32	-1.20	-5.38	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	70.1	68.2	66.5	60.4	69.0	69.6	
Medium Trucks:	63.5	62.0	55.7	54.1	62.6	62.8	
Heavy Trucks:	63.6	62.1	53.1	54.4	62.7	62.8	
Vehicle Noise:	71.7	69.9	67.0	62.1	70.7	71.1	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			61	131	283	610	
CNEL:			66	141	305	656	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: Existing Road Name: Monterey Av. Road Segment: s/o Frank Sinatra Dr.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 35,800 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 3,580 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 86 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 60.0 feet Centerline Dist. to Observer: 60.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 42.143 Medium Trucks: 41.932 Heavy Trucks: 41.953				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	2.72	1.01	-1.20	-4.69	0.000	0.000
Medium Trucks:	82.40	-14.52	1.04	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-18.48	1.04	-1.20	-5.34	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	74.3	72.4	70.6	64.6	73.2	73.8	
Medium Trucks:	67.7	66.2	59.9	58.3	66.8	67.0	
Heavy Trucks:	67.8	66.3	57.3	58.6	66.9	67.0	
Vehicle Noise:	75.9	74.1	71.2	66.3	74.9	75.3	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			126	272	587	1,265	
CNEL:			136	293	631	1,360	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: Existing Road Name: Country Club Dr. Road Segment: w/o Monterey Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 24,900 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 2,490 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 58 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 55.0 feet Centerline Dist. to Observer: 55.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 47.000 Medium Trucks: 46.811 Heavy Trucks: 46.830				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	1.55	0.30	-1.20	-4.67	0.000	0.000
Medium Trucks:	81.00	-15.68	0.33	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-19.64	0.32	-1.20	-5.38	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	70.9	69.0	67.2	61.1	69.8	70.4	
Medium Trucks:	64.4	62.9	56.6	55.0	63.5	63.7	
Heavy Trucks:	64.9	63.4	54.4	55.7	64.0	64.1	
Vehicle Noise:	72.6	70.8	67.8	63.0	71.5	72.0	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			70	150	323	695	
CNEL:			75	161	347	747	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: Existing Road Name: Monterey Av. Road Segment: s/o Country Club Dr.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 38,000 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 3,800 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 58 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 55.0 feet Centerline Dist. to Observer: 55.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 47.000 Medium Trucks: 46.811 Heavy Trucks: 46.830				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	3.39	0.30	-1.20	-4.67	0.000	0.000
Medium Trucks:	81.00	-13.85	0.33	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-17.80	0.32	-1.20	-5.38	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	72.7	70.8	69.0	63.0	71.6	72.2	
Medium Trucks:	66.3	64.8	58.4	56.9	65.3	65.6	
Heavy Trucks:	66.7	65.3	56.2	57.5	65.8	66.0	
Vehicle Noise:	74.4	72.6	69.6	64.8	73.4	73.8	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			92	199	428	921	
CNEL:			99	213	459	990	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: Existing Road Name: Country Club Dr. Road Segment: e/o Monterey Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 24,900 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 2,490 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 78 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 75.0 feet Centerline Dist. to Observer: 75.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 64.257 Medium Trucks: 64.119 Heavy Trucks: 64.133				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	2.01	-1.74	-1.20	-4.73	0.000	0.000
Medium Trucks:	79.45	-15.23	-1.72	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-19.18	-1.73	-1.20	-5.25	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	67.5	65.6	63.9	57.8	66.4	67.0	
Medium Trucks:	61.3	59.8	53.4	51.9	60.3	60.6	
Heavy Trucks:	62.1	60.7	51.7	52.9	61.3	61.4	
Vehicle Noise:	69.4	67.6	64.5	59.8	68.3	68.8	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			58	125	270	582	
CNEL:			62	134	290	624	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: E+P Alt1 Road Name: Monterey Av. Road Segment: n/o Varner Rd.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 15,800 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 1,580 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 54 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 52.697 Medium Trucks: 52.529 Heavy Trucks: 52.546				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	-0.84	-0.45	-1.20	-4.69	0.000	0.000
Medium Trucks:	82.40	-18.07	-0.42	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-22.03	-0.43	-1.20	-5.35	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	69.3	67.4	65.6	59.6	68.2	68.8	
Medium Trucks:	62.7	61.2	54.8	53.3	61.8	62.0	
Heavy Trucks:	62.7	61.3	52.3	53.5	61.9	62.0	
Vehicle Noise:	70.9	69.1	66.2	61.3	69.8	70.3	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			58	124	267	576	
CNEL:			62	134	288	620	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: E+P Alt1 Road Name: Monterey Av. Road Segment: s/o Vaner Rd.			Project Name: Rancho Monterey Specific Job Number: 14271					
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS					
Highway Data			Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 32,000 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 3,200 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 54 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data			Vehicle Mix					
			VehicleType	Day	Evening	Night	Daily	
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%					
			Noise Source Elevations (in feet)					
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0					
			Lane Equivalent Distance (in feet)					
			Autos: 52.697 Medium Trucks: 52.529 Heavy Trucks: 52.546					
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	71.78	2.23	-0.45	-1.20	-4.69	0.000	0.000	
Medium Trucks:	82.40	-15.01	-0.42	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	86.40	-18.97	-0.43	-1.20	-5.35	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	72.4	70.5	68.7	62.6	71.3	71.9		
Medium Trucks:	65.8	64.3	57.9	56.4	64.8	65.0		
Heavy Trucks:	65.8	64.4	55.3	56.6	65.0	65.1		
Vehicle Noise:	73.9	72.2	69.2	64.4	72.9	73.4		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			92	199	428	922		
CNEL:			99	214	461	992		

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: E+P Alt1 Road Name: Dinah Shore Dr. Road Segment: w/o Key Largo Av.			Project Name: Rancho Monterey Specific Job Number: 14271					
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS					
Highway Data			Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 28,900 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 2,890 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 86 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data			Vehicle Mix					
			VehicleType	Day	Evening	Night	Daily	
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 60.0 feet Centerline Dist. to Observer: 60.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%					
			Noise Source Elevations (in feet)					
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0					
			Lane Equivalent Distance (in feet)					
			Autos: 42.143 Medium Trucks: 41.932 Heavy Trucks: 41.953					
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	68.46	2.66	1.01	-1.20	-4.69	0.000	0.000	
Medium Trucks:	79.45	-14.58	1.04	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	84.25	-18.54	1.04	-1.20	-5.34	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	70.9	69.0	67.3	61.2	69.8	70.4		
Medium Trucks:	64.7	63.2	56.8	55.3	63.8	64.0		
Heavy Trucks:	65.6	64.1	55.1	56.3	64.7	64.8		
Vehicle Noise:	72.8	71.0	67.9	63.2	71.7	72.2		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			78	169	364	784		
CNEL:			84	181	391	841		

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: E+P Alt1 Road Name: Monterey Av. Road Segment: n/o Dinah Shore Dr.			Project Name: Rancho Monterey Specific Job Number: 14271					
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS					
Highway Data			Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 55,200 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 5,520 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 78 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data			Vehicle Mix					
			VehicleType	Day	Evening	Night	Daily	
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 75.0 feet Centerline Dist. to Observer: 75.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%					
			Noise Source Elevations (in feet)					
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0					
			Lane Equivalent Distance (in feet)					
			Autos: 64.257 Medium Trucks: 64.119 Heavy Trucks: 64.133					
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	71.78	4.60	-1.74	-1.20	-4.73	0.000	0.000	
Medium Trucks:	82.40	-12.64	-1.72	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	86.40	-16.60	-1.73	-1.20	-5.25	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	73.4	71.5	69.8	63.7	72.3	72.9		
Medium Trucks:	66.8	65.3	59.0	57.4	65.9	66.1		
Heavy Trucks:	66.9	65.5	56.4	57.7	66.0	66.1		
Vehicle Noise:	75.0	73.3	70.3	65.4	74.0	74.5		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			138	298	642	1,383		
CNEL:			149	320	690	1,487		

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: E+P Alt1 Road Name: Dinah Shore Dr. Road Segment: e/o Key Largo Av.			Project Name: Rancho Monterey Specific Job Number: 14271					
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS					
Highway Data			Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 32,200 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 3,220 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 86 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data			Vehicle Mix					
			VehicleType	Day	Evening	Night	Daily	
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 60.0 feet Centerline Dist. to Observer: 60.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%					
			Noise Source Elevations (in feet)					
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0					
			Lane Equivalent Distance (in feet)					
			Autos: 42.143 Medium Trucks: 41.932 Heavy Trucks: 41.953					
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	68.46	3.13	1.01	-1.20	-4.69	0.000	0.000	
Medium Trucks:	79.45	-14.11	1.04	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	84.25	-18.07	1.04	-1.20	-5.34	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	71.4	69.5	67.7	61.7	70.3	70.9		
Medium Trucks:	65.2	63.7	57.3	55.8	64.2	64.5		
Heavy Trucks:	66.0	64.6	55.6	56.8	65.2	65.3		
Vehicle Noise:	73.2	71.5	68.3	63.7	72.2	72.7		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			84	182	391	843		
CNEL:			90	195	420	904		

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: E+P Alt1 Road Name: Dinah Shore Dr. Road Segment: e/o Monterey Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS			
Highway Data				Site Conditions (Hard = 10, Soft = 15)			
Average Daily Traffic (Adt): 24,800 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 2,480 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 78 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15			
Site Data				Vehicle Mix			
				VehicleType	Day	Evening	Night
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 75.0 feet Centerline Dist. to Observer: 75.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%			
				Noise Source Elevations (in feet)			
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0			
				Lane Equivalent Distance (in feet)			
				Autos: 64.257 Medium Trucks: 64.119 Heavy Trucks: 64.133			
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	1.99	-1.74	-1.20	-4.73	0.000	0.000
Medium Trucks:	79.45	-15.24	-1.72	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-19.20	-1.73	-1.20	-5.25	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	67.5	65.6	63.9	57.8	66.4	67.0	
Medium Trucks:	61.3	59.8	53.4	51.9	60.3	60.6	
Heavy Trucks:	62.1	60.7	51.7	52.9	61.3	61.4	
Vehicle Noise:	69.4	67.6	64.5	59.8	68.3	68.8	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			58	125	269	580	
CNEL:			62	134	289	622	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: E+P Alt1 Road Name: Monterey Av. Road Segment: s/o Dinah Shore Dr.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS			
Highway Data				Site Conditions (Hard = 10, Soft = 15)			
Average Daily Traffic (Adt): 35,100 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 3,510 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 86 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15			
Site Data				Vehicle Mix			
				VehicleType	Day	Evening	Night
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 60.0 feet Centerline Dist. to Observer: 60.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%			
				Noise Source Elevations (in feet)			
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0			
				Lane Equivalent Distance (in feet)			
				Autos: 42.143 Medium Trucks: 41.932 Heavy Trucks: 41.953			
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	2.63	1.01	-1.20	-4.69	0.000	0.000
Medium Trucks:	82.40	-14.61	1.04	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-18.56	1.04	-1.20	-5.34	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	74.2	72.3	70.6	64.5	73.1	73.7	
Medium Trucks:	67.6	66.1	59.8	58.2	66.7	66.9	
Heavy Trucks:	67.7	66.3	57.2	58.5	66.8	66.9	
Vehicle Noise:	75.8	74.0	71.1	66.2	74.8	75.2	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			125	269	579	1,248	
CNEL:			134	289	623	1,343	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: E+P Alt1 Road Name: Key Largo Av. Road Segment: s/o Dinah Shore Dr.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS			
Highway Data				Site Conditions (Hard = 10, Soft = 15)			
Average Daily Traffic (Adt): 2,800 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 280 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 12 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15			
Site Data				Vehicle Mix			
				VehicleType	Day	Evening	Night
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 30.0 feet Centerline Dist. to Observer: 30.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%			
				Noise Source Elevations (in feet)			
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0			
				Lane Equivalent Distance (in feet)			
				Autos: 29.816 Medium Trucks: 29.518 Heavy Trucks: 29.547			
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-7.48	3.26	-1.20	-4.49	0.000	0.000
Medium Trucks:	79.45	-24.72	3.33	-1.20	-4.86	0.000	0.000
Heavy Trucks:	84.25	-28.67	3.32	-1.20	-5.77	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	63.0	61.1	59.4	53.3	61.9	62.6	
Medium Trucks:	56.9	55.4	49.0	47.4	55.9	56.1	
Heavy Trucks:	57.7	56.3	47.2	48.5	56.8	57.0	
Vehicle Noise:	64.9	63.2	60.0	55.3	63.9	64.3	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			12	25	54	117	
CNEL:			13	27	58	126	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: E+P Alt1 Road Name: Dick Kelly Dr. Road Segment: e/o Monterey Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS			
Highway Data				Site Conditions (Hard = 10, Soft = 15)			
Average Daily Traffic (Adt): 5,800 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 580 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 48 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15			
Site Data				Vehicle Mix			
				VehicleType	Day	Evening	Night
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 54.0 feet Centerline Dist. to Observer: 54.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%			
				Noise Source Elevations (in feet)			
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0			
				Lane Equivalent Distance (in feet)			
				Autos: 48.631 Medium Trucks: 48.449 Heavy Trucks: 48.467			
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-4.32	0.08	-1.20	-4.67	0.000	0.000
Medium Trucks:	79.45	-21.56	0.10	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-25.51	0.10	-1.20	-5.39	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	63.0	61.1	59.4	53.3	61.9	62.5	
Medium Trucks:	56.8	55.3	48.9	47.4	55.8	56.1	
Heavy Trucks:	57.6	56.2	47.2	48.4	56.8	56.9	
Vehicle Noise:	64.9	63.1	60.0	55.3	63.8	64.3	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			21	45	97	210	
CNEL:			22	48	104	225	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: E+P Alt1 Road Name: Monterey Av. Road Segment: s/o Dick Kelly Dr.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 36,800 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 3,680 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 86 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 60.0 feet Centerline Dist. to Observer: 60.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 42.143 Medium Trucks: 41.932 Heavy Trucks: 41.953				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	2.84	1.01	-1.20	-4.69	0.000	0.000
Medium Trucks:	82.40	-14.40	1.04	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-18.36	1.04	-1.20	-5.34	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	74.4	72.5	70.8	64.7	73.3	73.9	
Medium Trucks:	67.8	66.3	60.0	58.4	66.9	67.1	
Heavy Trucks:	67.9	66.5	57.4	58.7	67.0	67.2	
Vehicle Noise:	76.0	74.3	71.3	66.4	75.0	75.5	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			129	278	598	1,288	
CNEL:			139	299	643	1,386	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: E+P Alt1 Road Name: Gerald Ford Dr. Road Segment: e/o Monterey Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 15,700 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 1,570 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 78 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 75.0 feet Centerline Dist. to Observer: 75.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 64.257 Medium Trucks: 64.119 Heavy Trucks: 64.133				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-0.45	-1.74	-1.20	-4.73	0.000	0.000
Medium Trucks:	81.00	-17.69	-1.72	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-21.64	-1.73	-1.20	-5.25	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	66.8	64.9	63.2	57.1	65.7	66.3	
Medium Trucks:	60.4	58.9	52.5	51.0	59.4	59.7	
Heavy Trucks:	60.8	59.4	50.4	51.6	60.0	60.1	
Vehicle Noise:	68.5	66.8	63.7	58.9	67.5	67.9	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			51	110	237	510	
CNEL:			55	118	254	547	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: E+P Alt1 Road Name: Gerald Ford Dr. Road Segment: w/o Monterey Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 17,800 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 1,780 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 58 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 55.0 feet Centerline Dist. to Observer: 55.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 47.000 Medium Trucks: 46.811 Heavy Trucks: 46.830				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	0.10	0.30	-1.20	-4.67	0.000	0.000
Medium Trucks:	81.00	-17.14	0.33	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-21.10	0.32	-1.20	-5.38	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	69.4	67.5	65.7	59.7	68.3	68.9	
Medium Trucks:	63.0	61.5	55.1	53.6	62.0	62.3	
Heavy Trucks:	63.4	62.0	52.9	54.2	62.5	62.7	
Vehicle Noise:	71.1	69.3	66.3	61.5	70.1	70.5	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			56	120	258	556	
CNEL:			60	129	277	597	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: E+P Alt1 Road Name: Monterey Av. Road Segment: s/o Gerald Ford Dr.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 36,200 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 3,620 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 86 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 60.0 feet Centerline Dist. to Observer: 60.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 42.143 Medium Trucks: 41.932 Heavy Trucks: 41.953				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	2.76	1.01	-1.20	-4.69	0.000	0.000
Medium Trucks:	82.40	-14.47	1.04	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-18.43	1.04	-1.20	-5.34	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	74.4	72.5	70.7	64.6	73.3	73.9	
Medium Trucks:	67.8	66.3	59.9	58.4	66.8	67.1	
Heavy Trucks:	67.8	66.4	57.3	58.6	67.0	67.1	
Vehicle Noise:	75.9	74.2	71.2	66.4	74.9	75.4	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			127	274	591	1,274	
CNEL:			137	295	636	1,371	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: E+P Alt1 Road Name: Frank Sinatra Dr. Road Segment: w/o Monterey Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS			
Highway Data				Site Conditions (Hard = 10, Soft = 15)			
Average Daily Traffic (Adt): 16,500 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 1,650 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 58 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15			
Site Data				Vehicle Mix			
				VehicleType	Day	Evening	Night
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 55.0 feet Centerline Dist. to Observer: 55.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%			
				Noise Source Elevations (in feet)			
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0			
				Lane Equivalent Distance (in feet)			
				Autos: 47.000 Medium Trucks: 46.811 Heavy Trucks: 46.830			
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	-0.65	0.30	-1.20	-4.67	0.000	0.000
Medium Trucks:	82.40	-17.89	0.33	-1.20	-4.87	0.000	0.000
Heavy Trucks:	86.40	-21.84	0.32	-1.20	-5.38	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	70.2	68.3	66.6	60.5	69.1	69.7	
Medium Trucks:	63.6	62.1	55.8	54.2	62.7	62.9	
Heavy Trucks:	63.7	62.3	53.2	54.5	62.8	63.0	
Vehicle Noise:	71.8	70.1	67.1	62.2	70.8	71.3	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			62	134	288	620	
CNEL:			67	144	310	667	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: E+P Alt1 Road Name: Monterey Av. Road Segment: s/o Frank Sinatra Dr.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS			
Highway Data				Site Conditions (Hard = 10, Soft = 15)			
Average Daily Traffic (Adt): 37,100 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 3,710 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 86 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15			
Site Data				Vehicle Mix			
				VehicleType	Day	Evening	Night
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 60.0 feet Centerline Dist. to Observer: 60.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%			
				Noise Source Elevations (in feet)			
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0			
				Lane Equivalent Distance (in feet)			
				Autos: 42.143 Medium Trucks: 41.932 Heavy Trucks: 41.953			
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	2.87	1.01	-1.20	-4.69	0.000	0.000
Medium Trucks:	82.40	-14.37	1.04	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-18.32	1.04	-1.20	-5.34	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	74.5	72.6	70.8	64.7	73.4	74.0	
Medium Trucks:	67.9	66.4	60.0	58.5	66.9	67.2	
Heavy Trucks:	67.9	66.5	57.5	58.7	67.1	67.2	
Vehicle Noise:	76.0	74.3	66.5	75.0	75.5	75.5	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			130	279	601	1,295	
CNEL:			139	300	647	1,393	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: E+P Alt1 Road Name: Frank Sinatra Dr. Road Segment: e/o Monterey Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS			
Highway Data				Site Conditions (Hard = 10, Soft = 15)			
Average Daily Traffic (Adt): 16,300 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 1,630 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 78 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15			
Site Data				Vehicle Mix			
				VehicleType	Day	Evening	Night
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 75.0 feet Centerline Dist. to Observer: 75.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%			
				Noise Source Elevations (in feet)			
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0			
				Lane Equivalent Distance (in feet)			
				Autos: 64.257 Medium Trucks: 64.119 Heavy Trucks: 64.133			
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-0.29	-1.74	-1.20	-4.73	0.000	0.000
Medium Trucks:	81.00	-17.53	-1.72	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-21.48	-1.73	-1.20	-5.25	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	67.0	65.1	63.3	57.3	65.9	66.5	
Medium Trucks:	60.6	59.0	52.7	51.1	59.6	59.8	
Heavy Trucks:	61.0	59.6	50.5	51.8	60.1	60.2	
Vehicle Noise:	68.7	66.9	63.9	59.1	67.6	68.1	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			52	113	242	522	
CNEL:			56	121	261	561	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: E+P Alt1 Road Name: Country Club Dr. Road Segment: w/o Monterey Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS			
Highway Data				Site Conditions (Hard = 10, Soft = 15)			
Average Daily Traffic (Adt): 25,200 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 2,520 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 58 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15			
Site Data				Vehicle Mix			
				VehicleType	Day	Evening	Night
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 55.0 feet Centerline Dist. to Observer: 55.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%			
				Noise Source Elevations (in feet)			
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0			
				Lane Equivalent Distance (in feet)			
				Autos: 47.000 Medium Trucks: 46.811 Heavy Trucks: 46.830			
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	1.61	0.30	-1.20	-4.67	0.000	0.000
Medium Trucks:	81.00	-15.63	0.33	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-19.59	0.32	-1.20	-5.38	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	70.9	69.0	67.2	61.2	69.8	70.4	
Medium Trucks:	64.5	63.0	56.6	55.1	63.5	63.8	
Heavy Trucks:	64.9	63.5	54.5	55.7	64.1	64.2	
Vehicle Noise:	72.6	70.9	67.8	63.0	71.6	72.0	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			70	151	325	701	
CNEL:			75	162	349	753	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: E+P Alt1 Road Name: Country Club Dr. Road Segment: e/o Monterey Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 25,100 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 2,510 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 78 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 75.0 feet Centerline Dist. to Observer: 75.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 64.257 Medium Trucks: 64.119 Heavy Trucks: 64.133				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	2.05	-1.74	-1.20	-4.73	0.000	0.000
Medium Trucks:	79.45	-15.19	-1.72	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-19.15	-1.73	-1.20	-5.25	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	67.6	65.7	63.9	57.8	66.5	67.1	
Medium Trucks:	61.3	59.8	53.5	51.9	60.4	60.6	
Heavy Trucks:	62.2	60.8	51.7	53.0	61.3	61.5	
Vehicle Noise:	69.4	67.7	64.5	59.8	68.4	68.8	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			58	126	271	585	
CNEL:			63	135	291	627	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: E+P Alt2 Road Name: Monterey Av. Road Segment: n/o Varner Rd.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 15,800 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 1,580 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 54 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 52.697 Medium Trucks: 52.529 Heavy Trucks: 52.546				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	-0.84	-0.45	-1.20	-4.69	0.000	0.000
Medium Trucks:	82.40	-18.07	-0.42	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-22.03	-0.43	-1.20	-5.35	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	69.3	67.4	65.6	59.6	68.2	68.8	
Medium Trucks:	62.7	61.2	54.8	53.3	61.8	62.0	
Heavy Trucks:	62.7	61.3	52.3	53.5	61.9	62.0	
Vehicle Noise:	70.9	69.1	66.2	61.3	69.8	70.3	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			58	124	267	576	
CNEL:			62	134	288	620	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: E+P Alt1 Road Name: Monterey Av. Road Segment: s/o Country Club Dr.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 38,700 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 3,870 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 58 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 55.0 feet Centerline Dist. to Observer: 55.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 47.000 Medium Trucks: 46.811 Heavy Trucks: 46.830				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	3.47	0.30	-1.20	-4.67	0.000	0.000
Medium Trucks:	81.00	-13.77	0.33	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-17.73	0.32	-1.20	-5.38	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	72.8	70.9	69.1	63.1	71.7	72.3	
Medium Trucks:	66.4	64.8	58.5	56.9	65.4	65.6	
Heavy Trucks:	66.8	65.4	56.3	57.6	65.9	66.0	
Vehicle Noise:	74.5	72.7	69.7	64.9	73.4	73.9	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			93	201	433	933	
CNEL:			100	216	465	1,002	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: E+P Alt2 Road Name: Monterey Av. Road Segment: s/o Varner Rd.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 32,100 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 3,210 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 54 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 52.697 Medium Trucks: 52.529 Heavy Trucks: 52.546				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	2.24	-0.45	-1.20	-4.69	0.000	0.000
Medium Trucks:	82.40	-15.00	-0.42	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-18.95	-0.43	-1.20	-5.35	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	72.4	70.5	68.7	62.7	71.3	71.9	
Medium Trucks:	65.8	64.3	57.9	56.4	64.8	65.1	
Heavy Trucks:	65.8	64.4	55.4	56.6	65.0	65.1	
Vehicle Noise:	74.0	72.2	69.2	64.4	72.9	73.4	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			92	199	429	924	
CNEL:			99	214	461	994	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: E+P Alt2 Road Name: Monterey Av. Road Segment: n/o Dinah Shore Dr.			Project Name: Rancho Monterey Specific Job Number: 14271					
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS					
Highway Data			Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 55,200 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 5,520 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 78 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data			Vehicle Mix					
			VehicleType	Day	Evening	Night	Daily	
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 75.0 feet Centerline Dist. to Observer: 75.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%					
			Noise Source Elevations (in feet)					
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0					
			Lane Equivalent Distance (in feet)					
			Autos: 64.257 Medium Trucks: 64.119 Heavy Trucks: 64.133					
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	71.78	4.60	-1.74	-1.20	-4.73	0.000	0.000	
Medium Trucks:	82.40	-12.64	-1.72	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	86.40	-16.60	-1.73	-1.20	-5.25	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	73.4	71.5	69.8	63.7	72.3	72.9		
Medium Trucks:	66.8	65.3	59.0	57.4	65.9	66.1		
Heavy Trucks:	66.9	65.5	56.4	57.7	66.0	66.1		
Vehicle Noise:	75.0	73.3	70.3	65.4	74.0	74.5		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			138	298	642	1,383		
CNEL:			149	320	690	1,487		

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: E+P Alt2 Road Name: Dinah Shore Dr. Road Segment: elo Key Largo Av.			Project Name: Rancho Monterey Specific Job Number: 14271					
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS					
Highway Data			Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 32,400 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 3,240 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 86 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data			Vehicle Mix					
			VehicleType	Day	Evening	Night	Daily	
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 60.0 feet Centerline Dist. to Observer: 60.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%					
			Noise Source Elevations (in feet)					
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0					
			Lane Equivalent Distance (in feet)					
			Autos: 42.143 Medium Trucks: 41.932 Heavy Trucks: 41.953					
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	68.46	3.15	1.01	-1.20	-4.69	0.000	0.000	
Medium Trucks:	79.45	-14.08	1.04	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	84.25	-18.04	1.04	-1.20	-5.34	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	71.4	69.5	67.8	61.7	70.3	70.9		
Medium Trucks:	65.2	63.7	57.3	55.8	64.3	64.5		
Heavy Trucks:	66.1	64.6	55.6	56.8	65.2	65.3		
Vehicle Noise:	73.3	71.5	68.4	63.7	72.2	72.7		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			85	182	393	847		
CNEL:			91	196	421	908		

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: E+P Alt2 Road Name: Dinah Shore Dr. Road Segment: w/o Key Largo Av.			Project Name: Rancho Monterey Specific Job Number: 14271					
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS					
Highway Data			Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 27,500 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 2,750 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 86 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data			Vehicle Mix					
			VehicleType	Day	Evening	Night	Daily	
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 60.0 feet Centerline Dist. to Observer: 60.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%					
			Noise Source Elevations (in feet)					
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0					
			Lane Equivalent Distance (in feet)					
			Autos: 42.143 Medium Trucks: 41.932 Heavy Trucks: 41.953					
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	68.46	2.44	1.01	-1.20	-4.69	0.000	0.000	
Medium Trucks:	79.45	-14.80	1.04	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	84.25	-18.75	1.04	-1.20	-5.34	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	70.7	68.8	67.0	61.0	69.6	70.2		
Medium Trucks:	64.5	63.0	56.6	55.1	63.5	63.8		
Heavy Trucks:	65.3	63.9	54.9	56.1	64.5	64.6		
Vehicle Noise:	72.6	70.8	67.7	63.0	71.5	72.0		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			76	163	352	759		
CNEL:			81	175	378	814		

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: E+P Alt2 Road Name: Dinah Shore Dr. Road Segment: elo Monterey Av.			Project Name: Rancho Monterey Specific Job Number: 14271					
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS					
Highway Data			Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 24,800 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 2,480 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 78 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data			Vehicle Mix					
			VehicleType	Day	Evening	Night	Daily	
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 75.0 feet Centerline Dist. to Observer: 75.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%					
			Noise Source Elevations (in feet)					
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0					
			Lane Equivalent Distance (in feet)					
			Autos: 64.257 Medium Trucks: 64.119 Heavy Trucks: 64.133					
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	68.46	1.99	-1.74	-1.20	-4.73	0.000	0.000	
Medium Trucks:	79.45	-15.24	-1.72	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	84.25	-19.20	-1.73	-1.20	-5.25	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	67.5	65.6	63.9	57.8	66.4	67.0		
Medium Trucks:	61.3	59.8	53.4	51.9	60.3	60.6		
Heavy Trucks:	62.1	60.7	51.7	52.9	61.3	61.4		
Vehicle Noise:	69.4	67.6	64.5	59.8	68.3	68.8		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			58	125	269	580		
CNEL:			62	134	289	622		

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: E+P Alt2 Road Name: Key Largo Av. Road Segment: s/o Dinah Shore Dr.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 2,600 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 260 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 12 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 30.0 feet Centerline Dist. to Observer: 30.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 29.816 Medium Trucks: 29.518 Heavy Trucks: 29.547				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-7.80	3.26	-1.20	-4.49	0.000	0.000
Medium Trucks:	79.45	-25.04	3.33	-1.20	-4.86	0.000	0.000
Heavy Trucks:	84.25	-29.00	3.32	-1.20	-5.77	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	62.7	60.8	59.1	53.0	61.6	62.2	
Medium Trucks:	56.5	55.0	48.7	47.1	55.6	55.8	
Heavy Trucks:	57.4	56.0	46.9	48.2	56.5	56.7	
Vehicle Noise:	64.6	62.8	59.7	55.0	63.6	64.0	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			11	24	52	111	
CNEL:			12	26	56	120	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: E+P Alt2 Road Name: Dick Kelly Dr. Road Segment: e/o Monterey Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 5,800 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 580 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 48 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 54.0 feet Centerline Dist. to Observer: 54.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 48.631 Medium Trucks: 48.449 Heavy Trucks: 48.467				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-4.32	0.08	-1.20	-4.67	0.000	0.000
Medium Trucks:	79.45	-21.56	0.10	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-25.51	0.10	-1.20	-5.39	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	63.0	61.1	59.4	53.3	61.9	62.5	
Medium Trucks:	56.8	55.3	48.9	47.4	55.8	56.1	
Heavy Trucks:	57.6	56.2	47.2	48.4	56.8	56.9	
Vehicle Noise:	64.9	63.1	60.0	55.3	63.8	64.3	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			21	45	97	210	
CNEL:			22	48	104	225	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: E+P Alt2 Road Name: Monterey Av. Road Segment: s/o Dinah Shore Dr.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 35,100 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 3,510 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 86 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 60.0 feet Centerline Dist. to Observer: 60.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 42.143 Medium Trucks: 41.932 Heavy Trucks: 41.953				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	2.63	1.01	-1.20	-4.69	0.000	0.000
Medium Trucks:	82.40	-14.61	1.04	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-18.56	1.04	-1.20	-5.34	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	74.2	72.3	70.6	64.5	73.1	73.7	
Medium Trucks:	67.6	66.1	59.8	58.2	66.7	66.9	
Heavy Trucks:	67.7	66.3	57.2	58.5	66.8	66.9	
Vehicle Noise:	75.8	74.0	71.1	66.2	74.8	75.2	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			125	269	579	1,248	
CNEL:			134	289	623	1,343	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: E+P Alt2 Road Name: Monterey Av. Road Segment: s/o Dick Kelly Dr.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 35,800 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 3,580 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 86 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 60.0 feet Centerline Dist. to Observer: 60.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 42.143 Medium Trucks: 41.932 Heavy Trucks: 41.953				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	2.72	1.01	-1.20	-4.69	0.000	0.000
Medium Trucks:	82.40	-14.52	1.04	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-18.48	1.04	-1.20	-5.34	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	74.3	72.4	70.6	64.6	73.2	73.8	
Medium Trucks:	67.7	66.2	59.9	58.3	66.8	67.0	
Heavy Trucks:	67.8	66.3	57.3	58.6	66.9	67.0	
Vehicle Noise:	75.9	74.1	71.2	66.3	74.9	75.3	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			126	272	587	1,265	
CNEL:			136	293	631	1,360	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: E+P Alt2 Road Name: Gerald Ford Dr. Road Segment: w/o Monterey Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS			
Highway Data				Site Conditions (Hard = 10, Soft = 15)			
Average Daily Traffic (Adt): 17,000 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 1,700 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 58 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15			
Site Data				Vehicle Mix			
				VehicleType	Day	Evening	Night
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 55.0 feet Centerline Dist. to Observer: 55.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%			
				Noise Source Elevations (in feet)			
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0			
				Lane Equivalent Distance (in feet)			
				Autos: 47.000 Medium Trucks: 46.811 Heavy Trucks: 46.830			
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-0.10	0.30	-1.20	-4.67	0.000	0.000
Medium Trucks:	81.00	-17.34	0.33	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-21.30	0.32	-1.20	-5.38	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.2	67.3	65.5	59.5	68.1	68.7
Medium Trucks:	62.8	61.3	54.9	53.4	61.8	62.1
Heavy Trucks:	63.2	61.8	52.7	54.0	62.4	62.5
Vehicle Noise:	70.9	69.1	66.1	61.3	69.9	70.3

Centerline Distance to Noise Contour (in feet)					
	70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:	54	116	250	539	
CNEL:	58	125	269	579	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: E+P Alt2 Road Name: Monterey Av. Road Segment: s/o Gerald Ford Dr.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS			
Highway Data				Site Conditions (Hard = 10, Soft = 15)			
Average Daily Traffic (Adt): 35,200 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 3,520 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 86 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15			
Site Data				Vehicle Mix			
				VehicleType	Day	Evening	Night
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 60.0 feet Centerline Dist. to Observer: 60.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%			
				Noise Source Elevations (in feet)			
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0			
				Lane Equivalent Distance (in feet)			
				Autos: 42.143 Medium Trucks: 41.932 Heavy Trucks: 41.953			
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	2.64	1.01	-1.20	-4.69	0.000	0.000
Medium Trucks:	82.40	-14.60	1.04	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-18.55	1.04	-1.20	-5.34	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	74.2	72.3	70.6	64.5	73.1	73.7
Medium Trucks:	67.7	66.1	59.8	58.2	66.7	66.9
Heavy Trucks:	67.7	66.3	57.2	58.5	66.8	67.0
Vehicle Noise:	75.8	74.1	71.1	66.2	74.8	75.3

Centerline Distance to Noise Contour (in feet)					
	70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:	125	269	580	1,250	
CNEL:	135	290	624	1,345	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: E+P Alt2 Road Name: Gerald Ford Dr. Road Segment: e/o Monterey Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS			
Highway Data				Site Conditions (Hard = 10, Soft = 15)			
Average Daily Traffic (Adt): 15,000 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 1,500 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 78 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15			
Site Data				Vehicle Mix			
				VehicleType	Day	Evening	Night
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 75.0 feet Centerline Dist. to Observer: 75.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%			
				Noise Source Elevations (in feet)			
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0			
				Lane Equivalent Distance (in feet)			
				Autos: 64.257 Medium Trucks: 64.119 Heavy Trucks: 64.133			
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-0.65	-1.74	-1.20	-4.73	0.000	0.000
Medium Trucks:	81.00	-17.89	-1.72	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-21.84	-1.73	-1.20	-5.25	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.6	64.7	63.0	56.9	65.5	66.1
Medium Trucks:	60.2	58.7	52.3	50.8	59.2	59.5
Heavy Trucks:	60.6	59.2	50.2	51.4	59.8	59.9
Vehicle Noise:	68.3	66.6	63.5	58.7	67.3	67.8

Centerline Distance to Noise Contour (in feet)					
	70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:	49	106	229	494	
CNEL:	53	114	246	531	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: E+P Alt2 Road Name: Frank Sinatra Dr. Road Segment: w/o Monterey Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS			
Highway Data				Site Conditions (Hard = 10, Soft = 15)			
Average Daily Traffic (Adt): 16,500 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 1,650 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 58 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15			
Site Data				Vehicle Mix			
				VehicleType	Day	Evening	Night
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 55.0 feet Centerline Dist. to Observer: 55.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%			
				Noise Source Elevations (in feet)			
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0			
				Lane Equivalent Distance (in feet)			
				Autos: 47.000 Medium Trucks: 46.811 Heavy Trucks: 46.830			
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	-0.65	0.30	-1.20	-4.67	0.000	0.000
Medium Trucks:	82.40	-17.89	0.33	-1.20	-4.87	0.000	0.000
Heavy Trucks:	86.40	-21.84	0.32	-1.20	-5.38	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.2	68.3	66.6	60.5	69.1	69.7
Medium Trucks:	63.6	62.1	55.8	54.2	62.7	62.9
Heavy Trucks:	63.7	62.3	53.2	54.5	62.8	63.0
Vehicle Noise:	71.8	70.1	67.1	62.2	70.8	71.3

Centerline Distance to Noise Contour (in feet)					
	70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:	62	134	288	620	
CNEL:	67	144	310	667	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: E+P Alt2 Road Name: Frank Sinatra Dr. Road Segment: e/o Monterey Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 16,300 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 1,630 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 78 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 75.0 feet Centerline Dist. to Observer: 75.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 64.257 Medium Trucks: 64.119 Heavy Trucks: 64.133				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-0.29	-1.74	-1.20	-4.73	0.000	0.000
Medium Trucks:	81.00	-17.53	-1.72	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-21.48	-1.73	-1.20	-5.25	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	67.0	65.1	63.3	57.3	65.9	66.5	
Medium Trucks:	60.6	59.0	52.7	51.1	59.6	59.8	
Heavy Trucks:	61.0	59.6	50.5	51.8	60.1	60.2	
Vehicle Noise:	68.7	66.9	63.9	59.1	67.6	68.1	

Centerline Distance to Noise Contour (in feet)				
	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	52	113	242	522
CNEL:	56	121	261	561

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: E+P Alt2 Road Name: Country Club Dr. Road Segment: w/o Monterey Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 25,200 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 2,520 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 58 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 55.0 feet Centerline Dist. to Observer: 55.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 47.000 Medium Trucks: 46.811 Heavy Trucks: 46.830				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	1.61	0.30	-1.20	-4.67	0.000	0.000
Medium Trucks:	81.00	-15.63	0.33	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-19.59	0.32	-1.20	-5.38	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	70.9	69.0	67.2	61.2	69.8	70.4	
Medium Trucks:	64.5	63.0	56.6	55.1	63.5	63.8	
Heavy Trucks:	64.9	63.5	54.5	55.7	64.1	64.2	
Vehicle Noise:	72.6	70.9	67.8	63.0	71.6	72.0	

Centerline Distance to Noise Contour (in feet)				
	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	70	151	325	701
CNEL:	75	162	349	753

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: E+P Alt2 Road Name: Monterey Av. Road Segment: s/o Frank Sinatra Dr.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 37,100 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 3,710 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 86 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 60.0 feet Centerline Dist. to Observer: 60.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 42.143 Medium Trucks: 41.932 Heavy Trucks: 41.953				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	2.87	1.01	-1.20	-4.69	0.000	0.000
Medium Trucks:	82.40	-14.37	1.04	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-18.32	1.04	-1.20	-5.34	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	74.5	72.6	70.8	64.7	73.4	74.0	
Medium Trucks:	67.9	66.4	60.0	58.5	66.9	67.2	
Heavy Trucks:	67.9	66.5	57.5	58.7	67.1	67.2	
Vehicle Noise:	76.0	74.3	71.3	66.5	75.0	75.5	

Centerline Distance to Noise Contour (in feet)				
	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	130	279	601	1,295
CNEL:	139	300	647	1,393

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: E+P Alt2 Road Name: Country Club Dr. Road Segment: e/o Monterey Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 25,100 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 2,510 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 78 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 75.0 feet Centerline Dist. to Observer: 75.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 64.257 Medium Trucks: 64.119 Heavy Trucks: 64.133				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	2.05	-1.74	-1.20	-4.73	0.000	0.000
Medium Trucks:	79.45	-15.19	-1.72	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-19.15	-1.73	-1.20	-5.25	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	67.6	65.7	63.9	57.8	66.5	67.1	
Medium Trucks:	61.3	59.8	53.5	51.9	60.4	60.6	
Heavy Trucks:	62.2	60.8	51.7	53.0	61.3	61.5	
Vehicle Noise:	69.4	67.7	64.5	59.8	68.4	68.8	

Centerline Distance to Noise Contour (in feet)				
	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	58	126	271	585
CNEL:	63	135	291	627

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: E+P Alt2 Road Name: Monterey Av. Road Segment: s/o Country Club Dr.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 38,700 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 3,870 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 58 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 55.0 feet Centerline Dist. to Observer: 55.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 47.000 Medium Trucks: 46.811 Heavy Trucks: 46.830				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	3.47	0.30	-1.20	-4.67	0.000	0.000
Medium Trucks:	81.00	-13.77	0.33	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-17.73	0.32	-1.20	-5.38	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	72.8	70.9	69.1	63.1	71.7	72.3	
Medium Trucks:	66.4	64.8	58.5	56.9	65.4	65.6	
Heavy Trucks:	66.8	65.4	56.3	57.6	65.9	66.0	
Vehicle Noise:	74.5	72.7	69.7	64.9	73.4	73.9	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			93	201	433	933	
CNEL:			100	216	465	1,002	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: OY Road Name: Monterey Av. Road Segment: s/o Varner Rd.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 31,000 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 3,100 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 54 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 52.697 Medium Trucks: 52.529 Heavy Trucks: 52.546				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	2.09	-0.45	-1.20	-4.69	0.000	0.000
Medium Trucks:	82.40	-15.15	-0.42	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-19.10	-0.43	-1.20	-5.35	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	72.2	70.3	68.6	62.5	71.1	71.7	
Medium Trucks:	65.6	64.1	57.8	56.2	64.7	64.9	
Heavy Trucks:	65.7	64.2	55.2	56.5	64.8	64.9	
Vehicle Noise:	73.8	72.0	69.1	64.2	72.8	73.2	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			90	195	419	903	
CNEL:			97	209	451	971	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: OY Road Name: Monterey Av. Road Segment: n/o Varner Rd.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 15,300 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 1,530 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 54 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 52.697 Medium Trucks: 52.529 Heavy Trucks: 52.546				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	-0.98	-0.45	-1.20	-4.69	0.000	0.000
Medium Trucks:	82.40	-18.21	-0.42	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-22.17	-0.43	-1.20	-5.35	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	69.2	67.3	65.5	59.4	68.1	68.7	
Medium Trucks:	62.6	61.1	54.7	53.2	61.6	61.8	
Heavy Trucks:	62.6	61.2	52.1	53.4	61.7	61.9	
Vehicle Noise:	70.7	69.0	66.0	61.2	69.7	70.2	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			56	121	262	564	
CNEL:			61	131	282	607	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: OY Road Name: Monterey Av. Road Segment: n/o Dinah Shore Dr.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 51,500 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 5,150 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 78 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 75.0 feet Centerline Dist. to Observer: 75.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 64.257 Medium Trucks: 64.119 Heavy Trucks: 64.133				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	4.30	-1.74	-1.20	-4.73	0.000	0.000
Medium Trucks:	82.40	-12.94	-1.72	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-16.90	-1.73	-1.20	-5.25	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	73.1	71.2	69.5	63.4	72.0	72.6	
Medium Trucks:	66.5	65.0	58.7	57.1	65.6	65.8	
Heavy Trucks:	66.6	65.2	56.1	57.4	65.7	65.8	
Vehicle Noise:	74.7	73.0	70.0	65.1	73.7	74.2	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			132	284	613	1,320	
CNEL:			142	306	659	1,420	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: OY Road Name: Dinah Shore Dr. Road Segment: w/o Key Largo Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 22,900 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 2,290 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 86 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 60.0 feet Centerline Dist. to Observer: 60.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 42.143 Medium Trucks: 41.932 Heavy Trucks: 41.953				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	1.65	1.01	-1.20	-4.69	0.000	0.000
Medium Trucks:	79.45	-15.59	1.04	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-19.55	1.04	-1.20	-5.34	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	69.9	68.0	66.3	60.2	68.8	69.4	
Medium Trucks:	63.7	62.2	55.8	54.3	62.7	63.0	
Heavy Trucks:	64.5	63.1	54.1	55.3	63.7	63.8	
Vehicle Noise:	71.8	70.0	66.9	62.2	70.7	71.2	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			67	145	312	672	
CNEL:			72	155	334	720	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: OY Road Name: Dinah Shore Dr. Road Segment: e/o Monterey Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 22,700 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 2,270 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 78 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 75.0 feet Centerline Dist. to Observer: 75.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 64.257 Medium Trucks: 64.119 Heavy Trucks: 64.133				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	1.61	-1.74	-1.20	-4.73	0.000	0.000
Medium Trucks:	79.45	-15.63	-1.72	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-19.58	-1.73	-1.20	-5.25	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	67.1	65.2	63.5	57.4	66.0	66.6	
Medium Trucks:	60.9	59.4	53.0	51.5	59.9	60.2	
Heavy Trucks:	61.7	60.3	51.3	52.5	60.9	61.0	
Vehicle Noise:	69.0	67.2	64.1	59.4	67.9	68.4	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			55	118	254	547	
CNEL:			59	126	272	587	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: OY Road Name: Dinah Shore Dr. Road Segment: e/o Key Largo Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 27,900 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 2,790 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 86 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 60.0 feet Centerline Dist. to Observer: 60.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 42.143 Medium Trucks: 41.932 Heavy Trucks: 41.953				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	2.51	1.01	-1.20	-4.69	0.000	0.000
Medium Trucks:	79.45	-14.73	1.04	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-18.69	1.04	-1.20	-5.34	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	70.8	68.9	67.1	61.1	69.7	70.3	
Medium Trucks:	64.6	63.1	56.7	55.1	63.6	63.8	
Heavy Trucks:	65.4	64.0	54.9	56.2	64.6	64.7	
Vehicle Noise:	72.6	70.9	67.7	63.1	71.6	72.0	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			77	165	356	766	
CNEL:			82	177	381	822	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: OY Road Name: Key Largo Av. Road Segment: s/o Dinah Shore Dr.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 1,900 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 190 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 12 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 30.0 feet Centerline Dist. to Observer: 30.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 29.816 Medium Trucks: 29.518 Heavy Trucks: 29.547				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-9.16	3.26	-1.20	-4.49	0.000	0.000
Medium Trucks:	79.45	-26.40	3.33	-1.20	-4.86	0.000	0.000
Heavy Trucks:	84.25	-30.36	3.32	-1.20	-5.77	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	61.4	59.5	57.7	51.6	60.3	60.9	
Medium Trucks:	55.2	53.7	47.3	45.8	54.2	54.5	
Heavy Trucks:	56.0	54.6	45.6	46.8	55.2	55.3	
Vehicle Noise:	63.2	61.5	58.3	53.6	62.2	62.6	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			9	19	42	90	
CNEL:			10	21	45	97	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: OY Road Name: Monterey Av. Road Segment: s/o Dinah Shore Dr.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS			
Highway Data				Site Conditions (Hard = 10, Soft = 15)			
Average Daily Traffic (Adt): 33,400 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 3,340 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 86 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15			
Site Data				Vehicle Mix			
				VehicleType	Day	Evening	Night
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 60.0 feet Centerline Dist. to Observer: 60.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%			
				Noise Source Elevations (in feet)			
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0			
				Lane Equivalent Distance (in feet)			
				Autos: 42.143 Medium Trucks: 41.932 Heavy Trucks: 41.953			
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	2.41	1.01	-1.20	-4.69	0.000	0.000
Medium Trucks:	82.40	-14.82	1.04	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-18.78	1.04	-1.20	-5.34	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	74.0	72.1	70.3	64.3	72.9	73.5	
Medium Trucks:	67.4	65.9	59.6	58.0	66.5	66.7	
Heavy Trucks:	67.5	66.0	57.0	58.2	66.6	66.7	
Vehicle Noise:	75.6	73.8	70.9	66.0	74.6	75.0	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			121	260	560	1,207	
CNEL:			130	280	603	1,299	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: OY Road Name: Monterey Av. Road Segment: s/o Dick Kelly Dr.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS			
Highway Data				Site Conditions (Hard = 10, Soft = 15)			
Average Daily Traffic (Adt): 33,400 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 3,340 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 86 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15			
Site Data				Vehicle Mix			
				VehicleType	Day	Evening	Night
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 60.0 feet Centerline Dist. to Observer: 60.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%			
				Noise Source Elevations (in feet)			
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0			
				Lane Equivalent Distance (in feet)			
				Autos: 42.143 Medium Trucks: 41.932 Heavy Trucks: 41.953			
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	2.41	1.01	-1.20	-4.69	0.000	0.000
Medium Trucks:	82.40	-14.82	1.04	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-18.78	1.04	-1.20	-5.34	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	74.0	72.1	70.3	64.3	72.9	73.5	
Medium Trucks:	67.4	65.9	59.6	58.0	66.5	66.7	
Heavy Trucks:	67.5	66.0	57.0	58.2	66.6	66.7	
Vehicle Noise:	75.6	73.8	70.9	66.0	74.6	75.0	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			121	260	560	1,207	
CNEL:			130	280	603	1,299	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: OY Road Name: Dick Kelly Dr. Road Segment: e/o Monterey Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS			
Highway Data				Site Conditions (Hard = 10, Soft = 15)			
Average Daily Traffic (Adt): 5,500 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 550 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 48 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15			
Site Data				Vehicle Mix			
				VehicleType	Day	Evening	Night
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 54.0 feet Centerline Dist. to Observer: 54.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%			
				Noise Source Elevations (in feet)			
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0			
				Lane Equivalent Distance (in feet)			
				Autos: 48.631 Medium Trucks: 48.449 Heavy Trucks: 48.467			
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-4.55	0.08	-1.20	-4.67	0.000	0.000
Medium Trucks:	79.45	-21.79	0.10	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-25.74	0.10	-1.20	-5.39	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	62.8	60.9	59.1	53.1	61.7	62.3	
Medium Trucks:	56.6	55.1	48.7	47.2	55.6	55.8	
Heavy Trucks:	57.4	56.0	47.0	48.2	56.6	56.7	
Vehicle Noise:	64.6	62.9	59.7	55.1	63.6	64.1	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			20	44	94	202	
CNEL:			22	47	101	217	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: OY Road Name: Gerald Ford Dr. Road Segment: w/o Monterey Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS			
Highway Data				Site Conditions (Hard = 10, Soft = 15)			
Average Daily Traffic (Adt): 15,700 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 1,570 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 58 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15			
Site Data				Vehicle Mix			
				VehicleType	Day	Evening	Night
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 55.0 feet Centerline Dist. to Observer: 55.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%			
				Noise Source Elevations (in feet)			
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0			
				Lane Equivalent Distance (in feet)			
				Autos: 47.000 Medium Trucks: 46.811 Heavy Trucks: 46.830			
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-0.45	0.30	-1.20	-4.67	0.000	0.000
Medium Trucks:	81.00	-17.69	0.33	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-21.64	0.32	-1.20	-5.38	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	68.9	67.0	65.2	59.1	67.8	68.4	
Medium Trucks:	62.4	60.9	54.6	53.0	61.5	61.7	
Heavy Trucks:	62.9	61.4	52.4	53.6	62.0	62.1	
Vehicle Noise:	70.6	68.8	65.8	61.0	69.5	70.0	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			51	110	237	511	
CNEL:			55	118	255	549	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: OY			Project Name: Rancho Monterey Specific					
Road Name: Gerald Ford Dr.			Job Number: 14271					
Road Segment: e/o Monterey Av.								
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS					
Highway Data			Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 13,300 vehicles			Autos: 15					
Peak Hour Percentage: 10.00%			Medium Trucks (2 Axles): 15					
Peak Hour Volume: 1,330 vehicles			Heavy Trucks (3+ Axles): 15					
Vehicle Speed: 50 mph			Vehicle Mix					
Near/Far Lane Distance: 78 feet			VehicleType					
			Autos: 77.5% 12.9% 9.6% 97.42%					
			Medium Trucks: 84.8% 4.9% 10.3% 1.84%					
			Heavy Trucks: 86.5% 2.7% 10.8% 0.74%					
Site Data			Noise Source Elevations (in feet)					
Barrier Height: 0.0 feet			Autos: 0.000					
Barrier Type (0-Wall, 1-Berm): 0.0			Medium Trucks: 2.297					
Centerline Dist. to Barrier: 75.0 feet			Heavy Trucks: 8.006 Grade Adjustment: 0.0					
Centerline Dist. to Observer: 75.0 feet			Lane Equivalent Distance (in feet)					
Barrier Distance to Observer: 0.0 feet			Autos: 64.257					
Observer Height (Above Pad): 5.0 feet			Medium Trucks: 64.119					
Pad Elevation: 0.0 feet			Heavy Trucks: 64.133					
Road Elevation: 0.0 feet								
Road Grade: 0.0%								
Left View: -90.0 degrees								
Right View: 90.0 degrees								
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	70.20	-1.17	-1.74	-1.20	-4.73	0.000	0.000	
Medium Trucks:	81.00	-18.41	-1.72	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	85.38	-22.36	-1.73	-1.20	-5.25	0.000	0.000	

Unmitigated Noise Levels (without Topo and barrier attenuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.1	64.2	62.4	56.4	65.0	65.6
Medium Trucks:	59.7	58.2	51.8	50.3	58.7	58.9
Heavy Trucks:	60.1	58.7	49.6	50.9	59.2	59.4
Vehicle Noise:	67.8	66.0	63.0	58.2	66.8	67.2

Centerline Distance to Noise Contour (in feet)				
	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	46	98	212	456
CNEL:	49	106	227	490

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: OY			Project Name: Rancho Monterey Specific					
Road Name: Frank Sinatra Dr.			Job Number: 14271					
Road Segment: w/o Monterey Av.								
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS					
Highway Data			Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 15,400 vehicles			Autos: 15					
Peak Hour Percentage: 10.00%			Medium Trucks (2 Axles): 15					
Peak Hour Volume: 1,540 vehicles			Heavy Trucks (3+ Axles): 15					
Vehicle Speed: 55 mph			Vehicle Mix					
Near/Far Lane Distance: 58 feet			VehicleType					
			Autos: 77.5% 12.9% 9.6% 97.42%					
			Medium Trucks: 84.8% 4.9% 10.3% 1.84%					
			Heavy Trucks: 86.5% 2.7% 10.8% 0.74%					
Site Data			Noise Source Elevations (in feet)					
Barrier Height: 0.0 feet			Autos: 0.000					
Barrier Type (0-Wall, 1-Berm): 0.0			Medium Trucks: 2.297					
Centerline Dist. to Barrier: 55.0 feet			Heavy Trucks: 8.006 Grade Adjustment: 0.0					
Centerline Dist. to Observer: 55.0 feet			Lane Equivalent Distance (in feet)					
Barrier Distance to Observer: 0.0 feet			Autos: 47.000					
Observer Height (Above Pad): 5.0 feet			Medium Trucks: 46.811					
Pad Elevation: 0.0 feet			Heavy Trucks: 46.830					
Road Elevation: 0.0 feet								
Road Grade: 0.0%								
Left View: -90.0 degrees								
Right View: 90.0 degrees								
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	71.78	-0.95	0.30	-1.20	-4.67	0.000	0.000	
Medium Trucks:	82.40	-18.19	0.33	-1.20	-4.87	0.000	0.000	
Heavy Trucks:	86.40	-22.14	0.32	-1.20	-5.38	0.000	0.000	

Unmitigated Noise Levels (without Topo and barrier attenuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.9	68.0	66.3	60.2	68.8	69.4
Medium Trucks:	63.3	61.8	55.5	53.9	62.4	62.6
Heavy Trucks:	63.4	62.0	52.9	54.2	62.5	62.7
Vehicle Noise:	71.5	69.8	66.8	61.9	70.5	71.0

Centerline Distance to Noise Contour (in feet)				
	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	59	128	275	592
CNEL:	64	137	296	637

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: OY			Project Name: Rancho Monterey Specific					
Road Name: Monterey Av.			Job Number: 14271					
Road Segment: s/o Gerald Ford Dr.								
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS					
Highway Data			Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 34,100 vehicles			Autos: 15					
Peak Hour Percentage: 10.00%			Medium Trucks (2 Axles): 15					
Peak Hour Volume: 3,410 vehicles			Heavy Trucks (3+ Axles): 15					
Vehicle Speed: 55 mph			Vehicle Mix					
Near/Far Lane Distance: 86 feet			VehicleType					
			Autos: 77.5% 12.9% 9.6% 97.42%					
			Medium Trucks: 84.8% 4.9% 10.3% 1.84%					
			Heavy Trucks: 86.5% 2.7% 10.8% 0.74%					
Site Data			Noise Source Elevations (in feet)					
Barrier Height: 0.0 feet			Autos: 0.000					
Barrier Type (0-Wall, 1-Berm): 0.0			Medium Trucks: 2.297					
Centerline Dist. to Barrier: 60.0 feet			Heavy Trucks: 8.006 Grade Adjustment: 0.0					
Centerline Dist. to Observer: 60.0 feet			Lane Equivalent Distance (in feet)					
Barrier Distance to Observer: 0.0 feet			Autos: 42.143					
Observer Height (Above Pad): 5.0 feet			Medium Trucks: 41.932					
Pad Elevation: 0.0 feet			Heavy Trucks: 41.953					
Road Elevation: 0.0 feet								
Road Grade: 0.0%								
Left View: -90.0 degrees								
Right View: 90.0 degrees								
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	71.78	2.51	1.01	-1.20	-4.69	0.000	0.000	
Medium Trucks:	82.40	-14.73	1.04	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	86.40	-18.69	1.04	-1.20	-5.34	0.000	0.000	

Unmitigated Noise Levels (without Topo and barrier attenuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	74.1	72.2	70.4	64.4	73.0	73.6
Medium Trucks:	67.5	66.0	59.6	58.1	66.6	66.8
Heavy Trucks:	67.5	66.1	57.1	58.3	66.7	66.8
Vehicle Noise:	75.7	73.9	71.0	66.1	74.6	75.1

Centerline Distance to Noise Contour (in feet)				
	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	122	264	568	1,224
CNEL:	132	284	611	1,317

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: OY			Project Name: Rancho Monterey Specific					
Road Name: Frank Sinatra Dr.			Job Number: 14271					
Road Segment: e/o Monterey Av.								
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS					
Highway Data			Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 15,500 vehicles			Autos: 15					
Peak Hour Percentage: 10.00%			Medium Trucks (2 Axles): 15					
Peak Hour Volume: 1,550 vehicles			Heavy Trucks (3+ Axles): 15					
Vehicle Speed: 50 mph			Vehicle Mix					
Near/Far Lane Distance: 78 feet			VehicleType					
			Autos: 77.5% 12.9% 9.6% 97.42%					
			Medium Trucks: 84.8% 4.9% 10.3% 1.84%					
			Heavy Trucks: 86.5% 2.7% 10.8% 0.74%					
Site Data			Noise Source Elevations (in feet)					
Barrier Height: 0.0 feet			Autos: 0.000					
Barrier Type (0-Wall, 1-Berm): 0.0			Medium Trucks: 2.297					
Centerline Dist. to Barrier: 75.0 feet			Heavy Trucks: 8.006 Grade Adjustment: 0.0					
Centerline Dist. to Observer: 75.0 feet			Lane Equivalent Distance (in feet)					
Barrier Distance to Observer: 0.0 feet			Autos: 64.257					
Observer Height (Above Pad): 5.0 feet			Medium Trucks: 64.119					
Pad Elevation: 0.0 feet			Heavy Trucks: 64.133					
Road Elevation: 0.0 feet								
Road Grade: 0.0%								
Left View: -90.0 degrees								
Right View: 90.0 degrees								
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	70.20	-0.51	-1.74	-1.20	-4.73	0.000	0.000	
Medium Trucks:	81.00	-17.74	-1.72	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	85.38	-21.70	-1.73	-1.20	-5.25	0.000	0.000	

Unmitigated Noise Levels (without Topo and barrier attenuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.8	64.9	63.1	57.0	65.7	66.3
Medium Trucks:	60.3	58.8	52.5	50.9	59.4	59.6
Heavy Trucks:	60.8	59.3	50.3	51.5	59.9	60.0
Vehicle Noise:	68.5	66.7	63.7	58.9	67.4	67.9

Centerline Distance to Noise Contour (in feet)				
	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	51	109	234	505
CNEL:	54	117	252	543

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: OY Road Name: Monterey Av. Road Segment: s/o Frank Sinatra Dr.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 36,600 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 3,660 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 86 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 60.0 feet Centerline Dist. to Observer: 60.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 42.143 Medium Trucks: 41.932 Heavy Trucks: 41.953				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	2.81	1.01	-1.20	-4.69	0.000	0.000
Medium Trucks:	82.40	-14.43	1.04	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-18.38	1.04	-1.20	-5.34	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	74.4	72.5	70.7	64.7	73.3	73.9	
Medium Trucks:	67.8	66.3	60.0	58.4	66.9	67.1	
Heavy Trucks:	67.9	66.4	57.4	58.6	67.0	67.1	
Vehicle Noise:	76.0	74.2	71.3	66.4	75.0	75.4	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			128	277	596	1,283	
CNEL:			138	297	641	1,381	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: OY Road Name: Country Club Dr. Road Segment: e/o Monterey Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 23,100 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 2,310 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 78 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 75.0 feet Centerline Dist. to Observer: 75.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 64.257 Medium Trucks: 64.119 Heavy Trucks: 64.133				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	1.69	-1.74	-1.20	-4.73	0.000	0.000
Medium Trucks:	79.45	-15.55	-1.72	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-19.51	-1.73	-1.20	-5.25	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	67.2	65.3	63.5	57.5	66.1	66.7	
Medium Trucks:	61.0	59.5	53.1	51.6	60.0	60.3	
Heavy Trucks:	61.8	60.4	51.4	52.6	61.0	61.1	
Vehicle Noise:	69.0	67.3	64.2	59.5	68.0	68.5	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			55	119	257	553	
CNEL:			59	128	275	594	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: OY Road Name: Country Club Dr. Road Segment: w/o Monterey Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 22,800 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 2,280 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 58 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 55.0 feet Centerline Dist. to Observer: 55.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 47.000 Medium Trucks: 46.811 Heavy Trucks: 46.830				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	1.17	0.30	-1.20	-4.67	0.000	0.000
Medium Trucks:	81.00	-16.07	0.33	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-20.02	0.32	-1.20	-5.38	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	70.5	68.6	66.8	60.8	69.4	70.0	
Medium Trucks:	64.1	62.6	56.2	54.6	63.1	63.3	
Heavy Trucks:	64.5	63.1	54.0	55.3	63.6	63.8	
Vehicle Noise:	72.2	70.4	67.4	62.6	71.1	71.6	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			66	141	304	656	
CNEL:			70	152	327	704	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: OY Road Name: Monterey Av. Road Segment: s/o Country Club Dr.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 37,700 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 3,770 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 58 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 55.0 feet Centerline Dist. to Observer: 55.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 47.000 Medium Trucks: 46.811 Heavy Trucks: 46.830				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	3.35	0.30	-1.20	-4.67	0.000	0.000
Medium Trucks:	81.00	-13.88	0.33	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-17.84	0.32	-1.20	-5.38	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	72.7	70.8	69.0	62.9	71.6	72.2	
Medium Trucks:	66.2	64.7	58.4	56.8	65.3	65.5	
Heavy Trucks:	66.7	65.2	56.2	57.5	65.8	65.9	
Vehicle Noise:	74.4	72.6	69.6	64.8	73.3	73.8	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			92	197	425	917	
CNEL:			98	212	457	985	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: OYP Alt1 Road Name: Monterey Av. Road Segment: n/o Varner Rd.			Project Name: Rancho Monterey Specific Job Number: 14271					
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS					
Highway Data			Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 15,600 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 1,560 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 54 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data			Vehicle Mix					
			VehicleType	Day	Evening	Night	Daily	
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%					
			Noise Source Elevations (in feet)					
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0					
			Lane Equivalent Distance (in feet)					
			Autos: 52.697 Medium Trucks: 52.529 Heavy Trucks: 52.546					
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	71.78	-0.89	-0.45	-1.20	-4.69	0.000	0.000	
Medium Trucks:	82.40	-18.13	-0.42	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	86.40	-22.09	-0.43	-1.20	-5.35	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	69.2	67.3	65.6	59.5	68.1	68.8		
Medium Trucks:	62.6	61.1	54.8	53.2	61.7	61.9		
Heavy Trucks:	62.7	61.3	52.2	53.5	61.8	62.0		
Vehicle Noise:	70.8	69.1	66.1	61.2	69.8	70.3		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			57	123	265	571		
CNEL:			61	132	285	615		

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: OYP Alt1 Road Name: Monterey Av. Road Segment: n/o Dinah Shore Dr.			Project Name: Rancho Monterey Specific Job Number: 14271					
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS					
Highway Data			Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 54,700 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 5,470 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 78 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data			Vehicle Mix					
			VehicleType	Day	Evening	Night	Daily	
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 75.0 feet Centerline Dist. to Observer: 75.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%					
			Noise Source Elevations (in feet)					
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0					
			Lane Equivalent Distance (in feet)					
			Autos: 64.257 Medium Trucks: 64.119 Heavy Trucks: 64.133					
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	71.78	4.56	-1.74	-1.20	-4.73	0.000	0.000	
Medium Trucks:	82.40	-12.68	-1.72	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	86.40	-16.64	-1.73	-1.20	-5.25	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	73.4	71.5	69.7	63.7	72.3	72.9		
Medium Trucks:	66.8	65.3	58.9	57.4	65.8	66.1		
Heavy Trucks:	66.8	65.4	56.4	57.6	66.0	66.1		
Vehicle Noise:	75.0	73.2	70.3	65.4	73.9	74.4		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			137	296	638	1,374		
CNEL:			148	318	686	1,478		

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: OYP Alt1 Road Name: Monterey Av. Road Segment: s/o Varner Rd.			Project Name: Rancho Monterey Specific Job Number: 14271					
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS					
Highway Data			Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 32,200 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 3,220 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 54 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data			Vehicle Mix					
			VehicleType	Day	Evening	Night	Daily	
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%					
			Noise Source Elevations (in feet)					
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0					
			Lane Equivalent Distance (in feet)					
			Autos: 52.697 Medium Trucks: 52.529 Heavy Trucks: 52.546					
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	71.78	2.26	-0.45	-1.20	-4.69	0.000	0.000	
Medium Trucks:	82.40	-14.98	-0.42	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	86.40	-18.94	-0.43	-1.20	-5.35	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	72.4	70.5	68.7	62.7	71.3	71.9		
Medium Trucks:	65.8	64.3	57.9	56.4	64.8	65.1		
Heavy Trucks:	65.8	64.4	55.4	56.6	65.0	65.1		
Vehicle Noise:	74.0	72.2	69.3	64.4	72.9	73.4		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			93	200	430	926		
CNEL:			100	215	462	996		

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: OYP Alt1 Road Name: Dinah Shore Dr. Road Segment: w/o Key Largo Av.			Project Name: Rancho Monterey Specific Job Number: 14271					
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS					
Highway Data			Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 23,500 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 2,350 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 86 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data			Vehicle Mix					
			VehicleType	Day	Evening	Night	Daily	
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 60.0 feet Centerline Dist. to Observer: 60.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%					
			Noise Source Elevations (in feet)					
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0					
			Lane Equivalent Distance (in feet)					
			Autos: 42.143 Medium Trucks: 41.932 Heavy Trucks: 41.953					
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	68.46	1.76	1.01	-1.20	-4.69	0.000	0.000	
Medium Trucks:	79.45	-15.48	1.04	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	84.25	-19.43	1.04	-1.20	-5.34	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	70.0	68.1	66.4	60.3	68.9	69.5		
Medium Trucks:	63.8	62.3	55.9	54.4	62.9	63.1		
Heavy Trucks:	64.7	63.2	54.2	55.4	63.8	63.9		
Vehicle Noise:	71.9	70.1	67.0	62.3	70.8	71.3		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			68	147	317	683		
CNEL:			73	158	340	733		

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: OYP Alt1 Road Name: Dinah Shore Dr. Road Segment: e/o Key Largo Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS			
Highway Data				Site Conditions (Hard = 10, Soft = 15)			
Average Daily Traffic (Adt): 28,400 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 2,840 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 86 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15			
Site Data				Vehicle Mix			
				VehicleType	Day	Evening	Night
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 60.0 feet Centerline Dist. to Observer: 60.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%			
				Noise Source Elevations (in feet)			
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0			
				Lane Equivalent Distance (in feet)			
				Autos: 42.143 Medium Trucks: 41.932 Heavy Trucks: 41.953			
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	2.58	1.01	-1.20	-4.69	0.000	0.000
Medium Trucks:	79.45	-14.66	1.04	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-18.61	1.04	-1.20	-5.34	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.9	69.0	67.2	61.1	69.8	70.4
Medium Trucks:	64.6	63.1	56.8	55.2	63.7	63.9
Heavy Trucks:	65.5	64.1	55.0	56.3	64.6	64.8
Vehicle Noise:	72.7	71.0	67.8	63.1	71.7	72.1

Centerline Distance to Noise Contour (in feet)				
	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	78	167	360	775
CNEL:	83	179	386	832

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: OYP Alt1 Road Name: Key Largo Av. Road Segment: s/o Dinah Shore Dr.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS			
Highway Data				Site Conditions (Hard = 10, Soft = 15)			
Average Daily Traffic (Adt): 3,000 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 300 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 12 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15			
Site Data				Vehicle Mix			
				VehicleType	Day	Evening	Night
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 30.0 feet Centerline Dist. to Observer: 30.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%			
				Noise Source Elevations (in feet)			
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0			
				Lane Equivalent Distance (in feet)			
				Autos: 29.816 Medium Trucks: 29.518 Heavy Trucks: 29.547			
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-7.18	3.26	-1.20	-4.49	0.000	0.000
Medium Trucks:	79.45	-24.42	3.33	-1.20	-4.86	0.000	0.000
Heavy Trucks:	84.25	-28.37	3.32	-1.20	-5.77	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	63.3	61.4	59.7	53.6	62.2	62.9
Medium Trucks:	57.2	55.7	49.3	47.7	56.2	56.4
Heavy Trucks:	58.0	56.6	47.5	48.8	57.1	57.3
Vehicle Noise:	65.2	63.5	60.3	55.6	64.2	64.6

Centerline Distance to Noise Contour (in feet)				
	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	12	26	57	123
CNEL:	13	28	61	132

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: OYP Alt1 Road Name: Dinah Shore Dr. Road Segment: e/o Monterey Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS			
Highway Data				Site Conditions (Hard = 10, Soft = 15)			
Average Daily Traffic (Adt): 22,700 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 2,270 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 78 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15			
Site Data				Vehicle Mix			
				VehicleType	Day	Evening	Night
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 75.0 feet Centerline Dist. to Observer: 75.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%			
				Noise Source Elevations (in feet)			
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0			
				Lane Equivalent Distance (in feet)			
				Autos: 64.257 Medium Trucks: 64.119 Heavy Trucks: 64.133			
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	1.61	-1.74	-1.20	-4.73	0.000	0.000
Medium Trucks:	79.45	-15.63	-1.72	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-19.58	-1.73	-1.20	-5.25	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.1	65.2	63.5	57.4	66.0	66.6
Medium Trucks:	60.9	59.4	53.0	51.5	59.9	60.2
Heavy Trucks:	61.7	60.3	51.3	52.5	60.9	61.0
Vehicle Noise:	69.0	67.2	64.1	59.4	67.9	68.4

Centerline Distance to Noise Contour (in feet)				
	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	55	118	254	547
CNEL:	59	126	272	587

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: OYP Alt1 Road Name: Monterey Av. Road Segment: s/o Dinah Shore Dr.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS			
Highway Data				Site Conditions (Hard = 10, Soft = 15)			
Average Daily Traffic (Adt): 35,800 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 3,580 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 86 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15			
Site Data				Vehicle Mix			
				VehicleType	Day	Evening	Night
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 60.0 feet Centerline Dist. to Observer: 60.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%			
				Noise Source Elevations (in feet)			
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0			
				Lane Equivalent Distance (in feet)			
				Autos: 42.143 Medium Trucks: 41.932 Heavy Trucks: 41.953			
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	2.72	1.01	-1.20	-4.69	0.000	0.000
Medium Trucks:	82.40	-14.52	1.04	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-18.48	1.04	-1.20	-5.34	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	74.3	72.4	70.6	64.6	73.2	73.8
Medium Trucks:	67.7	66.2	59.9	58.3	66.8	67.0
Heavy Trucks:	67.8	66.3	57.3	58.6	66.9	67.0
Vehicle Noise:	75.9	74.1	71.2	66.3	74.9	75.3

Centerline Distance to Noise Contour (in feet)				
	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	126	272	587	1,265
CNEL:	136	293	631	1,360

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: OYP Alt1 Road Name: Dick Kelly Dr. Road Segment: e/o Monterey Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 5,900 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 590 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 48 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 54.0 feet Centerline Dist. to Observer: 54.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 48.631 Medium Trucks: 48.449 Heavy Trucks: 48.467				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-4.24	0.08	-1.20	-4.67	0.000	0.000
Medium Trucks:	79.45	-21.48	0.10	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-25.44	0.10	-1.20	-5.39	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	63.1	61.2	59.4	53.4	62.0	62.6	
Medium Trucks:	56.9	55.4	49.0	47.5	55.9	56.1	
Heavy Trucks:	57.7	56.3	47.3	48.5	56.9	57.0	
Vehicle Noise:	64.9	63.2	60.0	55.4	63.9	64.4	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			21	46	98	212	
CNEL:			23	49	106	227	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: OYP Alt1 Road Name: Gerald Ford Dr. Road Segment: w/o Monterey Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 16,200 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 1,620 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 58 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 55.0 feet Centerline Dist. to Observer: 55.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 47.000 Medium Trucks: 46.811 Heavy Trucks: 46.830				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-0.31	0.30	-1.20	-4.67	0.000	0.000
Medium Trucks:	81.00	-17.55	0.33	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-21.51	0.32	-1.20	-5.38	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	69.0	67.1	65.3	59.3	67.9	68.5	
Medium Trucks:	62.6	61.1	54.7	53.2	61.6	61.9	
Heavy Trucks:	63.0	61.6	52.5	53.8	62.1	62.3	
Vehicle Noise:	70.7	68.9	65.9	61.1	69.7	70.1	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			52	112	242	522	
CNEL:			56	121	260	561	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: OYP Alt1 Road Name: Monterey Av. Road Segment: s/o Dick Kelly Dr.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 36,500 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 3,650 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 86 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 60.0 feet Centerline Dist. to Observer: 60.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 42.143 Medium Trucks: 41.932 Heavy Trucks: 41.953				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	2.80	1.01	-1.20	-4.69	0.000	0.000
Medium Trucks:	82.40	-14.44	1.04	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-18.39	1.04	-1.20	-5.34	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	74.4	72.5	70.7	64.7	73.3	73.9	
Medium Trucks:	67.8	66.3	59.9	58.4	66.9	67.1	
Heavy Trucks:	67.8	66.4	57.4	58.6	67.0	67.1	
Vehicle Noise:	76.0	74.2	71.3	66.4	74.9	75.4	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			128	276	595	1,281	
CNEL:			138	297	640	1,378	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: OYP Alt1 Road Name: Gerald Ford Dr. Road Segment: e/o Monterey Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 13,800 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 1,380 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 78 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 75.0 feet Centerline Dist. to Observer: 75.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 64.257 Medium Trucks: 64.119 Heavy Trucks: 64.133				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-1.01	-1.74	-1.20	-4.73	0.000	0.000
Medium Trucks:	81.00	-18.25	-1.72	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-22.20	-1.73	-1.20	-5.25	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	66.3	64.4	62.6	56.5	65.2	65.8	
Medium Trucks:	59.8	58.3	52.0	50.4	58.9	59.1	
Heavy Trucks:	60.2	58.8	49.8	51.0	59.4	59.5	
Vehicle Noise:	68.0	66.2	63.2	58.4	66.9	67.4	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			47	101	217	468	
CNEL:			50	108	233	502	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: OYP Alt1 Road Name: Monterey Av. Road Segment: s/o Gerald Ford Dr.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 36,000 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 3,600 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 86 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 60.0 feet Centerline Dist. to Observer: 60.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 42.143 Medium Trucks: 41.932 Heavy Trucks: 41.953				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	2.74	1.01	-1.20	-4.69	0.000	0.000
Medium Trucks:	82.40	-14.50	1.04	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-18.45	1.04	-1.20	-5.34	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	74.3	72.4	70.7	64.6	73.2	73.8	
Medium Trucks:	67.7	66.2	59.9	58.3	66.8	67.0	
Heavy Trucks:	67.8	66.4	57.3	58.6	66.9	67.1	
Vehicle Noise:	75.9	74.2	71.2	66.3	74.9	75.4	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			127	273	589	1,269	
CNEL:			137	294	634	1,365	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: OYP Alt1 Road Name: Frank Sinatra Dr. Road Segment: e/o Monterey Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 15,900 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 1,590 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 78 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 75.0 feet Centerline Dist. to Observer: 75.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 64.257 Medium Trucks: 64.119 Heavy Trucks: 64.133				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-0.39	-1.74	-1.20	-4.73	0.000	0.000
Medium Trucks:	81.00	-17.63	-1.72	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-21.59	-1.73	-1.20	-5.25	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	66.9	65.0	63.2	57.2	65.8	66.4	
Medium Trucks:	60.4	58.9	52.6	51.0	59.5	59.7	
Heavy Trucks:	60.9	59.4	50.4	51.7	60.0	60.1	
Vehicle Noise:	68.6	68.8	63.8	59.0	67.5	68.0	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			51	111	239	514	
CNEL:			55	119	256	552	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: OYP Alt1 Road Name: Frank Sinatra Dr. Road Segment: w/o Monterey Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 15,700 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 1,570 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 58 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 55.0 feet Centerline Dist. to Observer: 55.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 47.000 Medium Trucks: 46.811 Heavy Trucks: 46.830				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	-0.86	0.30	-1.20	-4.67	0.000	0.000
Medium Trucks:	82.40	-18.10	0.33	-1.20	-4.87	0.000	0.000
Heavy Trucks:	86.40	-22.06	0.32	-1.20	-5.38	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	70.0	68.1	66.4	60.3	68.9	69.5	
Medium Trucks:	63.4	61.9	55.6	54.0	62.5	62.7	
Heavy Trucks:	63.5	62.0	53.0	54.3	62.6	62.7	
Vehicle Noise:	71.6	69.8	66.9	62.0	70.6	71.0	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			60	129	278	600	
CNEL:			65	139	299	645	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: OYP Alt1 Road Name: Monterey Av. Road Segment: s/o Frank Sinatra Dr.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 37,900 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 3,790 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 86 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 60.0 feet Centerline Dist. to Observer: 60.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 42.143 Medium Trucks: 41.932 Heavy Trucks: 41.953				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	2.96	1.01	-1.20	-4.69	0.000	0.000
Medium Trucks:	82.40	-14.27	1.04	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-18.23	1.04	-1.20	-5.34	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	74.6	72.7	70.9	64.8	73.5	74.1	
Medium Trucks:	68.0	66.5	60.1	58.6	67.0	67.3	
Heavy Trucks:	68.0	66.6	57.5	58.8	67.2	67.3	
Vehicle Noise:	76.1	74.4	71.4	66.6	75.1	75.6	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			131	283	610	1,314	
CNEL:			141	304	656	1,413	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: OYP Alt1 Road Name: Country Club Dr. Road Segment: w/o Monterey Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 23,100 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 2,310 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 58 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 55.0 feet Centerline Dist. to Observer: 55.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 47.000 Medium Trucks: 46.811 Heavy Trucks: 46.830				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	1.23	0.30	-1.20	-4.67	0.000	0.000
Medium Trucks:	81.00	-16.01	0.33	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-19.97	0.32	-1.20	-5.38	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	70.5	68.6	66.9	60.8	69.4	70.0	
Medium Trucks:	64.1	62.6	56.2	54.7	63.2	63.4	
Heavy Trucks:	64.5	63.1	54.1	55.3	63.7	63.8	
Vehicle Noise:	72.2	70.5	67.4	62.7	71.2	71.7	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			66	142	307	661	
CNEL:			71	153	330	710	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: OYP Alt1 Road Name: Monterey Av. Road Segment: s/o Country Club Dr.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 38,400 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 3,840 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 58 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 55.0 feet Centerline Dist. to Observer: 55.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 47.000 Medium Trucks: 46.811 Heavy Trucks: 46.830				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	3.43	0.30	-1.20	-4.67	0.000	0.000
Medium Trucks:	81.00	-13.80	0.33	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-17.76	0.32	-1.20	-5.38	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	72.7	70.8	69.1	63.0	71.6	72.2	
Medium Trucks:	66.3	64.8	58.5	56.9	65.4	65.6	
Heavy Trucks:	66.7	65.3	56.3	57.5	65.9	66.0	
Vehicle Noise:	74.4	72.7	69.6	64.9	73.4	73.9	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			93	200	431	928	
CNEL:			100	215	463	997	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: OYP Alt1 Road Name: Country Club Dr. Road Segment: e/o Monterey Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 23,400 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 2,340 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 78 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 75.0 feet Centerline Dist. to Observer: 75.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 64.257 Medium Trucks: 64.119 Heavy Trucks: 64.133				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	1.74	-1.74	-1.20	-4.73	0.000	0.000
Medium Trucks:	79.45	-15.50	-1.72	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-19.45	-1.73	-1.20	-5.25	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	67.3	65.4	63.6	57.5	66.2	66.8	
Medium Trucks:	61.0	59.5	53.2	51.6	60.1	60.3	
Heavy Trucks:	61.9	60.5	51.4	52.7	61.0	61.1	
Vehicle Noise:	69.1	67.4	64.2	59.5	68.1	68.5	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			56	120	259	558	
CNEL:			60	129	278	599	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: OYP Alt2 Road Name: Monterey Av. Road Segment: n/o Varner Rd.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 15,600 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 1,560 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 54 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 52.697 Medium Trucks: 52.529 Heavy Trucks: 52.546				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	-0.89	-0.45	-1.20	-4.69	0.000	0.000
Medium Trucks:	82.40	-18.13	-0.42	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-22.09	-0.43	-1.20	-5.35	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	69.2	67.3	65.6	59.5	68.1	68.8	
Medium Trucks:	62.6	61.1	54.8	53.2	61.7	61.9	
Heavy Trucks:	62.7	61.3	52.2	53.5	61.8	62.0	
Vehicle Noise:	70.8	69.1	66.1	61.2	69.8	70.3	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			57	123	265	571	
CNEL:			61	132	285	615	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: OYP All2 Road Name: Monterey Av. Road Segment: s/o Vaner Rd.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS			
Highway Data				Site Conditions (Hard = 10, Soft = 15)			
Average Daily Traffic (Adt): 32,200 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 3,220 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 54 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15			
Site Data				Vehicle Mix			
				VehicleType	Day	Evening	Night
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%			
				Noise Source Elevations (in feet)			
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0			
				Lane Equivalent Distance (in feet)			
				Autos: 52.697 Medium Trucks: 52.529 Heavy Trucks: 52.546			
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	2.26	-0.45	-1.20	-4.69	0.000	0.000
Medium Trucks:	82.40	-14.98	-0.42	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-18.94	-0.43	-1.20	-5.35	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	72.4	70.5	68.7	62.7	71.3	71.9	
Medium Trucks:	65.8	64.3	57.9	56.4	64.8	65.1	
Heavy Trucks:	65.8	64.4	55.4	56.6	65.0	65.1	
Vehicle Noise:	74.0	72.2	69.3	64.4	72.9	73.4	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			93	200	430	926	
CNEL:			100	215	462	996	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: OYP All2 Road Name: Dinah Shore Dr. Road Segment: w/o Key Largo Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS			
Highway Data				Site Conditions (Hard = 10, Soft = 15)			
Average Daily Traffic (Adt): 23,500 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 2,350 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 86 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15			
Site Data				Vehicle Mix			
				VehicleType	Day	Evening	Night
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 60.0 feet Centerline Dist. to Observer: 60.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%			
				Noise Source Elevations (in feet)			
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0			
				Lane Equivalent Distance (in feet)			
				Autos: 42.143 Medium Trucks: 41.932 Heavy Trucks: 41.953			
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	1.76	1.01	-1.20	-4.69	0.000	0.000
Medium Trucks:	79.45	-15.48	1.04	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-19.43	1.04	-1.20	-5.34	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	70.0	68.1	66.4	60.3	68.9	69.5	
Medium Trucks:	63.8	62.3	55.9	54.4	62.9	63.1	
Heavy Trucks:	64.7	63.2	54.2	55.4	63.8	63.9	
Vehicle Noise:	71.9	70.1	67.0	62.3	70.8	71.3	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			68	147	317	683	
CNEL:			73	158	340	733	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: OYP All2 Road Name: Monterey Av. Road Segment: n/o Dinah Shore Dr.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS			
Highway Data				Site Conditions (Hard = 10, Soft = 15)			
Average Daily Traffic (Adt): 54,700 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 5,470 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 78 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15			
Site Data				Vehicle Mix			
				VehicleType	Day	Evening	Night
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 75.0 feet Centerline Dist. to Observer: 75.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%			
				Noise Source Elevations (in feet)			
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0			
				Lane Equivalent Distance (in feet)			
				Autos: 64.257 Medium Trucks: 64.119 Heavy Trucks: 64.133			
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	4.56	-1.74	-1.20	-4.73	0.000	0.000
Medium Trucks:	82.40	-12.68	-1.72	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-16.64	-1.73	-1.20	-5.25	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	73.4	71.5	69.7	63.7	72.3	72.9	
Medium Trucks:	66.8	65.3	58.9	57.4	65.8	66.1	
Heavy Trucks:	66.8	65.4	56.4	57.6	66.0	66.1	
Vehicle Noise:	75.0	73.2	70.3	65.4	73.9	74.4	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			137	296	638	1,374	
CNEL:			148	318	686	1,478	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: OYP All2 Road Name: Dinah Shore Dr. Road Segment: e/o Key Largo Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS			
Highway Data				Site Conditions (Hard = 10, Soft = 15)			
Average Daily Traffic (Adt): 29,300 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 2,930 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 86 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15			
Site Data				Vehicle Mix			
				VehicleType	Day	Evening	Night
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 60.0 feet Centerline Dist. to Observer: 60.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%			
				Noise Source Elevations (in feet)			
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0			
				Lane Equivalent Distance (in feet)			
				Autos: 42.143 Medium Trucks: 41.932 Heavy Trucks: 41.953			
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	2.72	1.01	-1.20	-4.69	0.000	0.000
Medium Trucks:	79.45	-14.52	1.04	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-18.48	1.04	-1.20	-5.34	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	71.0	69.1	67.3	61.3	69.9	70.5	
Medium Trucks:	64.8	63.3	56.9	55.4	63.8	64.1	
Heavy Trucks:	65.6	64.2	55.2	56.4	64.8	64.9	
Vehicle Noise:	72.8	71.1	67.9	63.3	71.8	72.3	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			79	171	367	792	
CNEL:			85	183	394	849	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: OYP All2 Road Name: Dinah Shore Dr. Road Segment: e/o Monterey Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 22,700 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 2,270 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 78 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 75.0 feet Centerline Dist. to Observer: 75.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 64.257 Medium Trucks: 64.119 Heavy Trucks: 64.133				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	1.61	-1.74	-1.20	-4.73	0.000	0.000
Medium Trucks:	79.45	-15.63	-1.72	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-19.58	-1.73	-1.20	-5.25	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	67.1	65.2	63.5	57.4	66.0	66.6	
Medium Trucks:	60.9	59.4	53.0	51.5	59.9	60.2	
Heavy Trucks:	61.7	60.3	51.3	52.5	60.9	61.0	
Vehicle Noise:	69.0	67.2	64.1	59.4	67.9	68.4	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			55	118	254	547	
CNEL:			59	126	272	587	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: OYP All2 Road Name: Monterey Av. Road Segment: s/o Dinah Shore Dr.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 35,900 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 3,590 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 86 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 60.0 feet Centerline Dist. to Observer: 60.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 42.143 Medium Trucks: 41.932 Heavy Trucks: 41.953				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	2.73	1.01	-1.20	-4.69	0.000	0.000
Medium Trucks:	82.40	-14.51	1.04	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-18.47	1.04	-1.20	-5.34	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	74.3	72.4	70.7	64.6	73.2	73.8	
Medium Trucks:	67.7	66.2	59.9	58.3	66.8	67.0	
Heavy Trucks:	67.8	66.3	57.3	58.6	66.9	67.0	
Vehicle Noise:	75.9	74.1	71.2	66.3	74.9	75.3	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			127	273	588	1,267	
CNEL:			136	294	633	1,363	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: OYP All2 Road Name: Key Largo Av. Road Segment: s/o Dinah Shore Dr.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 2,900 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 290 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 12 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 30.0 feet Centerline Dist. to Observer: 30.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 29.816 Medium Trucks: 29.518 Heavy Trucks: 29.547				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-7.33	3.26	-1.20	-4.49	0.000	0.000
Medium Trucks:	79.45	-24.57	3.33	-1.20	-4.86	0.000	0.000
Heavy Trucks:	84.25	-28.52	3.32	-1.20	-5.77	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	63.2	61.3	59.5	53.5	62.1	62.7	
Medium Trucks:	57.0	55.5	49.1	47.6	56.1	56.3	
Heavy Trucks:	57.9	56.4	47.4	48.6	57.0	57.1	
Vehicle Noise:	65.1	63.3	60.1	55.5	64.0	64.5	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			12	26	56	120	
CNEL:			13	28	60	129	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: OYP All2 Road Name: Dick Kelly Dr. Road Segment: e/o Monterey Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 5,900 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 590 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 48 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 54.0 feet Centerline Dist. to Observer: 54.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 48.631 Medium Trucks: 48.449 Heavy Trucks: 48.467				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-4.24	0.08	-1.20	-4.67	0.000	0.000
Medium Trucks:	79.45	-21.48	0.10	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-25.44	0.10	-1.20	-5.39	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	63.1	61.2	59.4	53.4	62.0	62.6	
Medium Trucks:	56.9	55.4	49.0	47.5	55.9	56.1	
Heavy Trucks:	57.7	56.3	47.3	48.5	56.9	57.0	
Vehicle Noise:	64.9	63.2	60.0	55.4	63.9	64.4	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			21	46	98	212	
CNEL:			23	49	106	227	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: OYP All2 Road Name: Monterey Av. Road Segment: s/o Dick Kelly Dr.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 36,500 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 3,650 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 86 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 60.0 feet Centerline Dist. to Observer: 60.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 42.143 Medium Trucks: 41.932 Heavy Trucks: 41.953				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	2.80	1.01	-1.20	-4.69	0.000	0.000
Medium Trucks:	82.40	-14.44	1.04	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-18.39	1.04	-1.20	-5.34	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	74.4	72.5	70.7	64.7	73.3	73.9	
Medium Trucks:	67.8	66.3	59.9	58.4	66.9	67.1	
Heavy Trucks:	67.8	66.4	57.4	58.6	67.0	67.1	
Vehicle Noise:	76.0	74.2	71.3	66.4	74.9	75.4	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			128	276	595	1,281	
CNEL:			138	297	640	1,378	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: OYP All2 Road Name: Gerald Ford Dr. Road Segment: e/o Monterey Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 13,800 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 1,380 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 78 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 75.0 feet Centerline Dist. to Observer: 75.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 64.257 Medium Trucks: 64.119 Heavy Trucks: 64.133				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-1.01	-1.74	-1.20	-4.73	0.000	0.000
Medium Trucks:	81.00	-18.25	-1.72	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-22.20	-1.73	-1.20	-5.25	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	66.3	64.4	62.6	56.5	65.2	65.8	
Medium Trucks:	59.8	58.3	52.0	50.4	58.9	59.1	
Heavy Trucks:	60.2	58.8	49.8	51.0	59.4	59.5	
Vehicle Noise:	68.0	66.2	63.2	58.4	66.9	67.4	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			47	101	217	468	
CNEL:			50	108	233	502	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: OYP All2 Road Name: Gerald Ford Dr. Road Segment: w/o Monterey Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 16,200 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 1,620 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 58 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 55.0 feet Centerline Dist. to Observer: 55.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 47.000 Medium Trucks: 46.811 Heavy Trucks: 46.830				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-0.31	0.30	-1.20	-4.67	0.000	0.000
Medium Trucks:	81.00	-17.55	0.33	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-21.51	0.32	-1.20	-5.38	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	69.0	67.1	65.3	59.3	67.9	68.5	
Medium Trucks:	62.6	61.1	54.7	53.2	61.6	61.9	
Heavy Trucks:	63.0	61.6	52.5	53.8	62.1	62.3	
Vehicle Noise:	70.7	68.9	65.9	61.1	69.7	70.1	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			52	112	242	522	
CNEL:			56	121	260	561	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: OYP All2 Road Name: Monterey Av. Road Segment: s/o Gerald Ford Dr.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 36,000 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 3,600 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 86 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 60.0 feet Centerline Dist. to Observer: 60.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 42.143 Medium Trucks: 41.932 Heavy Trucks: 41.953				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	2.74	1.01	-1.20	-4.69	0.000	0.000
Medium Trucks:	82.40	-14.50	1.04	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-18.45	1.04	-1.20	-5.34	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	74.3	72.4	70.7	64.6	73.2	73.8	
Medium Trucks:	67.7	66.2	59.9	58.3	66.8	67.0	
Heavy Trucks:	67.8	66.4	57.3	58.6	66.9	67.1	
Vehicle Noise:	75.9	74.2	71.2	66.3	74.9	75.4	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			127	273	589	1,269	
CNEL:			137	294	634	1,365	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OYP All2 Road Name: Frank Sinatra Dr. Road Segment: w/o Monterey Av.					Project Name: Rancho Monterey Specific Job Number: 14271				
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS						
Highway Data			Site Conditions (Hard = 10, Soft = 15)						
Average Daily Traffic (Adt): 15,700 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 1,570 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 58 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15						
Site Data			Vehicle Mix						
			VehicleType	Day	Evening	Night	Daily		
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 55.0 feet Centerline Dist. to Observer: 55.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%						
			Noise Source Elevations (in feet)						
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0						
			Lane Equivalent Distance (in feet)						
			Autos: 47.000 Medium Trucks: 46.811 Heavy Trucks: 46.830						
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-0.86	0.30	-1.20	-4.67	0.000	0.000		
Medium Trucks:	82.40	-18.10	0.33	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	86.40	-22.06	0.32	-1.20	-5.38	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	70.0	68.1	66.4	60.3	68.9	69.5			
Medium Trucks:	63.4	61.9	55.6	54.0	62.5	62.7			
Heavy Trucks:	63.5	62.0	53.0	54.3	62.6	62.7			
Vehicle Noise:	71.6	69.8	66.9	62.0	70.6	71.0			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			60	129	278	600			
CNEL:			65	139	299	645			

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OYP All2 Road Name: Monterey Av. Road Segment: s/o Frank Sinatra Dr.					Project Name: Rancho Monterey Specific Job Number: 14271				
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS						
Highway Data			Site Conditions (Hard = 10, Soft = 15)						
Average Daily Traffic (Adt): 37,900 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 3,790 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 86 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15						
Site Data			Vehicle Mix						
			VehicleType	Day	Evening	Night	Daily		
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 60.0 feet Centerline Dist. to Observer: 60.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%						
			Noise Source Elevations (in feet)						
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0						
			Lane Equivalent Distance (in feet)						
			Autos: 42.143 Medium Trucks: 41.932 Heavy Trucks: 41.953						
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	2.96	1.01	-1.20	-4.69	0.000	0.000		
Medium Trucks:	82.40	-14.27	1.04	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-18.23	1.04	-1.20	-5.34	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	74.6	72.7	70.9	64.8	73.5	74.1			
Medium Trucks:	68.0	66.5	60.1	58.6	67.0	67.3			
Heavy Trucks:	68.0	66.6	57.5	58.8	67.2	67.3			
Vehicle Noise:	76.1	74.4	66.6	75.1	75.6				
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			131	283	610	1,314			
CNEL:			141	304	656	1,413			

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OYP All2 Road Name: Frank Sinatra Dr. Road Segment: e/o Monterey Av.					Project Name: Rancho Monterey Specific Job Number: 14271				
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS						
Highway Data			Site Conditions (Hard = 10, Soft = 15)						
Average Daily Traffic (Adt): 15,900 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 1,590 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 78 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15						
Site Data			Vehicle Mix						
			VehicleType	Day	Evening	Night	Daily		
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 75.0 feet Centerline Dist. to Observer: 75.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%						
			Noise Source Elevations (in feet)						
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0						
			Lane Equivalent Distance (in feet)						
			Autos: 64.257 Medium Trucks: 64.119 Heavy Trucks: 64.133						
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	-0.39	-1.74	-1.20	-4.73	0.000	0.000		
Medium Trucks:	81.00	-17.63	-1.72	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-21.59	-1.73	-1.20	-5.25	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	66.9	65.0	63.2	57.2	65.8	66.4			
Medium Trucks:	60.4	58.9	52.6	51.0	59.5	59.7			
Heavy Trucks:	60.9	59.4	50.4	51.7	60.0	60.1			
Vehicle Noise:	68.6	66.8	63.8	59.0	67.5	68.0			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			51	111	239	514			
CNEL:			55	119	256	552			

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OYP All2 Road Name: Country Club Dr. Road Segment: w/o Monterey Av.					Project Name: Rancho Monterey Specific Job Number: 14271				
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS						
Highway Data			Site Conditions (Hard = 10, Soft = 15)						
Average Daily Traffic (Adt): 23,100 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 2,310 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 58 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15						
Site Data			Vehicle Mix						
			VehicleType	Day	Evening	Night	Daily		
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 55.0 feet Centerline Dist. to Observer: 55.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%						
			Noise Source Elevations (in feet)						
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0						
			Lane Equivalent Distance (in feet)						
			Autos: 47.000 Medium Trucks: 46.811 Heavy Trucks: 46.830						
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	1.23	0.30	-1.20	-4.67	0.000	0.000		
Medium Trucks:	81.00	-16.01	0.33	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	85.38	-19.97	0.32	-1.20	-5.38	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	70.5	68.6	66.9	60.8	69.4	70.0			
Medium Trucks:	64.1	62.6	56.2	54.7	63.2	63.4			
Heavy Trucks:	64.5	63.1	54.1	55.3	63.7	63.8			
Vehicle Noise:	72.2	70.5	67.4	62.7	71.2	71.7			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			66	142	307	661			
CNEL:			71	153	330	710			

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: OYP All2			Project Name: Rancho Monterey Specific					
Road Name: Country Club Dr.			Job Number: 14271					
Road Segment: e/o Monterey Av.								
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS					
Highway Data			Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 23,400 vehicles			Autos: 15					
Peak Hour Percentage: 10.00%			Medium Trucks (2 Axles): 15					
Peak Hour Volume: 2,340 vehicles			Heavy Trucks (3+ Axles): 15					
Vehicle Speed: 45 mph			Vehicle Mix					
Near/Far Lane Distance: 78 feet			VehicleType Day Evening Night Daily					
Site Data			Autos: 77.5% 12.9% 9.6% 97.42%					
Barrier Height: 0.0 feet			Medium Trucks: 84.8% 4.9% 10.3% 1.84%					
Barrier Type (0-Wall, 1-Berm): 0.0			Heavy Trucks: 86.5% 2.7% 10.8% 0.74%					
Centerline Dist. to Barrier: 75.0 feet			Noise Source Elevations (in feet)					
Centerline Dist. to Observer: 75.0 feet			Autos: 0.000					
Barrier Distance to Observer: 0.0 feet			Medium Trucks: 2.297					
Observer Height (Above Pad): 5.0 feet			Heavy Trucks: 8.006 Grade Adjustment: 0.0					
Pad Elevation: 0.0 feet			Lane Equivalent Distance (in feet)					
Road Elevation: 0.0 feet			Autos: 64.257					
Road Grade: 0.0%			Medium Trucks: 64.119					
Left View: -90.0 degrees			Heavy Trucks: 64.133					
Right View: 90.0 degrees								
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	68.46	1.74	-1.74	-1.20	-4.73	0.000	0.000	
Medium Trucks:	79.45	-15.50	-1.72	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	84.25	-19.45	-1.73	-1.20	-5.25	0.000	0.000	

Unmitigated Noise Levels (without Topo and barrier attenuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.3	65.4	63.6	57.5	66.2	68.8
Medium Trucks:	61.0	59.5	53.2	51.6	60.1	62.0
Heavy Trucks:	61.9	60.5	51.4	52.7	61.0	61.1
Vehicle Noise:	69.1	67.4	64.2	59.5	68.1	68.5

Centerline Distance to Noise Contour (in feet)				
	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	56	120	259	558
CNEL:	60	129	278	599

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: FY			Project Name: Rancho Monterey Specific					
Road Name: Monterey Av.			Job Number: 14271					
Road Segment: n/o Varner Rd.								
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS					
Highway Data			Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 16,000 vehicles			Autos: 15					
Peak Hour Percentage: 10.00%			Medium Trucks (2 Axles): 15					
Peak Hour Volume: 1,600 vehicles			Heavy Trucks (3+ Axles): 15					
Vehicle Speed: 55 mph			Vehicle Mix					
Near/Far Lane Distance: 54 feet			VehicleType Day Evening Night Daily					
Site Data			Autos: 77.5% 12.9% 9.6% 97.42%					
Barrier Height: 0.0 feet			Medium Trucks: 84.8% 4.9% 10.3% 1.84%					
Barrier Type (0-Wall, 1-Berm): 0.0			Heavy Trucks: 86.5% 2.7% 10.8% 0.74%					
Centerline Dist. to Barrier: 59.0 feet			Noise Source Elevations (in feet)					
Centerline Dist. to Observer: 59.0 feet			Autos: 0.000					
Barrier Distance to Observer: 0.0 feet			Medium Trucks: 2.297					
Observer Height (Above Pad): 5.0 feet			Heavy Trucks: 8.006 Grade Adjustment: 0.0					
Pad Elevation: 0.0 feet			Lane Equivalent Distance (in feet)					
Road Elevation: 0.0 feet			Autos: 52.697					
Road Grade: 0.0%			Medium Trucks: 52.529					
Left View: -90.0 degrees			Heavy Trucks: 52.546					
Right View: 90.0 degrees								
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	71.78	-0.78	-0.45	-1.20	-4.69	0.000	0.000	
Medium Trucks:	82.40	-18.02	-0.42	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	86.40	-21.98	-0.43	-1.20	-5.35	0.000	0.000	

Unmitigated Noise Levels (without Topo and barrier attenuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.4	67.5	65.7	59.6	68.3	68.9
Medium Trucks:	62.8	61.3	54.9	53.3	61.8	62.0
Heavy Trucks:	62.8	61.4	52.3	53.6	61.9	62.1
Vehicle Noise:	70.9	69.2	66.2	61.3	69.9	70.4

Centerline Distance to Noise Contour (in feet)				
	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	58	125	270	581
CNEL:	63	135	290	625

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: OYP All2			Project Name: Rancho Monterey Specific					
Road Name: Monterey Av.			Job Number: 14271					
Road Segment: s/o Country Club Dr.								
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS					
Highway Data			Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 38,400 vehicles			Autos: 15					
Peak Hour Percentage: 10.00%			Medium Trucks (2 Axles): 15					
Peak Hour Volume: 3,840 vehicles			Heavy Trucks (3+ Axles): 15					
Vehicle Speed: 50 mph			Vehicle Mix					
Near/Far Lane Distance: 58 feet			VehicleType Day Evening Night Daily					
Site Data			Autos: 77.5% 12.9% 9.6% 97.42%					
Barrier Height: 0.0 feet			Medium Trucks: 84.8% 4.9% 10.3% 1.84%					
Barrier Type (0-Wall, 1-Berm): 0.0			Heavy Trucks: 86.5% 2.7% 10.8% 0.74%					
Centerline Dist. to Barrier: 55.0 feet			Noise Source Elevations (in feet)					
Centerline Dist. to Observer: 55.0 feet			Autos: 0.000					
Barrier Distance to Observer: 0.0 feet			Medium Trucks: 2.297					
Observer Height (Above Pad): 5.0 feet			Heavy Trucks: 8.006 Grade Adjustment: 0.0					
Pad Elevation: 0.0 feet			Lane Equivalent Distance (in feet)					
Road Elevation: 0.0 feet			Autos: 47.000					
Road Grade: 0.0%			Medium Trucks: 46.811					
Left View: -90.0 degrees			Heavy Trucks: 46.830					
Right View: 90.0 degrees								
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	70.20	3.43	0.30	-1.20	-4.67	0.000	0.000	
Medium Trucks:	81.00	-13.80	0.33	-1.20	-4.87	0.000	0.000	
Heavy Trucks:	85.38	-17.76	0.32	-1.20	-5.38	0.000	0.000	

Unmitigated Noise Levels (without Topo and barrier attenuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	72.7	70.8	69.1	63.0	71.6	72.2
Medium Trucks:	66.3	64.8	58.5	56.9	65.4	65.6
Heavy Trucks:	66.7	65.3	56.3	57.5	65.9	66.0
Vehicle Noise:	74.4	72.7	69.6	64.9	73.4	73.9

Centerline Distance to Noise Contour (in feet)				
	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	93	200	431	928
CNEL:	100	215	463	997

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: FY			Project Name: Rancho Monterey Specific					
Road Name: Monterey Av.			Job Number: 14271					
Road Segment: s/o Varner Rd.								
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS					
Highway Data			Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 34,700 vehicles			Autos: 15					
Peak Hour Percentage: 10.00%			Medium Trucks (2 Axles): 15					
Peak Hour Volume: 3,470 vehicles			Heavy Trucks (3+ Axles): 15					
Vehicle Speed: 55 mph			Vehicle Mix					
Near/Far Lane Distance: 54 feet			VehicleType Day Evening Night Daily					
Site Data			Autos: 77.5% 12.9% 9.6% 97.42%					
Barrier Height: 0.0 feet			Medium Trucks: 84.8% 4.9% 10.3% 1.84%					
Barrier Type (0-Wall, 1-Berm): 0.0			Heavy Trucks: 86.5% 2.7% 10.8% 0.74%					
Centerline Dist. to Barrier: 59.0 feet			Noise Source Elevations (in feet)					
Centerline Dist. to Observer: 59.0 feet			Autos: 0.000					
Barrier Distance to Observer: 0.0 feet			Medium Trucks: 2.297					
Observer Height (Above Pad): 5.0 feet			Heavy Trucks: 8.006 Grade Adjustment: 0.0					
Pad Elevation: 0.0 feet			Lane Equivalent Distance (in feet)					
Road Elevation: 0.0 feet			Autos: 52.697					
Road Grade: 0.0%			Medium Trucks: 52.529					
Left View: -90.0 degrees			Heavy Trucks: 52.546					
Right View: 90.0 degrees								
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	71.78	2.58	-0.45	-1.20	-4.69	0.000	0.000	
Medium Trucks:	82.40	-14.66	-0.42	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	86.40	-18.61	-0.43	-1.20	-5.35	0.000	0.000	

Unmitigated Noise Levels (without Topo and barrier attenuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	72.7	70.8	69.1	63.0	71.6	72.2
Medium Trucks:	66.1	64.6	58.3	56.7	65.2	65.4
Heavy Trucks:	66.2	64.7	55.7	56.9	65.3	65.4
Vehicle Noise:	74.3	72.5	69.6	64.7	73.3	73.7

Centerline Distance to Noise Contour (in feet)				
	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	97	210	452	973
CNEL:	105	226	486	1,047

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: FY Road Name: Monterey Av. Road Segment: n/o Dinah Shore Dr.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 59,100 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 5,910 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 78 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 75.0 feet Centerline Dist. to Observer: 75.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 64.257 Medium Trucks: 64.119 Heavy Trucks: 64.133				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	4.89	-1.74	-1.20	-4.73	0.000	0.000
Medium Trucks:	82.40	-12.34	-1.72	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-16.30	-1.73	-1.20	-5.25	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	73.7	71.8	70.1	64.0	72.6	73.2	
Medium Trucks:	67.1	65.6	59.3	57.7	66.2	66.4	
Heavy Trucks:	67.2	65.7	56.7	58.0	66.3	66.4	
Vehicle Noise:	75.3	73.6	70.6	65.7	74.3	74.8	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			145	312	672	1,447	
CNEL:			156	335	722	1,557	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: FY Road Name: Dinah Shore Dr. Road Segment: e/o Key Largo Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 32,300 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 3,230 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 86 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 60.0 feet Centerline Dist. to Observer: 60.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 42.143 Medium Trucks: 41.932 Heavy Trucks: 41.953				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	3.14	1.01	-1.20	-4.69	0.000	0.000
Medium Trucks:	79.45	-14.10	1.04	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-18.05	1.04	-1.20	-5.34	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	71.4	69.5	67.7	61.7	70.3	70.9	
Medium Trucks:	65.2	63.7	57.3	55.8	64.2	64.5	
Heavy Trucks:	66.0	64.6	55.6	56.8	65.2	65.3	
Vehicle Noise:	73.3	71.5	68.4	63.7	72.2	72.7	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			84	182	392	845	
CNEL:			91	195	421	906	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: FY Road Name: Dinah Shore Dr. Road Segment: w/o Key Largo Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 27,600 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 2,760 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 86 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 60.0 feet Centerline Dist. to Observer: 60.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 42.143 Medium Trucks: 41.932 Heavy Trucks: 41.953				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	2.46	1.01	-1.20	-4.69	0.000	0.000
Medium Trucks:	79.45	-14.78	1.04	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-18.74	1.04	-1.20	-5.34	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	70.7	68.8	67.1	61.0	69.6	70.2	
Medium Trucks:	64.5	63.0	56.6	55.1	63.6	63.8	
Heavy Trucks:	65.4	63.9	54.9	56.1	64.5	64.6	
Vehicle Noise:	72.6	70.8	67.7	63.0	71.5	72.0	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			76	164	353	761	
CNEL:			82	176	379	816	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: FY Road Name: Dinah Shore Dr. Road Segment: e/o Monterey Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 25,000 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 2,500 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 78 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 75.0 feet Centerline Dist. to Observer: 75.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 64.257 Medium Trucks: 64.119 Heavy Trucks: 64.133				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	2.03	-1.74	-1.20	-4.73	0.000	0.000
Medium Trucks:	79.45	-15.21	-1.72	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-19.17	-1.73	-1.20	-5.25	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	67.6	65.7	63.9	57.8	66.5	67.1	
Medium Trucks:	61.3	59.8	53.4	51.9	60.4	60.6	
Heavy Trucks:	62.2	60.7	51.7	53.0	61.3	61.4	
Vehicle Noise:	69.4	67.6	64.5	59.8	68.4	68.8	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			58	126	271	583	
CNEL:			63	135	290	626	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: FY Road Name: Key Largo Av. Road Segment: s/o Dinah Shore Dr.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 6,500 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 650 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 12 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 30.0 feet Centerline Dist. to Observer: 30.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 29.816 Medium Trucks: 29.518 Heavy Trucks: 29.547				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-3.82	3.26	-1.20	-4.49	0.000	0.000
Medium Trucks:	79.45	-21.06	3.33	-1.20	-4.86	0.000	0.000
Heavy Trucks:	84.25	-25.02	3.32	-1.20	-5.77	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	66.7	64.8	63.0	57.0	65.6	66.2	
Medium Trucks:	60.5	59.0	52.6	51.1	59.6	59.8	
Heavy Trucks:	61.4	59.9	50.9	52.2	60.5	60.6	
Vehicle Noise:	68.6	66.8	63.7	59.0	67.5	68.0	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			21	44	95	205	
CNEL:			22	47	102	220	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: FY Road Name: Dick Kelly Dr. Road Segment: e/o Monterey Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 5,300 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 530 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 48 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 54.0 feet Centerline Dist. to Observer: 54.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 48.631 Medium Trucks: 48.449 Heavy Trucks: 48.467				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-4.71	0.08	-1.20	-4.67	0.000	0.000
Medium Trucks:	79.45	-21.95	0.10	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-25.90	0.10	-1.20	-5.39	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	62.6	60.7	59.0	52.9	61.5	62.1	
Medium Trucks:	56.4	54.9	48.5	47.0	55.5	55.7	
Heavy Trucks:	57.2	55.8	46.8	48.0	56.4	56.5	
Vehicle Noise:	64.5	62.7	59.6	54.9	63.4	63.9	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			20	43	92	197	
CNEL:			21	46	98	212	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: FY Road Name: Monterey Av. Road Segment: s/o Dinah Shore Dr.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 40,000 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 4,000 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 86 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 60.0 feet Centerline Dist. to Observer: 60.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 42.143 Medium Trucks: 41.932 Heavy Trucks: 41.953				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	3.20	1.01	-1.20	-4.69	0.000	0.000
Medium Trucks:	82.40	-14.04	1.04	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-18.00	1.04	-1.20	-5.34	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	74.8	72.9	71.1	65.1	73.7	74.3	
Medium Trucks:	68.2	66.7	60.3	58.8	67.3	67.5	
Heavy Trucks:	68.2	66.8	57.8	59.0	67.4	67.5	
Vehicle Noise:	76.4	74.6	71.7	66.8	75.3	75.8	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			136	293	632	1,362	
CNEL:			146	316	680	1,465	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: FY Road Name: Monterey Av. Road Segment: s/o Dick Kelly Dr.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 39,500 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 3,950 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 86 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 60.0 feet Centerline Dist. to Observer: 60.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 42.143 Medium Trucks: 41.932 Heavy Trucks: 41.953				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	3.14	1.01	-1.20	-4.69	0.000	0.000
Medium Trucks:	82.40	-14.09	1.04	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-18.05	1.04	-1.20	-5.34	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	74.7	72.8	71.1	65.0	73.6	74.2	
Medium Trucks:	68.2	66.6	60.3	58.7	67.2	67.4	
Heavy Trucks:	68.2	66.8	57.7	59.0	67.3	67.5	
Vehicle Noise:	76.3	74.6	71.6	66.7	75.3	75.8	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			135	291	627	1,350	
CNEL:			145	313	674	1,453	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: FY Road Name: Gerald Ford Dr. Road Segment: w/o Monterey Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 24,700 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 2,470 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 58 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 55.0 feet Centerline Dist. to Observer: 55.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 47.000 Medium Trucks: 46.811 Heavy Trucks: 46.830				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	1.52	0.30	-1.20	-4.67	0.000	0.000
Medium Trucks:	81.00	-15.72	0.33	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-19.68	0.32	-1.20	-5.38	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	70.8	68.9	67.2	61.1	69.7	70.3	
Medium Trucks:	64.4	62.9	56.5	55.0	63.5	63.7	
Heavy Trucks:	64.8	63.4	54.4	55.6	64.0	64.1	
Vehicle Noise:	72.5	70.8	67.7	62.9	71.5	72.0	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			69	149	321	691	
CNEL:			74	160	345	743	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: FY Road Name: Monterey Av. Road Segment: s/o Gerald Ford Dr.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 39,400 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 3,940 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 86 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 60.0 feet Centerline Dist. to Observer: 60.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 42.143 Medium Trucks: 41.932 Heavy Trucks: 41.953				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	3.13	1.01	-1.20	-4.69	0.000	0.000
Medium Trucks:	82.40	-14.11	1.04	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-18.06	1.04	-1.20	-5.34	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	74.7	72.8	71.1	65.0	73.6	74.2	
Medium Trucks:	68.1	66.6	60.3	58.7	67.2	67.4	
Heavy Trucks:	68.2	66.8	57.7	59.0	67.3	67.4	
Vehicle Noise:	76.3	74.5	71.6	66.7	75.3	75.7	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			135	290	626	1,348	
CNEL:			145	312	673	1,450	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: FY Road Name: Gerald Ford Dr. Road Segment: e/o Monterey Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 19,300 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 1,930 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 78 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 75.0 feet Centerline Dist. to Observer: 75.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 64.257 Medium Trucks: 64.119 Heavy Trucks: 64.133				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	0.45	-1.74	-1.20	-4.73	0.000	0.000
Medium Trucks:	81.00	-16.79	-1.72	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-20.75	-1.73	-1.20	-5.25	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	67.7	65.8	64.0	58.0	66.6	67.2	
Medium Trucks:	61.3	59.8	53.4	51.9	60.3	60.6	
Heavy Trucks:	61.7	60.3	51.2	52.5	60.9	61.0	
Vehicle Noise:	69.4	67.7	64.6	59.8	68.4	68.8	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			58	126	271	585	
CNEL:			63	135	292	628	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: FY Road Name: Frank Sinatra Dr. Road Segment: w/o Monterey Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 20,800 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 2,080 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 58 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 55.0 feet Centerline Dist. to Observer: 55.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 47.000 Medium Trucks: 46.811 Heavy Trucks: 46.830				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	0.36	0.30	-1.20	-4.67	0.000	0.000
Medium Trucks:	82.40	-16.88	0.33	-1.20	-4.87	0.000	0.000
Heavy Trucks:	86.40	-20.84	0.32	-1.20	-5.38	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	71.2	69.3	67.6	61.5	70.1	70.7	
Medium Trucks:	64.6	63.1	56.8	55.2	63.7	63.9	
Heavy Trucks:	64.7	63.3	54.2	55.5	63.8	64.0	
Vehicle Noise:	72.8	71.1	68.1	63.2	71.8	72.3	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			72	156	336	724	
CNEL:			78	168	361	778	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: FY Road Name: Frank Sinatra Dr. Road Segment: e/o Monterey Av.			Project Name: Rancho Monterey Specific Job Number: 14271					
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS					
Highway Data			Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 21,300 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 2,130 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 78 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data			Vehicle Mix					
			VehicleType	Day	Evening	Night	Daily	
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 75.0 feet Centerline Dist. to Observer: 75.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%					
			Noise Source Elevations (in feet)					
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0					
			Lane Equivalent Distance (in feet)					
			Autos: 64.257 Medium Trucks: 64.119 Heavy Trucks: 64.133					
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	70.20	0.88	-1.74	-1.20	-4.73	0.000	0.000	
Medium Trucks:	81.00	-16.36	-1.72	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	85.38	-20.32	-1.73	-1.20	-5.25	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	68.1	66.2	64.5	58.4	67.0	67.6		
Medium Trucks:	61.7	60.2	53.8	52.3	60.8	61.0		
Heavy Trucks:	62.1	60.7	51.7	52.9	61.3	61.4		
Vehicle Noise:	69.8	68.1	65.0	60.3	68.8	69.3		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			62	135	290	624		
CNEL:			67	145	311	671		

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: FY Road Name: Country Club Dr. Road Segment: w/o Monterey Av.			Project Name: Rancho Monterey Specific Job Number: 14271					
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS					
Highway Data			Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 25,100 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 2,510 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 58 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data			Vehicle Mix					
			VehicleType	Day	Evening	Night	Daily	
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 55.0 feet Centerline Dist. to Observer: 55.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%					
			Noise Source Elevations (in feet)					
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0					
			Lane Equivalent Distance (in feet)					
			Autos: 47.000 Medium Trucks: 46.811 Heavy Trucks: 46.830					
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	70.20	1.59	0.30	-1.20	-4.67	0.000	0.000	
Medium Trucks:	81.00	-15.65	0.33	-1.20	-4.87	0.000	0.000	
Heavy Trucks:	85.38	-19.61	0.32	-1.20	-5.38	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	70.9	69.0	67.2	61.2	69.8	70.4		
Medium Trucks:	64.5	63.0	56.6	55.1	63.5	63.8		
Heavy Trucks:	64.9	63.5	54.4	55.7	64.0	64.2		
Vehicle Noise:	72.6	70.8	67.8	63.0	71.6	72.0		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			70	151	324	699		
CNEL:			75	162	349	751		

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: FY Road Name: Monterey Av. Road Segment: s/o Frank Sinatra Dr.			Project Name: Rancho Monterey Specific Job Number: 14271					
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS					
Highway Data			Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 44,200 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 4,420 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 86 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data			Vehicle Mix					
			VehicleType	Day	Evening	Night	Daily	
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 60.0 feet Centerline Dist. to Observer: 60.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%					
			Noise Source Elevations (in feet)					
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0					
			Lane Equivalent Distance (in feet)					
			Autos: 42.143 Medium Trucks: 41.932 Heavy Trucks: 41.953					
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	71.78	3.63	1.01	-1.20	-4.69	0.000	0.000	
Medium Trucks:	82.40	-13.61	1.04	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	86.40	-17.56	1.04	-1.20	-5.34	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	75.2	73.3	71.6	65.5	74.1	74.7		
Medium Trucks:	68.6	67.1	60.8	59.2	67.7	67.9		
Heavy Trucks:	68.7	67.3	58.2	59.5	67.8	67.9		
Vehicle Noise:	76.8	75.0	72.1	67.2	75.8	76.2		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			146	314	676	1,455		
CNEL:			157	337	727	1,566		

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: FY Road Name: Country Club Dr. Road Segment: e/o Monterey Av.			Project Name: Rancho Monterey Specific Job Number: 14271					
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS					
Highway Data			Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 26,500 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 2,650 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 78 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data			Vehicle Mix					
			VehicleType	Day	Evening	Night	Daily	
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 75.0 feet Centerline Dist. to Observer: 75.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%					
			Noise Source Elevations (in feet)					
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0					
			Lane Equivalent Distance (in feet)					
			Autos: 64.257 Medium Trucks: 64.119 Heavy Trucks: 64.133					
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	68.46	2.28	-1.74	-1.20	-4.73	0.000	0.000	
Medium Trucks:	79.45	-14.96	-1.72	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	84.25	-18.91	-1.73	-1.20	-5.25	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	67.8	65.9	64.1	58.1	66.7	67.3		
Medium Trucks:	61.6	60.1	53.7	52.2	60.6	60.8		
Heavy Trucks:	62.4	61.0	52.0	53.2	61.6	61.7		
Vehicle Noise:	69.6	67.9	64.7	60.1	68.6	69.1		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			61	131	281	606		
CNEL:			65	140	302	650		

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: FY Road Name: Monterey Av. Road Segment: s/o Country Club Dr.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 42,500 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 4,250 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 58 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 55.0 feet Centerline Dist. to Observer: 55.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 47.000 Medium Trucks: 46.811 Heavy Trucks: 46.830				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	3.88	0.30	-1.20	-4.67	0.000	0.000
Medium Trucks:	81.00	-13.36	0.33	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-17.32	0.32	-1.20	-5.38	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	73.2	71.3	69.5	63.5	72.1	72.7	
Medium Trucks:	66.8	65.3	58.9	57.3	65.8	66.0	
Heavy Trucks:	67.2	65.8	56.7	58.0	66.3	66.5	
Vehicle Noise:	74.9	73.1	70.1	65.3	73.8	74.3	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			99	214	461	993	
CNEL:			107	230	495	1,067	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: FYP Alt1 Road Name: Monterey Av. Road Segment: s/o Varner Rd.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 35,900 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 3,590 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 54 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 52.697 Medium Trucks: 52.529 Heavy Trucks: 52.546				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	2.73	-0.45	-1.20	-4.69	0.000	0.000
Medium Trucks:	82.40	-14.51	-0.42	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-18.47	-0.43	-1.20	-5.35	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	72.9	71.0	69.2	63.1	71.8	72.4	
Medium Trucks:	66.3	64.8	58.4	56.9	65.3	65.5	
Heavy Trucks:	66.3	64.9	55.8	57.1	65.5	65.6	
Vehicle Noise:	74.4	72.7	69.7	64.9	73.4	73.9	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			100	215	462	996	
CNEL:			107	231	497	1,071	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: FYP Alt1 Road Name: Monterey Av. Road Segment: n/o Varner Rd.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 16,300 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 1,630 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 54 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 52.697 Medium Trucks: 52.529 Heavy Trucks: 52.546				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	-0.70	-0.45	-1.20	-4.69	0.000	0.000
Medium Trucks:	82.40	-17.94	-0.42	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-21.89	-0.43	-1.20	-5.35	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	69.4	67.5	65.8	59.7	68.3	68.9	
Medium Trucks:	62.8	61.3	55.0	53.4	61.9	62.1	
Heavy Trucks:	62.9	61.5	52.4	53.7	62.0	62.1	
Vehicle Noise:	71.0	69.3	66.3	61.4	70.0	70.5	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			59	127	273	588	
CNEL:			63	136	294	633	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: FYP Alt1 Road Name: Monterey Av. Road Segment: n/o Dinah Shore Dr.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 62,400 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 6,240 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 78 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 75.0 feet Centerline Dist. to Observer: 75.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 64.257 Medium Trucks: 64.119 Heavy Trucks: 64.133				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	5.13	-1.74	-1.20	-4.73	0.000	0.000
Medium Trucks:	82.40	-12.11	-1.72	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-16.06	-1.73	-1.20	-5.25	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	74.0	72.1	70.3	64.3	72.9	73.5	
Medium Trucks:	67.4	65.9	59.5	58.0	66.4	66.7	
Heavy Trucks:	67.4	66.0	56.9	58.2	66.6	66.7	
Vehicle Noise:	75.6	73.8	70.8	66.0	74.5	75.0	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			150	323	696	1,500	
CNEL:			161	348	749	1,614	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: FYP Alt1 Road Name: Dinah Shore Dr. Road Segment: w/o Key Largo Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 29,600 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 2,960 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 86 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 60.0 feet Centerline Dist. to Observer: 60.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 42.143 Medium Trucks: 41.932 Heavy Trucks: 41.953				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	2.76	1.01	-1.20	-4.69	0.000	0.000
Medium Trucks:	79.45	-14.48	1.04	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-18.43	1.04	-1.20	-5.34	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	71.0	69.1	67.4	61.3	69.9	70.5	
Medium Trucks:	64.8	63.3	56.9	55.4	63.9	64.1	
Heavy Trucks:	65.7	64.2	55.2	56.5	64.8	64.9	
Vehicle Noise:	72.9	71.1	68.0	63.3	71.8	72.3	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			80	172	370	797	
CNEL:			85	184	397	855	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: FYP Alt1 Road Name: Dinah Shore Dr. Road Segment: e/o Monterey Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 25,000 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 2,500 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 78 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 75.0 feet Centerline Dist. to Observer: 75.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 64.257 Medium Trucks: 64.119 Heavy Trucks: 64.133				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	2.03	-1.74	-1.20	-4.73	0.000	0.000
Medium Trucks:	79.45	-15.21	-1.72	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-19.17	-1.73	-1.20	-5.25	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	67.6	65.7	63.9	57.8	66.5	67.1	
Medium Trucks:	61.3	59.8	53.4	51.9	60.4	60.6	
Heavy Trucks:	62.2	60.7	51.7	53.0	61.3	61.4	
Vehicle Noise:	69.4	67.6	64.5	59.8	68.4	68.8	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			58	126	271	583	
CNEL:			63	135	290	626	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: FYP Alt1 Road Name: Dinah Shore Dr. Road Segment: e/o Key Largo Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 33,500 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 3,350 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 86 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 60.0 feet Centerline Dist. to Observer: 60.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 42.143 Medium Trucks: 41.932 Heavy Trucks: 41.953				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	3.30	1.01	-1.20	-4.69	0.000	0.000
Medium Trucks:	79.45	-13.94	1.04	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-17.89	1.04	-1.20	-5.34	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	71.6	69.7	67.9	61.9	70.5	71.1	
Medium Trucks:	65.4	63.8	57.5	55.9	64.4	64.6	
Heavy Trucks:	66.2	64.8	55.7	57.0	65.3	65.5	
Vehicle Noise:	73.4	71.7	68.5	63.8	72.4	72.8	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			87	186	402	866	
CNEL:			93	200	431	928	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: FYP Alt1 Road Name: Key Largo Av. Road Segment: s/o Dinah Shore Dr.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 7,700 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 770 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 12 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 30.0 feet Centerline Dist. to Observer: 30.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 29.816 Medium Trucks: 29.518 Heavy Trucks: 29.547				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-3.09	3.26	-1.20	-4.49	0.000	0.000
Medium Trucks:	79.45	-20.32	3.33	-1.20	-4.86	0.000	0.000
Heavy Trucks:	84.25	-24.28	3.32	-1.20	-5.77	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	67.4	65.5	63.8	57.7	66.3	66.9	
Medium Trucks:	61.3	59.7	53.4	51.8	60.3	60.5	
Heavy Trucks:	62.1	60.7	51.6	52.9	61.2	61.4	
Vehicle Noise:	69.3	67.6	64.4	59.7	68.3	68.7	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			23	50	107	230	
CNEL:			25	53	114	247	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: FYP Alt1 Road Name: Monterey Av. Road Segment: s/o Dinah Shore Dr.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 42,500 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 4,250 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 86 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 60.0 feet Centerline Dist. to Observer: 60.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 42.143 Medium Trucks: 41.932 Heavy Trucks: 41.953				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	3.46	1.01	-1.20	-4.69	0.000	0.000
Medium Trucks:	82.40	-13.78	1.04	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-17.73	1.04	-1.20	-5.34	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	75.1	73.2	71.4	65.3	74.0	74.6	
Medium Trucks:	68.5	67.0	60.6	59.1	67.5	67.7	
Heavy Trucks:	68.5	67.1	58.0	59.3	67.7	67.8	
Vehicle Noise:	76.6	74.9	71.9	67.0	75.6	76.1	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			142	305	658	1,418	
CNEL:			153	329	708	1,525	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: FYP Alt1 Road Name: Monterey Av. Road Segment: s/o Dick Kelly Dr.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 43,400 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 4,340 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 86 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 60.0 feet Centerline Dist. to Observer: 60.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 42.143 Medium Trucks: 41.932 Heavy Trucks: 41.953				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	3.55	1.01	-1.20	-4.69	0.000	0.000
Medium Trucks:	82.40	-13.69	1.04	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-17.64	1.04	-1.20	-5.34	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	75.1	73.2	71.5	65.4	74.0	74.7	
Medium Trucks:	68.6	67.1	60.7	59.1	67.6	67.8	
Heavy Trucks:	68.6	67.2	58.1	59.4	67.7	67.9	
Vehicle Noise:	76.7	75.0	72.0	67.1	75.7	76.2	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			144	310	667	1,438	
CNEL:			155	333	718	1,547	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: FYP Alt1 Road Name: Dick Kelly Dr. Road Segment: e/o Monterey Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 5,700 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 570 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 48 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 54.0 feet Centerline Dist. to Observer: 54.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 48.631 Medium Trucks: 48.449 Heavy Trucks: 48.467				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-4.39	0.08	-1.20	-4.67	0.000	0.000
Medium Trucks:	79.45	-21.63	0.10	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-25.59	0.10	-1.20	-5.39	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	62.9	61.0	59.3	53.2	61.8	62.5	
Medium Trucks:	56.7	55.2	48.9	47.3	55.8	56.0	
Heavy Trucks:	57.6	56.1	47.1	48.4	56.7	56.8	
Vehicle Noise:	64.8	63.0	59.9	55.2	63.8	64.2	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			21	45	96	207	
CNEL:			22	48	103	222	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: FYP Alt1 Road Name: Gerald Ford Dr. Road Segment: w/o Monterey Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 26,000 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 2,600 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 58 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 55.0 feet Centerline Dist. to Observer: 55.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 47.000 Medium Trucks: 46.811 Heavy Trucks: 46.830				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	1.74	0.30	-1.20	-4.67	0.000	0.000
Medium Trucks:	81.00	-15.50	0.33	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-19.45	0.32	-1.20	-5.38	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	71.0	69.1	67.4	61.3	69.9	70.6	
Medium Trucks:	64.6	63.1	56.8	55.2	63.7	63.9	
Heavy Trucks:	65.0	63.6	54.6	55.8	64.2	64.3	
Vehicle Noise:	72.7	71.0	67.9	63.2	71.7	72.2	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			72	154	332	716	
CNEL:			77	166	357	769	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: FYP Alt1 Road Name: Gerald Ford Dr. Road Segment: e/o Monterey Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 20,500 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 2,050 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 78 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 75.0 feet Centerline Dist. to Observer: 75.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 64.257 Medium Trucks: 64.119 Heavy Trucks: 64.133				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	0.71	-1.74	-1.20	-4.73	0.000	0.000
Medium Trucks:	81.00	-16.53	-1.72	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-20.49	-1.73	-1.20	-5.25	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	68.0	66.1	64.3	58.3	66.9	67.5	
Medium Trucks:	61.5	60.0	53.7	52.1	60.6	60.8	
Heavy Trucks:	62.0	60.5	51.5	52.8	61.1	61.2	
Vehicle Noise:	69.7	67.9	64.9	60.1	68.6	69.1	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			61	131	283	609	
CNEL:			65	141	304	654	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: FYP Alt1 Road Name: Frank Sinatra Dr. Road Segment: w/o Monterey Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 21,200 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 2,120 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 58 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 55.0 feet Centerline Dist. to Observer: 55.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 47.000 Medium Trucks: 46.811 Heavy Trucks: 46.830				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	0.44	0.30	-1.20	-4.67	0.000	0.000
Medium Trucks:	82.40	-16.80	0.33	-1.20	-4.87	0.000	0.000
Heavy Trucks:	86.40	-20.75	0.32	-1.20	-5.38	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	71.3	69.4	67.7	61.6	70.2	70.8	
Medium Trucks:	64.7	63.2	56.9	55.3	63.8	64.0	
Heavy Trucks:	64.8	63.3	54.3	55.6	63.9	64.0	
Vehicle Noise:	72.9	71.1	68.2	63.3	71.9	72.3	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			73	158	340	733	
CNEL:			79	170	366	788	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: FYP Alt1 Road Name: Monterey Av. Road Segment: s/o Gerald Ford Dr.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 42,300 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 4,230 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 86 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 60.0 feet Centerline Dist. to Observer: 60.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 42.143 Medium Trucks: 41.932 Heavy Trucks: 41.953				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	3.44	1.01	-1.20	-4.69	0.000	0.000
Medium Trucks:	82.40	-13.80	1.04	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-17.75	1.04	-1.20	-5.34	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	75.0	73.1	71.4	65.3	73.9	74.5	
Medium Trucks:	68.4	66.9	60.6	59.0	67.5	67.7	
Heavy Trucks:	68.5	67.1	58.0	59.3	67.6	67.8	
Vehicle Noise:	76.6	74.9	71.9	67.0	75.6	76.1	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			141	305	656	1,413	
CNEL:			152	328	706	1,520	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: FYP Alt1 Road Name: Frank Sinatra Dr. Road Segment: e/o Monterey Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 21,600 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 2,160 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 78 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 75.0 feet Centerline Dist. to Observer: 75.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 64.257 Medium Trucks: 64.119 Heavy Trucks: 64.133				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	0.94	-1.74	-1.20	-4.73	0.000	0.000
Medium Trucks:	81.00	-16.30	-1.72	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-20.26	-1.73	-1.20	-5.25	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	68.2	66.3	64.5	58.5	67.1	67.7	
Medium Trucks:	61.8	60.3	53.9	52.4	60.8	61.1	
Heavy Trucks:	62.2	60.8	51.7	53.0	61.3	61.5	
Vehicle Noise:	69.9	68.1	65.1	60.3	68.9	69.3	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			63	136	293	630	
CNEL:			68	146	314	677	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: FYP Alt1 Road Name: Monterey Av. Road Segment: s/o Frank Sinatra Dr.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS			
Highway Data				Site Conditions (Hard = 10, Soft = 15)			
Average Daily Traffic (Adt): 45,500 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 4,550 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 86 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15			
Site Data				Vehicle Mix			
				VehicleType	Day	Evening	Night
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 60.0 feet Centerline Dist. to Observer: 60.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%			
				Noise Source Elevations (in feet)			
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0			
				Lane Equivalent Distance (in feet)			
				Autos: 42.143 Medium Trucks: 41.932 Heavy Trucks: 41.953			
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	3.76	1.01	-1.20	-4.69	0.000	0.000
Medium Trucks:	82.40	-13.48	1.04	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-17.44	1.04	-1.20	-5.34	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	75.3	73.5	71.7	65.6	74.3	74.9	
Medium Trucks:	68.8	67.3	60.9	59.4	67.8	68.0	
Heavy Trucks:	68.8	67.4	58.3	59.6	67.9	68.1	
Vehicle Noise:	76.9	75.2	72.2	67.3	75.9	76.4	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			148	320	689	1,484	
CNEL:			160	344	741	1,596	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: FYP Alt1 Road Name: Country Club Dr. Road Segment: e/o Monterey Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS			
Highway Data				Site Conditions (Hard = 10, Soft = 15)			
Average Daily Traffic (Adt): 26,700 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 2,670 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 78 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15			
Site Data				Vehicle Mix			
				VehicleType	Day	Evening	Night
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 75.0 feet Centerline Dist. to Observer: 75.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%			
				Noise Source Elevations (in feet)			
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0			
				Lane Equivalent Distance (in feet)			
				Autos: 64.257 Medium Trucks: 64.119 Heavy Trucks: 64.133			
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	2.31	-1.74	-1.20	-4.73	0.000	0.000
Medium Trucks:	79.45	-14.92	-1.72	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-18.88	-1.73	-1.20	-5.25	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	67.8	65.9	64.2	58.1	66.7	67.3	
Medium Trucks:	61.6	60.1	53.7	52.2	60.6	60.9	
Heavy Trucks:	62.4	61.0	52.0	53.2	61.6	61.7	
Vehicle Noise:	69.7	67.9	64.8	60.1	68.6	69.1	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			61	131	283	609	
CNEL:			65	141	303	654	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: FYP Alt1 Road Name: Country Club Dr. Road Segment: w/o Monterey Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS			
Highway Data				Site Conditions (Hard = 10, Soft = 15)			
Average Daily Traffic (Adt): 25,400 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 2,540 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 58 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15			
Site Data				Vehicle Mix			
				VehicleType	Day	Evening	Night
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 55.0 feet Centerline Dist. to Observer: 55.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%			
				Noise Source Elevations (in feet)			
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0			
				Lane Equivalent Distance (in feet)			
				Autos: 47.000 Medium Trucks: 46.811 Heavy Trucks: 46.830			
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	1.64	0.30	-1.20	-4.67	0.000	0.000
Medium Trucks:	81.00	-15.60	0.33	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-19.55	0.32	-1.20	-5.38	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	70.9	69.0	67.3	61.2	69.8	70.5	
Medium Trucks:	64.5	63.0	56.7	55.1	63.6	63.8	
Heavy Trucks:	64.9	63.5	54.5	55.7	64.1	64.2	
Vehicle Noise:	72.6	70.9	67.8	63.1	71.6	72.1	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			70	152	327	704	
CNEL:			76	163	351	757	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: FYP Alt1 Road Name: Monterey Av. Road Segment: s/o Country Club Dr.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS			
Highway Data				Site Conditions (Hard = 10, Soft = 15)			
Average Daily Traffic (Adt): 43,200 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 4,320 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 58 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15			
Site Data				Vehicle Mix			
				VehicleType	Day	Evening	Night
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 55.0 feet Centerline Dist. to Observer: 55.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%			
				Noise Source Elevations (in feet)			
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0			
				Lane Equivalent Distance (in feet)			
				Autos: 47.000 Medium Trucks: 46.811 Heavy Trucks: 46.830			
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	3.95	0.30	-1.20	-4.67	0.000	0.000
Medium Trucks:	81.00	-13.29	0.33	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-17.25	0.32	-1.20	-5.38	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	73.3	71.4	69.6	63.5	72.2	72.8	
Medium Trucks:	66.8	65.3	59.0	57.4	65.9	66.1	
Heavy Trucks:	67.3	65.8	56.8	58.0	66.4	66.5	
Vehicle Noise:	75.0	73.2	70.2	65.4	73.9	74.4	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			100	216	466	1,004	
CNEL:			108	232	501	1,078	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: FYP Alt2 Road Name: Monterey Av. Road Segment: n/o Varner Rd.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 16,300 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 1,630 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 54 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 52.697 Medium Trucks: 52.529 Heavy Trucks: 52.546				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	-0.70	-0.45	-1.20	-4.69	0.000	0.000
Medium Trucks:	82.40	-17.94	-0.42	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-21.89	-0.43	-1.20	-5.35	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	69.4	67.5	65.8	59.7	68.3	68.9	
Medium Trucks:	62.8	61.3	55.0	53.4	61.9	62.1	
Heavy Trucks:	62.9	61.5	52.4	53.7	62.0	62.1	
Vehicle Noise:	71.0	69.3	66.3	61.4	70.0	70.5	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			59	127	273	588	
CNEL:			63	136	294	633	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: FYP Alt2 Road Name: Monterey Av. Road Segment: n/o Dinah Shore Dr.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 62,400 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 6,240 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 78 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 75.0 feet Centerline Dist. to Observer: 75.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 64.257 Medium Trucks: 64.119 Heavy Trucks: 64.133				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	5.13	-1.74	-1.20	-4.73	0.000	0.000
Medium Trucks:	82.40	-12.11	-1.72	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-16.06	-1.73	-1.20	-5.25	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	74.0	72.1	70.3	64.3	72.9	73.5	
Medium Trucks:	67.4	65.9	59.5	58.0	66.4	66.7	
Heavy Trucks:	67.4	66.0	56.9	58.2	66.6	66.7	
Vehicle Noise:	75.6	73.8	70.8	66.0	74.5	75.0	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			150	323	696	1,500	
CNEL:			161	348	749	1,614	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: FYP Alt2 Road Name: Monterey Av. Road Segment: s/o Varner Rd.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 36,000 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 3,600 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 54 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 52.697 Medium Trucks: 52.529 Heavy Trucks: 52.546				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	2.74	-0.45	-1.20	-4.69	0.000	0.000
Medium Trucks:	82.40	-14.50	-0.42	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-18.45	-0.43	-1.20	-5.35	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	72.9	71.0	69.2	63.2	71.8	72.4	
Medium Trucks:	66.3	64.8	58.4	56.9	65.3	65.6	
Heavy Trucks:	66.3	64.9	55.9	57.1	65.5	65.6	
Vehicle Noise:	74.5	72.7	69.7	64.9	73.4	73.9	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			100	215	463	998	
CNEL:			107	231	498	1,073	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: FYP Alt2 Road Name: Dinah Shore Dr. Road Segment: w/o Key Largo Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 28,200 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 2,820 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 86 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 60.0 feet Centerline Dist. to Observer: 60.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 42.143 Medium Trucks: 41.932 Heavy Trucks: 41.953				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	2.55	1.01	-1.20	-4.69	0.000	0.000
Medium Trucks:	79.45	-14.69	1.04	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-18.64	1.04	-1.20	-5.34	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	70.8	68.9	67.2	61.1	69.7	70.3	
Medium Trucks:	64.6	63.1	56.7	55.2	63.7	63.9	
Heavy Trucks:	65.4	64.0	55.0	56.2	64.6	64.7	
Vehicle Noise:	72.7	70.9	67.8	63.1	71.6	72.1	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			77	166	358	772	
CNEL:			83	178	384	828	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: FYP Alt2 Road Name: Dinah Shore Dr. Road Segment: e/o Key Largo Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 33,700 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 3,370 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 86 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Site Data			Autos: 77.5% 12.9% 9.6% 97.42%				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 60.0 feet Centerline Dist. to Observer: 60.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 42.143 Medium Trucks: 41.932 Heavy Trucks: 41.953				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	3.33	1.01	-1.20	-4.69	0.000	0.000
Medium Trucks:	79.45	-13.91	1.04	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-17.87	1.04	-1.20	-5.34	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	71.6	69.7	67.9	61.9	70.5	71.1	
Medium Trucks:	65.4	63.9	57.5	56.0	64.4	64.7	
Heavy Trucks:	66.2	64.8	55.8	57.0	65.4	65.5	
Vehicle Noise:	73.4	71.7	68.5	63.9	72.4	72.9	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
			Ldn: 87	187	403	869	
			CNEL: 93	201	433	932	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: FYP Alt2 Road Name: Key Largo Av. Road Segment: s/o Dinah Shore Dr.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 7,500 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 750 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 12 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Site Data			Autos: 77.5% 12.9% 9.6% 97.42%				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 30.0 feet Centerline Dist. to Observer: 30.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 29.816 Medium Trucks: 29.518 Heavy Trucks: 29.547				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-3.20	3.26	-1.20	-4.49	0.000	0.000
Medium Trucks:	79.45	-20.44	3.33	-1.20	-4.86	0.000	0.000
Heavy Trucks:	84.25	-24.39	3.32	-1.20	-5.77	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	67.3	65.4	63.7	57.6	66.2	66.8	
Medium Trucks:	61.1	59.6	53.3	51.7	60.2	60.4	
Heavy Trucks:	62.0	60.6	51.5	52.8	61.1	61.3	
Vehicle Noise:	69.2	67.4	64.3	59.6	68.2	68.6	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
			Ldn: 23	49	105	226	
			CNEL: 24	52	112	242	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: FYP Alt2 Road Name: Dinah Shore Dr. Road Segment: e/o Monterey Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 25,000 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 2,500 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 78 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Site Data			Autos: 77.5% 12.9% 9.6% 97.42%				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 75.0 feet Centerline Dist. to Observer: 75.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 64.257 Medium Trucks: 64.119 Heavy Trucks: 64.133				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	2.03	-1.74	-1.20	-4.73	0.000	0.000
Medium Trucks:	79.45	-15.21	-1.72	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-19.17	-1.73	-1.20	-5.25	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	67.6	65.7	63.9	57.8	66.5	67.1	
Medium Trucks:	61.3	59.8	53.4	51.9	60.4	60.6	
Heavy Trucks:	62.2	60.7	51.7	53.0	61.3	61.4	
Vehicle Noise:	69.4	67.6	64.5	59.8	68.4	68.8	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
			Ldn: 58	126	271	583	
			CNEL: 63	135	290	626	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: FYP Alt2 Road Name: Monterey Av. Road Segment: s/o Dinah Shore Dr.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 42,500 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 4,250 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 86 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Site Data			Autos: 77.5% 12.9% 9.6% 97.42%				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 60.0 feet Centerline Dist. to Observer: 60.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 42.143 Medium Trucks: 41.932 Heavy Trucks: 41.953				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	3.46	1.01	-1.20	-4.69	0.000	0.000
Medium Trucks:	82.40	-13.78	1.04	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-17.73	1.04	-1.20	-5.34	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	75.1	73.2	71.4	65.3	74.0	74.6	
Medium Trucks:	68.5	67.0	60.6	59.1	67.5	67.7	
Heavy Trucks:	68.5	67.1	58.0	59.3	67.7	67.8	
Vehicle Noise:	76.6	74.9	71.9	67.0	75.6	76.1	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
			Ldn: 142	305	658	1,418	
			CNEL: 153	329	708	1,525	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: FYP Alt2 Road Name: Dick Kelly Dr. Road Segment: e/o Monterey Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 5,700 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 570 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 48 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 54.0 feet Centerline Dist. to Observer: 54.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 48.631 Medium Trucks: 48.449 Heavy Trucks: 48.467				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-4.39	0.08	-1.20	-4.67	0.000	0.000
Medium Trucks:	79.45	-21.63	0.10	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-25.59	0.10	-1.20	-5.39	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	62.9	61.0	59.3	53.2	61.8	62.5	
Medium Trucks:	56.7	55.2	48.9	47.3	55.8	56.0	
Heavy Trucks:	57.6	56.1	47.1	48.4	56.7	56.8	
Vehicle Noise:	64.8	63.0	59.9	55.2	63.8	64.2	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			21	45	96	207	
CNEL:			22	48	103	222	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: FYP Alt2 Road Name: Gerald Ford Dr. Road Segment: w/o Monterey Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 25,200 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 2,520 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 58 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 55.0 feet Centerline Dist. to Observer: 55.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 47.000 Medium Trucks: 46.811 Heavy Trucks: 46.830				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	1.61	0.30	-1.20	-4.67	0.000	0.000
Medium Trucks:	81.00	-15.63	0.33	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-19.59	0.32	-1.20	-5.38	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	70.9	69.0	67.2	61.2	69.8	70.4	
Medium Trucks:	64.5	63.0	56.6	55.1	63.5	63.8	
Heavy Trucks:	64.9	63.5	54.5	55.7	64.1	64.2	
Vehicle Noise:	72.6	70.9	67.8	63.0	71.6	72.0	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			70	151	325	701	
CNEL:			75	162	349	753	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: FYP Alt2 Road Name: Monterey Av. Road Segment: s/o Dick Kelly Dr.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 42,400 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 4,240 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 86 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 60.0 feet Centerline Dist. to Observer: 60.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 42.143 Medium Trucks: 41.932 Heavy Trucks: 41.953				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	3.45	1.01	-1.20	-4.69	0.000	0.000
Medium Trucks:	82.40	-13.79	1.04	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-17.74	1.04	-1.20	-5.34	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	75.0	73.1	71.4	65.3	73.9	74.6	
Medium Trucks:	68.5	67.0	60.6	59.0	67.5	67.7	
Heavy Trucks:	68.5	67.1	58.0	59.3	67.6	67.8	
Vehicle Noise:	76.6	74.9	71.9	67.0	75.6	76.1	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			142	305	657	1,416	
CNEL:			152	328	707	1,523	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: FYP Alt2 Road Name: Gerald Ford Dr. Road Segment: e/o Monterey Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 19,800 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 1,980 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 78 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 75.0 feet Centerline Dist. to Observer: 75.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 64.257 Medium Trucks: 64.119 Heavy Trucks: 64.133				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	0.56	-1.74	-1.20	-4.73	0.000	0.000
Medium Trucks:	81.00	-16.68	-1.72	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-20.64	-1.73	-1.20	-5.25	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	67.8	65.9	64.2	58.1	66.7	67.3	
Medium Trucks:	61.4	59.9	53.5	52.0	60.4	60.7	
Heavy Trucks:	61.8	60.4	51.4	52.6	61.0	61.1	
Vehicle Noise:	69.5	67.8	64.7	59.9	68.5	69.0	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			59	128	276	595	
CNEL:			64	138	297	639	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: FYP Alt2 Road Name: Monterey Av. Road Segment: s/o Gerald Ford Dr.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 41,300 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 4,130 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 86 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 60.0 feet Centerline Dist. to Observer: 60.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 42.143 Medium Trucks: 41.932 Heavy Trucks: 41.953				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	3.34	1.01	-1.20	-4.69	0.000	0.000
Medium Trucks:	82.40	-13.90	1.04	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-17.86	1.04	-1.20	-5.34	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	74.9	73.0	71.3	65.2	73.8	74.4	
Medium Trucks:	68.3	66.8	60.5	58.9	67.4	67.6	
Heavy Trucks:	68.4	67.0	57.9	59.2	67.5	67.7	
Vehicle Noise:	76.5	74.8	71.8	66.9	75.5	76.0	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			139	300	646	1,391	
CNEL:			150	322	695	1,496	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: FYP Alt2 Road Name: Frank Sinatra Dr. Road Segment: e/o Monterey Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 21,600 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 2,160 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 78 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 75.0 feet Centerline Dist. to Observer: 75.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 64.257 Medium Trucks: 64.119 Heavy Trucks: 64.133				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	0.94	-1.74	-1.20	-4.73	0.000	0.000
Medium Trucks:	81.00	-16.30	-1.72	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-20.26	-1.73	-1.20	-5.25	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	68.2	66.3	64.5	58.5	67.1	67.7	
Medium Trucks:	61.8	60.3	53.9	52.4	60.8	61.1	
Heavy Trucks:	62.2	60.8	51.7	53.0	61.3	61.5	
Vehicle Noise:	69.9	68.1	65.1	60.3	68.9	69.3	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			63	136	293	630	
CNEL:			68	146	314	677	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: FYP Alt2 Road Name: Frank Sinatra Dr. Road Segment: w/o Monterey Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 21,200 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 2,120 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 58 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 55.0 feet Centerline Dist. to Observer: 55.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 47.000 Medium Trucks: 46.811 Heavy Trucks: 46.830				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	0.44	0.30	-1.20	-4.67	0.000	0.000
Medium Trucks:	82.40	-16.80	0.33	-1.20	-4.87	0.000	0.000
Heavy Trucks:	86.40	-20.75	0.32	-1.20	-5.38	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	71.3	69.4	67.7	61.6	70.2	70.8	
Medium Trucks:	64.7	63.2	56.9	55.3	63.8	64.0	
Heavy Trucks:	64.8	63.3	54.3	55.6	63.9	64.0	
Vehicle Noise:	72.9	71.1	68.2	63.3	71.9	72.3	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			73	158	340	733	
CNEL:			79	170	366	788	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: FYP Alt2 Road Name: Monterey Av. Road Segment: s/o Frank Sinatra Dr.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 45,500 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 4,550 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 86 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 60.0 feet Centerline Dist. to Observer: 60.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 42.143 Medium Trucks: 41.932 Heavy Trucks: 41.953				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	3.76	1.01	-1.20	-4.69	0.000	0.000
Medium Trucks:	82.40	-13.48	1.04	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-17.44	1.04	-1.20	-5.34	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	75.3	73.5	71.7	65.6	74.3	74.9	
Medium Trucks:	68.8	67.3	60.9	59.4	67.8	68.0	
Heavy Trucks:	68.8	67.4	58.3	59.6	67.9	68.1	
Vehicle Noise:	76.9	75.2	72.2	67.3	75.9	76.4	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			148	320	689	1,484	
CNEL:			160	344	741	1,596	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: FYP Alt2 Road Name: Country Club Dr. Road Segment: w/o Monterey Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 25,400 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 2,540 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 58 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 55.0 feet Centerline Dist. to Observer: 55.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 47.000 Medium Trucks: 46.811 Heavy Trucks: 46.830				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	1.64	0.30	-1.20	-4.67	0.000	0.000
Medium Trucks:	81.00	-15.60	0.33	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-19.55	0.32	-1.20	-5.38	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	70.9	69.0	67.3	61.2	69.8	70.5	
Medium Trucks:	64.5	63.0	56.7	55.1	63.6	63.8	
Heavy Trucks:	64.9	63.5	54.5	55.7	64.1	64.2	
Vehicle Noise:	72.6	70.9	67.8	63.1	71.6	72.1	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			70	152	327	704	
CNEL:			76	163	351	757	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: FYP Alt2 Road Name: Monterey Av. Road Segment: s/o Country Club Dr.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 43,200 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 4,320 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 58 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 55.0 feet Centerline Dist. to Observer: 55.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 47.000 Medium Trucks: 46.811 Heavy Trucks: 46.830				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	3.95	0.30	-1.20	-4.67	0.000	0.000
Medium Trucks:	81.00	-13.29	0.33	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-17.25	0.32	-1.20	-5.38	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	73.3	71.4	69.6	63.5	72.2	72.8	
Medium Trucks:	66.8	65.3	59.0	57.4	65.9	66.1	
Heavy Trucks:	67.3	65.8	56.8	58.0	66.4	66.5	
Vehicle Noise:	75.0	73.2	65.4	73.9	74.4	74.4	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			100	216	466	1,004	
CNEL:			108	232	501	1,078	

Thursday, April 28, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: FYP Alt2 Road Name: Country Club Dr. Road Segment: e/o Monterey Av.				Project Name: Rancho Monterey Specific Job Number: 14271			
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 26,700 vehicles Peak Hour Percentage: 10.00% Peak Hour Volume: 2,670 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 78 feet			Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data			Vehicle Mix				
			VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 75.0 feet Centerline Dist. to Observer: 75.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees			Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
			Lane Equivalent Distance (in feet)				
			Autos: 64.257 Medium Trucks: 64.119 Heavy Trucks: 64.133				
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	2.31	-1.74	-1.20	-4.73	0.000	0.000
Medium Trucks:	79.45	-14.92	-1.72	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-18.88	-1.73	-1.20	-5.25	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	67.8	65.9	64.2	58.1	66.7	67.3	
Medium Trucks:	61.6	60.1	53.7	52.2	60.6	60.9	
Heavy Trucks:	62.4	61.0	52.0	53.2	61.6	61.7	
Vehicle Noise:	69.7	67.9	64.8	60.1	68.6	69.1	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			61	131	283	609	
CNEL:			65	141	303	654	

Thursday, April 28, 2022

This page intentionally left blank

APPENDIX 9.1:
CADNAA OPERATIONAL NOISE MODEL INPUTS

This page intentionally left blank

14271 - Rancho Monterey Specific Plan

CadnaA Noise Prediction Model: 14271_03.cna

Date: 01.05.22

Analyst: S. Shami

Calculation Configuration

Configuration	
Parameter	Value
General	
Max. Error (dB)	0.00
Max. Search Radius #(Unit,LEN)	2000.01
Min. Dist Src to Rcvr	0.00
Partition	
Raster Factor	0.50
Max. Length of Section #(Unit,LEN)	999.99
Min. Length of Section #(Unit,LEN)	1.01
Min. Length of Section (%)	0.00
Proj. Line Sources	On
Proj. Area Sources	On
Ref. Time	
Reference Time Day (min)	960.00
Reference Time Night (min)	480.00
Daytime Penalty (dB)	0.00
Recr. Time Penalty (dB)	5.00
Night-time Penalty (dB)	10.00
DTM	
Standard Height (m)	0.00
Model of Terrain	Triangulation
Reflection	
max. Order of Reflection	2
Search Radius Src	100.00
Search Radius Rcvr	100.00
Max. Distance Source - Rcvr	1000.00 1000.00
Min. Distance Rcvr - Reflector	1.00 1.00
Min. Distance Source - Reflector	0.10
Industrial (ISO 9613)	
Lateral Diffraction	some Obj
Obst. within Area Src do not shield	On
Screening	Incl. Ground Att. over Barrier
	Dz with limit (20/25)
Barrier Coefficients C1,2,3	3.0 20.0 0.0
Temperature #(Unit,TEMP)	10
rel. Humidity (%)	70
Ground Absorption G	0.50
Wind Speed for Dir. #(Unit,SPEED)	3.0
Roads (RLS-90)	
Strictly acc. to RLS-90	
Railways (FTA/FRA)	
Aircraft (???)	
Strictly acc. to AzB	

Receiver Noise Levels

Name	M.	ID	Level Lr			Limit. Value			Land Use			Height	Coordinates			
			Day	Eve	Night	Day	Eve	Night	Type	Auto	Noise Type		X	Y	Z	
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)				(ft)	(ft)	(ft)	(ft)	
RECEIVERS	R1		47.2	47.2	42.4	65.0	60.0	55.0				5.00	a	6518841.51	2234144.62	5.00
RECEIVERS	R2		34.5	34.5	30.2	55.0	50.0	45.0				5.00	a	6520468.57	2231448.00	5.00
RECEIVERS	R3		38.6	38.6	34.1	55.0	50.0	45.0				5.00	a	6518958.15	2231755.30	5.00
RECEIVERS	R4		40.8	40.8	35.8	55.0	50.0	45.0				5.00	a	6518339.66	2232397.66	5.00
RECEIVERS	R5		34.7	34.7	29.8	55.0	50.0	45.0				5.00	a	6516553.64	2233474.05	5.00
RECEIVERS	R6		37.8	37.8	33.4	65.0	60.0	55.0				5.00	a	6517567.09	2234365.97	5.00

Point Source(s)

Name	M.	ID	Result. PWL			Lw / Li		Operating Time			K0	Height	Coordinates			
			Day	Evening	Night	Type	Value	norm.	Day	Special			Night	(dB)	(ft)	X
			(dBA)	(dBA)	(dBA)		dB(A)	(min)	(min)	(min)			(ft)	(ft)	(ft)	(ft)
POINTSOURCE		TRASH08	89.0	89.0	89.0	Lw	89.0	120.00	30.00	90.00	0.0	5.00	a	6519589.53	2233965.95	5.00
POINTSOURCE		TRASH07	89.0	89.0	89.0	Lw	89.0	120.00	30.00	90.00	0.0	5.00	a	6519591.17	2233900.48	5.00
POINTSOURCE		TRASH06	89.0	89.0	89.0	Lw	89.0	120.00	30.00	90.00	0.0	5.00	a	6518758.04	2233835.00	5.00
POINTSOURCE		TRASH05	89.0	89.0	89.0	Lw	89.0	120.00	30.00	90.00	0.0	5.00	a	6519065.76	2233332.51	5.00
POINTSOURCE		TRASH04	89.0	89.0	89.0	Lw	89.0	120.00	30.00	90.00	0.0	5.00	a	6519072.30	2233278.49	5.00
POINTSOURCE		TRASH03	89.0	89.0	89.0	Lw	89.0	120.00	30.00	90.00	0.0	5.00	a	6518746.58	2233381.61	5.00
POINTSOURCE		TRASH02	89.0	89.0	89.0	Lw	89.0	120.00	30.00	90.00	0.0	5.00	a	6519375.11	2233134.46	5.00
POINTSOURCE		TRASH01	89.0	89.0	89.0	Lw	89.0	120.00	30.00	90.00	0.0	5.00	a	6519312.91	2233127.91	5.00
POINTSOURCE		AC01	88.9	88.9	88.9	Lw	88.9	468.00	117.00	252.00	0.0	5.00	g	6518961.00	2234033.06	25.00
POINTSOURCE		AC02	88.9	88.9	88.9	Lw	88.9	468.00	117.00	252.00	0.0	5.00	g	6519275.27	2234041.24	25.00
POINTSOURCE		AC03	88.9	88.9	88.9	Lw	88.9	468.00	117.00	252.00	0.0	5.00	g	6518785.86	2233664.78	25.00

Name	M.	ID	Result. PWL			Lw / Li		Operating Time			KO	Height		Coordinates			
			Day	Evening	Night	Type	Value	norm.	Day	Special		Night	(ft)	(ft)	X	Y	Z
			(dBA)	(dBA)	(dBA)				(min)	(min)		(min)			(dB)	(ft)	(ft)
POINTSOURCE		SEAT13	91.5	91.5	91.5	Lw	91.5		720.00	180.00	0.00	0.0	4.00	a	6519474.95	2233234.30	4.00
POINTSOURCE		SEAT14	91.5	91.5	91.5	Lw	91.5		720.00	180.00	0.00	0.0	4.00	a	6518936.45	2233389.80	4.00
POINTSOURCE		SEAT15	91.5	91.5	91.5	Lw	91.5		720.00	180.00	0.00	0.0	4.00	a	6518866.07	2233393.07	4.00
POINTSOURCE		SEAT16	91.5	91.5	91.5	Lw	91.5		720.00	180.00	0.00	0.0	4.00	a	6519429.12	2234042.88	4.00
POINTSOURCE		SEAT17	91.5	91.5	91.5	Lw	91.5		720.00	180.00	0.00	0.0	4.00	a	6519496.23	2233987.23	4.00
POINTSOURCE		SEAT18	91.5	91.5	91.5	Lw	91.5		720.00	180.00	0.00	0.0	4.00	a	6519489.69	2234044.51	4.00
POINTSOURCE		SEAT19	91.5	91.5	91.5	Lw	91.5		720.00	180.00	0.00	0.0	4.00	a	6519474.95	2233648.41	4.00
POINTSOURCE		SEAT20	91.5	91.5	91.5	Lw	91.5		720.00	180.00	0.00	0.0	4.00	a	6519473.32	2233710.61	4.00
POINTSOURCE		SEAT21	91.5	91.5	91.5	Lw	91.5		720.00	180.00	0.00	0.0	4.00	a	6519470.04	2233762.99	4.00
POINTSOURCE		SEAT22	91.5	91.5	91.5	Lw	91.5		720.00	180.00	0.00	0.0	4.00	a	6519532.24	2233412.71	4.00
POINTSOURCE		SEAT23	91.5	91.5	91.5	Lw	91.5		720.00	180.00	0.00	0.0	4.00	a	6519486.41	2233378.34	4.00
POINTSOURCE		SEAT24	91.5	91.5	91.5	Lw	91.5		720.00	180.00	0.00	0.0	4.00	a	6519535.52	2233348.88	4.00
POINTSOURCE		SEAT25	91.5	91.5	91.5	Lw	91.5		720.00	180.00	0.00	0.0	4.00	a	6519231.07	2233134.46	4.00
POINTSOURCE		SEAT26	91.5	91.5	91.5	Lw	91.5		720.00	180.00	0.00	0.0	4.00	a	6519154.14	2233127.91	4.00
POINTSOURCE		SEAT27	91.5	91.5	91.5	Lw	91.5		720.00	180.00	0.00	0.0	4.00	a	6519087.03	2233136.09	4.00
POINTSOURCE		SEAT28	91.5	91.5	91.5	Lw	91.5		720.00	180.00	0.00	0.0	4.00	a	6518736.76	2233995.41	4.00
POINTSOURCE		SEAT29	91.5	91.5	91.5	Lw	91.5		720.00	180.00	0.00	0.0	4.00	a	6518754.76	2233892.29	4.00
POINTSOURCE		SEAT30	91.5	91.5	91.5	Lw	91.5		720.00	180.00	0.00	0.0	4.00	a	6518759.67	2233949.58	4.00

Building(s)

Name	M.	ID	RB	Residents	Absorption	Height	Coordinates				
							Begin (ft)	x (ft)	y (ft)	z (ft)	Ground (ft)
BUILDING		BUILDING00001	x	0		20.00	a	6518737.43	2234074.16	20.00	0.00
								6518990.26	2234072.93	20.00	0.00
								6518993.96	2233998.93	20.00	0.00
								6518918.72	2234003.86	20.00	0.00
								6518749.76	2234006.33	20.00	0.00
BUILDING		BUILDING00002	x	0		20.00	a	6519245.55	2234067.99	20.00	0.00
								6519370.11	2234067.99	20.00	0.00
								6519373.81	2234011.26	20.00	0.00
								6519249.25	2234014.96	20.00	0.00
BUILDING		BUILDING00003	x	0		20.00	a	6519542.77	2234079.09	20.00	0.00
								6519616.77	2234081.56	20.00	0.00
								6519615.54	2233991.53	20.00	0.00
								6519547.71	2233996.46	20.00	0.00
BUILDING		BUILDING00004	x	0		20.00	a	6519519.34	2233762.14	20.00	0.00
								6519611.84	2233760.90	20.00	0.00
								6519614.30	2233635.11	20.00	0.00
								6519524.27	2233638.81	20.00	0.00
BUILDING		BUILDING00005	x	0		20.00	a	6519500.84	2233611.67	20.00	0.00
								6519601.97	2233609.21	20.00	0.00
								6519599.50	2233529.04	20.00	0.00
								6519500.84	2233527.81	20.00	0.00
BUILDING		BUILDING00006	x	0		20.00	a	6519547.71	2233479.71	20.00	0.00
								6519614.30	2233480.94	20.00	0.00
								6519615.54	2233374.88	20.00	0.00
								6519555.11	2233374.88	20.00	0.00
BUILDING		BUILDING00007	x	0		20.00	a	6519544.01	2233291.02	20.00	0.00
								6519614.30	2233289.78	20.00	0.00
								6519614.30	2233113.42	20.00	0.00
								6519545.24	2233112.19	20.00	0.00
BUILDING		BUILDING00008	x	0		20.00	a	6519418.21	2233188.65	20.00	0.00
								6519500.84	2233187.42	20.00	0.00
								6519502.07	2233128.22	20.00	0.00
								6519421.91	2233130.69	20.00	0.00
BUILDING		BUILDING00009	x	0		20.00	a	6519114.82	2233326.78	20.00	0.00
								6519193.75	2233328.02	20.00	0.00
								6519197.45	2233252.78	20.00	0.00
								6519117.28	2233254.02	20.00	0.00
BUILDING		BUILDING00010	x	0		20.00	a	6518738.66	2233802.83	20.00	0.00
								6518824.99	2233801.60	20.00	0.00
								6518829.93	2233626.47	20.00	0.00
								6518739.90	2233627.71	20.00	0.00
BUILDING		BUILDING00011	x	0		20.00	a	6518728.80	2233558.64	20.00	0.00
								6518844.73	2233557.41	20.00	0.00
								6518848.43	2233400.78	20.00	0.00
								6518731.26	2233399.55	20.00	0.00
BUILDING		BUILDING00012	x	0		20.00	a	6519460.14	2233945.90	20.00	0.00
								6519526.74	2233944.66	20.00	0.00
								6519526.74	2233838.60	20.00	0.00
								6519467.54	2233838.60	20.00	0.00

This page intentionally left blank

APPENDIX 10.1:

CADNAA CONSTRUCTION NOISE MODEL INPUTS

This page intentionally left blank

14271 - Rancho Monterey Specific Plan

CadnaA Noise Prediction Model: 14271_03 - Construction.cna

Date: 01.05.22

Analyst: S. Shami

Calculation Configuration

Configuration	
Parameter	Value
General	
Max. Error (dB)	0.00
Max. Search Radius #(Unit,LEN)	2000.01
Min. Dist Src to Rcvr	0.00
Partition	
Raster Factor	0.50
Max. Length of Section #(Unit,LEN)	999.99
Min. Length of Section #(Unit,LEN)	1.01
Min. Length of Section (%)	0.00
Proj. Line Sources	On
Proj. Area Sources	On
Ref. Time	
Reference Time Day (min)	960.00
Reference Time Night (min)	480.00
Daytime Penalty (dB)	0.00
Recr. Time Penalty (dB)	5.00
Night-time Penalty (dB)	10.00
DTM	
Standard Height (m)	0.00
Model of Terrain	Triangulation
Reflection	
max. Order of Reflection	2
Search Radius Src	100.00
Search Radius Rcvr	100.00
Max. Distance Source - Rcvr	1000.00 1000.00
Min. Distance Rcvr - Reflector	1.00 1.00
Min. Distance Source - Reflector	0.10
Industrial (ISO 9613)	
Lateral Diffraction	some Obj
Obst. within Area Src do not shield	On
Screening	Incl. Ground Att. over Barrier
	Dz with limit (20/25)
Barrier Coefficients C1,2,3	3.0 20.0 0.0
Temperature #(Unit,TEMP)	10
rel. Humidity (%)	70
Ground Absorption G	0.50
Wind Speed for Dir. #(Unit,SPEED)	3.0
Roads (RLS-90)	
Strictly acc. to RLS-90	
Railways (FTA/FRA)	
Aircraft (???)	
Strictly acc. to AzB	

Receiver Noise Levels

Name	M.	ID	Level Lr			Limit. Value			Land Use			Height	Coordinates			
			Day	Eve	Night	Day	Eve	Night	Type	Auto	Noise Type		X	Y	Z	
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)				(ft)	(ft)	(ft)	(ft)	
RECEIVERS	R1		60.4	60.4	60.4	65.0	60.0	55.0				5.00	a	6518841.51	2234144.62	5.00
RECEIVERS	R2		44.7	44.7	44.7	55.0	50.0	45.0				5.00	a	6520468.57	2231448.00	5.00
RECEIVERS	R3		48.7	48.7	48.7	55.0	50.0	45.0				5.00	a	6518958.15	2231755.30	5.00
RECEIVERS	R4		52.7	52.7	52.7	55.0	50.0	45.0				5.00	a	6518339.66	2232397.66	5.00
RECEIVERS	R5		45.4	45.4	45.4	55.0	50.0	45.0				5.00	a	6516553.64	2233474.05	5.00
RECEIVERS	R6		49.2	49.2	49.2	65.0	60.0	55.0				5.00	a	6517567.09	2234365.97	5.00

Area Source(s)

Name	M.	ID	Result. PWL			Result. PWL"			Lw / Li			Operating Time			Height
			Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Day	Special	Night	
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	(ft)
SITEBOUNDARY		CONSTRUCTION	115.0	115.0	115.0	63.6	63.6	63.6	Lw	115					8

Name	Height		Coordinates			
	Begin	End	x	y	z	Ground
	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)
SITEBOUNDARY	8.00	a	6518367.97	2234092.54	8.00	0.00
			6519633.87	2234100.19	8.00	0.00
			6519633.87	2233098.18	8.00	0.00
			6519031.51	2233094.35	8.00	0.00
			6519025.78	2232761.62	8.00	0.00
			6518371.79	2232753.97	8.00	0.00

APPENDIX E:

Rancho Monterey Specific Plan Transportation Impact Assessment

Fehr and Peers

October 2022

Rancho Monterey Specific Plan Transportation Impact Assessment

Prepared for:
MSA Consulting

October 2022

OC21-0816

FEHR  PEERS

Table of Contents

Executive Summary	i
1. Introduction	1
1.1 Study Purpose and Project Description.....	1
1.2 Report Organization.....	2
2. Analysis Methodology	4
2.1 LOS Analysis Methodology.....	4
2.2 LOS Analysis Study Area.....	5
2.3 Intersection Impact Criteria.....	5
2.4 Vehicle Miles Traveled (VMT).....	6
2.5 Traffic Volume Forecasting.....	6
2.6 Active Transportation and Public Transit Analysis.....	7
3. Existing Conditions	9
3.1 Roadway System.....	9
3.2 Existing Pedestrian and Bicycle Facilities.....	9
3.3 Existing Transit Service.....	11
3.4 Data Collection.....	17
4. Project Characteristics	19
4.1 Trip Generation.....	19
Trip Generate Rates.....	19
Pass-by rates.....	19
Internal Trip Capture.....	19
Trip Generation Estimates.....	22
4.2 Trip Distribution and Assignment.....	22
Trip Distribution.....	22
5. Level of Service (LOS) Analysis	24
5.1 Analysis Scenarios.....	24
Existing (2022) Conditions.....	25
5.2 Opening Year (2023) Conditions Intersection Operations Analysis.....	27
Approved Development Projects.....	27
Opening Year (2023) No Project Conditions.....	27
Opening Year (2023) Plus Project Alternative 1 Conditions.....	27
Opening Year (2023) Plus Project Alternative 2 Conditions.....	27

Traffic Signal Warrant Analysis.....	32
5.3 Future Year (2040) Conditions Intersection Operations Analysis.....	33
Future Year (2040) No Project Conditions.....	33
Future Year (2040) Plus Project Alternative 1 Conditions	33
Future Year (2040) Plus Project Alternative 2 Conditions	33
Traffic Signal Warrant Analysis.....	38
6. On-Site Circulation and Site Access Review	39
7. Vehicle Miles Traveled Impact Analysis.....	40
7.1 VMT Screening Assessment	40
7.2 Local-Serving Retail Screening.....	40
7.3 Map-Based Screening.....	41
7.4 Modeling Methodology.....	41
7.5 VMT Assessment.....	41
7.6 Key Findings	42
8. Active Transportation and Public Impact Analysis.....	44
8.1 Active Transportation Analysis.....	44
8.2 Public Transit Analysis	44

Appendices

Appendix A: Scoping Memo

Appendix B: Roadway Capacity Assessment Memo

Appendix C: Cumulative Projects List

Appendix D: Level of Service (LOS) Analysis Reports

Appendix E: Peak Hour Volumes from RIVCOM

Appendix F: Traffic Signal Warrants

Appendix G: Traffic Counts

List of Figures

Figure 1: Study Area.....	3
Figure 2: Study Intersections	8
Figure 3: Bicycle Facilities.....	12
Figure 4: Trail Facilities.....	13
Figure 5: Fixed-Route Transit Facilities	15
Figure 6: On-Demand Transit Facilities	16
Figure 7: Project Trip Distribution	23
Figure 8: Existing (2022) Conditions.....	26
Figure 9: Opening Year (2023) No Project Conditions.....	29
Figure 10: Opening Year (2023) Plus Project Alternative 1 Conditions	30
Figure 11: Opening Year (2023) Plus Project Alternative 2 Conditions	31
Figure 12: Future Year (2040) No Project Conditions.....	35
Figure 13: Future Year (2040) Plus Project Alternative 1 Conditions.....	36
Figure 14: Future Year (2040) Plus Project Alternative 2 Conditions.....	37
Figure 15: RIVCOM TAZ 1884 (Google Maps and Aerial Image Overlay).....	43

List of Tables

Table 1: Intersection Level of Service (LOS) Grades	4
Table 2: Regional and Local Access to Project	10
Table 3: Fixed Route Bus Transit Service.....	14
Table 4: Project Trip Generation Estimates.....	21
Table 5: Existing (2022) No Project Intersection Level of Service	25
Table 6: Opening Year (2023) Intersection Level of Service.....	28
Table 7: Opening Year (2023) Plus Project Signal Warrant Analysis.....	32
Table 8: Future Year (2040) Intersection Level of Service	34
Table 9: Future Year (2040) Plus Project Signal Warrant Analysis	38

Executive Summary

Fehr & Peers prepared this transportation impact assessment for Rancho Monterey Specific Plan Amendment (Project) located in Rancho Mirage, California. This study was developed in coordination with the City of Rancho Mirage. The Project proposes to develop approximately 35 acres to include up to 150,000 square feet of commercial use and 400 dwelling units.

As part of the study, and consistent with City of Rancho Mirage and Riverside County Congestion Management Plan (CMP) requirements, the following scenarios were analyzed:

- Existing (2022) Conditions
- Opening Year (2023) No Project Conditions, Plus Project Alternative 1 Conditions (With a proposed roadway connection completed), and Plus Project Alternative 2 Conditions (With no proposed roadway connection)
- Future Year (2040) No Project Conditions, Plus Project Alternative 1 Conditions (With a proposed roadway connection completed), and Plus Project Alternative 2 Conditions (With no proposed roadway connection)

Traffic forecasts for each scenario, with and without project alternatives, were prepared and Level of Service (LOS) calculations were prepared to identify any intersection operational deficiencies. Under Opening Year (2023) and Future Year (2040) with and without project conditions, all intersections operate at LOS D or better.

A Vehicle Miles Traveled (VMT) assessment was also performed to review potential significant impacts associated with the Project. The retail and residential components of the Project are both anticipated to be screened (consistent with the City's screening criteria) from VMT assessment and thus can be presumed to result in a less-than-significant impact related to VMT based on the City of Rancho Mirage's VMT Policy.

The Project land use plan does not have a specific site plan to review site access or potential impacts to active transportation modes. We recommend a more detailed review at the time of the site plan submittal. However, the plan as proposed is anticipated to result in adequate site access and not conflict with existing or proposed pedestrian, bicycle or transit facilities.

1. Introduction

This report presents the analysis and findings of the transportation impact assessment prepared in support of the Rancho Monterey Specific Plan Amendment (Project) to the Rancho Monterey Section 30 Specific Plan (Section 30 SP) located in Rancho Mirage, California. This chapter discusses the transportation study purpose, project description and report organization.

1.1 Study Purpose and Project Description

The Project is a 35-acre planning area within the Monterey Specific Plan that proposes a mixed-use project (Project) on the west side of Monterey Avenue within the corporate limits of Rancho Mirage, California. The land use allows for medium density residential and commercial uses. This Project would replace the portion of the existing Specific Plan and establish site-specific development standards, land use regulations, and programs to guide the development of the property in a manner that is consistent with the Rancho Mirage General Plan while also maintaining flexibility to respond to changing conditions that factor in any long-term development.

The Project proposes a mixed-use development, as shown in **Figure 1**, that would allow up to the following land uses:

- PA-1 Community Commercial: 400 medium rise dwelling units (2-3 stories)
- PA-2 Mixed-Use: 150,000 square feet of retail use

The Project would have multiple direct access points through proposed driveways on Monterey Avenue, Dick Kelly Drive (future) and Via Vail (future). It is anticipated that Monterey Avenue would have three right in/right out driveways, Dick Kelly Drive (future) would have two right in/left out driveways, and Via Vail would have one proposed full access driveway from the northwest corner of the Project site. One major, signalized access intersection is proposed on Monterey Avenue that would line up with the driveway access to the adjacent shopping center across from the Project. All other driveways along Monterey Avenue are assumed to be right-in/right-out only. Other driveways on Dick Kelly and Via Vail are assumed to be full-access driveways.

The Section 30 SP plans for the following roadways:

- A roadway that would connect Monterey Avenue to Via Vail midway between Dinah Shore Drive and Dick Kelly Drive. The Project applicant has identified difficulties in constructing this roadway due to existing site conditions related to grade and the proximity to the loading zone access from Monterey Avenue behind the existing Home Depot. Fehr & Peers prepared a supplemental analysis that reviewed roadway capacity for Section 30 SP that concluded that the roadway connection was not needed to provide acceptable access to the Section 30 SP area. The supplemental analysis was presented in

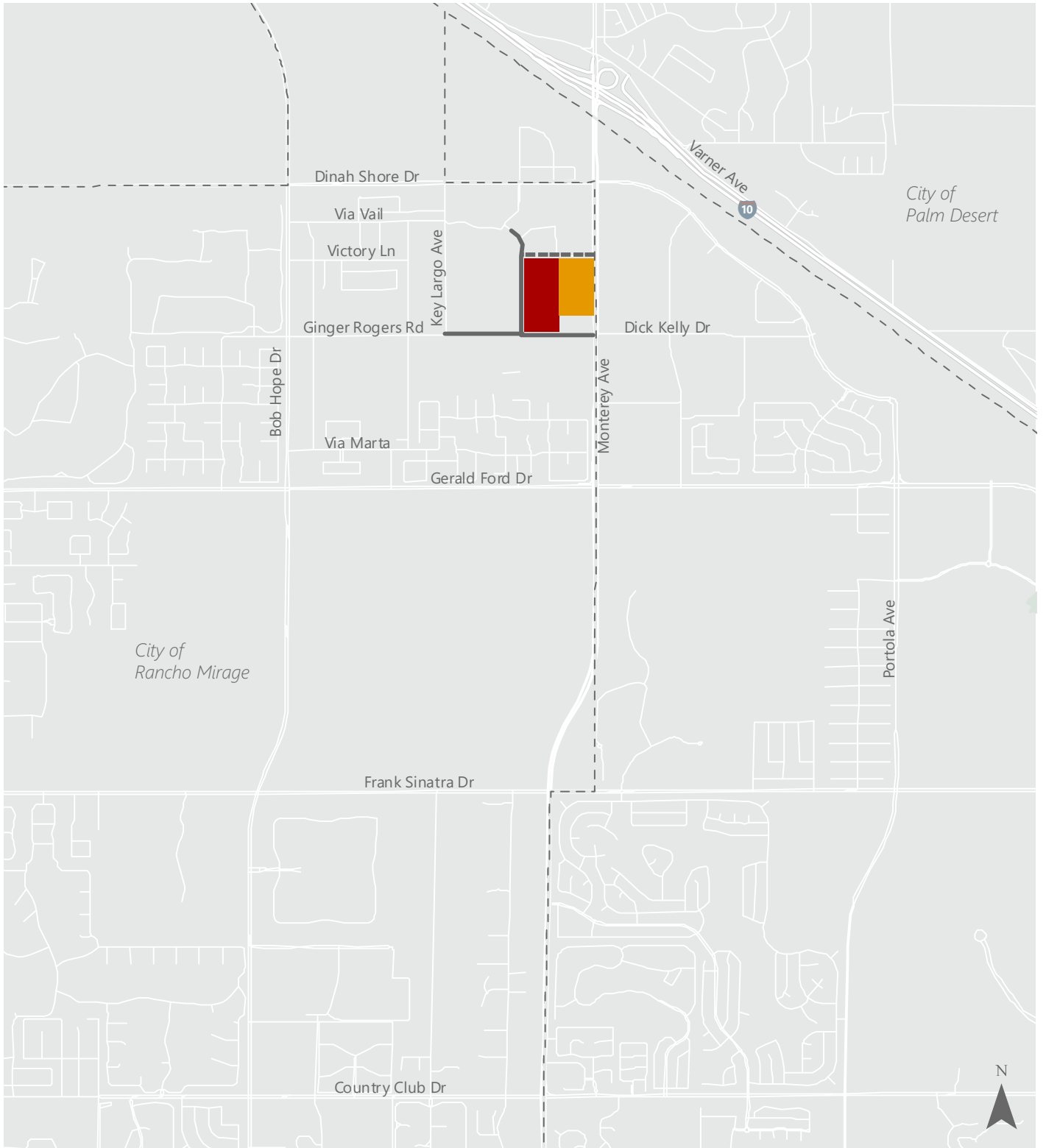
a memorandum that is included as **Appendix B**. This analysis was further reviewed at the peak hour level in this assessment by studying Project alternatives with and without the roadway.

- The extension of Dick Kelly Drive west to connect with Via Florencia. This extension would border the Project to the south.
- The extension of Via Vail east and south to connect with the Dick Kelly Extension. This roadway would border the Project to the west.

1.2 Report Organization

The report is divided into eight chapters as described below:

- **Chapter 1 – Introduction** discusses the purpose and organization of the report.
- **Chapter 2 – Analysis Methodology** describes the criteria used to prepare traffic forecasts and analyze Level of Service (LOS) and Vehicle Miles Traveled (VMT).
- **Chapter 3 – Existing Conditions** describes the transportation system in the Project vicinity, including the surrounding roadway network, morning and evening peak period intersection turning movement volumes, and existing bicycle, pedestrian, and transit facilities.
- **Chapter 4 – Project Characteristics** presents relevant Project information, such as the Project components and Project trip generation, distribution, and assignment.
- **Chapter 5 – Level of Service Analysis** describes the LOS results for the Existing (2022), Opening Year (2023), Future Year (2040) analysis scenarios.
- **Chapter 6 – On-Site Circulation and Site Access Review** describes Project access and circulation for all travel modes.
- **Chapter 7 – Vehicle Miles Traveled Impact Analysis** presents the results of the VMT assessment conducted for the Project per California Environmental Quality Act (CEQA) requirements.
- **Chapter 8 – Active Transportation and Public Transit Impact Analysis** presents the review of potential impacts to active transportation and transit per CEQA requirements.



- PA-1 Commercial Site
- PA-2 Mixed-Use Site
- Future Road
- Proposed Road
- City Boundary



Figure 1



Study Area

2. Analysis Methodology

This section describes the criteria used to prepare traffic volume forecasts analyzing Level of Service (LOS), and Vehicle Miles Traveled (VMT). This methodology was approved by the City through the scoping process provided as **Appendix A**.

2.1 LOS Analysis Methodology

Intersection operating conditions in the study area were evaluated using the *Highway Capacity Manual (HCM) 6th Edition* Transportation Research Board (TRB) methodology, which is considered the state-of-the-practice methodology for evaluating intersection operations and is consistent with the City of Rancho Mirage, City of Palm Desert, County of Riverside, and Caltrans.

The HCM 6th Edition methodology for signalized intersections estimates the average control delay for vehicles at the intersection. After the quantitative delay estimates are complete, the methodology assigns a qualitative letter grade that represents the operations of the intersection. These grades range from LOS A (minimal delay) to LOS F (excessive congestion). LOS E represents at-capacity operations. Descriptions of the LOS letter grades for signalized and unsignalized intersections are provided in **Table 1**.

Table 1: Intersection Level of Service (LOS) Grades

Level of Service	Description	Signalized Volume-to-Capacity (V/C) Ratio	Signalized Delay (Seconds)	Unsignalized Delay (Seconds)
A	Operations with very low delay occurring with favorable progression and/or short cycle length	0.000-0.600	≤ 10.0	≤ 10.0
B	Operations with low delay occurring with good progression and/or short cycle lengths	0.601-0.700	> 10.0 to 20.0	> 10.0 to 15.0
C	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear	0.701-0.800	> 20.0 to 35.0	> 15.0 to 25.0
D	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable	0.801-0.900	> 35.0 to 55.0	> 25.0 to 35.0
E	Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences	0.901-1.000	> 55.0 to 80.0	> 35.0 to 50.0
F	Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths	Greater than 1.000	> 80.0	> 50.0

Source: *Highway Capacity Manual* 6th Edition (Transportation Research Board, 2017).

The following factors were applied in the intersection analysis:

- Peak Hour Factor (PHF) were based on traffic counts collected in the field for all Existing and Opening Year Conditions Analysis.
- PHF for all future analysis were set to 0.95 unless the existing PHF was higher.
- Heavy vehicle percentage were set to 2% for all analysis scenarios.

2.2 LOS Analysis Study Area

Project generation and trip distribution, discussed in detail later in this report, were used to identify study intersections. Consistent with Riverside County CMP requirements, intersections classified as collectors or higher that the Project is anticipated to add 50 or more peak hour trips to were chosen as study intersections.

Figure 2 shows the Project study area and proposed study intersections. The proposed study locations for the Project are:

1. Monterey Avenue & Varner Road
2. Monterey Avenue & I-10 Eastbound Ramps
3. Key Largo Avenue & Dinah Shore Drive
4. Monterey Avenue & Dinah Shore Drive
5. Monterey Avenue & Proposed Roadway Connection (Project Alternative 1 Only)
6. Monterey Avenue & Proposed Project Access Driveway
7. Monterey Avenue & Dick Kelly Drive
8. Monterey Avenue & Gerald Ford Drive
9. Monterey Avenue & Frank Sinatra Drive
10. Monterey Avenue & Country Club Drive

2.3 Intersection Impact Criteria

The Project is anticipated to add traffic to facilities in multiple jurisdictions and therefore each jurisdiction's LOS criteria was applied as appropriate. Based on the City of Rancho Mirage, City of Palm Desert, Caltrans, and the County of Riverside guidelines regarding traffic impact analyses, the following performance criteria and thresholds of significance were used to determine impacts at study facilities.

- **City of Rancho Mirage** – The City has adopted LOS "D" as the minimum acceptable standard for intersection operations.
- **The City of Palm Desert** – The City has adopted LOS "D" as the minimum acceptable standard for intersection operations.
- **Caltrans** – Caltrans no longer defines acceptable LOS standards with their latest adoption of the *Vehicle Miles Traveled-Focused Transportation Impact Study Guide (TISG)*, May 2020.

This study assumes City of Rancho Mirage LOS "D" minimum acceptable standard at Caltrans locations.

- **Riverside CMP** – Riverside County Transportation Commission (RCTC), as the congestion management agency, has set LOS E as the minimum acceptable threshold for CMP facilities. However, the CMP states that local agency thresholds should be applied as long as they provide improved service levels compared to the CMP requirements. Given that the adopted LOS standards from the City of Rancho Mirage exceed the CMP thresholds, the local thresholds were applied for the assessment.
- **County of Riverside Transportation Analysis Guidelines** – The County's General Plan requires traffic impact assessments for proposed development projects. The analysis requires the LOS analysis to maintain consistency with the County General Plan policies and a VMT analysis to evaluate the project impacts. The Project is within the Western Coachella Valley Area Plan which identifies LOS "D" as the minimum acceptable standard for intersection operations.

2.4 Vehicle Miles Traveled (VMT)

A Project specific VMT assessment was performed for the Project consistent with the Rancho Mirage's Transportation Analysis Policy adopted in June 2020 (updated in February 2021). This Policy aligns the City's transportation analysis with California Senate Bill 743 (SB 743) and the City's goals as set forth in the Rancho Mirage General Plan updated in 2017. As required by SB 743, VMT will replace the former metric used to analyze traffic impacts which was LOS. This policy introduces VMT as the metric to measure transportation environmental impacts in conformance with the CEQA and establishes the thresholds for transportation impacts. According to Table 1 of the Policy, retail project types (including hotel) would result in a significant impact if the project caused a net increase in the total existing VMT for the region.

2.5 Traffic Volume Forecasting

RIVCOM is considered as the most appropriate tool for testing changes in land use and roadway network in Riverside County, and was used to develop traffic volume forecasts for this study. RIVCOM uses a 2018 base year, a 2045 future year, and Socioeconomic Data (SED) consistent with the Southern California Association of Governments (SCAG) 2020 Regional Transportation Plan (RTP) model.

The Base Year and Future Year models produce link and intersection turning movement volumes. National Cooperative Highway Research Program (NCHRP) Report 765 prescribes a variety of methods for developing intersection turning movement volume forecasts from travel demand model outputs. For typical applications, the Base Year and Future Year model outputs are compared to one another and are used in conjunction with existing traffic counts to develop future traffic forecasts. In this study, the proportional difference between the Base Year and

Future Year model outputs were utilized to interpolate the 2023 and 2040 volume forecasts. This method is known as the difference method and is a state of the practice approach consistent with NCHRP Report 765. RIVCOM model peak hour traffic volume plots used for preparing traffic volume forecasts are provided as **Appendix E**.

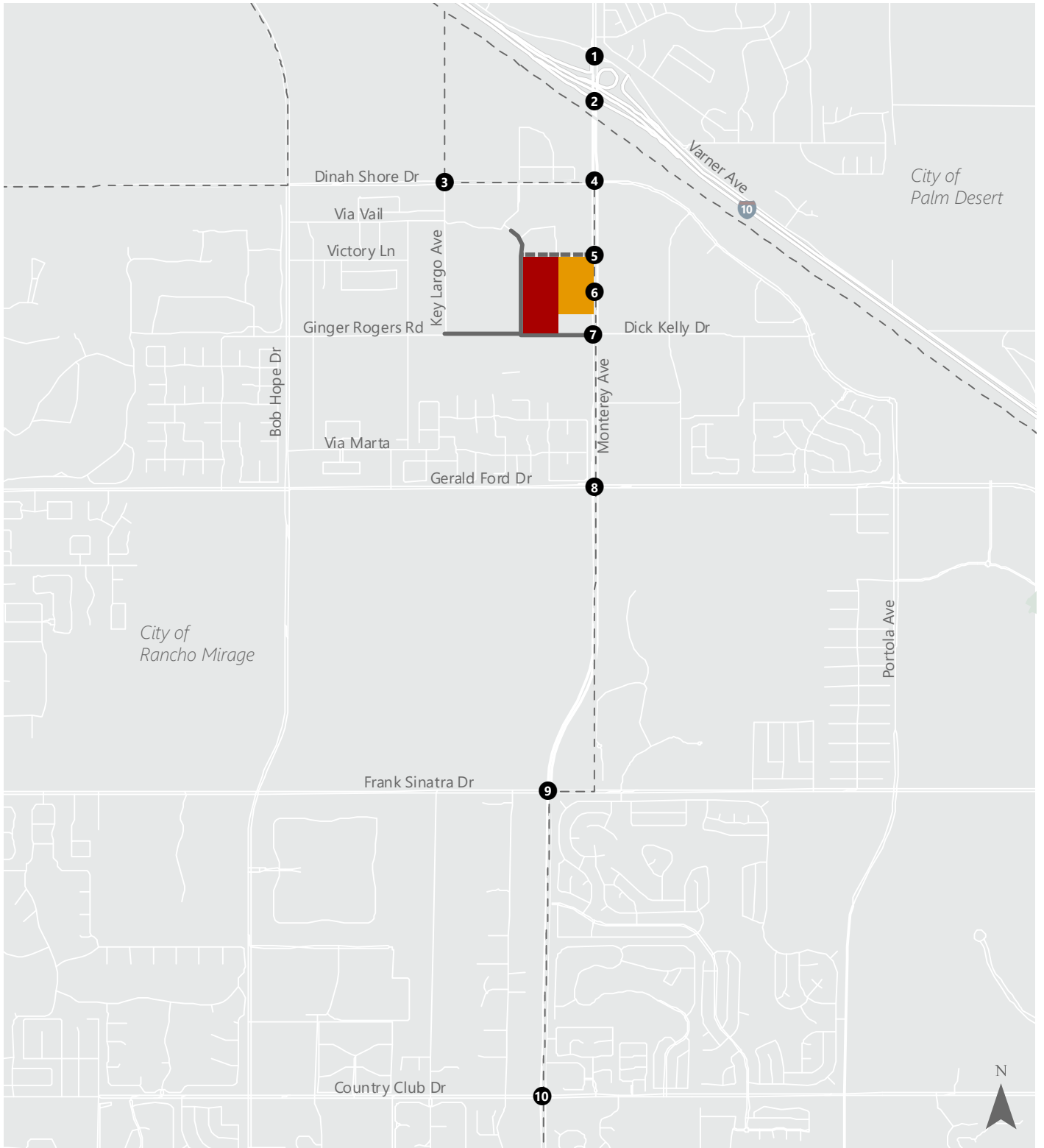
2.6 Active Transportation and Public Transit Analysis

Potential impacts to public transit, pedestrian facilities and travel, and bicycle facilities and travel can be evaluated using the following criteria.

- A significant impact occurs if the project conflicts with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decreases the performance¹ or safety of such facilities.

Therefore, the assessment includes analysis of a project to examine if it is inconsistent with adopted policies, plans, or programs regarding active transportation or public transit facilities, or otherwise decreases the performance or safety of such facilities and determine as to whether it has the potential to conflict with existing or proposed facilities supporting these travel modes.

¹ Per the OPR Technical Advisory, decrease of performance does not include increase in users.



- Study Intersections
- PA-1 Commercial Site
- PA-2 Mixed-Use Site
- Future Road
- - - Proposed Road
- ⋮ City Boundary

AM(PM) Peak Hour Traffic Volume



Figure 2

Study Intersections



3. Existing Conditions

This chapter describes transportation facilities in the Project study area, including the surrounding roadway network, transit, pedestrian, and bicycle facilities in the Project site vicinity. Existing (2022) intersection operations are also described.

3.1 Roadway System

The Project site is located northwest of the Monterey Avenue and Dick Kelly Drive intersection. Regional access to the site vicinity is provided by State Route 111 and the Interstate 10 highway. Local access is provided by a multitude of roadways including Monterey Avenue, Dinah Shore Drive, Gerald Ford Drive, and Bob Hope Drive. Characteristics of these regional and local access roadways are provided in **Table 2**.

3.2 Existing Pedestrian and Bicycle Facilities

The City of Rancho Mirage maintains more than 50 miles of sidewalks, bicycle lanes, golf cart paths, and multi-use trails within existing roadways and rights-of-way. Pedestrian facilities throughout Rancho Mirage are well developed along most major roadways adjacent to developed residential areas. However, several roads within the study area have undeveloped or discontinuous sidewalks. Within and adjacent to the Project area, sidewalks are provided on only one side of the street, or sidewalks are not available at all. Connectivity is limited throughout the study area due to adjacent undeveloped parcels. Sidewalks are currently provided on Monterey Avenue along the Project site frontage. At the existing signalized intersections in the area, crosswalks and pedestrian push-button actuated signals are provided.

Most major streets in Rancho Mirage and Palm Desert provide bicycle facilities. Due to the heavy presence of golf courses in the Rancho Mirage, many of the Class II facilities also accommodate golf carts. Bicycle facility classifications in Rancho Mirage include the following:

- **Class I Bikeways (Bike Paths)** - Class I bicycle facilities are bicycle trails or paths that are off-street and separated from automobiles. They are a minimum of eight feet in width for two-way travel and include bike lane signage and designated street crossings where needed. A Class I Bike Path may parallel a roadway (within the parkway) or may be a separate right-of-way that meanders through a neighborhood or along a flood control channel or utility right-of-way.
- **Class II Bikeways (Bike Lanes)** – Class II bicycle facilities are striped lanes that provide bike travel and can be either located next to a curb or parking lane. If located next to a curb, a minimum width of five feet is recommended. However, a bike lane adjacent to a parking lane can be four feet in width. Bike lanes are exclusively for the use of bicycles and include bike lane signage, special lane lines, and pavement markings.

Table 2: Regional and Local Access to Project

Roadway	Direction	Relative Location ²	# Lanes	Posted Speed (mph)	Designation	Jurisdiction
Regional Access						
Interstate 10	East-West	North	6-8	70	Interstate highway	State of California
Local Access						
Dinah Shore Drive	East-West	North	4-6	50	Minor Arterial 4D ³ , Designated Truck Route ³	City of Rancho Mirage
Monterey Avenue	North-South	East	4-6	50-55	Major Arterial 6D ³ , Vehicular Oriented Arterial ⁴ , Designated Truck Route ^{3,4}	City of Rancho Mirage, City of Palm Desert
Key Largo Avenue	North-South	West	2		Minor Collector	City of Rancho Mirage
Via Vail (future)	East-West	North	2		Minor Collector	City of Rancho Mirage
Dick Kelly Drive (future)	East-West	South	4	45	Secondary Street ⁴ , Time Restricted Truck Route (west of Bob Hope Drive) ³ , Designated Truck Route (east of Monterey Avenue) ^{3,4}	City of Palm Desert

Notes

1. Reported characteristics reflect conditions on the roadway segment nearest to the Project.
2. Location of the roadway relative to the Project site.
3. City of Rancho Mirage General Plan roadway designation as set forth in the City of Rancho Mirage General Plan Circulation Element, adopted in 2017. 6D = Six-lane Divided Roadway. 4D = Four-lane Divided Roadway.
4. The City of Palm Desert General Plan roadway designation as set forth in the City of Palm Desert General Plan Mobility Element, adopted in 2016.
5. The City of Rancho Mirage has assumed responsibility of this facility within the city limits.

Sources

- Fehr and Peers, 2022.
- City of Palm Desert General Plan, 2016.
- City of Rancho Mirage General Plan, 2017.

- **Class III Bikeways (Bike Routes)** – Class III bicycles facilities are streets providing for shared use by motor vehicles and bicyclists. While bicyclists have no exclusive use or priority, signage both by the side of the street and stenciled on the roadway surfaces alerts motorists to bicyclists sharing the roadway space and denotes that the street is an official bike route.

Existing and planned bicycle facilities are displayed in **Figure 3**. The following bicycle facilities—all Class II Bikeways—are located within the study area:

- Bob Hope Drive between Ramon Road and Clancy Lane
- Monterey Avenue between Dinah Shore Drive and Country Club Drive
- Gerald Ford Drive east of Los Alamos Road
- Country Club Drive east of Morningside Drive

The following existing multi-purpose trails are located within the study area, as illustrated in **Figure 4**:

- Via Vail between Landy Lane and Key Largo Avenue
- Victory Lane between Landy Lane and Key Largo Avenue
- Via Marta Avenue between Landy Lane and Key Largo Avenue
- Portions of Landy Lane
- Portions of Via Josefina

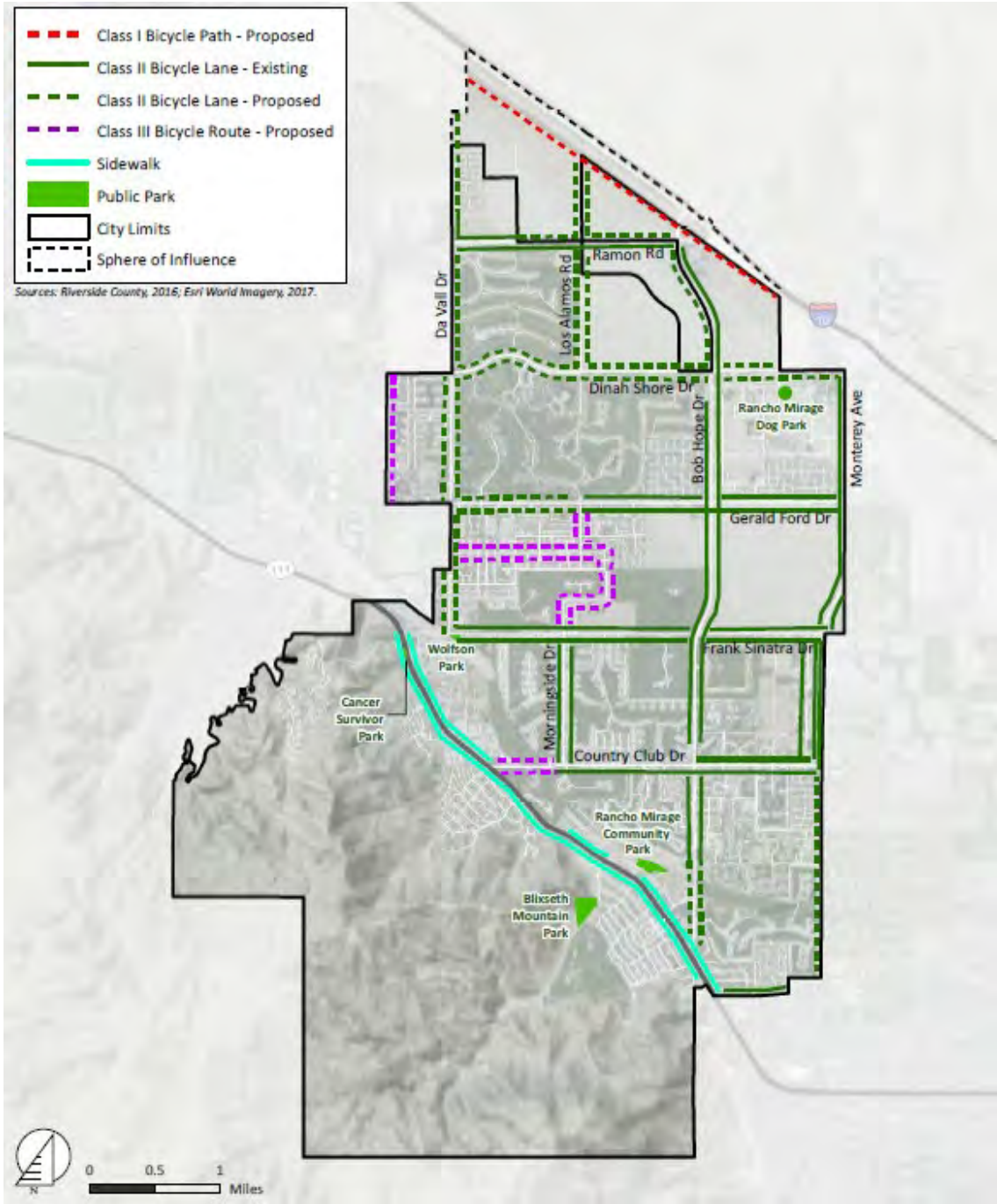
3.3 Existing Transit Service

SunLine Transit Agency provides local transit service throughout Coachella Valley including the Cities of Rancho Mirage and Palm Desert. Through the SunLine Refueled transit overhaul that began its initial phase in January 2021, the agency operates bus transit services in the city through fixed route and demand-response services.

Six fixed-route bus routes run through the city and connect to the neighboring cities of Palm Springs, Cathedral City, Coachella, and Indio. The routes serve major destinations in the region and connect Coachella Valley to Beaumont, Banning, Cabazon, Moreno Valley, and Riverside. Within Rancho Mirage, bus routes run on major roadways, including Ramon Road, Monterey Avenue, and Bob Hope Drive. Single ride fares range from \$0.25-\$1.00. Fixed route bus services that run in the Project vicinity are summarized in **Table 3**, and visualized in **Figure 5**.

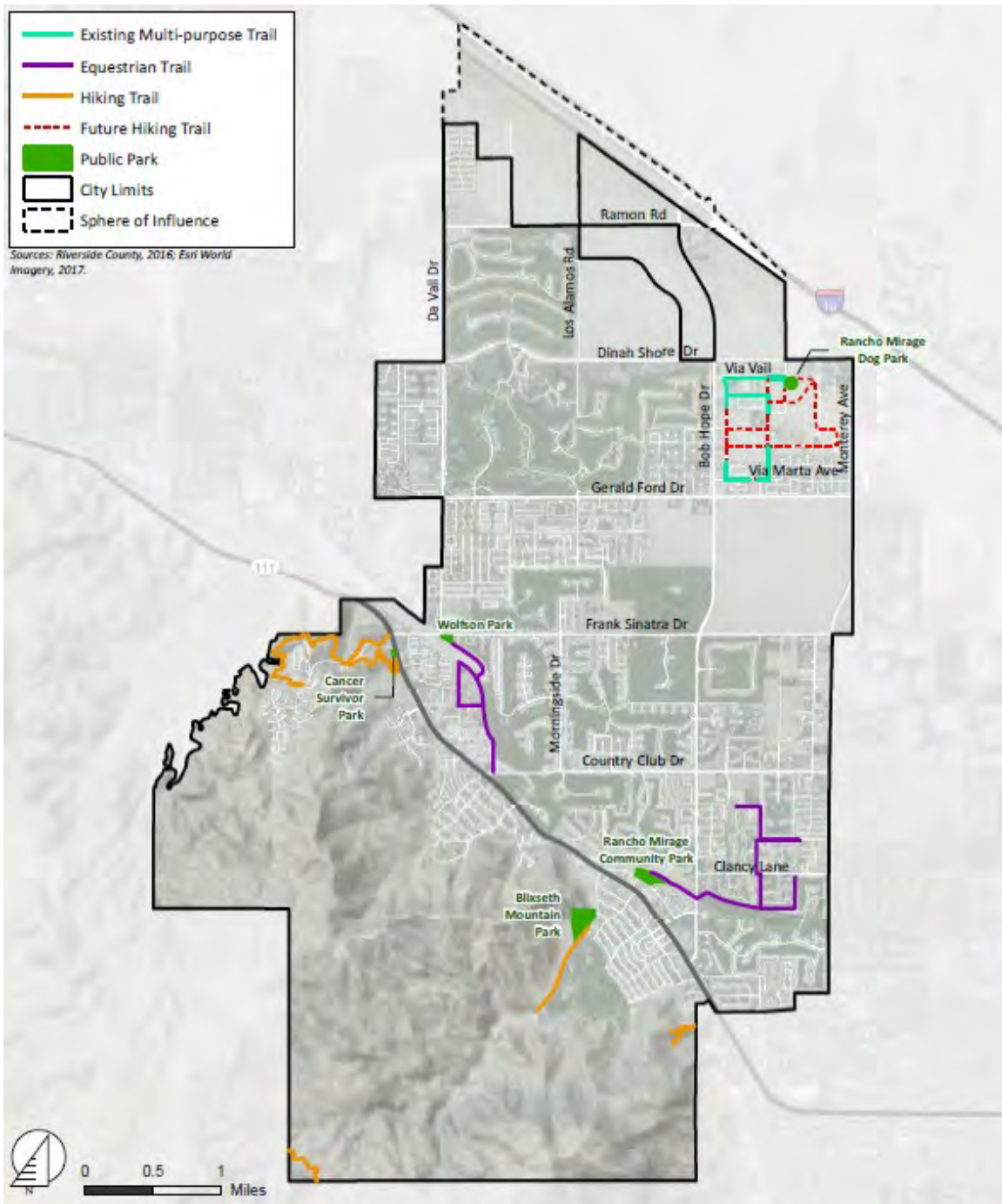
SunLine Transit Agency also operates the 10 Commuter Link, a weekday commuter service that enables riders traveling to and from the Coachella Valley to travel reliably and for a low cost. The roundtrip regional route, created in partnership with California State University San Bernardino, has a westbound schedule with four trips departing the terminus between 5:20 AM and 2:50 PM,

Figure 3: Bicycle Facilities



Source: City of Rancho Mirage General Plan, 2017

Figure 4: Trail Facilities



Source: City of Rancho Mirage General Plan, 2017

and an eastbound schedule with four trips departing the terminus between at 8:45 AM and 5:45 PM. Single ride fare for those not affiliated with the University ranges from \$4-\$6.

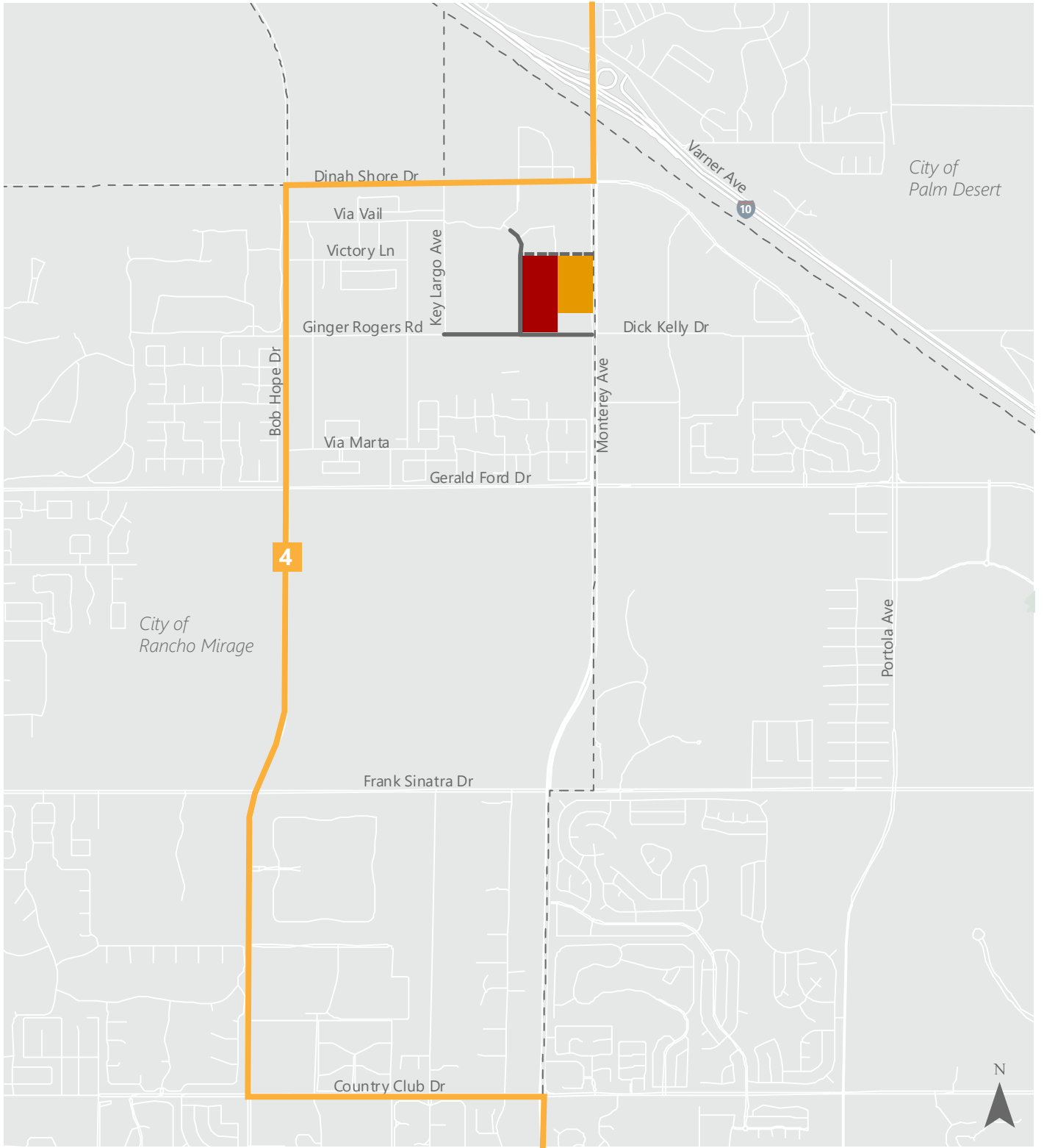
SunRide is an on-demand door-to-bus stop service available within designated areas of Coachella, Mecca, Desert Edge, and Palm Desert. Per the agency website, SunRide is a microtransit service available in four Coachella Valley zones to connect riders to the fixed-route network or to any destination along a fixed-route network in the designated zone. The Project site falls within the Palm Desert zone, where riders are connected to bus Routes 1, 4, 5, and 6 within the geofence, as shown in **Figure 6**. Riders use the service with a smartphone app, calls for a SunRide vehicle to pick them up at a destination within the designated zones and/or bus stops. The fare is \$3 and includes a free transfer to SunLine local routes. The service is available weekdays between 5:30 AM and 6:30 PM.

Table 3: Fixed Route Bus Transit Service

Route	Direction	Operating Hours ¹	Peak Headway
1	Coachella - Palm Springs	5:00 AM-11:00 PM	20 minutes
4	Westfield Palm Desert - Palm Springs	6:10 AM-9:50 PM	60 minutes
5	Desert Hot Springs - CSUSB (PDC) - Westfield Palm Desert	6:10 AM-6:50 PM (weekday only)	60 minutes
6	Coachella - Westfield Palm Desert	6:15 AM-9:00 PM	60 minutes
1X	Express to Indio - Express to Palm Springs (coming 2022)	-	-

Notes

1. In response to the ongoing COVID-19 pandemic, SunLine has modified its transit service. The headways and operating hours in this table reflect "Level 2" modified service conditions effective as of October 2021.



- PA-1 Commercial Site
- PA-2 Mixed-Use Site
- Transit Route
- Future Road
- Proposed Road
- City Boundary

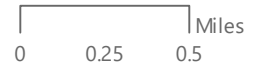
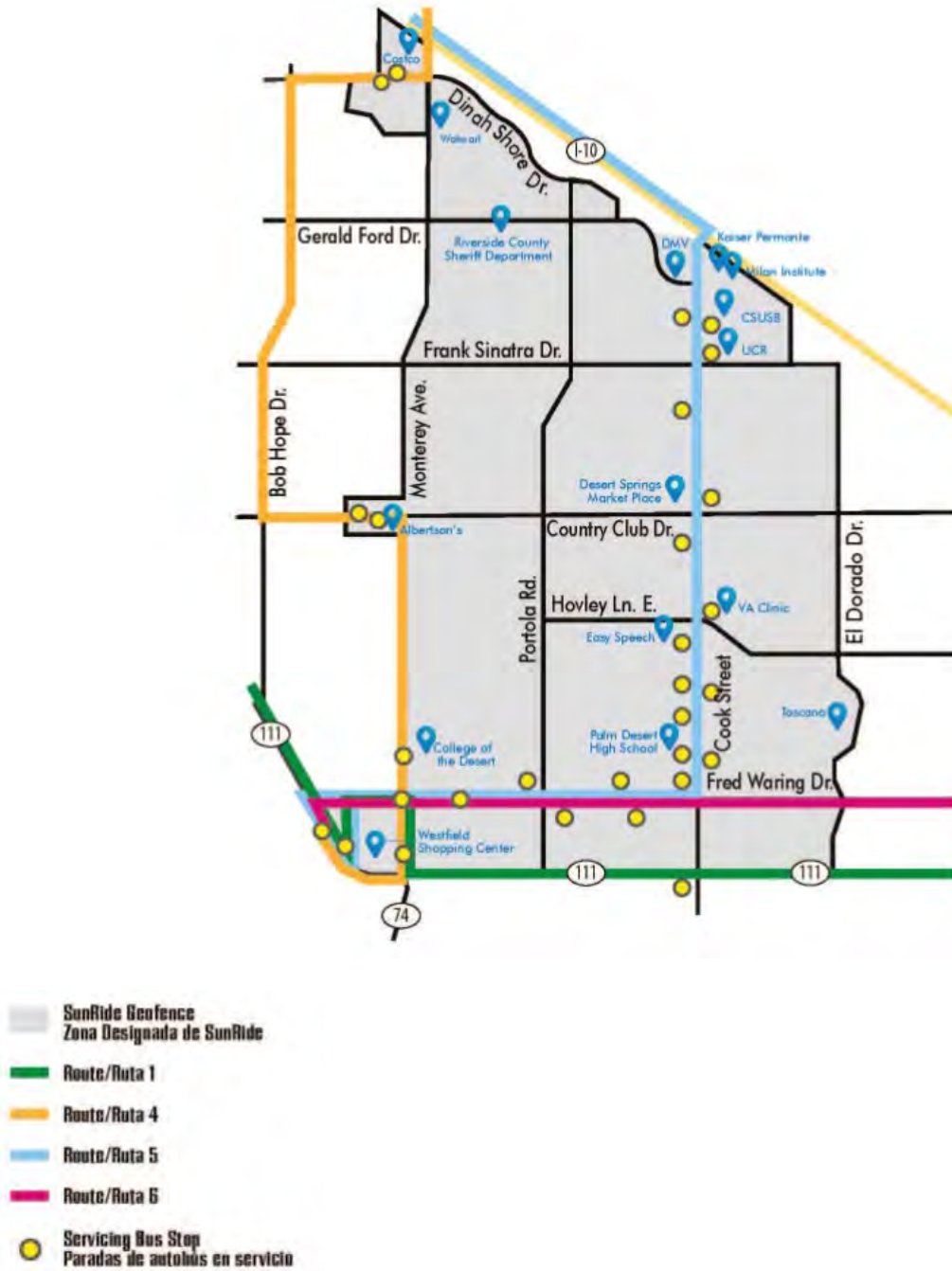


Figure 5



Figure 6: On-Demand Transit Facilities



3.4 Data Collection

Traffic counts were collected in October of 2021 during AM peak period (7-9 AM) and PM peak period (4-6 PM) for the following study locations:

1. Monterey Avenue & Varner Avenue
2. Monterey Avenue & I-10 Eastbound Ramps
3. Key Largo Avenue & Dinah Shore Drive
4. Monterey Avenue & Dinah Shore Drive
6. Monterey Avenue & Proposed Project Access Driveway
7. Monterey Avenue & Dick Kelly Drive
8. Monterey Avenue & Gerald Ford Drive
9. Monterey Avenue & Frank Sinatra Drive
10. Monterey Avenue & Country Club Drive

Please note that the proposed intersection #5 of Monterey Avenue & Proposed Roadway Connection (Project Alternative 1 Only) does not currently exist and counts were not collected here. Counts were collected during fair weather, while school was in session, and during a typical (non-holiday) Tuesday. Due to the seasonal nature of the Coachella Valley, traffic counts are known to be highest in the months of January and April. To meet the desired project schedule, Fehr & Peers initially collected counts in October of 2021 and validated those counts against counts recollected at the following four locations collected in February 2022:

3. Key Largo Avenue & Dinah Shore Drive
4. Monterey Avenue & Dinah Shore Drive
7. Monterey Avenue & Dick Kelly Drive
8. Monterey Avenue & Gerald Ford Drive

Upon review of the February 2022 traffic counts, we observed that the February counts were between 3-6% higher than the October 2021 counts. To provide a conservative assessment, we grew all of the October 2021 counts by 6% to represent Existing (2022) Conditions. All traffic counts collected are provided in **Appendix G**.

Fehr & Peers collected the following information in a field visit to the study area:

- Lane configurations
- Signal phasing
- Land uses in the study area
- Existing pedestrian and bicycle facilities
- On-street parking conditions
- Transit service

Fehr & Peers requested the following from the City of Rancho Mirage, City of Palm Desert, Riverside County and Caltrans for use in the study:

- Traffic signal timing information at all signalized intersections
- Pending and approved development projects within a two-mile radius

4. Project Characteristics

This chapter provides an overview of the Project components and addresses the Project trip generation, distribution, and assignment characteristics, allowing for an evaluation of Project impacts on the surrounding roadway network. The amount of traffic associated with the Project was estimated using a three-step process:

1. **Trip Generation** – The *amount* of vehicle traffic entering/exiting the Project site was estimated.
2. **Trip Distribution** – The *direction* trips would use to approach and depart the site was projected.
3. **Trip Assignment** – Trips were then *assigned* to specific roadway segments and intersection turning movements.

4.1 Trip Generation

Trip Generate Rates

Trip generation rates from *Trip Generation Manual, 10th Edition* (Institute of Transportation Engineers [ITE], 2017) were used to estimate the number of net new trips associated with the Project. Trip generation rates and trip generation estimates are presented in **Table 4**. ITE trip generation rates for Shopping Center (ITE Code 820) were chosen to represent the retail use and Multi-Family Housing (Low-Rise containing one or two floors) (ITE Code 220) was chosen to represent the housing units.

Pass-by rates

Rates published in the *ITE Trip Generation Handbook, 3rd Edition* were referenced to estimate appropriate pass-by reductions for the Project land uses. Pass-by trips are assumed to be trips already traveling on Monterey Avenue that stop at a near-by/convenient commercial development and are not considered new trips on the road. Published ITE pass-by rates were referenced for commercial land uses. ITE does not provide pass-by trips for a Shopping Center at the daily level, so a 10% reduction was assumed for daily pass-by rate for this study.

Internal Trip Capture

The Project alternatives would generate new vehicle trips in the study area. However, given the mixed-use nature of the site, they would not generate traffic in a similar manner as to what is typically evaluated for most traffic studies. As such, the analysis evaluates the combined effects of the Project's mixed uses, regional location, demographics, and development scale that contribute to a reduction (when compared to national homogeneous development projects) in off-site average weekday vehicle "trips" (e.g., one vehicle trip is when a person drives from their home to school, shopping, or their job and their return drive home is another trip). This reduction is due

largely to the Project's ability to "internally capture" these trips. That is, most of the reduction in total daily vehicle off-site trips generated by the Project is attributable to those trips beginning and ending on the Project site (e.g., both a person's home and job, shopping, or local school are on a project site).

Traditionally, traffic engineers and transportation planners have estimated internalization of project trips using one of two methods. First, they would estimate it based on professional judgment. Alternatively, professionals relied on the Institute of Transportation Engineers' (ITE) internalization methodology presented in the ITE Trip Generation Handbook. Although this has been applied in thousands of studies in California, the methodology is limited as it was based on only six surveys in Florida. Additionally, the ITE internalization methodology only accounts for the land use types on a mixed-use site. Given the limited input information (land use amount and type) and the limited range of data (six surveys), the accuracy of the internalization estimates has recently been found to generally under-estimate internalization of trips from mixed-use projects.

Seeing the limited data set and simplified methodology applied in the ITE handbook, the United States Environmental Protection Agency (EPA) commissioned a study to develop a more substantial, statistically superior methodology. This methodology, identified as MXD (or mixed-use development trip generation), begins with ITE rates and develops trip internalization estimates based on a series of factors tied to numerous site attributes. **Table 4** provides the vehicle trip generation reduction rates for the two Project alternatives developed in MXD.

Table 4: Project Trip Generation Estimates

Proposed Use	ITE Land Use	Quantity	Units ¹	AM Peak		PM Peak		Daily Total	AM Peak			PM Peak		
				Trip Rate	In/Out %	Trip Rate	In/Out %		In	Out	Total	In	Out	Total
Multifamily (Medium-Rise)	220	400	DUs	0.46	23/77	0.56	63/37	2,928	42	142	184	141	83	224
Shopping Center	820	150	KSF	0.94	62/38	3.81	48/52	5,663	87	54	141	275	297	572
Alternative A Gross Trips								8,025	129	196	325	320	276	596
Pass-By Reduction Shopping Center (34% PM)								(566)	0	0	0	(96)	(104)	(200)
Internal Capture Reduction (10% Daily, 12% AM, 15.2% PM)								(329)	(8)	(12)	(20)	(33)	(29)	(62)
Net External Trips								7,696	121	184	305	286	247	534

Notes

1. KSF = 1,000 square feet, DUs = Dwelling Units

Sources

Trip Generation Manual 10th Edition (Institute of Transportation Engineers, 2017).
 Trip Generation Handbook 3rd Edition (Institute of Transportation Engineers, 2017).
 MainStreet+, MXD+ (Fehr & Peers, 2022).

Trip Generation Estimates

As presented in **Table 4**, the Project is expected to generate approximately 7,696 daily net external trips, including approximately 305 net external trips (121 inbound/184 outbound) during the morning peak hour, and approximately 534 net external trips (286 inbound/247 outbound) during the afternoon peak hour.

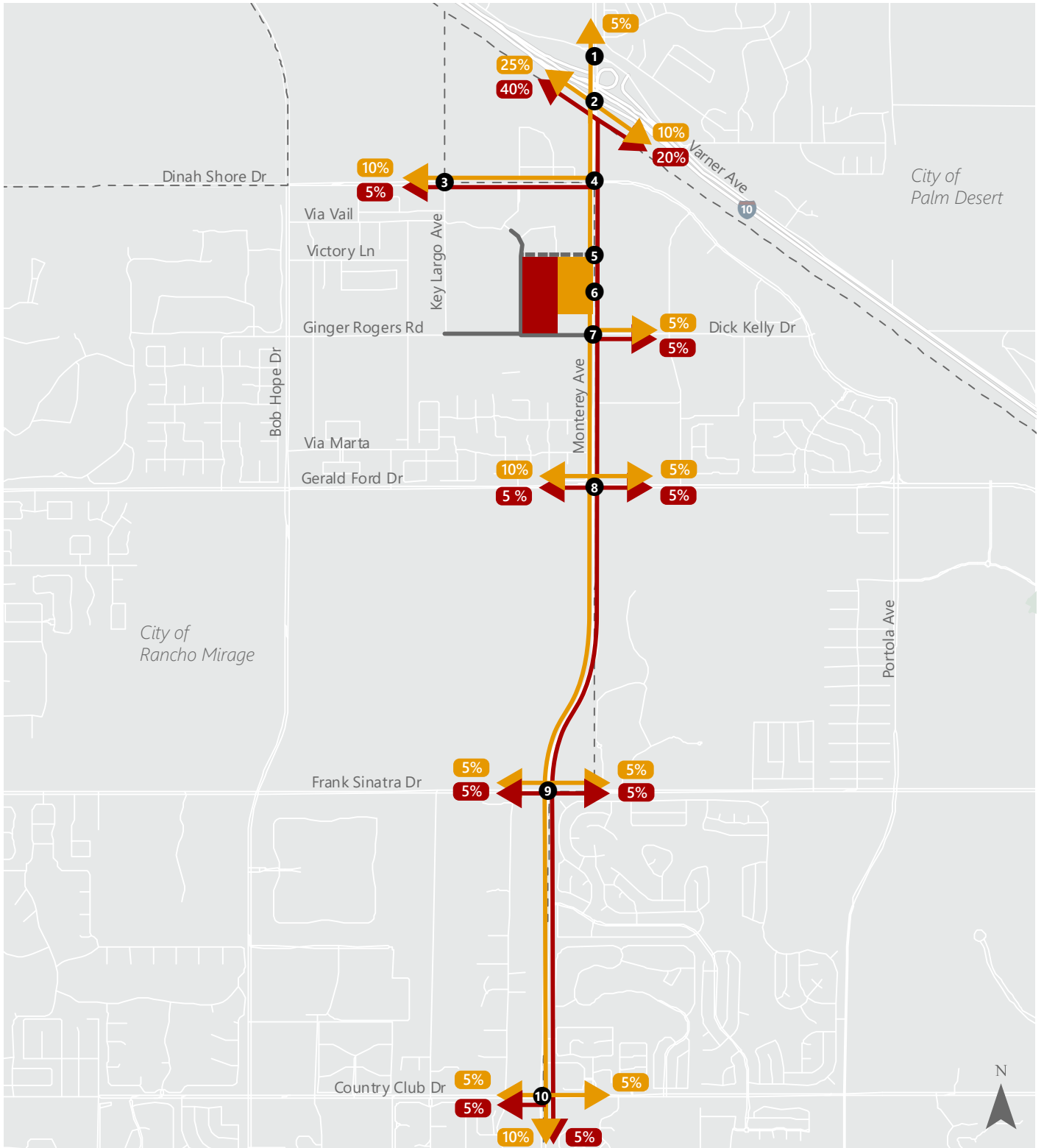
4.2 Trip Distribution and Assignment

Trip Distribution

Project trip distribution refers to the directions of approach and departure that vehicles would use to travel to and from the Project site. Surrounding land uses, existing roadway network characteristics, existing traffic counts, local knowledge of the study area, Census Bureau Longitudinal Employer-Household Dynamics (LEHD) data, and professional judgement were used to develop the trip distribution.

We anticipate the housing units having a different trip distribution (shown in red) than the retail uses (shown in orange). We assumed that most people would be passing by on Monterey Avenue, so the retail trip distribution is more localized and evenly distributed as opposed to the housing units which are assumed to be traveling farther (such as to the freeway).

The trip distribution assumed for the Project is shown in **Figure 7**.



- Study Intersections
- PA-1 Commercial Site
- PA-2 Mixed-Use Site

- ▬ PA-1 Project Trips
- ▬ PA-2 Project Trips

- ▬ Future Road
- ▬ Proposed Road
- ▭ City Boundary



Figure 8



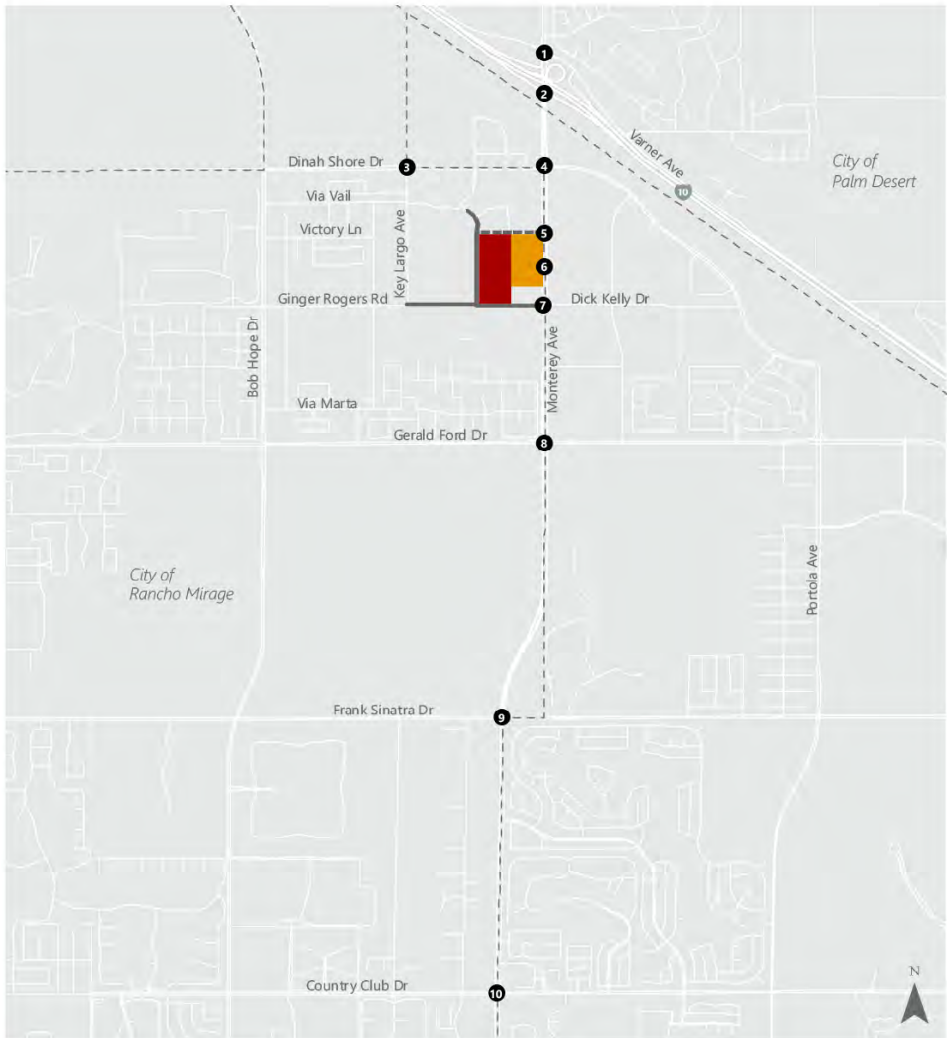
Project Trip Distribution

5. Level of Service (LOS) Analysis

5.1 Analysis Scenarios

Fehr & Peers studied the intersection Level of Service (LOS) at the previously identified study intersections for the following scenarios:

- **Existing (2022) Conditions** – Existing traffic volumes represented in Winter 2022 conditions.
- **Opening Year (2023) No Project Conditions** – Opening Year (2023) No Project Conditions were evaluated using ambient growth rates and the inclusion of trips from all approved development projects within a two-mile radius. The No Project Condition does not assume the extensions of Dick Kelly Drive nor Via Vail.
- **Opening Year (2023) Plus Project Alternative 1 Conditions** – Project traffic associated with Project Alternative 1 were added to the Opening Year (2023) traffic volumes to evaluate Opening Year (2023) Plus Project under the conditions associated with Alternative 1. This alternative assumes the completion of the proposed roadway connection at the northern edge of the project site between Via Vail and Monterey Avenue, and the extensions of Via Vail and Dick Kelly Drive. Part of this traffic assignment involved redistribution of traffic due to these roadway extensions.
- **Opening Year (2023) Plus Project Alternative 2 Conditions** – Project traffic associated with Project Alternative 2 were added to the Opening Year (2023) traffic volumes to evaluate Opening Year (2023) Plus Project under the conditions associated with Alternative 2. This alternative assumes that the roadway connection would not be completed. Part of this traffic assignment involved redistribution of traffic due to the buildout of Via Vail and Dick Kelly Drive extensions.
- **Future Year (2040) No Project Conditions** – Traffic forecasts consistent with growth in the Rancho Mirage General Plan Travel Demand Forecasting Model Year 2040. This scenario assumes the extensions of Via Vail and Dick Kelly Drive.
- **Future Year (2040) Plus Project Alternative 1 Conditions** – Project traffic associated with Project Alternative 1 were added to the Future Year (2040) No Project traffic volumes to evaluate Future Year (2040) Plus Project under the conditions associated with Alternative 1. This alternative assumes that the roadway connection would be completed.
- **Future Year (2040) Plus Project Alternative 2 Conditions** – Project traffic associated with Project Alternative 2 were added to the Future Year (2040) No Project traffic volumes to evaluate Future Year (2040) Plus Project under the conditions associated with Alternative 2. This alternative assumes that the roadway connection would not be completed.



1. Monterey Ave/Varner Rd	2. Monterey Ave/I-10 EB Ramps	3. Key Largo Ave/Dinah Shore Dr
4. Monterey Ave/Dinah Shore Dr	5. Monterey Ave/Proposed Roadway Connection	6. Monterey Ave/Proposed Project Access Driveway
	Does not exist in this scenario	
7. Monterey Ave/Dick Kelly Dr	8. Monterey Ave/Gerald Ford Dr	9. Monterey Ave/Frank Sinatra Dr
10. Monterey Ave/Country Club Dr		

Figure 8
Peak Hour Traffic Volumes and Lane Configurations
Existing (2022) Conditions



Existing (2022) Conditions

The Existing (2022) Baseline Condition traffic volumes developed are presented in **Figure 8**. These traffic volumes along with existing intersection lane configurations were used to calculate the LOS for the study intersections during each peak hour. The findings of this analysis are presented in **Table 5**, and detailed intersection LOS worksheets are presented in **Appendix D**. As shown in **Table 5**, all study intersections operate at LOS D or better.

Table 5: Existing (2022) No Project Intersection Level of Service

Intersection		Control	Peak Hour	LOS / Average Delay
1	Monterey Ave & Varner Road	Signalized	AM	D / 46
			PM	D / 38
2	Monterey Ave & I-10 Eastbound Ramps	Signalized	AM	D / 39
			PM	C / 30
3	Key Largo Ave & Dinah Shore Dr	Signalized	AM	A / 8
			PM	A / 7
4	Monterey Ave & Dinah Shore Dr	Signalized	AM	D / 42
			PM	D / 45
5	Monterey Ave & Proposed Roadway Connection (Project Alternative 1 Only)	TWSC	AM	-
			PM	-
6	Monterey Ave & Proposed Project Access Driveway	TWSC	AM	B / 12 (SBL)
			PM	D / 31 (SBL)
7	Monterey Ave & Dick Kelly Dr	Signalized	AM	A / 7
			PM	B / 10
8	Monterey Ave & Gerald Ford Dr	Signalized	AM	C / 31
			PM	C / 27
9	Monterey Ave & Frank Sinatra Dr	Signalized	AM	C / 26
			PM	C / 28
10	Monterey Ave & Country Club Dr	Signalized	AM	D / 38
			PM	D / 35

Notes:

1. TWSC = Two-Way Stop Controlled.
 2. Bolded results are below acceptable LOS.
- Source: Fehr & Peers, 2022.

5.2 Opening Year (2023) Conditions Intersection Operations Analysis

This section analyzes Opening Year (2023) Traffic Conditions and compares the LOS results with no project and plus the two project alternatives.

Approved Development Projects

Nearby approved development projects within 2 miles of the Project site were reviewed for inclusion in the Opening Year (2023) Conditions forecasts. A list of approved development projects can be found in **Appendix C**. Trip generation rates were applied for each approved project from *Trip Generation, 10th Edition* (Institute of Transportation Engineers [ITE], 2017), and the trips were assigned to the study area based on professional judgement, and knowledge of the land uses and their typical peak hour travel patterns.

Opening Year (2023) No Project Conditions

As described in Chapter 2, the traffic volumes for Opening Year (2023) consist of existing counts plus the addition of growth derived from RIVCOM. **Figure 9** presents the traffic forecasts for Opening Year (2023) No Project Conditions utilized in this study.

The Opening Year (2023) No Project Conditions peak hour volumes were used to calculate LOS for the study intersections during each peak hour.

Opening Year (2023) Plus Project Alternative 1 Conditions

Figure 10 presents the traffic forecasts for Opening Year (2023) Plus Project Alternative 1 Conditions utilized in this study.

Opening Year (2023) Plus Project Alternative 2 Conditions

Figure 11 presents the traffic forecasts for Opening Year (2023) Plus Project Alternative 2 Conditions utilized in this study.

The operations analysis results for Opening Year (2023) No Project Conditions, Plus Project Alternative 1 Conditions, and Plus Project Alternative 2 Conditions are summarized in **Table 6** that show vehicular LOS at the study intersections. As shown in **Table 6**, all study intersections operate at LOS D or better.

Table 6: Opening Year (2023) Intersection Level of Service

Intersection		Control	Peak Hour	LOS / Average Delay		
				Opening Year (2023) No Project	Opening Year (2023) Plus Project Alternative 1	Opening Year (2023) Plus Project Alternative 2
1	Monterey Ave & Varner Road	Signalized	AM	D / 43	D / 44	D / 44
			PM	D / 39	D / 40	D / 40
2	Monterey Ave & I-10 Eastbound Ramps	Signalized	AM	D / 40	D / 42	D / 42
			PM	C / 31	C / 34	C / 34
3	Key Largo Ave & Dinah Shore Dr	Signalized	AM	A / 9	A / 9	A / 9
			PM	A / 8	A / 8	A / 9
4	Monterey Ave & Dinah Shore Dr	Signalized	AM	D / 43	D / 44	D / 44
			PM	D / 46	D / 46	D / 46
5	Monterey Ave & Proposed Roadway Connection (Project Alternative 1 Only)	TWSC ¹	AM	-	C / 19	-
			PM	-	C / 17	-
6	Monterey Ave & Proposed Project Access Driveway ²	TWSC/Signalized	AM	B / 13	A / 4	A / 4
			PM	D / 35	A / 7	A / 7
7	Monterey Ave & Dick Kelly Dr	Signalized	AM	A / 9	B / 10	B / 10
			PM	B / 11	B / 14	B / 14
8	Monterey Ave & Gerald Ford Dr	Signalized	AM	C / 33	C / 33	C / 33
			PM	C / 29	C / 29	C / 29
9	Monterey Ave & Frank Sinatra Dr	Signalized	AM	C / 27	C / 28	C / 28
			PM	C / 30	C / 30	C / 30
10	Monterey Ave & Country Club Dr	Signalized	AM	D / 39	D / 39	D / 39
			PM	D / 36	D / 36	D / 36

Notes:

1. TWSC = Two-Way Stop Controlled.

2. Intersection 6 operates as signalized under Plus Project conditions.

3. Bolded results are below acceptable LOS.

Source: Fehr & Peers, 2022.

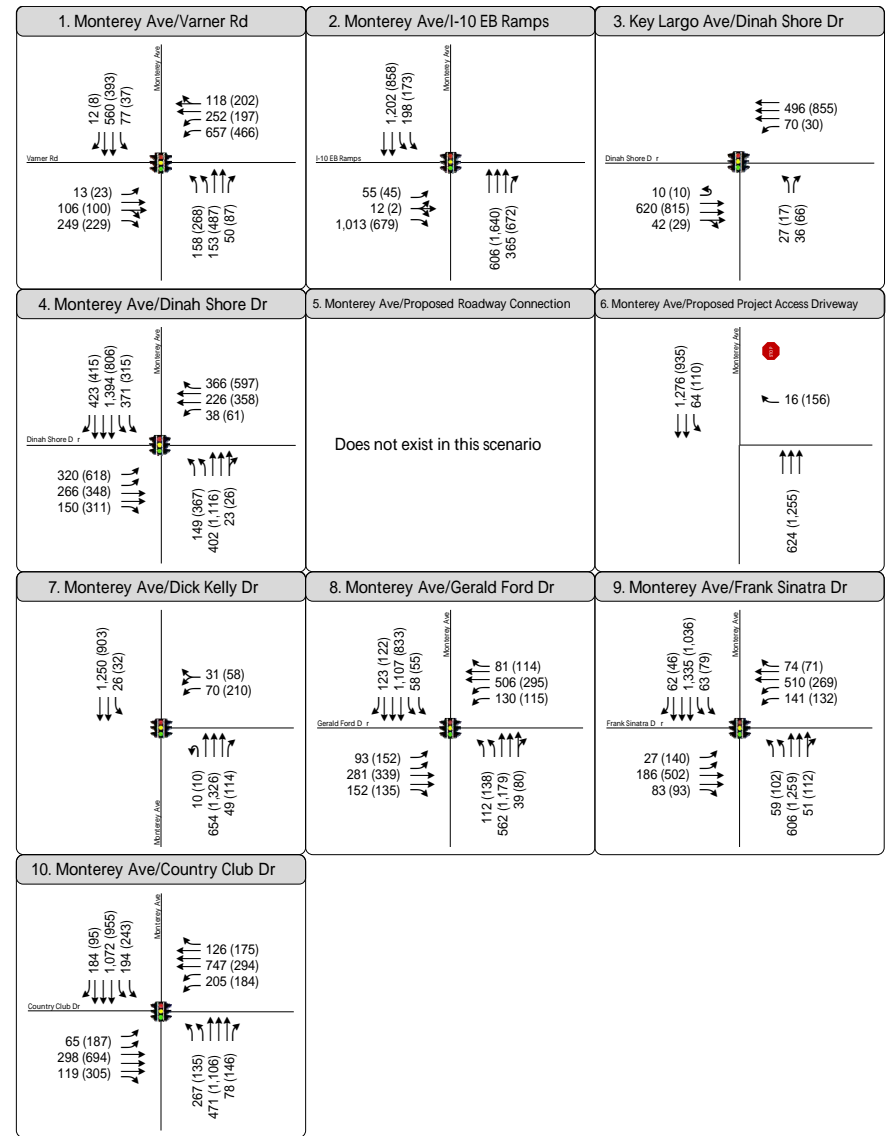
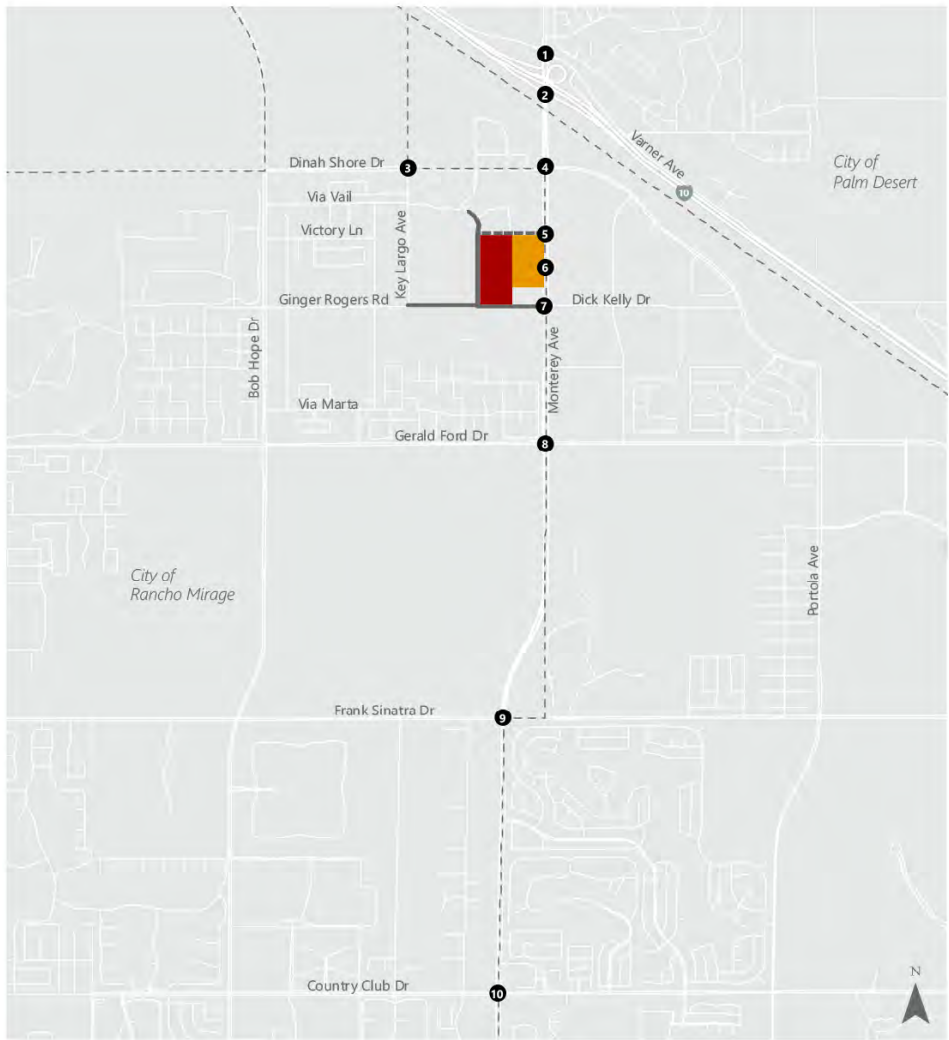


Figure 9
Peak Hour Traffic Volumes and Lane Configurations
Opening Year (2023) No Project



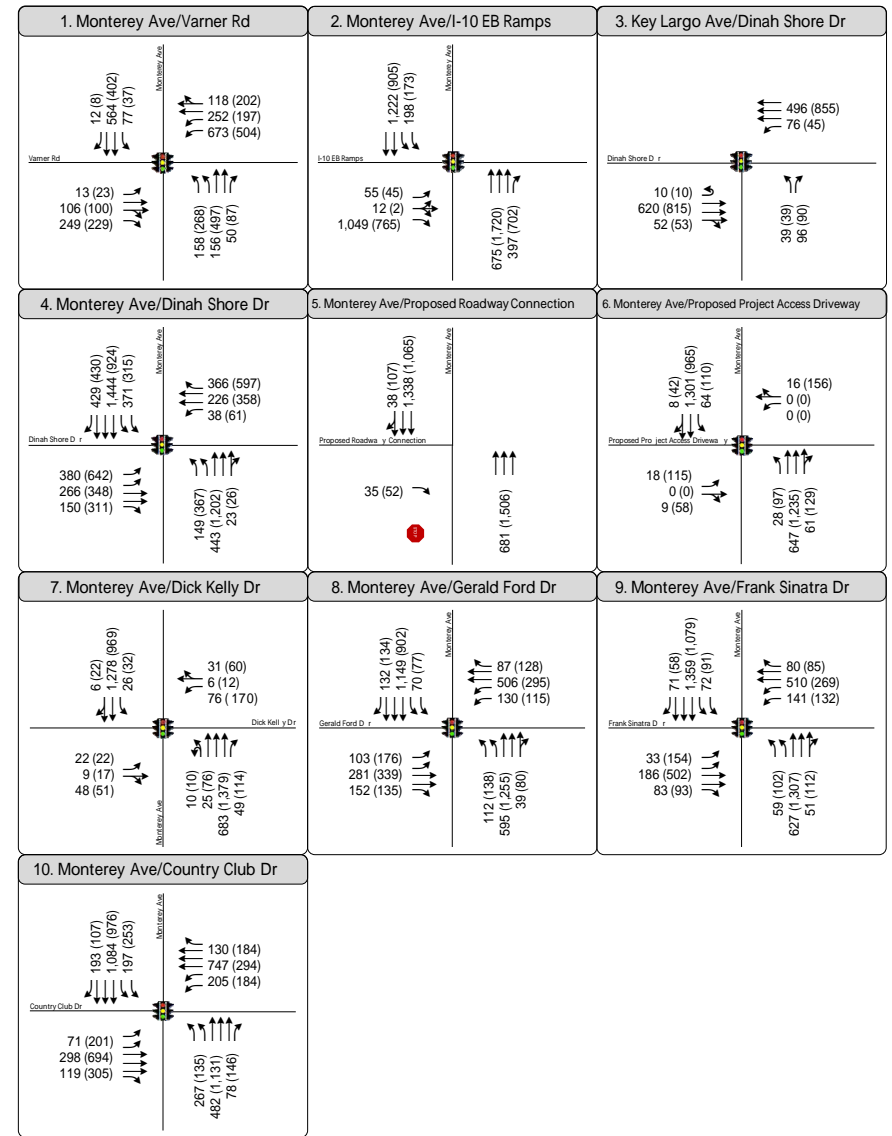
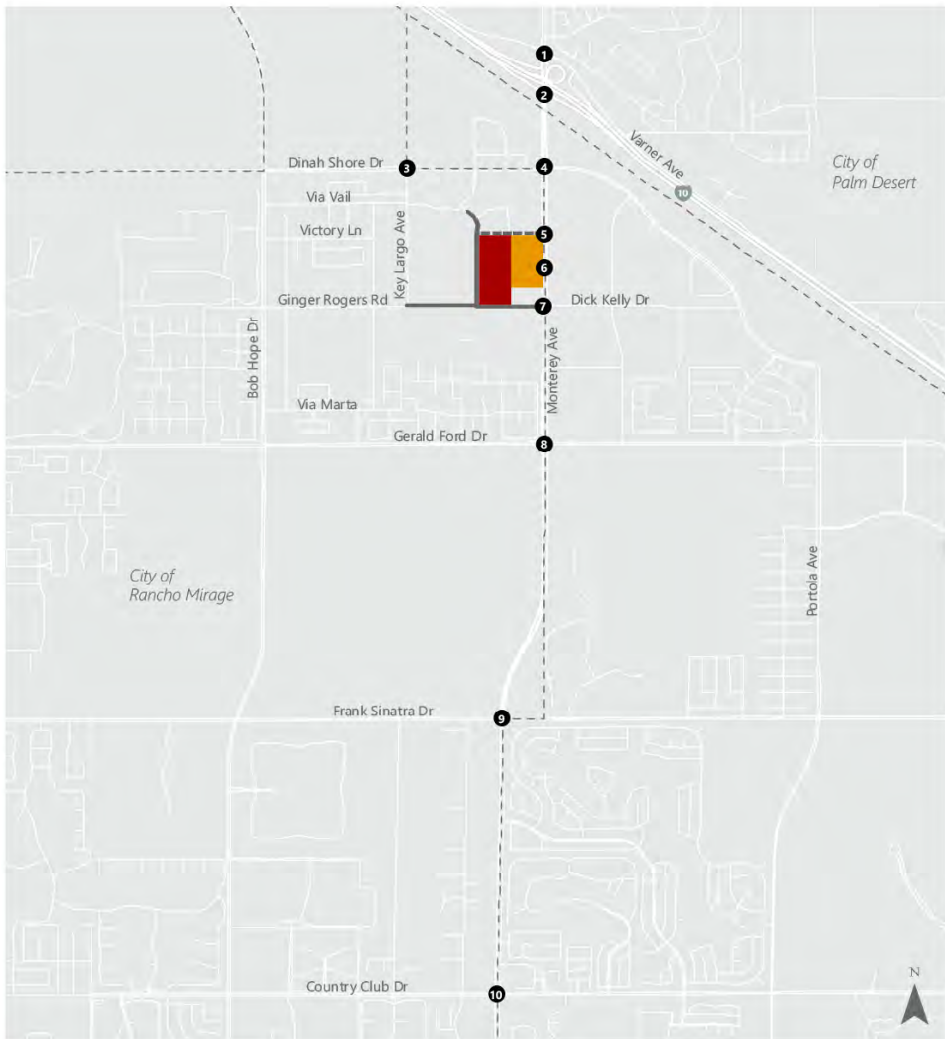
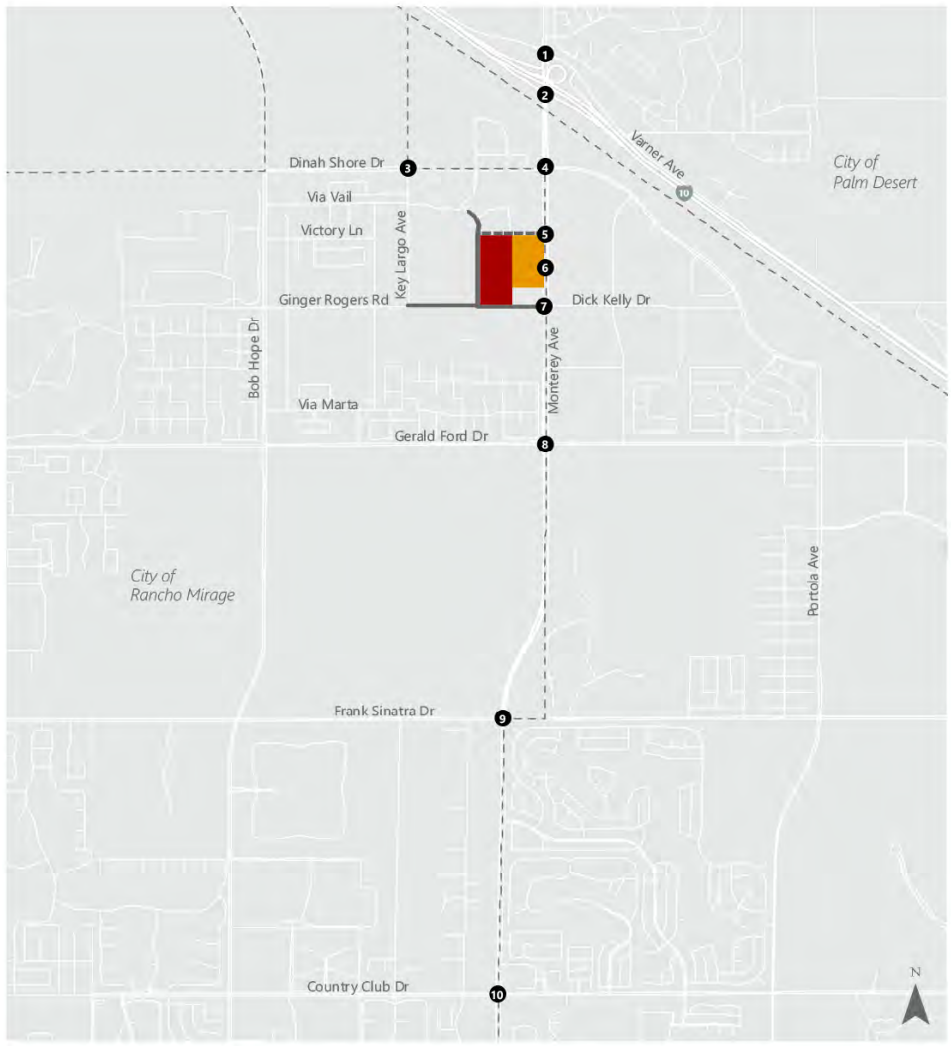


Figure 10
Peak Hour Traffic Volumes and Lane Configurations
Opening Year (2023) Plus Project Alternative One





1. Monterey Ave/Varner Rd	2. Monterey Ave/I-10 EB Ramps	3. Key Largo Ave/Dinah Shore Dr												
<table border="1"> <tr> <td> <p>12 (8) 564 (402) 77 (87)</p> </td> <td> <p>118 (202) 252 (197) 673 (505)</p> </td> </tr> <tr> <td> <p>13 (23) 106 (100) 249 (229)</p> </td> <td> <p>158 (268) 156 (497) 50 (87)</p> </td> </tr> </table>	<p>12 (8) 564 (402) 77 (87)</p>	<p>118 (202) 252 (197) 673 (505)</p>	<p>13 (23) 106 (100) 249 (229)</p>	<p>158 (268) 156 (497) 50 (87)</p>	<table border="1"> <tr> <td> <p>1,222 (906) 188 (173)</p> </td> <td> <p>55 (45) 12 (2) 1,049 (765)</p> </td> <td> <p>675 (1,720) 397 (702)</p> </td> </tr> </table>	<p>1,222 (906) 188 (173)</p>	<p>55 (45) 12 (2) 1,049 (765)</p>	<p>675 (1,720) 397 (702)</p>	<table border="1"> <tr> <td> <p>501 (874) 88 (74)</p> </td> <td> <p>10 (10) 628 (834) 44 (34)</p> </td> <td> <p>34 (20) 96 (90)</p> </td> </tr> </table>	<p>501 (874) 88 (74)</p>	<p>10 (10) 628 (834) 44 (34)</p>	<p>34 (20) 96 (90)</p>		
<p>12 (8) 564 (402) 77 (87)</p>	<p>118 (202) 252 (197) 673 (505)</p>													
<p>13 (23) 106 (100) 249 (229)</p>	<p>158 (268) 156 (497) 50 (87)</p>													
<p>1,222 (906) 188 (173)</p>	<p>55 (45) 12 (2) 1,049 (765)</p>	<p>675 (1,720) 397 (702)</p>												
<p>501 (874) 88 (74)</p>	<p>10 (10) 628 (834) 44 (34)</p>	<p>34 (20) 96 (90)</p>												
4. Monterey Ave/Dinah Shore Dr	5. Monterey Ave/Proposed Roadway Connection	6. Monterey Ave/Proposed Project Access Driveway												
<table border="1"> <tr> <td> <p>441 (459) 1,432 (896) 371 (315)</p> </td> <td> <p>366 (597) 226 (358) 38 (61)</p> </td> </tr> <tr> <td> <p>380 (642) 266 (348) 158 (330)</p> </td> <td> <p>154 (386) 443 (1,202) 23 (26)</p> </td> </tr> </table>	<p>441 (459) 1,432 (896) 371 (315)</p>	<p>366 (597) 226 (358) 38 (61)</p>	<p>380 (642) 266 (348) 158 (330)</p>	<p>154 (386) 443 (1,202) 23 (26)</p>	<p>Does not exist in this scenario</p>	<table border="1"> <tr> <td> <p>21 (71) 1,291 (964) 64 (110)</p> </td> <td> <p>16 (156) 0 (0) 0 (0)</p> </td> </tr> <tr> <td> <p>23 (137) 0 (0) 9 (55)</p> </td> <td> <p>28 (99) 647 (1,235) 61 (129)</p> </td> </tr> </table>	<p>21 (71) 1,291 (964) 64 (110)</p>	<p>16 (156) 0 (0) 0 (0)</p>	<p>23 (137) 0 (0) 9 (55)</p>	<p>28 (99) 647 (1,235) 61 (129)</p>				
<p>441 (459) 1,432 (896) 371 (315)</p>	<p>366 (597) 226 (358) 38 (61)</p>													
<p>380 (642) 266 (348) 158 (330)</p>	<p>154 (386) 443 (1,202) 23 (26)</p>													
<p>21 (71) 1,291 (964) 64 (110)</p>	<p>16 (156) 0 (0) 0 (0)</p>													
<p>23 (137) 0 (0) 9 (55)</p>	<p>28 (99) 647 (1,235) 61 (129)</p>													
7. Monterey Ave/Dick Kelly Dr	8. Monterey Ave/Gerald Ford Dr	9. Monterey Ave/Frank Sinatra Dr												
<table border="1"> <tr> <td> <p>6 (22) 1,268 (965) 26 (32)</p> </td> <td> <p>31 (60) 6 (12) 70 (170)</p> </td> </tr> <tr> <td> <p>23 (25) 9 (16) 57 (55)</p> </td> <td> <p>10 (10) 25 (77) 682 (1,378) 49 (114)</p> </td> </tr> </table>	<p>6 (22) 1,268 (965) 26 (32)</p>	<p>31 (60) 6 (12) 70 (170)</p>	<p>23 (25) 9 (16) 57 (55)</p>	<p>10 (10) 25 (77) 682 (1,378) 49 (114)</p>	<table border="1"> <tr> <td> <p>131 (134) 1,148 (902) 70 (77)</p> </td> <td> <p>87 (128) 506 (295) 130 (115)</p> </td> </tr> <tr> <td> <p>103 (176) 281 (339) 152 (135)</p> </td> <td> <p>112 (138) 594 (1,255) 38 (80)</p> </td> </tr> </table>	<p>131 (134) 1,148 (902) 70 (77)</p>	<p>87 (128) 506 (295) 130 (115)</p>	<p>103 (176) 281 (339) 152 (135)</p>	<p>112 (138) 594 (1,255) 38 (80)</p>	<table border="1"> <tr> <td> <p>71 (58) 1,359 (1,081) 72 (91)</p> </td> <td> <p>80 (85) 510 (269) 141 (132)</p> </td> </tr> <tr> <td> <p>33 (154) 186 (502) 83 (93)</p> </td> <td> <p>59 (102) 626 (1,307) 51 (112)</p> </td> </tr> </table>	<p>71 (58) 1,359 (1,081) 72 (91)</p>	<p>80 (85) 510 (269) 141 (132)</p>	<p>33 (154) 186 (502) 83 (93)</p>	<p>59 (102) 626 (1,307) 51 (112)</p>
<p>6 (22) 1,268 (965) 26 (32)</p>	<p>31 (60) 6 (12) 70 (170)</p>													
<p>23 (25) 9 (16) 57 (55)</p>	<p>10 (10) 25 (77) 682 (1,378) 49 (114)</p>													
<p>131 (134) 1,148 (902) 70 (77)</p>	<p>87 (128) 506 (295) 130 (115)</p>													
<p>103 (176) 281 (339) 152 (135)</p>	<p>112 (138) 594 (1,255) 38 (80)</p>													
<p>71 (58) 1,359 (1,081) 72 (91)</p>	<p>80 (85) 510 (269) 141 (132)</p>													
<p>33 (154) 186 (502) 83 (93)</p>	<p>59 (102) 626 (1,307) 51 (112)</p>													
10. Monterey Ave/Country Club Dr														
<table border="1"> <tr> <td> <p>193 (107) 1,094 (877) 197 (253)</p> </td> <td> <p>130 (184) 747 (294) 205 (184)</p> </td> </tr> <tr> <td> <p>71 (201) 298 (694) 119 (305)</p> </td> <td> <p>267 (135) 481 (1,131) 78 (146)</p> </td> </tr> </table>	<p>193 (107) 1,094 (877) 197 (253)</p>	<p>130 (184) 747 (294) 205 (184)</p>	<p>71 (201) 298 (694) 119 (305)</p>	<p>267 (135) 481 (1,131) 78 (146)</p>										
<p>193 (107) 1,094 (877) 197 (253)</p>	<p>130 (184) 747 (294) 205 (184)</p>													
<p>71 (201) 298 (694) 119 (305)</p>	<p>267 (135) 481 (1,131) 78 (146)</p>													

Figure 11
Peak Hour Traffic Volumes and Lane Configurations
Opening Year (2023) Plus Project Alternative Two



Traffic Signal Warrant Analysis

Peak hour traffic signal warrants² for the Opening Year (2023) Plus Project Alternative 1 Conditions and Opening Year (2023) Plus Project Alternative 2 Conditions are provided in **Appendix F** and are summarized below in **Table 7**. Based on forecasts provided in **Figures 10** and **11**, the analysis showed the intersection of Monterey Avenue and the Proposed Project Access Driveway meets a signal warrant under the two project alternatives.

Table 7: Opening Year (2023) Plus Project Signal Warrant Analysis

Intersection	Peak Hour	LOS / Average Delay	
		Alternative 1	Alternative 2
6 Monterey Ave & Proposed Project Access Driveway	AM	Not Met	Not Met
	PM	Met	Met

Source: Fehr & Peers, 2022.

² This analysis is intended to examine the general correlation between the planned level of future development and the need to install new traffic signals. It estimates future development-generated traffic compared against a sub-set of the standard traffic signal warrants recommended in the Federal Highway Administration Manual on Uniform Traffic Control Devices and associated State guidelines. This analysis should not serve as the only basis for deciding whether and when to install a signal. To reach such a decision, the full set of warrants should be investigated based on field-measured, rather than forecast, traffic data and a thorough study of traffic and roadway conditions by an experienced engineer. Furthermore, the decision to install a signal should not be based solely upon the warrants, since the installation of signals can lead to certain types of collisions. San Bernardino County and the City of Colton should undertake regular monitoring of actual traffic conditions and accident data, and timely re-evaluation of the full set of warrants in order to prioritize and program intersections for signalization.

5.3 Future Year (2040) Conditions Intersection Operations Analysis

This section analyzes the Future Year (2040) Traffic Conditions and compares the LOS results with no project and plus the two project alternatives. “No Project” conditions assume development at the Project remains as is (vacant). Note that signal timings were optimized at signalized intersections.

Future Year (2040) No Project Conditions

As described in Chapter 2, the traffic volumes for Future Year (2040) consist of existing counts plus the addition of growth derived from RIVCOM. **Figure 12** presents the traffic forecast for Future Year (2040) Conditions. As shown in **Table 8**, all intersections with the exception of Monterey Avenue and Proposed Project Access Driveway operate at LOS D or better.

Future Year (2040) Plus Project Alternative 1 Conditions

Figure 13 presents the traffic forecasts for Future Year (2040) Plus Project Alternative 1 Conditions utilized in this study.

Future Year (2040) Plus Project Alternative 2 Conditions

Figure 14 presents the traffic forecasts for Future Year (2040) Plus Project Alternative 2 Conditions utilized in this study.

The operations analysis results for Future Year (2040) Plus Project Alternative 1 Conditions, and Plus Project Alternative 2 Conditions are summarized in **Table 8** that show vehicular LOS at the study intersections. As shown in **Table 8**, all intersections operate at LOS D or better for both alternatives.

Table 8: Future Year (2040) Intersection Level of Service

Intersection		Control	Peak Hour	LOS / Average Delay		
				Future Year (2040) No Project	Future Year (2040) Plus Project Alternative 1	Future Year (2040) Plus Project Alternative 2
1	Monterey Ave & Varner Road	Signalized	AM	D / 46	D / 46	D / 46
			PM	D / 42	D / 43	D / 42
2	Monterey Ave & I-10 Eastbound Ramps	Signalized	AM	D / 39	D / 41	D / 41
			PM	C / 21	C / 22	C / 23
3	Key Largo Ave & Dinah Shore Dr	Signalized	AM	B / 12	B / 12	B / 12
			PM	B / 10	B / 11	B / 12
4	Monterey Ave & Dinah Shore Dr	Signalized	AM	D / 45	D / 47	D / 47
			PM	D / 52	D / 54	D / 54
5	Monterey Ave & Proposed Roadway Connection (Project Alternative 1 Only)	TWSC ¹	AM	-	A / 10	-
			PM	-	C / 21	-
6	Monterey Ave & Proposed Project Access Driveway ²	TWSC/Signalized	AM	C / 16	A / 7	A / 7
			PM	F / 62	B / 13	B / 14
7	Monterey Ave & Dick Kelly Dr	Signalized	AM	B / 11	B / 12	B / 12
			PM	B / 15	B / 17	B / 17
8	Monterey Ave & Gerald Ford Dr	Signalized	AM	D / 39	D / 39	D / 39
			PM	D / 35	D / 36	D / 36
9	Monterey Ave & Frank Sinatra Dr	Signalized	AM	C / 33	C / 33	C / 33
			PM	C / 35	D / 35	D / 35
10	Monterey Ave & Country Club Dr	Signalized	AM	D / 41	D / 41	D / 41
			PM	D / 38	D / 38	D / 38

Notes:

1. TWSC = Two-Way Stop Controlled.
 2. Intersection 6 operates as signalized under Plus Project conditions.
 3. Bolded results are below acceptable LOS.
- Source: Fehr & Peers, 2022.

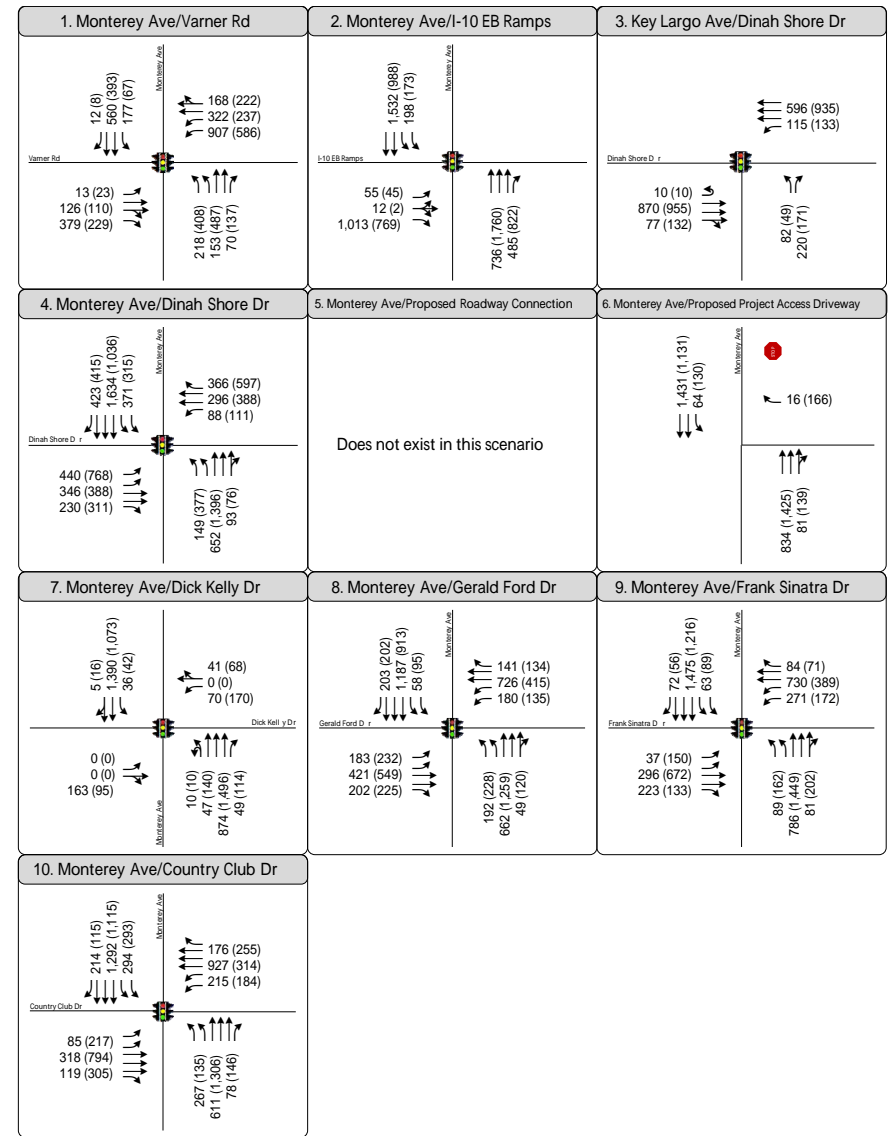
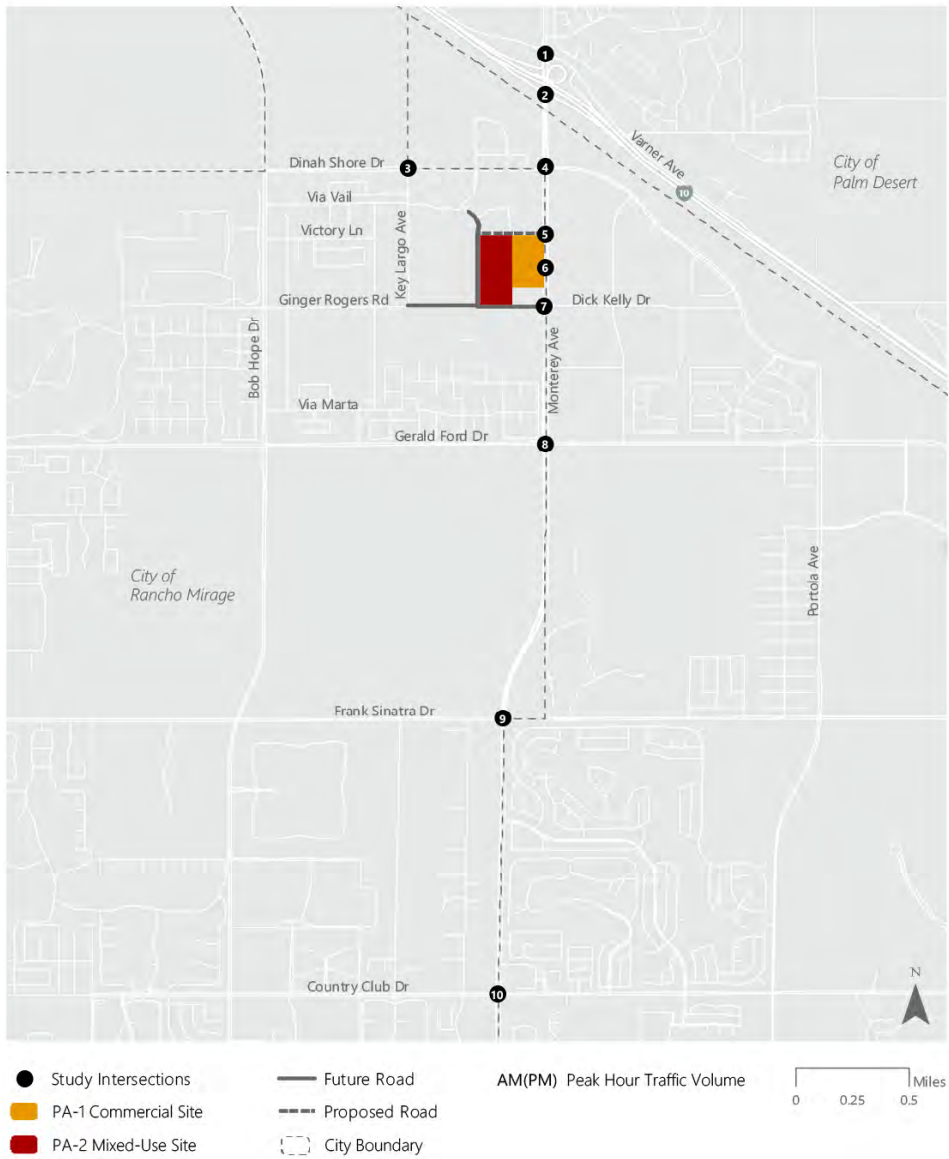


Figure 12
Peak Hour Traffic Volumes and Lane Configurations
Future Year (2040) No Project



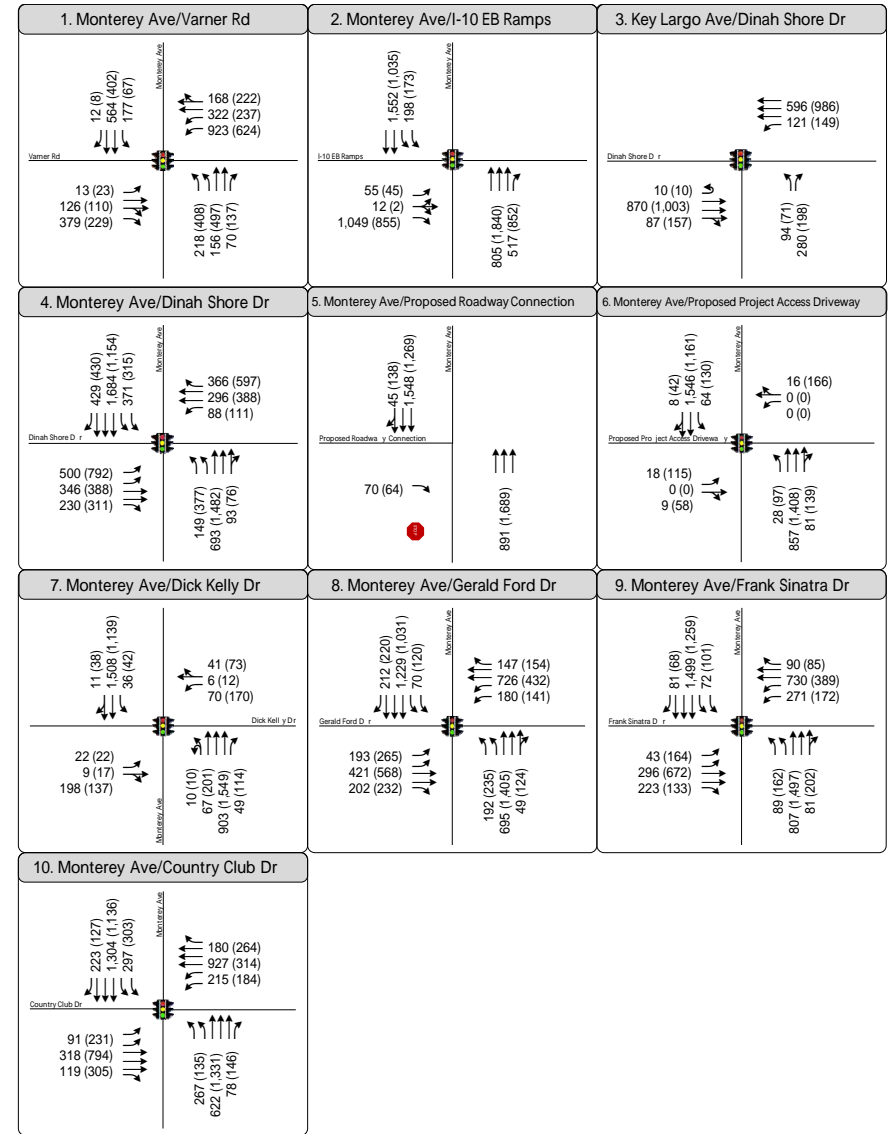
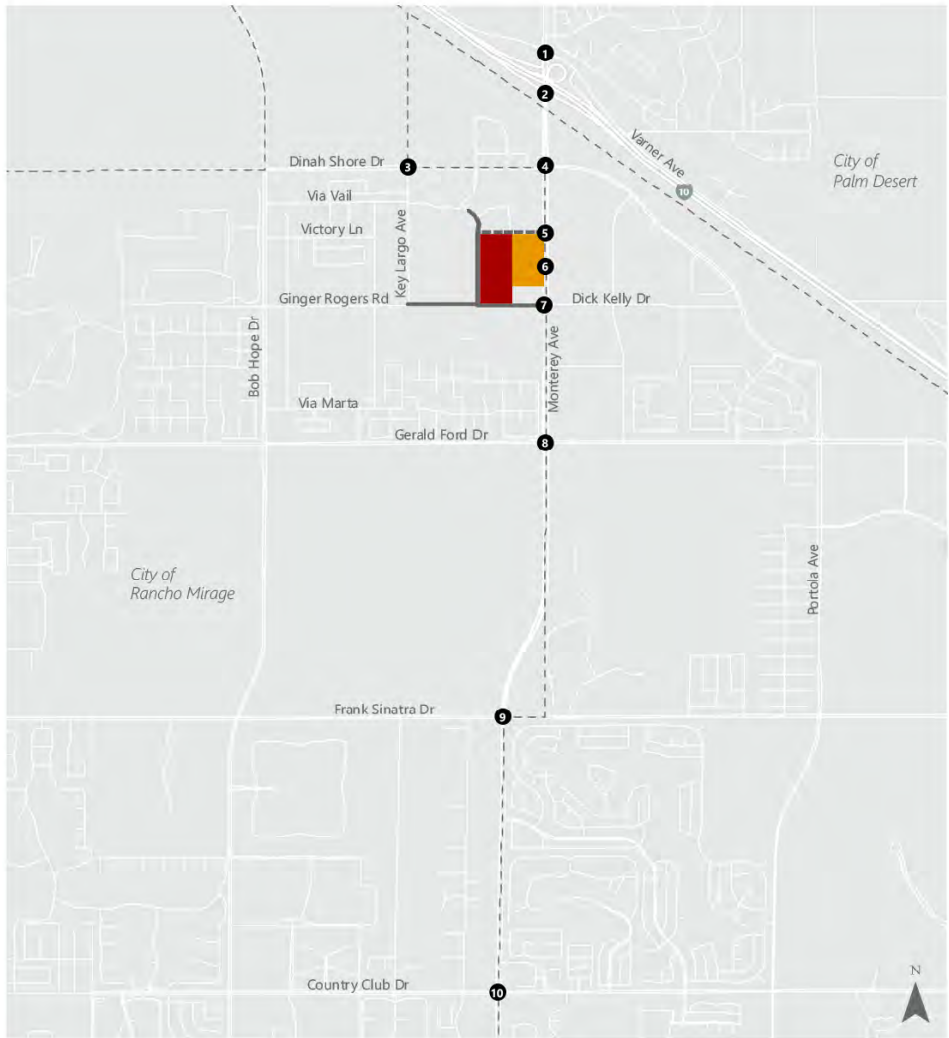
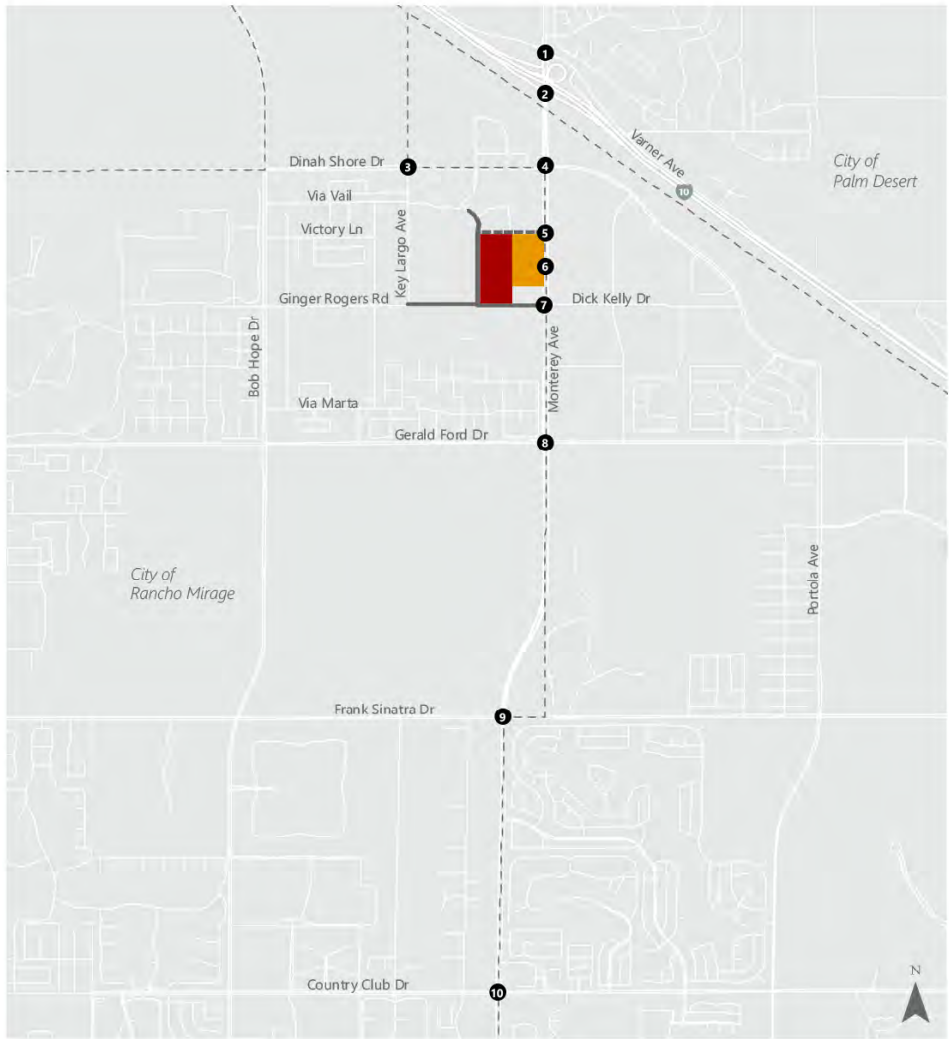


Figure 13
Peak Hour Traffic Volumes and Lane Configurations
Future Year (2040) Plus Project Alternative One





- Study Intersections
 - PA-1 Commercial Site
 - PA-2 Mixed-Use Site
 - Future Road
 - - - Proposed Road
 - City Boundary
- AM(PM) Peak Hour Traffic Volume
- 0 0.25 0.5 Miles

<p>1. Monterey Ave/Varner Rd</p>	<p>2. Monterey Ave/I-10 EB Ramps</p>	<p>3. Key Largo Ave/Dinah Shore Dr</p>
<p>4. Monterey Ave/Dinah Shore Dr</p>	<p>5. Monterey Ave/Proposed Roadway Connection</p> <p style="text-align: center;">Does not exist in this scenario</p>	<p>6. Monterey Ave/Proposed Project Access Driveway</p>
<p>7. Monterey Ave/Dick Kelly Dr</p>	<p>8. Monterey Ave/Gerald Ford Dr</p>	<p>9. Monterey Ave/Frank Sinatra Dr</p>
<p>10. Monterey Ave/Country Club Dr</p>		

Figure 14
Peak Hour Traffic Volumes and Lane Configurations
Future Year (2040) Plus Project Alternative Two



Traffic Signal Warrant Analysis

Peak hour traffic signal warrants³ for the Future Year (2040) Plus Project Alternative 1 Conditions and Future Year (2040) Plus Project Alternative 2 Conditions are provided in **Appendix F** and are summarized below in **Table 9**. Based on forecasts provided in **Figures 13** and **14**, the analysis showed that the analysis showed the intersection of Monterey Avenue and the Proposed Project Access Driveway meets a signal warrant under the two project alternatives.

Table 9: Future Year (2040) Plus Project Signal Warrant Analysis

Intersection	Peak Hour	LOS / Average Delay	
		Alternative 1	Alternative 2
6 Monterey Ave & Proposed Project Access Driveway	AM	Not Met	Not Met
	PM	Met	Met

Source: Fehr & Peers, 2022.

³ This analysis is intended to examine the general correlation between the planned level of future development and the need to install new traffic signals. It estimates future development-generated traffic compared against a sub-set of the standard traffic signal warrants recommended in the Federal Highway Administration Manual on Uniform Traffic Control Devices and associated State guidelines. This analysis should not serve as the only basis for deciding whether and when to install a signal. To reach such a decision, the full set of warrants should be investigated based on field-measured, rather than forecast, traffic data and a thorough study of traffic and roadway conditions by an experienced engineer. Furthermore, the decision to install a signal should not be based solely upon the warrants, since the installation of signals can lead to certain types of collisions. San Bernardino County and the City of Colton should undertake regular monitoring of actual traffic conditions and accident data, and timely re-evaluation of the full set of warrants in order to prioritize and program intersections for signalization.

6. On-Site Circulation and Site Access Review

It is assumed that multiple direct access points to the Project will be provided through driveways on Monterey Avenue, Dick Kelly Drive (future) and Via Vail (future). It is anticipated that Monterey Avenue would have three right in/right out driveways, Dick Kelly Drive (future) would have two full access driveways, and Via Vail would have one proposed full access driveway. One major, signalized access intersection is proposed on Monterey Avenue that would line up with the driveway access to the adjacent shopping center across from the Project.

We concluded that the driveways would provide sufficient access to the Project. However, since the project site plan has not been developed yet, we do not have enough information to provide a comprehensive on-site circulation and site access review at this moment. We recommend reviewing the on-site circulation and site access when the Project site plan is finalized. Analysis of the proposed signalized access intersection on Monterey Avenue that the driveway will operate acceptably.

7. Vehicle Miles Traveled Impact Analysis

7.1 VMT Screening Assessment

The City's traffic impact analysis guidelines provide a process for projects to be screened from VMT assessment under the assumption that the project will result in a less-than-significant transportation impact related to VMT. The following types of project type screening criteria are applicable for the Project in Rancho Mirage:

- Local-Serving Retail Screening
 - The introduction of new local-serving retail has been determined to reduce VMT by shortening trips that will occur
 - Presumed to cause a less-than-significant impact:
 - No single store on-site exceeds 50,000 SF, and
 - Project is local-serving as determined by the Engineering Department
- Map-Based Screening for Residential Projects
 - This method eliminates the need for complex analyses, by allowing existing VMT data to serve as a basis for the screening of smaller developments. Note that the screening is limited to residential and office projects.
 - Presumed to cause a less-than-significant impact:
 - Area of development is under threshold as shown on screening map as allowed by the Engineering Department
 - The threshold for determination of a significant transportation impact in Rancho Mirage for a residential use is VMT per resident which is 15 percent below regional VMT per resident
 - The region is assumed to be the Coachella Valley Association of Governments (CVAG) region

7.2 Local-Serving Retail Screening

The Project has not finalized a site plan at this time. However, it is anticipated that the type of retail uses on site will consist of markets, drug stores, convenience stores, fast food restaurants and other retail uses in buildings that are all 50,000 SF or less. These types of uses are all anticipated to be local-serving in nature that would provide better, more convenient access to goods and services that would shorten existing trips. As such, the retail component of the Project is presumed to result in a less-than-significant impact related to VMT.

7.3 Map-Based Screening

Map-based screening utilizes existing VMT data to identify areas of the City that are considered low-VMT generating zones. Residential projects located in low-VMT generating areas may be considered to have a less than significant impact unless substantial evidence is submitted to the contrary. Low-VMT generating zones are areas of the City that are producing residential or office VMT at a rate that is 15% lower than the City's threshold of significance related to VMT. VMT estimated by Traffic Analysis Zone (TAZ) in a travel demand model is used to designate these low-VMT zones. To identify if a project is in a low VMT-generating area, the analyst must identify if a project is consistent with the existing land use within that TAZ and use professional judgement that there is nothing unique about the project that would otherwise be mis-represented utilizing the data from the travel demand model. Per the city VMT policy, mixed-use projects are analyzed separately.

7.4 Modeling Methodology

RIVCOM was utilized for map-based screening of the Project. RIVCOM was released in summer of 2021 and is considered the best tool available for VMT estimation in Riverside County and Rancho Mirage. RIVCOM has a 2018 base year and 2045 future year, with land uses and roadway networks consistent with the 2020 Southern California Association of Governments Regional Transportation Plan and Sustainable Communities Strategy (2020 SCAG RTP/SCS).

The Production-Attraction (PA) Method for calculating VMT was utilized to estimate VMT for the Project TAZ and the regional average. The PA Method sums all weekday VMT generated by trips with at least one trip end in the study area while trips are still tracked by trip purpose (home-based-work, home-based-school, non home-based, etc.) in the travel demand model. The PA Method does not include trips with one trip end outside of the model boundary area. Productions are land use types that generate trips (residences) and attractions are land use types that attract trips (employment). Productions and attractions are converted from person trips to vehicle trips for the purposes of calculating VMT.

The PA Method allows project VMT to be evaluated based on trip purpose which is consistent with the City's guidelines and Office of Planning and Research (OPR) recommendations in the Technical Advisory. For example, a single-use project such as an office building could be analyzed based only on the commute VMT, or home-based-work (HBW) attraction VMT per employee; and a residential project could be analyzed based on the home-based (HB) production VMT per resident.

7.5 VMT Assessment

The Project is within RIVCOM TAZ 1884, which is generally bound by Monterey Avenue, Gerald Ford Drive, Key Largo Avenue, and Dinah Shore Drive. TAZ 1884 is shown in **Figure 15**. Existing land uses within TAZ 1884 include residential and retail. It is reasonable to conclude that the proposed residential uses as part of the Project would produce VMT at a similar rate as the existing land use in TAZ 1884 is residential of a similar type and density to the proposed Project residential.

Table 10 summarizes the land use inputs and VMT estimates for the Project TAZ and the CVAG regional average. As shown, the home-based VMT per resident generated by the project TAZ is 30% less than the CVAG regional average. The residential use in the Project is anticipated to generate VMT in a similar manner as the assumptions in the model and existing uses, which is more than 15% below the threshold of significance and could therefore be screened from further VMT analysis as the impact can be presumed to be less-than-significant.

Table 10: VMT Estimates

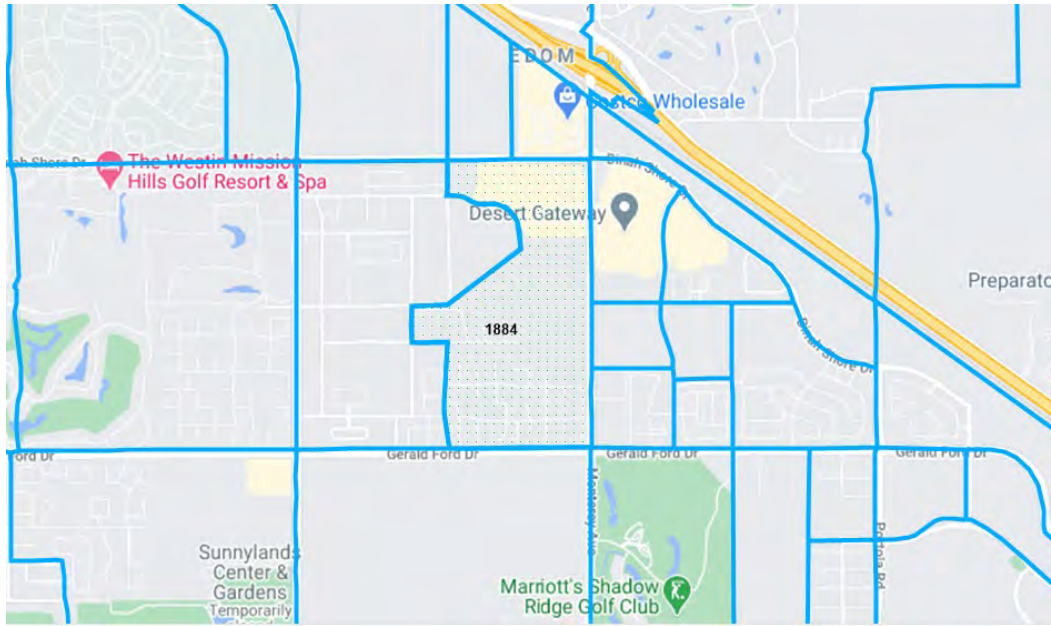
Region	Households	Residents	Home-Based VMT	VMT per Resident
TAZ 1884	155	485	5,862	12.09
Regional Average (CVAG)	167,355	460,051	7,907,313	17.19
			Difference	5.1
			Percent Below Threshold	30%

Source: RIVCOM, WRCOG, 2022

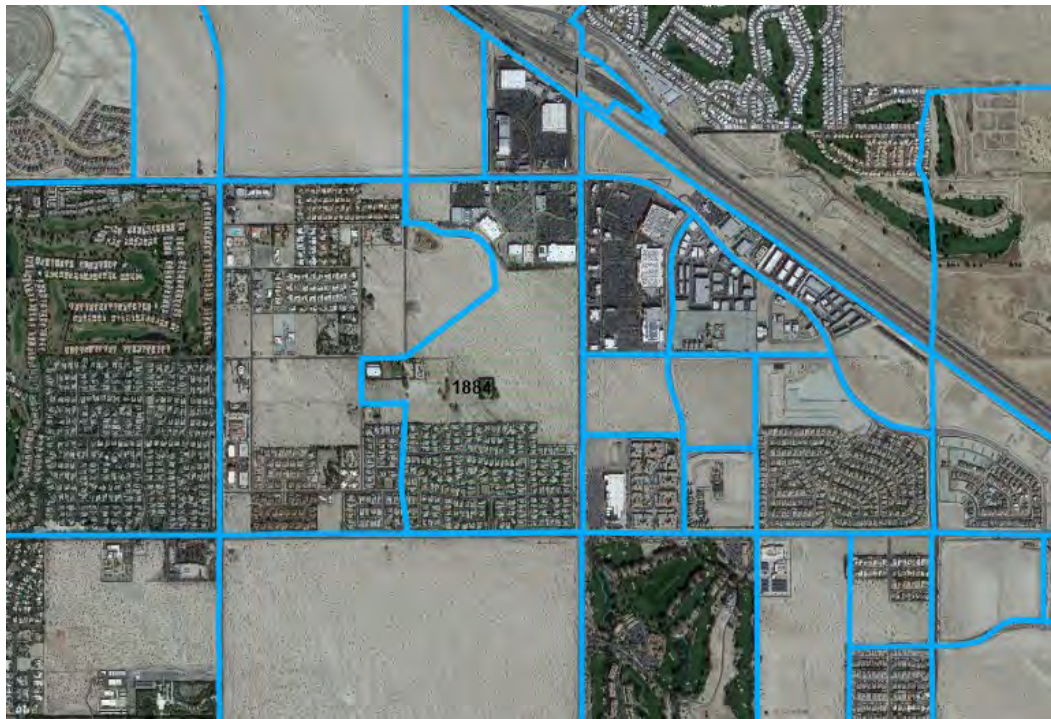
7.6 Key Findings

The retail and residential components of the Project are both anticipated to be screened (consistent with the City’s screening criteria) from VMT assessment and thus can be presumed to result in a less-than-significant impact related to VMT based on the City of Rancho Mirage’s VMT Policy. The retail component is screened from VMT assessment based on its local-serving nature. The residential component is screened from VMT assessment based on map-based screening as it is within a low-VMT generating area and consistent with the land uses within that area.

Figure 15: RIVCOM TAZ 1884 (Google Maps and Aerial Image Overlay)



Source: RIVCOM, Google Maps, 2022



Source: RIVCOM, Google Maps, 2022

8. Active Transportation and Public Impact Analysis

Potential impacts to public transit, pedestrian facilities and travel, and bicycle facilities and travel were evaluated.

8.1 Active Transportation Analysis

Existing bike facilities and trails were identified previously in Chapter 3. The following roadways in the study area have proposed bike facilities and trails per the City of Rancho Mirage General Plan (2017):

- Dinah Shore between Bob Hope Drive and Monterey Avenue – Proposed Class II Facility
- Key Largo Avenue – Future Hiking Trail
- Via Florencia – Future Hiking Trail

The Project frontage on Monterey Avenue may affect the existing Class II Bicycle Lane on the west side of the roadway. The Project proposes to add sidewalk on Monterey Avenue along the Project frontage. However, detailed site plans showing how project driveways would interact with the existing or future bike and pedestrian facilities not yet available. We recommend reviewing the final site plan to be consistent with the City standards for site-specific recommendations.

The Project is consistent with the adopted plans regarding bike facilities and trails and is not anticipated to decrease the performance or safety of these facilities. Therefore, the Project is considered to have a less than significant impact on bike and pedestrian facilities.

8.2 Public Transit Analysis

The potential impact to transit service or facilities was evaluated based on whether the Project would physically disrupt an existing facility/service or interfere with the implementation of a planned facility/service. In addition, the proposed Project was evaluated to determine if it would create potential conflicts with applicable policies, plans, or programs (as defined in the regulatory setting above) supporting transit such that the conflict could reduce transit trips or increase conflicts with other modes.

A review of the Project description did not identify any disruption to existing transit facilities. New transit trips are anticipated to be generated by the Project, but the Project would not modify transit stop locations, routes, or change transit headways. Additional transit ridership demand could increase boarding and alighting activity at existing bus stops and transit terminals located near the Project site.

The Project is consistent with the adopted plans regarding transit facilities and is not expected to decrease the performance or safety of these facilities. Therefore, the Project is considered to have a less than significant impact on public transit.

Appendix A: Scoping Memo

DRAFT MEMORANDUM

Date: October 12, 2021

To: Paul Depalatis, MSA Consulting

From: Paul Herrmann, P.E.
Saima Musharrat, AICP

Subject: Rancho Monterey Specific Plan Traffic Study Scoping Assessment

OC21-0816

Fehr & Peers is conducting a traffic study in support of the Rancho Monterey Specific Plan Amendment (SP Amendment) located in Rancho Mirage, California. This memorandum proposes the scoping information and parameters of a traffic study for the SP Amendment.

The remainder of this memorandum is divided into the following sections: Project Description, Study Area, Data Collection, Analysis Scenarios, Trip Generation, Trip Distribution, Traffic Forecasting, Level of Service Standards, Operations Methodology and Assumptions, and Next Steps.

Project Description

The SP Amendment is a 35-acre planning area within the Monterey Specific Plan. The SP Amendment sets forth a comprehensive vision for a mixed-use project on the west side of Monterey Avenue within the corporate limits of Rancho Mirage, California. This SP Amendment will replace this portion of the existing Specific Plan and establish site-specific development standards, land use regulations, and programs to guide the development of the property in a manner that is consistent with the Rancho Mirage General Plan while also maintaining flexibility to respond to changing conditions that factor in any long-term development.

The SP Amendment proposes a mixed-use development, as shown in **Figure 1**. The SP Amendment is proposing the following land use:

- 400 medium-rise dwelling units (2-3 stories)
- 150,000 square feet of retail use

The Project can be accessed directly through proposed driveways on Monterey Avenue, Dick Kelly Drive (future) and Via Vail (future). Monterey Avenue has three proposed right in/right out



driveways, Dick Kelly Drive has two proposed right in/left out driveways, and Via Vail has one proposed full access driveway.

Study Area

The proposed project trip generation and trip distribution, discussed in detail later in this memorandum, were used to identify study intersections. Consistent with Riverside County Congestion Management Program (CMP) requirements, intersections classified as collectors or higher that the project is anticipated to send 50 or more peak hour trips to were chosen as study intersections.

Figure 2 shows the project study area and proposed study intersections. The proposed study locations for this project are:

1. Monterey Ave & I-10 Westbound Ramps
2. Monterey Ave & I-10 Eastbound Ramps
3. Key Largo Ave & Dinah Shore Dr
4. Monterey Ave & Dinah Shore Dr
5. Monterey Ave & Proposed Roadway Connection (Project Alternative 1 Only)
6. Monterey Ave & Proposed Project Access Driveway
7. Monterey Ave & Dick Kelly Dr
8. Monterey Ave & Gerald Ford Dr
9. Monterey Ave & Frank Sinatra Dr
10. Monterey Ave & Country Club Dr

Data Collection

Fehr & Peers will collect new peak hour (7-9AM, 4-6PM) traffic count data at the proposed study locations. Due to the seasonal nature of the Coachella Valley, traffic counts are known to be highest in the months of January and April. Fehr & Peers will collect counts in October of 2021 and compare the counts to historical counts to apply adjustments and reflect the peak season. The following traffic counts from a previous study from January 2019 are available for the comparison:

1. Monterey Ave & I-10 Eastbound Ramps
2. Monterey Ave & Dinah Shore Dr
3. Monterey Ave & Gerald Ford Dr
4. Monterey Ave & Frank Sinatra Dr

Additional adjustments will be applied to represent growth from 2019 to 2021. In order to validate the accuracy of the October traffic count forecasts, all study locations will be recounted in January



2022. In the event that the January counts do not validate the October forecasts prepared, Fehr & Peers will update the analysis with the new data.

Fehr & Peers will also collect 24-hour roadway segment counts at the following roadway segments to assist in the Section 30 circulation capacity assessment described later in this memorandum:

1. Key Largo Avenue south of Dinah Shore Drive
2. Oasis Way north of Gerald Ford Drive
3. Via Marta east of Bob Hope Drive
4. Ginger Rogers Road east of Bob Hope Drive
5. Victory Lane east of Bob Hope Drive
6. Via Vail east of Bob Hope Drive

Counts will be collected during fair weather, while school is in session, and during a typical (non-holiday) Tuesday, Wednesday or Thursday.

Fehr & Peers will collect the following information in a field visit to the study area:

- Lane configurations
- Signal phasing
- Land uses in the study area
- Existing pedestrian and bicycle facilities
- On-street parking conditions
- Transit service

Fehr & Peers will request the following from the City for use in the study:

- Traffic signal timing information at all signalized intersections
- Pending and approved development projects within a 2-mile radius

Analysis Scenarios

Fehr & Peers will study the intersection Level of Service (LOS) at the study intersections noted above for the following scenarios:

- Existing (2021) Conditions – Traffic turning movement counts collected at study intersections
- Opening Year No (2023) Project Alternative 1 Conditions – Traffic volumes grown by an ambient growth rate and the inclusion of trips from all approved development projects



- within a two-mile radius. This alternative assumes the completion of the proposed roadway connection at the northern edge of the project site between Via Vail and Monterey Avenue.
- Opening Year No (2023) Project Alternative 2 Conditions – Traffic volumes grown by an ambient growth rate and the inclusion of trips from all approved development projects within a two-mile radius. This alternative assumes that the roadway connection would not be completed.
 - Opening Year (2023) Plus Project Conditions – Opening Year (2023) No Project Conditions traffic volumes plus traffic generated by the the SP Amendment
 - Future Year (2040) No Project Conditions – Traffic forecasts consistent with growth in the Rancho Mirage General Plan Travel Demand Forecasting Model year 2040
 - Future Year (2040) Plus Project Alternative 1 Conditions – General Plan Buildout (2035) No Project Conditions plus traffic generated by the SP Amendment. This alternative assumes that the roadway connection would be completed.
 - Future Year (2040) Plus Project Alternative 2 Conditions – General Plan Buildout (2035) No Project Conditions plus traffic generated by the SP Amendment. This alternative assumes that the roadway connection would not be completed.

Trip Generation

Trip Generate Rates

Trip generation rates from *Trip Generation, 10th Edition* (Institute of Transportation Engineers [ITE], 2017) were used to estimate the number of net new trips associated with the Project. Trip generation rates and trip generation estimates are presented in **Table 1**. ITE trip generation rates for Shopping Center (ITE Code 820) were chosen to represent the retail use. Multi-Family Housing (Low-Rise containing one or two floors) (ITE Code 220) was chosen to represent the housing units, and Hotel (ITE Code 310) was chosen to represent the hotel.

Pass-by rates

Rates published in the *ITE Trip Generation Handbook, 3rd Edition* were referenced to estimate appropriate pass-by reductions for the Project land uses. Pass-by trips are assumed to be trips already traveling on Monterey Avenue that stop at a near-by/convenient commercial development and are not considered new trips on the road. Published ITE pass by rates were referenced for all commercial land uses. ITE does not provide pass-by trips for a Shopping Center at the daily level, so a 10% reduction was assumed for daily pass-by rate for this study.



Internal Trip Capture

The proposed Project alternatives will generate new vehicle trips in the study area. However, given the mixed-use nature of the site, it will not generate traffic in a similar manner as to what is typically evaluated for most traffic studies. As such, the analysis evaluates the combined effects of the Project's mixed uses, regional location, demographics, and development scale that contribute to a reduction (when compared to national homogeneous development projects) in off-site average weekday vehicle "trips" (e.g., one vehicle trip is when a person drives from their home to school, shopping, or their job and their return drive home is another trip). This reduction is due largely to the Project's ability to "internally capture" these trips. That is, most of the reduction in total daily vehicle off-site trips generated by the Project is attributable to those trips beginning and ending on the Project site (e.g., both a person's home and job, shopping, or local school are on a project site).

Traditionally, traffic engineers and transportation planners have estimated internalization of project trips using one of two methods. First, they would estimate it based on professional judgment. Alternatively, professionals relied on the Institute of Transportation Engineers' (ITE) internalization methodology presented in the ITE Trip Generation Handbook. Although this has been applied in thousands of studies in California, the methodology is limited as it was based on only six surveys in Florida. Additionally, the ITE internalization methodology only accounts for the land use types on the mixed-use site. Given the limited input information (land use amount and type) and the limited range of data (six surveys), the accuracy of the internalization estimates has recently been found to generally under-estimate internalization of trips from mixed-use projects.

Seeing the limited data set and simplified methodology applied in the ITE handbook, the United States Environmental Protection Agency (EPA) commissioned a study to develop a more substantial, statistically superior methodology. This methodology, identified as MXD (or mixed-use development trip generation), begins with ITE rates and develops trip internalization estimates based on a series of factors tied to numerous site attributes.

Table 1 provides the vehicle trip generation reduction rates for the two proposed Project alternatives developed in MXD.

Trip Generation Estimates

As presented in **Table 1**, the SP Amendment is expected to generate approximately 7,696 daily net external trips, including approximately 305 net external trips (121 inbound/184 outbound) during the AM peak hour, and approximately 534 net external trips (286 inbound/247 outbound) during the PM peak hour.



Trip Distribution

Project trip distribution refers to the directions of approach and departure that vehicles would use to travel to and from the project site. Surrounding land uses, existing roadway network characteristics, existing traffic counts, local knowledge of the study area, Census Bureau Longitudinal Employer-Household Dynamics (LEHD) data, and professional judgement were used to develop the trip distribution.

We anticipate the housing units having a different trip distribution (shown in red) than the retail uses (shown in orange). We assumed that most people would be passing by on Monterey Avenue, so the retail trip distribution is more localized and evenly distributed as opposed to the housing units which are assumed to be traveling farther (such as to the freeway).

The trip distribution assumed for SP Amendment is shown in **Figure 2**.

Traffic Forecasting

The Riverside County Transportation Analysis Model (RIVCOM) will be used to develop forecasts in the study area. The most current version of the Riverside County travel demand forecasting model (RIVCOM) was utilized to prepare traffic forecasts. RIVCOM is WRCOG's latest update to the Riverside County Transportation Analysis Model (RIVTAM) and is consistent with the 2020 SCAG Regional Transportation Plan/Sustainable Communities Strategy (2020 RTP/SCS) with a 2018 base year and a 2045 future year. RIVCOM is considered the most appropriate model for use in this project due to the more recent land use and roadway information. We will review land use forecasts in with City staff to confirm pending and approved development projects are included in the future year land use assumptions.

Section 30 Buildout Forecasting

Fehr & Peers will prepare separate forecasts of the buildout of the Section 30 Specific Plan. We will review all proposed land uses with the City to confirm maximum buildout densities. **Exhibit A** shows our understanding of the land use designations on the Section 30 site. We will prepare daily forecasts for roadway segments that access Section 30. A capacity assessment will be conducted to review the need for the proposed roadway north of the Project site. Due to physical limitations, it will be difficult to construct that roadway. It is anticipated that the Project can be constructed without this roadway and that the Section 30 circulation network will have available capacity and operate above acceptable conditions.



Table 1: Rancho Monterey Trip Generation Estimates

Proposed Use	ITE Land Use	Quantity	Units	AM Peak		PM Peak		Daily Total	AM Peak			PM Peak		
				Trip Rate	In/Out %	Trip Rate	In/Out %		In	Out	Total	In	Out	Total
Multifamily (Low-Rise)	220	400	DUs	0.46	23/77	0.56	63/37	2,928	42	142	184	141	83	224
Shopping Center	820	150	KSF	0.94	62/38	3.81	48/52	5,663	87	54	141	275	297	572
Alternative A Gross Trips								8,025	129	196	325	320	276	596
Pass-By Reduction Shopping Center (10% Daily, 0% AM, 35% PM)								(566)	0	0	0	(96)	(104)	(200)
Internal Capture Reduction (4.1% Daily, 6.3% AM, 10.4% PM)								(329)	(8)	(12)	(20)	(33)	(29)	(62)
Net External Trips								7,696	121	184	305	286	247	534

Notes:

1. KSF = 1,000 square feet, DUs = Dwelling Units

Sources:

1. *Trip Generation Manual 10th Edition (Institute of Transportation Engineers, 2017)*
2. *Trip Generation Handbook 3rd Edition (Institute of Transportation Engineers, 2017)*
3. *MainStreet+, MXD+ (Fehr & Peers, 2021)*



Level of Service Standards

Impact analysis criteria consistent with City of Rancho Mirage, City of Palm Desert, County of Riverside, and Caltrans Guidelines will be applied for this project.

- **City of Rancho Mirage** – The City has adopted LOS “D” as the minimum acceptable standard for intersection operations.
- **The City of Palm Desert** – The City has adopted LOS “D” as the minimum acceptable standard for intersection operations.
- **Caltrans** – Caltrans no longer defines acceptable LOS standards with their latest adoption of the *Vehicle Miles Traveled-Focused Transportation Impact Study Guide (TISG)*, May 2020. This study assumes City of Rancho Mirage LOS “D” minimum acceptable standard at Caltrans locations.
- **Riverside CMP** – Riverside County Transportation Commission (RCTC), as the congestion management agency, has set LOS E as the minimum acceptable threshold for CMP facilities. However, the CMP states that local agency thresholds should be applied as long as they provide improved service levels compared to the CMP requirements. Given that the adopted LOS standards from the City of Rancho Mirage exceed the CMP thresholds, the local thresholds will be applied for the assessment.

Operations and Methodology Assumptions

Intersection Analysis

Intersection operating conditions in the study area will be evaluated using the *Highway Capacity Manual (HCM) 6th Edition* Transportation Research Board (TRB) methodology, which is considered the state-of-the-practice methodology for evaluating intersection operations and is consistent with the City of Rancho Mirage, the City of Palm Desert, and Riverside CMP requirements.

The HCM 6th Edition Methodology estimates a quantitative delay at intersections. After the quantitative delay estimates are complete, the methodology assigns a qualitative letter grade that represents the operations of the intersection. These grades range from level of service (LOS) A (minimal delay) to LOS F (excessive congestion). LOS E represents at-capacity operations. Descriptions of the LOS letter grades for signalized and unsignalized intersections are provided in **Table 2**.



Table 2: Intersection LOS Criteria

Level Of Service	Description	Signalized Delay (Seconds)	Unsignalized Delay (Seconds)
A	Operations with very low delay occurring with favorable progression and/or short cycle length.	≤ 10.0	≤ 10.0
B	Operations with low delay occurring with good progression and/or short cycle lengths.	> 10.0 to 20.0	> 10.0 to 15.0
C	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	> 20.0 to 35.0	> 15.0 to 25.0
D	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	> 35.0 to 55.0	> 25.0 to 35.0
E	Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences.	> 55.0 to 80.0	> 35.0 to 50.0
F	Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths.	> 80.0	> 50.0

Source: *Highway Capacity Manual* 6th Edition (Transportation Research Board, 2017).

The following factors will be applied in the intersection analysis:

- Peak Hour Factor (PHF) will be based on traffic counts collected in the field for all Existing Conditions Analysis
- PHF for all future analysis will be set to 0.95
- Heavy vehicle percentage will be set to 2% for all analysis scenarios unless better data is available

Roadway Segment

Roadway segment operations will be evaluated using the roadway capacities provided in City of Rancho Mirage General Plan Update (June 2017) shown in **Table 3**.



Table 3: City of Rancho Mirage Roadway Capacity

Roadway Classification	Number of Lanes	Two-Way Traffic Volume (ADT)		
		LOS C	LOS D	LOS E
Collector	2	10,400	11,700	13,00
Secondary	4	20,700	23,300	25,900
Major	4	27,300	30,700	34,100
Arterial	2	14,400	16,200	18,000
Arterial	4	28,700	32,300	35,900
Urban Arterial	4	28,700	32,300	35,900
Urban Arterial	6	43,100	48,500	53,900
Urban Arterial	8	57,400	64,600	71,800
Expressway	4	32,700	36,800	40,900
Expressway	6	49,000	55,200	61,300
Expressway	8	65,400	73,500	76,500

Source: City Of Ranch Mirage General Plan Update (June 2017)

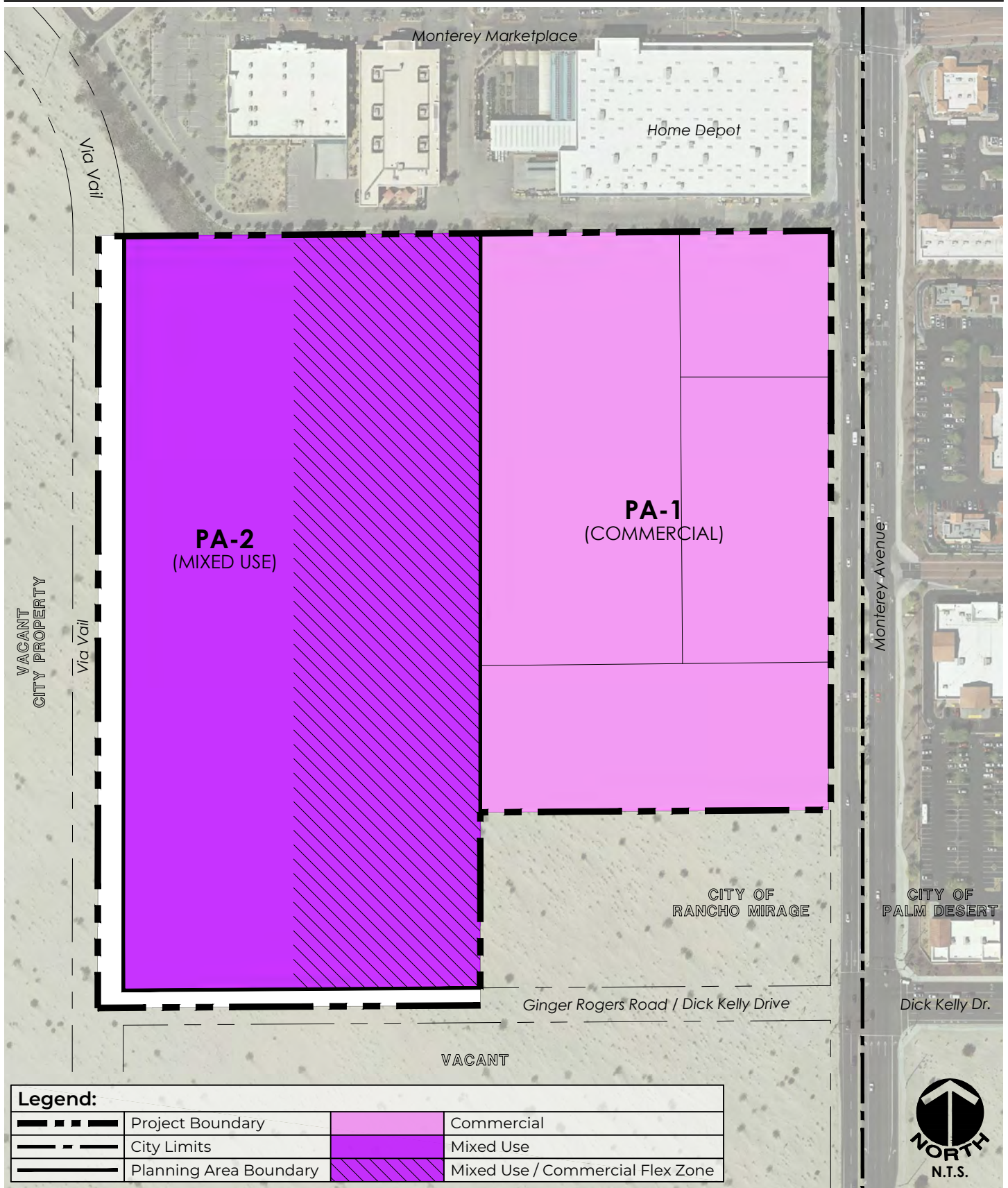
Next Steps

Once the proposed study locations, assumptions, and methodology are approved, and signal timing information and other data is confirmed with the City, Fehr & Peers will begin the traffic operations analysis for this project.

Attachments

- **Figure 1 – Land Use Plan**
- **Figure 2 - Project Trip Distribution & Study Locations**
- **Exhibit A – Section 30 General Plan Land Use & Zoning Overlay**

RANCHO MONTEREY SPECIFIC PLAN AMENDMENT



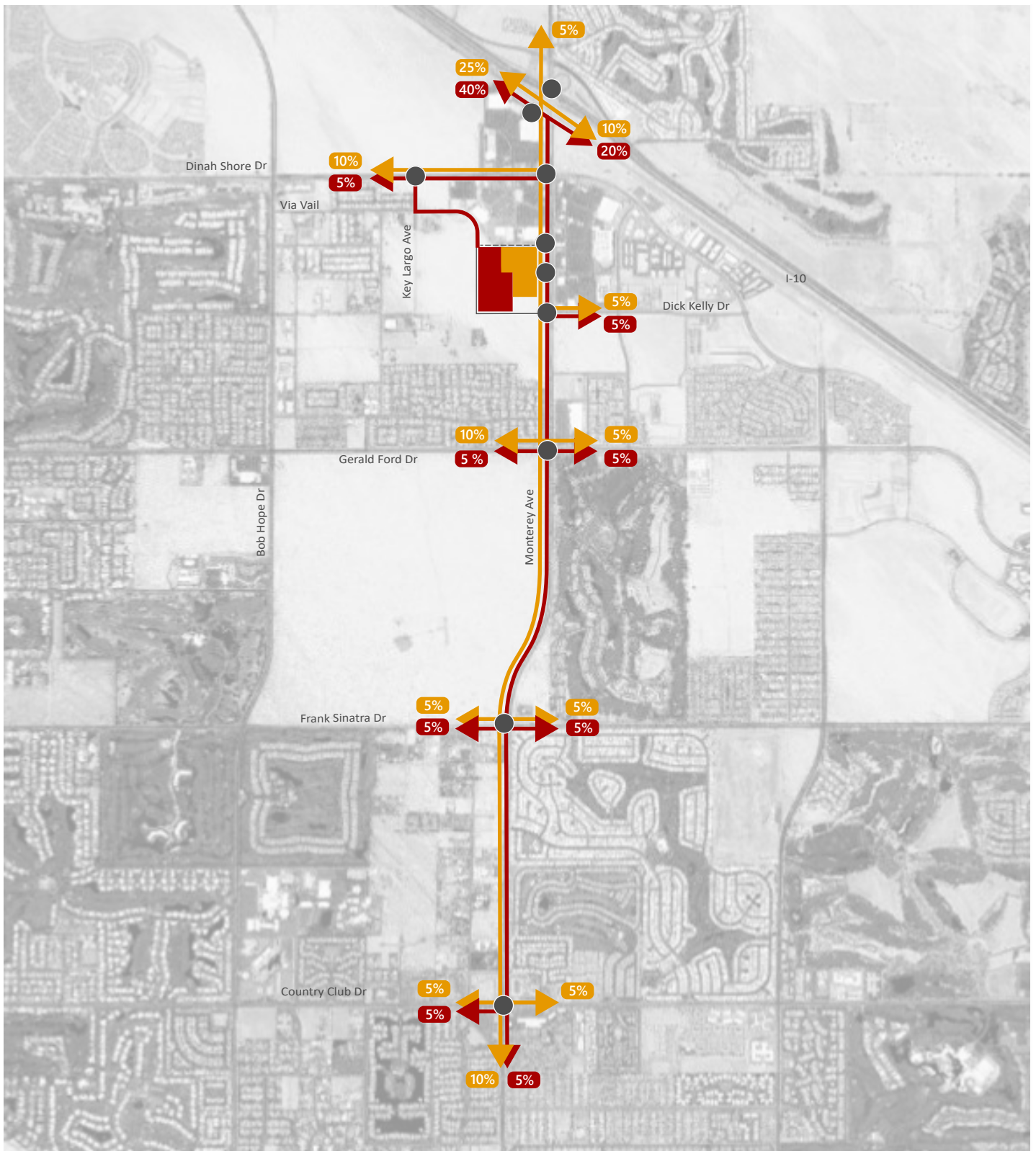
Source: MSA Consulting, Inc.

Exhibit Date: June 14, 2022



PROPOSED LAND USE PLAN

FIGURE 2.1
PAGE 16

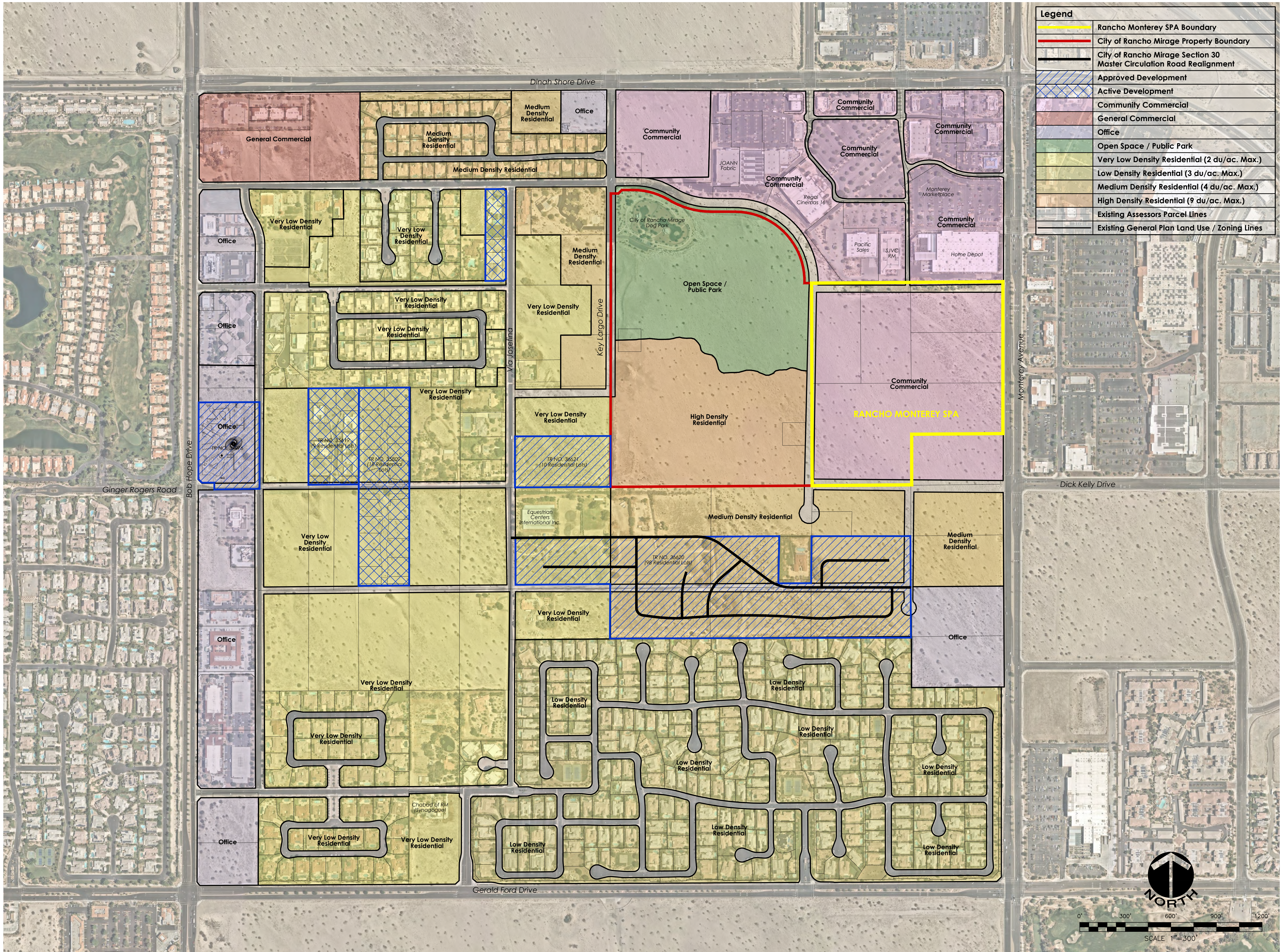


- SP Amendment Residential Site
- SP Amendment Retail Site
- Proposed Road

- Study Intersections
- Residential Project Trips
- Retail Project Trips




Figure 1
Project Trip Distribution and Study Locations



Legend	
	Rancho Monterey SPA Boundary
	City of Rancho Mirage Property Boundary
	City of Rancho Mirage Section 30 Master Circulation Road Realignment
	Approved Development
	Active Development
	Community Commercial
	General Commercial
	Office
	Open Space / Public Park
	Very Low Density Residential (2 du/ac. Max.)
	Low Density Residential (3 du/ac. Max.)
	Medium Density Residential (4 du/ac. Max.)
	High Density Residential (9 du/ac. Max.)
	Existing Assessors Parcel Lines
	Existing General Plan Land Use / Zoning Lines

Appendix B:
Roadway Capacity
Assessment Memo



MEMORANDUM

Date: November 30, 2021
To: Paul Depalatis, MSA Consulting
From: Paul Herrmann, P.E., Saima Musharrat, AICP
Subject: Rancho Monterey Section 30 Specific Plan Roadway Capacity Assessment

OC21-0816

Fehr & Peers is assisting the project applicant for a Specific Plan Amendment (SP Amendment) to the Rancho Monterey Section 30 Specific Plan (Section 30 SP) located in Rancho Mirage, California. The project applicant has identified difficulties in constructing a proposed roadway (Street A) planned as part of the Section 30 SP and desires to eliminate the roadway as part of their SP Amendment. Our assessment below reviewed the buildout of the Section 30 SP, including the SP Amendment with and without Street A, and concludes that there will be enough roadway capacity to provide access without Street A.

The remainder of this memorandum is separated into the following sections: Background, Study Purpose, Proposed Amendment, Study Area, Data Collection, Trip Generation, Trip Distribution, Analysis Methodology, Network Capacity Assessment Results and Conclusions.

Background

The Section 30 SP area includes existing residential, commercial, and office uses. Potential development includes the expansion of new residential, commercial, and office uses. The total potential development for the area is over 700,000 square feet of new development space. The Section 30 land use and zoning overlay is shown in **Appendix A. Table 1** provides a summary of the maximum development potential of the vacant parcels based on zoning density and/or a 0.35 floor-to-area (FAR) ratio.

The buildout of the Section 30 SP includes roadway extensions of Via Vail to the extension of Dick Kelly Drive, and a new roadway, Street A, that would connect Monterey Avenue to Via Vail midway between Dinah Shore Drive and Dick Kelly Drive. The intersection of Monterey Avenue at Dick Kelly Drive is currently signalized and would provide signalized access to the Section 30 SP area. The Monterey Avenue intersection locations reflect the existing memorandum of understanding (MOU) between the City of Rancho Mirage and the City of Palm Desert that establishes the location and geometry of the intersections at Home Depot, the SP Amendment project center, and at Dick Kelly Drive. The proposed intersection of Monterey Avenue at A Street is assumed to only provide right-in/right-out access; this is due to the existing raised median on Monterey Avenue, and Street A's



proximity to existing Home Depot driveway and signalized intersection of Monterey Avenue at Market Place, as shown in **Appendix B**.

Within the Section 30 SP area, a project application is currently in place to amend land use. The proposed SP Amendment is a 35-acre planning area that would replace approximately 222 KSF of general retail with up to 400 multi-family dwelling units, as shown in **Appendix C**. A summary of the approved and proposed land uses for the undeveloped parcels on Section 30 is provided in **Table 1**.

Table 1: Proposed Section 30 Land Use Amendment Summary

ITE Land Use	Approved Land Use Plan	Specific Plan Amendment
Shopping Plaza (40-150k)	310 KSF	310 KSF
Shopping Center (>150k)	372 KSF	150 KSF
General Office Building	464 KSF	464 KSF
Public Park	18 acres	18 acres
Single-Family Detached Housing	368 DUs	368 DUs
Multifamily Housing (Medium-Rise)	1,004 DUs	1,004 DUs
Multifamily Housing (Low-Rise)	-	400 DUs

Notes:

1. KSF = 1,000 square feet, DUs = Dwelling Units

Study Purpose

Street A is proposed on the northern border of this SP Amendment. The SP Amendment applicant has identified difficulties in constructing Street A due to existing site conditions related to grade and the proximity to the loading zone access from Monterey Avenue behind the existing Home Depot. Their alternative proposal would eliminate Street A and rely on Dick Kelly Drive to provide access to Via Vail from Monterey Avenue. In addition, a new signalized intersection and two right-in/right-out driveways would provide additional direct access from the project site to Monterey Avenue (**Appendix D**). The analysis in this memo reviews roadway capacity of a built-out Section 30 SP, including the SP Amendment land uses, to review if Street A is needed.

Study Area

The following roadway segments provide access to Section 30 and were evaluated to review the build-out of Section 30's roadway capacity:

1. Key Largo Avenue south of Dinah Shore Drive
2. Oasis Way north of Gerald Ford Drive
3. Via Marta east of Bob Hope Drive
4. Ginger Rogers Road east of Bob Hope Drive
5. Victory Lane east of Bob Hope Drive



6. Via Vail east of Bob Hope Drive
7. Proposed Extension of Dick Kelley Road west of Monterey Avenue
8. Proposed Street A west of Monterey Avenue

Data Collection

Fehr & Peers collected 24-hour roadway segment count data at the above study locations. Due to the seasonal nature of the Coachella Valley, traffic counts are known to be highest in the months of January through April. Fehr & Peers collected counts in October of 2021. These counts were compared to historical counts from January 2019 and Fehr & Peers applied adjustments to reflect the peak season. Fehr & Peers measured approximately a 10-15% reduction in traffic from January 2019, so a 20% growth factor was applied to the traffic counts to conservatively represent traffic conditions in Winter 2022. To validate the accuracy of the October 2021 traffic count forecasts, all study locations will be recounted in January 2022.

Trip Generation

Fehr & Peers estimated the build-out of the Section 30 SP by forecasting daily trips associated with the build-out of all vacant parcels within the Section 30 SP. These forecasts were based on the maximum allowable zoning on each parcel.

Trip Generation Rates

Trip generation rates from *Trip Generation, 11th Edition* (Institute of Transportation Engineers [ITE], 2021) were used to estimate the number of net new trips associated with the build-out of the SP. Trip generation rates and trip generation estimates are presented in **Table 2**.

Multi-Family Housing (Low-Rise containing one to three floors, Not Close to Transit) (ITE Code 220) was chosen to represent the housing units on the SP Amendment site. Single-Family Detached Housing (ITE Code 210) was chosen to represent the Very Low Density Residential and Medium Density Residential housing units. Multi-Family Housing (Med-Rise containing four to ten floors, Not Close to Transit) (ITE Code 221) was chosen to represent the High-Density Residential housing units.

There are three shopping plazas located in Section 30 that will use the ITE trip generation rates for Shopping Plaza (40-150k - No Supermarket) (ITE Code 821) to represent the Commercial land use. When disaggregated, the individual shopping plazas have a square footage between 40-150k. The Shopping Center (>150k) (ITE Code 820) was chosen to represent the SP Amendment Commercial land use. General Office Building (ITE Code 710) was chosen to represent the office use. Public Park (ITE Code 411) was chosen to represent the Open Space/Public Park land use.

Please note that no pass-by reductions were applied to the daily forecasts for this assessment.



Table 2: Rancho Monterey Section 30 Trip Generation Estimates

Proposed Use	ITE Land Use	Quantity	Units	AM Peak		PM Peak		Daily Total	AM Peak			PM Peak		
				Trip Rate	In/Out %	Trip Rate	In/Out %		In	Out	Total	In	Out	Total
Section 30 Land Uses														
Shopping Plaza (40-150k) (No Supermarket)	821	310	KSF	1.73	62/38	5.19	49/51	20,931	333	203	536	788	821	1,609
Shopping Center (>150k)	820	150	KSF	0.84	62/38	3.40	48/52	5,552	78	48	126	245	265	510
General Office Building	710	464	KSF	1.52	88/12	1.44	17/83	5,034	621	85	706	114	555	669
Public Park	411	18	acre	0.02	59/41	0.11	55/45	14	0	0	0	1	1	2
Single-Family Detached Housing	210	368	DUs	0.70	26/74	0.94	63/37	3,470	67	191	258	218	128	346
Multifamily Housing (Medium-Rise)	221	1,004	DUs	0.37	23/77	0.39	61/39	4,558	85	286	371	239	153	392
Multifamily Housing (Low-Rise)	220	400	DUs	0.40	24/76	0.51	63/37	2,696	38	122	160	129	75	204
Section 30 Gross Trips								42,255	1,222	936	2,158	1,734	1,998	3,732
Pass-By Reduction (Shopping Center 34% PM)								0	0	0	0	(351)	(369)	(720)
Internal Capture Reduction (10% Daily, 12% AM, 15.2% PM)								(4,225)	(147)	(113)	(259)	(264)	(304)	(568)
Section 30 Net External Trips								38,030	1,075	823	1,899	1,119	1,325	2,444

Notes:

1. KSF = 1,000 square feet, DUs = Dwelling Units

Sources:

1. *Trip Generation Manual 11th Edition (Institute of Transportation Engineers, 2021)*
2. *Trip Generation Handbook 3rd Edition (Institute of Transportation Engineers, 2017)*
3. *MainStreet+, MXD+ (Fehr & Peers, 2021)*



Trip Generation Estimates

As presented in **Table 1**, the build-out of the vacant parcels in the Section 30 SP area is expected to generate approximately 38,030 daily trips, including the trips from SP Amendment.

Trip Distribution

Project trip distribution refers to the directions of approach and departure that vehicles would use to travel to and from the project site. Surrounding land uses, existing roadway network characteristics, existing traffic counts, local knowledge of the study area, and professional judgement were used to develop the trip distribution. Each vacant area of land within Section 30 was assigned a zone and classified under a land use category to perform trip distribution and trip assignment. The trip distribution zones are shown in **Appendix E**. The estimated project trips were proportionally distributed to the path(s) of each zone and assigned a percentage. Please note that some zones provide direct access to the surrounding arterials so 100% of traffic was not assumed to use Section 30 access roadways.

The Section 30 SP trip generation estimates were then applied to the trip distribution to estimate the Project trip assignment. A detailed breakdown of the Section 30 trip assignment can be found in the **Appendices F and G**.



Analysis Methodology

Roadway segment operations were evaluated using the roadway capacities provided in City of Rancho Mirage General Plan Update (June 2017) shown in **Table 3**. The roadway segments that access Section 30 are most similar in nature with the 2-lane Collector roadway classification the General Plan.

Table 3: City of Rancho Mirage Roadway Capacity

Roadway Classification	Number of Lanes	Two-Way Traffic Volume (ADT)		
		LOS C	LOS D	LOS E
Collector	2	10,400	11,700	13,000
Secondary	4	20,700	23,300	25,900
Major	4	27,300	30,700	34,100
Arterial	2	14,400	16,200	18,000
Arterial	4	28,700	32,300	35,900
Urban Arterial	4	28,700	32,300	35,900
Urban Arterial	6	43,100	48,500	53,900
Urban Arterial	8	57,400	64,600	71,800
Expressway	4	32,700	36,800	40,900
Expressway	6	49,000	55,200	61,300
Expressway	8	65,400	73,500	76,500

Source: City of Rancho Mirage General Plan Update (June 2017)

Network Capacity Assessment Results

The capacity assessment reviewed the need for Street A. The assessment illustrates that the Project can be constructed without this roadway and that the Section 30 circulation network will have available capacity and operate at acceptable conditions. **Table 4** shows the capacity of the roadway segments, the forecasted traffic of each roadway segment, and the Level of Service (LOS) of each roadway segment. **Table 4** includes the roadway analysis with Street A and without the proposed roadway. With the removal of Street A, the daily trips would mostly be redistributed to Dick Kelly Drive, except for commercial trips at the SP Amendment site that would redistribute to driveways and the new signalized intersection on Monterey Avenue. The roadway segment LOS analysis determined that Section 30 will not result in deficient operations on any roadway within Section 30. Please note that since internal Section 30 roadways do not provide regional access, no additional growth factors were applied to the access roadway segment ADT and this analysis is assumed to represent cumulative buildout conditions.



Table 4: Section 30 SP Buildout Roadway Capacity Analysis

Roadway Segments	With Street A				Without Street A			
	ADT	Build-out Forecast Volumes	Roadway Capacity	LOS	2021 ADT	Build-out Forecast Volumes	Roadway Capacity	LOS
Key Largo Avenue s/o Dinah Shore Drive	1,700	11,353	13,000	D	1,700	11,353	13,000	D
Via Vail e/o Bob Hope Drive	200	7,210	13,000	C or Better	200	7,210	13,000	C or Better
Victory Lane e/o Bob Hope Drive	800	1,158	13,000	C or Better	800	1,158	13,000	C or Better
Ginger Rogers Rd e/o Bob Hope Drive	1,700	4,489	13,000	C or Better	1,700	4,489	13,000	C or Better
Via Marta e/o Bob Hope Drive	1,100	1,482	13,000	C or Better	1,100	1,482	13,000	C or Better
Oasis Way n/o Gerald Ford Drive	1,600	1,828	13,000	C or Better	1,600	1,828	13,000	C or Better
Dick Kelly Drive w/o Monterey Avenue	-	8,760	13,000	C or Better	-	10,858	13,000	D
Proposed Street A w/o Monterey Avenue	-	3,486	13,000	C or Better	-	-	-	-

Note: October 2021 counts were adjusted up to 20% to reflect Winter 2022 conditions



Conclusions

The assessment concludes that there will be enough roadway capacity to provide access to a built-out Section 30 SP with or without Street A. Street A is forecast to carry less than 4,000 daily trips, which can be absorbed by Dick Kelly Drive, and thus is not a critical piece of infrastructure for Section 30 SP.

Appendix

Appendix A : Section 30 General Plan Land Use & Zoning Overlay

Appendix B : Section 30 Circulation Plan

Appendix C : Monterey Specific Plan Amendment Proposed Land Use Plan

Appendix D : Monterey Ave - Access and Circulation

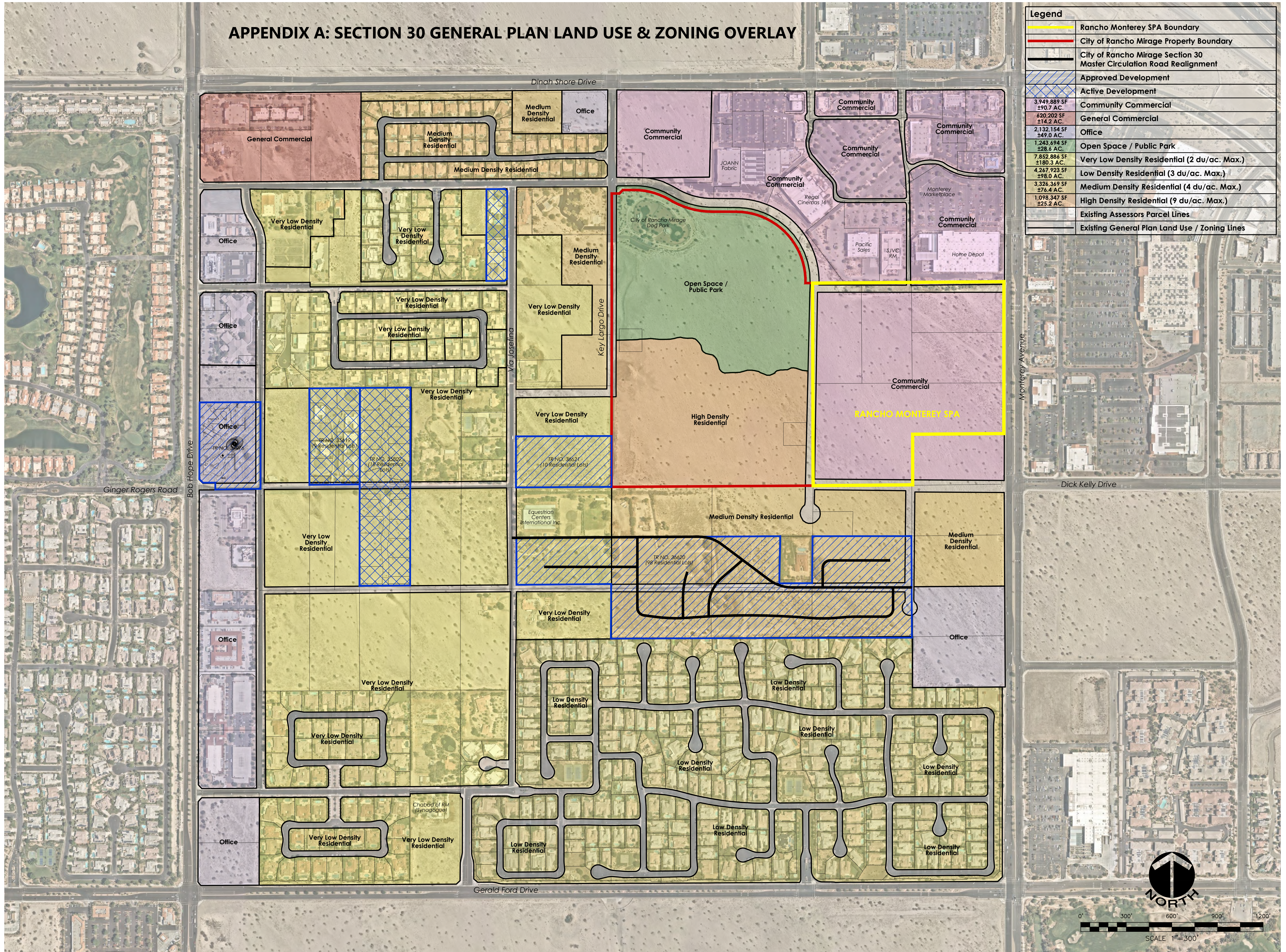
Appendix E : Section 30 Trip Distribution Zones

Appendix F : Section Trip Assignment (Percentage)

Appendix G : Section Trip Assignment (Trips)

APPENDIX A: SECTION 30 GENERAL PLAN LAND USE & ZONING OVERLAY

Legend	
	Rancho Monterey SPA Boundary
	City of Rancho Mirage Property Boundary
	City of Rancho Mirage Section 30 Master Circulation Road Realignment
	Approved Development
	Active Development
	3,949,889 SF ±90.7 A.C.
	Community Commercial
	620,202 SF ±14.2 A.C.
	General Commercial
	2,132,154 SF ±49.0 A.C.
	Office
	1,243,694 SF ±28.6 A.C.
	Open Space / Public Park
	7,852,884 SF ±180.3 A.C.
	Very Low Density Residential (2 du/ac. Max.)
	4,267,923 SF ±98.0 A.C.
	Low Density Residential (3 du/ac. Max.)
	3,326,369 SF ±76.4 A.C.
	Medium Density Residential (4 du/ac. Max.)
	1,098,347 SF ±25.2 A.C.
	High Density Residential (9 du/ac. Max.)
	Existing Assessors Parcel Lines
	Existing General Plan Land Use / Zoning Lines



R:\2615\Acad\Planning\Exhibits\2615 Section 30 GFLU & Zoning Overlay.dwg, 11/1/2021 4:19:50 PM, dgalleroni, MSA Consulting, Inc.

Appendix B: Section 30 Circulation Plan

MASTER CIRCULATION PLAN
SECTION 30, TOWNSHIP 4 SOUTH, RANGE 6 EAST

LEGEND

- MAJOR ARTERIAL (110' R/W)
- MINOR ARTERIAL (100' R/W)
- MAJOR COLLECTOR (100' R/W)
- MINOR ARTERIAL (88' R/W)
- LOCAL STREET (60' R/W)

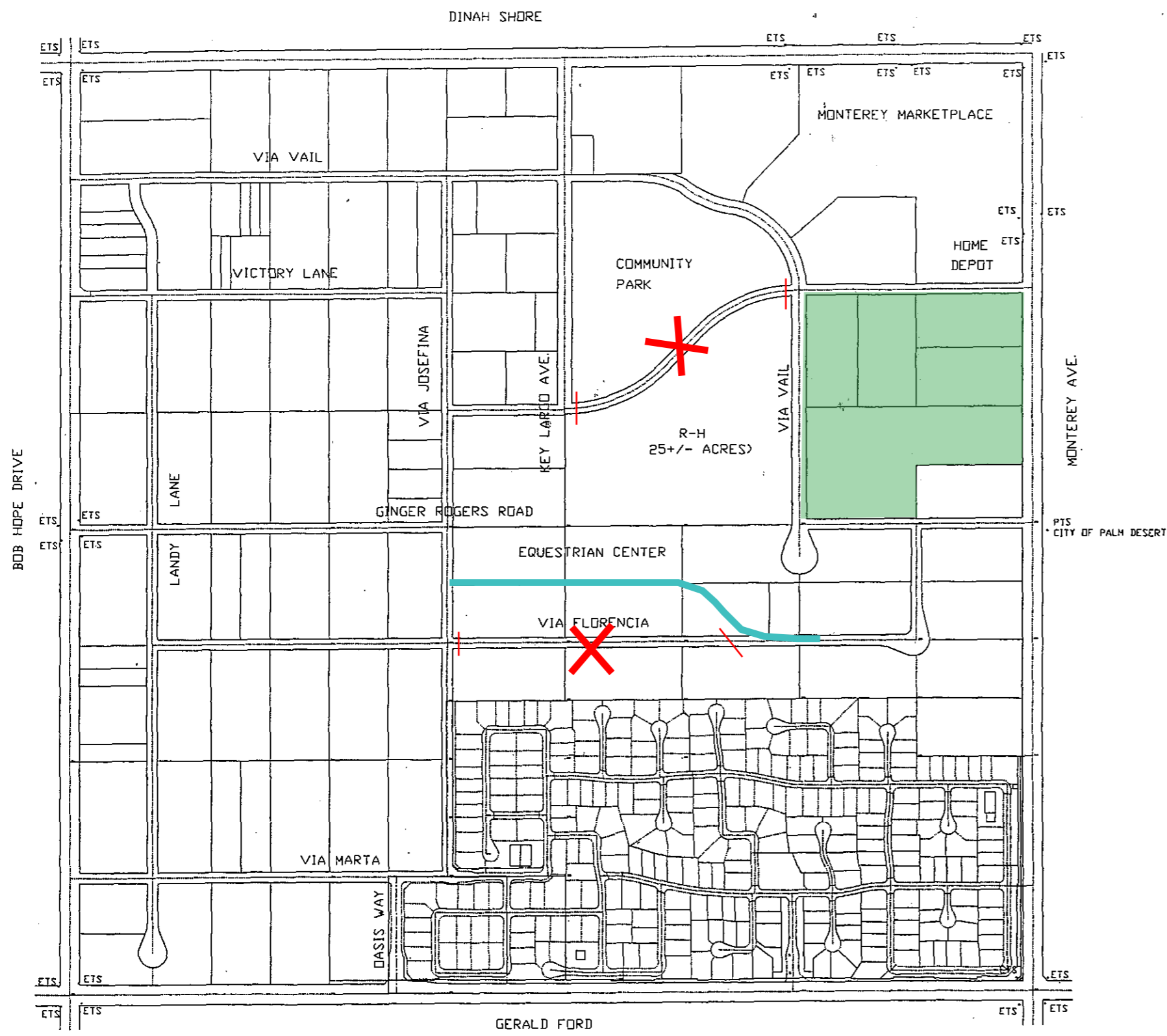
ETS = EXISTING TRAFFIC SIGNAL

PTS = PROPOSED TRAFFIC SIGNALIZATION

ALTERNATIVE NO. 3



NOT TO SCALE

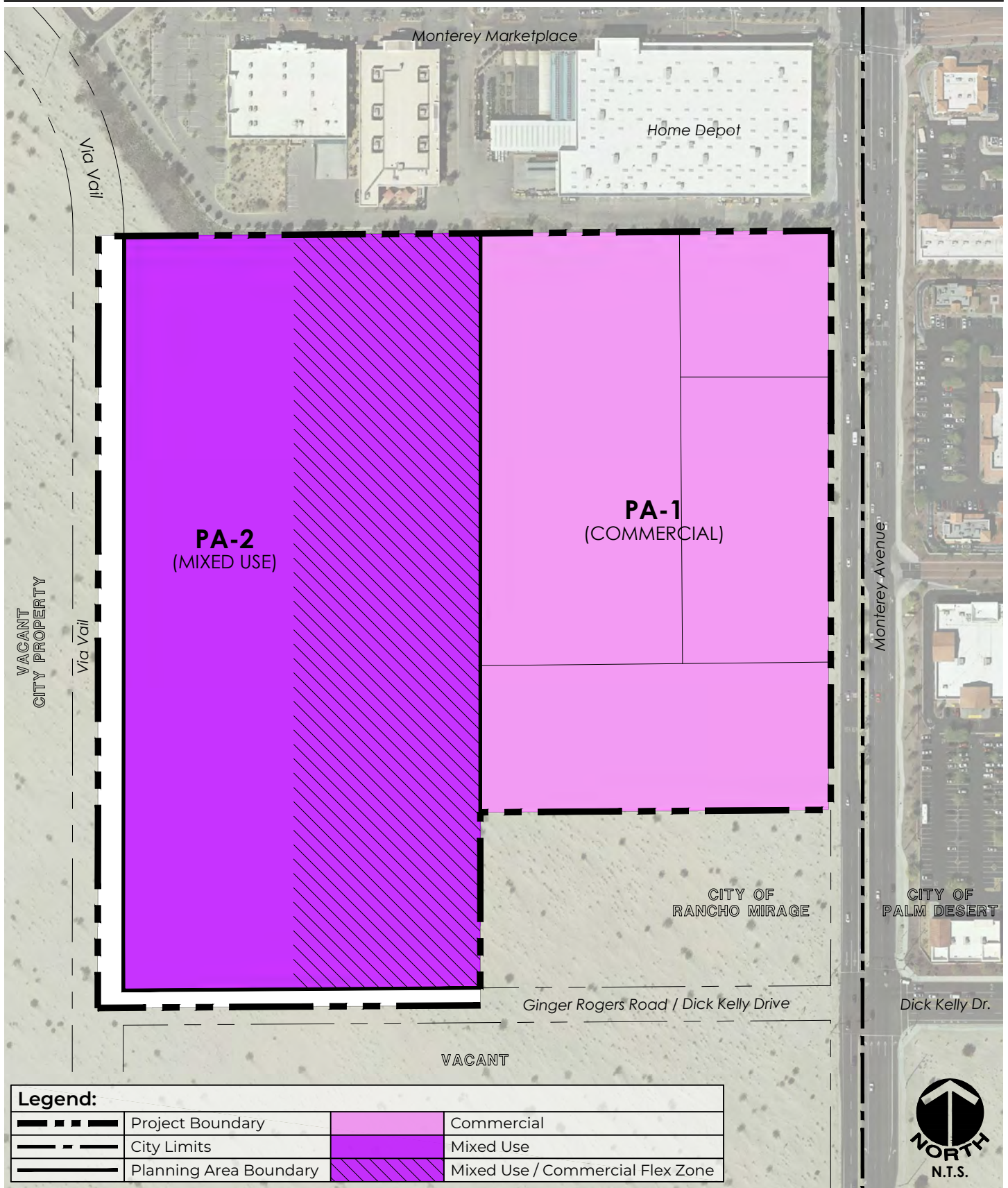


REGENCY HOMES
2 CHATEAU COURT
RANCHO MIRAGE, CA 92270
760-770-7373

CITY OF RANCHO MIRAGE
SECTION 30, MASTER CIRCULATION PLAN

DATE	REVISIONS
2-03-04	INCORPORATING VERSAILLES

RANCHO MONTEREY SPECIFIC PLAN AMENDMENT



Source: MSA Consulting, Inc.

Exhibit Date: June 14, 2022



PROPOSED LAND USE PLAN

FIGURE 2.1
PAGE 16

DINAH SHORE DR.

MONTEREY AVE.

Undeveloped Public Street Network

Unsignalized right-in, right-out

Signalized quad intersection
750' north of 35th Ave.

PROJECT SITE

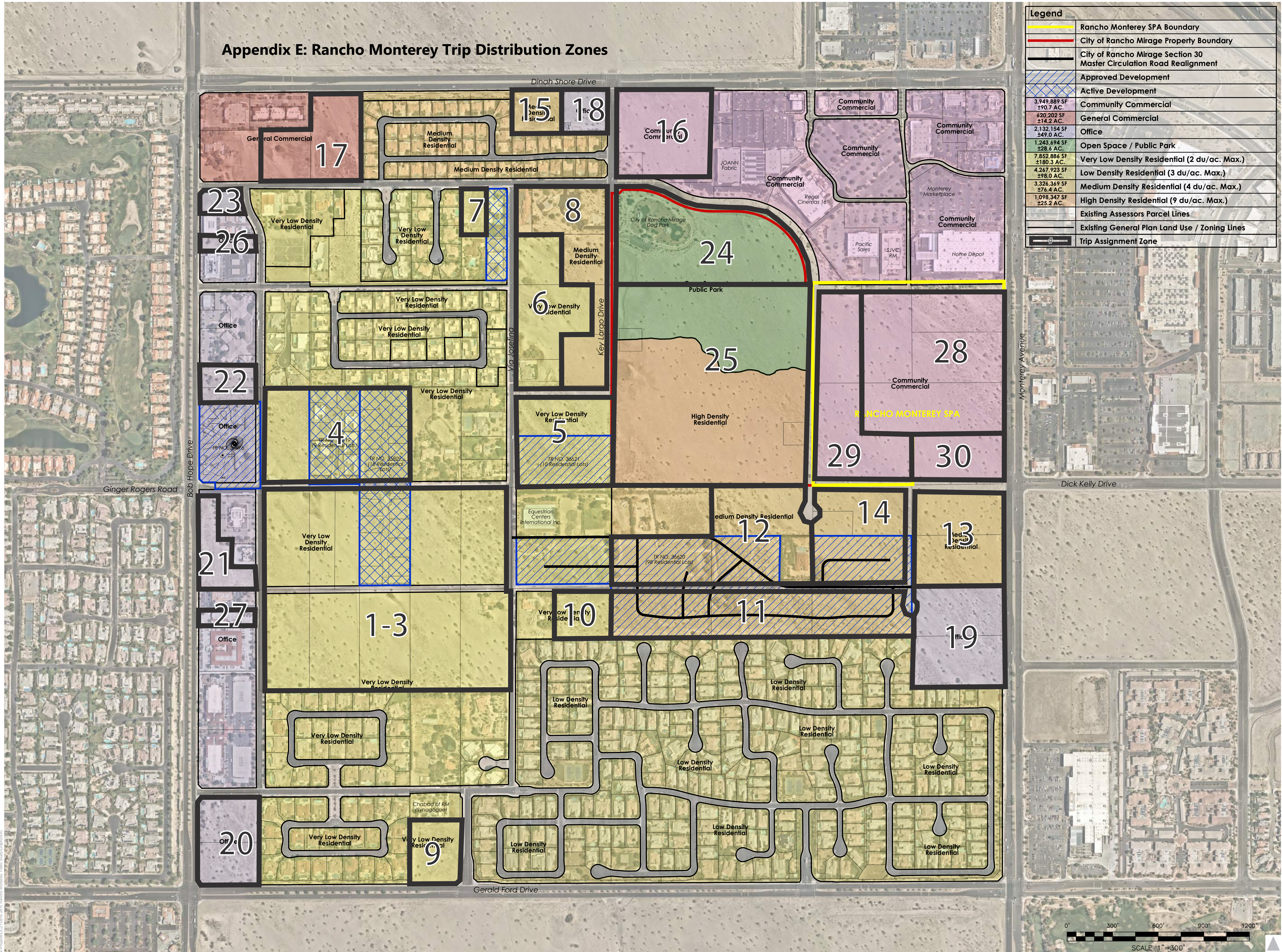
Signalized quad intersection
at 35th Ave.

Appendix D: Monterey Ave
- Access and Circulation



Appendix E: Rancho Monterey Trip Distribution Zones

Legend	
	Rancho Monterey SPA Boundary
	City of Rancho Mirage Property Boundary
	City of Rancho Mirage Section 30 Master Circulation Road Realignment
	Approved Development
	Active Development
	Community Commercial
	General Commercial
	Office
	Open Space / Public Park
	Very Low Density Residential (2 du/ac. Max.)
	Low Density Residential (3 du/ac. Max.)
	Medium Density Residential (4 du/ac. Max.)
	High Density Residential (9 du/ac. Max.)
	Existing Assessors Parcel Lines
	Existing General Plan Land Use / Zoning Lines
	Trip Assignment Zone



N:\Projects\02110818_2015 Rancho Monterey Traffic Study\02110818_V1





Appendix F: Section 30 Trip Assignment (Percentage)

Zone	Land Use Type	Daily Trip Gen	Roadway Segments								
			Key Largo Ave s/o Dinah Shore Dr	Via Vail e/o Bob Hope Dr	Victory Lane e/o Bob Hope Dr	Ginger Rogers Rd e/o Bob Hope Dr	Via Marta e/o Bob Hope Dr	Oasis Way n/o Gerald Ford Dr	Dick Kelly Dr w/o Monterey Ave	Street A w/o Monterey Ave	Arterial
1-3	Single-Family Detached Housing	906	20%	-	-	45%	20%	5%	10%	-	-
4	Single-Family Detached Housing	175	20%	-	45%	35%	-	-	-	-	-
5	Single-Family Detached Housing	164	20%	-	45%	-	-	15%	20%	-	-
6	Single-Family Detached Housing	113	20%	45%	10%	10%	-	5%	10%	-	-
7	Single-Family Detached Housing	22	25%	55%	-	-	-	-	-	20%	-
8	Single-Family Detached Housing	202	20%	45%	10%	10%	-	5%	10%	-	-
9	Single-Family Detached Housing	67	10%	-	-	-	45%	35%	10%	-	-
10	Single-Family Detached Housing	51	10%	-	-	45%	-	20%	25%	-	-
11	Single-Family Detached Housing	515	10%	-	-	45%	-	20%	25%	-	-
12	Single-Family Detached Housing	455	20%	25%	-	-	-	-	45%	10%	-
13	Single-Family Detached Housing	340	20%	25%	-	-	-	-	45%	10%	-

Rancho Monterey Section 30 Specific Plan Roadway Capacity Assessment



14	Single-Family Detached Housing	360	20%	25%	-	-	-	-	55%	-	-
15	Single-Family Detached Housing	81	-	-	-	-	-	-	-	-	100%
16	Shopping Plaza (No Supermarket)	8,804	70%	10%	-	-	-	-	20%	10%	20%
17	Shopping Plaza (No Supermarket)	8,472	-	50%	-	-	-	-	-	-	50%
18	Office	305	100%	20%	-	-	-	-	20%	-	-
19	Office	1,439	-	-	-	-	-	-	10%	-	90%
20	Office	845	-	-	-	-	20%	-	-	-	-
21 & 27	Office	695	-	-	-	20%	-	-	-	-	-
22	Office	1,091	-	-	10%	10%	-	-	-	-	-
23 & 26	Office	306	-	80%	20%	-	-	-	-	-	-
24	Public Park	14	40%	15%	-	10%	-	10%	15%	10%	-
25	Multifamily Housing Med-Rise	4,558	20%	25%	-	15%	-	-	30%	10%	-
28	Shopping Plaza (With Supermarket)	5,552	20%	-	-	10%	-	-	25%	25%	20%
29	Multifamily Housing Low-Rise	2,696	20%	-	-	20%	-	-	35%	25%	-
30	Shopping Plaza (No Supermarket)	3,714	-	-	-	-	-	-	60%	-	40%

Notes:

1. N/O = North of, S/O = South of, W/O = West of, E/O = East of

Appendix G: Section 30 Trip Assignment (Trips)

Zone	Land Use Type	Daily Trip Gen								
			Key Largo Ave s/o Dinah	Via Vail e/o Bob	Victory Lane e/o Bob Hope	Rogers Rd e/o Bob Hope	Via Marta e/o Bob	Oasis Way n/o Gerald	Dick Kelly Dr w/o Monterey	Street A w/o Monterey
1-3		906	182	-	-	408	182	46	91	-
4		175	35	-	79	62	-	-	-	-
5		164	33	-	74	-	-	25	33	-
6		113	23	51	12	12	-	6	12	-
7		22	6	13	-	-	-	-	-	5
8		202	41	91	21	21	-	11	21	-
9		67	7	-	-	-	31	24	7	-
10		51	6	-	-	23	-	11	13	-
11		515	52	-	-	232	-	103	129	-
12		455	91	114	-	-	-	-	205	46
13		340	68	85	-	-	-	-	153	34
14		360	72	90	-	-	-	-	198	-

Rancho Monterey Section 30 Specific Plan Roadway Capacity Assessment



15	Single-Family Detached Housing	81	-	-	-	-	-	-	-	-
16	Shopping Plaza (No Supermarket)	8,804	6,163	881	-	-	-	-	1,761	881
17	Shopping Plaza (No Supermarket)	8,472	-	4,236	-	-	-	-	-	-
18	Office	305	305	61	-	-	-	-	61	-
19	Office	1,439	-	-	-	-	-	-	144	-
20	Office	845	-	-	-	-	169	-	-	-
21 & 27	Office	695	-	-	-	139	-	-	-	-
22	Office	1,091	-	-	110	110	-	-	-	-
23 & 26	Office	306	-	245	62	-	-	-	-	-
24	Public Park	14	6	3	-	2	-	2	3	2
25	Multifamily Housing Med-Rise	4,558	912	1,140	-	684	-	-	1,368	456
28	Shopping Plaza (With Supermarket)	5,552	1,111	-	-	556	-	-	1,388	1,388
29	Multifamily Housing Low-Rise	2,696	540	-	-	540	-	-	944	674
30	Shopping Plaza (No Supermarket)	3,714	-	-	-	-	-	-	2,229	-

Notes:

1. N/O = North of, S/O = South of, W/O = West of, E/O = East of

Appendix C:
Cumulative Projects List



Project Name	Description
Carefield Senior Living	A Preliminary Development Plan for 80,000 square feet two-story senior assisted living facility with 84 units and common amenities located on the southeast corner of Country Club Dr. and John L. Sinn Rd. APN: 682-010-022-5
Veneto Multi-Family	A (Major) Modification to build out an existing project into 34 units by adding a 1 one- story 6 unit condominiums and 15 villas 2 of which will be custom built to bring the total to 34 units.
Revelle @ Clancy Single Family	A Preliminary Development Plan to build 32 semi-custom residences on 18 acres in a gated community at Revelle at Clancy Lane 72-860 Clancy Lane APN: 682-250-003. 682 -250-054 / 055
Bella Clancy – Ranch Palmeras Single Family	Modification to Bella Clancy to allow 15 ft. setbacks for side entry garages. Construction of 20 single family homes, located at Rancho Palmeras east of Follansbee Rd.
Chase Bank	A Preliminary Development Plan to develop a 3,470 sq.ft. Chase Bank on the south side of Highway 111 at the signalized intersection of Highway 111 and Bob Hope Drive. APN: 684-421-022 & 684-421-023.
In N Out	A Preliminary Development Plan to construction a 3,995 sq.ft. drive-thru IN-N-OUT Burger restaurant to be located on southwest of the Rancho Las Palmas shopping center located at 42560 Bob Hope Drive. APN: 682-320-019
Section 31 Specific Plan	Hotel: 400 rooms Retail: 175,000 square feet Single Family Residential: 1,100 dwelling units Multi-Family (Mid Rise) Residential :832 dwelling units
Porcupine Creek Resort	Hotel: 27 rooms
Agua Caliente Casino Expansion	Hotel: 310 rooms Retail: 145,000 square feet Entertainment: 63200 square feet
TTM 36620	82 single family dwelling units
Monterey Medical Center	75,184 square feet medical office space
Pulte-Del Webb Housing Development	1450 single family senior housing
























Appendix D:
Level of Service (LOS)
Analysis Reports

A decorative graphic at the bottom of the page consisting of two overlapping green shapes. The top shape is a dark green, irregular polygon that tapers to the left and right. The bottom shape is a lighter green, irregular polygon that tapers to the left and right, overlapping the bottom edge of the dark green shape.

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study Existing Conditions

1: Varner Rd & Monterey Ave

Existing (2022) - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	96	224	622	242	108	148	143	40	57	560	12
Future Volume (veh/h)	13	96	224	622	242	108	148	143	40	57	560	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	15	110	25	715	278	84	170	164	0	66	644	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	64	312	132	778	760	225	685	1566		92	1013	
Arrive On Green	0.04	0.08	0.08	0.23	0.28	0.28	0.20	0.44	0.00	0.05	0.28	0.00
Sat Flow, veh/h	1781	3741	1585	3456	2700	799	3456	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	15	110	25	715	181	181	170	164	0	66	644	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1728	1777	1722	1728	1777	1585	1781	1777	1585
Q Serve(g_s), s	1.0	3.3	1.8	24.3	9.8	10.1	5.0	3.2	0.0	4.4	19.0	0.0
Cycle Q Clear(g_c), s	1.0	3.3	1.8	24.3	9.8	10.1	5.0	3.2	0.0	4.4	19.0	0.0
Prop In Lane	1.00		1.00	1.00		0.46	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	64	312	132	778	500	485	685	1566		92	1013	
V/C Ratio(X)	0.23	0.35	0.19	0.92	0.36	0.37	0.25	0.10		0.71	0.64	
Avail Cap(c_a), veh/h	168	380	161	1112	585	567	685	1566		178	1013	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	56.2	51.9	51.2	45.4	34.5	34.6	40.6	19.7	0.0	56.0	37.5	0.0
Incr Delay (d2), s/veh	0.7	0.7	0.7	7.5	0.2	0.2	0.1	0.1	0.0	3.8	3.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.5	0.7	10.7	4.0	4.1	2.0	1.3	0.0	2.0	8.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.9	52.6	51.9	52.9	34.7	34.8	40.7	19.8	0.0	59.8	40.5	0.0
LnGrp LOS	E	D	D	D	C	C	D	B		E	D	
Approach Vol, veh/h		150			1077			334	A		710	A
Approach Delay, s/veh		52.9			46.8			30.4			42.3	
Approach LOS		D			D			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.6	59.1	33.5	15.8	30.0	40.7	9.0	40.3				
Change Period (Y+Rc), s	5.4	6.2	6.5	* 5.8	6.2	* 6.5	* 4.7	6.5				
Max Green Setting (Gmax), s	12.0	34.4	38.6	* 12	12.2	* 34	* 11	39.5				
Max Q Clear Time (g_c+I1), s	6.4	5.2	26.3	5.3	7.0	21.0	3.0	12.1				
Green Ext Time (p_c), s	0.0	0.8	0.7	0.3	0.2	3.2	0.0	1.1				
Intersection Summary												
HCM 6th Ctrl Delay			43.4									
HCM 6th LOS			D									
Notes												
User approved volume balancing among the lanes for turning movement.												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												
Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.												

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study Existing Conditions

2: Monterey Ave & I-10 EB Ramps

Existing (2022) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	2	1013	0	0	0	0	586	345	198	1162	0
Future Volume (veh/h)	45	2	1013	0	0	0	0	586	345	198	1162	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	35	0	1142				0	674	95	228	1336	0
Peak Hour Factor	0.87	0.87	0.87				0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	852	0	1516				0	1204	374	518	1510	0
Arrive On Green	0.48	0.00	0.48				0.00	0.08	0.08	0.15	0.42	0.00
Sat Flow, veh/h	1781	0	3170				0	5274	1585	3456	3647	0
Grp Volume(v), veh/h	35	0	1142				0	674	95	228	1336	0
Grp Sat Flow(s),veh/h/ln	1781	0	1585				0	1702	1585	1728	1777	0
Q Serve(g_s), s	1.3	0.0	35.2				0.0	15.3	6.8	7.2	41.6	0.0
Cycle Q Clear(g_c), s	1.3	0.0	35.2				0.0	15.3	6.8	7.2	41.6	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	852	0	1516				0	1204	374	518	1510	0
V/C Ratio(X)	0.04	0.00	0.75				0.00	0.56	0.25	0.44	0.88	0.00
Avail Cap(c_a), veh/h	852	0	1516				0	1204	374	518	1510	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.93	0.93	1.00	1.00	0.00
Uniform Delay (d), s/veh	16.7	0.0	25.5				0.0	49.3	45.4	46.4	31.8	0.0
Incr Delay (d2), s/veh	0.1	0.0	3.5				0.0	1.8	1.5	2.7	7.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	13.7				0.0	7.1	2.8	3.2	18.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.7	0.0	29.0				0.0	51.1	46.9	49.1	39.7	0.0
LnGrp LOS	B	A	C				A	D	D	D	D	A
Approach Vol, veh/h		1177						769			1564	
Approach Delay, s/veh		28.7						50.6			41.1	
Approach LOS		C						D			D	
Timer - Assigned Phs	1	2	4	6								
Phs Duration (G+Y+Rc), s	32.7	34.1	63.2	56.8								
Change Period (Y+Rc), s	4.7	5.8	5.8	5.8								
Max Green Setting (Gmax), s	18	28.3	57.4	51.0								
Max Q Clear Time (g_c+I), s	19.2	17.3	37.2	43.6								
Green Ext Time (p_c), s	0.5	3.2	6.9	4.7								

Intersection Summary

HCM 6th Ctrl Delay	39.0
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study Existing Conditions

3: Key Largo Ave & Dinah Shore Dr

Existing (2022) - AM Peak Hour



Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔ ↑↑↑			↔ ↑↑↑		↔ ↑	↔ ↑
Traffic Volume (veh/h)	10	590	32	60	476	17	26
Future Volume (veh/h)	10	590	32	60	476	17	26
Initial Q (Qb), veh		0	0	0	0	0	0
Ped-Bike Adj(A_pbT)			0.99	1.00		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No	No		
Adj Sat Flow, veh/h/ln		1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h		641	30	65	517	18	3
Peak Hour Factor		0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %		2	2	2	2	2	2
Cap, veh/h		1504	70	127	1459	48	43
Arrive On Green		0.30	0.30	0.07	0.29	0.03	0.03
Sat Flow, veh/h		5166	233	1781	5274	1781	1585
Grp Volume(v), veh/h		436	235	65	517	18	3
Grp Sat Flow(s),veh/h/ln		1702	1826	1781	1702	1781	1585
Q Serve(g_s), s		2.8	2.8	1.0	2.2	0.3	0.1
Cycle Q Clear(g_c), s		2.8	2.8	1.0	2.2	0.3	0.1
Prop In Lane			0.13	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		1024	549	127	1459	48	43
V/C Ratio(X)		0.43	0.43	0.51	0.35	0.37	0.07
Avail Cap(c_a), veh/h		4959	2661	1298	7439	1298	1155
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		7.7	7.7	12.3	7.8	13.1	13.0
Incr Delay (d2), s/veh		0.1	0.2	1.2	0.1	1.8	0.3
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		0.3	0.4	0.2	0.3	0.1	0.0
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		7.8	7.9	13.5	7.8	14.9	13.3
LnGrp LOS		A	A	B	A	B	B
Approach Vol, veh/h		671			582	21	
Approach Delay, s/veh		7.8			8.5	14.7	
Approach LOS		A			A	B	
Timer - Assigned Phs			3	4		6	8
Phs Duration (G+Y+Rc), s			7.0	14.8		5.7	14.3
Change Period (Y+Rc), s			5.0	6.5		5.0	6.5
Max Green Setting (Gmax), s			20.0	40.0		20.0	40.0
Max Q Clear Time (g_c+I1), s			3.0	4.8		2.3	4.2
Green Ext Time (p_c), s			0.0	2.3		0.0	2.0
Intersection Summary							
HCM 6th Ctrl Delay			8.2				
HCM 6th LOS			A				
Notes							
User approved pedestrian interval to be less than phase max green.							
User approved ignoring U-Turning movement.							

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study Existing Conditions
 4: Monterey Ave & Dinah Shore Dr Existing (2022) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖	↑↑	↖	↖↗↑↑↑			↖↗	↑↑↑	↖
Traffic Volume (veh/h)	300	246	140	28	216	366	139	372	13	371	1364	423
Future Volume (veh/h)	300	246	140	28	216	366	139	372	13	371	1364	423
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	341	280	34	32	245	0	158	423	14	422	1550	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	396	610	270	78	358		229	2356	78	483	2745	
Arrive On Green	0.11	0.17	0.17	0.04	0.10	0.00	0.07	0.46	0.46	0.05	0.18	0.00
Sat Flow, veh/h	3456	3554	1571	1781	3554	1585	3456	5077	167	3456	5106	1585
Grp Volume(v), veh/h	341	280	34	32	245	0	158	283	154	422	1550	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1571	1781	1777	1585	1728	1702	1840	1728	1702	1585
Q Serve(g_s), s	11.6	8.5	2.2	2.1	8.0	0.0	5.4	5.8	5.9	14.6	33.3	0.0
Cycle Q Clear(g_c), s	11.6	8.5	2.2	2.1	8.0	0.0	5.4	5.8	5.9	14.6	33.3	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.09	1.00		1.00
Lane Grp Cap(c), veh/h	396	610	270	78	358		229	1580	854	483	2745	
V/C Ratio(X)	0.86	0.46	0.13	0.41	0.69		0.69	0.18	0.18	0.87	0.56	
Avail Cap(c_a), veh/h	547	957	423	119	631		374	1580	854	691	2745	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	0.99	0.99	0.99	1.00	1.00	0.00	1.00	1.00	1.00	0.41	0.41	0.00
Uniform Delay (d), s/veh	52.2	44.7	42.1	55.9	52.1	0.0	54.8	18.8	18.8	56.2	36.5	0.0
Incr Delay (d2), s/veh	7.6	0.2	0.1	1.3	0.9	0.0	1.4	0.2	0.5	2.9	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	3.6	0.8	0.9	3.5	0.0	2.3	2.2	2.5	6.9	15.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.8	44.9	42.2	57.2	53.0	0.0	56.2	19.0	19.3	59.0	36.9	0.0
LnGrp LOS	E	D	D	E	D		E	B	B	E	D	
Approach Vol, veh/h		655			277	A		595			1972	A
Approach Delay, s/veh		52.5			53.5			29.0			41.6	
Approach LOS		D			D			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.2	26.3	13.0	70.5	18.8	17.8	21.8	61.7				
Change Period (Y+Rc), s	5.0	5.7	5.0	6.0	5.0	5.7	5.0	6.0				
Max Green Setting (Gmax), s	32.3	32.3	13.0	45.0	19.0	21.3	24.0	34.0				
Max Q Clear Time (g_c+1), s	10.5	10.5	7.4	35.3	13.6	10.0	16.6	7.9				
Green Ext Time (p_c), s	0.0	0.5	0.0	3.1	0.1	0.4	0.2	0.7				

Intersection Summary

HCM 6th Ctrl Delay	42.4
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
 Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th TWSC
 6: Proposed Project Access Driveway & Monterey Ave

Rancho Monterey Traffic Study Existing Conditions

Existing (2022) - AM Peak Hour

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗ ↘ ↘ ↘	↗ ↘ ↘ ↘		↗ ↘	↗ ↘
Traffic Vol, veh/h	0	6	594	51	54	1246
Future Vol, veh/h	0	6	594	51	54	1246
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	185	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	6	625	54	57	1312

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	-	340	0	0	679
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	5.34
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	3.12
Pot Cap-1 Maneuver	0	560	-	-	558
Stage 1	0	-	-	-	-
Stage 2	0	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	-	560	-	-	558
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.5	0	0.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	560	558
HCM Lane V/C Ratio	-	-	0.011	0.102
HCM Control Delay (s)	-	-	11.5	12.2
HCM Lane LOS	-	-	B	B
HCM 95th %tile Q(veh)	-	-	0	0.3

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study Existing Conditions

7: Monterey Ave & Dick Kelly Dr

Existing (2022) - AM Peak Hour



Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (veh/h)	69	21	10	624	49	16	1230
Future Volume (veh/h)	69	21	10	624	49	16	1230
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00			0.99	1.00	
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No
Adj Sat Flow, veh/h/ln	1870	1870		1870	1870	1870	1870
Adj Flow Rate, veh/h	77	0		671	29	17	1323
Peak Hour Factor	0.93	0.93		0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2		2	2	2	2
Cap, veh/h	283	126		1798	554	47	1703
Arrive On Green	0.08	0.00		0.35	0.35	0.03	0.48
Sat Flow, veh/h	3563	1585		5274	1574	1781	3647
Grp Volume(v), veh/h	77	0		671	29	17	1323
Grp Sat Flow(s),veh/h/ln	1781	1585		1702	1574	1781	1777
Q Serve(g_s), s	0.6	0.0		2.9	0.4	0.3	9.1
Cycle Q Clear(g_c), s	0.6	0.0		2.9	0.4	0.3	9.1
Prop In Lane	1.00	1.00			1.00	1.00	
Lane Grp Cap(c), veh/h	283	126		1798	554	47	1703
V/C Ratio(X)	0.27	0.00		0.37	0.05	0.36	0.78
Avail Cap(c_a), veh/h	2186	973		7833	2414	911	5451
HCM Platoon Ratio	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.7	0.0		7.1	6.3	14.0	6.3
Incr Delay (d2), s/veh	0.5	0.0		0.0	0.0	1.7	0.3
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0		0.3	0.0	0.1	0.3
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	13.2	0.0		7.1	6.3	15.7	6.6
LnGrp LOS	B	A		A	A	B	A
Approach Vol, veh/h	77			700			1340
Approach Delay, s/veh	13.2			7.1			6.8
Approach LOS	B			A			A
Timer - Assigned Phs		2			5	6	8
Phs Duration (G+Y+Rc), s		20.5			5.8	16.7	6.8
Change Period (Y+Rc), s		6.4			5.0	6.4	4.5
Max Green Setting (Gmax), s		45.0			15.0	45.0	18.0
Max Q Clear Time (g_c+I1), s		11.1			2.3	4.9	2.6
Green Ext Time (p_c), s		3.0			0.0	1.4	0.1

Intersection Summary

HCM 6th Ctrl Delay	7.1
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.
 User approved ignoring U-Turning movement.

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study Existing Conditions

8: Monterey Ave & Gerald Ford Dr

Existing (2022) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖↗	↑↑	↖	↖↗	↑↑↖		↖↗	↑↑↑	↖
Traffic Volume (veh/h)	73	261	142	120	476	71	102	542	29	48	1087	113
Future Volume (veh/h)	73	261	142	120	476	71	102	542	29	48	1087	113
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	85	303	31	140	553	19	119	630	31	56	1264	0
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	136	626	277	196	688	304	174	2665	130	122	2652	
Arrive On Green	0.04	0.18	0.18	0.06	0.19	0.19	0.05	0.53	0.53	0.04	0.52	0.00
Sat Flow, veh/h	3456	3554	1572	3456	3554	1573	3456	4986	244	3456	5106	1585
Grp Volume(v), veh/h	85	303	31	140	553	19	119	429	232	56	1264	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1572	1728	1777	1573	1728	1702	1826	1728	1702	1585
Q Serve(g_s), s	2.9	9.2	2.0	4.8	17.8	1.2	4.1	8.1	8.1	1.9	19.0	0.0
Cycle Q Clear(g_c), s	2.9	9.2	2.0	4.8	17.8	1.2	4.1	8.1	8.1	1.9	19.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.13	1.00		1.00
Lane Grp Cap(c), veh/h	136	626	277	196	688	304	174	1819	976	122	2652	
V/C Ratio(X)	0.63	0.48	0.11	0.71	0.80	0.06	0.68	0.24	0.24	0.46	0.48	
Avail Cap(c_a), veh/h	374	868	384	374	868	384	374	1819	976	346	2652	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.98	0.98	0.98	0.82	0.82	0.00
Uniform Delay (d), s/veh	56.8	44.5	41.6	55.6	46.2	39.5	56.0	14.9	14.9	56.8	18.4	0.0
Incr Delay (d2), s/veh	1.8	0.6	0.2	1.8	4.4	0.1	1.7	0.3	0.6	0.8	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	4.0	0.8	2.1	8.0	0.5	1.7	2.9	3.2	0.8	6.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.6	45.1	41.7	57.4	50.6	39.6	57.8	15.2	15.5	57.6	18.9	0.0
LnGrp LOS	E	D	D	E	D	D	E	B	B	E	B	
Approach Vol, veh/h		419			712			780			1320	A
Approach Delay, s/veh		47.6			51.7			21.8			20.6	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.0	69.3	9.7	29.9	9.2	71.1	11.8	27.8				
Change Period (Y+Rc), s	5.0	7.0	5.0	6.7	5.0	7.0	5.0	6.7				
Max Green Setting (Gmax), s	13.0	41.0	13.0	29.3	12.0	42.0	13.0	29.3				
Max Q Clear Time (g_c+1), s	10.5	21.0	4.9	19.8	3.9	10.1	6.8	11.2				
Green Ext Time (p_c), s	0.1	9.3	0.1	2.3	0.0	4.7	0.1	1.6				

Intersection Summary

HCM 6th Ctrl Delay	31.2
HCM 6th LOS	C

Notes

- User approved pedestrian interval to be less than phase max green.
- Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study Existing Conditions
 9: Monterey Ave & Frank Sinatra Dr Existing (2022) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖↗	↑↑	↖	↖↗	↑↑↖		↖↗	↑↑↑	↖
Traffic Volume (veh/h)	17	166	63	121	480	64	49	576	41	53	1315	52
Future Volume (veh/h)	17	166	63	121	480	64	49	576	41	53	1315	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	19	187	11	136	539	72	55	647	43	60	1478	33
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	68	559	247	190	685	303	121	2841	188	125	2970	920
Arrive On Green	0.02	0.16	0.16	0.06	0.19	0.19	0.04	0.58	0.58	0.04	0.58	0.58
Sat Flow, veh/h	3456	3554	1570	3456	3554	1573	3456	4892	323	3456	5106	1581
Grp Volume(v), veh/h	19	187	11	136	539	72	55	449	241	60	1478	33
Grp Sat Flow(s),veh/h/ln	1728	1777	1570	1728	1777	1573	1728	1702	1811	1728	1702	1581
Q Serve(g_s), s	0.7	5.6	0.7	4.6	17.3	4.6	1.9	7.6	7.7	2.0	20.4	1.1
Cycle Q Clear(g_c), s	0.7	5.6	0.7	4.6	17.3	4.6	1.9	7.6	7.7	2.0	20.4	1.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.18	1.00		1.00
Lane Grp Cap(c), veh/h	68	559	247	190	685	303	121	1977	1052	125	2970	920
V/C Ratio(X)	0.28	0.33	0.04	0.72	0.79	0.24	0.45	0.23	0.23	0.48	0.50	0.04
Avail Cap(c_a), veh/h	317	977	432	317	1007	446	346	1977	1052	346	2970	920
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.98	0.98	0.98	0.85	0.85	0.85
Uniform Delay (d), s/veh	58.0	45.0	42.9	55.8	46.1	41.0	56.8	12.1	12.2	56.7	14.8	10.7
Incr Delay (d2), s/veh	0.8	0.1	0.0	1.9	1.4	0.1	1.0	0.3	0.5	0.9	0.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	2.4	0.3	2.0	7.4	1.8	0.8	2.7	2.9	0.9	7.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.8	45.1	42.9	57.6	47.5	41.1	57.7	12.4	12.7	57.7	15.3	10.8
LnGrp LOS	E	D	D	E	D	D	E	B	B	E	B	B
Approach Vol, veh/h		217			747			745			1571	
Approach Delay, s/veh		46.2			48.7			15.8			16.8	
Approach LOS		D			D			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.2	76.3	6.3	29.1	8.3	76.2	10.6	24.9				
Change Period (Y+Rc), s	4.0	6.5	4.0	* 6	4.0	6.5	4.0	6.0				
Max Green Setting (Gmax), s	12.0	43.5	11.0	* 34	12.0	43.5	11.0	33.0				
Max Q Clear Time (g_c+1), s	13.0	22.4	2.7	19.3	4.0	9.7	6.6	7.6				
Green Ext Time (p_c), s	0.0	6.5	0.0	1.8	0.0	2.4	0.0	0.6				

Intersection Summary

HCM 6th Ctrl Delay	25.8
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
 * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study Existing Conditions
 10: Monterey Ave & Country Club Dr Existing (2022) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑↑	↔	↔↔	↑↑↑	↔	↔↔	↑↑↑	↔	↔↔	↑↑↑	↔
Traffic Volume (veh/h)	55	288	119	195	717	116	267	451	78	174	1042	174
Future Volume (veh/h)	55	288	119	195	717	116	267	451	78	174	1042	174
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	60	316	0	214	788	0	293	496	39	191	1145	80
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	174	812		269	951		348	2423	750	246	2273	703
Arrive On Green	0.05	0.16	0.00	0.08	0.19	0.00	0.10	0.47	0.47	0.07	0.45	0.45
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	3456	5106	1580	3456	5106	1580
Grp Volume(v), veh/h	60	316	0	214	788	0	293	496	39	191	1145	80
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1585	1728	1702	1580	1728	1702	1580
Q Serve(g_s), s	2.0	6.7	0.0	7.3	17.8	0.0	10.0	6.8	1.6	6.5	19.2	3.6
Cycle Q Clear(g_c), s	2.0	6.7	0.0	7.3	17.8	0.0	10.0	6.8	1.6	6.5	19.2	3.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	174	812		269	951		348	2423	750	246	2273	703
V/C Ratio(X)	0.34	0.39		0.80	0.83		0.84	0.20	0.05	0.78	0.50	0.11
Avail Cap(c_a), veh/h	259	1332		346	1459		432	2423	750	346	2273	703
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.87	0.87	0.87
Uniform Delay (d), s/veh	55.1	45.2	0.0	54.4	47.0	0.0	53.0	18.4	17.0	54.8	23.8	19.5
Incr Delay (d2), s/veh	0.4	0.1	0.0	7.2	1.4	0.0	10.0	0.2	0.1	3.8	0.7	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	2.8	0.0	3.3	7.4	0.0	4.6	2.5	0.6	2.9	7.3	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.5	45.4	0.0	61.6	48.3	0.0	63.0	18.5	17.1	58.5	24.5	19.7
LnGrp LOS	E	D		E	D		E	B	B	E	C	B
Approach Vol, veh/h		376	A		1002	A		828			1416	
Approach Delay, s/veh		47.0			51.2			34.2			28.8	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.5	64.3	15.3	25.8	18.1	60.8	12.1	29.1				
Change Period (Y+Rc), s	6.0	7.4	6.0	6.7	6.0	7.4	6.0	6.7				
Max Green Setting (Gmax), s	12.0	38.6	12.0	31.3	15.0	35.6	9.0	34.3				
Max Q Clear Time (g_c+1), s	10.5	8.8	9.3	8.7	12.0	21.2	4.0	19.8				
Green Ext Time (p_c), s	0.0	1.0	0.0	0.7	0.1	2.3	0.0	1.6				

Intersection Summary

HCM 6th Ctrl Delay	38.1
HCM 6th LOS	D

Notes

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study Existing Conditions

1: Varner Rd & Monterey Ave

Existing (2022) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	90	219	446	187	192	243	482	77	27	393	8
Future Volume (veh/h)	23	90	219	446	187	192	243	482	77	27	393	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	24	95	22	469	197	46	256	507	0	28	414	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	90	312	132	529	560	128	902	1808		99	1045	
Arrive On Green	0.05	0.08	0.08	0.15	0.20	0.20	0.26	0.51	0.00	0.06	0.29	0.00
Sat Flow, veh/h	1781	3741	1585	3456	2869	654	3456	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	24	95	22	469	120	123	256	507	0	28	414	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1728	1777	1747	1728	1777	1585	1781	1777	1585
Q Serve(g_s), s	1.6	2.9	1.5	16.0	7.0	7.3	7.1	9.8	0.0	1.8	11.2	0.0
Cycle Q Clear(g_c), s	1.6	2.9	1.5	16.0	7.0	7.3	7.1	9.8	0.0	1.8	11.2	0.0
Prop In Lane	1.00		1.00	1.00		0.37	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	90	312	132	529	347	341	902	1808		99	1045	
V/C Ratio(X)	0.27	0.30	0.17	0.89	0.35	0.36	0.28	0.28		0.28	0.40	
Avail Cap(c_a), veh/h	163	567	240	772	503	495	902	1808		163	1045	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	54.8	51.7	51.1	49.8	41.7	41.8	35.4	16.9	0.0	54.4	33.8	0.0
Incr Delay (d2), s/veh	0.6	0.5	0.6	6.6	0.6	0.6	0.1	0.4	0.0	0.6	1.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.3	0.6	7.1	3.0	3.1	2.9	3.8	0.0	0.8	4.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.4	52.3	51.7	56.4	42.3	42.5	35.5	17.3	0.0	54.9	35.0	0.0
LnGrp LOS	E	D	D	E	D	D	D	B		D	C	
Approach Vol, veh/h		141			712			763	A		442	A
Approach Delay, s/veh		52.7			51.6			23.4			36.2	
Approach LOS		D			D			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.1	67.3	24.9	15.8	37.5	41.8	10.8	29.9				
Change Period (Y+Rc), s	5.4	6.2	6.5	* 5.8	6.2	* 6.5	* 4.7	6.5				
Max Green Setting (Gmax), s	11.0	41.2	26.8	* 18	16.9	* 35	* 11	34.0				
Max Q Clear Time (g_c+I1), s	3.8	11.8	18.0	4.9	9.1	13.2	3.6	9.3				
Green Ext Time (p_c), s	0.0	3.0	0.4	0.4	0.4	2.3	0.0	1.1				

Intersection Summary

HCM 6th Ctrl Delay	37.9
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study Existing Conditions
1: Varner Rd & Monterey Ave

Existing (2022) - PM Peak Hour

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study Existing Conditions

2: Monterey Ave & I-10 EB Ramps

Existing (2022) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	2	659	0	0	0	0	1620	652	173	838	0
Future Volume (veh/h)	35	2	659	0	0	0	0	1620	652	173	838	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	25	0	492				0	1670	361	178	864	0
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	335	0	596				0	3097	961	240	2542	0
Arrive On Green	0.19	0.00	0.19				0.00	0.20	0.20	0.07	0.72	0.00
Sat Flow, veh/h	1781	0	3170				0	5274	1585	3456	3647	0
Grp Volume(v), veh/h	25	0	492				0	1670	361	178	864	0
Grp Sat Flow(s),veh/h/ln	1781	0	1585				0	1702	1585	1728	1777	0
Q Serve(g_s), s	1.4	0.0	17.9				0.0	35.2	23.6	6.1	11.0	0.0
Cycle Q Clear(g_c), s	1.4	0.0	17.9				0.0	35.2	23.6	6.1	11.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	335	0	596				0	3097	961	240	2542	0
V/C Ratio(X)	0.07	0.00	0.83				0.00	0.54	0.38	0.74	0.34	0.00
Avail Cap(c_a), veh/h	644	0	1147				0	3097	961	461	2542	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	0.33	0.33	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00				0.00	0.76	0.76	1.00	1.00	0.00
Uniform Delay (d), s/veh	40.1	0.0	46.8				0.0	33.0	28.3	54.8	6.4	0.0
Incr Delay (d2), s/veh	0.1	0.0	3.6				0.0	0.5	0.9	4.4	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	7.3				0.0	16.0	10.2	2.7	3.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.2	0.0	50.4				0.0	33.5	29.2	59.2	6.8	0.0
LnGrp LOS	D	A	D				A	C	C	E	A	A
Approach Vol, veh/h		517						2031			1042	
Approach Delay, s/veh		49.9						32.7			15.7	
Approach LOS		D						C			B	
Timer - Assigned Phs	1	2	4	6								
Phs Duration (G+Y+Rc), s	33.0	78.6	28.4	91.6								
Change Period (Y+Rc), s	4.7	5.8	5.8	5.8								
Max Green Setting (Gmax), s	65.0	44.3	43.4	65.0								
Max Q Clear Time (g_c+10), s	19.0	37.2	19.9	13.0								
Green Ext Time (p_c), s	0.3	5.6	2.7	6.3								

Intersection Summary

HCM 6th Ctrl Delay	30.3
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study Existing Conditions

3: Key Largo Ave & Dinah Shore Dr

Existing (2022) - PM Peak Hour



Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	⇐ ↑↑↑			⇐ ↑↑↑		⇐	⇐
Traffic Volume (veh/h)	10	795	19	20	845	7	56
Future Volume (veh/h)	10	795	19	20	845	7	56
Initial Q (Qb), veh		0	0	0	0	0	0
Ped-Bike Adj(A_pbT)			0.99	1.00		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No	No	
Adj Sat Flow, veh/h/ln		1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h		828	19	21	880	7	4
Peak Hour Factor		0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %		2	2	2	2	2	2
Cap, veh/h		1696	39	48	1779	26	23
Arrive On Green		0.33	0.33	0.03	0.35	0.01	0.01
Sat Flow, veh/h		5303	118	1781	5274	1781	1585
Grp Volume(v), veh/h		549	298	21	880	7	4
Grp Sat Flow(s),veh/h/ln		1702	1848	1781	1702	1781	1585
Q Serve(g_s), s		3.4	3.4	0.3	3.6	0.1	0.1
Cycle Q Clear(g_c), s		3.4	3.4	0.3	3.6	0.1	0.1
Prop In Lane			0.06	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		1124	610	48	1779	26	23
V/C Ratio(X)		0.49	0.49	0.44	0.49	0.27	0.17
Avail Cap(c_a), veh/h		5182	2814	1356	7773	1356	1207
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		7.0	7.0	12.6	6.7	12.8	12.8
Incr Delay (d2), s/veh		0.1	0.2	2.3	0.1	2.0	1.3
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		0.3	0.3	0.1	0.3	0.0	0.0
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		7.1	7.3	14.9	6.8	14.8	14.1
LnGrp LOS		A	A	B	A	B	B
Approach Vol, veh/h		847			901	11	
Approach Delay, s/veh		7.2			7.0	14.5	
Approach LOS		A			A	B	
Timer - Assigned Phs			3	4		6	8
Phs Duration (G+Y+Rc), s			5.7	15.2		5.4	15.7
Change Period (Y+Rc), s			5.0	6.5		5.0	6.5
Max Green Setting (Gmax), s			20.0	40.0		20.0	40.0
Max Q Clear Time (g_c+I1), s			2.3	5.4		2.1	5.6
Green Ext Time (p_c), s			0.0	3.0		0.0	3.6
Intersection Summary							
HCM 6th Ctrl Delay			7.1				
HCM 6th LOS			A				
Notes							
User approved pedestrian interval to be less than phase max green.							
User approved ignoring U-Turning movement.							

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study Existing Conditions

4: Monterey Ave & Dinah Shore Dr

Existing (2022) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑	↔	↔	↑↑	↔	↔↔	↑↑↑		↔↔	↑↑↑	↔
Traffic Volume (veh/h)	598	338	301	51	348	597	357	1076	16	315	771	410
Future Volume (veh/h)	598	338	301	51	348	597	357	1076	16	315	771	410
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	610	345	87	52	355	0	364	1098	16	321	787	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	665	901	399	98	412		420	2077	30	381	1988	
Arrive On Green	0.19	0.25	0.25	0.05	0.12	0.00	0.12	0.40	0.40	0.04	0.13	0.00
Sat Flow, veh/h	3456	3554	1576	1781	3554	1585	3456	5185	76	3456	5106	1585
Grp Volume(v), veh/h	610	345	87	52	355	0	364	721	393	321	787	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1576	1781	1777	1585	1728	1702	1856	1728	1702	1585
Q Serve(g_s), s	20.8	9.6	5.2	3.4	11.8	0.0	12.4	19.3	19.3	11.1	17.0	0.0
Cycle Q Clear(g_c), s	20.8	9.6	5.2	3.4	11.8	0.0	12.4	19.3	19.3	11.1	17.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	665	901	399	98	412		420	1364	744	381	1988	
V/C Ratio(X)	0.92	0.38	0.22	0.53	0.86		0.87	0.53	0.53	0.84	0.40	
Avail Cap(c_a), veh/h	893	1045	464	148	423		662	1364	744	605	1988	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	0.99	0.99	0.99	1.00	1.00	0.00	1.00	1.00	1.00	0.88	0.88	0.00
Uniform Delay (d), s/veh	47.5	37.0	35.4	55.2	52.1	0.0	51.8	27.3	27.3	56.8	39.3	0.0
Incr Delay (d2), s/veh	9.8	0.1	0.1	1.7	15.4	0.0	4.4	1.5	2.7	2.9	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.5	4.0	2.0	1.5	6.0	0.0	5.4	7.7	8.6	5.2	7.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.3	37.1	35.5	56.9	67.5	0.0	56.2	28.8	30.0	59.7	39.9	0.0
LnGrp LOS	E	D	D	E	E		E	C	C	E	D	
Approach Vol, veh/h		1042			407	A		1478			1108	A
Approach Delay, s/veh		48.8			66.2			35.9			45.6	
Approach LOS		D			E			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.6	36.1	19.6	52.7	28.1	19.6	18.2	54.1				
Change Period (Y+Rc), s	5.0	5.7	5.0	6.0	5.0	5.7	5.0	6.0				
Max Green Setting (Gmax), s	10.0	35.3	23.0	30.0	31.0	14.3	21.0	32.0				
Max Q Clear Time (g_c+1/4), s	11.6	11.6	14.4	19.0	22.8	13.8	13.1	21.3				
Green Ext Time (p_c), s	0.0	0.7	0.2	1.5	0.3	0.1	0.1	1.9				

Intersection Summary

HCM 6th Ctrl Delay	44.9
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
 Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th TWSC
6: Proposed Project Access Driveway & Monterey Ave

Rancho Monterey Traffic Study Existing Conditions
Existing (2022) - PM Peak Hour

Intersection

Int Delay, s/veh 2.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗ ↘ ↘ ↘	↗ ↘ ↘ ↘		↗ ↘	↗ ↘
Traffic Vol, veh/h	0	146	1235	119	100	895
Future Vol, veh/h	0	146	1235	119	100	895
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	185	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	154	1300	125	105	942

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	-	713	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	7.14	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.92	-
Pot Cap-1 Maneuver	0	321	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	-	321	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	26.1	0	3.1
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	321	243
HCM Lane V/C Ratio	-	-	0.479	0.433
HCM Control Delay (s)	-	-	26.1	30.7
HCM Lane LOS	-	-	D	D
HCM 95th %tile Q(veh)	-	-	2.5	2

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study Existing Conditions

7: Monterey Ave & Dick Kelly Dr

Existing (2022) - PM Peak Hour



Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations	YY		U	UUU	Y	Y	UU
Traffic Volume (veh/h)	170	48	10	1306	114	22	873
Future Volume (veh/h)	170	48	10	1306	114	22	873
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00			0.99	1.00	
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No
Adj Sat Flow, veh/h/ln	1870	1870		1870	1870	1870	1870
Adj Flow Rate, veh/h	198	0		1360	49	23	909
Peak Hour Factor	0.96	0.96		0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2		2	2	2	2
Cap, veh/h	438	195		1953	602	61	1202
Arrive On Green	0.12	0.00		0.38	0.38	0.03	0.34
Sat Flow, veh/h	3563	1585		5274	1575	1781	3647
Grp Volume(v), veh/h	198	0		1360	49	23	909
Grp Sat Flow(s),veh/h/ln	1781	1585		1702	1575	1781	1777
Q Serve(g_s), s	1.8	0.0		7.7	0.7	0.4	7.9
Cycle Q Clear(g_c), s	1.8	0.0		7.7	0.7	0.4	7.9
Prop In Lane	1.00	1.00			1.00	1.00	
Lane Grp Cap(c), veh/h	438	195		1953	602	61	1202
V/C Ratio(X)	0.45	0.00		0.70	0.08	0.38	0.76
Avail Cap(c_a), veh/h	1856	826		6649	2051	773	4628
HCM Platoon Ratio	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.1	0.0		9.0	6.8	16.3	10.2
Incr Delay (d2), s/veh	0.7	0.0		0.2	0.0	1.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0		1.2	0.1	0.1	1.5
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	14.8	0.0		9.2	6.8	17.7	10.5
LnGrp LOS	B	A		A	A	B	B
Approach Vol, veh/h	198			1409			932
Approach Delay, s/veh	14.8			9.1			10.7
Approach LOS	B			A			B
Timer - Assigned Phs		2			5	6	8
Phs Duration (G+Y+Rc), s		18.1			6.2	19.6	8.8
Change Period (Y+Rc), s		6.4			5.0	6.4	4.5
Max Green Setting (Gmax), s		45.0			15.0	45.0	18.0
Max Q Clear Time (g_c+I1), s		9.9			2.4	9.7	3.8
Green Ext Time (p_c), s		1.8			0.0	3.1	0.5

Intersection Summary

HCM 6th Ctrl Delay	10.1
HCM 6th LOS	B

Notes

- User approved volume balancing among the lanes for turning movement.
- User approved ignoring U-Turning movement.

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study Existing Conditions

8: Monterey Ave & Gerald Ford Dr

Existing (2022) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖↗	↑↑	↖	↖↗	↑↑↖		↖↗	↑↑↑	↖
Traffic Volume (veh/h)	142	309	115	105	275	104	118	1159	70	45	823	102
Future Volume (veh/h)	142	309	115	105	275	104	118	1159	70	45	823	102
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	148	322	20	109	286	15	123	1207	70	47	857	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	205	497	220	163	454	200	178	2875	167	114	2880	
Arrive On Green	0.06	0.14	0.14	0.05	0.13	0.13	0.05	0.58	0.58	0.03	0.56	0.00
Sat Flow, veh/h	3456	3554	1568	3456	3554	1566	3456	4936	286	3456	5106	1585
Grp Volume(v), veh/h	148	322	20	109	286	15	123	832	445	47	857	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1568	1728	1777	1566	1728	1702	1818	1728	1702	1585
Q Serve(g_s), s	5.1	10.3	1.3	3.7	9.2	1.0	4.2	16.2	16.2	1.6	10.6	0.0
Cycle Q Clear(g_c), s	5.1	10.3	1.3	3.7	9.2	1.0	4.2	16.2	16.2	1.6	10.6	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.16	1.00		1.00
Lane Grp Cap(c), veh/h	205	497	220	163	454	200	178	1983	1059	114	2880	
V/C Ratio(X)	0.72	0.65	0.09	0.67	0.63	0.07	0.69	0.42	0.42	0.41	0.30	
Avail Cap(c_a), veh/h	403	927	409	374	897	396	346	1983	1059	346	2880	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.84	0.84	0.84	0.84	0.84	0.00
Uniform Delay (d), s/veh	55.5	48.8	45.0	56.3	49.6	46.1	56.0	13.8	13.8	56.9	13.7	0.0
Incr Delay (d2), s/veh	1.8	1.4	0.2	1.8	1.4	0.2	1.5	0.6	1.0	0.7	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	4.5	0.5	1.6	4.0	0.4	1.8	5.6	6.1	0.7	3.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.3	50.2	45.1	58.0	51.1	46.2	57.5	14.4	14.9	57.6	13.9	0.0
LnGrp LOS	E	D	D	E	D	D	E	B	B	E	B	
Approach Vol, veh/h		490			410			1400			904	A
Approach Delay, s/veh		52.1			52.8			18.3			16.2	
Approach LOS		D			D			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.2	74.7	12.1	22.0	9.0	76.9	10.6	23.5				
Change Period (Y+Rc), s	5.0	7.0	5.0	6.7	5.0	7.0	5.0	6.7				
Max Green Setting (Gmax), s	12.0	40.0	14.0	30.3	12.0	40.0	13.0	31.3				
Max Q Clear Time (g_c+10), s	10.2	12.6	7.1	11.2	3.6	18.2	5.7	12.3				
Green Ext Time (p_c), s	0.1	6.7	0.1	1.4	0.0	9.3	0.1	1.7				

Intersection Summary

HCM 6th Ctrl Delay	27.3
HCM 6th LOS	C

Notes

- User approved pedestrian interval to be less than phase max green.
- Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study Existing Conditions
 9: Monterey Ave & Frank Sinatra Dr Existing (2022) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑	↗	↔↔	↑↑	↗	↔↔	↑↑↔		↔↔	↑↑↑	↗
Traffic Volume (veh/h)	130	472	83	122	249	61	92	1229	92	69	1006	36
Future Volume (veh/h)	130	472	83	122	249	61	92	1229	92	69	1006	36
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	141	513	17	133	271	66	100	1336	95	75	1093	21
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	195	636	282	187	628	278	151	2713	193	132	2819	873
Arrive On Green	0.06	0.18	0.18	0.05	0.18	0.18	0.04	0.56	0.56	0.04	0.55	0.55
Sat Flow, veh/h	3456	3554	1572	3456	3554	1572	3456	4865	346	3456	5106	1581
Grp Volume(v), veh/h	141	513	17	133	271	66	100	935	496	75	1093	21
Grp Sat Flow(s),veh/h/ln	1728	1777	1572	1728	1777	1572	1728	1702	1807	1728	1702	1581
Q Serve(g_s), s	4.8	16.6	1.1	4.5	8.2	4.3	3.4	20.1	20.1	2.6	14.6	0.7
Cycle Q Clear(g_c), s	4.8	16.6	1.1	4.5	8.2	4.3	3.4	20.1	20.1	2.6	14.6	0.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.19	1.00		1.00
Lane Grp Cap(c), veh/h	195	636	282	187	628	278	151	1898	1008	132	2819	873
V/C Ratio(X)	0.72	0.81	0.06	0.71	0.43	0.24	0.66	0.49	0.49	0.57	0.39	0.02
Avail Cap(c_a), veh/h	317	859	380	317	888	393	317	1898	1008	317	2819	873
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.85	0.85	0.85	0.95	0.95	0.95
Uniform Delay (d), s/veh	55.7	47.3	40.9	55.8	44.0	42.5	56.5	16.2	16.2	56.7	15.3	12.2
Incr Delay (d2), s/veh	1.9	2.9	0.0	1.9	0.2	0.2	1.6	0.8	1.5	1.3	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	7.3	0.4	2.0	3.5	1.6	1.5	7.1	7.7	1.1	5.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.6	50.2	40.9	57.7	44.2	42.6	58.1	17.0	17.6	58.1	15.7	12.2
LnGrp LOS	E	D	D	E	D	D	E	B	B	E	B	B
Approach Vol, veh/h		671			470			1531			1189	
Approach Delay, s/veh		51.5			47.8			19.9			18.3	
Approach LOS		D			D			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.3	72.8	10.8	27.2	8.6	73.4	10.5	27.5				
Change Period (Y+Rc), s	4.0	6.5	4.0	* 6	4.0	6.5	4.0	6.0				
Max Green Setting (Gmax), s	48.5	11.0	* 30	11.0	48.5	11.0	29.0					
Max Q Clear Time (g_c+1/4), s	16.6	6.8	10.2	4.6	22.1	6.5	18.6					
Green Ext Time (p_c), s	0.0	4.7	0.0	1.0	0.0	5.9	0.0	1.5				

Intersection Summary

HCM 6th Ctrl Delay	28.3
HCM 6th LOS	C

Notes

- User approved pedestrian interval to be less than phase max green.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study Existing Conditions
 10: Monterey Ave & Country Club Dr Existing (2022) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑↑	↔	↔↔	↑↑↑	↔	↔↔	↑↑↑	↔	↔↔	↑↑↑	↔
Traffic Volume (veh/h)	177	674	305	184	284	155	135	1076	146	233	935	85
Future Volume (veh/h)	177	674	305	184	284	155	135	1076	146	233	935	85
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	181	688	0	188	290	0	138	1098	63	238	954	39
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	236	848		244	859		200	2355	729	293	2493	771
Arrive On Green	0.07	0.17	0.00	0.07	0.17	0.00	0.06	0.46	0.46	0.08	0.49	0.49
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	3456	5106	1580	3456	5106	1580
Grp Volume(v), veh/h	181	688	0	188	290	0	138	1098	63	238	954	39
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1585	1728	1702	1580	1728	1702	1580
Q Serve(g_s), s	6.2	15.6	0.0	6.4	6.0	0.0	4.7	17.7	2.7	8.1	14.1	1.6
Cycle Q Clear(g_c), s	6.2	15.6	0.0	6.4	6.0	0.0	4.7	17.7	2.7	8.1	14.1	1.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	236	848		244	859		200	2355	729	293	2493	771
V/C Ratio(X)	0.77	0.81		0.77	0.34		0.69	0.47	0.09	0.81	0.38	0.05
Avail Cap(c_a), veh/h	346	1332		432	1459		432	2355	729	374	2493	771
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.91	0.91	0.91
Uniform Delay (d), s/veh	55.0	48.2	0.0	54.8	44.0	0.0	55.5	22.2	18.1	54.0	19.3	16.1
Incr Delay (d2), s/veh	3.0	1.0	0.0	2.0	0.1	0.0	1.6	0.7	0.2	7.4	0.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	6.4	0.0	2.8	2.5	0.0	2.0	6.7	1.0	3.7	5.2	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.0	49.2	0.0	56.8	44.1	0.0	57.1	22.9	18.4	61.3	19.7	16.2
LnGrp LOS	E	D		E	D		E	C	B	E	B	B
Approach Vol, veh/h		869	A		478	A		1299			1231	
Approach Delay, s/veh		51.1			49.1			26.3			27.7	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.2	62.7	14.5	26.6	12.9	66.0	14.2	26.9				
Change Period (Y+Rc), s	6.0	7.4	6.0	6.7	6.0	7.4	6.0	6.7				
Max Green Setting (Gmax), s	13.0	34.6	15.0	31.3	15.0	32.6	12.0	34.3				
Max Q Clear Time (g_c+I), s	11.0	19.7	8.4	17.6	6.7	16.1	8.2	8.0				
Green Ext Time (p_c), s	0.0	2.2	0.1	1.4	0.0	1.9	0.0	0.6				
























Intersection Summary

HCM 6th Ctrl Delay	35.1
HCM 6th LOS	D

Notes

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study No Project Conditions
 1: Varner Rd & Monterey Ave Opening Year (2023) - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	106	249	657	252	118	158	153	50	77	560	12
Future Volume (veh/h)	13	106	249	657	252	118	158	153	50	77	560	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	15	122	26	755	290	90	182	176	0	89	644	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	64	312	132	817	785	239	645	1486		112	1013	
Arrive On Green	0.04	0.08	0.08	0.24	0.29	0.29	0.19	0.42	0.00	0.06	0.28	0.00
Sat Flow, veh/h	1781	3741	1585	3456	2680	815	3456	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	15	122	26	755	190	190	182	176	0	89	644	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1728	1777	1719	1728	1777	1585	1781	1777	1585
Q Serve(g_s), s	1.0	3.7	1.8	25.6	10.2	10.5	5.4	3.6	0.0	5.9	19.0	0.0
Cycle Q Clear(g_c), s	1.0	3.7	1.8	25.6	10.2	10.5	5.4	3.6	0.0	5.9	19.0	0.0
Prop In Lane	1.00		1.00	1.00		0.47	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	64	312	132	817	521	504	645	1486		112	1013	
V/C Ratio(X)	0.23	0.39	0.20	0.92	0.37	0.38	0.28	0.12		0.80	0.64	
Avail Cap(c_a), veh/h	168	380	161	1112	585	566	645	1486		178	1013	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	56.2	52.1	51.3	44.7	33.6	33.7	41.9	21.4	0.0	55.5	37.5	0.0
Incr Delay (d2), s/veh	0.7	0.8	0.7	8.7	0.2	0.2	0.2	0.2	0.0	4.8	3.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.7	0.7	11.3	4.2	4.2	2.2	1.5	0.0	2.7	8.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.9	52.9	52.0	53.5	33.7	33.9	42.1	21.5	0.0	60.3	40.5	0.0
LnGrp LOS	E	D	D	D	C	C	D	C		E	D	
Approach Vol, veh/h		163			1135			358	A		733	A
Approach Delay, s/veh		53.1			46.9			32.0			42.9	
Approach LOS		D			D			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.9	56.4	34.9	15.8	28.6	40.7	9.0	41.7				
Change Period (Y+Rc), s	5.4	6.2	6.5	* 5.8	6.2	* 6.5	* 4.7	6.5				
Max Green Setting (Gmax), s	12.0	34.4	38.6	* 12	12.2	* 34	* 11	39.5				
Max Q Clear Time (g_c+I1), s	7.9	5.6	27.6	5.7	7.4	21.0	3.0	12.5				
Green Ext Time (p_c), s	0.0	0.9	0.8	0.3	0.2	3.2	0.0	1.1				
Intersection Summary												
HCM 6th Ctrl Delay				43.9								
HCM 6th LOS				D								
Notes												
User approved volume balancing among the lanes for turning movement.												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												
Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.												

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study No Project Conditions
 2: Monterey Ave & I-10 EB Ramps
 Opening Year (2023) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	12	1013	0	0	0	0	606	365	198	1202	0
Future Volume (veh/h)	55	12	1013	0	0	0	0	606	365	198	1202	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No					No		No			
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	47	0	1151				0	697	99	228	1382	0
Peak Hour Factor	0.87	0.87	0.87				0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	852	0	1516				0	1204	374	518	1510	0
Arrive On Green	0.48	0.00	0.48				0.00	0.08	0.08	0.15	0.42	0.00
Sat Flow, veh/h	1781	0	3170				0	5274	1585	3456	3647	0
Grp Volume(v), veh/h	47	0	1151				0	697	99	228	1382	0
Grp Sat Flow(s),veh/h/ln	1781	0	1585				0	1702	1585	1728	1777	0
Q Serve(g_s), s	1.7	0.0	35.7				0.0	15.8	7.1	7.2	43.9	0.0
Cycle Q Clear(g_c), s	1.7	0.0	35.7				0.0	15.8	7.1	7.2	43.9	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	852	0	1516				0	1204	374	518	1510	0
V/C Ratio(X)	0.06	0.00	0.76				0.00	0.58	0.26	0.44	0.92	0.00
Avail Cap(c_a), veh/h	852	0	1516				0	1204	374	518	1510	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.92	0.92	1.00	1.00	0.00
Uniform Delay (d), s/veh	16.8	0.0	25.6				0.0	49.6	45.5	46.4	32.5	0.0
Incr Delay (d2), s/veh	0.1	0.0	3.6				0.0	1.9	1.6	2.7	10.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	13.9				0.0	7.4	2.9	3.2	19.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.9	0.0	29.3				0.0	51.4	47.1	49.1	42.6	0.0
LnGrp LOS	B	A	C				A	D	D	D	D	A
Approach Vol, veh/h		1198						796			1610	
Approach Delay, s/veh		28.8						50.9			43.5	
Approach LOS		C						D			D	
Timer - Assigned Phs	1	2	4	6								
Phs Duration (G+Y+Rc), s	32.7	34.1	63.2	56.8								
Change Period (Y+Rc), s	4.7	5.8	5.8	5.8								
Max Green Setting (Gmax), s	18	28.3	57.4	51.0								
Max Q Clear Time (g_c+I), s	19.2	17.8	37.7	45.9								
Green Ext Time (p_c), s	0.5	3.3	7.0	3.5								

Intersection Summary

HCM 6th Ctrl Delay	40.3
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.
 * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study No Project Conditions
 3: Key Largo Ave & Dinah Shore Dr

Opening Year (2023) - AM Peak Hour



Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↩ ↑↑↑			↩ ↑↑↑		↩ ↗	↗
Traffic Volume (veh/h)	10	620	42	70	496	27	36
Future Volume (veh/h)	10	620	42	70	496	27	36
Initial Q (Qb), veh		0	0	0	0	0	0
Ped-Bike Adj(A_pbT)			0.99	1.00		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No	No		
Adj Sat Flow, veh/h/ln		1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h		674	38	76	539	29	3
Peak Hour Factor		0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %		2	2	2	2	2	2
Cap, veh/h		1456	82	142	1431	70	62
Arrive On Green		0.29	0.29	0.08	0.28	0.04	0.04
Sat Flow, veh/h		5113	277	1781	5274	1781	1585
Grp Volume(v), veh/h		463	249	76	539	29	3
Grp Sat Flow(s),veh/h/ln		1702	1818	1781	1702	1781	1585
Q Serve(g_s), s		3.1	3.2	1.2	2.4	0.4	0.1
Cycle Q Clear(g_c), s		3.1	3.2	1.2	2.4	0.4	0.1
Prop In Lane			0.15	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		1003	535	142	1431	70	62
V/C Ratio(X)		0.46	0.47	0.54	0.38	0.41	0.05
Avail Cap(c_a), veh/h		4840	2585	1266	7260	1266	1127
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		8.1	8.1	12.4	8.1	13.2	13.0
Incr Delay (d2), s/veh		0.1	0.2	1.2	0.1	1.4	0.1
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		0.4	0.5	0.3	0.3	0.2	0.0
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		8.2	8.3	13.6	8.2	14.6	13.1
LnGrp LOS		A	A	B	A	B	B
Approach Vol, veh/h		712			615	32	
Approach Delay, s/veh		8.3			8.9	14.5	
Approach LOS		A			A	B	
Timer - Assigned Phs			3	4		6	8
Phs Duration (G+Y+Rc), s			7.2	14.8		6.1	14.4
Change Period (Y+Rc), s			5.0	6.5		5.0	6.5
Max Green Setting (Gmax), s			20.0	40.0		20.0	40.0
Max Q Clear Time (g_c+I1), s			3.2	5.2		2.4	4.4
Green Ext Time (p_c), s			0.1	2.5		0.0	2.1
Intersection Summary							
HCM 6th Ctrl Delay			8.7				
HCM 6th LOS			A				
Notes							
User approved pedestrian interval to be less than phase max green.							
User approved ignoring U-Turning movement.							

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study No Project Conditions
 4: Monterey Ave & Dinah Shore Dr Opening Year (2023) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖	↑↑	↖	↖↗	↑↑↖		↖↗	↑↑↑	↖
Traffic Volume (veh/h)	320	266	150	38	226	366	149	402	23	371	1394	423
Future Volume (veh/h)	320	266	150	38	226	366	149	402	23	371	1394	423
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	364	302	35	43	257	0	169	457	23	422	1584	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	419	618	273	90	368		230	2265	113	483	2696	
Arrive On Green	0.12	0.17	0.17	0.05	0.10	0.00	0.07	0.45	0.45	0.05	0.17	0.00
Sat Flow, veh/h	3456	3554	1571	1781	3554	1585	3456	4980	249	3456	5106	1585
Grp Volume(v), veh/h	364	302	35	43	257	0	169	311	169	422	1584	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1571	1781	1777	1585	1728	1702	1825	1728	1702	1585
Q Serve(g_s), s	12.4	9.2	2.3	2.8	8.4	0.0	5.8	6.6	6.7	14.6	34.2	0.0
Cycle Q Clear(g_c), s	12.4	9.2	2.3	2.8	8.4	0.0	5.8	6.6	6.7	14.6	34.2	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.14	1.00		1.00
Lane Grp Cap(c), veh/h	419	618	273	90	368		230	1548	830	483	2696	
V/C Ratio(X)	0.87	0.49	0.13	0.48	0.70		0.74	0.20	0.20	0.87	0.59	
Avail Cap(c_a), veh/h	547	957	423	119	631		374	1548	830	691	2696	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	0.98	0.98	0.98	1.00	1.00	0.00	1.00	1.00	1.00	0.35	0.35	0.00
Uniform Delay (d), s/veh	51.8	44.7	41.9	55.4	52.0	0.0	55.0	19.6	19.7	56.2	37.5	0.0
Incr Delay (d2), s/veh	9.3	0.2	0.1	1.4	0.9	0.0	1.7	0.3	0.6	2.5	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	3.9	0.9	1.3	3.7	0.0	2.5	2.5	2.8	6.9	15.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.1	45.0	42.0	56.8	52.9	0.0	56.7	19.9	20.2	58.6	37.9	0.0
LnGrp LOS	E	D	D	E	D		E	B	C	E	D	
Approach Vol, veh/h		701			300	A		649			2006	A
Approach Delay, s/veh		53.2			53.5			29.6			42.2	
Approach LOS		D			D			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.1	26.6	13.0	69.4	19.5	18.1	21.8	60.6				
Change Period (Y+Rc), s	5.0	5.7	5.0	6.0	5.0	5.7	5.0	6.0				
Max Green Setting (Gmax), s	32.3	32.3	13.0	45.0	19.0	21.3	24.0	34.0				
Max Q Clear Time (g_c+1), s	11.2	11.2	7.8	36.2	14.4	10.4	16.6	8.7				
Green Ext Time (p_c), s	0.0	0.6	0.0	3.0	0.1	0.4	0.2	0.8				

Intersection Summary

HCM 6th Ctrl Delay	43.0
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
 Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th TWSC
6: Proposed Project Access Driveway & Monterey Ave

Rancho Monterey Traffic Study No Project Conditions
Opening Year (2023) - AM Peak Hour

Intersection						
Int Delay, s/veh	0.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↑↑↑		↘	↑↑
Traffic Vol, veh/h	0	16	624	61	64	1276
Future Vol, veh/h	0	16	624	61	64	1276
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	185	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	17	657	64	67	1343

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	-	361	0	0	721
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	5.34
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	3.12
Pot Cap-1 Maneuver	0	543	-	-	533
Stage 1	0	-	-	-	-
Stage 2	0	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	-	543	-	-	533
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.8	0	0.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	543	533
HCM Lane V/C Ratio	-	-	0.031	0.126
HCM Control Delay (s)	-	-	11.8	12.7
HCM Lane LOS	-	-	B	B
HCM 95th %tile Q(veh)	-	-	0.1	0.4

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study No Project Conditions
 7: Monterey Ave & Dick Kelly Dr Opening Year (2023) - AM Peak Hour



Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (veh/h)	70	31	10	654	49	26	1250
Future Volume (veh/h)	70	31	10	654	49	26	1250
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00			0.99	1.00	
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No
Adj Sat Flow, veh/h/ln	1870	1870		1870	1870	1870	1870
Adj Flow Rate, veh/h	48	50		703	24	28	1344
Peak Hour Factor	0.93	0.93		0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2		2	2	2	2
Cap, veh/h	165	147		1742	537	74	1713
Arrive On Green	0.09	0.09		0.34	0.34	0.04	0.48
Sat Flow, veh/h	1781	1585		5274	1573	1781	3647
Grp Volume(v), veh/h	48	50		703	24	28	1344
Grp Sat Flow(s),veh/h/ln	1781	1585		1702	1573	1781	1777
Q Serve(g_s), s	0.8	0.9		3.2	0.3	0.5	9.5
Cycle Q Clear(g_c), s	0.8	0.9		3.2	0.3	0.5	9.5
Prop In Lane	1.00	1.00			1.00	1.00	
Lane Grp Cap(c), veh/h	165	147		1742	537	74	1713
V/C Ratio(X)	0.29	0.34		0.40	0.04	0.38	0.78
Avail Cap(c_a), veh/h	1058	941		7581	2336	882	5276
HCM Platoon Ratio	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.8	12.9		7.6	6.7	14.1	6.5
Incr Delay (d2), s/veh	1.0	1.4		0.1	0.0	1.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.3		0.4	0.0	0.1	0.5
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	13.8	14.2		7.7	6.7	15.3	6.8
LnGrp LOS	B	B		A	A	B	A
Approach Vol, veh/h	98			727			1372
Approach Delay, s/veh	14.0			7.7			7.0
Approach LOS	B			A			A
Timer - Assigned Phs		2			5	6	8
Phs Duration (G+Y+Rc), s		21.0			6.3	16.7	7.3
Change Period (Y+Rc), s		6.4			5.0	6.4	4.5
Max Green Setting (Gmax), s		45.0			15.0	45.0	18.0
Max Q Clear Time (g_c+I1), s		11.5			2.5	5.2	2.9
Green Ext Time (p_c), s		3.1			0.0	1.4	0.2

Intersection Summary

HCM 6th Ctrl Delay	7.5
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.
 User approved ignoring U-Turning movement.

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study No Project Conditions
 8: Monterey Ave & Gerald Ford Dr Opening Year (2023) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖↗	↑↑	↖	↖↗	↑↑↖		↖↗	↑↑↑	↖
Traffic Volume (veh/h)	93	281	152	130	506	81	112	562	39	58	1107	123
Future Volume (veh/h)	93	281	152	130	506	81	112	562	39	58	1107	123
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	108	327	36	151	588	21	130	653	40	67	1287	0
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	162	669	296	208	716	317	186	2543	155	129	2555	
Arrive On Green	0.05	0.19	0.19	0.06	0.20	0.20	0.05	0.52	0.52	0.04	0.50	0.00
Sat Flow, veh/h	3456	3554	1572	3456	3554	1573	3456	4920	300	3456	5106	1585
Grp Volume(v), veh/h	108	327	36	151	588	21	130	451	242	67	1287	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1572	1728	1777	1573	1728	1702	1815	1728	1702	1585
Q Serve(g_s), s	3.7	9.9	2.3	5.2	19.0	1.3	4.4	8.8	8.9	2.3	20.2	0.0
Cycle Q Clear(g_c), s	3.7	9.9	2.3	5.2	19.0	1.3	4.4	8.8	8.9	2.3	20.2	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.17	1.00		1.00
Lane Grp Cap(c), veh/h	162	669	296	208	716	317	186	1760	938	129	2555	
V/C Ratio(X)	0.67	0.49	0.12	0.73	0.82	0.07	0.70	0.26	0.26	0.52	0.50	
Avail Cap(c_a), veh/h	374	868	384	374	868	384	374	1760	938	346	2555	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.98	0.98	0.98	0.81	0.81	0.00
Uniform Delay (d), s/veh	56.3	43.5	40.5	55.4	45.8	38.8	55.8	16.1	16.2	56.7	20.0	0.0
Incr Delay (d2), s/veh	1.8	0.6	0.2	1.8	5.3	0.1	1.8	0.3	0.7	1.0	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	4.2	0.9	2.2	8.6	0.5	1.9	3.2	3.6	1.0	7.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.1	44.1	40.6	57.2	51.2	38.9	57.6	16.5	16.8	57.7	20.6	0.0
LnGrp LOS	E	D	D	E	D	D	E	B	B	E	C	
Approach Vol, veh/h		471			760			823			1354	A
Approach Delay, s/veh		47.0			52.0			23.1			22.4	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.4	67.0	10.6	30.9	9.5	69.0	12.2	29.3				
Change Period (Y+Rc), s	5.0	7.0	5.0	6.7	5.0	7.0	5.0	6.7				
Max Green Setting (Gmax), s	13.0	41.0	13.0	29.3	12.0	42.0	13.0	29.3				
Max Q Clear Time (g_c+10), s	10.4	22.2	5.7	21.0	4.3	10.9	7.2	11.9				
Green Ext Time (p_c), s	0.1	9.2	0.1	2.2	0.0	5.0	0.1	1.7				

Intersection Summary

HCM 6th Ctrl Delay	32.6
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
 Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study No Project Conditions
 9: Monterey Ave & Frank Sinatra Dr Opening Year (2023) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑	↗	↔↔	↑↑	↗	↔↔	↑↑↔		↔↔	↑↑↑	↗
Traffic Volume (veh/h)	27	186	83	141	510	74	59	606	51	63	1335	62
Future Volume (veh/h)	27	186	83	141	510	74	59	606	51	63	1335	62
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	30	209	15	158	573	83	66	681	51	71	1500	39
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	91	590	261	213	715	317	128	2733	203	130	2882	892
Arrive On Green	0.03	0.17	0.17	0.06	0.20	0.20	0.04	0.56	0.56	0.04	0.56	0.56
Sat Flow, veh/h	3456	3554	1571	3456	3554	1573	3456	4848	361	3456	5106	1581
Grp Volume(v), veh/h	30	209	15	158	573	83	66	477	255	71	1500	39
Grp Sat Flow(s),veh/h/ln	1728	1777	1571	1728	1777	1573	1728	1702	1804	1728	1702	1581
Q Serve(g_s), s	1.0	6.3	1.0	5.4	18.4	5.3	2.2	8.5	8.6	2.4	21.7	1.3
Cycle Q Clear(g_c), s	1.0	6.3	1.0	5.4	18.4	5.3	2.2	8.5	8.6	2.4	21.7	1.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	91	590	261	213	715	317	128	1919	1017	130	2882	892
V/C Ratio(X)	0.33	0.35	0.06	0.74	0.80	0.26	0.52	0.25	0.25	0.54	0.52	0.04
Avail Cap(c_a), veh/h	317	977	432	317	1007	446	346	1919	1017	346	2882	892
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.98	0.98	0.98	0.82	0.82	0.82
Uniform Delay (d), s/veh	57.4	44.3	42.1	55.4	45.6	40.4	56.7	13.3	13.3	56.7	16.1	11.7
Incr Delay (d2), s/veh	0.8	0.1	0.0	1.9	2.1	0.2	1.2	0.3	0.6	1.1	0.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	2.7	0.4	2.3	7.9	2.0	1.0	3.0	3.3	1.0	7.6	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.2	44.5	42.2	57.3	47.7	40.6	57.9	13.6	13.9	57.8	16.7	11.7
LnGrp LOS	E	D	D	E	D	D	E	B	B	E	B	B
Approach Vol, veh/h		254			814			798			1610	
Approach Delay, s/veh		45.9			48.8			17.3			18.4	
Approach LOS		D			D			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.4	74.2	7.2	30.2	8.5	74.2	11.4	25.9				
Change Period (Y+Rc), s	4.0	6.5	4.0	* 6	4.0	6.5	4.0	6.0				
Max Green Setting (Gmax), s	12.0	43.5	11.0	* 34	12.0	43.5	11.0	33.0				
Max Q Clear Time (g_c+1), s	11.2	23.7	3.0	20.4	4.4	10.6	7.4	8.3				
Green Ext Time (p_c), s	0.0	6.5	0.0	1.9	0.0	2.6	0.0	0.7				

Intersection Summary

HCM 6th Ctrl Delay	27.3
HCM 6th LOS	C

Notes

- User approved pedestrian interval to be less than phase max green.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study No Project Conditions
 10: Monterey Ave & Country Club Dr Opening Year (2023) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑↑	↔	↔↔	↑↑↑	↔	↔↔	↑↑↑	↔	↔↔	↑↑↑	↔
Traffic Volume (veh/h)	65	298	119	205	747	126	267	471	78	194	1072	184
Future Volume (veh/h)	65	298	119	205	747	126	267	471	78	194	1072	184
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	71	327	0	225	821	0	293	518	38	213	1178	115
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	183	839		280	983		348	2347	726	268	2229	690
Arrive On Green	0.05	0.16	0.00	0.08	0.19	0.00	0.10	0.46	0.46	0.08	0.44	0.44
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	3456	5106	1580	3456	5106	1580
Grp Volume(v), veh/h	71	327	0	225	821	0	293	518	38	213	1178	115
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1585	1728	1702	1580	1728	1702	1580
Q Serve(g_s), s	2.4	6.9	0.0	7.7	18.6	0.0	10.0	7.3	1.6	7.3	20.3	5.3
Cycle Q Clear(g_c), s	2.4	6.9	0.0	7.7	18.6	0.0	10.0	7.3	1.6	7.3	20.3	5.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	183	839		280	983		348	2347	726	268	2229	690
V/C Ratio(X)	0.39	0.39		0.80	0.84		0.84	0.22	0.05	0.80	0.53	0.17
Avail Cap(c_a), veh/h	259	1332		346	1459		432	2347	726	346	2229	690
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.85	0.85	0.85
Uniform Delay (d), s/veh	55.0	44.8	0.0	54.2	46.6	0.0	53.0	19.5	18.0	54.4	24.8	20.5
Incr Delay (d2), s/veh	0.5	0.1	0.0	8.6	1.8	0.0	10.0	0.2	0.1	6.1	0.8	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.8	0.0	3.6	7.7	0.0	4.6	2.7	0.6	3.3	7.7	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.5	44.9	0.0	62.8	48.4	0.0	63.0	19.7	18.1	60.5	25.5	21.0
LnGrp LOS	E	D		E	D		E	B	B	E	C	C
Approach Vol, veh/h		398	A		1046	A		849			1506	
Approach Delay, s/veh		46.8			51.5			34.6			30.1	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.3	62.6	15.7	26.4	18.1	59.8	12.3	29.8				
Change Period (Y+Rc), s	6.0	7.4	6.0	6.7	6.0	7.4	6.0	6.7				
Max Green Setting (Gmax), s	12.0	38.6	12.0	31.3	15.0	35.6	9.0	34.3				
Max Q Clear Time (g_c+1), s	19.3	9.3	9.7	8.9	12.0	22.3	4.4	20.6				
Green Ext Time (p_c), s	0.0	1.0	0.0	0.7	0.1	2.4	0.0	1.7				
























Intersection Summary

HCM 6th Ctrl Delay	38.7
HCM 6th LOS	D

Notes

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study No Project Conditions
 1: Varner Rd & Monterey Ave Opening Year (2023) - PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	100	229	466	197	202	268	487	87	37	393	8
Future Volume (veh/h)	23	100	229	466	197	202	268	487	87	37	393	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	24	105	23	491	207	51	282	513	0	39	414	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	90	312	132	551	571	137	880	1746		119	1045	
Arrive On Green	0.05	0.08	0.08	0.16	0.20	0.20	0.25	0.49	0.00	0.07	0.29	0.00
Sat Flow, veh/h	1781	3741	1585	3456	2836	682	3456	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	24	105	23	491	128	130	282	513	0	39	414	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1728	1777	1741	1728	1777	1585	1781	1777	1585
Q Serve(g_s), s	1.6	3.2	1.6	16.7	7.4	7.7	7.9	10.3	0.0	2.5	11.2	0.0
Cycle Q Clear(g_c), s	1.6	3.2	1.6	16.7	7.4	7.7	7.9	10.3	0.0	2.5	11.2	0.0
Prop In Lane	1.00		1.00	1.00		0.39	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	90	312	132	551	358	351	880	1746		119	1045	
V/C Ratio(X)	0.27	0.34	0.17	0.89	0.36	0.37	0.32	0.29		0.33	0.40	
Avail Cap(c_a), veh/h	163	567	240	772	503	493	880	1746		163	1045	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	54.8	51.9	51.2	49.4	41.2	41.4	36.3	18.1	0.0	53.4	33.8	0.0
Incr Delay (d2), s/veh	0.6	0.6	0.6	7.7	0.6	0.7	0.2	0.4	0.0	0.6	1.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.5	0.6	7.5	3.2	3.2	3.2	4.0	0.0	1.1	4.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.4	52.5	51.8	57.1	41.8	42.0	36.4	18.6	0.0	54.0	35.0	0.0
LnGrp LOS	E	D	D	E	D	D	D	B		D	C	
Approach Vol, veh/h		152			749			795	A		453	A
Approach Delay, s/veh		52.9			51.9			24.9			36.6	
Approach LOS		D			D			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.4	65.2	25.6	15.8	36.8	41.8	10.8	30.7				
Change Period (Y+Rc), s	5.4	6.2	6.5	* 5.8	6.2	* 6.5	* 4.7	6.5				
Max Green Setting (Gmax), s	11.0	41.2	26.8	* 18	16.9	* 35	* 11	34.0				
Max Q Clear Time (g_c+I1), s	4.5	12.3	18.7	5.2	9.9	13.2	3.6	9.7				
Green Ext Time (p_c), s	0.0	3.0	0.4	0.4	0.4	2.3	0.0	1.2				
Intersection Summary												
HCM 6th Ctrl Delay				38.7								
HCM 6th LOS				D								
Notes												
User approved pedestrian interval to be less than phase max green.												
User approved volume balancing among the lanes for turning movement.												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study No Project Conditions

2: Monterey Ave & I-10 EB Ramps

Opening Year (2023) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	2	679	0	0	0	0	1640	672	173	858	0
Future Volume (veh/h)	45	2	679	0	0	0	0	1640	672	173	858	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	31	0	531				0	1691	362	178	885	0
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	359	0	639				0	3029	940	240	2494	0
Arrive On Green	0.20	0.00	0.20				0.00	0.20	0.20	0.07	0.70	0.00
Sat Flow, veh/h	1781	0	3170				0	5274	1585	3456	3647	0
Grp Volume(v), veh/h	31	0	531				0	1691	362	178	885	0
Grp Sat Flow(s),veh/h/ln	1781	0	1585				0	1702	1585	1728	1777	0
Q Serve(g_s), s	1.7	0.0	19.3				0.0	35.9	23.8	6.1	11.9	0.0
Cycle Q Clear(g_c), s	1.7	0.0	19.3				0.0	35.9	23.8	6.1	11.9	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	359	0	639				0	3029	940	240	2494	0
V/C Ratio(X)	0.09	0.00	0.83				0.00	0.56	0.39	0.74	0.35	0.00
Avail Cap(c_a), veh/h	644	0	1147				0	3029	940	461	2494	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.73	0.73	1.00	1.00	0.00
Uniform Delay (d), s/veh	38.9	0.0	46.0				0.0	34.1	29.2	54.8	7.1	0.0
Incr Delay (d2), s/veh	0.1	0.0	3.5				0.0	0.5	0.9	4.4	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	7.9				0.0	16.3	10.2	2.7	3.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.1	0.0	49.4				0.0	34.6	30.1	59.2	7.5	0.0
LnGrp LOS	D	A	D				A	C	C	E	A	A
Approach Vol, veh/h		562						2053			1063	
Approach Delay, s/veh		48.9						33.8			16.2	
Approach LOS		D						C			B	
Timer - Assigned Phs	1	2	4	6								
Phs Duration (G+Y+Rc), s	33.0	77.0	30.0	90.0								
Change Period (Y+Rc), s	4.7	5.8	5.8	5.8								
Max Green Setting (Gmax), s	65.0	44.3	43.4	65.0								
Max Q Clear Time (g_c+10), s	19.1	37.9	21.3	13.9								
Green Ext Time (p_c), s	0.3	5.1	2.9	6.5								

Intersection Summary

HCM 6th Ctrl Delay	31.0
HCM 6th LOS	C

Notes

- User approved volume balancing among the lanes for turning movement.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study No Project Conditions
 3: Key Largo Ave & Dinah Shore Dr

Opening Year (2023) - PM Peak Hour



Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	⇐ ↑↑↑	⇐ ↑↑↑		⇐ ↑↑↑	⇐ ↑↑↑	⇐ ↑	⇐ ↑
Traffic Volume (veh/h)	10	815	29	30	855	17	66
Future Volume (veh/h)	10	815	29	30	855	17	66
Initial Q (Qb), veh		0	0	0	0	0	0
Ped-Bike Adj(A_pbT)			0.99	1.00		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No	No		
Adj Sat Flow, veh/h/ln		1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h		849	27	31	891	18	7
Peak Hour Factor		0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %		2	2	2	2	2	2
Cap, veh/h		1684	53	68	1755	56	50
Arrive On Green		0.33	0.33	0.04	0.34	0.03	0.03
Sat Flow, veh/h		5251	161	1781	5274	1781	1585
Grp Volume(v), veh/h		568	308	31	891	18	7
Grp Sat Flow(s),veh/h/ln		1702	1840	1781	1702	1781	1585
Q Serve(g_s), s		3.7	3.7	0.5	3.8	0.3	0.1
Cycle Q Clear(g_c), s		3.7	3.7	0.5	3.8	0.3	0.1
Prop In Lane			0.09	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		1128	610	68	1755	56	50
V/C Ratio(X)		0.50	0.50	0.45	0.51	0.32	0.14
Avail Cap(c_a), veh/h		4940	2670	1293	7410	1293	1150
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		7.4	7.4	13.0	7.2	13.1	13.0
Incr Delay (d2), s/veh		0.1	0.2	1.7	0.1	1.2	0.5
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		0.4	0.5	0.1	0.4	0.1	0.0
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		7.5	7.6	14.7	7.3	14.3	13.4
LnGrp LOS		A	A	B	A	B	B
Approach Vol, veh/h		876			922	25	
Approach Delay, s/veh		7.6			7.5	14.0	
Approach LOS		A			A	B	
Timer - Assigned Phs			3	4		6	8
Phs Duration (G+Y+Rc), s			6.1	15.6		5.9	16.0
Change Period (Y+Rc), s			5.0	6.5		5.0	6.5
Max Green Setting (Gmax), s			20.0	40.0		20.0	40.0
Max Q Clear Time (g_c+I1), s			2.5	5.7		2.3	5.8
Green Ext Time (p_c), s			0.0	3.1		0.0	3.7

Intersection Summary

HCM 6th Ctrl Delay	7.6
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.
 User approved ignoring U-Turning movement.

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study No Project Conditions
 4: Monterey Ave & Dinah Shore Dr Opening Year (2023) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖	↑↑	↖	↖↗	↑↑↖		↖↗	↑↑↑	↖
Traffic Volume (veh/h)	618	348	311	61	358	597	367	1116	26	315	806	415
Future Volume (veh/h)	618	348	311	61	358	597	367	1116	26	315	806	415
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	631	355	91	62	365	0	374	1139	26	321	822	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	686	918	407	104	419		430	2016	46	381	1931	
Arrive On Green	0.20	0.26	0.26	0.06	0.12	0.00	0.12	0.39	0.39	0.04	0.12	0.00
Sat Flow, veh/h	3456	3554	1576	1781	3554	1585	3456	5136	117	3456	5106	1585
Grp Volume(v), veh/h	631	355	91	62	365	0	374	755	410	321	822	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1576	1781	1777	1585	1728	1702	1849	1728	1702	1585
Q Serve(g_s), s	21.5	9.9	5.5	4.1	12.1	0.0	12.8	20.8	20.8	11.1	17.9	0.0
Cycle Q Clear(g_c), s	21.5	9.9	5.5	4.1	12.1	0.0	12.8	20.8	20.8	11.1	17.9	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.06	1.00		1.00
Lane Grp Cap(c), veh/h	686	918	407	104	419		430	1336	726	381	1931	
V/C Ratio(X)	0.92	0.39	0.22	0.60	0.87		0.87	0.57	0.57	0.84	0.43	
Avail Cap(c_a), veh/h	893	1045	464	148	423		662	1336	726	605	1931	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	0.98	0.98	0.98	1.00	1.00	0.00	1.00	1.00	1.00	0.87	0.87	0.00
Uniform Delay (d), s/veh	47.2	36.7	35.0	55.1	52.0	0.0	51.6	28.5	28.5	56.8	40.5	0.0
Incr Delay (d2), s/veh	10.5	0.1	0.1	2.0	16.7	0.0	5.1	1.7	3.2	2.9	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.9	4.1	2.0	1.8	6.2	0.0	5.6	8.3	9.3	5.2	8.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.7	36.8	35.1	57.2	68.7	0.0	56.7	30.2	31.6	59.7	41.1	0.0
LnGrp LOS	E	D	D	E	E		E	C	C	E	D	
Approach Vol, veh/h		1077			427	A		1539			1143	A
Approach Delay, s/veh		48.9			67.1			37.0			46.3	
Approach LOS		D			E			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.0	36.7	19.9	51.4	28.8	19.9	18.2	53.1				
Change Period (Y+Rc), s	5.0	5.7	5.0	6.0	5.0	5.7	5.0	6.0				
Max Green Setting (Gmax), s	10.0	35.3	23.0	30.0	31.0	14.3	21.0	32.0				
Max Q Clear Time (g_c+1), s	10.0	11.9	14.8	19.9	23.5	14.1	13.1	22.8				
Green Ext Time (p_c), s	0.0	0.7	0.2	1.5	0.3	0.0	0.1	1.9				

Intersection Summary

HCM 6th Ctrl Delay	45.7
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
 Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th TWSC
 6: Proposed Project Access Driveway & Monterey Ave

Rancho Monterey Traffic Study No Project Conditions
 Opening Year (2023) - PM Peak Hour

Intersection						
Int Delay, s/veh	3.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↑↑↑		↘	↑↑
Traffic Vol, veh/h	0	156	1255	129	110	935
Future Vol, veh/h	0	156	1255	129	110	935
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	185	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	164	1321	136	116	984

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	-	729	0	0	1457
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	5.34
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	3.12
Pot Cap-1 Maneuver	0	313	-	-	234
Stage 1	0	-	-	-	-
Stage 2	0	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	-	313	-	-	234
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	28.5	0	3.6
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	313	234
HCM Lane V/C Ratio	-	-	0.525	0.495
HCM Control Delay (s)	-	-	28.5	34.6
HCM Lane LOS	-	-	D	D
HCM 95th %tile Q(veh)	-	-	2.9	2.5

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study No Project Conditions
 7: Monterey Ave & Dick Kelly Dr Opening Year (2023) - PM Peak Hour



Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations	YY		U	UUU	Y	Y	UU
Traffic Volume (veh/h)	210	58	10	1326	114	32	903
Future Volume (veh/h)	210	58	10	1326	114	32	903
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00			0.99	1.00	
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No
Adj Sat Flow, veh/h/ln	1870	1870		1870	1870	1870	1870
Adj Flow Rate, veh/h	251	0		1381	48	33	941
Peak Hour Factor	0.96	0.96		0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2		2	2	2	2
Cap, veh/h	458	204		1954	602	83	1225
Arrive On Green	0.13	0.00		0.38	0.38	0.05	0.34
Sat Flow, veh/h	3563	1585		5274	1575	1781	3647
Grp Volume(v), veh/h	251	0		1381	48	33	941
Grp Sat Flow(s),veh/h/ln	1781	1585		1702	1575	1781	1777
Q Serve(g_s), s	2.4	0.0		8.2	0.7	0.6	8.5
Cycle Q Clear(g_c), s	2.4	0.0		8.2	0.7	0.6	8.5
Prop In Lane	1.00	1.00			1.00	1.00	
Lane Grp Cap(c), veh/h	458	204		1954	602	83	1225
V/C Ratio(X)	0.55	0.00		0.71	0.08	0.40	0.77
Avail Cap(c_a), veh/h	1782	793		6387	1970	743	4445
HCM Platoon Ratio	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.7	0.0		9.4	7.1	16.7	10.5
Incr Delay (d2), s/veh	1.0	0.0		0.2	0.0	1.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0		1.4	0.1	0.2	1.7
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	15.7	0.0		9.6	7.1	17.8	10.9
LnGrp LOS	B	A		A	A	B	B
Approach Vol, veh/h	251			1429			974
Approach Delay, s/veh	15.7			9.5			11.1
Approach LOS	B			A			B
Timer - Assigned Phs		2			5	6	8
Phs Duration (G+Y+Rc), s		18.8			6.7	20.2	9.1
Change Period (Y+Rc), s		6.4			5.0	6.4	4.5
Max Green Setting (Gmax), s		45.0			15.0	45.0	18.0
Max Q Clear Time (g_c+I1), s		10.5			2.6	10.2	4.4
Green Ext Time (p_c), s		1.9			0.0	3.2	0.7

Intersection Summary

HCM 6th Ctrl Delay	10.7
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.
 User approved ignoring U-Turning movement.

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study No Project Conditions
 8: Monterey Ave & Gerald Ford Dr Opening Year (2023) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑	↗	↔↔	↑↑	↗	↔↔	↑↑↔		↔↔	↑↑↑	↗
Traffic Volume (veh/h)	152	339	135	115	295	114	138	1179	80	55	833	122
Future Volume (veh/h)	152	339	135	115	295	114	138	1179	80	55	833	122
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	158	353	23	120	307	19	144	1228	80	57	868	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	215	523	231	175	481	212	200	2789	182	122	2793	
Arrive On Green	0.06	0.15	0.15	0.05	0.14	0.14	0.06	0.57	0.57	0.04	0.55	0.00
Sat Flow, veh/h	3456	3554	1569	3456	3554	1567	3456	4897	319	3456	5106	1585
Grp Volume(v), veh/h	158	353	23	120	307	19	144	854	454	57	868	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1569	1728	1777	1567	1728	1702	1812	1728	1702	1585
Q Serve(g_s), s	5.4	11.3	1.5	4.1	9.8	1.3	4.9	17.3	17.3	1.9	11.1	0.0
Cycle Q Clear(g_c), s	5.4	11.3	1.5	4.1	9.8	1.3	4.9	17.3	17.3	1.9	11.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.18	1.00		1.00
Lane Grp Cap(c), veh/h	215	523	231	175	481	212	200	1938	1032	122	2793	
V/C Ratio(X)	0.73	0.68	0.10	0.69	0.64	0.09	0.72	0.44	0.44	0.47	0.31	
Avail Cap(c_a), veh/h	403	927	409	374	897	396	346	1938	1032	346	2793	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.81	0.81	0.81	0.84	0.84	0.00
Uniform Delay (d), s/veh	55.3	48.5	44.3	56.0	49.1	45.4	55.6	14.8	14.8	56.8	14.8	0.0
Incr Delay (d2), s/veh	1.8	1.5	0.2	1.8	1.4	0.2	1.5	0.6	1.1	0.9	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	4.9	0.6	1.8	4.3	0.5	2.1	6.0	6.6	0.8	3.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.1	50.0	44.5	57.8	50.5	45.6	57.1	15.4	16.0	57.6	15.1	0.0
LnGrp LOS	E	D	D	E	D	D	E	B	B	E	B	
Approach Vol, veh/h		534			446			1452			925	A
Approach Delay, s/veh		51.9			52.3			19.7			17.7	
Approach LOS		D			D			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.9	72.6	12.5	22.9	9.3	75.3	11.1	24.3				
Change Period (Y+Rc), s	5.0	7.0	5.0	6.7	5.0	7.0	5.0	6.7				
Max Green Setting (Gmax), s	12.0	40.0	14.0	30.3	12.0	40.0	13.0	31.3				
Max Q Clear Time (g_c+10), s	10.9	13.1	7.4	11.8	3.9	19.3	6.1	13.3				
Green Ext Time (p_c), s	0.1	6.8	0.1	1.6	0.0	9.4	0.1	1.9				

Intersection Summary

HCM 6th Ctrl Delay	28.6
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
 Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary - Rancho Monterey Traffic Study No Project Conditions
 9: Monterey Ave & Frank Sinatra Dr
 Opening Year (2023) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑	↗	↔↔	↑↑	↗	↔↔	↑↑↔		↔↔	↑↑↑	↗
Traffic Volume (veh/h)	140	502	93	132	269	71	102	1259	112	79	1036	46
Future Volume (veh/h)	140	502	93	132	269	71	102	1259	112	79	1036	46
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	152	546	21	143	292	77	111	1368	115	86	1126	25
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	207	665	294	197	655	290	164	2618	220	136	2746	850
Arrive On Green	0.06	0.19	0.19	0.06	0.18	0.18	0.05	0.55	0.55	0.04	0.54	0.54
Sat Flow, veh/h	3456	3554	1572	3456	3554	1572	3456	4797	403	3456	5106	1581
Grp Volume(v), veh/h	152	546	21	143	292	77	111	971	512	86	1126	25
Grp Sat Flow(s),veh/h/ln	1728	1777	1572	1728	1777	1572	1728	1702	1796	1728	1702	1581
Q Serve(g_s), s	5.2	17.7	1.3	4.9	8.8	5.0	3.8	21.7	21.7	2.9	15.7	0.9
Cycle Q Clear(g_c), s	5.2	17.7	1.3	4.9	8.8	5.0	3.8	21.7	21.7	2.9	15.7	0.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.22	1.00		1.00
Lane Grp Cap(c), veh/h	207	665	294	197	655	290	164	1858	980	136	2746	850
V/C Ratio(X)	0.74	0.82	0.07	0.72	0.45	0.27	0.68	0.52	0.52	0.63	0.41	0.03
Avail Cap(c_a), veh/h	317	859	380	317	888	393	317	1858	980	317	2746	850
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.83	0.83	0.83	0.94	0.94	0.94
Uniform Delay (d), s/veh	55.5	46.9	40.2	55.6	43.5	42.0	56.3	17.3	17.3	56.8	16.5	13.0
Incr Delay (d2), s/veh	1.9	3.9	0.0	1.9	0.2	0.2	1.5	0.9	1.7	1.7	0.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	7.9	0.5	2.1	3.7	1.9	1.6	7.8	8.4	1.3	5.6	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.4	50.8	40.2	57.5	43.7	42.2	57.8	18.2	19.0	58.5	16.9	13.1
LnGrp LOS	E	D	D	E	D	D	E	B	B	E	B	B
Approach Vol, veh/h		719			512			1594			1237	
Approach Delay, s/veh		51.9			47.3			21.2			19.7	
Approach LOS		D			D			C			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.7	71.0	11.2	28.1	8.7	72.0	10.9	28.4				
Change Period (Y+Rc), s	4.0	6.5	4.0	* 6	4.0	6.5	4.0	6.0				
Max Green Setting (Gmax), s	48.5	11.0	* 30	11.0	48.5	11.0	29.0					
Max Q Clear Time (g_c+1), s	17.7	7.2	10.8	4.9	23.7	6.9	19.7					
Green Ext Time (p_c), s	0.0	4.9	0.0	1.1	0.0	6.1	0.0	1.5				

Intersection Summary

HCM 6th Ctrl Delay	29.5
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
 * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study No Project Conditions
 10: Monterey Ave & Country Club Dr Opening Year (2023) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑↑	↔	↔↔	↑↑↑	↔	↔↔	↑↑↑	↔	↔↔	↑↑↑	↔
Traffic Volume (veh/h)	187	694	305	184	294	175	135	1106	146	243	955	95
Future Volume (veh/h)	187	694	305	184	294	175	135	1106	146	243	955	95
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	191	708	0	188	300	0	138	1129	62	248	974	44
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	246	867		244	863		200	2321	718	303	2474	766
Arrive On Green	0.07	0.17	0.00	0.07	0.17	0.00	0.06	0.45	0.45	0.09	0.48	0.48
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	3456	5106	1580	3456	5106	1580
Grp Volume(v), veh/h	191	708	0	188	300	0	138	1129	62	248	974	44
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1585	1728	1702	1580	1728	1702	1580
Q Serve(g_s), s	6.5	16.0	0.0	6.4	6.2	0.0	4.7	18.6	2.7	8.5	14.6	1.8
Cycle Q Clear(g_c), s	6.5	16.0	0.0	6.4	6.2	0.0	4.7	18.6	2.7	8.5	14.6	1.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	246	867		244	863		200	2321	718	303	2474	766
V/C Ratio(X)	0.78	0.82		0.77	0.35		0.69	0.49	0.09	0.82	0.39	0.06
Avail Cap(c_a), veh/h	346	1332		432	1459		432	2321	718	374	2474	766
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.90	0.90	0.90
Uniform Delay (d), s/veh	54.8	48.0	0.0	54.8	44.0	0.0	55.5	22.9	18.6	53.8	19.7	16.4
Incr Delay (d2), s/veh	4.3	1.3	0.0	2.0	0.1	0.0	1.6	0.7	0.2	8.3	0.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	6.7	0.0	2.8	2.5	0.0	2.0	7.0	1.0	3.9	5.4	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.1	49.3	0.0	56.8	44.1	0.0	57.1	23.6	18.8	62.2	20.1	16.5
LnGrp LOS	E	D		E	D		E	C	B	E	C	B
Approach Vol, veh/h		899	A		488	A		1329			1266	
Approach Delay, s/veh		51.4			49.0			26.9			28.2	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.5	62.0	14.5	27.1	12.9	65.5	14.5	27.0				
Change Period (Y+Rc), s	6.0	7.4	6.0	6.7	6.0	7.4	6.0	6.7				
Max Green Setting (Gmax), s	13.0	34.6	15.0	31.3	15.0	32.6	12.0	34.3				
Max Q Clear Time (g_c+10), s	10.5	20.6	8.4	18.0	6.7	16.6	8.5	8.2				
Green Ext Time (p_c), s	0.0	2.3	0.1	1.4	0.0	2.0	0.0	0.6				

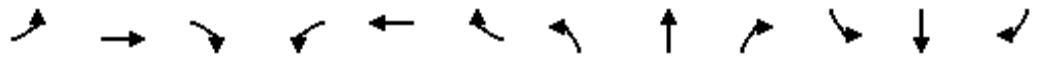
Intersection Summary

HCM 6th Ctrl Delay	35.6
HCM 6th LOS	D

Notes

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study plus Alternative 1
 1: Varner Rd & Monterey Ave Opening Year (2023) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	106	249	673	252	118	158	156	50	77	564	12
Future Volume (veh/h)	13	106	249	673	252	118	158	156	50	77	564	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	15	122	26	774	290	90	182	179	0	89	648	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	64	312	132	836	800	243	627	1467		112	1013	
Arrive On Green	0.04	0.08	0.08	0.24	0.30	0.30	0.18	0.41	0.00	0.06	0.28	0.00
Sat Flow, veh/h	1781	3741	1585	3456	2680	815	3456	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	15	122	26	774	190	190	182	179	0	89	648	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1728	1777	1719	1728	1777	1585	1781	1777	1585
Q Serve(g_s), s	1.0	3.7	1.8	26.3	10.1	10.4	5.5	3.7	0.0	5.9	19.1	0.0
Cycle Q Clear(g_c), s	1.0	3.7	1.8	26.3	10.1	10.4	5.5	3.7	0.0	5.9	19.1	0.0
Prop In Lane	1.00		1.00	1.00		0.47	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	64	312	132	836	530	513	627	1467		112	1013	
V/C Ratio(X)	0.23	0.39	0.20	0.93	0.36	0.37	0.29	0.12		0.80	0.64	
Avail Cap(c_a), veh/h	168	380	161	1112	585	566	627	1467		178	1013	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	56.2	52.1	51.3	44.4	33.1	33.2	42.4	21.8	0.0	55.5	37.5	0.0
Incr Delay (d2), s/veh	0.7	0.8	0.7	9.2	0.2	0.2	0.2	0.2	0.0	4.8	3.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.7	0.7	11.7	4.1	4.2	2.3	1.5	0.0	2.7	8.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.9	52.9	52.0	53.7	33.2	33.4	42.6	22.0	0.0	60.3	40.6	0.0
LnGrp LOS	E	D	D	D	C	C	D	C		E	D	
Approach Vol, veh/h		163			1154			361	A		737	A
Approach Delay, s/veh		53.1			47.0			32.4			43.0	
Approach LOS		D			D			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.9	55.7	35.5	15.8	28.0	40.7	9.0	42.3				
Change Period (Y+Rc), s	5.4	6.2	6.5	* 5.8	6.2	* 6.5	* 4.7	6.5				
Max Green Setting (Gmax), s	12.0	34.4	38.6	* 12	12.2	* 34	* 11	39.5				
Max Q Clear Time (g_c+I1), s	7.9	5.7	28.3	5.7	7.5	21.1	3.0	12.4				
Green Ext Time (p_c), s	0.0	0.9	0.8	0.3	0.2	3.2	0.0	1.1				

Intersection Summary												
HCM 6th Ctrl Delay			44.0									
HCM 6th LOS			D									

Notes
 User approved volume balancing among the lanes for turning movement.
 * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
 Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study plus Alternative 1
 2: Monterey Ave & I-10 EB Ramps Opening Year (2023) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	12	1049	0	0	0	0	675	397	198	1222	0
Future Volume (veh/h)	55	12	1049	0	0	0	0	675	397	198	1222	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	47	0	1193				0	776	109	228	1405	0
Peak Hour Factor	0.87	0.87	0.87				0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	852	0	1516				0	1204	374	518	1510	0
Arrive On Green	0.48	0.00	0.48				0.00	0.08	0.08	0.15	0.42	0.00
Sat Flow, veh/h	1781	0	3170				0	5274	1585	3456	3647	0
Grp Volume(v), veh/h	47	0	1193				0	776	109	228	1405	0
Grp Sat Flow(s),veh/h/ln	1781	0	1585				0	1702	1585	1728	1777	0
Q Serve(g_s), s	1.7	0.0	37.8				0.0	17.7	7.8	7.2	45.1	0.0
Cycle Q Clear(g_c), s	1.7	0.0	37.8				0.0	17.7	7.8	7.2	45.1	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	852	0	1516				0	1204	374	518	1510	0
V/C Ratio(X)	0.06	0.00	0.79				0.00	0.64	0.29	0.44	0.93	0.00
Avail Cap(c_a), veh/h	852	0	1516				0	1204	374	518	1510	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	0.33	0.33	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00				0.00	0.90	0.90	1.00	1.00	0.00
Uniform Delay (d), s/veh	16.8	0.0	26.2				0.0	50.4	45.9	46.4	32.8	0.0
Incr Delay (d2), s/veh	0.1	0.0	4.2				0.0	2.4	1.8	2.7	11.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	14.7				0.0	8.3	3.3	3.2	20.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.9	0.0	30.4				0.0	52.8	47.6	49.1	44.4	0.0
LnGrp LOS	B	A	C				A	D	D	D	D	A
Approach Vol, veh/h		1240						885			1633	
Approach Delay, s/veh		29.9						52.2			45.1	
Approach LOS		C						D			D	
Timer - Assigned Phs	1	2	4	6								
Phs Duration (G+Y+Rc), s	32.7	34.1	63.2	56.8								
Change Period (Y+Rc), s	4.7	5.8	5.8	5.8								
Max Green Setting (Gmax), s	18	28.3	57.4	51.0								
Max Q Clear Time (g_c+1/2), s	19.7	19.7	39.8	47.1								
Green Ext Time (p_c), s	0.5	3.2	6.9	2.8								

Intersection Summary

HCM 6th Ctrl Delay	41.7
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.
 * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

3: Key Largo Ave & Dinah Shore Dr

Rancho Monterey Traffic Study plus Alternative 1
Opening Year (2023) - AM Peak Hour



Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	⇐ ↑↑↑			⇐ ↑↑↑		⇐	⇐
Traffic Volume (veh/h)	10	620	52	76	496	39	96
Future Volume (veh/h)	10	620	52	76	496	39	96
Initial Q (Qb), veh		0	0	0	0	0	0
Ped-Bike Adj(A_pbT)			0.99	1.00		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No	No	
Adj Sat Flow, veh/h/ln		1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h		674	46	83	539	42	17
Peak Hour Factor		0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %		2	2	2	2	2	2
Cap, veh/h		1390	94	150	1384	116	103
Arrive On Green		0.28	0.28	0.08	0.27	0.07	0.07
Sat Flow, veh/h		5049	331	1781	5274	1781	1585
Grp Volume(v), veh/h		469	251	83	539	42	17
Grp Sat Flow(s),veh/h/ln		1702	1807	1781	1702	1781	1585
Q Serve(g_s), s		3.3	3.4	1.3	2.5	0.7	0.3
Cycle Q Clear(g_c), s		3.3	3.4	1.3	2.5	0.7	0.3
Prop In Lane			0.18	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		970	515	150	1384	116	103
V/C Ratio(X)		0.48	0.49	0.56	0.39	0.36	0.16
Avail Cap(c_a), veh/h		4671	2480	1222	7007	1222	1088
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		8.6	8.7	12.8	8.7	13.0	12.9
Incr Delay (d2), s/veh		0.1	0.3	1.2	0.1	0.7	0.3
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		0.5	0.6	0.3	0.4	0.2	0.1
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		8.8	8.9	14.0	8.7	13.7	13.2
LnGrp LOS		A	A	B	A	B	B
Approach Vol, veh/h		720			622	59	
Approach Delay, s/veh		8.8			9.4	13.6	
Approach LOS		A			A	B	
Timer - Assigned Phs			3	4		6	8
Phs Duration (G+Y+Rc), s			7.4	14.8		6.9	14.4
Change Period (Y+Rc), s			5.0	6.5		5.0	6.5
Max Green Setting (Gmax), s			20.0	40.0		20.0	40.0
Max Q Clear Time (g_c+I1), s			3.3	5.4		2.7	4.5
Green Ext Time (p_c), s			0.1	2.5		0.1	2.1

Intersection Summary

HCM 6th Ctrl Delay	9.3
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.

HCM 6th Signalized Intersection Summary

4: Monterey Ave & Dinah Shore Dr

Rancho Monterey Traffic Study plus Alternative 1
Opening Year (2023) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖	↑↑	↖	↖↗↑↑↑			↖↗	↑↑↑	↖
Traffic Volume (veh/h)	380	266	150	38	226	366	149	443	23	371	1444	429
Future Volume (veh/h)	380	266	150	38	226	366	149	443	23	371	1444	429
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	432	302	37	43	257	0	169	503	23	422	1641	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	485	686	304	90	368		230	2180	99	483	2599	
Arrive On Green	0.14	0.19	0.19	0.05	0.10	0.00	0.07	0.44	0.44	0.05	0.17	0.00
Sat Flow, veh/h	3456	3554	1573	1781	3554	1585	3456	5005	227	3456	5106	1585
Grp Volume(v), veh/h	432	302	37	43	257	0	169	341	185	422	1641	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1573	1781	1777	1585	1728	1702	1828	1728	1702	1585
Q Serve(g_s), s	14.7	9.0	2.3	2.8	8.4	0.0	5.8	7.5	7.6	14.6	35.9	0.0
Cycle Q Clear(g_c), s	14.7	9.0	2.3	2.8	8.4	0.0	5.8	7.5	7.6	14.6	35.9	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.12	1.00		1.00
Lane Grp Cap(c), veh/h	485	686	304	90	368		230	1483	797	483	2599	
V/C Ratio(X)	0.89	0.44	0.12	0.48	0.70		0.74	0.23	0.23	0.87	0.63	
Avail Cap(c_a), veh/h	547	957	423	119	631		374	1483	797	691	2599	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	0.96	0.96	0.96	1.00	1.00	0.00	1.00	1.00	1.00	0.32	0.32	0.00
Uniform Delay (d), s/veh	50.7	42.7	40.0	55.4	52.0	0.0	55.0	21.2	21.3	56.2	39.5	0.0
Incr Delay (d2), s/veh	13.9	0.2	0.1	1.4	0.9	0.0	1.7	0.4	0.7	2.3	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.1	3.8	0.9	1.3	3.7	0.0	2.5	2.9	3.2	6.9	16.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.6	42.9	40.1	56.8	52.9	0.0	56.7	21.6	21.9	58.4	39.8	0.0
LnGrp LOS	E	D	D	E	D		E	C	C	E	D	
Approach Vol, veh/h		771			300	A		695			2063	A
Approach Delay, s/veh		54.9			53.5			30.2			43.6	
Approach LOS		D			D			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.1	28.9	13.0	67.1	21.8	18.1	21.8	58.3				
Change Period (Y+Rc), s	5.0	5.7	5.0	6.0	5.0	5.7	5.0	6.0				
Max Green Setting (Gmax), s	32.3	32.3	13.0	45.0	19.0	21.3	24.0	34.0				
Max Q Clear Time (g_c+1), s	11.0	11.0	7.8	37.9	16.7	10.4	16.6	9.6				
Green Ext Time (p_c), s	0.0	0.6	0.0	2.8	0.1	0.4	0.2	0.9				

Intersection Summary

HCM 6th Ctrl Delay	44.2
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th TWSC
 5: Monterey Ave & Proposed Roadway Connection

Rancho Monterey Traffic Study plus Alternative 1
 Opening Year (2023) - AM Peak Hour

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑↑	
Traffic Vol, veh/h	0	35	0	681	1338	38
Future Vol, veh/h	0	35	0	681	1338	38
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	38	0	740	1454	41

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	-	748	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	7.14	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.92	-
Pot Cap-1 Maneuver	0	305	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %			
Mov Cap-1 Maneuver	-	305	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.5	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT EBLn1	SBT	SBR
Capacity (veh/h)	- 305	-	-
HCM Lane V/C Ratio	- 0.125	-	-
HCM Control Delay (s)	- 18.5	-	-
HCM Lane LOS	- C	-	-
HCM 95th %tile Q(veh)	- 0.4	-	-

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study plus Alternative 1
 6: Proposed Project Access Driveway & Monterey Ave Opening Year (2023) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↑↑↑		↖	↑↑	
Traffic Volume (veh/h)	18	0	9	0	0	16	28	647	61	64	1301	8
Future Volume (veh/h)	18	0	9	0	0	16	28	647	61	64	1301	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.96		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	19	0	2	0	0	1	29	681	53	67	1369	8
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	355	0	62	302	0	62	432	2815	218	673	2110	12
Arrive On Green	0.04	0.00	0.04	0.00	0.00	0.04	0.58	0.58	0.58	0.58	0.58	0.58
Sat Flow, veh/h	1363	0	1574	1415	0	1574	394	4832	374	722	3622	21
Grp Volume(v), veh/h	19	0	2	0	0	1	29	478	256	67	671	706
Grp Sat Flow(s),veh/h/ln	1363	0	1574	1415	0	1574	394	1702	1801	722	1777	1866
Q Serve(g_s), s	0.3	0.0	0.0	0.0	0.0	0.0	1.3	1.6	1.6	1.2	6.0	6.0
Cycle Q Clear(g_c), s	0.3	0.0	0.0	0.0	0.0	0.0	7.3	1.6	1.6	2.8	6.0	6.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.21	1.00		0.01
Lane Grp Cap(c), veh/h	355	0	62	302	0	62	432	1983	1049	673	1035	1087
V/C Ratio(X)	0.05	0.00	0.03	0.00	0.00	0.02	0.07	0.24	0.24	0.10	0.65	0.65
Avail Cap(c_a), veh/h	1332	0	1190	1316	0	1190	500	2573	1362	798	1343	1411
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.2	0.0	11.0	0.0	0.0	11.0	5.8	2.4	2.4	3.1	3.3	3.3
Incr Delay (d2), s/veh	0.1	0.0	0.2	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.2	0.0	11.2	0.0	0.0	11.1	5.9	2.5	2.5	3.2	4.0	4.0
LnGrp LOS	B	A	B	A	A	B	A	A	A	A	A	A
Approach Vol, veh/h		21			1			763			1444	
Approach Delay, s/veh		11.2			11.1			2.6			4.0	
Approach LOS		B			B			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		18.4		5.4		18.4		5.4				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		9.3		2.3		8.0		2.0				
Green Ext Time (p_c), s		2.9		0.0		5.8		0.0				
Intersection Summary												
HCM 6th Ctrl Delay				3.6								
HCM 6th LOS				A								

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study plus Alternative 1
 7: Monterey Ave & Dick Kelly Dr Opening Year (2023) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↖↗↘↙	↖	↗	↖↗		
Traffic Volume (veh/h)	22	9	48	76	6	31	10	25	683	49	26	1278	6
Future Volume (veh/h)	22	9	48	76	6	31	10	25	683	49	26	1278	6
Initial Q (Qb), veh	0	0	0	0	0	0		0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.99	0.99		0.99		1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870		1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	24	10	13	82	6	8		27	734	26	28	1374	6
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93		0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2		2	2	2	2	2	2
Cap, veh/h	294	68	88	286	67	89		69	2435	752	71	1610	7
Arrive On Green	0.09	0.09	0.09	0.09	0.09	0.09		0.04	0.48	0.48	0.04	0.44	0.44
Sat Flow, veh/h	1378	733	952	1368	721	962		1781	5106	1577	1781	3628	16
Grp Volume(v), veh/h	24	0	23	82	0	14		27	734	26	28	673	707
Grp Sat Flow(s),veh/h/ln	1378	0	1685	1368	0	1683		1781	1702	1577	1781	1777	1867
Q Serve(g_s), s	0.7	0.0	0.5	2.4	0.0	0.3		0.6	3.6	0.4	0.6	13.8	13.8
Cycle Q Clear(g_c), s	1.0	0.0	0.5	2.9	0.0	0.3		0.6	3.6	0.4	0.6	13.8	13.8
Prop In Lane	1.00		0.57	1.00		0.57		1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	294	0	156	286	0	156		69	2435	752	71	789	829
V/C Ratio(X)	0.08	0.00	0.15	0.29	0.00	0.09		0.39	0.30	0.03	0.39	0.85	0.85
Avail Cap(c_a), veh/h	775	0	745	764	0	744		656	5641	1742	656	1963	2063
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.3	0.0	17.0	18.3	0.0	16.9		19.1	6.5	5.7	19.1	10.1	10.1
Incr Delay (d2), s/veh	0.1	0.0	0.4	0.5	0.0	0.2		3.6	0.0	0.0	1.3	1.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.2	0.6	0.0	0.1		0.3	0.5	0.1	0.2	2.7	2.8
Unsig. Movement Delay, s/veh													
LnGrp Delay(d),s/veh	17.5	0.0	17.4	18.9	0.0	17.2		22.7	6.5	5.7	20.4	11.2	11.1
LnGrp LOS	B	A	B	B	A	B		C	A	A	C	B	B
Approach Vol, veh/h		47			96				787			1408	
Approach Delay, s/veh		17.4			18.6				7.1			11.3	
Approach LOS		B			B				A			B	
Timer - Assigned Phs	1	2		4	5	6		8					
Phs Duration (G+Y+Rc), s	8.0	24.5		8.3	6.6	25.8		8.3					
Change Period (Y+Rc), s	6.4	* 6.4		4.5	5.0	6.4		4.5					
Max Green Setting (Gmax), s	15.0	* 45		18.0	15.0	45.0		18.0					
Max Q Clear Time (g_c+1), s	12.6	15.8		3.0	2.6	5.6		4.9					
Green Ext Time (p_c), s	0.0	2.3		0.1	0.0	1.5		0.2					

Intersection Summary

HCM 6th Ctrl Delay	10.3
HCM 6th LOS	B

Notes

- User approved volume balancing among the lanes for turning movement.
- User approved ignoring U-Turning movement.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study plus Alternative 1
 8: Monterey Ave & Gerald Ford Dr Opening Year (2023) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑	↗	↔↔	↑↑	↗	↔↔	↑↑↔		↔↔	↑↑↑	↗
Traffic Volume (veh/h)	103	281	152	130	506	87	112	595	39	70	1149	132
Future Volume (veh/h)	103	281	152	130	506	87	112	595	39	70	1149	132
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	120	327	37	151	588	23	130	692	40	81	1336	0
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	175	683	302	208	717	317	186	2525	145	134	2535	
Arrive On Green	0.05	0.19	0.19	0.06	0.20	0.20	0.05	0.51	0.51	0.04	0.50	0.00
Sat Flow, veh/h	3456	3554	1573	3456	3554	1573	3456	4938	284	3456	5106	1585
Grp Volume(v), veh/h	120	327	37	151	588	23	130	476	256	81	1336	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1573	1728	1777	1573	1728	1702	1818	1728	1702	1585
Q Serve(g_s), s	4.1	9.8	2.3	5.2	19.0	1.4	4.4	9.5	9.6	2.8	21.4	0.0
Cycle Q Clear(g_c), s	4.1	9.8	2.3	5.2	19.0	1.4	4.4	9.5	9.6	2.8	21.4	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.16	1.00		1.00
Lane Grp Cap(c), veh/h	175	683	302	208	717	317	186	1741	930	134	2535	
V/C Ratio(X)	0.69	0.48	0.12	0.73	0.82	0.07	0.70	0.27	0.28	0.60	0.53	
Avail Cap(c_a), veh/h	374	868	384	374	868	384	374	1741	930	346	2535	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.97	0.97	0.74	0.74	0.00
Uniform Delay (d), s/veh	56.0	43.1	40.1	55.4	45.8	38.8	55.8	16.7	16.7	56.8	20.6	0.0
Incr Delay (d2), s/veh	1.8	0.5	0.2	1.8	5.3	0.1	1.7	0.4	0.7	1.2	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	4.2	0.9	2.2	8.6	0.5	1.9	3.5	3.8	1.2	7.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.8	43.7	40.3	57.2	51.2	38.9	57.6	17.0	17.4	58.0	21.2	0.0
LnGrp LOS	E	D	D	E	D	D	E	B	B	E	C	
Approach Vol, veh/h		484			762			862			1417	A
Approach Delay, s/veh		46.9			52.0			23.2			23.3	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.4	66.6	11.1	30.9	9.7	68.4	12.2	29.8				
Change Period (Y+Rc), s	5.0	7.0	5.0	6.7	5.0	7.0	5.0	6.7				
Max Green Setting (Gmax), s	13.0	41.0	13.0	29.3	12.0	42.0	13.0	29.3				
Max Q Clear Time (g_c+10), s	10.4	23.4	6.1	21.0	4.8	11.6	7.2	11.8				
Green Ext Time (p_c), s	0.1	9.2	0.1	2.3	0.0	5.3	0.1	1.8				

Intersection Summary

HCM 6th Ctrl Delay	32.7
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
 Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study plus Alternative 1
 9: Monterey Ave & Frank Sinatra Dr Opening Year (2023) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖↗	↑↑	↖	↖↗	↑↑↖		↖↗	↑↑↑	↖
Traffic Volume (veh/h)	33	186	83	141	510	80	59	627	51	72	1359	71
Future Volume (veh/h)	33	186	83	141	510	80	59	627	51	72	1359	71
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	37	209	15	158	573	90	66	704	53	81	1527	44
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	102	602	266	213	716	317	128	2710	203	134	2866	887
Arrive On Green	0.03	0.17	0.17	0.06	0.20	0.20	0.04	0.56	0.56	0.04	0.56	0.56
Sat Flow, veh/h	3456	3554	1571	3456	3554	1573	3456	4845	363	3456	5106	1581
Grp Volume(v), veh/h	37	209	15	158	573	90	66	493	264	81	1527	44
Grp Sat Flow(s),veh/h/ln	1728	1777	1571	1728	1777	1573	1728	1702	1804	1728	1702	1581
Q Serve(g_s), s	1.3	6.2	1.0	5.4	18.4	5.8	2.2	9.0	9.0	2.8	22.5	1.5
Cycle Q Clear(g_c), s	1.3	6.2	1.0	5.4	18.4	5.8	2.2	9.0	9.0	2.8	22.5	1.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	102	602	266	213	716	317	128	1904	1009	134	2866	887
V/C Ratio(X)	0.36	0.35	0.06	0.74	0.80	0.28	0.52	0.26	0.26	0.60	0.53	0.05
Avail Cap(c_a), veh/h	317	977	432	317	1007	446	346	1904	1009	346	2866	887
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.97	0.97	0.80	0.80	0.80
Uniform Delay (d), s/veh	57.1	44.0	41.8	55.4	45.6	40.6	56.7	13.6	13.6	56.8	16.5	11.9
Incr Delay (d2), s/veh	0.8	0.1	0.0	1.9	2.0	0.2	1.2	0.3	0.6	1.3	0.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	2.7	0.4	2.3	7.9	2.2	1.0	3.2	3.5	1.2	7.9	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.9	44.1	41.8	57.3	47.7	40.8	57.9	13.9	14.3	58.1	17.1	12.0
LnGrp LOS	E	D	D	E	D	D	E	B	B	E	B	B
Approach Vol, veh/h		261			821			823			1652	
Approach Delay, s/veh		45.9			48.8			17.6			18.9	
Approach LOS		D			D			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.4	73.8	7.5	30.2	8.7	73.6	11.4	26.3				
Change Period (Y+Rc), s	4.0	6.5	4.0	* 6	4.0	6.5	4.0	6.0				
Max Green Setting (Gmax), s	12.0	43.5	11.0	* 34	12.0	43.5	11.0	33.0				
Max Q Clear Time (g_c+1), s	11.2	24.5	3.3	20.4	4.8	11.0	7.4	8.2				
Green Ext Time (p_c), s	0.0	6.6	0.0	1.9	0.0	2.7	0.0	0.7				

Intersection Summary

HCM 6th Ctrl Delay	27.5
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
 * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study plus Alternative 1
 10: Monterey Ave & Country Club Dr Opening Year (2023) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖
Traffic Volume (veh/h)	71	298	119	205	747	130	267	482	78	197	1084	193
Future Volume (veh/h)	71	298	119	205	747	130	267	482	78	197	1084	193
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	78	327	0	225	821	0	293	530	38	216	1191	122
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	187	845		280	983		348	2337	723	271	2223	688
Arrive On Green	0.05	0.17	0.00	0.08	0.19	0.00	0.10	0.46	0.46	0.08	0.44	0.44
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	3456	5106	1580	3456	5106	1580
Grp Volume(v), veh/h	78	327	0	225	821	0	293	530	38	216	1191	122
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1585	1728	1702	1580	1728	1702	1580
Q Serve(g_s), s	2.6	6.9	0.0	7.7	18.6	0.0	10.0	7.5	1.6	7.4	20.6	5.7
Cycle Q Clear(g_c), s	2.6	6.9	0.0	7.7	18.6	0.0	10.0	7.5	1.6	7.4	20.6	5.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	187	845		280	983		348	2337	723	271	2223	688
V/C Ratio(X)	0.42	0.39		0.80	0.84		0.84	0.23	0.05	0.80	0.54	0.18
Avail Cap(c_a), veh/h	259	1332		346	1459		432	2337	723	346	2223	688
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.84	0.84	0.84
Uniform Delay (d), s/veh	54.9	44.6	0.0	54.2	46.6	0.0	53.0	19.7	18.1	54.4	24.9	20.7
Incr Delay (d2), s/veh	0.6	0.1	0.0	8.6	1.8	0.0	10.0	0.2	0.1	6.4	0.8	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	2.8	0.0	3.6	7.7	0.0	4.6	2.8	0.6	3.3	7.8	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.5	44.7	0.0	62.8	48.4	0.0	63.0	19.9	18.2	60.7	25.7	21.2
LnGrp LOS	E	D		E	D		E	B	B	E	C	C
Approach Vol, veh/h		405	A		1046	A		861			1529	
Approach Delay, s/veh		46.8			51.5			34.5			30.3	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.4	62.3	15.7	26.6	18.1	59.7	12.5	29.8				
Change Period (Y+Rc), s	6.0	7.4	6.0	6.7	6.0	7.4	6.0	6.7				
Max Green Setting (Gmax), s	12.0	38.6	12.0	31.3	15.0	35.6	9.0	34.3				
Max Q Clear Time (g_c+1), s	19.4	9.5	9.7	8.9	12.0	22.6	4.6	20.6				
Green Ext Time (p_c), s	0.0	1.1	0.0	0.7	0.1	2.4	0.0	1.7				

Intersection Summary

HCM 6th Ctrl Delay	38.8
HCM 6th LOS	D

Notes

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study plus Alternative 1
 1: Varner Rd & Monterey Ave Opening Year (2023) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	100	229	504	197	202	268	497	87	37	402	8
Future Volume (veh/h)	23	100	229	504	197	202	268	497	87	37	402	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	24	105	23	531	207	53	282	523	0	39	423	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	90	312	132	590	598	150	841	1706		119	1045	
Arrive On Green	0.05	0.08	0.08	0.17	0.21	0.21	0.24	0.48	0.00	0.07	0.29	0.00
Sat Flow, veh/h	1781	3741	1585	3456	2812	703	3456	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	24	105	23	531	129	131	282	523	0	39	423	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1728	1777	1738	1728	1777	1585	1781	1777	1585
Q Serve(g_s), s	1.6	3.2	1.6	18.1	7.4	7.7	8.1	10.8	0.0	2.5	11.4	0.0
Cycle Q Clear(g_c), s	1.6	3.2	1.6	18.1	7.4	7.7	8.1	10.8	0.0	2.5	11.4	0.0
Prop In Lane	1.00		1.00	1.00		0.40	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	90	312	132	590	378	370	841	1706		119	1045	
V/C Ratio(X)	0.27	0.34	0.17	0.90	0.34	0.35	0.34	0.31		0.33	0.40	
Avail Cap(c_a), veh/h	163	567	240	772	503	492	841	1706		163	1045	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	54.8	51.9	51.2	48.7	40.1	40.2	37.4	19.0	0.0	53.4	33.9	0.0
Incr Delay (d2), s/veh	0.6	0.6	0.6	9.6	0.5	0.6	0.2	0.5	0.0	0.6	1.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.5	0.6	8.2	3.1	3.2	3.3	4.2	0.0	1.1	4.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.4	52.5	51.8	58.4	40.6	40.8	37.6	19.5	0.0	54.0	35.1	0.0
LnGrp LOS	E	D	D	E	D	D	D	B		D	D	
Approach Vol, veh/h		152			791			805	A		462	A
Approach Delay, s/veh		52.9			52.6			25.8			36.7	
Approach LOS		D			D			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.4	63.8	27.0	15.8	35.4	41.8	10.8	32.0				
Change Period (Y+Rc), s	5.4	6.2	6.5	* 5.8	6.2	* 6.5	* 4.7	6.5				
Max Green Setting (Gmax), s	11.0	41.2	26.8	* 18	16.9	* 35	* 11	34.0				
Max Q Clear Time (g_c+I1), s	4.5	12.8	20.1	5.2	10.1	13.4	3.6	9.7				
Green Ext Time (p_c), s	0.0	3.1	0.4	0.4	0.4	2.4	0.0	1.2				

Intersection Summary

HCM 6th Ctrl Delay	39.5
HCM 6th LOS	D

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study plus Alternative 1
 2: Monterey Ave & I-10 EB Ramps Opening Year (2023) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	2	765	0	0	0	0	1720	702	173	905	0
Future Volume (veh/h)	45	2	765	0	0	0	0	1720	702	173	905	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	31	0	651				0	1773	353	178	933	0
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	430	0	765				0	2825	877	240	2353	0
Arrive On Green	0.24	0.00	0.24				0.00	0.18	0.18	0.07	0.66	0.00
Sat Flow, veh/h	1781	0	3170				0	5274	1585	3456	3647	0
Grp Volume(v), veh/h	31	0	651				0	1773	353	178	933	0
Grp Sat Flow(s),veh/h/ln	1781	0	1585				0	1702	1585	1728	1777	0
Q Serve(g_s), s	1.6	0.0	23.5				0.0	38.5	23.6	6.1	14.4	0.0
Cycle Q Clear(g_c), s	1.6	0.0	23.5				0.0	38.5	23.6	6.1	14.4	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	430	0	765				0	2825	877	240	2353	0
V/C Ratio(X)	0.07	0.00	0.85				0.00	0.63	0.40	0.74	0.40	0.00
Avail Cap(c_a), veh/h	644	0	1147				0	2825	877	461	2353	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	0.33	0.33	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00				0.00	0.69	0.69	1.00	1.00	0.00
Uniform Delay (d), s/veh	35.2	0.0	43.5				0.0	37.6	31.5	54.8	9.3	0.0
Incr Delay (d2), s/veh	0.1	0.0	4.6				0.0	0.7	1.0	4.4	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	9.7				0.0	17.5	10.1	2.7	4.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.2	0.0	48.0				0.0	38.4	32.5	59.2	9.8	0.0
LnGrp LOS	D	A	D				A	D	C	E	A	A
Approach Vol, veh/h		682						2126			1111	
Approach Delay, s/veh		47.4						37.4			17.7	
Approach LOS		D						D			B	
Timer - Assigned Phs	1	2	4	6								
Phs Duration (G+Y+Rc), s	33.0	72.2	34.7	85.3								
Change Period (Y+Rc), s	4.7	5.8	5.8	5.8								
Max Green Setting (Gmax), s	65.0	44.3	43.4	65.0								
Max Q Clear Time (g_c+10), s	19.5	40.5	25.5	16.4								
Green Ext Time (p_c), s	0.3	3.3	3.4	7.0								

Intersection Summary

HCM 6th Ctrl Delay	33.6
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.
 * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

3: Key Largo Ave & Dinah Shore Dr

Rancho Monterey Traffic Study plus Alternative 1
Opening Year (2023) - PM Peak Hour



Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑ ↑ ↑	↑ ↑ ↑		↵ ↑ ↑ ↑	↵ ↑ ↑ ↑	↵	↵
Traffic Volume (veh/h)	10	815	53	45	855	39	90
Future Volume (veh/h)	10	815	53	45	855	39	90
Initial Q (Qb), veh		0	0	0	0	0	0
Ped-Bike Adj(A_pbT)			0.99	1.00		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No	No	
Adj Sat Flow, veh/h/ln		1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h		849	48	47	891	41	8
Peak Hour Factor		0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %		2	2	2	2	2	2
Cap, veh/h		1624	92	97	1701	100	89
Arrive On Green		0.33	0.33	0.05	0.33	0.06	0.06
Sat Flow, veh/h		5111	279	1781	5274	1781	1585
Grp Volume(v), veh/h		584	313	47	891	41	8
Grp Sat Flow(s),veh/h/ln		1702	1818	1781	1702	1781	1585
Q Serve(g_s), s		4.1	4.1	0.8	4.1	0.7	0.1
Cycle Q Clear(g_c), s		4.1	4.1	0.8	4.1	0.7	0.1
Prop In Lane			0.15	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		1118	597	97	1701	100	89
V/C Ratio(X)		0.52	0.52	0.49	0.52	0.41	0.09
Avail Cap(c_a), veh/h		4631	2473	1212	6946	1212	1078
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		8.0	8.0	13.5	7.9	13.4	13.2
Incr Delay (d2), s/veh		0.1	0.3	1.4	0.1	1.0	0.2
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		0.5	0.6	0.2	0.5	0.2	0.0
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		8.1	8.3	14.9	8.0	14.4	13.3
LnGrp LOS		A	A	B	A	B	B
Approach Vol, veh/h		897			938	49	
Approach Delay, s/veh		8.2			8.4	14.2	
Approach LOS		A			A	B	
Timer - Assigned Phs			3	4		6	8
Phs Duration (G+Y+Rc), s			6.6	16.2		6.6	16.3
Change Period (Y+Rc), s			5.0	6.5		5.0	6.5
Max Green Setting (Gmax), s			20.0	40.0		20.0	40.0
Max Q Clear Time (g_c+I1), s			2.8	6.1		2.7	6.1
Green Ext Time (p_c), s			0.0	3.3		0.0	3.7
Intersection Summary							
HCM 6th Ctrl Delay			8.4				
HCM 6th LOS			A				

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study plus Alternative 1
 4: Monterey Ave & Dinah Shore Dr Opening Year (2023) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖	↑↑	↖	↖↗↑↑↑			↖↗	↑↑↑	↖
Traffic Volume (veh/h)	642	348	311	61	358	597	367	1202	26	315	924	430
Future Volume (veh/h)	642	348	311	61	358	597	367	1202	26	315	924	430
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	655	355	93	62	365	0	374	1227	26	321	943	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	709	942	418	104	419		430	1984	42	381	1897	
Arrive On Green	0.21	0.27	0.27	0.06	0.12	0.00	0.12	0.39	0.39	0.04	0.12	0.00
Sat Flow, veh/h	3456	3554	1576	1781	3554	1585	3456	5145	109	3456	5106	1585
Grp Volume(v), veh/h	655	355	93	62	365	0	374	812	441	321	943	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1576	1781	1777	1585	1728	1702	1850	1728	1702	1585
Q Serve(g_s), s	22.3	9.8	5.5	4.1	12.1	0.0	12.8	23.1	23.1	11.1	20.7	0.0
Cycle Q Clear(g_c), s	22.3	9.8	5.5	4.1	12.1	0.0	12.8	23.1	23.1	11.1	20.7	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.06	1.00		1.00
Lane Grp Cap(c), veh/h	709	942	418	104	419		430	1313	714	381	1897	
V/C Ratio(X)	0.92	0.38	0.22	0.60	0.87		0.87	0.62	0.62	0.84	0.50	
Avail Cap(c_a), veh/h	893	1045	464	148	423		662	1313	714	605	1897	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	0.97	0.97	0.97	1.00	1.00	0.00	1.00	1.00	1.00	0.83	0.83	0.00
Uniform Delay (d), s/veh	46.8	36.0	34.4	55.1	52.0	0.0	51.6	29.7	29.7	56.8	42.2	0.0
Incr Delay (d2), s/veh	11.4	0.1	0.1	2.0	16.7	0.0	5.1	2.2	4.0	2.8	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.3	4.1	2.1	1.8	6.2	0.0	5.6	9.3	10.5	5.1	9.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.1	36.1	34.5	57.2	68.7	0.0	56.7	31.9	33.7	59.5	43.0	0.0
LnGrp LOS	E	D	C	E	E		E	C	C	E	D	
Approach Vol, veh/h		1103			427	A		1627			1264	A
Approach Delay, s/veh		49.0			67.1			38.1			47.2	
Approach LOS		D			E			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.0	37.5	19.9	50.6	29.6	19.9	18.2	52.3				
Change Period (Y+Rc), s	5.0	5.7	5.0	6.0	5.0	5.7	5.0	6.0				
Max Green Setting (Gmax), s	10.0	35.3	23.0	30.0	31.0	14.3	21.0	32.0				
Max Q Clear Time (g_c+1), s	10.0	11.8	14.8	22.7	24.3	14.1	13.1	25.1				
Green Ext Time (p_c), s	0.0	0.7	0.2	1.5	0.3	0.0	0.1	1.8				

Intersection Summary

HCM 6th Ctrl Delay	46.2
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
 Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th TWSC
 5: Monterey Ave & Proposed Roadway Connection

Rancho Monterey Traffic Study plus Alternative 1
 Opening Year (2023) - PM Peak Hour

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑↑	
Traffic Vol, veh/h	0	52	0	1506	1065	107
Future Vol, veh/h	0	52	0	1506	1065	107
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	57	0	1637	1158	116

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	-	637	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	7.14	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.92	-
Pot Cap-1 Maneuver	0	360	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %			-
Mov Cap-1 Maneuver	-	360	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16.9	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT EBLn1	SBT	SBR
Capacity (veh/h)	- 360	-	-
HCM Lane V/C Ratio	- 0.157	-	-
HCM Control Delay (s)	- 16.9	-	-
HCM Lane LOS	- C	-	-
HCM 95th %tile Q(veh)	- 0.6	-	-

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study plus Alternative 1
 6: Proposed Project Access Driveway & Monterey Ave Opening Year (2023) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	115	0	58	0	0	156	97	1235	129	110	965	42
Future Volume (veh/h)	115	0	58	0	0	156	97	1235	129	110	965	42
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	121	0	34	0	0	137	102	1300	116	116	1016	40
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	362	0	304	217	0	304	401	2553	228	354	1865	73
Arrive On Green	0.19	0.00	0.19	0.00	0.00	0.19	0.54	0.54	0.54	0.54	0.54	0.54
Sat Flow, veh/h	1246	0	1573	1375	0	1573	534	4770	426	379	3485	137
Grp Volume(v), veh/h	121	0	34	0	0	137	102	928	488	116	518	538
Grp Sat Flow(s),veh/h/ln	1246	0	1573	1375	0	1573	534	1702	1791	379	1777	1845
Q Serve(g_s), s	3.2	0.0	0.6	0.0	0.0	2.6	5.1	5.8	5.8	9.3	6.3	6.3
Cycle Q Clear(g_c), s	5.7	0.0	0.6	0.0	0.0	2.6	11.5	5.8	5.8	15.1	6.3	6.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.24	1.00		0.07
Lane Grp Cap(c), veh/h	362	0	304	217	0	304	401	1822	959	354	951	987
V/C Ratio(X)	0.33	0.00	0.11	0.00	0.00	0.45	0.25	0.51	0.51	0.33	0.54	0.54
Avail Cap(c_a), veh/h	798	0	854	698	0	854	405	1848	973	357	965	1002
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.3	0.0	11.0	0.0	0.0	11.8	8.8	4.9	4.9	9.8	5.1	5.1
Incr Delay (d2), s/veh	0.5	0.0	0.2	0.0	0.0	1.0	0.3	0.2	0.4	0.5	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.2	0.0	0.0	0.8	0.3	0.2	0.3	0.4	0.4	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.9	0.0	11.2	0.0	0.0	12.9	9.2	5.1	5.3	10.3	5.7	5.7
LnGrp LOS	B	A	B	A	A	B	A	A	A	B	A	A
Approach Vol, veh/h		155			137			1518			1172	
Approach Delay, s/veh		14.1			12.9			5.5			6.1	
Approach LOS		B			B			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.2		10.9		22.2		10.9				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		13.5		7.7		17.1		4.6				
Green Ext Time (p_c), s		3.2		0.4		0.6		0.6				
Intersection Summary												
HCM 6th Ctrl Delay				6.5								
HCM 6th LOS				A								

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study plus Alternative 1
 7: Monterey Ave & Dick Kelly Dr Opening Year (2023) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↖↗↘	↖↗↘	↖	↖	↗	
Traffic Volume (veh/h)	22	17	51	210	12	60	10	76	1379	114	32	969	22
Future Volume (veh/h)	22	17	51	210	12	60	10	76	1379	114	32	969	22
Initial Q (Qb), veh	0	0	0	0	0	0		0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99		1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870		1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	23	18	14	219	12	15		79	1436	54	33	1009	22
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96		0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2		2	2	2	2	2	2
Cap, veh/h	431	210	163	427	162	203		146	2068	638	79	1203	26
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22		0.08	0.40	0.40	0.04	0.34	0.34
Sat Flow, veh/h	1374	972	756	1368	753	941		1781	5106	1575	1781	3555	78
Grp Volume(v), veh/h	23	0	32	219	0	27		79	1436	54	33	504	527
Grp Sat Flow(s),veh/h/ln	1374	0	1728	1368	0	1693		1781	1702	1575	1781	1777	1856
Q Serve(g_s), s	0.6	0.0	0.7	7.2	0.0	0.6		2.0	11.1	1.0	0.9	12.5	12.5
Cycle Q Clear(g_c), s	1.2	0.0	0.7	7.9	0.0	0.6		2.0	11.1	1.0	0.9	12.5	12.5
Prop In Lane	1.00		0.44	1.00		0.56		1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	431	0	373	427	0	365		146	2068	638	79	601	628
V/C Ratio(X)	0.05	0.00	0.09	0.51	0.00	0.07		0.54	0.69	0.08	0.42	0.84	0.84
Avail Cap(c_a), veh/h	655	0	655	650	0	642		562	4837	1492	562	1683	1758
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.3	0.0	14.9	18.1	0.0	14.8		21.0	11.7	8.7	22.1	14.5	14.5
Incr Delay (d2), s/veh	0.1	0.0	0.1	1.0	0.0	0.1		1.2	0.2	0.0	1.3	1.2	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.3	1.9	0.0	0.2		0.7	2.6	0.2	0.3	3.5	3.7
Unsig. Movement Delay, s/veh													
LnGrp Delay(d),s/veh	15.4	0.0	15.0	19.0	0.0	14.9		22.1	11.9	8.7	23.4	15.7	15.7
LnGrp LOS	B	A	B	B	A	B		C	B	A	C	B	B
Approach Vol, veh/h		55		246				1569			1064		
Approach Delay, s/veh		15.2		18.6				12.3			16.0		
Approach LOS		B		B				B			B		
Timer - Assigned Phs	1	2		4	5	6		8					
Phs Duration (G+Y+Rc), s	10.3	22.5		14.8	7.1	25.6		14.8					
Change Period (Y+Rc), s	6.4	* 6.4		4.5	5.0	6.4		4.5					
Max Green Setting (Gmax), s	15.0	* 45		18.0	15.0	45.0		18.0					
Max Q Clear Time (g_c+1), s	14.5			3.2	2.9	13.1		9.9					
Green Ext Time (p_c), s	0.0	1.5		0.1	0.0	3.4		0.5					

Intersection Summary

HCM 6th Ctrl Delay	14.2
HCM 6th LOS	B

Notes

User approved ignoring U-Turning movement.
 * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study plus Alternative 1
 8: Monterey Ave & Gerald Ford Dr Opening Year (2023) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑	↗	↔↔	↑↑	↗	↔↔	↑↑↔		↔↔	↑↑↑	↗
Traffic Volume (veh/h)	176	339	135	115	295	128	138	1255	80	77	902	134
Future Volume (veh/h)	176	339	135	115	295	128	138	1255	80	77	902	134
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	183	353	23	120	307	21	144	1307	80	80	940	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	241	542	239	175	474	209	200	2758	169	134	2765	
Arrive On Green	0.07	0.15	0.15	0.05	0.13	0.13	0.06	0.56	0.56	0.04	0.54	0.00
Sat Flow, veh/h	3456	3554	1569	3456	3554	1567	3456	4918	301	3456	5106	1585
Grp Volume(v), veh/h	183	353	23	120	307	21	144	905	482	80	940	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1569	1728	1777	1567	1728	1702	1815	1728	1702	1585
Q Serve(g_s), s	6.2	11.2	1.5	4.1	9.8	1.4	4.9	19.1	19.1	2.7	12.4	0.0
Cycle Q Clear(g_c), s	6.2	11.2	1.5	4.1	9.8	1.4	4.9	19.1	19.1	2.7	12.4	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.17	1.00		1.00
Lane Grp Cap(c), veh/h	241	542	239	175	474	209	200	1909	1018	134	2765	
V/C Ratio(X)	0.76	0.65	0.10	0.69	0.65	0.10	0.72	0.47	0.47	0.60	0.34	
Avail Cap(c_a), veh/h	403	927	409	374	897	396	346	1909	1018	346	2765	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.78	0.78	0.78	0.59	0.59	0.00
Uniform Delay (d), s/veh	54.8	47.9	43.7	56.0	49.3	45.7	55.6	15.8	15.8	56.8	15.5	0.0
Incr Delay (d2), s/veh	1.9	1.3	0.2	1.8	1.5	0.2	1.4	0.7	1.2	0.9	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	4.9	0.6	1.8	4.3	0.5	2.1	6.7	7.3	1.2	4.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.7	49.2	43.9	57.8	50.8	45.9	57.0	16.4	17.0	57.7	15.7	0.0
LnGrp LOS	E	D	D	E	D	D	E	B	B	E	B	
Approach Vol, veh/h		559			448			1531			1020	A
Approach Delay, s/veh		51.4			52.5			20.4			18.9	
Approach LOS		D			D			C			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.9	72.0	13.4	22.7	9.7	74.3	11.1	25.0				
Change Period (Y+Rc), s	5.0	7.0	5.0	6.7	5.0	7.0	5.0	6.7				
Max Green Setting (Gmax), s	12.0	40.0	14.0	30.3	12.0	40.0	13.0	31.3				
Max Q Clear Time (g_c+10), s	10.0	14.4	8.2	11.8	4.7	21.1	6.1	13.2				
Green Ext Time (p_c), s	0.1	7.3	0.1	1.6	0.0	9.5	0.1	1.9				

Intersection Summary

HCM 6th Ctrl Delay	28.9
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
 Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study plus Alternative 1
 9: Monterey Ave & Frank Sinatra Dr Opening Year (2023) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑	↗	↔↔	↑↑	↗	↔↔	↑↑↔		↔↔	↑↑↑	↗
Traffic Volume (veh/h)	154	502	93	132	269	85	102	1307	112	91	1079	58
Future Volume (veh/h)	154	502	93	132	269	85	102	1307	112	91	1079	58
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	167	546	21	143	292	92	111	1421	115	99	1173	33
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	222	665	294	197	639	283	164	2607	211	150	2746	850
Arrive On Green	0.06	0.19	0.19	0.06	0.18	0.18	0.05	0.54	0.54	0.04	0.54	0.54
Sat Flow, veh/h	3456	3554	1572	3456	3554	1572	3456	4814	390	3456	5106	1581
Grp Volume(v), veh/h	167	546	21	143	292	92	111	1005	531	99	1173	33
Grp Sat Flow(s),veh/h/ln	1728	1777	1572	1728	1777	1572	1728	1702	1799	1728	1702	1581
Q Serve(g_s), s	5.7	17.7	1.3	4.9	8.8	6.1	3.8	23.0	23.0	3.4	16.5	1.2
Cycle Q Clear(g_c), s	5.7	17.7	1.3	4.9	8.8	6.1	3.8	23.0	23.0	3.4	16.5	1.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.22	1.00		1.00
Lane Grp Cap(c), veh/h	222	665	294	197	639	283	164	1844	974	150	2746	850
V/C Ratio(X)	0.75	0.82	0.07	0.72	0.46	0.33	0.68	0.55	0.55	0.66	0.43	0.04
Avail Cap(c_a), veh/h	317	859	380	317	888	393	317	1844	974	317	2746	850
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.81	0.81	0.81	0.93	0.93	0.93
Uniform Delay (d), s/veh	55.2	46.9	40.2	55.6	44.0	42.9	56.3	17.9	17.9	56.5	16.6	13.1
Incr Delay (d2), s/veh	3.1	3.9	0.0	1.9	0.2	0.2	1.5	0.9	1.8	1.7	0.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	7.9	0.5	2.1	3.8	2.3	1.6	8.3	9.0	1.5	5.9	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.3	50.8	40.2	57.5	44.2	43.1	57.8	18.8	19.7	58.2	17.1	13.2
LnGrp LOS	E	D	D	E	D	D	E	B	B	E	B	B
Approach Vol, veh/h		734			527			1647			1305	
Approach Delay, s/veh		52.2			47.6			21.7			20.1	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.7	71.0	11.7	27.6	9.2	71.5	10.9	28.4				
Change Period (Y+Rc), s	4.0	6.5	4.0	* 6	4.0	6.5	4.0	6.0				
Max Green Setting (Gmax), s	48.5	11.0	* 30	11.0	48.5	11.0	29.0					
Max Q Clear Time (g_c+1), s	18.5	7.7	10.8	5.4	25.0	6.9	19.7					
Green Ext Time (p_c), s	0.0	5.2	0.0	1.1	0.0	6.3	0.0	1.5				

Intersection Summary

HCM 6th Ctrl Delay	29.8
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
 * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study plus Alternative 1
 10: Monterey Ave & Country Club Dr Opening Year (2023) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑↑	↔	↔↔	↑↑↑	↔	↔↔	↑↑↑	↔	↔↔	↑↑↑	↔
Traffic Volume (veh/h)	201	694	305	184	294	184	135	1131	146	253	976	107
Future Volume (veh/h)	201	694	305	184	294	184	135	1131	146	253	976	107
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	205	708	0	188	300	0	138	1154	62	258	996	62
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	260	867		244	843		200	2307	714	312	2474	766
Arrive On Green	0.08	0.17	0.00	0.07	0.17	0.00	0.06	0.45	0.45	0.09	0.48	0.48
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	3456	5106	1580	3456	5106	1580
Grp Volume(v), veh/h	205	708	0	188	300	0	138	1154	62	258	996	62
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1585	1728	1702	1580	1728	1702	1580
Q Serve(g_s), s	7.0	16.0	0.0	6.4	6.3	0.0	4.7	19.2	2.7	8.8	15.0	2.5
Cycle Q Clear(g_c), s	7.0	16.0	0.0	6.4	6.3	0.0	4.7	19.2	2.7	8.8	15.0	2.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	260	867		244	843		200	2307	714	312	2474	766
V/C Ratio(X)	0.79	0.82		0.77	0.36		0.69	0.50	0.09	0.83	0.40	0.08
Avail Cap(c_a), veh/h	346	1332		432	1459		432	2307	714	374	2474	766
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.89	0.89	0.89
Uniform Delay (d), s/veh	54.5	48.0	0.0	54.8	44.4	0.0	55.5	23.3	18.8	53.6	19.8	16.6
Incr Delay (d2), s/veh	6.1	1.3	0.0	2.0	0.1	0.0	1.6	0.8	0.2	9.3	0.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	6.7	0.0	2.8	2.6	0.0	2.0	7.3	1.0	4.1	5.5	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.6	49.3	0.0	56.8	44.5	0.0	57.1	24.1	19.0	62.9	20.2	16.8
LnGrp LOS	E	D		E	D		E	C	B	E	C	B
Approach Vol, veh/h		913	A		488	A		1354			1316	
Approach Delay, s/veh		51.8			49.2			27.2			28.5	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	61.8	61.6	14.5	27.1	12.9	65.5	15.0	26.5				
Change Period (Y+Rc), s	6.0	7.4	6.0	6.7	6.0	7.4	6.0	6.7				
Max Green Setting (Gmax), s	34.6	34.6	15.0	31.3	15.0	32.6	12.0	34.3				
Max Q Clear Time (g_c+I), s	11.0	11.0	21.2	8.4	18.0	6.7	17.0	9.0	8.3			
Green Ext Time (p_c), s	0.0	2.3	0.1	1.4	0.0	2.0	0.0	0.6				

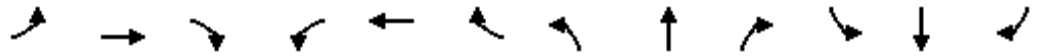
Intersection Summary

HCM 6th Ctrl Delay	35.8
HCM 6th LOS	D

Notes

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study plus Alternative 2
 1: Varner Rd & Monterey Ave Opening Year (2023) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	106	249	673	252	118	158	156	50	77	564	12
Future Volume (veh/h)	13	106	249	673	252	118	158	156	50	77	564	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	15	122	26	774	290	90	182	179	0	89	648	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	64	312	132	836	800	243	627	1467		112	1013	
Arrive On Green	0.04	0.08	0.08	0.24	0.30	0.30	0.18	0.41	0.00	0.06	0.28	0.00
Sat Flow, veh/h	1781	3741	1585	3456	2680	815	3456	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	15	122	26	774	190	190	182	179	0	89	648	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1728	1777	1719	1728	1777	1585	1781	1777	1585
Q Serve(g_s), s	1.0	3.7	1.8	26.3	10.1	10.4	5.5	3.7	0.0	5.9	19.1	0.0
Cycle Q Clear(g_c), s	1.0	3.7	1.8	26.3	10.1	10.4	5.5	3.7	0.0	5.9	19.1	0.0
Prop In Lane	1.00		1.00	1.00		0.47	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	64	312	132	836	530	513	627	1467		112	1013	
V/C Ratio(X)	0.23	0.39	0.20	0.93	0.36	0.37	0.29	0.12		0.80	0.64	
Avail Cap(c_a), veh/h	168	380	161	1112	585	566	627	1467		178	1013	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	56.2	52.1	51.3	44.4	33.1	33.2	42.4	21.8	0.0	55.5	37.5	0.0
Incr Delay (d2), s/veh	0.7	0.8	0.7	9.2	0.2	0.2	0.2	0.2	0.0	4.8	3.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.7	0.7	11.7	4.1	4.2	2.3	1.5	0.0	2.7	8.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.9	52.9	52.0	53.7	33.2	33.4	42.6	22.0	0.0	60.3	40.6	0.0
LnGrp LOS	E	D	D	D	C	C	D	C		E	D	
Approach Vol, veh/h		163			1154			361	A		737	A
Approach Delay, s/veh		53.1			47.0			32.4			43.0	
Approach LOS		D			D			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.9	55.7	35.5	15.8	28.0	40.7	9.0	42.3				
Change Period (Y+Rc), s	5.4	6.2	6.5	* 5.8	6.2	* 6.5	* 4.7	6.5				
Max Green Setting (Gmax), s	12.0	34.4	38.6	* 12	12.2	* 34	* 11	39.5				
Max Q Clear Time (g_c+I1), s	7.9	5.7	28.3	5.7	7.5	21.1	3.0	12.4				
Green Ext Time (p_c), s	0.0	0.9	0.8	0.3	0.2	3.2	0.0	1.1				





















Intersection Summary

HCM 6th Ctrl Delay	44.0
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.
 * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
 Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study plus Alternative 2
 2: Monterey Ave & I-10 EB Ramps Opening Year (2023) - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	12	1049	0	0	0	0	675	397	198	1222	0
Future Volume (veh/h)	55	12	1049	0	0	0	0	675	397	198	1222	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	47	0	1193				0	776	109	228	1405	0
Peak Hour Factor	0.87	0.87	0.87				0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	852	0	1516				0	1204	374	518	1510	0
Arrive On Green	0.48	0.00	0.48				0.00	0.08	0.08	0.15	0.42	0.00
Sat Flow, veh/h	1781	0	3170				0	5274	1585	3456	3647	0
Grp Volume(v), veh/h	47	0	1193				0	776	109	228	1405	0
Grp Sat Flow(s),veh/h/ln	1781	0	1585				0	1702	1585	1728	1777	0
Q Serve(g_s), s	1.7	0.0	37.8				0.0	17.7	7.8	7.2	45.1	0.0
Cycle Q Clear(g_c), s	1.7	0.0	37.8				0.0	17.7	7.8	7.2	45.1	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	852	0	1516				0	1204	374	518	1510	0
V/C Ratio(X)	0.06	0.00	0.79				0.00	0.64	0.29	0.44	0.93	0.00
Avail Cap(c_a), veh/h	852	0	1516				0	1204	374	518	1510	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.90	0.90	1.00	1.00	0.00
Uniform Delay (d), s/veh	16.8	0.0	26.2				0.0	50.4	45.9	46.4	32.8	0.0
Incr Delay (d2), s/veh	0.1	0.0	4.2				0.0	2.4	1.8	2.7	11.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	14.7				0.0	8.3	3.3	3.2	20.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.9	0.0	30.4				0.0	52.8	47.6	49.1	44.4	0.0
LnGrp LOS	B	A	C				A	D	D	D	D	A
Approach Vol, veh/h		1240						885			1633	
Approach Delay, s/veh		29.9						52.2			45.1	
Approach LOS		C						D			D	
Timer - Assigned Phs	1	2	4	6								
Phs Duration (G+Y+Rc), s	22.7	34.1	63.2	56.8								
Change Period (Y+Rc), s	* 4.7	5.8	5.8	5.8								
Max Green Setting (Gmax), s	* 18	28.3	57.4	51.0								
Max Q Clear Time (g_c+I1), s	9.2	19.7	39.8	47.1								
Green Ext Time (p_c), s	0.5	3.2	6.9	2.8								
Intersection Summary												
HCM 6th Ctrl Delay			41.7									
HCM 6th LOS			D									
Notes												
User approved volume balancing among the lanes for turning movement.												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 6th Signalized Intersection Summary

3: Key Largo Ave & Dinah Shore Dr

Rancho Monterey Traffic Study plus Alternative 2

Opening Year (2023) - AM Peak Hour



Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↰	↕↕↕		↰	↕↕↕	↰	↰
Traffic Volume (veh/h)	10	628	44	88	501	34	96
Future Volume (veh/h)	10	628	44	88	501	34	96
Initial Q (Qb), veh		0	0	0	0	0	0
Ped-Bike Adj(A_pbT)			0.99	1.00		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No	No	
Adj Sat Flow, veh/h/ln		1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h		683	39	96	545	37	16
Peak Hour Factor		0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %		2	2	2	2	2	2
Cap, veh/h		1402	80	165	1379	107	95
Arrive On Green		0.28	0.28	0.09	0.27	0.06	0.06
Sat Flow, veh/h		5109	281	1781	5274	1781	1585
Grp Volume(v), veh/h		470	252	96	545	37	16
Grp Sat Flow(s),veh/h/ln		1702	1817	1781	1702	1781	1585
Q Serve(g_s), s		3.4	3.4	1.5	2.6	0.6	0.3
Cycle Q Clear(g_c), s		3.4	3.4	1.5	2.6	0.6	0.3
Prop In Lane			0.15	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		966	516	165	1379	107	95
V/C Ratio(X)		0.49	0.49	0.58	0.40	0.35	0.17
Avail Cap(c_a), veh/h		4653	2483	1217	6979	1217	1083
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		8.7	8.7	12.7	8.7	13.2	13.1
Incr Delay (d2), s/veh		0.1	0.3	1.2	0.1	0.7	0.3
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		0.5	0.6	0.4	0.4	0.2	0.1
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		8.8	9.0	13.9	8.8	13.9	13.4
LnGrp LOS		A	A	B	A	B	B
Approach Vol, veh/h		722			641	53	
Approach Delay, s/veh		8.9			9.6	13.8	
Approach LOS		A			A	B	
Timer - Assigned Phs			3	4		6	8
Phs Duration (G+Y+Rc), s			7.7	14.8		6.8	14.4
Change Period (Y+Rc), s			5.0	6.5		5.0	6.5
Max Green Setting (Gmax), s			20.0	40.0		20.0	40.0
Max Q Clear Time (g_c+I1), s			3.5	5.4		2.6	4.6
Green Ext Time (p_c), s			0.1	2.5		0.0	2.1

Intersection Summary

HCM 6th Ctrl Delay	9.4
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.
 User approved ignoring U-Turning movement.

HCM 6th Signalized Intersection Summary
4: Monterey Ave & Dinah Shore Dr

Rancho Monterey Traffic Study plus Alternative 2
Opening Year (2023) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑	↗	↖	↑↑	↗	↔↔	↑↑↔		↔↔	↑↑↑	↗
Traffic Volume (veh/h)	380	266	158	38	226	366	154	443	23	371	1432	441
Future Volume (veh/h)	380	266	158	38	226	366	154	443	23	371	1432	441
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	432	302	39	43	257	0	175	503	23	422	1627	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	485	686	304	90	368		230	2180	99	483	2597	
Arrive On Green	0.14	0.19	0.19	0.05	0.10	0.00	0.07	0.44	0.44	0.05	0.17	0.00
Sat Flow, veh/h	3456	3554	1573	1781	3554	1585	3456	5005	227	3456	5106	1585
Grp Volume(v), veh/h	432	302	39	43	257	0	175	341	185	422	1627	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1573	1781	1777	1585	1728	1702	1828	1728	1702	1585
Q Serve(g_s), s	14.7	9.0	2.5	2.8	8.4	0.0	6.0	7.5	7.6	14.6	35.6	0.0
Cycle Q Clear(g_c), s	14.7	9.0	2.5	2.8	8.4	0.0	6.0	7.5	7.6	14.6	35.6	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.12	1.00		1.00
Lane Grp Cap(c), veh/h	485	686	304	90	368		230	1483	797	483	2597	
V/C Ratio(X)	0.89	0.44	0.13	0.48	0.70		0.76	0.23	0.23	0.87	0.63	
Avail Cap(c_a), veh/h	547	957	423	119	631		374	1483	797	691	2597	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	0.96	0.96	0.96	1.00	1.00	0.00	1.00	1.00	1.00	0.32	0.32	0.00
Uniform Delay (d), s/veh	50.7	42.7	40.1	55.4	52.0	0.0	55.1	21.2	21.3	56.2	39.3	0.0
Incr Delay (d2), s/veh	13.9	0.2	0.1	1.4	0.9	0.0	1.9	0.4	0.7	2.3	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.1	3.8	0.9	1.3	3.7	0.0	2.6	2.9	3.2	6.9	16.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.6	42.9	40.1	56.8	52.9	0.0	57.0	21.6	21.9	58.4	39.7	0.0
LnGrp LOS	E	D	D	E	D		E	C	C	E	D	
Approach Vol, veh/h		773			300	A		701			2049	A
Approach Delay, s/veh		54.9			53.5			30.5			43.6	
Approach LOS		D			D			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.1	28.9	13.0	67.0	21.8	18.1	21.8	58.3				
Change Period (Y+Rc), s	5.0	5.7	5.0	6.0	5.0	5.7	5.0	6.0				
Max Green Setting (Gmax), s	8.0	32.3	13.0	45.0	19.0	21.3	24.0	34.0				
Max Q Clear Time (g_c+I1), s	4.8	11.0	8.0	37.6	16.7	10.4	16.6	9.6				
Green Ext Time (p_c), s	0.0	0.6	0.0	2.8	0.1	0.4	0.2	0.9				

Intersection Summary

HCM 6th Ctrl Delay	44.2
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
 Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study plus Alternative 2
 6: Proposed Project Access Driveway & Monterey Ave Opening Year (2023) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	0	9	0	0	16	28	647	61	64	1291	21
Future Volume (veh/h)	23	0	9	0	0	16	28	647	61	64	1291	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	24	0	2	0	0	2	29	681	51	67	1359	22
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	359	0	71	299	0	71	426	2815	209	669	2078	34
Arrive On Green	0.05	0.00	0.05	0.00	0.00	0.05	0.58	0.58	0.58	0.58	0.58	0.58
Sat Flow, veh/h	1369	0	1574	1415	0	1574	392	4847	361	723	3579	58
Grp Volume(v), veh/h	24	0	2	0	0	2	29	477	255	67	674	707
Grp Sat Flow(s),veh/h/ln	1369	0	1574	1415	0	1574	392	1702	1804	723	1777	1860
Q Serve(g_s), s	0.4	0.0	0.0	0.0	0.0	0.0	1.3	1.6	1.7	1.2	6.2	6.2
Cycle Q Clear(g_c), s	0.4	0.0	0.0	0.0	0.0	0.0	7.5	1.6	1.7	2.9	6.2	6.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.20	1.00		0.03
Lane Grp Cap(c), veh/h	359	0	71	299	0	71	426	1977	1047	669	1032	1080
V/C Ratio(X)	0.07	0.00	0.03	0.00	0.00	0.03	0.07	0.24	0.24	0.10	0.65	0.65
Avail Cap(c_a), veh/h	1321	0	1177	1294	0	1177	492	2546	1349	790	1329	1391
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.2	0.0	11.0	0.0	0.0	11.0	5.9	2.5	2.5	3.2	3.4	3.4
Incr Delay (d2), s/veh	0.1	0.0	0.2	0.0	0.0	0.2	0.1	0.1	0.1	0.1	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.3	0.0	11.1	0.0	0.0	11.1	6.0	2.5	2.6	3.2	4.2	4.1
LnGrp LOS	B	A	B	A	A	B	A	A	A	A	A	A
Approach Vol, veh/h		26			2			761			1448	
Approach Delay, s/veh		11.3			11.1			2.7			4.1	
Approach LOS		B			B			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		18.5		5.6		18.5		5.6				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		9.5		2.4		8.2		2.0				
Green Ext Time (p_c), s		2.9		0.0		5.7		0.0				
Intersection Summary												
HCM 6th Ctrl Delay				3.7								
HCM 6th LOS				A								

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study plus Alternative 2
 7: Monterey Ave & Dick Kelly Dr Opening Year (2023) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations	↖	↗		↖	↗			↖↗↘	↑↑↑	↖	↖	↗↘
Traffic Volume (veh/h)	23	9	57	70	6	31	10	25	682	49	26	1268
Future Volume (veh/h)	23	9	57	70	6	31	10	25	682	49	26	1268
Initial Q (Qb), veh	0	0	0	0	0	0		0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.99	0.99		0.99		1.00		0.99	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No				No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870		1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	25	10	16	75	6	8		27	733	26	28	1363
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93		0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2		2	2	2	2	2
Cap, veh/h	291	57	91	281	64	85		69	2427	749	71	1603
Arrive On Green	0.09	0.09	0.09	0.09	0.09	0.09		0.04	0.48	0.48	0.04	0.44
Sat Flow, veh/h	1378	643	1028	1364	721	962		1781	5106	1577	1781	3628
Grp Volume(v), veh/h	25	0	26	75	0	14		27	733	26	28	667
Grp Sat Flow(s),veh/h/ln	1378	0	1671	1364	0	1683		1781	1702	1577	1781	1777
Q Serve(g_s), s	0.7	0.0	0.6	2.2	0.0	0.3		0.6	3.5	0.4	0.6	13.5
Cycle Q Clear(g_c), s	1.0	0.0	0.6	2.7	0.0	0.3		0.6	3.5	0.4	0.6	13.5
Prop In Lane	1.00		0.62	1.00		0.57		1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	291	0	148	281	0	149		69	2427	749	71	785
V/C Ratio(X)	0.09	0.00	0.18	0.27	0.00	0.09		0.39	0.30	0.03	0.39	0.85
Avail Cap(c_a), veh/h	786	0	749	771	0	754		665	5720	1766	665	1991
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00		1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.3	0.0	16.9	18.2	0.0	16.8		18.8	6.5	5.6	18.8	10.0
Incr Delay (d2), s/veh	0.1	0.0	0.6	0.5	0.0	0.3		3.5	0.0	0.0	1.3	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.2	0.6	0.0	0.1		0.3	0.5	0.0	0.2	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.4	0.0	17.5	18.7	0.0	17.1		22.4	6.5	5.6	20.1	11.1
LnGrp LOS	B	A	B	B	A	B		C	A	A	C	B
Approach Vol, veh/h		51			89				786			1397
Approach Delay, s/veh		17.4			18.5				7.0			11.2
Approach LOS		B			B				A			B
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.0	24.1		8.1	6.6	25.5		8.1				
Change Period (Y+Rc), s	6.4	* 6.4		4.5	5.0	6.4		4.5				
Max Green Setting (Gmax), s	15.0	* 45		18.0	15.0	45.0		18.0				
Max Q Clear Time (g_c+I1), s	2.6	15.5		3.0	2.6	5.5		4.7				
Green Ext Time (p_c), s	0.0	2.2		0.1	0.0	1.5		0.2				

Intersection Summary

HCM 6th Ctrl Delay	10.2
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

User approved ignoring U-Turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
 7: Monterey Ave & Dick Kelly Dr

Rancho Monterey Traffic Study plus Alternative 2
 Opening Year (2023) - AM Peak Hour

Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	6
Future Volume (veh/h)	6
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	0.99
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1870
Adj Flow Rate, veh/h	6
Peak Hour Factor	0.93
Percent Heavy Veh, %	2
Cap, veh/h	7
Arrive On Green	0.44
Sat Flow, veh/h	16
Grp Volume(v), veh/h	702
Grp Sat Flow(s),veh/h/ln	1867
Q Serve(g_s), s	13.5
Cycle Q Clear(g_c), s	13.5
Prop In Lane	0.01
Lane Grp Cap(c), veh/h	825
V/C Ratio(X)	0.85
Avail Cap(c_a), veh/h	2092
HCM Platoon Ratio	1.00
Upstream Filter(l)	1.00
Uniform Delay (d), s/veh	10.0
Incr Delay (d2), s/veh	1.0
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(50%),veh/ln	2.7
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	11.0
LnGrp LOS	B
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	

HCM 6th Signalized Intersection Summary
8: Monterey Ave & Gerald Ford Dr

Rancho Monterey Traffic Study plus Alternative 2
Opening Year (2023) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑	↗	↔↔	↑↑	↗	↔↔	↑↑↔		↔↔	↑↑↑	↗
Traffic Volume (veh/h)	103	281	152	130	506	87	112	594	39	70	1149	131
Future Volume (veh/h)	103	281	152	130	506	87	112	594	39	70	1149	131
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	120	327	36	151	588	21	130	691	40	81	1336	0
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	175	683	302	208	716	317	186	2525	145	134	2536	
Arrive On Green	0.05	0.19	0.19	0.06	0.20	0.20	0.05	0.51	0.51	0.04	0.50	0.00
Sat Flow, veh/h	3456	3554	1573	3456	3554	1573	3456	4938	284	3456	5106	1585
Grp Volume(v), veh/h	120	327	36	151	588	21	130	475	256	81	1336	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1573	1728	1777	1573	1728	1702	1818	1728	1702	1585
Q Serve(g_s), s	4.1	9.8	2.3	5.2	19.0	1.3	4.4	9.5	9.6	2.8	21.4	0.0
Cycle Q Clear(g_c), s	4.1	9.8	2.3	5.2	19.0	1.3	4.4	9.5	9.6	2.8	21.4	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.16	1.00		1.00
Lane Grp Cap(c), veh/h	175	683	302	208	716	317	186	1741	930	134	2536	
V/C Ratio(X)	0.69	0.48	0.12	0.73	0.82	0.07	0.70	0.27	0.27	0.60	0.53	
Avail Cap(c_a), veh/h	374	868	384	374	868	384	374	1741	930	346	2536	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.97	0.97	0.75	0.75	0.00
Uniform Delay (d), s/veh	56.0	43.1	40.1	55.4	45.8	38.8	55.8	16.6	16.7	56.8	20.6	0.0
Incr Delay (d2), s/veh	1.8	0.5	0.2	1.8	5.3	0.1	1.7	0.4	0.7	1.2	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	4.2	0.9	2.2	8.6	0.5	1.9	3.5	3.8	1.2	7.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.8	43.7	40.3	57.2	51.2	38.9	57.6	17.0	17.4	58.0	21.2	0.0
LnGrp LOS	E	D	D	E	D	D	E	B	B	E	C	
Approach Vol, veh/h		483			760			861			1417	A
Approach Delay, s/veh		46.9			52.0			23.2			23.3	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.4	66.6	11.1	30.9	9.7	68.4	12.2	29.8				
Change Period (Y+Rc), s	5.0	7.0	5.0	6.7	5.0	7.0	5.0	6.7				
Max Green Setting (Gmax), s	13.0	41.0	13.0	29.3	12.0	42.0	13.0	29.3				
Max Q Clear Time (g_c+I1), s	6.4	23.4	6.1	21.0	4.8	11.6	7.2	11.8				
Green Ext Time (p_c), s	0.1	9.2	0.1	2.2	0.0	5.3	0.1	1.7				

Intersection Summary

HCM 6th Ctrl Delay	32.7
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study plus Alternative 2
 9: Monterey Ave & Frank Sinatra Dr Opening Year (2023) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖↗	↑↑	↖	↖↗	↑↑↔		↖↗	↑↑↑	↖
Traffic Volume (veh/h)	33	186	83	141	510	80	59	626	51	72	1359	71
Future Volume (veh/h)	33	186	83	141	510	80	59	626	51	72	1359	71
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	37	209	15	158	573	90	66	703	53	81	1527	44
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	102	602	266	213	716	317	128	2710	203	134	2866	887
Arrive On Green	0.03	0.17	0.17	0.06	0.20	0.20	0.04	0.56	0.56	0.04	0.56	0.56
Sat Flow, veh/h	3456	3554	1571	3456	3554	1573	3456	4845	363	3456	5106	1581
Grp Volume(v), veh/h	37	209	15	158	573	90	66	493	263	81	1527	44
Grp Sat Flow(s),veh/h/ln	1728	1777	1571	1728	1777	1573	1728	1702	1804	1728	1702	1581
Q Serve(g_s), s	1.3	6.2	1.0	5.4	18.4	5.8	2.2	8.9	9.0	2.8	22.5	1.5
Cycle Q Clear(g_c), s	1.3	6.2	1.0	5.4	18.4	5.8	2.2	8.9	9.0	2.8	22.5	1.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	102	602	266	213	716	317	128	1904	1009	134	2866	887
V/C Ratio(X)	0.36	0.35	0.06	0.74	0.80	0.28	0.52	0.26	0.26	0.60	0.53	0.05
Avail Cap(c_a), veh/h	317	977	432	317	1007	446	346	1904	1009	346	2866	887
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.97	0.97	0.80	0.80	0.80
Uniform Delay (d), s/veh	57.1	44.0	41.8	55.4	45.6	40.6	56.7	13.6	13.6	56.8	16.5	11.9
Incr Delay (d2), s/veh	0.8	0.1	0.0	1.9	2.0	0.2	1.2	0.3	0.6	1.3	0.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	2.7	0.4	2.3	7.9	2.2	1.0	3.2	3.5	1.2	7.9	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.9	44.1	41.8	57.3	47.7	40.8	57.9	13.9	14.2	58.1	17.1	12.0
LnGrp LOS	E	D	D	E	D	D	E	B	B	E	B	B
Approach Vol, veh/h		261			821			822			1652	
Approach Delay, s/veh		45.9			48.8			17.6			18.9	
Approach LOS		D			D			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.4	73.8	7.5	30.2	8.7	73.6	11.4	26.3				
Change Period (Y+Rc), s	4.0	6.5	4.0	* 6	4.0	6.5	4.0	6.0				
Max Green Setting (Gmax), s	12.0	43.5	11.0	* 34	12.0	43.5	11.0	33.0				
Max Q Clear Time (g_c+I1), s	4.2	24.5	3.3	20.4	4.8	11.0	7.4	8.2				
Green Ext Time (p_c), s	0.0	6.6	0.0	1.9	0.0	2.7	0.0	0.7				

Intersection Summary												
HCM 6th Ctrl Delay				27.5								
HCM 6th LOS				C								

Notes
 User approved pedestrian interval to be less than phase max green.
 * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
 10: Monterey Ave & Country Club Dr

Rancho Monterey Traffic Study plus Alternative 2
 Opening Year (2023) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖
Traffic Volume (veh/h)	71	298	119	205	747	130	267	481	78	197	1084	193
Future Volume (veh/h)	71	298	119	205	747	130	267	481	78	197	1084	193
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	78	327	0	225	821	0	293	529	38	216	1191	122
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	187	845		280	983		348	2337	723	271	2223	688
Arrive On Green	0.05	0.17	0.00	0.08	0.19	0.00	0.10	0.46	0.46	0.08	0.44	0.44
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	3456	5106	1580	3456	5106	1580
Grp Volume(v), veh/h	78	327	0	225	821	0	293	529	38	216	1191	122
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1585	1728	1702	1580	1728	1702	1580
Q Serve(g_s), s	2.6	6.9	0.0	7.7	18.6	0.0	10.0	7.5	1.6	7.4	20.6	5.7
Cycle Q Clear(g_c), s	2.6	6.9	0.0	7.7	18.6	0.0	10.0	7.5	1.6	7.4	20.6	5.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	187	845		280	983		348	2337	723	271	2223	688
V/C Ratio(X)	0.42	0.39		0.80	0.84		0.84	0.23	0.05	0.80	0.54	0.18
Avail Cap(c_a), veh/h	259	1332		346	1459		432	2337	723	346	2223	688
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.84	0.84	0.84
Uniform Delay (d), s/veh	54.9	44.6	0.0	54.2	46.6	0.0	53.0	19.7	18.1	54.4	24.9	20.7
Incr Delay (d2), s/veh	0.6	0.1	0.0	8.6	1.8	0.0	10.0	0.2	0.1	6.4	0.8	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	2.8	0.0	3.6	7.7	0.0	4.6	2.8	0.6	3.3	7.8	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.5	44.7	0.0	62.8	48.4	0.0	63.0	19.9	18.2	60.7	25.7	21.2
LnGrp LOS	E	D		E	D		E	B	B	E	C	C
Approach Vol, veh/h		405	A		1046	A		860			1529	
Approach Delay, s/veh		46.8			51.5			34.5			30.3	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.4	62.3	15.7	26.6	18.1	59.7	12.5	29.8				
Change Period (Y+Rc), s	6.0	7.4	6.0	6.7	6.0	7.4	6.0	6.7				
Max Green Setting (Gmax), s	12.0	38.6	12.0	31.3	15.0	35.6	9.0	34.3				
Max Q Clear Time (g_c+I1), s	9.4	9.5	9.7	8.9	12.0	22.6	4.6	20.6				
Green Ext Time (p_c), s	0.0	1.1	0.0	0.7	0.1	2.4	0.0	1.7				

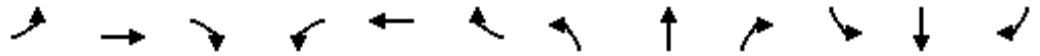
Intersection Summary

HCM 6th Ctrl Delay	38.8
HCM 6th LOS	D

Notes

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study plus Alternative 2
 1: Varner Rd & Monterey Ave Opening Year (2023) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	100	229	505	197	202	268	497	87	37	402	8
Future Volume (veh/h)	23	100	229	505	197	202	268	497	87	37	402	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	24	105	23	532	207	53	282	523	0	39	423	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	90	312	132	591	599	150	840	1705		119	1045	
Arrive On Green	0.05	0.08	0.08	0.17	0.21	0.21	0.24	0.48	0.00	0.07	0.29	0.00
Sat Flow, veh/h	1781	3741	1585	3456	2812	703	3456	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	24	105	23	532	129	131	282	523	0	39	423	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1728	1777	1738	1728	1777	1585	1781	1777	1585
Q Serve(g_s), s	1.6	3.2	1.6	18.1	7.4	7.7	8.1	10.8	0.0	2.5	11.4	0.0
Cycle Q Clear(g_c), s	1.6	3.2	1.6	18.1	7.4	7.7	8.1	10.8	0.0	2.5	11.4	0.0
Prop In Lane	1.00		1.00	1.00		0.40	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	90	312	132	591	379	370	840	1705		119	1045	
V/C Ratio(X)	0.27	0.34	0.17	0.90	0.34	0.35	0.34	0.31		0.33	0.40	
Avail Cap(c_a), veh/h	163	567	240	772	503	492	840	1705		163	1045	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	54.8	51.9	51.2	48.7	40.1	40.2	37.4	19.0	0.0	53.4	33.9	0.0
Incr Delay (d2), s/veh	0.6	0.6	0.6	9.7	0.5	0.6	0.2	0.5	0.0	0.6	1.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.5	0.6	8.2	3.1	3.2	3.3	4.2	0.0	1.1	4.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.4	52.5	51.8	58.4	40.6	40.8	37.6	19.5	0.0	54.0	35.1	0.0
LnGrp LOS	E	D	D	E	D	D	D	B		D	D	
Approach Vol, veh/h		152			792			805	A		462	A
Approach Delay, s/veh		52.9			52.6			25.8			36.7	
Approach LOS		D			D			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.4	63.8	27.0	15.8	35.4	41.8	10.8	32.1				
Change Period (Y+Rc), s	5.4	6.2	6.5	* 5.8	6.2	* 6.5	* 4.7	6.5				
Max Green Setting (Gmax), s	11.0	41.2	26.8	* 18	16.9	* 35	* 11	34.0				
Max Q Clear Time (g_c+I1), s	4.5	12.8	20.1	5.2	10.1	13.4	3.6	9.7				
Green Ext Time (p_c), s	0.0	3.1	0.4	0.4	0.4	2.4	0.0	1.2				

Intersection Summary

HCM 6th Ctrl Delay	39.5
HCM 6th LOS	D

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study plus Alternative 2
 2: Monterey Ave & I-10 EB Ramps Opening Year (2023) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	2	765	0	0	0	0	1720	702	173	906	0
Future Volume (veh/h)	45	2	765	0	0	0	0	1720	702	173	906	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	31	0	651				0	1773	353	178	934	0
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	430	0	765				0	2825	877	240	2353	0
Arrive On Green	0.24	0.00	0.24				0.00	0.18	0.18	0.07	0.66	0.00
Sat Flow, veh/h	1781	0	3170				0	5274	1585	3456	3647	0
Grp Volume(v), veh/h	31	0	651				0	1773	353	178	934	0
Grp Sat Flow(s),veh/h/ln	1781	0	1585				0	1702	1585	1728	1777	0
Q Serve(g_s), s	1.6	0.0	23.5				0.0	38.5	23.6	6.1	14.5	0.0
Cycle Q Clear(g_c), s	1.6	0.0	23.5				0.0	38.5	23.6	6.1	14.5	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	430	0	765				0	2825	877	240	2353	0
V/C Ratio(X)	0.07	0.00	0.85				0.00	0.63	0.40	0.74	0.40	0.00
Avail Cap(c_a), veh/h	644	0	1147				0	2825	877	461	2353	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.69	0.69	1.00	1.00	0.00
Uniform Delay (d), s/veh	35.2	0.0	43.5				0.0	37.6	31.5	54.8	9.3	0.0
Incr Delay (d2), s/veh	0.1	0.0	4.6				0.0	0.7	1.0	4.4	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	9.7				0.0	17.5	10.1	2.7	4.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.2	0.0	48.0				0.0	38.4	32.5	59.2	9.8	0.0
LnGrp LOS	D	A	D				A	D	C	E	A	A
Approach Vol, veh/h		682						2126			1112	
Approach Delay, s/veh		47.4						37.4			17.7	
Approach LOS		D						D			B	
Timer - Assigned Phs	1	2		4				6				
Phs Duration (G+Y+Rc), s	13.0	72.2		34.7				85.3				
Change Period (Y+Rc), s	* 4.7	5.8		5.8				5.8				
Max Green Setting (Gmax), s	* 16	44.3		43.4				65.0				
Max Q Clear Time (g_c+I1), s	8.1	40.5		25.5				16.5				
Green Ext Time (p_c), s	0.3	3.3		3.4				7.0				

Intersection Summary

HCM 6th Ctrl Delay	33.6
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.
 * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

3: Key Largo Ave & Dinah Shore Dr

Rancho Monterey Traffic Study plus Alternative 2

Opening Year (2023) - PM Peak Hour



Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↰	↑↑↑		↰	↑↑↑	↰	↱
Traffic Volume (veh/h)	10	834	34	74	874	20	90
Future Volume (veh/h)	10	834	34	74	874	20	90
Initial Q (Qb), veh		0	0	0	0	0	0
Ped-Bike Adj(A_pbT)			0.99	1.00		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No	No	
Adj Sat Flow, veh/h/ln		1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h		869	32	77	910	21	14
Peak Hour Factor		0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %		2	2	2	2	2	2
Cap, veh/h		1649	61	141	1717	75	67
Arrive On Green		0.33	0.33	0.08	0.34	0.04	0.04
Sat Flow, veh/h		5222	186	1781	5274	1781	1585
Grp Volume(v), veh/h		585	316	77	910	21	14
Grp Sat Flow(s),veh/h/ln		1702	1835	1781	1702	1781	1585
Q Serve(g_s), s		4.2	4.2	1.2	4.3	0.3	0.3
Cycle Q Clear(g_c), s		4.2	4.2	1.2	4.3	0.3	0.3
Prop In Lane			0.10	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		1111	599	141	1717	75	67
V/C Ratio(X)		0.53	0.53	0.55	0.53	0.28	0.21
Avail Cap(c_a), veh/h		4559	2458	1193	6838	1193	1061
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		8.2	8.2	13.2	8.0	13.9	13.8
Incr Delay (d2), s/veh		0.1	0.3	1.2	0.1	0.7	0.6
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		0.6	0.7	0.3	0.6	0.1	0.1
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		8.3	8.5	14.5	8.1	14.6	14.4
LnGrp LOS		A	A	B	A	B	B
Approach Vol, veh/h	901				987	35	
Approach Delay, s/veh	8.4				8.6	14.5	
Approach LOS	A				A	B	
Timer - Assigned Phs			3	4		6	8
Phs Duration (G+Y+Rc), s			7.4	16.2		6.3	16.5
Change Period (Y+Rc), s			5.0	6.5		5.0	6.5
Max Green Setting (Gmax), s			20.0	40.0		20.0	40.0
Max Q Clear Time (g_c+I1), s			3.2	6.2		2.3	6.3
Green Ext Time (p_c), s			0.1	3.3		0.0	3.8

Intersection Summary

HCM 6th Ctrl Delay	8.6
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.
 User approved ignoring U-Turning movement.

HCM 6th Signalized Intersection Summary
4: Monterey Ave & Dinah Shore Dr

Rancho Monterey Traffic Study plus Alternative 2
Opening Year (2023) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑	↗	↖	↑↑	↗	↔↔	↑↑↔		↔↔	↑↑↑	↗
Traffic Volume (veh/h)	642	348	330	61	358	597	386	1202	26	315	896	459
Future Volume (veh/h)	642	348	330	61	358	597	386	1202	26	315	896	459
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	655	355	98	62	365	0	394	1227	26	321	914	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	709	942	418	104	419		450	1985	42	381	1868	
Arrive On Green	0.21	0.26	0.26	0.06	0.12	0.00	0.13	0.39	0.39	0.04	0.12	0.00
Sat Flow, veh/h	3456	3554	1576	1781	3554	1585	3456	5145	109	3456	5106	1585
Grp Volume(v), veh/h	655	355	98	62	365	0	394	812	441	321	914	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1576	1781	1777	1585	1728	1702	1850	1728	1702	1585
Q Serve(g_s), s	22.3	9.8	5.8	4.1	12.1	0.0	13.4	23.1	23.1	11.1	20.1	0.0
Cycle Q Clear(g_c), s	22.3	9.8	5.8	4.1	12.1	0.0	13.4	23.1	23.1	11.1	20.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.06	1.00		1.00
Lane Grp Cap(c), veh/h	709	942	418	104	419		450	1313	714	381	1868	
V/C Ratio(X)	0.92	0.38	0.23	0.60	0.87		0.88	0.62	0.62	0.84	0.49	
Avail Cap(c_a), veh/h	893	1045	464	148	423		662	1313	714	605	1868	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	0.94	0.94	0.94	1.00	1.00	0.00	1.00	1.00	1.00	0.83	0.83	0.00
Uniform Delay (d), s/veh	46.8	36.0	34.6	55.1	52.0	0.0	51.2	29.7	29.7	56.8	42.3	0.0
Incr Delay (d2), s/veh	11.1	0.1	0.1	2.0	16.8	0.0	6.5	2.2	4.0	2.8	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.3	4.1	2.2	1.8	6.2	0.0	6.0	9.3	10.5	5.1	9.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.8	36.1	34.7	57.2	68.8	0.0	57.7	31.9	33.7	59.5	43.0	0.0
LnGrp LOS	E	D	C	E	E		E	C	C	E	D	
Approach Vol, veh/h		1108			427	A		1647			1235	A
Approach Delay, s/veh		48.8			67.1			38.6			47.3	
Approach LOS		D			E			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.0	37.5	20.6	49.9	29.6	19.8	18.2	52.3				
Change Period (Y+Rc), s	5.0	5.7	5.0	6.0	5.0	5.7	5.0	6.0				
Max Green Setting (Gmax), s	10.0	35.3	23.0	30.0	31.0	14.3	21.0	32.0				
Max Q Clear Time (g_c+I1), s	6.1	11.8	15.4	22.1	24.3	14.1	13.1	25.1				
Green Ext Time (p_c), s	0.0	0.7	0.2	1.5	0.3	0.0	0.1	1.8				

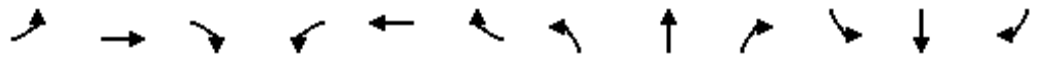
Intersection Summary

HCM 6th Ctrl Delay	46.4
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study plus Alternative 2
 6: Proposed Project Access Driveway & Monterey Ave Opening Year (2023) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	137	0	55	0	0	156	99	1235	129	110	964	71
Future Volume (veh/h)	137	0	55	0	0	156	99	1235	129	110	964	71
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	144	0	31	0	0	137	104	1300	115	116	1015	67
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	385	0	340	209	0	340	375	2495	221	340	1768	117
Arrive On Green	0.22	0.00	0.22	0.00	0.00	0.22	0.52	0.52	0.52	0.52	0.52	0.52
Sat Flow, veh/h	1246	0	1574	1378	0	1574	521	4774	422	379	3383	223
Grp Volume(v), veh/h	144	0	31	0	0	137	104	927	488	116	533	549
Grp Sat Flow(s),veh/h/ln	1246	0	1574	1378	0	1574	521	1702	1792	379	1777	1829
Q Serve(g_s), s	3.9	0.0	0.5	0.0	0.0	2.6	5.9	6.2	6.2	9.9	7.0	7.1
Cycle Q Clear(g_c), s	6.4	0.0	0.5	0.0	0.0	2.6	12.9	6.2	6.2	16.1	7.0	7.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.24	1.00		0.12
Lane Grp Cap(c), veh/h	385	0	340	209	0	340	375	1779	936	340	929	956
V/C Ratio(X)	0.37	0.00	0.09	0.00	0.00	0.40	0.28	0.52	0.52	0.34	0.57	0.57
Avail Cap(c_a), veh/h	767	0	823	632	0	823	375	1779	936	340	929	956
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.4	0.0	10.8	0.0	0.0	11.6	10.0	5.4	5.4	10.7	5.6	5.6
Incr Delay (d2), s/veh	0.6	0.0	0.1	0.0	0.0	0.8	0.4	0.3	0.5	0.6	0.9	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	0.2	0.0	0.0	0.8	0.4	0.4	0.5	0.4	0.7	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.0	0.0	10.9	0.0	0.0	12.4	10.4	5.7	5.9	11.3	6.5	6.4
LnGrp LOS	B	A	B	A	A	B	B	A	A	B	A	A
Approach Vol, veh/h		175			137			1519			1198	
Approach Delay, s/veh		14.2			12.4			6.1			6.9	
Approach LOS		B			B			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.5		11.9		22.5		11.9				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		14.9		8.4		18.1		4.6				
Green Ext Time (p_c), s		2.3		0.4		0.0		0.6				
Intersection Summary												
HCM 6th Ctrl Delay				7.2								
HCM 6th LOS				A								

HCM 6th Signalized Intersection Summary
7: Monterey Ave & Dick Kelly Dr

Rancho Monterey Traffic Study plus Alternative 2
Opening Year (2023) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	25	16	55	210	12	60	10	77	1378	114	32	965
Future Volume (veh/h)	25	16	55	210	12	60	10	77	1378	114	32	965
Initial Q (Qb), veh	0	0	0	0	0	0		0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99		1.00		0.99	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No				No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870		1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	26	17	15	219	12	15		80	1435	54	33	1005
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96		0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2		2	2	2	2	2
Cap, veh/h	431	197	174	427	162	203		147	2066	637	79	1199
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22		0.08	0.40	0.40	0.04	0.34
Sat Flow, veh/h	1374	913	806	1368	753	941		1781	5106	1575	1781	3555
Grp Volume(v), veh/h	26	0	32	219	0	27		80	1435	54	33	502
Grp Sat Flow(s),veh/h/ln	1374	0	1719	1368	0	1693		1781	1702	1575	1781	1777
Q Serve(g_s), s	0.7	0.0	0.7	7.2	0.0	0.6		2.0	11.0	1.0	0.9	12.4
Cycle Q Clear(g_c), s	1.3	0.0	0.7	7.9	0.0	0.6		2.0	11.0	1.0	0.9	12.4
Prop In Lane	1.00		0.47	1.00		0.56		1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	431	0	371	427	0	366		147	2066	637	79	599
V/C Ratio(X)	0.06	0.00	0.09	0.51	0.00	0.07		0.55	0.69	0.08	0.42	0.84
Avail Cap(c_a), veh/h	655	0	652	650	0	642		563	4841	1494	563	1685
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00		1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.4	0.0	14.9	18.0	0.0	14.8		20.9	11.7	8.7	22.1	14.5
Incr Delay (d2), s/veh	0.1	0.0	0.1	1.0	0.0	0.1		1.2	0.2	0.0	1.3	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.3	1.9	0.0	0.2		0.7	2.6	0.2	0.3	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.4	0.0	15.0	19.0	0.0	14.9		22.1	11.9	8.7	23.4	15.8
LnGrp LOS	B	A	B	B	A	B		C	B	A	C	B
Approach Vol, veh/h		58			246				1569			1060
Approach Delay, s/veh		15.2			18.5				12.3			16.0
Approach LOS		B			B				B			B
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.3	22.4		14.7	7.1	25.6		14.7				
Change Period (Y+Rc), s	6.4	* 6.4		4.5	5.0	6.4		4.5				
Max Green Setting (Gmax), s	15.0	* 45		18.0	15.0	45.0		18.0				
Max Q Clear Time (g_c+I1), s	4.0	14.4		3.3	2.9	13.0		9.9				
Green Ext Time (p_c), s	0.0	1.5		0.1	0.0	3.4		0.5				

Intersection Summary

HCM 6th Ctrl Delay	14.2
HCM 6th LOS	B

Notes

User approved ignoring U-Turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
 7: Monterey Ave & Dick Kelly Dr

Rancho Monterey Traffic Study plus Alternative 2
 Opening Year (2023) - PM Peak Hour

Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	22
Future Volume (veh/h)	22
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	0.99
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1870
Adj Flow Rate, veh/h	22
Peak Hour Factor	0.96
Percent Heavy Veh, %	2
Cap, veh/h	26
Arrive On Green	0.34
Sat Flow, veh/h	78
Grp Volume(v), veh/h	525
Grp Sat Flow(s),veh/h/ln	1856
Q Serve(g_s), s	12.4
Cycle Q Clear(g_c), s	12.4
Prop In Lane	0.04
Lane Grp Cap(c), veh/h	626
V/C Ratio(X)	0.84
Avail Cap(c_a), veh/h	1759
HCM Platoon Ratio	1.00
Upstream Filter(l)	1.00
Uniform Delay (d), s/veh	14.5
Incr Delay (d2), s/veh	1.2
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(50%),veh/ln	3.7
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	15.7
LnGrp LOS	B
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study plus Alternative 2
 8: Monterey Ave & Gerald Ford Dr Opening Year (2023) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑	↗	↔↔	↑↑	↗	↔↔	↑↑↔		↔↔	↑↑↑	↗
Traffic Volume (veh/h)	176	339	135	115	295	128	138	1255	80	77	902	134
Future Volume (veh/h)	176	339	135	115	295	128	138	1255	80	77	902	134
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	183	353	23	120	307	21	144	1307	80	80	940	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	241	542	239	175	474	209	200	2758	169	134	2765	
Arrive On Green	0.07	0.15	0.15	0.05	0.13	0.13	0.06	0.56	0.56	0.04	0.54	0.00
Sat Flow, veh/h	3456	3554	1569	3456	3554	1567	3456	4918	301	3456	5106	1585
Grp Volume(v), veh/h	183	353	23	120	307	21	144	905	482	80	940	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1569	1728	1777	1567	1728	1702	1815	1728	1702	1585
Q Serve(g_s), s	6.2	11.2	1.5	4.1	9.8	1.4	4.9	19.1	19.1	2.7	12.4	0.0
Cycle Q Clear(g_c), s	6.2	11.2	1.5	4.1	9.8	1.4	4.9	19.1	19.1	2.7	12.4	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.17	1.00		1.00
Lane Grp Cap(c), veh/h	241	542	239	175	474	209	200	1909	1018	134	2765	
V/C Ratio(X)	0.76	0.65	0.10	0.69	0.65	0.10	0.72	0.47	0.47	0.60	0.34	
Avail Cap(c_a), veh/h	403	927	409	374	897	396	346	1909	1018	346	2765	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.78	0.78	0.78	0.59	0.59	0.00
Uniform Delay (d), s/veh	54.8	47.9	43.7	56.0	49.3	45.7	55.6	15.8	15.8	56.8	15.5	0.0
Incr Delay (d2), s/veh	1.9	1.3	0.2	1.8	1.5	0.2	1.4	0.7	1.2	0.9	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	4.9	0.6	1.8	4.3	0.5	2.1	6.7	7.3	1.2	4.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.7	49.2	43.9	57.8	50.8	45.9	57.0	16.4	17.0	57.7	15.7	0.0
LnGrp LOS	E	D	D	E	D	D	E	B	B	E	B	
Approach Vol, veh/h		559			448			1531			1020	A
Approach Delay, s/veh		51.4			52.5			20.4			18.9	
Approach LOS		D			D			C			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.9	72.0	13.4	22.7	9.7	74.3	11.1	25.0				
Change Period (Y+Rc), s	5.0	7.0	5.0	6.7	5.0	7.0	5.0	6.7				
Max Green Setting (Gmax), s	12.0	40.0	14.0	30.3	12.0	40.0	13.0	31.3				
Max Q Clear Time (g_c+I1), s	6.9	14.4	8.2	11.8	4.7	21.1	6.1	13.2				
Green Ext Time (p_c), s	0.1	7.3	0.1	1.6	0.0	9.5	0.1	1.9				

Intersection Summary

HCM 6th Ctrl Delay	28.9
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
 Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
 9: Monterey Ave & Frank Sinatra Dr

Rancho Monterey Traffic Study plus Alternative 2
 Opening Year (2023) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑	↗	↔↔	↑↑	↗	↔↔	↑↑↔		↔↔	↑↑↑	↗
Traffic Volume (veh/h)	154	502	93	132	269	85	102	1307	112	91	1081	58
Future Volume (veh/h)	154	502	93	132	269	85	102	1307	112	91	1081	58
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	167	546	21	143	292	92	111	1421	115	99	1175	33
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	222	665	294	197	639	283	164	2607	211	150	2746	850
Arrive On Green	0.06	0.19	0.19	0.06	0.18	0.18	0.05	0.54	0.54	0.04	0.54	0.54
Sat Flow, veh/h	3456	3554	1572	3456	3554	1572	3456	4814	390	3456	5106	1581
Grp Volume(v), veh/h	167	546	21	143	292	92	111	1005	531	99	1175	33
Grp Sat Flow(s),veh/h/ln	1728	1777	1572	1728	1777	1572	1728	1702	1799	1728	1702	1581
Q Serve(g_s), s	5.7	17.7	1.3	4.9	8.8	6.1	3.8	23.0	23.0	3.4	16.6	1.2
Cycle Q Clear(g_c), s	5.7	17.7	1.3	4.9	8.8	6.1	3.8	23.0	23.0	3.4	16.6	1.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.22	1.00		1.00
Lane Grp Cap(c), veh/h	222	665	294	197	639	283	164	1844	974	150	2746	850
V/C Ratio(X)	0.75	0.82	0.07	0.72	0.46	0.33	0.68	0.55	0.55	0.66	0.43	0.04
Avail Cap(c_a), veh/h	317	859	380	317	888	393	317	1844	974	317	2746	850
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.81	0.81	0.81	0.93	0.93	0.93
Uniform Delay (d), s/veh	55.2	46.9	40.2	55.6	44.0	42.9	56.3	17.9	17.9	56.5	16.7	13.1
Incr Delay (d2), s/veh	3.1	3.9	0.0	1.9	0.2	0.2	1.5	0.9	1.8	1.7	0.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	7.9	0.5	2.1	3.8	2.3	1.6	8.3	9.0	1.5	5.9	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.3	50.8	40.2	57.5	44.2	43.1	57.8	18.8	19.7	58.2	17.1	13.2
LnGrp LOS	E	D	D	E	D	D	E	B	B	E	B	B
Approach Vol, veh/h		734			527			1647			1307	
Approach Delay, s/veh		52.2			47.6			21.7			20.1	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.7	71.0	11.7	27.6	9.2	71.5	10.9	28.4				
Change Period (Y+Rc), s	4.0	6.5	4.0	* 6	4.0	6.5	4.0	6.0				
Max Green Setting (Gmax), s	11.0	48.5	11.0	* 30	11.0	48.5	11.0	29.0				
Max Q Clear Time (g_c+I1), s	5.8	18.6	7.7	10.8	5.4	25.0	6.9	19.7				
Green Ext Time (p_c), s	0.0	5.2	0.0	1.1	0.0	6.3	0.0	1.5				

Intersection Summary

HCM 6th Ctrl Delay	29.8
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
 * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
10: Monterey Ave & Country Club Dr

Rancho Monterey Traffic Study plus Alternative 2
Opening Year (2023) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑↑	↔	↔↔	↑↑↑	↔	↔↔	↑↑↑	↔	↔↔	↑↑↑	↔
Traffic Volume (veh/h)	201	694	305	184	294	184	135	1131	146	253	977	107
Future Volume (veh/h)	201	694	305	184	294	184	135	1131	146	253	977	107
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	205	708	0	188	300	0	138	1154	62	258	997	62
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	260	867		244	843		200	2307	714	312	2474	766
Arrive On Green	0.08	0.17	0.00	0.07	0.17	0.00	0.06	0.45	0.45	0.09	0.48	0.48
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	3456	5106	1580	3456	5106	1580
Grp Volume(v), veh/h	205	708	0	188	300	0	138	1154	62	258	997	62
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1585	1728	1702	1580	1728	1702	1580
Q Serve(g_s), s	7.0	16.0	0.0	6.4	6.3	0.0	4.7	19.2	2.7	8.8	15.0	2.5
Cycle Q Clear(g_c), s	7.0	16.0	0.0	6.4	6.3	0.0	4.7	19.2	2.7	8.8	15.0	2.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	260	867		244	843		200	2307	714	312	2474	766
V/C Ratio(X)	0.79	0.82		0.77	0.36		0.69	0.50	0.09	0.83	0.40	0.08
Avail Cap(c_a), veh/h	346	1332		432	1459		432	2307	714	374	2474	766
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.89	0.89	0.89
Uniform Delay (d), s/veh	54.5	48.0	0.0	54.8	44.4	0.0	55.5	23.3	18.8	53.6	19.8	16.6
Incr Delay (d2), s/veh	6.1	1.3	0.0	2.0	0.1	0.0	1.6	0.8	0.2	9.3	0.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	6.7	0.0	2.8	2.6	0.0	2.0	7.3	1.0	4.1	5.5	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.6	49.3	0.0	56.8	44.5	0.0	57.1	24.1	19.0	62.9	20.3	16.8
LnGrp LOS	E	D		E	D		E	C	B	E	C	B
Approach Vol, veh/h		913	A		488	A		1354			1317	
Approach Delay, s/veh		51.8			49.2			27.2			28.5	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.8	61.6	14.5	27.1	12.9	65.5	15.0	26.5				
Change Period (Y+Rc), s	6.0	7.4	6.0	6.7	6.0	7.4	6.0	6.7				
Max Green Setting (Gmax), s	13.0	34.6	15.0	31.3	15.0	32.6	12.0	34.3				
Max Q Clear Time (g_c+I1), s	10.8	21.2	8.4	18.0	6.7	17.0	9.0	8.3				
Green Ext Time (p_c), s	0.0	2.3	0.1	1.4	0.0	2.0	0.0	0.6				

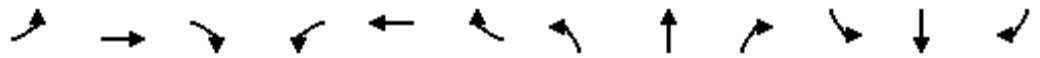
Intersection Summary

HCM 6th Ctrl Delay	35.8
HCM 6th LOS	D

Notes

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study Future Year No Project
 1: Varner Rd & Monterey Ave Future Year (2040) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	126	379	907	322	168	218	153	70	177	560	12
Future Volume (veh/h)	13	126	379	907	322	168	218	153	70	177	560	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	14	133	58	955	339	125	229	161	0	186	589	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	61	312	132	1015	898	325	468	1080		213	992	
Arrive On Green	0.03	0.08	0.08	0.29	0.35	0.35	0.14	0.30	0.00	0.12	0.28	0.00
Sat Flow, veh/h	1781	3741	1585	3456	2552	924	3456	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	14	133	58	955	234	230	229	161	0	186	589	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1728	1777	1699	1728	1777	1585	1781	1777	1585
Q Serve(g_s), s	0.9	4.1	4.2	32.4	11.8	12.2	7.4	4.0	0.0	12.3	17.2	0.0
Cycle Q Clear(g_c), s	0.9	4.1	4.2	32.4	11.8	12.2	7.4	4.0	0.0	12.3	17.2	0.0
Prop In Lane	1.00		1.00	1.00		0.54	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	61	312	132	1015	625	598	468	1080		213	992	
V/C Ratio(X)	0.23	0.43	0.44	0.94	0.37	0.38	0.49	0.15		0.87	0.59	
Avail Cap(c_a), veh/h	168	349	148	1181	625	598	468	1080		341	992	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	56.4	52.3	52.3	41.4	29.0	29.1	48.0	30.4	0.0	51.9	37.4	0.0
Incr Delay (d2), s/veh	0.7	0.9	2.3	12.5	0.1	0.2	0.6	0.3	0.0	8.2	2.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.9	1.7	14.6	4.8	4.7	3.1	1.7	0.0	5.8	7.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.1	53.2	54.6	53.8	29.2	29.3	48.6	30.7	0.0	60.1	40.0	0.0
LnGrp LOS	E	D	D	D	C	C	D	C		E	D	
Approach Vol, veh/h		205			1419			390	A		775	A
Approach Delay, s/veh		53.9			45.8			41.2			44.8	
Approach LOS		D			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	19.8	42.7	41.7	15.8	22.5	40.0	8.8	48.7				
Change Period (Y+Rc), s	5.4	6.2	6.5	* 5.8	6.2	* 6.5	* 4.7	6.5				
Max Green Setting (Gmax), s	23.0	22.0	41.0	* 11	11.5	* 34	* 11	40.9				
Max Q Clear Time (g_c+I1), s	14.3	6.0	34.4	6.2	9.4	19.2	2.9	14.2				
Green Ext Time (p_c), s	0.1	0.6	0.9	0.3	0.1	3.0	0.0	1.4				

Intersection Summary

HCM 6th Ctrl Delay	45.5
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.
 * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
 Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary - Rancho Monterey Traffic Study Future Year No Project
 2: Monterey Ave & I-10 EB Ramps Future Year (2040) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	12	1013	0	0	0	0	736	485	198	1532	0
Future Volume (veh/h)	55	12	1013	0	0	0	0	736	485	198	1532	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	43	0	1043				0	775	188	208	1613	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	718	0	1279				0	1872	581	325	1777	0
Arrive On Green	0.40	0.00	0.40				0.00	0.12	0.12	0.09	0.50	0.00
Sat Flow, veh/h	1781	0	3170				0	5274	1585	3456	3647	0
Grp Volume(v), veh/h	43	0	1043				0	775	188	208	1613	0
Grp Sat Flow(s),veh/h/ln	1781	0	1585				0	1702	1585	1728	1777	0
Q Serve(g_s), s	1.8	0.0	35.1				0.0	16.9	13.0	7.0	49.9	0.0
Cycle Q Clear(g_c), s	1.8	0.0	35.1				0.0	16.9	13.0	7.0	49.9	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	718	0	1279				0	1872	581	325	1777	0
V/C Ratio(X)	0.06	0.00	0.82				0.00	0.41	0.32	0.64	0.91	0.00
Avail Cap(c_a), veh/h	718	0	1279				0	1872	581	325	1777	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.86	0.86	1.00	1.00	0.00
Uniform Delay (d), s/veh	21.9	0.0	31.8				0.0	40.8	39.1	52.4	27.5	0.0
Incr Delay (d2), s/veh	0.2	0.0	5.8				0.0	0.6	1.3	9.3	8.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	14.2				0.0	7.7	5.5	3.3	21.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.0	0.0	37.7				0.0	41.4	40.4	61.7	35.8	0.0
LnGrp LOS	C	A	D				A	D	D	E	D	A
Approach Vol, veh/h		1086						963			1821	
Approach Delay, s/veh		37.0						41.2			38.7	
Approach LOS		D						D			D	
Timer - Assigned Phs	1	2	4	6								
Phs Duration (G+Y+Rc), s	60.0	49.8	54.2	65.8								
Change Period (Y+Rc), s	4.7	5.8	5.8	5.8								
Max Green Setting (Gmax), s	60.0	44.0	48.4	60.0								
Max Q Clear Time (g_c+19), s	19.0	18.9	37.1	51.9								
Green Ext Time (p_c), s	0.1	5.5	4.7	5.8								

Intersection Summary

HCM 6th Ctrl Delay	38.9
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.
 * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary - Rancho Monterey Traffic Study Future Year No Project
 3: Key Largo Ave & Dinah Shore Dr Future Year (2040) - AM Peak Hour



Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	⇐ ↑↑↑	↑↑↑		⇐ ↑↑↑	↑↑↑	⇐ ↑	↑
Traffic Volume (veh/h)	10	870	77	115	596	82	220
Future Volume (veh/h)	10	870	77	115	596	82	220
Initial Q (Qb), veh		0	0	0	0	0	0
Ped-Bike Adj(A_pbT)			0.99	1.00		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No	No		
Adj Sat Flow, veh/h/ln		1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h		916	68	121	627	86	44
Peak Hour Factor		0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %		2	2	2	2	2	2
Cap, veh/h		1557	115	177	1181	184	163
Arrive On Green		0.32	0.32	0.10	0.23	0.10	0.10
Sat Flow, veh/h		5016	359	1781	5274	1781	1585
Grp Volume(v), veh/h		642	342	121	627	86	44
Grp Sat Flow(s),veh/h/ln		1702	1802	1781	1702	1781	1585
Q Serve(g_s), s		5.5	5.5	2.3	3.7	1.6	0.9
Cycle Q Clear(g_c), s		5.5	5.5	2.3	3.7	1.6	0.9
Prop In Lane			0.20	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		1093	579	177	1181	184	163
V/C Ratio(X)		0.59	0.59	0.68	0.53	0.47	0.27
Avail Cap(c_a), veh/h		2409	1275	360	3908	1389	1236
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		9.8	9.8	15.1	11.7	14.6	14.3
Incr Delay (d2), s/veh		0.2	0.4	1.7	0.1	0.7	0.3
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		1.0	1.1	0.7	0.8	0.6	0.2
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		10.0	10.2	16.8	11.8	15.3	14.7
LnGrp LOS		B	B	B	B	B	B
Approach Vol, veh/h		984		748	130		
Approach Delay, s/veh		10.1		12.6	15.1		
Approach LOS		B		B	B		
Timer - Assigned Phs			3	4		6	8
Phs Duration (G+Y+Rc), s			8.4	17.6		8.6	14.5
Change Period (Y+Rc), s			5.0	6.5		5.0	6.5
Max Green Setting (Gmax), s			7.0	24.5		27.0	26.5
Max Q Clear Time (g_c+I1), s			4.3	7.5		3.6	5.7
Green Ext Time (p_c), s			0.0	3.3		0.2	2.3
Intersection Summary							
HCM 6th Ctrl Delay			11.5				
HCM 6th LOS			B				

Notes
 User approved pedestrian interval to be less than phase max green.
 User approved ignoring U-Turning movement.

HCM 6th Signalized Intersection Summary - Rancho Monterey Traffic Study Future Year No Project
 4: Monterey Ave & Dinah Shore Dr Future Year (2040) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖	↑↑	↖	↖↗↑↑↖			↖↗	↑↑↑	↖
Traffic Volume (veh/h)	440	346	230	88	296	366	149	652	93	371	1634	423
Future Volume (veh/h)	440	346	230	88	296	366	149	652	93	371	1634	423
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	463	364	49	93	312	0	157	686	85	391	1720	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	515	713	315	116	415		229	1947	239	452	2488	
Arrive On Green	0.15	0.20	0.20	0.07	0.12	0.00	0.07	0.42	0.42	0.04	0.16	0.00
Sat Flow, veh/h	3456	3554	1573	1781	3554	1585	3456	4605	565	3456	5106	1585
Grp Volume(v), veh/h	463	364	49	93	312	0	157	505	266	391	1720	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1573	1781	1777	1585	1728	1702	1766	1728	1702	1585
Q Serve(g_s), s	15.8	10.9	3.1	6.2	10.2	0.0	5.3	12.1	12.3	13.5	38.2	0.0
Cycle Q Clear(g_c), s	15.8	10.9	3.1	6.2	10.2	0.0	5.3	12.1	12.3	13.5	38.2	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.32	1.00		1.00
Lane Grp Cap(c), veh/h	515	713	315	116	415		229	1439	747	452	2488	
V/C Ratio(X)	0.90	0.51	0.16	0.80	0.75		0.69	0.35	0.36	0.87	0.69	
Avail Cap(c_a), veh/h	547	957	423	119	631		374	1439	747	691	2488	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	0.79	0.79	0.79	1.00	1.00	0.00	1.00	1.00	1.00	0.33	0.33	0.00
Uniform Delay (d), s/veh	50.2	42.7	39.6	55.3	51.3	0.0	54.8	23.5	23.5	56.4	41.8	0.0
Incr Delay (d2), s/veh	13.7	0.2	0.1	28.6	1.0	0.0	1.4	0.7	1.3	1.7	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.6	4.7	1.2	3.6	4.5	0.0	2.3	4.7	5.1	6.3	17.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.9	42.9	39.7	83.9	52.4	0.0	56.2	24.1	24.8	58.0	42.4	0.0
LnGrp LOS	E	D	D	F	D		E	C	C	E	D	
Approach Vol, veh/h		876			405	A		928			2111	A
Approach Delay, s/veh		53.8			59.6			29.8			45.3	
Approach LOS		D			E			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.8	29.8	13.0	64.5	22.9	19.7	20.7	56.7				
Change Period (Y+Rc), s	5.0	5.7	5.0	6.0	5.0	5.7	5.0	6.0				
Max Green Setting (Gmax), s	32.3	32.3	13.0	45.0	19.0	21.3	24.0	34.0				
Max Q Clear Time (g_c+10), s	19.2	12.9	7.3	40.2	17.8	12.2	15.5	14.3				
Green Ext Time (p_c), s	0.0	0.7	0.0	2.3	0.1	0.5	0.2	1.4				

Intersection Summary

HCM 6th Ctrl Delay	45.0
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
 Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th TWSC
6: Proposed Project Access Driveway & Monterey Ave

Rancho Monterey Traffic Study Future Year No Project
Future Year (2040) - AM Peak Hour

Intersection						
Int Delay, s/veh	0.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗ ↘ ↕	↗ ↘ ↕		↗ ↘	↗ ↘
Traffic Vol, veh/h	0	16	834	81	64	1431
Future Vol, veh/h	0	16	834	81	64	1431
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	185	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	17	878	85	67	1506

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	-	482	0	0	963
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	5.34
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	3.12
Pot Cap-1 Maneuver	0	454	-	-	408
Stage 1	0	-	-	-	-
Stage 2	0	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	-	454	-	-	408
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.2	0	0.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	454	408
HCM Lane V/C Ratio	-	-	0.037	0.165
HCM Control Delay (s)	-	-	13.2	15.6
HCM Lane LOS	-	-	B	C
HCM 95th %tile Q(veh)	-	-	0.1	0.6

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study Future Year No Project
 7: Monterey Ave & Dick Kelly Dr Future Year (2040) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations	↶	↷		↶	↷			↶	↑↑↑	↷	↶	↷
Traffic Volume (veh/h)	0	0	163	70	0	41	10	47	874	49	36	1390
Future Volume (veh/h)	0	0	163	70	0	41	10	47	874	49	36	1390
Initial Q (Qb), veh	0	0	0	0	0	0		0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	0.99		0.99		1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No				No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870		1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	29	74	0	7		49	920	32	38	1463
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2		2	2	2	2	2
Cap, veh/h	156	0	157	270	0	157		108	2573	795	89	1682
Arrive On Green	0.00	0.00	0.10	0.10	0.00	0.10		0.06	0.50	0.50	0.05	0.46
Sat Flow, veh/h	1409	0	1563	1363	0	1563		1781	5106	1577	1781	3632
Grp Volume(v), veh/h	0	0	29	74	0	7		49	920	32	38	716
Grp Sat Flow(s),veh/h/ln	1409	0	1563	1363	0	1563		1781	1702	1577	1781	1777
Q Serve(g_s), s	0.0	0.0	0.8	2.4	0.0	0.2		1.2	5.0	0.5	1.0	16.7
Cycle Q Clear(g_c), s	0.0	0.0	0.8	3.2	0.0	0.2		1.2	5.0	0.5	1.0	16.7
Prop In Lane	1.00		1.00	1.00		1.00		1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	156	0	157	270	0	157		108	2573	795	89	823
V/C Ratio(X)	0.00	0.00	0.18	0.27	0.00	0.04		0.45	0.36	0.04	0.43	0.87
Avail Cap(c_a), veh/h	1211	0	1327	1291	0	1327		658	6211	1918	348	1852
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	1.00		1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	19.0	20.4	0.0	18.7		20.9	6.9	5.8	21.2	11.1
Incr Delay (d2), s/veh	0.0	0.0	0.6	0.5	0.0	0.1		2.9	0.0	0.0	1.2	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.3	0.7	0.0	0.1		0.5	0.9	0.1	0.3	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	19.5	21.0	0.0	18.8		23.8	6.9	5.8	22.4	12.3
LnGrp LOS	A	A	B	C	A	B		C	A	A	C	B
Approach Vol, veh/h		29			81				1001			1506
Approach Delay, s/veh		19.5			20.8				7.7			12.5
Approach LOS		B			C				A			B
Timer - Assigned Phs	1	2		4	5	6			8			
Phs Duration (G+Y+Rc), s	9.2	27.7		9.1	7.3	29.6			9.1			
Change Period (Y+Rc), s	6.4	* 6.4		4.5	5.0	6.4			4.5			
Max Green Setting (Gmax), s	17.0	* 48		39.1	9.0	56.0			39.1			
Max Q Clear Time (g_c+I1), s	3.2	18.7		2.8	3.0	7.0			5.2			
Green Ext Time (p_c), s	0.1	2.5		0.1	0.0	1.9			0.2			

Intersection Summary

HCM 6th Ctrl Delay	11.0
HCM 6th LOS	B

Notes

- User approved volume balancing among the lanes for turning movement.
- User approved ignoring U-Turning movement.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	5
Future Volume (veh/h)	5
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	0.99
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1870
Adj Flow Rate, veh/h	5
Peak Hour Factor	0.95
Percent Heavy Veh, %	2
Cap, veh/h	6
Arrive On Green	0.46
Sat Flow, veh/h	12
Grp Volume(v), veh/h	752
Grp Sat Flow(s),veh/h/ln	1868
Q Serve(g_s), s	16.7
Cycle Q Clear(g_c), s	16.7
Prop In Lane	0.01
Lane Grp Cap(c), veh/h	865
V/C Ratio(X)	0.87
Avail Cap(c_a), veh/h	1948
HCM Platoon Ratio	1.00
Upstream Filter(l)	1.00
Uniform Delay (d), s/veh	11.1
Incr Delay (d2), s/veh	1.1
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(50%),veh/ln	3.9
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	12.2
LnGrp LOS	B
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	

HCM 6th Signalized Intersection Summary - Rancho Monterey Traffic Study Future Year No Project
 8: Monterey Ave & Gerald Ford Dr Future Year (2040) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑	↗	↔↔	↑↑	↗	↔↔	↑↑↔		↔↔	↑↑↑	↗
Traffic Volume (veh/h)	183	421	202	180	726	141	192	662	49	58	1187	203
Future Volume (veh/h)	183	421	202	180	726	141	192	662	49	58	1187	203
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	193	443	115	189	764	39	202	697	46	61	1249	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	249	869	385	246	866	384	257	2205	145	125	2106	
Arrive On Green	0.07	0.24	0.24	0.07	0.24	0.24	0.07	0.45	0.45	0.04	0.41	0.00
Sat Flow, veh/h	3456	3554	1575	3456	3554	1575	3456	4894	321	3456	5106	1585
Grp Volume(v), veh/h	193	443	115	189	764	39	202	484	259	61	1249	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1575	1728	1777	1575	1728	1702	1811	1728	1702	1585
Q Serve(g_s), s	6.6	12.9	7.1	6.4	24.9	2.3	6.9	10.9	11.0	2.1	22.8	0.0
Cycle Q Clear(g_c), s	6.6	12.9	7.1	6.4	24.9	2.3	6.9	10.9	11.0	2.1	22.8	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.18	1.00		1.00
Lane Grp Cap(c), veh/h	249	869	385	246	866	384	257	1534	816	125	2106	
V/C Ratio(X)	0.77	0.51	0.30	0.77	0.88	0.10	0.79	0.32	0.32	0.49	0.59	
Avail Cap(c_a), veh/h	317	927	411	346	957	424	288	1534	816	173	2106	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.61	0.61	0.00
Uniform Delay (d), s/veh	54.7	39.1	36.9	54.8	43.7	35.2	54.6	21.1	21.1	56.7	27.4	0.0
Incr Delay (d2), s/veh	6.6	0.5	0.4	3.9	9.1	0.1	10.0	0.5	1.0	0.7	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.0	5.5	2.7	2.8	11.5	0.9	3.2	4.1	4.6	0.9	8.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.3	39.6	37.4	58.7	52.9	35.3	64.6	21.6	22.1	57.4	28.2	0.0
LnGrp LOS	E	D	D	E	D	D	E	C	C	E	C	
Approach Vol, veh/h		751			992			945			1310	A
Approach Delay, s/veh		44.8			53.3			30.9			29.5	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.9	56.5	13.6	35.9	9.3	61.1	13.5	36.0				
Change Period (Y+Rc), s	5.0	7.0	5.0	6.7	5.0	7.0	5.0	6.7				
Max Green Setting (Gmax), s	43.0	43.0	11.0	32.3	6.0	47.0	12.0	31.3				
Max Q Clear Time (g_c+10), s	10.0	24.8	8.6	26.9	4.1	13.0	8.4	14.9				
Green Ext Time (p_c), s	0.0	8.7	0.1	2.2	0.0	5.5	0.1	2.6				

Intersection Summary

HCM 6th Ctrl Delay	38.6
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
 Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary - Rancho Monterey Traffic Study Future Year No Project
 9: Monterey Ave & Frank Sinatra Dr Future Year (2040) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖↗	↑↑	↖	↖↗	↑↑↖		↖↗	↑↑↑	↖
Traffic Volume (veh/h)	37	296	223	271	730	84	89	786	81	63	1475	72
Future Volume (veh/h)	37	296	223	271	730	84	89	786	81	63	1475	72
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	39	312	121	285	768	88	94	827	77	66	1553	37
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	105	660	292	339	900	399	144	2417	224	128	2573	796
Arrive On Green	0.03	0.19	0.19	0.10	0.25	0.25	0.04	0.51	0.51	0.04	0.50	0.50
Sat Flow, veh/h	3456	3554	1572	3456	3554	1576	3456	4753	441	3456	5106	1580
Grp Volume(v), veh/h	39	312	121	285	768	88	94	591	313	66	1553	37
Grp Sat Flow(s),veh/h/ln	1728	1777	1572	1728	1777	1576	1728	1702	1790	1728	1702	1580
Q Serve(g_s), s	1.3	9.4	8.1	9.7	24.7	5.3	3.2	12.4	12.5	2.2	26.0	1.4
Cycle Q Clear(g_c), s	1.3	9.4	8.1	9.7	24.7	5.3	3.2	12.4	12.5	2.2	26.0	1.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.25	1.00		1.00
Lane Grp Cap(c), veh/h	105	660	292	339	900	399	144	1731	910	128	2573	796
V/C Ratio(X)	0.37	0.47	0.41	0.84	0.85	0.22	0.65	0.34	0.34	0.52	0.60	0.05
Avail Cap(c_a), veh/h	144	1036	459	374	1303	578	144	1731	910	144	2573	796
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.94	0.94	0.94	0.75	0.75	0.75
Uniform Delay (d), s/veh	57.1	43.6	43.1	53.2	42.7	35.4	56.7	17.5	17.6	56.7	21.2	15.1
Incr Delay (d2), s/veh	0.8	0.2	0.3	13.3	2.7	0.1	7.7	0.5	1.0	0.9	0.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	4.0	3.1	4.7	10.6	2.0	1.5	4.5	4.9	1.0	9.5	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.9	43.8	43.5	66.5	45.4	35.5	64.3	18.0	18.5	57.6	22.0	15.2
LnGrp LOS	E	D	D	E	D	D	E	B	B	E	C	B
Approach Vol, veh/h		472			1141			998			1656	
Approach Delay, s/veh		44.9			49.9			22.6			23.3	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.0	67.0	7.6	36.4	8.4	67.5	15.8	28.3				
Change Period (Y+Rc), s	4.0	6.5	4.0	* 6	4.0	6.5	4.0	6.0				
Max Green Setting (Gmax), s	46.5	46.5	5.0	* 44	5.0	46.5	13.0	35.0				
Max Q Clear Time (g_c+1), s	28.0	28.0	3.3	26.7	4.2	14.5	11.7	11.4				
Green Ext Time (p_c), s	0.0	6.6	0.0	2.8	0.0	3.3	0.0	1.3				

Intersection Summary

HCM 6th Ctrl Delay	32.6
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
 * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary - Rancho Monterey Traffic Study Future Year No Project
 10: Monterey Ave & Country Club Dr Future Year (2040) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗	↑ ↑ ↑	↖	↖ ↗	↑ ↑ ↑	↖	↖ ↗	↑ ↑ ↑	↖	↖ ↗	↑ ↑ ↑	↖
Traffic Volume (veh/h)	85	318	119	215	927	176	267	611	78	294	1292	214
Future Volume (veh/h)	85	318	119	215	927	176	267	611	78	294	1292	214
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	89	335	0	226	976	0	281	643	31	309	1360	99
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	191	996		281	1128		336	2074	642	346	2089	646
Arrive On Green	0.06	0.20	0.00	0.08	0.22	0.00	0.10	0.41	0.41	0.10	0.41	0.41
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	3456	5106	1579	3456	5106	1579
Grp Volume(v), veh/h	89	335	0	226	976	0	281	643	31	309	1360	99
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1585	1728	1702	1579	1728	1702	1579
Q Serve(g_s), s	3.0	6.8	0.0	7.7	22.1	0.0	9.6	10.3	1.4	10.6	25.7	4.7
Cycle Q Clear(g_c), s	3.0	6.8	0.0	7.7	22.1	0.0	9.6	10.3	1.4	10.6	25.7	4.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	191	996		281	1128		336	2074	642	346	2089	646
V/C Ratio(X)	0.47	0.34		0.81	0.87		0.84	0.31	0.05	0.89	0.65	0.15
Avail Cap(c_a), veh/h	259	1332		346	1459		432	2074	642	346	2089	646
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.72	0.72	0.72
Uniform Delay (d), s/veh	55.0	41.6	0.0	54.2	45.0	0.0	53.2	24.2	21.6	53.4	28.6	22.4
Incr Delay (d2), s/veh	0.7	0.1	0.0	8.7	3.8	0.0	8.8	0.4	0.1	18.4	1.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	2.8	0.0	3.6	9.3	0.0	4.4	3.9	0.5	5.3	9.9	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.6	41.7	0.0	62.9	48.8	0.0	62.0	24.6	21.7	71.8	29.7	22.7
LnGrp LOS	E	D		E	D		E	C	C	E	C	C
Approach Vol, veh/h		424	A		1202	A		955			1768	
Approach Delay, s/veh		44.6			51.5			35.5			36.7	
Approach LOS		D			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.0	56.2	15.7	30.1	17.7	56.5	12.6	33.2				
Change Period (Y+Rc), s	6.0	7.4	6.0	6.7	6.0	7.4	6.0	6.7				
Max Green Setting (Gmax), s	12.0	38.6	12.0	31.3	15.0	35.6	9.0	34.3				
Max Q Clear Time (g_c+1/2), s	12.6	12.3	9.7	8.8	11.6	27.7	5.0	24.1				
Green Ext Time (p_c), s	0.0	1.3	0.0	0.7	0.1	2.3	0.0	1.8				

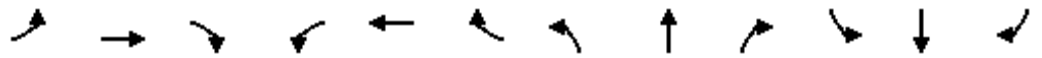
Intersection Summary

HCM 6th Ctrl Delay	41.3
HCM 6th LOS	D

Notes

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study Future Year No Project
 1: Varner Rd & Monterey Ave Future Year (2040) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	110	229	586	237	222	408	487	137	67	393	8
Future Volume (veh/h)	23	110	229	586	237	222	408	487	137	67	393	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	24	116	23	617	249	88	429	513	0	71	414	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	90	312	132	675	614	211	814	1561		148	986	
Arrive On Green	0.05	0.08	0.08	0.20	0.24	0.24	0.24	0.44	0.00	0.08	0.28	0.00
Sat Flow, veh/h	1781	3741	1585	3456	2589	891	3456	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	24	116	23	617	169	168	429	513	0	71	414	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1728	1777	1703	1728	1777	1585	1781	1777	1585
Q Serve(g_s), s	1.6	3.5	1.6	21.0	9.6	10.0	13.0	11.4	0.0	4.6	11.4	0.0
Cycle Q Clear(g_c), s	1.6	3.5	1.6	21.0	9.6	10.0	13.0	11.4	0.0	4.6	11.4	0.0
Prop In Lane	1.00		1.00	1.00		0.52	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	90	312	132	675	422	404	814	1561		148	986	
V/C Ratio(X)	0.27	0.37	0.17	0.91	0.40	0.42	0.53	0.33		0.48	0.42	
Avail Cap(c_a), veh/h	163	533	226	803	503	483	814	1561		163	986	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	54.8	52.0	51.2	47.3	38.6	38.7	40.0	22.1	0.0	52.5	35.5	0.0
Incr Delay (d2), s/veh	0.6	0.7	0.6	12.4	0.6	0.7	0.5	0.6	0.0	0.9	1.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.6	0.6	9.7	4.1	4.1	5.3	4.5	0.0	2.0	4.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.4	52.8	51.8	59.7	39.2	39.4	40.5	22.6	0.0	53.4	36.8	0.0
LnGrp LOS	E	D	D	E	D	D	D	C		D	D	
Approach Vol, veh/h		163			954			942	A		485	A
Approach Delay, s/veh		53.0			52.5			30.8			39.2	
Approach LOS		D			D			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.4	58.9	29.9	15.8	34.5	39.8	10.8	35.0				
Change Period (Y+Rc), s	5.4	6.2	6.5	* 5.8	6.2	* 6.5	* 4.7	6.5				
Max Green Setting (Gmax), s	11.0	41.2	27.9	* 17	18.9	* 33	* 11	34.0				
Max Q Clear Time (g_c+I1), s	6.6	13.4	23.0	5.5	15.0	13.4	3.6	12.0				
Green Ext Time (p_c), s	0.0	3.0	0.4	0.4	0.5	2.2	0.0	1.6				

Intersection Summary

HCM 6th Ctrl Delay	41.9
HCM 6th LOS	D

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study Future Year No Project
1: Varner Rd & Monterey Ave Future Year (2040) - PM Peak Hour

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary - Rancho Monterey Traffic Study Future Year No Project
 2: Monterey Ave & I-10 EB Ramps Future Year (2040) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	2	769	0	0	0	0	1760	822	173	988	0
Future Volume (veh/h)	45	2	769	0	0	0	0	1760	822	173	988	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	31	0	734				0	1814	434	178	1019	0
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	468	0	834				0	2724	846	234	2276	0
Arrive On Green	0.26	0.00	0.26				0.00	0.71	0.71	0.07	0.64	0.00
Sat Flow, veh/h	1781	0	3170				0	5274	1585	3456	3647	0
Grp Volume(v), veh/h	31	0	734				0	1814	434	178	1019	0
Grp Sat Flow(s),veh/h/ln	1781	0	1585				0	1702	1585	1728	1777	0
Q Serve(g_s), s	1.6	0.0	26.6				0.0	23.5	15.0	6.1	17.4	0.0
Cycle Q Clear(g_c), s	1.6	0.0	26.6				0.0	23.5	15.0	6.1	17.4	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	468	0	834				0	2724	846	234	2276	0
V/C Ratio(X)	0.07	0.00	0.88				0.00	0.67	0.51	0.76	0.45	0.00
Avail Cap(c_a), veh/h	567	0	1009				0	2724	846	274	2276	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.33	1.33	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00				0.00	0.50	0.50	1.00	1.00	0.00
Uniform Delay (d), s/veh	33.2	0.0	42.4				0.0	11.5	10.3	55.0	10.9	0.0
Incr Delay (d2), s/veh	0.1	0.0	8.2				0.0	0.7	1.1	10.1	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	11.3				0.0	5.8	4.1	2.9	6.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.2	0.0	50.6				0.0	12.2	11.4	65.1	11.5	0.0
LnGrp LOS	C	A	D				A	B	B	E	B	A
Approach Vol, veh/h		765						2248			1197	
Approach Delay, s/veh		49.9						12.1			19.5	
Approach LOS		D						B			B	
Timer - Assigned Phs	1	2		4			6					
Phs Duration (G+Y+Rc), s	62.8	69.8		37.4			82.6					
Change Period (Y+Rc), s	4.7	5.8		5.8			5.8					
Max Green Setting (Gmax), s	55.0	56.0		38.2			70.2					
Max Q Clear Time (g_c+10), s	19.5	25.5		28.6			19.4					
Green Ext Time (p_c), s	0.1	18.1		2.9			7.9					

Intersection Summary

HCM 6th Ctrl Delay	21.0
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.
 * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary - Rancho Monterey Traffic Study Future Year No Project
 3: Key Largo Ave & Dinah Shore Dr Future Year (2040) - PM Peak Hour



Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	⇐ ↑↑↑	↑↑↑		⇐ ↑↑↑	↑↑↑	⇐ ↑	↑
Traffic Volume (veh/h)	10	955	132	133	935	49	171
Future Volume (veh/h)	10	955	132	133	935	49	171
Initial Q (Qb), veh		0	0	0	0	0	0
Ped-Bike Adj(A_pbT)			0.99	1.00		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No	No	
Adj Sat Flow, veh/h/ln		1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h		995	117	139	974	51	18
Peak Hour Factor		0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %		2	2	2	2	2	2
Cap, veh/h		1631	191	189	1651	124	111
Arrive On Green		0.35	0.35	0.11	0.32	0.07	0.07
Sat Flow, veh/h		4797	543	1781	5274	1781	1585
Grp Volume(v), veh/h		731	381	139	974	51	18
Grp Sat Flow(s),veh/h/ln		1702	1768	1781	1702	1781	1585
Q Serve(g_s), s		6.2	6.2	2.6	5.6	1.0	0.4
Cycle Q Clear(g_c), s		6.2	6.2	2.6	5.6	1.0	0.4
Prop In Lane			0.31	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		1199	623	189	1651	124	111
V/C Ratio(X)		0.61	0.61	0.74	0.59	0.41	0.16
Avail Cap(c_a), veh/h		2385	1239	357	3870	1376	1224
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		9.3	9.3	15.2	9.9	15.6	15.3
Incr Delay (d2), s/veh		0.2	0.4	2.1	0.1	0.8	0.3
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		1.1	1.2	0.8	1.0	0.4	0.1
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		9.5	9.7	17.3	10.0	16.4	15.6
LnGrp LOS		A	A	B	B	B	B
Approach Vol, veh/h		1112			1113	69	
Approach Delay, s/veh		9.6			10.9	16.2	
Approach LOS		A			B	B	
Timer - Assigned Phs			3	4		6	8
Phs Duration (G+Y+Rc), s			8.7	18.8		7.4	17.8
Change Period (Y+Rc), s			5.0	6.5		5.0	6.5
Max Green Setting (Gmax), s			7.0	24.5		27.0	26.5
Max Q Clear Time (g_c+I1), s			4.6	8.2		3.0	7.6
Green Ext Time (p_c), s			0.0	3.8		0.1	3.7

Intersection Summary

HCM 6th Ctrl Delay	10.4
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
 User approved ignoring U-Turning movement.

HCM 6th Signalized Intersection Summary - Rancho Monterey Traffic Study Future Year No Project
 4: Monterey Ave & Dinah Shore Dr Future Year (2040) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖	↑↑	↖	↖↗	↑↑↖		↖↗	↑↑↑	↖
Traffic Volume (veh/h)	768	388	311	111	388	597	377	1396	76	315	1036	415
Future Volume (veh/h)	768	388	311	111	388	597	377	1396	76	315	1036	415
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	784	396	91	113	396	0	385	1424	74	321	1057	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	834	1006	446	138	423		441	1732	90	381	1691	
Arrive On Green	0.24	0.28	0.28	0.08	0.12	0.00	0.13	0.35	0.35	0.04	0.11	0.00
Sat Flow, veh/h	3456	3554	1577	1781	3554	1585	3456	4968	258	3456	5106	1585
Grp Volume(v), veh/h	784	396	91	113	396	0	385	976	522	321	1057	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1577	1781	1777	1585	1728	1702	1823	1728	1702	1585
Q Serve(g_s), s	26.7	10.8	5.3	7.5	13.3	0.0	13.1	31.4	31.4	11.1	23.7	0.0
Cycle Q Clear(g_c), s	26.7	10.8	5.3	7.5	13.3	0.0	13.1	31.4	31.4	11.1	23.7	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.14	1.00		1.00
Lane Grp Cap(c), veh/h	834	1006	446	138	423		441	1186	635	381	1691	
V/C Ratio(X)	0.94	0.39	0.20	0.82	0.94		0.87	0.82	0.82	0.84	0.63	
Avail Cap(c_a), veh/h	893	1045	464	148	423		662	1186	635	605	1691	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	0.77	0.77	0.77	1.00	1.00	0.00	1.00	1.00	1.00	0.81	0.81	0.00
Uniform Delay (d), s/veh	44.7	34.7	32.7	54.5	52.4	0.0	51.4	35.7	35.7	56.8	46.3	0.0
Incr Delay (d2), s/veh	13.5	0.1	0.1	25.4	27.7	0.0	5.9	6.5	11.5	2.7	1.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.5	4.5	1.9	4.3	7.4	0.0	5.8	13.3	15.1	5.1	11.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.2	34.8	32.8	80.0	80.1	0.0	57.3	42.2	47.2	59.5	47.7	0.0
LnGrp LOS	E	C	C	E	F		E	D	D	E	D	
Approach Vol, veh/h		1271			509	A		1883			1378	A
Approach Delay, s/veh		49.1			80.1			46.6			50.5	
Approach LOS		D			F			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.3	39.7	20.3	45.7	33.9	20.0	18.2	47.8				
Change Period (Y+Rc), s	5.0	5.7	5.0	6.0	5.0	5.7	5.0	6.0				
Max Green Setting (Gmax), s	10.0	35.3	23.0	30.0	31.0	14.3	21.0	32.0				
Max Q Clear Time (g_c+1.5p_c), s	19.5	12.8	15.1	25.7	28.7	15.3	13.1	33.4				
Green Ext Time (p_c), s	0.0	0.8	0.2	1.3	0.2	0.0	0.1	0.0				

Intersection Summary

HCM 6th Ctrl Delay	51.7
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
 Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th TWSC
6: Proposed Project Access Driveway & Monterey Ave

Rancho Monterey Traffic Study Future Year No Project
Future Year (2040) - PM Peak Hour

Intersection						
Int Delay, s/veh	4.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗ ↘ ↘ ↘	↗ ↘ ↘ ↘		↗ ↘	↗ ↘
Traffic Vol, veh/h	0	166	1425	139	130	1131
Future Vol, veh/h	0	166	1425	139	130	1131
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	185	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	175	1500	146	137	1191

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	-	823	0	0	1646
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	5.34
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	3.12
Pot Cap-1 Maneuver	0	272	-	-	189
Stage 1	0	-	-	-	-
Stage 2	0	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	-	272	-	-	189
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	39.3	0	6.4
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	272	189
HCM Lane V/C Ratio	-	-	0.642	0.724
HCM Control Delay (s)	-	-	39.3	62.3
HCM Lane LOS	-	-	E	F
HCM 95th %tile Q(veh)	-	-	4	4.6

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study Future Year No Project
 7: Monterey Ave & Dick Kelly Dr Future Year (2040) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations	↖	↗		↖	↗			↖	↑↑↑	↗	↖	↗
Traffic Volume (veh/h)	0	0	95	170	0	68	10	140	1496	114	42	1073
Future Volume (veh/h)	0	0	95	170	0	68	10	140	1496	114	42	1073
Initial Q (Qb), veh	0	0	0	0	0	0		0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	0.99		0.99		1.00		0.99	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No				No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870		1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	24	177	0	18		146	1558	64	44	1118
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96		0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2		2	2	2	2	2
Cap, veh/h	140	0	304	389	0	304		186	2263	699	97	1310
Arrive On Green	0.00	0.00	0.19	0.19	0.00	0.19		0.10	0.44	0.44	0.05	0.37
Sat Flow, veh/h	1395	0	1573	1377	0	1573		1781	5106	1576	1781	3582
Grp Volume(v), veh/h	0	0	24	177	0	18		146	1558	64	44	554
Grp Sat Flow(s),veh/h/ln	1395	0	1573	1377	0	1573		1781	1702	1576	1781	1777
Q Serve(g_s), s	0.0	0.0	0.6	6.2	0.0	0.5		4.1	12.6	1.2	1.2	14.8
Cycle Q Clear(g_c), s	0.0	0.0	0.6	6.9	0.0	0.5		4.1	12.6	1.2	1.2	14.8
Prop In Lane	1.00		1.00	1.00		1.00		1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	140	0	304	389	0	304		186	2263	699	97	650
V/C Ratio(X)	0.00	0.00	0.08	0.46	0.00	0.06		0.78	0.69	0.09	0.45	0.85
Avail Cap(c_a), veh/h	932	0	1196	1170	0	1196		589	5563	1717	312	1659
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	1.00		1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	17.0	19.8	0.0	16.9		22.4	11.5	8.3	23.6	15.0
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.8	0.0	0.1		2.7	0.1	0.0	1.2	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.2	1.7	0.0	0.2		1.5	3.0	0.3	0.5	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	17.1	20.6	0.0	17.0		25.2	11.6	8.3	24.8	16.3
LnGrp LOS	A	A	B	C	A	B		C	B	A	C	B
Approach Vol, veh/h		24			195				1768			1179
Approach Delay, s/veh		17.1			20.3				12.6			16.6
Approach LOS		B			C				B			B
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.8	25.2		14.4	7.8	29.2		14.4				
Change Period (Y+Rc), s	6.4	* 6.4		4.5	5.0	6.4		4.5				
Max Green Setting (Gmax), s	17.0	* 48		39.1	9.0	56.0		39.1				
Max Q Clear Time (g_c+I1), s	6.1	16.8		2.6	3.2	14.6		8.9				
Green Ext Time (p_c), s	0.0	1.7		0.1	0.0	3.8		0.6				

Intersection Summary

HCM 6th Ctrl Delay	14.6
HCM 6th LOS	B

Notes

User approved ignoring U-Turning movement.
 * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study Future Year No Project
 7: Monterey Ave & Dick Kelly Dr Future Year (2040) - PM Peak Hour

Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	16
Future Volume (veh/h)	16
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	0.99
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1870
Adj Flow Rate, veh/h	17
Peak Hour Factor	0.96
Percent Heavy Veh, %	2
Cap, veh/h	20
Arrive On Green	0.37
Sat Flow, veh/h	54
Grp Volume(v), veh/h	581
Grp Sat Flow(s),veh/h/ln	1860
Q Serve(g_s), s	14.8
Cycle Q Clear(g_c), s	14.8
Prop In Lane	0.03
Lane Grp Cap(c), veh/h	680
V/C Ratio(X)	0.85
Avail Cap(c_a), veh/h	1737
HCM Platoon Ratio	1.00
Upstream Filter(l)	1.00
Uniform Delay (d), s/veh	15.0
Incr Delay (d2), s/veh	1.2
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(50%),veh/ln	4.5
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	16.2
LnGrp LOS	B
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	

HCM 6th Signalized Intersection Summary - Rancho Monterey Traffic Study Future Year No Project
 8: Monterey Ave & Gerald Ford Dr Future Year (2040) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑	↗	↔↔	↑↑	↗	↔↔	↑↑↔		↔↔	↑↑↑	↗
Traffic Volume (veh/h)	232	549	225	135	415	134	228	1259	120	95	913	202
Future Volume (veh/h)	232	549	225	135	415	134	228	1259	120	95	913	202
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	242	572	51	141	432	28	238	1311	118	99	951	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	300	719	318	197	613	271	294	2381	214	151	2340	
Arrive On Green	0.09	0.20	0.20	0.06	0.17	0.17	0.09	0.50	0.50	0.04	0.46	0.00
Sat Flow, veh/h	3456	3554	1573	3456	3554	1571	3456	4767	429	3456	5106	1585
Grp Volume(v), veh/h	242	572	51	141	432	28	238	936	493	99	951	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1573	1728	1777	1571	1728	1702	1792	1728	1702	1585
Q Serve(g_s), s	8.3	18.4	3.2	4.8	13.7	1.8	8.1	22.8	22.8	3.4	14.9	0.0
Cycle Q Clear(g_c), s	8.3	18.4	3.2	4.8	13.7	1.8	8.1	22.8	22.8	3.4	14.9	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.24	1.00		1.00
Lane Grp Cap(c), veh/h	300	719	318	197	613	271	294	1700	895	151	2340	
V/C Ratio(X)	0.81	0.80	0.16	0.71	0.70	0.10	0.81	0.55	0.55	0.66	0.41	
Avail Cap(c_a), veh/h	403	927	410	374	897	397	346	1700	895	346	2340	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.63	0.63	0.63	0.50	0.50	0.00
Uniform Delay (d), s/veh	53.8	45.5	39.5	55.6	46.8	41.8	53.9	20.7	20.7	56.5	21.6	0.0
Incr Delay (d2), s/veh	6.2	3.8	0.2	1.8	1.5	0.2	6.5	0.8	1.5	0.9	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	8.1	1.2	2.1	5.9	0.7	3.7	8.4	9.0	1.4	5.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.0	49.3	39.7	57.4	48.3	42.0	60.5	21.5	22.3	57.4	21.9	0.0
LnGrp LOS	E	D	D	E	D	D	E	C	C	E	C	
Approach Vol, veh/h		865			601			1667			1050	A
Approach Delay, s/veh		51.7			50.1			27.3			25.3	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.2	62.0	15.4	27.4	10.2	66.9	11.9	31.0				
Change Period (Y+Rc), s	5.0	7.0	5.0	6.7	5.0	7.0	5.0	6.7				
Max Green Setting (Gmax), s	12.0	40.0	14.0	30.3	12.0	40.0	13.0	31.3				
Max Q Clear Time (g_c+10), s	11.0	16.9	10.3	15.7	5.4	24.8	6.8	20.4				
Green Ext Time (p_c), s	0.1	7.2	0.2	2.1	0.1	8.6	0.1	2.7				

Intersection Summary

HCM 6th Ctrl Delay	35.1
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
 Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary - Rancho Monterey Traffic Study Future Year No Project
 9: Monterey Ave & Frank Sinatra Dr Future Year (2040) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖↗	↑↑	↖	↖↗	↑↑↖↗		↖↗	↑↑↑	↖
Traffic Volume (veh/h)	150	672	133	172	389	71	162	1449	202	89	1216	56
Future Volume (veh/h)	150	672	133	172	389	71	162	1449	202	89	1216	56
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	158	707	56	181	409	75	171	1525	200	94	1280	26
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	213	792	351	236	816	362	226	2266	297	144	2413	747
Arrive On Green	0.06	0.22	0.22	0.07	0.23	0.23	0.07	0.50	0.50	0.04	0.47	0.47
Sat Flow, veh/h	3456	3554	1574	3456	3554	1575	3456	4567	598	3456	5106	1580
Grp Volume(v), veh/h	158	707	56	181	409	75	171	1136	589	94	1280	26
Grp Sat Flow(s),veh/h/ln	1728	1777	1574	1728	1777	1575	1728	1702	1761	1728	1702	1580
Q Serve(g_s), s	5.4	23.2	3.4	6.2	12.0	4.6	5.8	30.3	30.4	3.2	21.2	1.1
Cycle Q Clear(g_c), s	5.4	23.2	3.4	6.2	12.0	4.6	5.8	30.3	30.4	3.2	21.2	1.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.34	1.00		1.00
Lane Grp Cap(c), veh/h	213	792	351	236	816	362	226	1689	874	144	2413	747
V/C Ratio(X)	0.74	0.89	0.16	0.77	0.50	0.21	0.76	0.67	0.67	0.65	0.53	0.03
Avail Cap(c_a), veh/h	317	859	380	317	888	394	317	1689	874	317	2413	747
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.70	0.70	0.70	0.89	0.89	0.89
Uniform Delay (d), s/veh	55.4	45.2	37.6	55.0	40.2	37.4	55.1	22.9	22.9	56.6	22.3	17.0
Incr Delay (d2), s/veh	1.9	10.5	0.1	5.1	0.2	0.1	2.6	1.5	2.9	1.6	0.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	10.9	1.3	2.8	5.1	1.7	2.5	11.2	12.0	1.4	7.9	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.3	55.7	37.6	60.0	40.4	37.5	57.7	24.4	25.8	58.3	23.0	17.0
LnGrp LOS	E	E	D	E	D	D	E	C	C	E	C	B
Approach Vol, veh/h		921			665			1896			1400	
Approach Delay, s/veh		54.9			45.4			27.8			25.3	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.9	63.2	11.4	33.6	9.0	66.1	12.2	32.7				
Change Period (Y+Rc), s	4.0	6.5	4.0	* 6	4.0	6.5	4.0	6.0				
Max Green Setting (Gmax), s	48.5	11.0	* 30	11.0	48.5	11.0	29.0					
Max Q Clear Time (g_c+1T), s	23.2	7.4	14.0	5.2	32.4	8.2	25.2					
Green Ext Time (p_c), s	0.0	5.6	0.0	1.4	0.0	6.5	0.0	1.2				

Intersection Summary

HCM 6th Ctrl Delay	34.6
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
 * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary - Rancho Monterey Traffic Study Future Year No Project
 10: Monterey Ave & Country Club Dr Future Year (2040) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖
Traffic Volume (veh/h)	217	794	305	184	314	255	135	1306	146	293	1115	115
Future Volume (veh/h)	217	794	305	184	314	255	135	1306	146	293	1115	115
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	221	810	0	188	320	0	138	1333	58	299	1138	51
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	276	963		244	915		200	2152	666	352	2378	736
Arrive On Green	0.08	0.19	0.00	0.07	0.18	0.00	0.06	0.42	0.42	0.10	0.47	0.47
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	3456	5106	1579	3456	5106	1580
Grp Volume(v), veh/h	221	810	0	188	320	0	138	1333	58	299	1138	51
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1585	1728	1702	1579	1728	1702	1580
Q Serve(g_s), s	7.5	18.4	0.0	6.4	6.6	0.0	4.7	24.5	2.6	10.2	18.4	2.1
Cycle Q Clear(g_c), s	7.5	18.4	0.0	6.4	6.6	0.0	4.7	24.5	2.6	10.2	18.4	2.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	276	963		244	915		200	2152	666	352	2378	736
V/C Ratio(X)	0.80	0.84		0.77	0.35		0.69	0.62	0.09	0.85	0.48	0.07
Avail Cap(c_a), veh/h	346	1332		432	1459		432	2152	666	374	2378	736
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.81	0.81	0.81
Uniform Delay (d), s/veh	54.3	47.0	0.0	54.8	43.1	0.0	55.5	27.2	20.8	53.0	22.0	17.7
Incr Delay (d2), s/veh	8.1	2.7	0.0	2.0	0.1	0.0	1.6	1.4	0.3	12.4	0.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.5	7.7	0.0	2.8	2.7	0.0	2.0	9.5	1.0	4.8	6.9	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.4	49.6	0.0	56.8	43.2	0.0	57.1	28.5	21.1	65.4	22.6	17.9
LnGrp LOS	E	D		E	D		E	C	C	E	C	B
Approach Vol, veh/h		1031	A		508	A		1529			1488	
Approach Delay, s/veh		52.4			48.2			30.8			31.0	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.2	58.0	14.5	29.3	12.9	63.3	15.6	28.2				
Change Period (Y+Rc), s	6.0	7.4	6.0	6.7	6.0	7.4	6.0	6.7				
Max Green Setting (Gmax), s	13.0	34.6	15.0	31.3	15.0	32.6	12.0	34.3				
Max Q Clear Time (g_c+1/2), s	11.2	26.5	8.4	20.4	6.7	20.4	9.5	8.6				
Green Ext Time (p_c), s	0.0	2.3	0.1	1.5	0.0	2.2	0.0	0.6				

Intersection Summary

HCM 6th Ctrl Delay	37.7
HCM 6th LOS	D

Notes

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
1: Varner Rd & Monterey Ave

Rancho Monterey Traffic Study with Alternative 1
Future Year plus Alternative 1 AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	126	379	923	322	168	218	156	70	177	564	12
Future Volume (veh/h)	13	126	379	923	322	168	218	156	70	177	564	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	14	133	59	972	339	125	229	164	0	186	594	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	61	312	132	1031	910	330	452	1064		213	992	
Arrive On Green	0.03	0.08	0.08	0.30	0.36	0.36	0.13	0.30	0.00	0.12	0.28	0.00
Sat Flow, veh/h	1781	3741	1585	3456	2552	924	3456	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	14	133	59	972	234	230	229	164	0	186	594	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1728	1777	1699	1728	1777	1585	1781	1777	1585
Q Serve(g_s), s	0.9	4.1	4.3	32.9	11.7	12.1	7.4	4.1	0.0	12.3	17.4	0.0
Cycle Q Clear(g_c), s	0.9	4.1	4.3	32.9	11.7	12.1	7.4	4.1	0.0	12.3	17.4	0.0
Prop In Lane	1.00		1.00	1.00		0.54	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	61	312	132	1031	634	606	452	1064		213	992	
V/C Ratio(X)	0.23	0.43	0.45	0.94	0.37	0.38	0.51	0.15		0.87	0.60	
Avail Cap(c_a), veh/h	168	349	148	1181	634	606	452	1064		341	992	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	56.4	52.3	52.4	41.1	28.6	28.7	48.6	30.9	0.0	51.9	37.4	0.0
Incr Delay (d2), s/veh	0.7	0.9	2.4	12.9	0.1	0.1	0.7	0.3	0.0	8.2	2.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.9	1.7	15.0	4.7	4.7	3.1	1.7	0.0	5.8	7.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.1	53.2	54.7	54.0	28.7	28.9	49.3	31.2	0.0	60.1	40.1	0.0
LnGrp LOS	E	D	D	D	C	C	D	C		E	D	
Approach Vol, veh/h		206			1436			393	A		780	A
Approach Delay, s/veh		53.9			45.8			41.7			44.9	
Approach LOS		D			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	19.8	42.1	42.3	15.8	21.9	40.0	8.8	49.3				
Change Period (Y+Rc), s	5.4	6.2	6.5	* 5.8	6.2	* 6.5	* 4.7	6.5				
Max Green Setting (Gmax), s	23.0	22.0	41.0	* 11	11.5	* 34	* 11	40.9				
Max Q Clear Time (g_c+I1), s	14.3	6.1	34.9	6.3	9.4	19.4	2.9	14.1				
Green Ext Time (p_c), s	0.1	0.7	0.9	0.3	0.1	3.0	0.0	1.4				

Intersection Summary

HCM 6th Ctrl Delay	45.6
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.
 * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
 Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

2: Monterey Ave & I-10 EB Ramps

Rancho Monterey Traffic Study with Alternative 1
Future Year plus Alternative 1 AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	12	1049	0	0	0	0	805	517	198	1552	0
Future Volume (veh/h)	55	12	1049	0	0	0	0	805	517	198	1552	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	43	0	1083				0	847	197	208	1634	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	730	0	1300				0	1838	571	325	1753	0
Arrive On Green	0.41	0.00	0.41				0.00	0.12	0.12	0.09	0.49	0.00
Sat Flow, veh/h	1781	0	3170				0	5274	1585	3456	3647	0
Grp Volume(v), veh/h	43	0	1083				0	847	197	208	1634	0
Grp Sat Flow(s),veh/h/ln	1781	0	1585				0	1702	1585	1728	1777	0
Q Serve(g_s), s	1.8	0.0	36.7				0.0	18.6	13.7	7.0	51.8	0.0
Cycle Q Clear(g_c), s	1.8	0.0	36.7				0.0	18.6	13.7	7.0	51.8	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	730	0	1300				0	1838	571	325	1753	0
V/C Ratio(X)	0.06	0.00	0.83				0.00	0.46	0.35	0.64	0.93	0.00
Avail Cap(c_a), veh/h	730	0	1300				0	1838	571	325	1753	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	0.33	0.33	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00				0.00	0.83	0.83	1.00	1.00	0.00
Uniform Delay (d), s/veh	21.4	0.0	31.7				0.0	42.0	39.9	52.4	28.5	0.0
Incr Delay (d2), s/veh	0.2	0.0	6.4				0.0	0.7	1.4	9.3	10.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	14.9				0.0	8.5	5.9	3.3	22.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.6	0.0	38.1				0.0	42.7	41.3	61.7	39.0	0.0
LnGrp LOS	C	A	D				A	D	D	E	D	A
Approach Vol, veh/h		1126						1044			1842	
Approach Delay, s/veh		37.5						42.4			41.6	
Approach LOS		D						D			D	
Timer - Assigned Phs	1	2	4	6								
Phs Duration (G+Y+Rc), s	66.0	49.0	55.0	65.0								
Change Period (Y+Rc), s	4.7	5.8	5.8	5.8								
Max Green Setting (Gmax), s	66.0	43.2	49.2	59.2								
Max Q Clear Time (g_c+1/3), s	66.0	20.6	38.7	53.8								
Green Ext Time (p_c), s	0.1	5.9	4.7	4.2								

Intersection Summary

HCM 6th Ctrl Delay	40.6
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
3: Key Largo Ave & Dinah Shore Dr

Rancho Monterey Traffic Study with Alternative 1
Future Year plus Alternative 1 AM Peak Hour



Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	⇐ ↑↑↑			⇐ ↑↑↑		⇐ ↑	⇐ ↑
Traffic Volume (veh/h)	10	870	87	121	596	94	280
Future Volume (veh/h)	10	870	87	121	596	94	280
Initial Q (Qb), veh		0	0	0	0	0	0
Ped-Bike Adj(A_pbT)			0.99	1.00		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No	No		
Adj Sat Flow, veh/h/ln		1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h		916	77	127	627	99	46
Peak Hour Factor		0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %		2	2	2	2	2	2
Cap, veh/h		1543	129	180	1172	192	171
Arrive On Green		0.32	0.32	0.10	0.23	0.11	0.11
Sat Flow, veh/h		4965	402	1781	5274	1781	1585
Grp Volume(v), veh/h		649	344	127	627	99	46
Grp Sat Flow(s),veh/h/ln		1702	1794	1781	1702	1781	1585
Q Serve(g_s), s		5.6	5.6	2.4	3.8	1.8	0.9
Cycle Q Clear(g_c), s		5.6	5.6	2.4	3.8	1.8	0.9
Prop In Lane			0.22	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		1095	577	180	1172	192	171
V/C Ratio(X)		0.59	0.60	0.71	0.53	0.52	0.27
Avail Cap(c_a), veh/h		2373	1251	355	3850	1368	1218
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		10.0	10.0	15.3	11.9	14.8	14.4
Incr Delay (d2), s/veh		0.2	0.4	1.9	0.1	0.8	0.3
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		1.1	1.2	0.7	0.8	0.7	0.2
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		10.2	10.4	17.2	12.0	15.6	14.7
LnGrp LOS		B	B	B	B	B	B
Approach Vol, veh/h		993		754	145		
Approach Delay, s/veh		10.2		12.9	15.3		
Approach LOS		B		B	B		
Timer - Assigned Phs			3	4		6	8
Phs Duration (G+Y+Rc), s			8.6	17.8		8.8	14.6
Change Period (Y+Rc), s			5.0	6.5		5.0	6.5
Max Green Setting (Gmax), s			7.0	24.5		27.0	26.5
Max Q Clear Time (g_c+I1), s			4.4	7.6		3.8	5.8
Green Ext Time (p_c), s			0.0	3.3		0.2	2.3
Intersection Summary							
HCM 6th Ctrl Delay			11.7				
HCM 6th LOS			B				

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.

HCM 6th Signalized Intersection Summary
4: Monterey Ave & Dinah Shore Dr

Rancho Monterey Traffic Study with Alternative 1
Future Year plus Alternative 1 AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖	↑↑	↖	↖↗↑↑↑			↖↗	↑↑↑	↖
Traffic Volume (veh/h)	500	346	230	88	296	366	149	693	93	371	1684	429
Future Volume (veh/h)	500	346	230	88	296	366	149	693	93	371	1684	429
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	526	364	54	93	312	0	157	729	86	391	1773	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	547	746	330	116	415		229	1915	224	452	2440	
Arrive On Green	0.16	0.21	0.21	0.07	0.12	0.00	0.07	0.41	0.41	0.04	0.16	0.00
Sat Flow, veh/h	3456	3554	1574	1781	3554	1585	3456	4632	542	3456	5106	1585
Grp Volume(v), veh/h	526	364	54	93	312	0	157	534	281	391	1773	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1574	1781	1777	1585	1728	1702	1770	1728	1702	1585
Q Serve(g_s), s	18.1	10.8	3.4	6.2	10.2	0.0	5.3	13.1	13.3	13.5	39.6	0.0
Cycle Q Clear(g_c), s	18.1	10.8	3.4	6.2	10.2	0.0	5.3	13.1	13.3	13.5	39.6	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.31	1.00		1.00
Lane Grp Cap(c), veh/h	547	746	330	116	415		229	1407	732	452	2440	
V/C Ratio(X)	0.96	0.49	0.16	0.80	0.75		0.69	0.38	0.38	0.87	0.73	
Avail Cap(c_a), veh/h	547	957	424	119	631		374	1407	732	691	2440	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	0.74	0.74	0.74	1.00	1.00	0.00	1.00	1.00	1.00	0.28	0.28	0.00
Uniform Delay (d), s/veh	50.1	41.7	38.8	55.3	51.3	0.0	54.8	24.5	24.5	56.4	43.1	0.0
Incr Delay (d2), s/veh	23.8	0.1	0.1	28.6	1.0	0.0	1.4	0.8	1.5	1.4	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.3	4.6	1.3	3.6	4.5	0.0	2.3	5.1	5.6	6.3	18.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.9	41.9	38.8	83.9	52.4	0.0	56.2	25.3	26.1	57.8	43.6	0.0
LnGrp LOS	E	D	D	F	D		E	C	C	E	D	
Approach Vol, veh/h		944			405	A		972		2164	A	
Approach Delay, s/veh		59.5			59.6			30.5		46.2		
Approach LOS		E			E			C		D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.8	30.9	13.0	63.3	24.0	19.7	20.7	55.6				
Change Period (Y+Rc), s	5.0	5.7	5.0	6.0	5.0	5.7	5.0	6.0				
Max Green Setting (Gmax), s	32.3	32.3	13.0	45.0	19.0	21.3	24.0	34.0				
Max Q Clear Time (g_c+1), s	12.8	12.8	7.3	41.6	20.1	12.2	15.5	15.3				
Green Ext Time (p_c), s	0.0	0.7	0.0	1.8	0.0	0.5	0.2	1.5				

Intersection Summary

HCM 6th Ctrl Delay	46.8
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th TWSC
5: Monterey Ave & Proposed Roadway Connection

Rancho Monterey Traffic Study with Alternative 1
Future Year plus Alternative 1 AM Peak Hour

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑↑	
Traffic Vol, veh/h	0	70	0	891	1548	45
Future Vol, veh/h	0	70	0	891	1548	45
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	74	0	938	1629	47

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	-	838	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	7.14	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.92	-
Pot Cap-1 Maneuver	0	266	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %			-
Mov Cap-1 Maneuver	-	266	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	23.6	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT EBLn1	SBT	SBR
Capacity (veh/h)	- 266	-	-
HCM Lane V/C Ratio	- 0.277	-	-
HCM Control Delay (s)	- 23.6	-	-
HCM Lane LOS	- C	-	-
HCM 95th %tile Q(veh)	- 1.1	-	-

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study with Alternative 1
 6: Proposed Project Access Driveway & Monterey Ave Future Year plus Alternative 1 AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	0	9	0	0	16	28	857	81	64	1546	8
Future Volume (veh/h)	18	0	9	0	0	16	28	857	81	64	1546	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	19	0	2	0	0	2	29	902	79	67	1627	8
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	234	0	82	164	0	82	60	2755	241	113	2197	11
Arrive On Green	0.05	0.00	0.05	0.00	0.00	0.05	0.03	0.58	0.58	0.06	0.61	0.61
Sat Flow, veh/h	1375	0	1564	1415	0	1564	1781	4780	417	1781	3626	18
Grp Volume(v), veh/h	19	0	2	0	0	2	29	642	339	67	797	838
Grp Sat Flow(s),veh/h/ln	1375	0	1564	1415	0	1564	1781	1702	1793	1781	1777	1867
Q Serve(g_s), s	0.6	0.0	0.1	0.0	0.0	0.1	0.7	4.3	4.3	1.6	14.0	14.1
Cycle Q Clear(g_c), s	0.6	0.0	0.1	0.0	0.0	0.1	0.7	4.3	4.3	1.6	14.0	14.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.23	1.00		0.01
Lane Grp Cap(c), veh/h	234	0	82	164	0	82	60	1962	1033	113	1077	1131
V/C Ratio(X)	0.08	0.00	0.02	0.00	0.00	0.02	0.48	0.33	0.33	0.59	0.74	0.74
Avail Cap(c_a), veh/h	1386	0	1391	1349	0	1391	256	2640	1391	345	1467	1542
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.0	0.0	19.7	0.0	0.0	19.7	20.8	4.8	4.9	20.0	6.2	6.2
Incr Delay (d2), s/veh	0.1	0.0	0.1	0.0	0.0	0.1	5.8	0.1	0.2	4.8	1.3	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0	0.0	0.0	0.0	0.3	0.5	0.5	0.7	1.5	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.2	0.0	19.8	0.0	0.0	19.8	26.6	4.9	5.0	24.8	7.5	7.5
LnGrp LOS	C	A	B	A	A	B	C	A	A	C	A	A
Approach Vol, veh/h		21			2			1010			1702	
Approach Delay, s/veh		20.1			19.8			5.6			8.2	
Approach LOS		C			B			A			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.3	29.8		6.8	6.0	31.1		6.8				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	8.5	34.0		39.0	6.3	36.2		39.0				
Max Q Clear Time (g_c+I1), s	3.6	6.3		2.6	2.7	16.1		2.1				
Green Ext Time (p_c), s	0.0	6.1		0.0	0.0	10.5		0.0				

Intersection Summary

HCM 6th Ctrl Delay	7.3
HCM 6th LOS	A

HCM 6th Signalized Intersection Summary
7: Monterey Ave & Dick Kelly Dr

Rancho Monterey Traffic Study with Alternative 1
Future Year plus Alternative 1 AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Volume (veh/h)	22	9	198	70	6	41	10	67	903	49	36	1508	11
Future Volume (veh/h)	22	9	198	70	6	41	10	67	903	49	36	1508	11
Initial Q (Qb), veh	0	0	0	0	0	0		0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99		1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870		1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	23	9	34	74	6	7		71	951	32	38	1587	12
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2		2	2	2	2	2	2
Cap, veh/h	279	37	141	252	86	101		131	2765	854	86	1772	13
Arrive On Green	0.11	0.11	0.11	0.11	0.11	0.11		0.07	0.54	0.54	0.05	0.49	0.49
Sat Flow, veh/h	1383	339	1280	1348	781	911		1781	5106	1578	1781	3615	27
Grp Volume(v), veh/h	23	0	43	74	0	13		71	951	32	38	780	819
Grp Sat Flow(s),veh/h/ln	1383	0	1619	1348	0	1692		1781	1702	1578	1781	1777	1865
Q Serve(g_s), s	0.8	0.0	1.3	2.8	0.0	0.4		2.0	5.6	0.5	1.1	21.1	21.2
Cycle Q Clear(g_c), s	1.2	0.0	1.3	4.1	0.0	0.4		2.0	5.6	0.5	1.1	21.1	21.2
Prop In Lane	1.00		0.79	1.00		0.54		1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	279	0	179	252	0	187		131	2765	854	86	871	914
V/C Ratio(X)	0.08	0.00	0.24	0.29	0.00	0.07		0.54	0.34	0.04	0.44	0.90	0.90
Avail Cap(c_a), veh/h	1145	0	1193	1097	0	1247		571	5390	1665	302	1608	1688
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.7	0.0	21.6	23.4	0.0	21.2		23.7	6.9	5.7	24.5	12.3	12.3
Incr Delay (d2), s/veh	0.1	0.0	0.7	0.6	0.0	0.2		3.5	0.0	0.0	1.3	1.4	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.5	0.8	0.0	0.1		0.8	1.1	0.1	0.4	5.2	5.5
Unsig. Movement Delay, s/veh													
LnGrp Delay(d),s/veh	21.8	0.0	22.3	24.1	0.0	21.3		27.2	6.9	5.7	25.8	13.7	13.6
LnGrp LOS	C	A	C	C	A	C		C	A	A	C	B	B
Approach Vol, veh/h		66			87			1054				1637	
Approach Delay, s/veh		22.1			23.7			8.2				13.9	
Approach LOS		C			C			A				B	
Timer - Assigned Phs	1	2		4	5	6		8					
Phs Duration (G+Y+Rc), s	30.3	32.4		10.4	7.6	35.1		10.4					
Change Period (Y+Rc), s	6.4	* 6.4		4.5	5.0	6.4		4.5					
Max Green Setting (Gmax), s	47	* 48		39.1	9.0	56.0		39.1					
Max Q Clear Time (g_c+1), s	23.2			3.3	3.1	7.6		6.1					
Green Ext Time (p_c), s	0.1	2.8		0.3	0.0	2.0		0.2					

Intersection Summary

HCM 6th Ctrl Delay	12.3
HCM 6th LOS	B

Notes

- User approved volume balancing among the lanes for turning movement.
- User approved ignoring U-Turning movement.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

8: Monterey Ave & Gerald Ford Dr

Rancho Monterey Traffic Study with Alternative 1

Future Year plus Alternative 1 AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑	↗	↔↔	↑↑	↗	↔↔	↑↑↔		↔↔	↑↑↑	↗
Traffic Volume (veh/h)	193	421	202	180	726	147	192	695	49	70	1229	212
Future Volume (veh/h)	193	421	202	180	726	147	192	695	49	70	1229	212
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	203	443	53	189	764	38	202	732	47	74	1294	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	260	853	378	246	839	372	259	2221	142	132	2124	
Arrive On Green	0.08	0.24	0.24	0.07	0.24	0.24	0.08	0.45	0.45	0.04	0.42	0.00
Sat Flow, veh/h	3456	3554	1575	3456	3554	1575	3456	4903	313	3456	5106	1585
Grp Volume(v), veh/h	203	443	53	189	764	38	202	507	272	74	1294	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1575	1728	1777	1575	1728	1702	1813	1728	1702	1585
Q Serve(g_s), s	6.9	13.0	3.2	6.4	25.1	2.3	6.9	11.5	11.6	2.5	23.8	0.0
Cycle Q Clear(g_c), s	6.9	13.0	3.2	6.4	25.1	2.3	6.9	11.5	11.6	2.5	23.8	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.17	1.00		1.00
Lane Grp Cap(c), veh/h	260	853	378	246	839	372	259	1542	821	132	2124	
V/C Ratio(X)	0.78	0.52	0.14	0.77	0.91	0.10	0.78	0.33	0.33	0.56	0.61	
Avail Cap(c_a), veh/h	374	868	385	374	868	385	374	1542	821	346	2124	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.94	0.94	0.94	0.52	0.52	0.00
Uniform Delay (d), s/veh	54.5	39.6	35.9	54.7	44.6	35.9	54.5	21.1	21.1	56.7	27.4	0.0
Incr Delay (d2), s/veh	3.7	0.5	0.2	2.1	13.4	0.1	3.4	0.5	1.0	0.7	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.0	5.5	1.2	2.8	12.1	0.9	3.0	4.3	4.8	1.1	9.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.2	40.1	36.0	56.8	58.0	36.0	57.9	21.6	22.1	57.5	28.1	0.0
LnGrp LOS	E	D	D	E	E	D	E	C	C	E	C	
Approach Vol, veh/h		699			991			981			1368	A
Approach Delay, s/veh		45.1			56.9			29.2			29.7	
Approach LOS		D			E			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.0	56.9	14.0	35.0	9.6	61.4	13.6	35.5				
Change Period (Y+Rc), s	5.0	7.0	5.0	6.7	5.0	7.0	5.0	6.7				
Max Green Setting (Gmax), s	13.0	41.0	13.0	29.3	12.0	42.0	13.0	29.3				
Max Q Clear Time (g_c+10), s	10.0	25.8	8.9	27.1	4.5	13.6	8.4	15.0				
Green Ext Time (p_c), s	0.1	8.1	0.1	1.0	0.0	5.6	0.1	2.3				

Intersection Summary

HCM 6th Ctrl Delay	38.9
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
 Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
 9: Monterey Ave & Frank Sinatra Dr

Rancho Monterey Traffic Study with Alternative 1
 Future Year plus Alternative 1 AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖↗	↑↑	↖	↖↗	↑↑↖↗		↖↗	↑↑↑	↖
Traffic Volume (veh/h)	43	296	223	271	730	90	89	807	81	72	1499	81
Future Volume (veh/h)	43	296	223	271	730	90	89	807	81	72	1499	81
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	45	312	122	285	768	95	94	849	78	76	1578	42
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	112	667	295	338	900	399	144	2405	220	133	2564	793
Arrive On Green	0.03	0.19	0.19	0.10	0.25	0.25	0.04	0.51	0.51	0.04	0.50	0.50
Sat Flow, veh/h	3456	3554	1572	3456	3554	1576	3456	4759	435	3456	5106	1580
Grp Volume(v), veh/h	45	312	122	285	768	95	94	606	321	76	1578	42
Grp Sat Flow(s),veh/h/ln	1728	1777	1572	1728	1777	1576	1728	1702	1790	1728	1702	1580
Q Serve(g_s), s	1.5	9.4	8.2	9.7	24.7	5.8	3.2	12.9	13.0	2.6	26.7	1.6
Cycle Q Clear(g_c), s	1.5	9.4	8.2	9.7	24.7	5.8	3.2	12.9	13.0	2.6	26.7	1.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.24	1.00		1.00
Lane Grp Cap(c), veh/h	112	667	295	338	900	399	144	1720	905	133	2564	793
V/C Ratio(X)	0.40	0.47	0.41	0.84	0.85	0.24	0.65	0.35	0.35	0.57	0.62	0.05
Avail Cap(c_a), veh/h	144	1036	459	346	1273	565	144	1720	905	173	2564	793
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.94	0.94	0.94	0.73	0.73	0.73
Uniform Delay (d), s/veh	56.9	43.4	42.9	53.2	42.7	35.6	56.7	17.9	17.9	56.7	21.5	15.3
Incr Delay (d2), s/veh	0.9	0.2	0.3	15.8	3.0	0.1	7.7	0.5	1.0	1.1	0.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	4.0	3.1	4.8	10.6	2.1	1.5	4.7	5.1	1.1	9.8	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.8	43.6	43.3	69.1	45.7	35.7	64.3	18.4	18.9	57.8	22.3	15.4
LnGrp LOS	E	D	D	E	D	D	E	B	B	E	C	B
Approach Vol, veh/h		479			1148			1021			1696	
Approach Delay, s/veh		44.8			50.7			22.8			23.8	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.0	66.7	7.9	36.4	8.6	67.1	15.7	28.5				
Change Period (Y+Rc), s	4.0	6.5	4.0	* 6	4.0	6.5	4.0	6.0				
Max Green Setting (Gmax), s	47.5	47.5	5.0	* 43	6.0	46.5	12.0	35.0				
Max Q Clear Time (g_c+1/2), s	28.7	28.7	3.5	26.7	4.6	15.0	11.7	11.4				
Green Ext Time (p_c), s	0.0	6.8	0.0	2.8	0.0	3.4	0.0	1.3				

Intersection Summary

HCM 6th Ctrl Delay	33.0
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
 * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
10: Monterey Ave & Country Club Dr

Rancho Monterey Traffic Study with Alternative 1
Future Year plus Alternative 1 AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑↑	↔	↔↔	↑↑↑	↔	↔↔	↑↑↑	↔	↔↔	↑↑↑	↔
Traffic Volume (veh/h)	91	318	119	215	927	180	267	622	78	297	1304	223
Future Volume (veh/h)	91	318	119	215	927	180	267	622	78	297	1304	223
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	96	335	0	226	976	0	281	655	31	313	1373	109
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	193	999		281	1128		336	2071	641	346	2086	645
Arrive On Green	0.06	0.20	0.00	0.08	0.22	0.00	0.10	0.41	0.41	0.10	0.41	0.41
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	3456	5106	1579	3456	5106	1579
Grp Volume(v), veh/h	96	335	0	226	976	0	281	655	31	313	1373	109
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1585	1728	1702	1579	1728	1702	1579
Q Serve(g_s), s	3.2	6.8	0.0	7.7	22.1	0.0	9.6	10.5	1.4	10.8	26.1	5.3
Cycle Q Clear(g_c), s	3.2	6.8	0.0	7.7	22.1	0.0	9.6	10.5	1.4	10.8	26.1	5.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	193	999		281	1128		336	2071	641	346	2086	645
V/C Ratio(X)	0.50	0.34		0.81	0.87		0.84	0.32	0.05	0.91	0.66	0.17
Avail Cap(c_a), veh/h	259	1332		346	1459		432	2071	641	346	2086	645
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.70	0.70	0.70
Uniform Delay (d), s/veh	55.0	41.5	0.0	54.2	45.0	0.0	53.2	24.3	21.6	53.4	28.7	22.6
Incr Delay (d2), s/veh	0.7	0.1	0.0	8.7	3.8	0.0	8.8	0.4	0.1	19.8	1.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4	2.8	0.0	3.6	9.3	0.0	4.4	4.0	0.5	5.4	10.1	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.7	41.6	0.0	62.9	48.8	0.0	62.0	24.7	21.8	73.2	29.9	22.9
LnGrp LOS	E	D		E	D		E	C	C	E	C	C
Approach Vol, veh/h		431	A		1202	A		967			1795	
Approach Delay, s/veh		44.8			51.5			35.5			37.0	
Approach LOS		D			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.0	56.1	15.7	30.2	17.7	56.4	12.7	33.2				
Change Period (Y+Rc), s	6.0	7.4	6.0	6.7	6.0	7.4	6.0	6.7				
Max Green Setting (Gmax), s	12.0	38.6	12.0	31.3	15.0	35.6	9.0	34.3				
Max Q Clear Time (g_c+I), s	12.0	12.5	9.7	8.8	11.6	28.1	5.2	24.1				
Green Ext Time (p_c), s	0.0	1.3	0.0	0.7	0.1	2.3	0.0	1.8				

Intersection Summary

HCM 6th Ctrl Delay	41.4
HCM 6th LOS	D

Notes

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
1: Varner Rd & Monterey Ave

Rancho Monterey Traffic Study with Alternative 1
Future Year plus Alternative 1 PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	110	229	624	237	222	408	497	137	67	402	8
Future Volume (veh/h)	23	110	229	624	237	222	408	497	137	67	402	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	24	116	23	657	249	90	429	523	0	71	423	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	90	312	132	713	639	225	776	1522		148	986	
Arrive On Green	0.05	0.08	0.08	0.21	0.25	0.25	0.22	0.43	0.00	0.08	0.28	0.00
Sat Flow, veh/h	1781	3741	1585	3456	2573	905	3456	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	24	116	23	657	170	169	429	523	0	71	423	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1728	1777	1701	1728	1777	1585	1781	1777	1585
Q Serve(g_s), s	1.6	3.5	1.6	22.4	9.5	10.0	13.2	11.8	0.0	4.6	11.7	0.0
Cycle Q Clear(g_c), s	1.6	3.5	1.6	22.4	9.5	10.0	13.2	11.8	0.0	4.6	11.7	0.0
Prop In Lane	1.00		1.00	1.00		0.53	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	90	312	132	713	441	422	776	1522		148	986	
V/C Ratio(X)	0.27	0.37	0.17	0.92	0.39	0.40	0.55	0.34		0.48	0.43	
Avail Cap(c_a), veh/h	163	533	226	803	503	482	776	1522		163	986	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	54.8	52.0	51.2	46.7	37.5	37.7	41.2	23.0	0.0	52.5	35.6	0.0
Incr Delay (d2), s/veh	0.6	0.7	0.6	14.1	0.6	0.6	0.7	0.6	0.0	0.9	1.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.6	0.6	10.5	4.0	4.0	5.4	4.7	0.0	2.0	5.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.4	52.8	51.8	60.8	38.0	38.3	41.9	23.6	0.0	53.4	36.9	0.0
LnGrp LOS	E	D	D	E	D	D	D	C		D	D	
Approach Vol, veh/h		163			996			952	A		494	A
Approach Delay, s/veh		53.0			53.1			31.9			39.3	
Approach LOS		D			D			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.4	57.6	31.2	15.8	33.2	39.8	10.8	36.3				
Change Period (Y+Rc), s	5.4	6.2	6.5	* 5.8	6.2	* 6.5	* 4.7	6.5				
Max Green Setting (Gmax), s	11.0	41.2	27.9	* 17	18.9	* 33	* 11	34.0				
Max Q Clear Time (g_c+I1), s	6.6	13.8	24.4	5.5	15.2	13.7	3.6	12.0				
Green Ext Time (p_c), s	0.0	3.1	0.4	0.4	0.4	2.3	0.0	1.6				

Intersection Summary

HCM 6th Ctrl Delay	42.7
HCM 6th LOS	D

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
 2: Monterey Ave & I-10 EB Ramps

Rancho Monterey Traffic Study with Alternative 1
 Future Year plus Alternative 1 PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	2	855	0	0	0	0	1840	852	173	1035	0
Future Volume (veh/h)	45	2	855	0	0	0	0	1840	852	173	1035	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	31	0	770				0	1897	430	178	1067	0
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	489	0	870				0	2667	828	233	2235	0
Arrive On Green	0.27	0.00	0.27				0.00	0.69	0.69	0.07	0.63	0.00
Sat Flow, veh/h	1781	0	3170				0	5274	1585	3456	3647	0
Grp Volume(v), veh/h	31	0	770				0	1897	430	178	1067	0
Grp Sat Flow(s),veh/h/ln	1781	0	1585				0	1702	1585	1728	1777	0
Q Serve(g_s), s	1.5	0.0	27.9				0.0	26.9	15.6	6.1	19.1	0.0
Cycle Q Clear(g_c), s	1.5	0.0	27.9				0.0	26.9	15.6	6.1	19.1	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	489	0	870				0	2667	828	233	2235	0
V/C Ratio(X)	0.06	0.00	0.88				0.00	0.71	0.52	0.76	0.48	0.00
Avail Cap(c_a), veh/h	582	0	1036				0	2667	828	251	2235	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.33	1.33	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00				0.00	0.44	0.44	1.00	1.00	0.00
Uniform Delay (d), s/veh	32.1	0.0	41.7				0.0	12.9	11.1	55.0	11.8	0.0
Incr Delay (d2), s/veh	0.1	0.0	8.5				0.0	0.7	1.0	12.3	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	11.9				0.0	6.6	4.3	3.0	6.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.2	0.0	50.2				0.0	13.6	12.2	67.3	12.5	0.0
LnGrp LOS	C	A	D				A	B	B	E	B	A
Approach Vol, veh/h		801						2327			1245	
Approach Delay, s/veh		49.5						13.3			20.4	
Approach LOS		D						B			C	
Timer - Assigned Phs	1	2	4	6								
Phs Duration (G+Y+Rc), s	62.8	68.5	38.7	81.3								
Change Period (Y+Rc), s	4.7	5.8	5.8	5.8								
Max Green Setting (Gmax), s	60.7	55.8	39.2	69.2								
Max Q Clear Time (g_c+10), s	10.5	28.9	29.9	21.1								
Green Ext Time (p_c), s	0.0	17.5	3.0	8.5								

Intersection Summary

HCM 6th Ctrl Delay	22.0
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.
 * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary 3: Key Largo Ave & Dinah Shore Dr

Rancho Monterey Traffic Study with Alternative 1
Future Year plus Alternative 1 PM Peak Hour



Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	⇐ ↑↑↑			⇐ ↑↑↑		⇐ ↑	⇐ ↑
Traffic Volume (veh/h)	10	1003	157	149	986	71	198
Future Volume (veh/h)	10	1003	157	149	986	71	198
Initial Q (Qb), veh		0	0	0	0	0	0
Ped-Bike Adj(A_pbT)			0.99	1.00		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No	No		
Adj Sat Flow, veh/h/ln		1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h		1045	138	155	1027	74	37
Peak Hour Factor		0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %		2	2	2	2	2	2
Cap, veh/h		1636	216	198	1670	163	145
Arrive On Green		0.36	0.36	0.11	0.33	0.09	0.09
Sat Flow, veh/h		4728	601	1781	5274	1781	1585
Grp Volume(v), veh/h		780	403	155	1027	74	37
Grp Sat Flow(s),veh/h/ln		1702	1757	1781	1702	1781	1585
Q Serve(g_s), s		7.2	7.2	3.2	6.4	1.5	0.8
Cycle Q Clear(g_c), s		7.2	7.2	3.2	6.4	1.5	0.8
Prop In Lane			0.34	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		1221	630	198	1670	163	145
V/C Ratio(X)		0.64	0.64	0.78	0.62	0.46	0.26
Avail Cap(c_a), veh/h		2217	1145	332	3597	1279	1138
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		10.0	10.0	16.3	10.7	16.2	15.9
Incr Delay (d2), s/veh		0.2	0.4	2.5	0.1	0.7	0.3
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		1.4	1.5	1.0	1.3	0.5	0.2
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		10.2	10.4	18.8	10.8	16.9	16.2
LnGrp LOS		B	B	B	B	B	B
Approach Vol, veh/h		1183			1182	111	
Approach Delay, s/veh		10.3			11.9	16.7	
Approach LOS		B			B	B	
Timer - Assigned Phs			3	4		6	8
Phs Duration (G+Y+Rc), s			9.2	20.0		8.4	18.8
Change Period (Y+Rc), s			5.0	6.5		5.0	6.5
Max Green Setting (Gmax), s			7.0	24.5		27.0	26.5
Max Q Clear Time (g_c+I1), s			5.2	9.2		3.5	8.4
Green Ext Time (p_c), s			0.0	4.0		0.1	3.9

Intersection Summary

HCM 6th Ctrl Delay	11.3
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.

HCM 6th Signalized Intersection Summary
4: Monterey Ave & Dinah Shore Dr

Rancho Monterey Traffic Study with Alternative 1
Future Year plus Alternative 1 PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖	↑↑	↖	↖↗	↑↑↖		↖↗	↑↑↑	↖
Traffic Volume (veh/h)	792	388	311	111	388	597	377	1482	76	315	1154	430
Future Volume (veh/h)	792	388	311	111	388	597	377	1482	76	315	1154	430
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	808	396	93	113	396	0	385	1512	74	321	1178	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	856	1062	673	138	456		440	1664	81	378	1612	
Arrive On Green	0.25	0.30	0.30	0.08	0.13	0.00	0.13	0.33	0.33	0.04	0.10	0.00
Sat Flow, veh/h	3456	3554	1577	1781	3554	1585	3456	4985	244	3456	5106	1585
Grp Volume(v), veh/h	808	396	93	113	396	0	385	1032	554	321	1178	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1577	1781	1777	1585	1728	1702	1825	1728	1702	1585
Q Serve(g_s), s	27.6	10.6	4.3	7.5	13.1	0.0	13.1	34.8	34.8	11.1	26.8	0.0
Cycle Q Clear(g_c), s	27.6	10.6	4.3	7.5	13.1	0.0	13.1	34.8	34.8	11.1	26.8	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.13	1.00		1.00
Lane Grp Cap(c), veh/h	856	1062	673	138	456		440	1136	609	378	1612	
V/C Ratio(X)	0.94	0.37	0.14	0.82	0.87		0.87	0.91	0.91	0.85	0.73	
Avail Cap(c_a), veh/h	893	1062	673	178	483		605	1136	609	403	1612	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	0.68	0.68	0.68	1.00	1.00	0.00	1.00	1.00	1.00	0.76	0.76	0.00
Uniform Delay (d), s/veh	44.3	33.2	21.0	54.5	51.3	0.0	51.4	38.2	38.2	56.9	48.8	0.0
Incr Delay (d2), s/veh	13.1	0.1	0.0	16.2	14.0	0.0	8.2	12.2	19.8	11.0	2.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.8	4.4	1.5	3.9	6.6	0.0	6.0	15.6	18.0	5.6	12.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.4	33.3	21.0	70.7	65.3	0.0	59.7	50.4	58.1	67.9	51.1	0.0
LnGrp LOS	E	C	C	E	E		E	D	E	E	D	
Approach Vol, veh/h		1297			509	A		1971			1499	A
Approach Delay, s/veh		47.4			66.5			54.4			54.7	
Approach LOS		D			E			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	44.3	41.5	20.3	43.9	34.7	21.1	18.1	46.1				
Change Period (Y+Rc), s	5.0	5.7	5.0	6.0	5.0	5.7	5.0	6.0				
Max Green Setting (Gmax), s	42.0	35.3	21.0	30.0	31.0	16.3	14.0	37.0				
Max Q Clear Time (g_c+19.5), s	19.5	12.6	15.1	28.8	29.6	15.1	13.1	36.8				
Green Ext Time (p_c), s	0.0	0.8	0.2	0.5	0.2	0.1	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay	53.9
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th TWSC
5: Monterey Ave & Proposed Roadway Connection

Rancho Monterey Traffic Study with Alternative 1
Future Year plus Alternative 1 PM Peak Hour

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑↑	
Traffic Vol, veh/h	0	64	0	1689	1269	138
Future Vol, veh/h	0	64	0	1689	1269	138
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	67	0	1778	1336	145

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	-	741	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	7.14	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.92	-
Pot Cap-1 Maneuver	0	308	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %			-
Mov Cap-1 Maneuver	-	308	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	19.9	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT EBLn1	SBT	SBR
Capacity (veh/h)	-	308	-
HCM Lane V/C Ratio	-	0.219	-
HCM Control Delay (s)	-	19.9	-
HCM Lane LOS	-	C	-
HCM 95th %tile Q(veh)	-	0.8	-

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study with Alternative 1
 6: Proposed Project Access Driveway & Monterey Ave Future Year plus Alternative 1 PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	115	0	58	0	0	166	97	1408	139	130	1161	42
Future Volume (veh/h)	115	0	58	0	0	166	97	1408	139	130	1161	42
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	121	0	14	0	0	39	102	1482	137	137	1222	43
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	323	0	241	143	0	241	135	2273	210	177	1757	62
Arrive On Green	0.15	0.00	0.15	0.00	0.00	0.15	0.08	0.48	0.48	0.10	0.50	0.50
Sat Flow, veh/h	1357	0	1570	1400	0	1570	1781	4753	439	1781	3501	123
Grp Volume(v), veh/h	121	0	14	0	0	39	102	1061	558	137	620	645
Grp Sat Flow(s),veh/h/ln	1357	0	1570	1400	0	1570	1781	1702	1789	1781	1777	1847
Q Serve(g_s), s	4.3	0.0	0.4	0.0	0.0	1.1	2.8	11.9	11.9	3.8	13.4	13.4
Cycle Q Clear(g_c), s	5.3	0.0	0.4	0.0	0.0	1.1	2.8	11.9	11.9	3.8	13.4	13.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.25	1.00		0.07
Lane Grp Cap(c), veh/h	323	0	241	143	0	241	135	1628	855	177	892	927
V/C Ratio(X)	0.37	0.00	0.06	0.00	0.00	0.16	0.76	0.65	0.65	0.78	0.70	0.70
Avail Cap(c_a), veh/h	1168	0	1219	1015	0	1219	223	2305	1211	302	1281	1332
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.8	0.0	18.1	0.0	0.0	18.4	22.8	9.9	9.9	22.1	9.6	9.6
Incr Delay (d2), s/veh	0.7	0.0	0.1	0.0	0.0	0.3	8.4	0.4	0.8	7.1	1.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	0.1	0.0	0.0	0.4	1.3	2.6	2.8	1.6	3.1	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.5	0.0	18.2	0.0	0.0	18.7	31.1	10.4	10.8	29.2	10.6	10.5
LnGrp LOS	C	A	B	A	A	B	C	B	B	C	B	B
Approach Vol, veh/h		135			39			1721			1402	
Approach Delay, s/veh		21.1			18.7			11.7			12.4	
Approach LOS		C			B			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.5	28.5		12.2	8.3	29.7		12.2				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	8.5	34.0		39.0	6.3	36.2		39.0				
Max Q Clear Time (g_c+I1), s	5.8	13.9		7.3	4.8	15.4		3.1				
Green Ext Time (p_c), s	0.1	10.1		0.4	0.0	7.5		0.2				

Intersection Summary

HCM 6th Ctrl Delay	12.5
HCM 6th LOS	B

HCM 6th Signalized Intersection Summary

7: Monterey Ave & Dick Kelly Dr

Rancho Monterey Traffic Study with Alternative 1

Future Year plus Alternative 1 PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Volume (veh/h)	22	17	137	170	12	73	10	201	1549	114	42	1139	38
Future Volume (veh/h)	22	17	137	170	12	73	10	201	1549	114	42	1139	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		0.99	1.00		0.99	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	23	18	35	177	12	19	209	1614	69	44	1186	39	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	375	116	226	355	134	212	254	2519	778	91	1333	44	
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.14	0.49	0.49	0.05	0.38	0.38	
Sat Flow, veh/h	1369	565	1098	1343	649	1028	1781	5106	1577	1781	3510	115	
Grp Volume(v), veh/h	23	0	53	177	0	31	209	1614	69	44	600	625	
Grp Sat Flow(s),veh/h/ln	1369	0	1663	1343	0	1677	1781	1702	1577	1781	1777	1849	
Q Serve(g_s), s	0.9	0.0	1.7	7.9	0.0	1.0	7.3	14.9	1.5	1.5	20.1	20.2	
Cycle Q Clear(g_c), s	1.8	0.0	1.7	9.6	0.0	1.0	7.3	14.9	1.5	1.5	20.1	20.2	
Prop In Lane	1.00		0.66	1.00		0.61	1.00		1.00	1.00		0.06	
Lane Grp Cap(c), veh/h	375	0	343	355	0	346	254	2519	778	91	675	702	
V/C Ratio(X)	0.06	0.00	0.15	0.50	0.00	0.09	0.82	0.64	0.09	0.48	0.89	0.89	
Avail Cap(c_a), veh/h	933	0	1021	902	0	1029	475	4490	1387	252	1339	1393	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	21.2	0.0	20.7	24.7	0.0	20.4	26.5	12.0	8.5	29.4	18.5	18.5	
Incr Delay (d2), s/veh	0.1	0.0	0.2	1.1	0.0	0.1	2.6	0.1	0.0	1.5	1.7	1.6	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.6	2.3	0.0	0.3	2.8	3.9	0.4	0.6	6.6	6.9	
Unsig. Movement Delay, s/veh													
LnGrp Delay(d),s/veh	21.3	0.0	20.9	25.8	0.0	20.6	29.1	12.1	8.6	30.9	20.2	20.1	
LnGrp LOS	C	A	C	C	A	C	C	B	A	C	C	C	
Approach Vol, veh/h		76			208			1892			1269		
Approach Delay, s/veh		21.0			25.0			13.8			20.5		
Approach LOS		C			C			B			C		
Timer - Assigned Phs	1	2		4	5	6		8					
Phs Duration (G+Y+Rc), s	15.5	30.6		17.6	8.2	37.8		17.6					
Change Period (Y+Rc), s	6.4	* 6.4		4.5	5.0	6.4		4.5					
Max Green Setting (Gmax), s	48	* 48		39.1	9.0	56.0		39.1					
Max Q Clear Time (g_c+1/3), s	22.2			3.8	3.5	16.9		11.6					
Green Ext Time (p_c), s	0.0	1.9		0.3	0.0	4.0		0.6					

Intersection Summary

HCM 6th Ctrl Delay	17.1
HCM 6th LOS	B

Notes

User approved ignoring U-Turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

8: Monterey Ave & Gerald Ford Dr

Rancho Monterey Traffic Study with Alternative 1

Future Year plus Alternative 1 PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖↗	↑↑	↖	↖↗	↑↑↖		↖↗	↑↑↑	↖
Traffic Volume (veh/h)	265	568	232	141	432	154	235	1405	124	120	1031	220
Future Volume (veh/h)	265	568	232	141	432	154	235	1405	124	120	1031	220
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	276	592	57	147	450	32	245	1464	123	125	1074	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	333	737	326	204	604	267	300	2323	195	180	2294	
Arrive On Green	0.10	0.21	0.21	0.06	0.17	0.17	0.09	0.48	0.48	0.05	0.45	0.00
Sat Flow, veh/h	3456	3554	1574	3456	3554	1571	3456	4797	403	3456	5106	1585
Grp Volume(v), veh/h	276	592	57	147	450	32	245	1039	548	125	1074	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1574	1728	1777	1571	1728	1702	1796	1728	1702	1585
Q Serve(g_s), s	9.4	19.0	3.6	5.0	14.4	2.1	8.4	27.2	27.2	4.3	17.6	0.0
Cycle Q Clear(g_c), s	9.4	19.0	3.6	5.0	14.4	2.1	8.4	27.2	27.2	4.3	17.6	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.22	1.00		1.00
Lane Grp Cap(c), veh/h	333	737	326	204	604	267	300	1648	870	180	2294	
V/C Ratio(X)	0.83	0.80	0.17	0.72	0.74	0.12	0.82	0.63	0.63	0.69	0.47	
Avail Cap(c_a), veh/h	403	927	410	374	897	397	346	1648	870	346	2294	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.60	0.60	0.60	0.40	0.40	0.00
Uniform Delay (d), s/veh	53.3	45.2	39.1	55.5	47.3	42.2	53.8	23.0	23.0	55.9	23.0	0.0
Incr Delay (d2), s/veh	9.8	4.1	0.3	1.8	1.9	0.2	6.8	1.1	2.1	0.7	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	8.5	1.4	2.2	6.2	0.8	3.8	10.1	10.9	1.8	6.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.1	49.4	39.4	57.3	49.2	42.4	60.7	24.1	25.1	56.7	23.3	0.0
LnGrp LOS	E	D	D	E	D	D	E	C	C	E	C	
Approach Vol, veh/h		925			629			1832			1199	A
Approach Delay, s/veh		52.8			50.7			29.3			26.8	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.4	60.9	16.5	27.1	11.3	65.1	12.1	31.6				
Change Period (Y+Rc), s	5.0	7.0	5.0	6.7	5.0	7.0	5.0	6.7				
Max Green Setting (Gmax), s	12.0	40.0	14.0	30.3	12.0	40.0	13.0	31.3				
Max Q Clear Time (g_c+10), s	10.4	19.6	11.4	16.4	6.3	29.2	7.0	21.0				
Green Ext Time (p_c), s	0.1	7.8	0.1	2.2	0.1	7.4	0.1	2.7				

Intersection Summary

HCM 6th Ctrl Delay	36.3
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
 Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
9: Monterey Ave & Frank Sinatra Dr

Rancho Monterey Traffic Study with Alternative 1
Future Year plus Alternative 1 PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑	↔	↔↔	↑↑	↔	↔↔	↑↑↑		↔↔	↑↑↑	↔
Traffic Volume (veh/h)	164	672	133	172	389	85	162	1497	202	101	1259	68
Future Volume (veh/h)	164	672	133	172	389	85	162	1497	202	101	1259	68
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	173	707	56	181	409	89	171	1576	200	106	1325	32
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	228	792	351	236	800	355	226	2258	286	158	2413	747
Arrive On Green	0.07	0.22	0.22	0.07	0.23	0.23	0.07	0.49	0.49	0.05	0.47	0.47
Sat Flow, veh/h	3456	3554	1574	3456	3554	1574	3456	4587	581	3456	5106	1580
Grp Volume(v), veh/h	173	707	56	181	409	89	171	1169	607	106	1325	32
Grp Sat Flow(s),veh/h/ln	1728	1777	1574	1728	1777	1574	1728	1702	1764	1728	1702	1580
Q Serve(g_s), s	5.9	23.2	3.4	6.2	12.1	5.6	5.8	31.9	32.0	3.6	22.2	1.3
Cycle Q Clear(g_c), s	5.9	23.2	3.4	6.2	12.1	5.6	5.8	31.9	32.0	3.6	22.2	1.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.33	1.00		1.00
Lane Grp Cap(c), veh/h	228	792	351	236	800	355	226	1676	868	158	2413	747
V/C Ratio(X)	0.76	0.89	0.16	0.77	0.51	0.25	0.76	0.70	0.70	0.67	0.55	0.04
Avail Cap(c_a), veh/h	317	859	380	317	888	394	317	1676	868	317	2413	747
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.68	0.68	0.68	0.85	0.85	0.85
Uniform Delay (d), s/veh	55.1	45.2	37.6	55.0	40.7	38.2	55.1	23.6	23.6	56.4	22.5	17.0
Incr Delay (d2), s/veh	4.0	10.5	0.1	5.1	0.2	0.1	2.5	1.7	3.2	1.6	0.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	10.9	1.3	2.8	5.1	2.1	2.5	11.9	12.7	1.6	8.3	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.1	55.7	37.6	60.0	40.9	38.3	57.6	25.2	26.8	57.9	23.3	17.1
LnGrp LOS	E	E	D	E	D	D	E	C	C	E	C	B
Approach Vol, veh/h		936			679			1947			1463	
Approach Delay, s/veh		55.2			45.7			28.6			25.7	
Approach LOS		E			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.9	63.2	11.9	33.0	9.5	65.6	12.2	32.7				
Change Period (Y+Rc), s	4.0	6.5	4.0	* 6	4.0	6.5	4.0	6.0				
Max Green Setting (Gmax), s	48.5	11.0	* 30	11.0	48.5	11.0	29.0					
Max Q Clear Time (g_c+1T), s	24.2	7.9	14.1	5.6	34.0	8.2	25.2					
Green Ext Time (p_c), s	0.0	5.8	0.0	1.5	0.0	6.4	0.0	1.2				

Intersection Summary

HCM 6th Ctrl Delay	35.0
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
10: Monterey Ave & Country Club Dr

Rancho Monterey Traffic Study with Alternative 1
Future Year plus Alternative 1 PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖
Traffic Volume (veh/h)	231	794	305	184	314	264	135	1331	146	303	1136	127
Future Volume (veh/h)	231	794	305	184	314	264	135	1331	146	303	1136	127
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	236	810	0	188	320	0	138	1358	57	309	1159	57
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	291	963		244	894		200	2138	661	362	2378	736
Arrive On Green	0.08	0.19	0.00	0.07	0.18	0.00	0.06	0.42	0.42	0.10	0.47	0.47
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	3456	5106	1579	3456	5106	1580
Grp Volume(v), veh/h	236	810	0	188	320	0	138	1358	57	309	1159	57
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1585	1728	1702	1579	1728	1702	1580
Q Serve(g_s), s	8.1	18.4	0.0	6.4	6.6	0.0	4.7	25.3	2.6	10.6	18.8	2.4
Cycle Q Clear(g_c), s	8.1	18.4	0.0	6.4	6.6	0.0	4.7	25.3	2.6	10.6	18.8	2.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	291	963		244	894		200	2138	661	362	2378	736
V/C Ratio(X)	0.81	0.84		0.77	0.36		0.69	0.64	0.09	0.85	0.49	0.08
Avail Cap(c_a), veh/h	346	1332		432	1459		432	2138	661	374	2378	736
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.80	0.80	0.80
Uniform Delay (d), s/veh	54.0	47.0	0.0	54.8	43.6	0.0	55.5	27.6	21.0	52.8	22.2	17.8
Incr Delay (d2), s/veh	10.0	2.7	0.0	2.0	0.1	0.0	1.6	1.5	0.3	13.2	0.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.8	7.7	0.0	2.8	2.7	0.0	2.0	9.8	1.0	5.0	7.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.0	49.6	0.0	56.8	43.7	0.0	57.1	29.1	21.3	66.0	22.7	17.9
LnGrp LOS	E	D		E	D		E	C	C	E	C	B
Approach Vol, veh/h		1046	A		508	A		1553			1525	
Approach Delay, s/veh		52.9			48.5			31.3			31.3	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.6	57.6	14.5	29.3	12.9	63.3	16.1	27.7				
Change Period (Y+Rc), s	6.0	7.4	6.0	6.7	6.0	7.4	6.0	6.7				
Max Green Setting (Gmax), s	13.0	34.6	15.0	31.3	15.0	32.6	12.0	34.3				
Max Q Clear Time (g_c+M), s	12.6	27.3	8.4	20.4	6.7	20.8	10.1	8.6				
Green Ext Time (p_c), s	0.0	2.2	0.1	1.5	0.0	2.2	0.0	0.6				

Intersection Summary

HCM 6th Ctrl Delay	38.1
HCM 6th LOS	D

Notes

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study plus Alternative 2
 1: Varner Rd & Monterey Ave Future Year (2040) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	126	379	923	322	168	218	156	70	177	564	12
Future Volume (veh/h)	13	126	379	923	322	168	218	156	70	177	564	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	14	133	59	972	339	125	229	164	0	186	594	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	61	312	132	1031	910	330	452	1064		213	992	
Arrive On Green	0.03	0.08	0.08	0.30	0.36	0.36	0.13	0.30	0.00	0.12	0.28	0.00
Sat Flow, veh/h	1781	3741	1585	3456	2552	924	3456	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	14	133	59	972	234	230	229	164	0	186	594	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1728	1777	1699	1728	1777	1585	1781	1777	1585
Q Serve(g_s), s	0.9	4.1	4.3	32.9	11.7	12.1	7.4	4.1	0.0	12.3	17.4	0.0
Cycle Q Clear(g_c), s	0.9	4.1	4.3	32.9	11.7	12.1	7.4	4.1	0.0	12.3	17.4	0.0
Prop In Lane	1.00		1.00	1.00		0.54	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	61	312	132	1031	634	606	452	1064		213	992	
V/C Ratio(X)	0.23	0.43	0.45	0.94	0.37	0.38	0.51	0.15		0.87	0.60	
Avail Cap(c_a), veh/h	168	349	148	1181	634	606	452	1064		341	992	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	56.4	52.3	52.4	41.1	28.6	28.7	48.6	30.9	0.0	51.9	37.4	0.0
Incr Delay (d2), s/veh	0.7	0.9	2.4	12.9	0.1	0.1	0.7	0.3	0.0	8.2	2.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.9	1.7	15.0	4.7	4.7	3.1	1.7	0.0	5.8	7.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.1	53.2	54.7	54.0	28.7	28.9	49.3	31.2	0.0	60.1	40.1	0.0
LnGrp LOS	E	D	D	D	C	C	D	C		E	D	
Approach Vol, veh/h		206			1436			393	A		780	A
Approach Delay, s/veh		53.9			45.8			41.7			44.9	
Approach LOS		D			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	19.8	42.1	42.3	15.8	21.9	40.0	8.8	49.3				
Change Period (Y+Rc), s	5.4	6.2	6.5	* 5.8	6.2	* 6.5	* 4.7	6.5				
Max Green Setting (Gmax), s	23.0	22.0	41.0	* 11	11.5	* 34	* 11	40.9				
Max Q Clear Time (g_c+I1), s	14.3	6.1	34.9	6.3	9.4	19.4	2.9	14.1				
Green Ext Time (p_c), s	0.1	0.7	0.9	0.3	0.1	3.0	0.0	1.4				

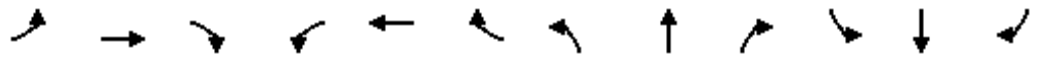
Intersection Summary

HCM 6th Ctrl Delay	45.6
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.
 * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
 Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study plus Alternative 2
 2: Monterey Ave & I-10 EB Ramps Future Year (2040) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	12	1049	0	0	0	0	805	517	198	1552	0
Future Volume (veh/h)	55	12	1049	0	0	0	0	805	517	198	1552	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	43	0	1083				0	847	197	208	1634	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	730	0	1300				0	1838	571	325	1753	0
Arrive On Green	0.41	0.00	0.41				0.00	0.12	0.12	0.09	0.49	0.00
Sat Flow, veh/h	1781	0	3170				0	5274	1585	3456	3647	0
Grp Volume(v), veh/h	43	0	1083				0	847	197	208	1634	0
Grp Sat Flow(s),veh/h/ln	1781	0	1585				0	1702	1585	1728	1777	0
Q Serve(g_s), s	1.8	0.0	36.7				0.0	18.6	13.7	7.0	51.8	0.0
Cycle Q Clear(g_c), s	1.8	0.0	36.7				0.0	18.6	13.7	7.0	51.8	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	730	0	1300				0	1838	571	325	1753	0
V/C Ratio(X)	0.06	0.00	0.83				0.00	0.46	0.35	0.64	0.93	0.00
Avail Cap(c_a), veh/h	730	0	1300				0	1838	571	325	1753	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.83	0.83	1.00	1.00	0.00
Uniform Delay (d), s/veh	21.4	0.0	31.7				0.0	42.0	39.9	52.4	28.5	0.0
Incr Delay (d2), s/veh	0.2	0.0	6.4				0.0	0.7	1.4	9.3	10.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	14.9				0.0	8.5	5.9	3.3	22.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.6	0.0	38.1				0.0	42.7	41.3	61.7	39.0	0.0
LnGrp LOS	C	A	D				A	D	D	E	D	A
Approach Vol, veh/h		1126						1044			1842	
Approach Delay, s/veh		37.5						42.4			41.6	
Approach LOS		D						D			D	
Timer - Assigned Phs	1	2		4				6				
Phs Duration (G+Y+Rc), s	16.0	49.0		55.0				65.0				
Change Period (Y+Rc), s	* 4.7	5.8		5.8				5.8				
Max Green Setting (Gmax), s	* 11	43.2		49.2				59.2				
Max Q Clear Time (g_c+I1), s	9.0	20.6		38.7				53.8				
Green Ext Time (p_c), s	0.1	5.9		4.7				4.2				

Intersection Summary

HCM 6th Ctrl Delay	40.6
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.
 * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

3: Key Largo Ave & Dinah Shore Dr

Rancho Monterey Traffic Study plus Alternative 2

Future Year (2040) - AM Peak Hour



Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↩	↑↑↑		↩	↑↑↑	↩	↩
Traffic Volume (veh/h)	10	878	79	133	601	89	280
Future Volume (veh/h)	10	878	79	133	601	89	280
Initial Q (Qb), veh		0	0	0	0	0	0
Ped-Bike Adj(A_pbT)			0.99	1.00		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No	No	
Adj Sat Flow, veh/h/ln		1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h		924	70	140	633	94	52
Peak Hour Factor		0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %		2	2	2	2	2	2
Cap, veh/h		1552	117	188	1177	192	171
Arrive On Green		0.32	0.32	0.11	0.23	0.11	0.11
Sat Flow, veh/h		5008	366	1781	5274	1781	1585
Grp Volume(v), veh/h		649	345	140	633	94	52
Grp Sat Flow(s),veh/h/ln		1702	1801	1781	1702	1781	1585
Q Serve(g_s), s		5.7	5.7	2.7	3.9	1.8	1.1
Cycle Q Clear(g_c), s		5.7	5.7	2.7	3.9	1.8	1.1
Prop In Lane			0.20	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		1092	578	188	1177	192	171
V/C Ratio(X)		0.59	0.60	0.74	0.54	0.49	0.30
Avail Cap(c_a), veh/h		2356	1247	352	3823	1359	1209
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		10.1	10.1	15.4	12.0	14.9	14.6
Incr Delay (d2), s/veh		0.2	0.4	2.2	0.1	0.7	0.4
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		1.1	1.2	0.8	0.9	0.6	0.3
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		10.3	10.5	17.6	12.1	15.6	14.9
LnGrp LOS		B	B	B	B	B	B
Approach Vol, veh/h		994			773	146	
Approach Delay, s/veh		10.4			13.1	15.4	
Approach LOS		B			B	B	
Timer - Assigned Phs			3	4		6	8
Phs Duration (G+Y+Rc), s			8.7	17.9		8.8	14.7
Change Period (Y+Rc), s			5.0	6.5		5.0	6.5
Max Green Setting (Gmax), s			7.0	24.5		27.0	26.5
Max Q Clear Time (g_c+I1), s			4.7	7.7		3.8	5.9
Green Ext Time (p_c), s			0.0	3.3		0.2	2.3
Intersection Summary							
HCM 6th Ctrl Delay			11.8				
HCM 6th LOS			B				

Notes

User approved pedestrian interval to be less than phase max green.
 User approved ignoring U-Turning movement.

HCM 6th Signalized Intersection Summary
4: Monterey Ave & Dinah Shore Dr

Rancho Monterey Traffic Study plus Alternative 2
Future Year (2040) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑	↗	↖	↑↑	↗	↔↔	↑↑↔		↔↔	↑↑↑	↗
Traffic Volume (veh/h)	500	346	238	88	296	366	154	693	93	371	1672	441
Future Volume (veh/h)	500	346	238	88	296	366	154	693	93	371	1672	441
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	526	364	55	93	312	0	162	729	86	391	1760	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	547	746	330	116	415		229	1915	224	452	2439	
Arrive On Green	0.16	0.21	0.21	0.07	0.12	0.00	0.07	0.41	0.41	0.04	0.16	0.00
Sat Flow, veh/h	3456	3554	1574	1781	3554	1585	3456	4632	542	3456	5106	1585
Grp Volume(v), veh/h	526	364	55	93	312	0	162	534	281	391	1760	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1574	1781	1777	1585	1728	1702	1770	1728	1702	1585
Q Serve(g_s), s	18.1	10.8	3.4	6.2	10.2	0.0	5.5	13.1	13.3	13.5	39.3	0.0
Cycle Q Clear(g_c), s	18.1	10.8	3.4	6.2	10.2	0.0	5.5	13.1	13.3	13.5	39.3	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.31	1.00		1.00
Lane Grp Cap(c), veh/h	547	746	330	116	415		229	1407	732	452	2439	
V/C Ratio(X)	0.96	0.49	0.17	0.80	0.75		0.71	0.38	0.38	0.87	0.72	
Avail Cap(c_a), veh/h	547	957	424	119	631		374	1407	732	691	2439	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	0.74	0.74	0.74	1.00	1.00	0.00	1.00	1.00	1.00	0.28	0.28	0.00
Uniform Delay (d), s/veh	50.1	41.7	38.8	55.3	51.3	0.0	54.9	24.5	24.5	56.4	43.0	0.0
Incr Delay (d2), s/veh	23.8	0.1	0.1	28.6	1.0	0.0	1.5	0.8	1.5	1.4	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.3	4.6	1.3	3.6	4.5	0.0	2.4	5.1	5.6	6.3	17.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.9	41.9	38.9	83.9	52.4	0.0	56.4	25.3	26.1	57.8	43.5	0.0
LnGrp LOS	E	D	D	F	D		E	C	C	E	D	
Approach Vol, veh/h		945			405	A		977			2151	A
Approach Delay, s/veh		59.5			59.6			30.7			46.1	
Approach LOS		E			E			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.8	30.9	13.0	63.3	24.0	19.7	20.7	55.6				
Change Period (Y+Rc), s	5.0	5.7	5.0	6.0	5.0	5.7	5.0	6.0				
Max Green Setting (Gmax), s	8.0	32.3	13.0	45.0	19.0	21.3	24.0	34.0				
Max Q Clear Time (g_c+I1), s	8.2	12.8	7.5	41.3	20.1	12.2	15.5	15.3				
Green Ext Time (p_c), s	0.0	0.7	0.0	1.9	0.0	0.5	0.2	1.5				

Intersection Summary

HCM 6th Ctrl Delay	46.8
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
 Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study plus Alternative 2
 6: Proposed Project Access Driveway & Monterey Ave Future Year (2040) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	0	9	0	0	16	28	857	81	64	1446	21
Future Volume (veh/h)	23	0	9	0	0	16	28	857	81	64	1446	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	24	0	2	0	0	2	29	902	79	67	1522	22
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	221	0	50	179	0	50	61	2718	237	117	2149	31
Arrive On Green	0.03	0.00	0.03	0.00	0.00	0.03	0.03	0.57	0.57	0.07	0.60	0.60
Sat Flow, veh/h	1415	0	1585	1415	0	1585	1781	4782	418	1781	3586	52
Grp Volume(v), veh/h	24	0	2	0	0	2	29	641	340	67	753	791
Grp Sat Flow(s),veh/h/ln	1415	0	1585	1415	0	1585	1781	1702	1795	1781	1777	1861
Q Serve(g_s), s	0.7	0.0	0.0	0.0	0.0	0.0	0.6	4.0	4.1	1.5	11.9	11.9
Cycle Q Clear(g_c), s	0.7	0.0	0.0	0.0	0.0	0.0	0.6	4.0	4.1	1.5	11.9	11.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.23	1.00		0.03
Lane Grp Cap(c), veh/h	221	0	50	179	0	50	61	1935	1020	117	1065	1115
V/C Ratio(X)	0.11	0.00	0.04	0.00	0.00	0.04	0.47	0.33	0.33	0.57	0.71	0.71
Avail Cap(c_a), veh/h	1546	0	1534	1503	0	1534	278	2871	1514	376	1596	1671
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.3	0.0	18.9	0.0	0.0	18.9	19.1	4.6	4.6	18.3	5.6	5.6
Incr Delay (d2), s/veh	0.2	0.0	0.3	0.0	0.0	0.3	5.6	0.1	0.2	4.4	0.9	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0	0.0	0.0	0.0	0.3	0.4	0.4	0.6	0.9	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.5	0.0	19.3	0.0	0.0	19.3	24.7	4.7	4.8	22.7	6.5	6.5
LnGrp LOS	B	A	B	A	A	B	C	A	A	C	A	A
Approach Vol, veh/h		26			2			1010			1611	
Approach Delay, s/veh		19.5			19.3			5.3			7.2	
Approach LOS		B			B			A			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.1	27.4		5.8	5.9	28.7		5.8				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	8.5	34.0		39.0	6.3	36.2		39.0				
Max Q Clear Time (g_c+I1), s	3.5	6.1		2.7	2.6	13.9		2.0				
Green Ext Time (p_c), s	0.0	6.1		0.0	0.0	10.2		0.0				
Intersection Summary												
HCM 6th Ctrl Delay				6.6								
HCM 6th LOS				A								

HCM 6th Signalized Intersection Summary
7: Monterey Ave & Dick Kelly Dr

Rancho Monterey Traffic Study plus Alternative 2
Future Year (2040) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	23	9	207	70	6	41	10	67	902	49	36	1408
Future Volume (veh/h)	23	9	207	70	6	41	10	67	902	49	36	1408
Initial Q (Qb), veh	0	0	0	0	0	0		0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99		1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No				No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870		1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	24	9	37	74	6	7		71	949	32	38	1482
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2		2	2	2	2	2
Cap, veh/h	289	35	144	259	87	101		134	2654	820	88	1682
Arrive On Green	0.11	0.11	0.11	0.11	0.11	0.11		0.08	0.52	0.52	0.05	0.47
Sat Flow, veh/h	1383	316	1299	1345	781	911		1781	5106	1577	1781	3613
Grp Volume(v), veh/h	24	0	46	74	0	13		71	949	32	38	729
Grp Sat Flow(s),veh/h/ln	1383	0	1615	1345	0	1692		1781	1702	1577	1781	1777
Q Serve(g_s), s	0.8	0.0	1.3	2.6	0.0	0.3		1.9	5.5	0.5	1.0	18.5
Cycle Q Clear(g_c), s	1.1	0.0	1.3	3.9	0.0	0.3		1.9	5.5	0.5	1.0	18.5
Prop In Lane	1.00		0.80	1.00		0.54		1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	289	0	180	259	0	188		134	2654	820	88	827
V/C Ratio(X)	0.08	0.00	0.26	0.29	0.00	0.07		0.53	0.36	0.04	0.43	0.88
Avail Cap(c_a), veh/h	1223	0	1270	1167	0	1330		609	5751	1777	322	1715
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00		1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.3	0.0	20.2	22.0	0.0	19.8		22.1	7.0	5.9	23.0	12.0
Incr Delay (d2), s/veh	0.1	0.0	0.7	0.6	0.0	0.2		3.2	0.0	0.0	1.2	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.5	0.8	0.0	0.1		0.8	1.0	0.1	0.4	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.4	0.0	21.0	22.6	0.0	19.9		25.3	7.1	5.9	24.2	13.3
LnGrp LOS	C	A	C	C	A	B		C	A	A	C	B
Approach Vol, veh/h		70			87				1052			1532
Approach Delay, s/veh		20.8			22.2				8.3			13.5
Approach LOS		C			C				A			B
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.1	29.5		10.0	7.5	32.2		10.0				
Change Period (Y+Rc), s	6.4	* 6.4		4.5	5.0	6.4		4.5				
Max Green Setting (Gmax), s	17.0	* 48		39.1	9.0	56.0		39.1				
Max Q Clear Time (g_c+I1), s	3.9	20.5		3.3	3.0	7.5		5.9				
Green Ext Time (p_c), s	0.1	2.5		0.3	0.0	2.0		0.2				

Intersection Summary

HCM 6th Ctrl Delay	12.0
HCM 6th LOS	B

Notes

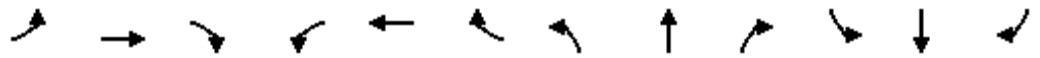
User approved volume balancing among the lanes for turning movement.

User approved ignoring U-Turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	11
Future Volume (veh/h)	11
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	0.99
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1870
Adj Flow Rate, veh/h	12
Peak Hour Factor	0.95
Percent Heavy Veh, %	2
Cap, veh/h	14
Arrive On Green	0.47
Sat Flow, veh/h	29
Grp Volume(v), veh/h	765
Grp Sat Flow(s),veh/h/ln	1865
Q Serve(g_s), s	18.5
Cycle Q Clear(g_c), s	18.5
Prop In Lane	0.02
Lane Grp Cap(c), veh/h	868
V/C Ratio(X)	0.88
Avail Cap(c_a), veh/h	1800
HCM Platoon Ratio	1.00
Upstream Filter(l)	1.00
Uniform Delay (d), s/veh	12.0
Incr Delay (d2), s/veh	1.2
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(50%),veh/ln	4.6
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	13.3
LnGrp LOS	B
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study plus Alternative 2
 8: Monterey Ave & Gerald Ford Dr Future Year (2040) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑	↗	↔↔	↑↑	↗	↔↔	↑↑↔		↔↔	↑↑↑	↗
Traffic Volume (veh/h)	193	421	202	180	726	147	192	694	49	70	1229	211
Future Volume (veh/h)	193	421	202	180	726	147	192	694	49	70	1229	211
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	203	443	53	189	764	38	202	731	47	74	1294	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	260	853	378	246	839	372	259	2221	142	132	2124	
Arrive On Green	0.08	0.24	0.24	0.07	0.24	0.24	0.08	0.45	0.45	0.04	0.42	0.00
Sat Flow, veh/h	3456	3554	1575	3456	3554	1575	3456	4903	314	3456	5106	1585
Grp Volume(v), veh/h	203	443	53	189	764	38	202	506	272	74	1294	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1575	1728	1777	1575	1728	1702	1813	1728	1702	1585
Q Serve(g_s), s	6.9	13.0	3.2	6.4	25.1	2.3	6.9	11.5	11.6	2.5	23.8	0.0
Cycle Q Clear(g_c), s	6.9	13.0	3.2	6.4	25.1	2.3	6.9	11.5	11.6	2.5	23.8	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.17	1.00		1.00
Lane Grp Cap(c), veh/h	260	853	378	246	839	372	259	1542	821	132	2124	
V/C Ratio(X)	0.78	0.52	0.14	0.77	0.91	0.10	0.78	0.33	0.33	0.56	0.61	
Avail Cap(c_a), veh/h	374	868	385	374	868	385	374	1542	821	346	2124	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.94	0.94	0.94	0.58	0.58	0.00
Uniform Delay (d), s/veh	54.5	39.6	35.9	54.7	44.6	35.9	54.5	21.1	21.1	56.7	27.4	0.0
Incr Delay (d2), s/veh	3.7	0.5	0.2	2.1	13.4	0.1	3.4	0.5	1.0	0.8	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	5.5	1.2	2.8	12.1	0.9	3.0	4.3	4.8	1.1	9.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.2	40.1	36.0	56.8	58.0	36.0	57.9	21.6	22.1	57.5	28.2	0.0
LnGrp LOS	E	D	D	E	E	D	E	C	C	E	C	
Approach Vol, veh/h		699			991			980			1368	A
Approach Delay, s/veh		45.1			56.9			29.2			29.8	
Approach LOS		D			E			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.0	56.9	14.0	35.0	9.6	61.4	13.6	35.5				
Change Period (Y+Rc), s	5.0	7.0	5.0	6.7	5.0	7.0	5.0	6.7				
Max Green Setting (Gmax), s	13.0	41.0	13.0	29.3	12.0	42.0	13.0	29.3				
Max Q Clear Time (g_c+I1), s	8.9	25.8	8.9	27.1	4.5	13.6	8.4	15.0				
Green Ext Time (p_c), s	0.1	8.1	0.1	1.0	0.0	5.6	0.1	2.3				

Intersection Summary

HCM 6th Ctrl Delay	38.9
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
 Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study plus Alternative 2
 9: Monterey Ave & Frank Sinatra Dr Future Year (2040) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	43	296	223	271	730	90	89	806	81	72	1499	81
Future Volume (veh/h)	43	296	223	271	730	90	89	806	81	72	1499	81
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	45	312	122	285	768	95	94	848	78	76	1578	42
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	112	667	295	338	900	399	144	2404	220	133	2564	793
Arrive On Green	0.03	0.19	0.19	0.10	0.25	0.25	0.04	0.51	0.51	0.04	0.50	0.50
Sat Flow, veh/h	3456	3554	1572	3456	3554	1576	3456	4759	436	3456	5106	1580
Grp Volume(v), veh/h	45	312	122	285	768	95	94	606	320	76	1578	42
Grp Sat Flow(s),veh/h/ln	1728	1777	1572	1728	1777	1576	1728	1702	1790	1728	1702	1580
Q Serve(g_s), s	1.5	9.4	8.2	9.7	24.7	5.8	3.2	12.8	12.9	2.6	26.7	1.6
Cycle Q Clear(g_c), s	1.5	9.4	8.2	9.7	24.7	5.8	3.2	12.8	12.9	2.6	26.7	1.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.24	1.00		1.00
Lane Grp Cap(c), veh/h	112	667	295	338	900	399	144	1720	905	133	2564	793
V/C Ratio(X)	0.40	0.47	0.41	0.84	0.85	0.24	0.65	0.35	0.35	0.57	0.62	0.05
Avail Cap(c_a), veh/h	144	1036	459	346	1273	565	144	1720	905	173	2564	793
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.94	0.94	0.94	0.73	0.73	0.73
Uniform Delay (d), s/veh	56.9	43.4	42.9	53.2	42.7	35.6	56.7	17.9	17.9	56.7	21.5	15.3
Incr Delay (d2), s/veh	0.9	0.2	0.3	15.8	3.0	0.1	7.7	0.5	1.0	1.1	0.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	4.0	3.1	4.8	10.6	2.1	1.5	4.7	5.1	1.1	9.8	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.8	43.6	43.3	69.1	45.7	35.7	64.3	18.4	18.9	57.8	22.3	15.4
LnGrp LOS	E	D	D	E	D	D	E	B	B	E	C	B
Approach Vol, veh/h		479			1148			1020			1696	
Approach Delay, s/veh		44.8			50.7			22.8			23.8	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.0	66.7	7.9	36.4	8.6	67.1	15.7	28.5				
Change Period (Y+Rc), s	4.0	6.5	4.0	* 6	4.0	6.5	4.0	6.0				
Max Green Setting (Gmax), s	5.0	47.5	5.0	* 43	6.0	46.5	12.0	35.0				
Max Q Clear Time (g_c+I1), s	5.2	28.7	3.5	26.7	4.6	14.9	11.7	11.4				
Green Ext Time (p_c), s	0.0	6.8	0.0	2.8	0.0	3.4	0.0	1.3				

Intersection Summary




































HCM 6th Ctrl Delay	33.0
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
 * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
10: Monterey Ave & Country Club Dr

Rancho Monterey Traffic Study plus Alternative 2
Future Year (2040) - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		  	  		 	  		  		
Traffic Volume (veh/h)	91	318	119	215	927	180	267	621	78	297	1304	223
Future Volume (veh/h)	91	318	119	215	927	180	267	621	78	297	1304	223
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	96	335	0	226	976	0	281	654	31	313	1373	109
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	193	999		281	1128		336	2071	641	346	2086	645
Arrive On Green	0.06	0.20	0.00	0.08	0.22	0.00	0.10	0.41	0.41	0.10	0.41	0.41
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	3456	5106	1579	3456	5106	1579
Grp Volume(v), veh/h	96	335	0	226	976	0	281	654	31	313	1373	109
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1585	1728	1702	1579	1728	1702	1579
Q Serve(g_s), s	3.2	6.8	0.0	7.7	22.1	0.0	9.6	10.5	1.4	10.8	26.1	5.3
Cycle Q Clear(g_c), s	3.2	6.8	0.0	7.7	22.1	0.0	9.6	10.5	1.4	10.8	26.1	5.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	193	999		281	1128		336	2071	641	346	2086	645
V/C Ratio(X)	0.50	0.34		0.81	0.87		0.84	0.32	0.05	0.91	0.66	0.17
Avail Cap(c_a), veh/h	259	1332		346	1459		432	2071	641	346	2086	645
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.70	0.70	0.70
Uniform Delay (d), s/veh	55.0	41.5	0.0	54.2	45.0	0.0	53.2	24.3	21.6	53.4	28.7	22.6
Incr Delay (d2), s/veh	0.7	0.1	0.0	8.7	3.8	0.0	8.8	0.4	0.1	19.8	1.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	2.8	0.0	3.6	9.3	0.0	4.4	4.0	0.5	5.4	10.1	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.7	41.6	0.0	62.9	48.8	0.0	62.0	24.7	21.8	73.2	29.9	22.9
LnGrp LOS	E	D		E	D		E	C	C	E	C	C
Approach Vol, veh/h		431	A		1202	A		966			1795	
Approach Delay, s/veh		44.8			51.5			35.5			37.0	
Approach LOS		D			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.0	56.1	15.7	30.2	17.7	56.4	12.7	33.2				
Change Period (Y+Rc), s	6.0	7.4	6.0	6.7	6.0	7.4	6.0	6.7				
Max Green Setting (Gmax), s	12.0	38.6	12.0	31.3	15.0	35.6	9.0	34.3				
Max Q Clear Time (g_c+I1), s	12.8	12.5	9.7	8.8	11.6	28.1	5.2	24.1				
Green Ext Time (p_c), s	0.0	1.3	0.0	0.7	0.1	2.3	0.0	1.8				

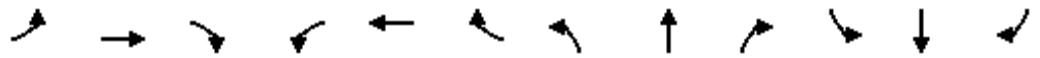
Intersection Summary

HCM 6th Ctrl Delay	41.4
HCM 6th LOS	D

Notes

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study plus Alternative 2
 1: Varner Rd & Monterey Ave Future Year (2040) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	110	229	625	237	222	408	497	137	67	402	8
Future Volume (veh/h)	23	110	229	625	237	222	408	497	137	67	402	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	24	113	24	644	244	84	421	512	0	69	414	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	90	312	132	700	638	214	797	1536		147	977	
Arrive On Green	0.05	0.08	0.08	0.20	0.24	0.24	0.23	0.43	0.00	0.08	0.28	0.00
Sat Flow, veh/h	1781	3741	1585	3456	2609	875	3456	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	24	113	24	644	164	164	421	512	0	69	414	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1728	1777	1707	1728	1777	1585	1781	1777	1585
Q Serve(g_s), s	1.6	3.4	1.7	21.9	9.2	9.6	12.8	11.5	0.0	4.4	11.5	0.0
Cycle Q Clear(g_c), s	1.6	3.4	1.7	21.9	9.2	9.6	12.8	11.5	0.0	4.4	11.5	0.0
Prop In Lane	1.00		1.00	1.00		0.51	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	90	312	132	700	435	418	797	1536		147	977	
V/C Ratio(X)	0.27	0.36	0.18	0.92	0.38	0.39	0.53	0.33		0.47	0.42	
Avail Cap(c_a), veh/h	163	533	226	803	503	484	797	1536		163	977	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	54.8	52.0	51.2	46.9	37.7	37.9	40.4	22.6	0.0	52.5	35.7	0.0
Incr Delay (d2), s/veh	0.6	0.7	0.7	13.6	0.5	0.6	0.5	0.6	0.0	0.9	1.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.6	0.7	10.3	3.9	3.9	5.3	4.6	0.0	2.0	5.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.4	52.7	51.8	60.4	38.3	38.5	41.0	23.2	0.0	53.4	37.0	0.0
LnGrp LOS	E	D	D	E	D	D	D	C		D	D	
Approach Vol, veh/h		161			972			933	A		483	A
Approach Delay, s/veh		53.0			53.0			31.2			39.4	
Approach LOS		D			D			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.3	58.1	30.8	15.8	33.9	39.5	10.8	35.9				
Change Period (Y+Rc), s	5.4	6.2	6.5	* 5.8	6.2	* 6.5	* 4.7	6.5				
Max Green Setting (Gmax), s	11.0	41.2	27.9	* 17	18.9	* 33	* 11	34.0				
Max Q Clear Time (g_c+I1), s	6.4	13.5	23.9	5.4	14.8	13.5	3.6	11.6				
Green Ext Time (p_c), s	0.0	3.0	0.4	0.4	0.5	2.2	0.0	1.5				

Intersection Summary

HCM 6th Ctrl Delay	42.4
HCM 6th LOS	D

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study plus Alternative 2

2: Monterey Ave & I-10 EB Ramps Future Year (2040) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	2	855	0	0	0	0	1840	852	173	1036	0
Future Volume (veh/h)	45	2	855	0	0	0	0	1840	852	173	1036	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	32	0	797				0	1937	436	182	1091	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	502	0	894				0	2623	814	237	2208	0
Arrive On Green	0.28	0.00	0.28				0.00	0.68	0.68	0.07	0.62	0.00
Sat Flow, veh/h	1781	0	3170				0	5274	1585	3456	3647	0
Grp Volume(v), veh/h	32	0	797				0	1937	436	182	1091	0
Grp Sat Flow(s),veh/h/ln	1781	0	1585				0	1702	1585	1728	1777	0
Q Serve(g_s), s	1.6	0.0	28.9				0.0	29.1	16.5	6.2	20.1	0.0
Cycle Q Clear(g_c), s	1.6	0.0	28.9				0.0	29.1	16.5	6.2	20.1	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	502	0	894				0	2623	814	237	2208	0
V/C Ratio(X)	0.06	0.00	0.89				0.00	0.74	0.54	0.77	0.49	0.00
Avail Cap(c_a), veh/h	582	0	1036				0	2623	814	251	2208	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.43	0.43	1.00	1.00	0.00
Uniform Delay (d), s/veh	31.5	0.0	41.3				0.0	13.9	11.9	55.0	12.4	0.0
Incr Delay (d2), s/veh	0.1	0.0	9.2				0.0	0.8	1.1	12.8	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	12.3				0.0	7.4	4.5	3.0	7.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.6	0.0	50.5				0.0	14.7	13.0	67.8	13.2	0.0
LnGrp LOS	C	A	D				A	B	B	E	B	A
Approach Vol, veh/h		829						2373			1273	
Approach Delay, s/veh		49.8						14.4			21.0	
Approach LOS		D						B			C	
Timer - Assigned Phs	1	2	4	6								
Phs Duration (G+Y+Rc), s	12.9	67.4	39.6	80.4								
Change Period (Y+Rc), s	* 4.7	5.8	5.8	5.8								
Max Green Setting (Gmax), s	* 8.7	55.8	39.2	69.2								
Max Q Clear Time (g_c+I1), s	8.2	31.1	30.9	22.1								
Green Ext Time (p_c), s	0.0	16.9	2.9	8.7								

Intersection Summary

HCM 6th Ctrl Delay	22.8
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.
 * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
3: Key Largo Ave & Dinah Shore Dr

Rancho Monterey Traffic Study plus Alternative 2

Future Year (2040) - PM Peak Hour



Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	⇐	⇕⇕⇕		⇐	⇕⇕⇕	⇐	⇐
Traffic Volume (veh/h)	10	974	137	177	954	52	195
Future Volume (veh/h)	10	974	137	177	954	52	195
Initial Q (Qb), veh		0	0	0	0	0	0
Ped-Bike Adj(A_pbT)			0.99	1.00		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No	No	
Adj Sat Flow, veh/h/ln		1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h		1015	121	184	994	54	33
Peak Hour Factor		0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %		2	2	2	2	2	2
Cap, veh/h		1609	191	234	1630	142	126
Arrive On Green		0.35	0.35	0.13	0.32	0.08	0.08
Sat Flow, veh/h		4789	550	1781	5274	1781	1585
Grp Volume(v), veh/h		747	389	184	994	54	33
Grp Sat Flow(s),veh/h/ln		1702	1767	1781	1702	1781	1585
Q Serve(g_s), s		6.9	6.9	3.7	6.2	1.1	0.7
Cycle Q Clear(g_c), s		6.9	6.9	3.7	6.2	1.1	0.7
Prop In Lane			0.31	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		1185	615	234	1630	142	126
V/C Ratio(X)		0.63	0.63	0.79	0.61	0.38	0.26
Avail Cap(c_a), veh/h		2228	1156	333	3615	1285	1143
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		10.2	10.2	15.7	10.8	16.4	16.2
Incr Delay (d2), s/veh		0.2	0.4	4.7	0.1	0.6	0.4
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		1.4	1.4	1.3	1.3	0.4	0.2
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		10.4	10.6	20.5	10.9	17.0	16.6
LnGrp LOS		B	B	C	B	B	B
Approach Vol, veh/h		1136			1178	87	
Approach Delay, s/veh		10.5			12.4	16.8	
Approach LOS		B			B	B	
Timer - Assigned Phs			3	4		6	8
Phs Duration (G+Y+Rc), s			9.9	19.5		8.0	18.4
Change Period (Y+Rc), s			5.0	6.5		5.0	6.5
Max Green Setting (Gmax), s			7.0	24.5		27.0	26.5
Max Q Clear Time (g_c+I1), s			5.7	8.9		3.1	8.2
Green Ext Time (p_c), s			0.0	3.9		0.1	3.8

Intersection Summary

HCM 6th Ctrl Delay	11.6
HCM 6th LOS	B

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved ignoring U-Turning movement.

HCM 6th Signalized Intersection Summary
4: Monterey Ave & Dinah Shore Dr

Rancho Monterey Traffic Study plus Alternative 2

Future Year (2040) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑	↗	↖	↑↑	↗	↔↔	↑↑↔		↔↔	↑↑↑	↗
Traffic Volume (veh/h)	792	388	330	111	388	597	396	1482	76	315	1126	459
Future Volume (veh/h)	792	388	330	111	388	597	396	1482	76	315	1126	459
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	808	396	97	113	396	0	404	1512	75	321	1149	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	856	1029	456	138	423		460	1704	85	381	1630	
Arrive On Green	0.25	0.29	0.29	0.08	0.12	0.00	0.13	0.34	0.34	0.04	0.11	0.00
Sat Flow, veh/h	3456	3554	1577	1781	3554	1585	3456	4982	247	3456	5106	1585
Grp Volume(v), veh/h	808	396	97	113	396	0	404	1033	554	321	1149	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1577	1781	1777	1585	1728	1702	1825	1728	1702	1585
Q Serve(g_s), s	27.6	10.7	5.6	7.5	13.3	0.0	13.8	34.4	34.4	11.1	26.1	0.0
Cycle Q Clear(g_c), s	27.6	10.7	5.6	7.5	13.3	0.0	13.8	34.4	34.4	11.1	26.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.14	1.00		1.00
Lane Grp Cap(c), veh/h	856	1029	456	138	423		460	1165	624	381	1630	
V/C Ratio(X)	0.94	0.38	0.21	0.82	0.94		0.88	0.89	0.89	0.84	0.70	
Avail Cap(c_a), veh/h	893	1045	464	148	423		662	1165	624	605	1630	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	0.70	0.70	0.70	1.00	1.00	0.00	1.00	1.00	1.00	0.75	0.75	0.00
Uniform Delay (d), s/veh	44.3	34.1	32.3	54.5	52.4	0.0	51.1	37.3	37.3	56.8	48.2	0.0
Incr Delay (d2), s/veh	13.4	0.1	0.1	25.4	27.7	0.0	7.1	10.1	17.0	2.5	1.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.8	4.4	2.1	4.3	7.4	0.0	6.2	15.1	17.4	5.1	12.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.7	34.1	32.3	80.0	80.1	0.0	58.2	47.4	54.3	59.3	50.2	0.0
LnGrp LOS	E	C	C	E	F		E	D	D	E	D	
Approach Vol, veh/h		1301			509	A		1991			1470	A
Approach Delay, s/veh		48.6			80.1			51.5			52.2	
Approach LOS		D			F			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.3	40.4	21.0	44.3	34.7	20.0	18.2	47.1				
Change Period (Y+Rc), s	5.0	5.7	5.0	6.0	5.0	5.7	5.0	6.0				
Max Green Setting (Gmax), s	10.0	35.3	23.0	30.0	31.0	14.3	21.0	32.0				
Max Q Clear Time (g_c+I1), s	9.5	12.7	15.8	28.1	29.6	15.3	13.1	36.4				
Green Ext Time (p_c), s	0.0	0.8	0.2	0.7	0.2	0.0	0.1	0.0				

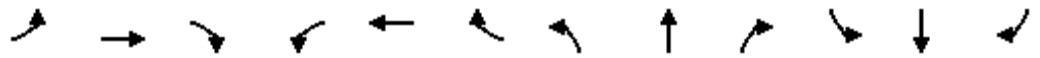
Intersection Summary

HCM 6th Ctrl Delay	53.7
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study plus Alternative 2
 6: Proposed Project Access Driveway & Monterey Ave Future Year (2040) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↑↑↑		↖	↗	
Traffic Volume (veh/h)	137	0	55	0	0	166	99	1405	139	130	1160	71
Future Volume (veh/h)	137	0	55	0	0	166	99	1405	139	130	1160	71
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	144	0	15	0	0	43	104	1479	137	137	1221	72
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	344	0	277	137	0	277	133	2221	206	176	1676	99
Arrive On Green	0.18	0.00	0.18	0.00	0.00	0.18	0.07	0.47	0.47	0.10	0.49	0.49
Sat Flow, veh/h	1353	0	1572	1398	0	1572	1781	4752	440	1781	3409	201
Grp Volume(v), veh/h	144	0	15	0	0	43	104	1059	557	137	636	657
Grp Sat Flow(s),veh/h/ln	1353	0	1572	1398	0	1572	1781	1702	1788	1781	1777	1833
Q Serve(g_s), s	5.3	0.0	0.4	0.0	0.0	1.2	3.0	12.6	12.6	3.9	14.9	14.9
Cycle Q Clear(g_c), s	6.5	0.0	0.4	0.0	0.0	1.2	3.0	12.6	12.6	3.9	14.9	14.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.25	1.00		0.11
Lane Grp Cap(c), veh/h	344	0	277	137	0	277	133	1591	836	176	873	901
V/C Ratio(X)	0.42	0.00	0.05	0.00	0.00	0.16	0.78	0.67	0.67	0.78	0.73	0.73
Avail Cap(c_a), veh/h	1112	0	1168	930	0	1168	214	2206	1159	289	1226	1265
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.1	0.0	18.0	0.0	0.0	18.3	23.8	10.8	10.8	23.1	10.6	10.6
Incr Delay (d2), s/veh	0.8	0.0	0.1	0.0	0.0	0.3	9.4	0.5	0.9	7.2	1.3	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	0.1	0.0	0.0	0.4	1.4	3.0	3.2	1.7	3.7	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.9	0.0	18.1	0.0	0.0	18.6	33.3	11.3	11.7	30.2	11.9	11.9
LnGrp LOS	C	A	B	A	A	B	C	B	B	C	B	B
Approach Vol, veh/h		159			43			1720			1430	
Approach Delay, s/veh		21.5			18.6			12.8			13.6	
Approach LOS		C			B			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.7	29.0		13.7	8.4	30.3		13.7				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	8.5	34.0		39.0	6.3	36.2		39.0				
Max Q Clear Time (g_c+I1), s	5.9	14.6		8.5	5.0	16.9		3.2				
Green Ext Time (p_c), s	0.1	9.8		0.5	0.0	7.5		0.2				

Intersection Summary												
HCM 6th Ctrl Delay				13.6								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study plus Alternative 2
 7: Monterey Ave & Dick Kelly Dr Future Year (2040) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations	↖	↗		↖	↗			↖↗↘	↑↑↑	↖	↖	↗↘
Traffic Volume (veh/h)	25	16	141	170	12	70	10	202	1548	114	42	1135
Future Volume (veh/h)	25	16	141	170	12	70	10	202	1548	114	42	1135
Initial Q (Qb), veh	0	0	0	0	0	0		0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99		1.00		0.99	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No				No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870		1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	26	17	36	177	12	18		210	1612	69	44	1182
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96		0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2		2	2	2	2	2
Cap, veh/h	376	110	232	355	138	208		255	2517	777	91	1329
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21		0.14	0.49	0.49	0.05	0.38
Sat Flow, veh/h	1370	532	1126	1343	672	1008		1781	5106	1577	1781	3510
Grp Volume(v), veh/h	26	0	53	177	0	30		210	1612	69	44	598
Grp Sat Flow(s),veh/h/ln	1370	0	1658	1343	0	1680		1781	1702	1577	1781	1777
Q Serve(g_s), s	1.0	0.0	1.7	7.9	0.0	0.9		7.3	14.9	1.5	1.5	20.0
Cycle Q Clear(g_c), s	1.9	0.0	1.7	9.6	0.0	0.9		7.3	14.9	1.5	1.5	20.0
Prop In Lane	1.00		0.68	1.00		0.60		1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	376	0	342	355	0	346		255	2517	777	91	673
V/C Ratio(X)	0.07	0.00	0.16	0.50	0.00	0.09		0.82	0.64	0.09	0.48	0.89
Avail Cap(c_a), veh/h	936	0	1019	904	0	1033		476	4497	1389	252	1341
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00		1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.2	0.0	20.7	24.6	0.0	20.4		26.5	11.9	8.5	29.4	18.5
Incr Delay (d2), s/veh	0.1	0.0	0.2	1.1	0.0	0.1		2.6	0.1	0.0	1.5	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.6	2.3	0.0	0.3		2.8	3.9	0.4	0.6	6.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.3	0.0	20.9	25.7	0.0	20.5		29.0	12.0	8.6	30.8	20.2
LnGrp LOS	C	A	C	C	A	C		C	B	A	C	C
Approach Vol, veh/h		79			207				1891			1265
Approach Delay, s/veh		21.0			25.0				13.8			20.5
Approach LOS		C			C				B			C
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.5	30.5		17.6	8.2	37.7		17.6				
Change Period (Y+Rc), s	6.4	* 6.4		4.5	5.0	6.4		4.5				
Max Green Setting (Gmax), s	17.0	* 48		39.1	9.0	56.0		39.1				
Max Q Clear Time (g_c+I1), s	9.3	22.1		3.9	3.5	16.9		11.6				
Green Ext Time (p_c), s	0.0	1.9		0.4	0.0	4.0		0.6				

Intersection Summary

HCM 6th Ctrl Delay	17.1
HCM 6th LOS	B

Notes

User approved ignoring U-Turning movement.
 * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
 7: Monterey Ave & Dick Kelly Dr

Rancho Monterey Traffic Study plus Alternative 2

Future Year (2040) - PM Peak Hour

Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	38
Future Volume (veh/h)	38
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	0.99
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1870
Adj Flow Rate, veh/h	39
Peak Hour Factor	0.96
Percent Heavy Veh, %	2
Cap, veh/h	44
Arrive On Green	0.38
Sat Flow, veh/h	116
Grp Volume(v), veh/h	623
Grp Sat Flow(s),veh/h/ln	1849
Q Serve(g_s), s	20.1
Cycle Q Clear(g_c), s	20.1
Prop In Lane	0.06
Lane Grp Cap(c), veh/h	700
V/C Ratio(X)	0.89
Avail Cap(c_a), veh/h	1395
HCM Platoon Ratio	1.00
Upstream Filter(l)	1.00
Uniform Delay (d), s/veh	18.5
Incr Delay (d2), s/veh	1.6
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(50%),veh/ln	6.9
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	20.1
LnGrp LOS	C
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study plus Alternative 2
 8: Monterey Ave & Gerald Ford Dr Future Year (2040) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑	↗	↔↔	↑↑	↗	↔↔	↑↑↔		↔↔	↑↑↑	↗
Traffic Volume (veh/h)	256	549	225	135	415	148	228	1335	120	117	982	214
Future Volume (veh/h)	256	549	225	135	415	148	228	1335	120	117	982	214
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	267	572	51	141	432	29	238	1391	119	122	1023	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	324	719	318	197	588	260	294	2357	202	177	2340	
Arrive On Green	0.09	0.20	0.20	0.06	0.17	0.17	0.09	0.49	0.49	0.05	0.46	0.00
Sat Flow, veh/h	3456	3554	1573	3456	3554	1571	3456	4789	410	3456	5106	1585
Grp Volume(v), veh/h	267	572	51	141	432	29	238	989	521	122	1023	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1573	1728	1777	1571	1728	1702	1795	1728	1702	1585
Q Serve(g_s), s	9.1	18.4	3.2	4.8	13.9	1.9	8.1	24.9	24.9	4.2	16.3	0.0
Cycle Q Clear(g_c), s	9.1	18.4	3.2	4.8	13.9	1.9	8.1	24.9	24.9	4.2	16.3	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.23	1.00		1.00
Lane Grp Cap(c), veh/h	324	719	318	197	588	260	294	1675	883	177	2340	
V/C Ratio(X)	0.82	0.80	0.16	0.71	0.73	0.11	0.81	0.59	0.59	0.69	0.44	
Avail Cap(c_a), veh/h	403	927	410	374	897	397	346	1675	883	346	2340	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.60	0.60	0.60	0.40	0.40	0.00
Uniform Delay (d), s/veh	53.4	45.5	39.5	55.6	47.6	42.6	53.9	21.8	21.8	56.0	22.0	0.0
Incr Delay (d2), s/veh	8.9	3.8	0.2	1.8	1.8	0.2	6.3	0.9	1.7	0.7	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	8.1	1.2	2.1	6.0	0.7	3.6	9.2	9.9	1.8	6.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.3	49.3	39.7	57.4	49.4	42.8	60.2	22.7	23.6	56.7	22.3	0.0
LnGrp LOS	E	D	D	E	D	D	E	C	C	E	C	
Approach Vol, veh/h		890			602			1748			1145	A
Approach Delay, s/veh		52.6			50.9			28.1			25.9	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.2	62.0	16.2	26.6	11.1	66.0	11.9	31.0				
Change Period (Y+Rc), s	5.0	7.0	5.0	6.7	5.0	7.0	5.0	6.7				
Max Green Setting (Gmax), s	12.0	40.0	14.0	30.3	12.0	40.0	13.0	31.3				
Max Q Clear Time (g_c+I1), s	10.1	18.3	11.1	15.9	6.2	26.9	6.8	20.4				
Green Ext Time (p_c), s	0.1	7.6	0.1	2.1	0.1	8.2	0.1	2.7				

Intersection Summary

HCM 6th Ctrl Delay	35.6
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
 Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study plus Alternative 2
 9: Monterey Ave & Frank Sinatra Dr Future Year (2040) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖↗	↑↑	↖	↖↗	↑↑↔		↖↗	↑↑↑	↖
Traffic Volume (veh/h)	164	672	133	172	389	85	162	1497	202	101	1261	68
Future Volume (veh/h)	164	672	133	172	389	85	162	1497	202	101	1261	68
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	173	707	56	181	409	89	171	1576	200	106	1327	32
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	228	792	351	236	800	355	226	2258	286	158	2413	747
Arrive On Green	0.07	0.22	0.22	0.07	0.23	0.23	0.07	0.49	0.49	0.05	0.47	0.47
Sat Flow, veh/h	3456	3554	1574	3456	3554	1574	3456	4587	581	3456	5106	1580
Grp Volume(v), veh/h	173	707	56	181	409	89	171	1169	607	106	1327	32
Grp Sat Flow(s),veh/h/ln	1728	1777	1574	1728	1777	1574	1728	1702	1764	1728	1702	1580
Q Serve(g_s), s	5.9	23.2	3.4	6.2	12.1	5.6	5.8	31.9	32.0	3.6	22.2	1.3
Cycle Q Clear(g_c), s	5.9	23.2	3.4	6.2	12.1	5.6	5.8	31.9	32.0	3.6	22.2	1.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.33	1.00		1.00
Lane Grp Cap(c), veh/h	228	792	351	236	800	355	226	1676	868	158	2413	747
V/C Ratio(X)	0.76	0.89	0.16	0.77	0.51	0.25	0.76	0.70	0.70	0.67	0.55	0.04
Avail Cap(c_a), veh/h	317	859	380	317	888	394	317	1676	868	317	2413	747
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.68	0.68	0.68	0.87	0.87	0.87
Uniform Delay (d), s/veh	55.1	45.2	37.6	55.0	40.7	38.2	55.1	23.6	23.6	56.4	22.6	17.0
Incr Delay (d2), s/veh	4.0	10.5	0.1	5.1	0.2	0.1	2.5	1.7	3.2	1.6	0.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	10.9	1.3	2.8	5.1	2.1	2.5	11.9	12.7	1.6	8.3	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.1	55.7	37.6	60.0	40.9	38.3	57.6	25.2	26.8	58.0	23.3	17.1
LnGrp LOS	E	E	D	E	D	D	E	C	C	E	C	B
Approach Vol, veh/h		936			679			1947			1465	
Approach Delay, s/veh		55.2			45.7			28.6			25.7	
Approach LOS		E			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.9	63.2	11.9	33.0	9.5	65.6	12.2	32.7				
Change Period (Y+Rc), s	4.0	6.5	4.0	* 6	4.0	6.5	4.0	6.0				
Max Green Setting (Gmax), s	11.0	48.5	11.0	* 30	11.0	48.5	11.0	29.0				
Max Q Clear Time (g_c+I1), s	7.8	24.2	7.9	14.1	5.6	34.0	8.2	25.2				
Green Ext Time (p_c), s	0.0	5.9	0.0	1.5	0.0	6.4	0.0	1.2				

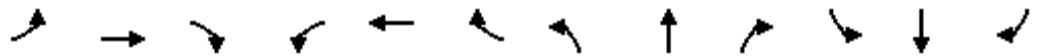
Intersection Summary

HCM 6th Ctrl Delay	35.0
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
 * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary Rancho Monterey Traffic Study plus Alternative 2
 10: Monterey Ave & Country Club Dr Future Year (2040) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖
Traffic Volume (veh/h)	231	794	305	184	314	264	135	1331	146	303	1137	127
Future Volume (veh/h)	231	794	305	184	314	264	135	1331	146	303	1137	127
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	236	810	0	188	320	0	138	1358	57	309	1160	57
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	291	963		244	894		200	2138	661	362	2378	736
Arrive On Green	0.08	0.19	0.00	0.07	0.18	0.00	0.06	0.42	0.42	0.10	0.47	0.47
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	3456	5106	1579	3456	5106	1580
Grp Volume(v), veh/h	236	810	0	188	320	0	138	1358	57	309	1160	57
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1585	1728	1702	1579	1728	1702	1580
Q Serve(g_s), s	8.1	18.4	0.0	6.4	6.6	0.0	4.7	25.3	2.6	10.6	18.8	2.4
Cycle Q Clear(g_c), s	8.1	18.4	0.0	6.4	6.6	0.0	4.7	25.3	2.6	10.6	18.8	2.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	291	963		244	894		200	2138	661	362	2378	736
V/C Ratio(X)	0.81	0.84		0.77	0.36		0.69	0.64	0.09	0.85	0.49	0.08
Avail Cap(c_a), veh/h	346	1332		432	1459		432	2138	661	374	2378	736
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.80	0.80	0.80
Uniform Delay (d), s/veh	54.0	47.0	0.0	54.8	43.6	0.0	55.5	27.6	21.0	52.8	22.2	17.8
Incr Delay (d2), s/veh	10.0	2.7	0.0	2.0	0.1	0.0	1.6	1.5	0.3	13.2	0.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	7.7	0.0	2.8	2.7	0.0	2.0	9.8	1.0	5.0	7.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.0	49.6	0.0	56.8	43.7	0.0	57.1	29.1	21.3	66.0	22.7	17.9
LnGrp LOS	E	D		E	D		E	C	C	E	C	B
Approach Vol, veh/h		1046	A		508	A		1553			1526	
Approach Delay, s/veh		52.9			48.5			31.3			31.3	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.6	57.6	14.5	29.3	12.9	63.3	16.1	27.7				
Change Period (Y+Rc), s	6.0	7.4	6.0	6.7	6.0	7.4	6.0	6.7				
Max Green Setting (Gmax), s	13.0	34.6	15.0	31.3	15.0	32.6	12.0	34.3				
Max Q Clear Time (g_c+I1), s	12.6	27.3	8.4	20.4	6.7	20.8	10.1	8.6				
Green Ext Time (p_c), s	0.0	2.2	0.1	1.5	0.0	2.2	0.0	0.6				


Intersection Summary

HCM 6th Ctrl Delay	38.1
HCM 6th LOS	D

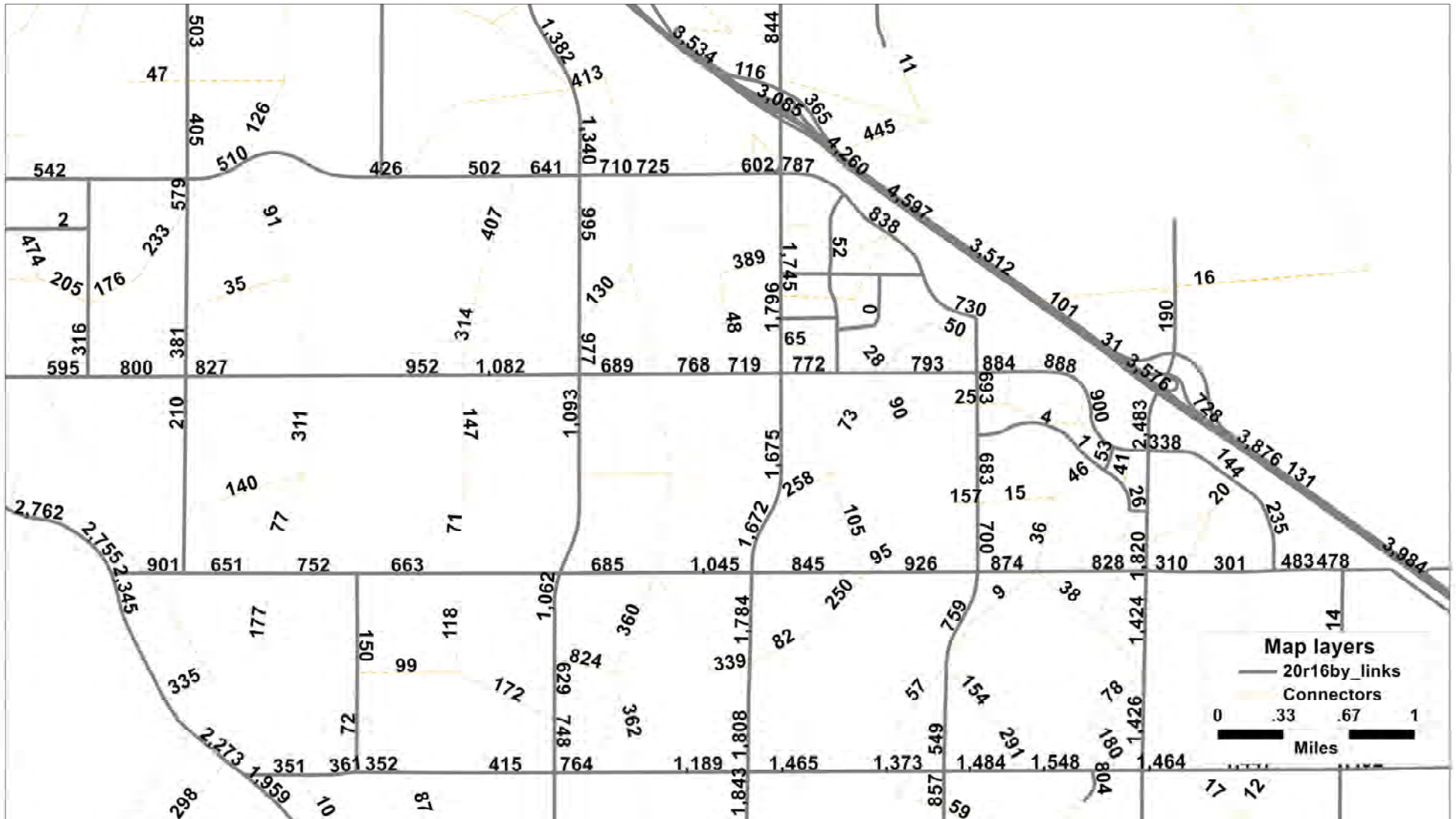
Notes

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

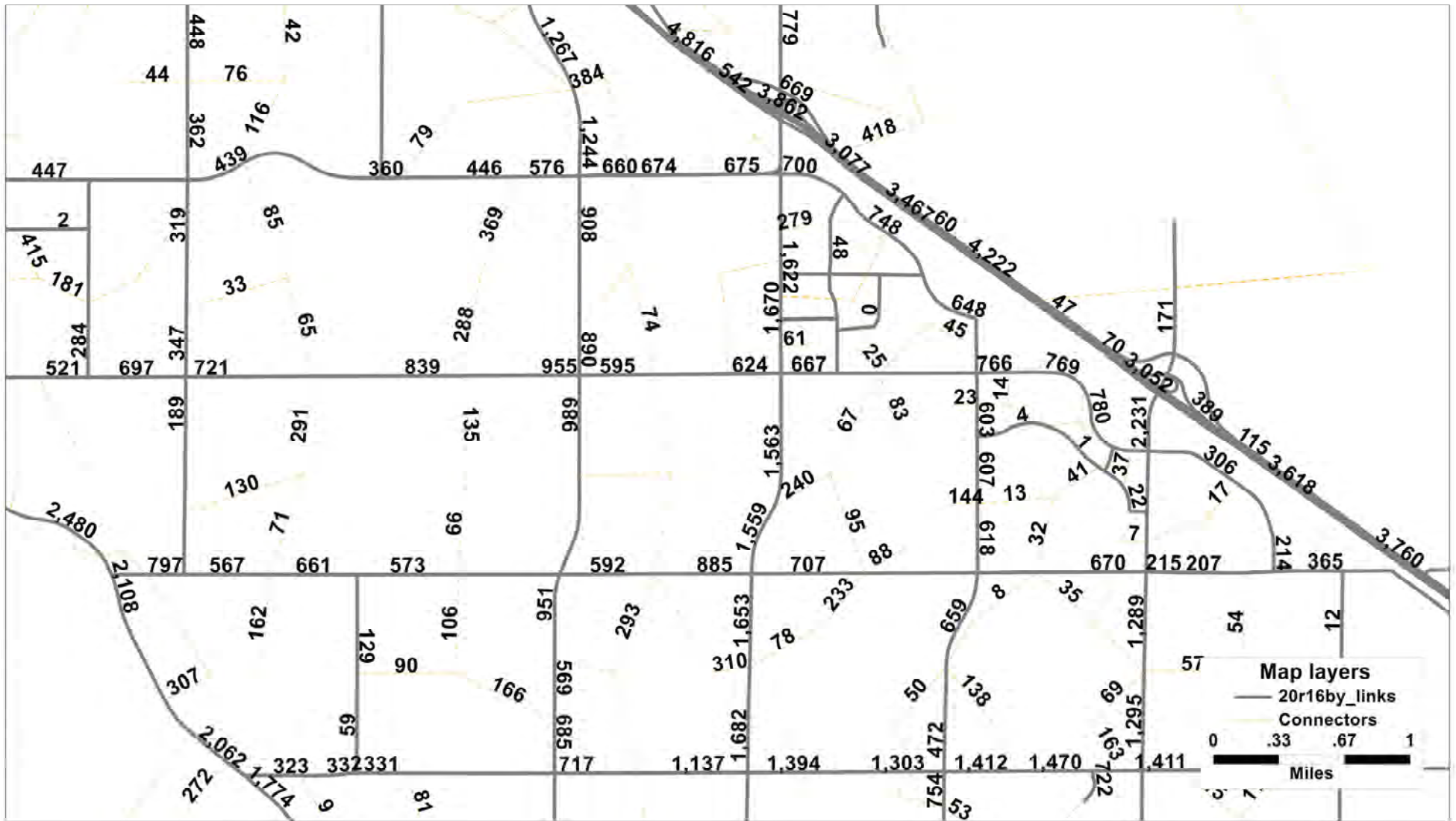
Appendix E:
Peak Hour Volumes
from RIVCOM



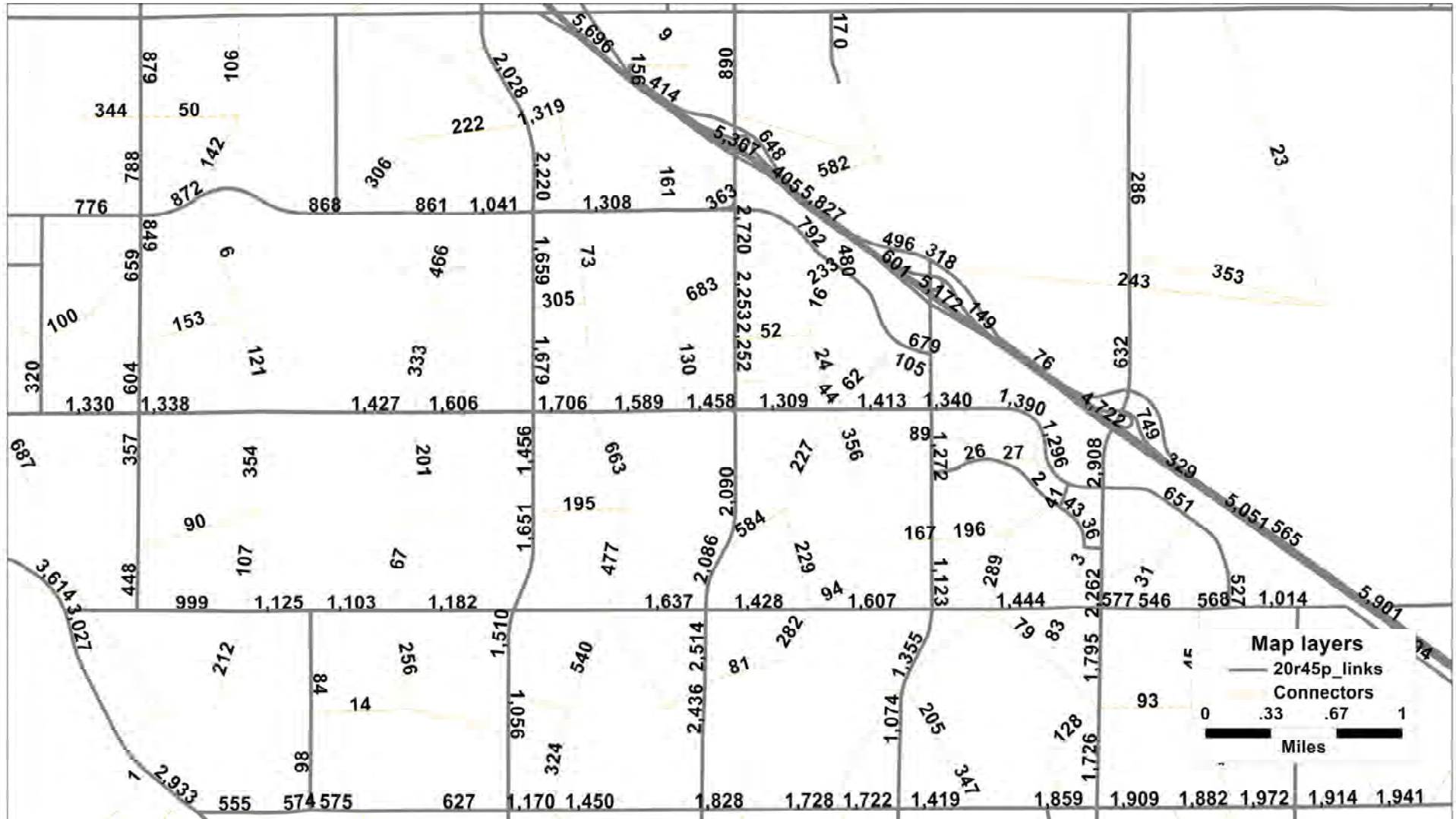
Rancho Monterey Base Year AM Peak Hour Volumes



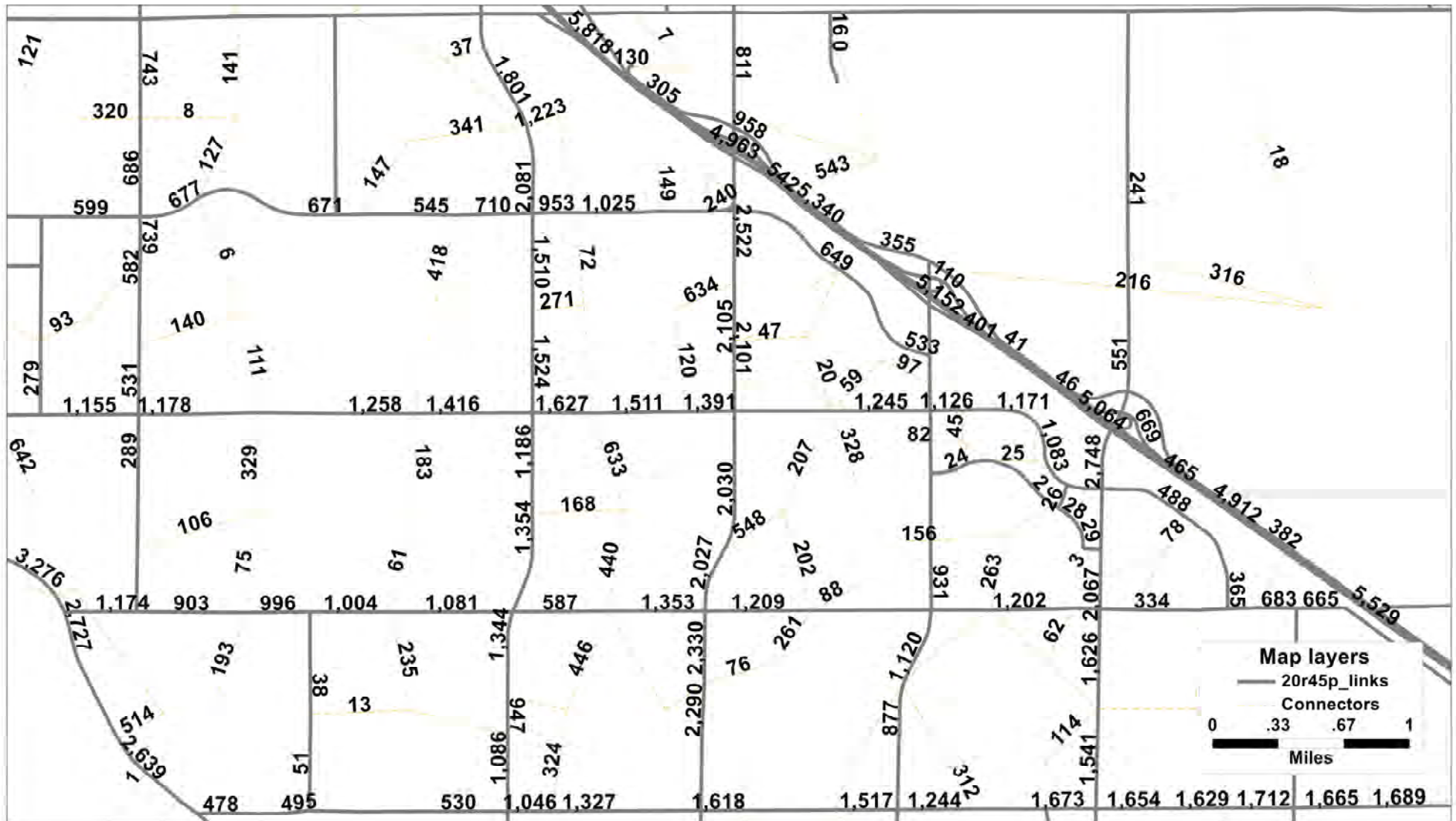
Rancho Monterey Base Year PM Peak Hour Volumes



Rancho Monterey Future Year AM Peak Hour Volumes



Rancho Monterey Future Year PM Peak Hour Volumes



Appendix F:
Traffic Signal
Warrants

A decorative graphic at the bottom of the page consisting of two overlapping green shapes. The top shape is a dark green, irregular polygon that tapers to the left. The bottom shape is a lighter green, irregular polygon that tapers to the right, creating a central gap between the two shapes.



Major Street **Monterey Avenue**
 Minor Street **Proposed Project Access Driveway**

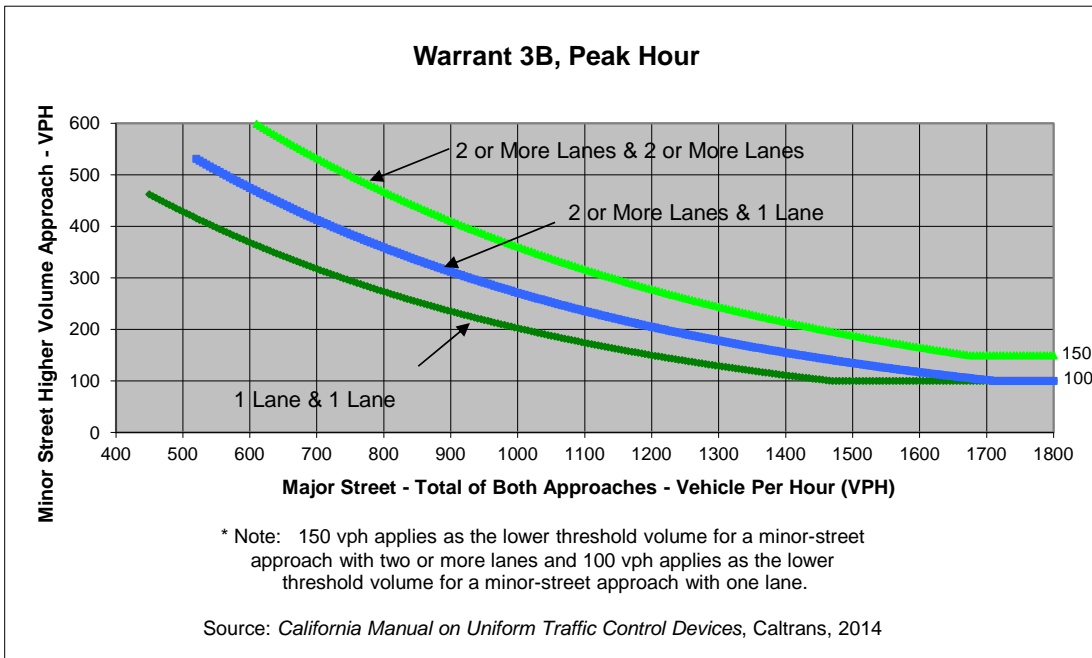
Project **Rancho Monterey Traffic Study**
 Scenario **Opening Year Plus Project Alternative 1**
 Peak Hour **AM**

Turn Movement Volumes

	NB	SB	EB	WB
Left	28	64	18	0
Through	647	1,301	0	0
Right	61	8	9	16
Total	736	1,373	27	16

Major Street Direction

x	North/South
	East/West



	Major Street	Minor Street	Warrant Met
	Monterey Avenue	Proposed Project Access Driveway	
Number of Approach Lanes	3	1	<u>NO</u>
Traffic Volume (VPH) *	2,109	27	

* Note: Traffic Volume for Major Street is Total Volume of Both Approaches.
 Traffic Volume for Minor Street is the Volume of High Volume Approach.



Major Street **Monterey Avenue**
 Minor Street **Proposed Project Access Driveway**

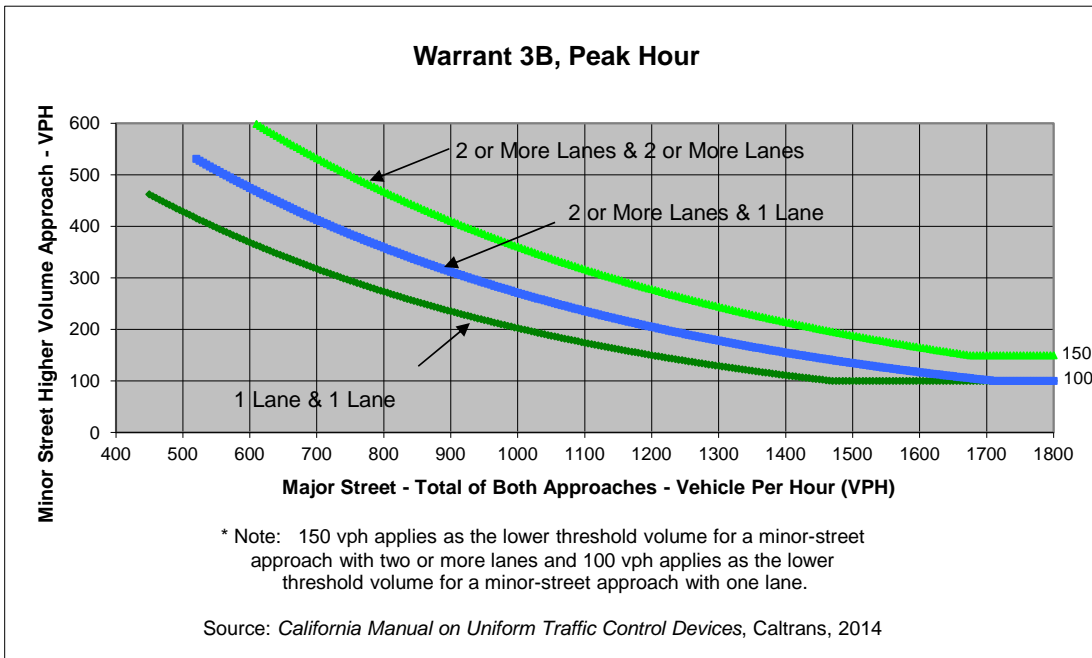
Project **Rancho Monterey Traffic Study**
 Scenario **Opening Year Plus Project Alternative 1**
 Peak Hour **PM**

Turn Movement Volumes

	NB	SB	EB	WB
Left	97	110	115	0
Through	1,235	965	0	0
Right	129	42	58	156
Total	1,461	1,117	173	156

Major Street Direction

x	North/South
	East/West



	Major Street Monterey Avenue	Minor Street Proposed Project Access Driveway	Warrant Met
Number of Approach Lanes	3	1	
Traffic Volume (VPH) *	2,578	173	

* Note: Traffic Volume for Major Street is Total Volume of Both Approaches.
 Traffic Volume for Minor Street is the Volume of High Volume Approach.



Major Street **Monterey Avenue**
 Minor Street **Proposed Project Access Driveway**

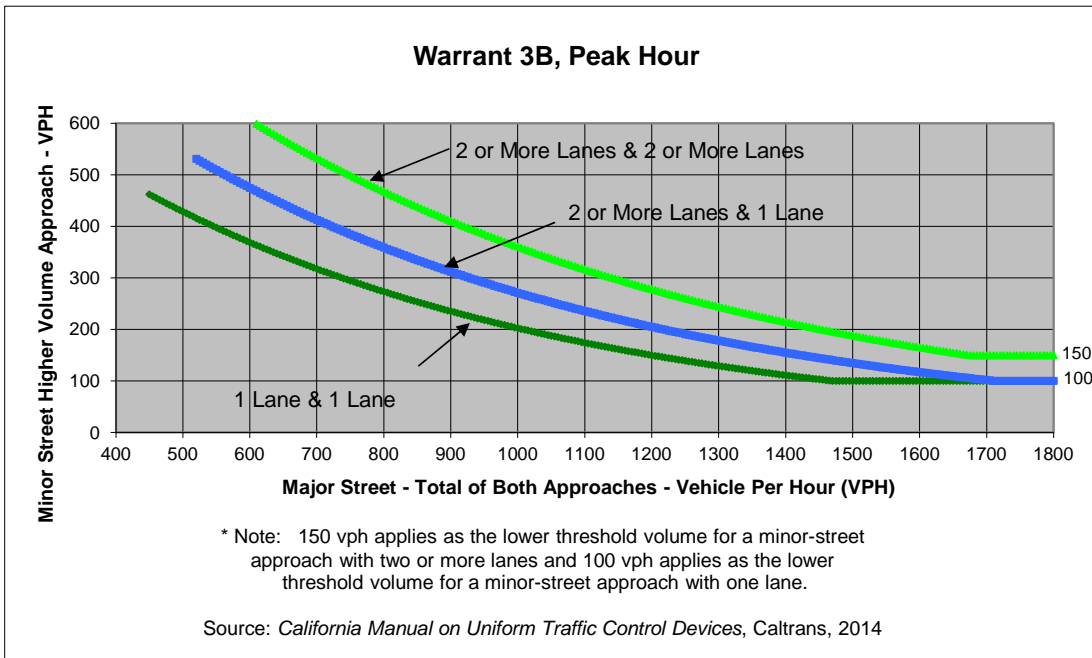
Project **Rancho Monterey Traffic Study**
 Scenario **Opening Year Plus Project Alternative 2**
 Peak Hour **AM**

Turn Movement Volumes

	NB	SB	EB	WB
Left	28	64	23	0
Through	647	1,291	0	0
Right	61	21	9	16
Total	736	1,376	32	16

Major Street Direction

x	North/South
	East/West



	Major Street	Minor Street	Warrant Met
	Monterey Avenue	Proposed Project Access Driveway	
Number of Approach Lanes	3	1	<u>NO</u>
Traffic Volume (VPH) *	2,112	32	

* Note: Traffic Volume for Major Street is Total Volume of Both Approaches.
 Traffic Volume for Minor Street is the Volume of High Volume Approach.



Major Street **Monterey Avenue**
 Minor Street **Proposed Project Access Driveway**

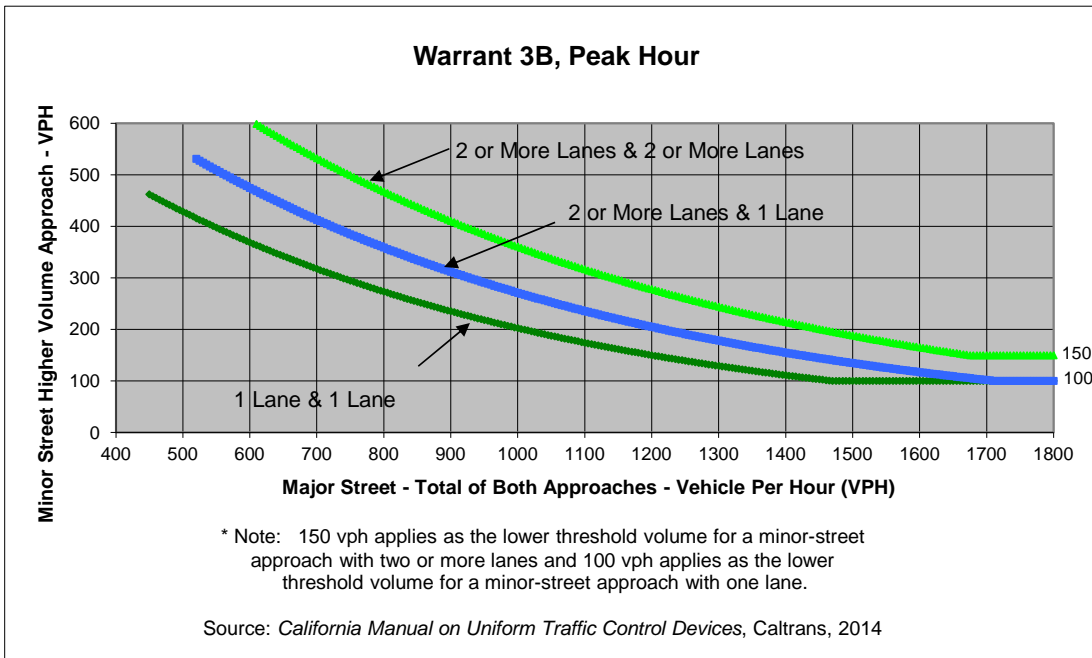
Project **Rancho Monterey Traffic Study**
 Scenario **Opening Year Plus Project Alternative 2**
 Peak Hour **PM**

Turn Movement Volumes

	NB	SB	EB	WB
Left	99	110	137	0
Through	1,235	964	0	0
Right	129	71	55	156
Total	1,463	1,145	192	156

Major Street Direction

x	North/South
	East/West



	Major Street	Minor Street	Warrant Met
	Monterey Avenue	Proposed Project Access Driveway	
Number of Approach Lanes	3	1	<u>YES</u>
Traffic Volume (VPH) *	2,608	192	

* Note: Traffic Volume for Major Street is Total Volume of Both Approaches.
 Traffic Volume for Minor Street is the Volume of High Volume Approach.

Major Street **Monterey Avenue**
 Minor Street **Proposed Project Access Driveway**

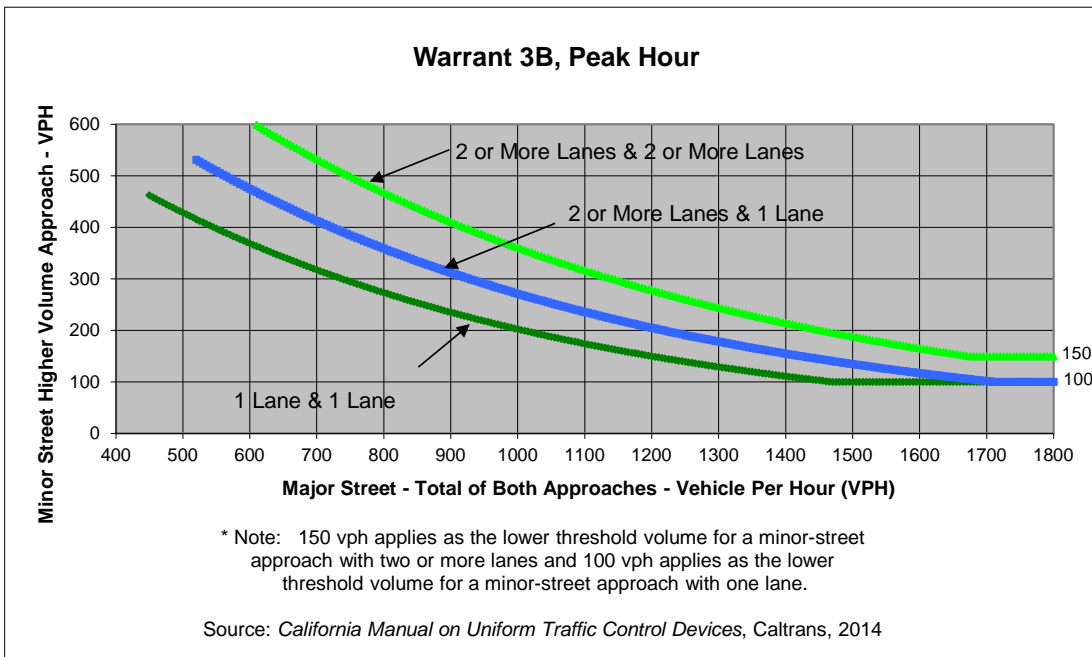
Project **Rancho Monterey Traffic Study**
 Scenario **Future Year Plus Project Alternative 1**
 Peak Hour **AM**

Turn Movement Volumes

	NB	SB	EB	WB
Left	28	64	18	0
Through	857	1,546	0	0
Right	81	8	9	16
Total	966	1,618	27	16

Major Street Direction

x	North/South
	East/West



	Major Street	Minor Street	Warrant Met
	Monterey Avenue	Proposed Project Access Driveway	
Number of Approach Lanes	3	1	<u>NO</u>
Traffic Volume (VPH) *	2,584	27	

* Note: Traffic Volume for Major Street is Total Volume of Both Approaches.
 Traffic Volume for Minor Street is the Volume of High Volume Approach.

Major Street **Monterey Avenue**
 Minor Street **Proposed Project Access Driveway**

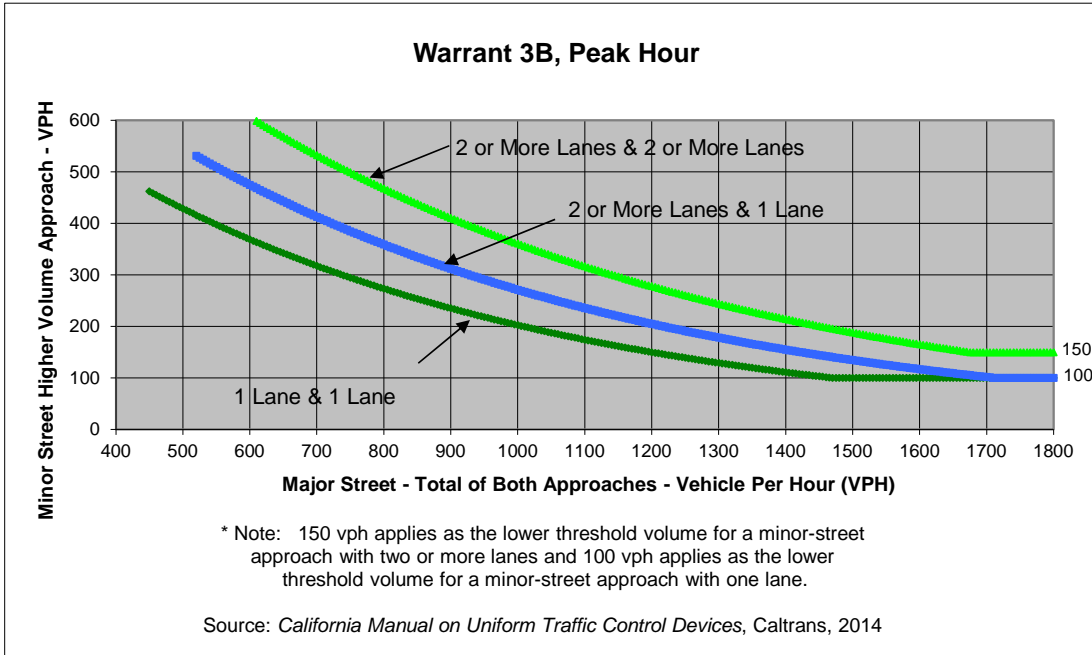
Project **Rancho Monterey Traffic Study**
 Scenario **Future Year Plus Project Alternative 1**
 Peak Hour **PM**

Turn Movement Volumes

	NB	SB	EB	WB
Left	97	130	115	0
Through	1,408	1,161	0	0
Right	139	42	58	166
Total	1,644	1,333	173	166

Major Street Direction

x	North/South
	East/West



	Major Street	Minor Street	Warrant Met
	Monterey Avenue	Proposed Project Access Driveway	
Number of Approach Lanes	3	1	<u>YES</u>
Traffic Volume (VPH) *	2,977	173	

* Note: Traffic Volume for Major Street is Total Volume of Both Approaches.
 Traffic Volume for Minor Street is the Volume of High Volume Approach.



Major Street Monterey Avenue
 Minor Street Proposed Project Access Driveway

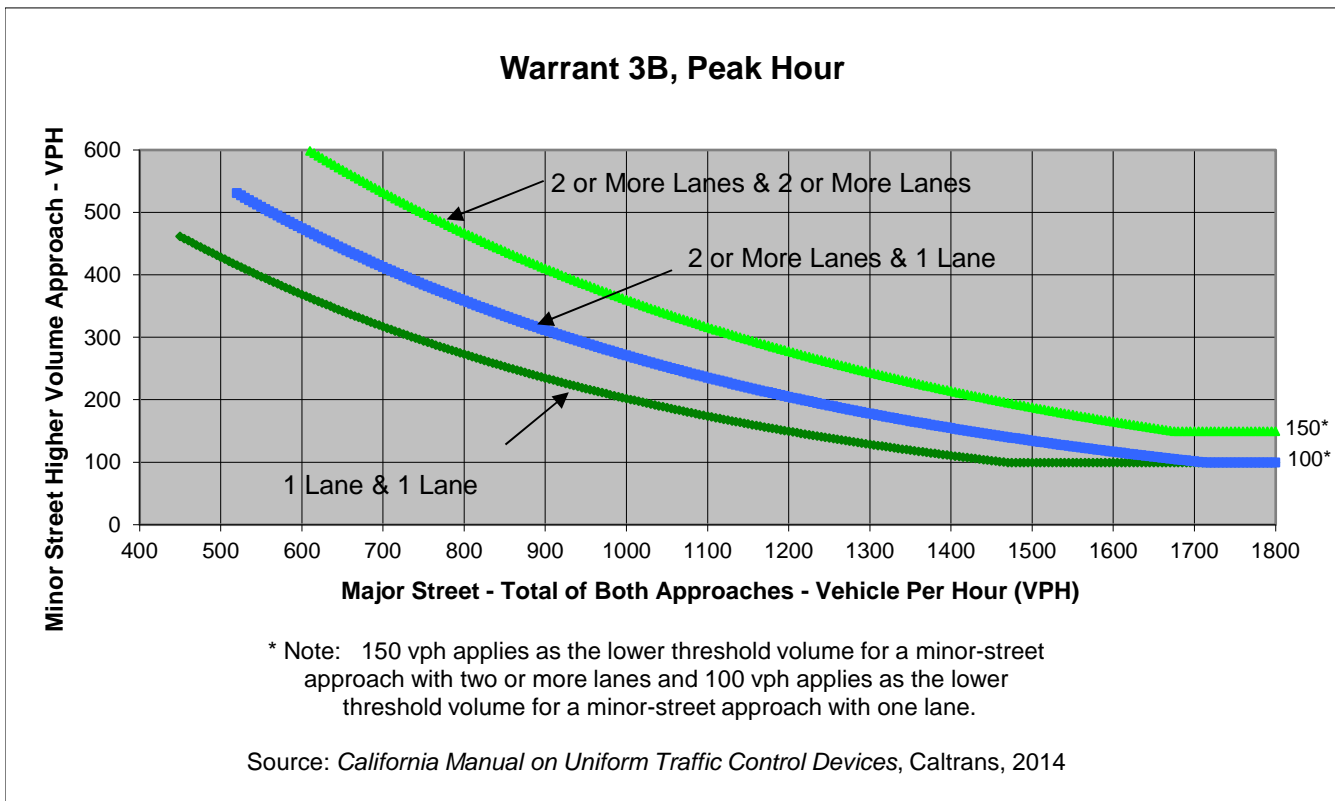
Project Rancho Monterey Traffic Study
 Scenario Future Year Plus Project Alternative 2
 Peak Hour AM

Turn Movement Volumes

	NB	SB	EB	WB
Left	28	64	23	0
Through	857	1,446	0	0
Right	81	21	9	16
Total	966	1,531	32	16

Major Street Direction

x	North/South
	East/West



	Major Street	Minor Street	Warrant Met
	Monterey Avenue	Proposed Project Access Driveway	
Number of Approach Lanes	3	1	<u>NO</u>
Traffic Volume (VPH) *	2,497	32	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
 Traffic Volume for Minor Street is the Volume of High Volume Approach.



Major Street Monterey Avenue
 Minor Street Proposed Project Access Driveway

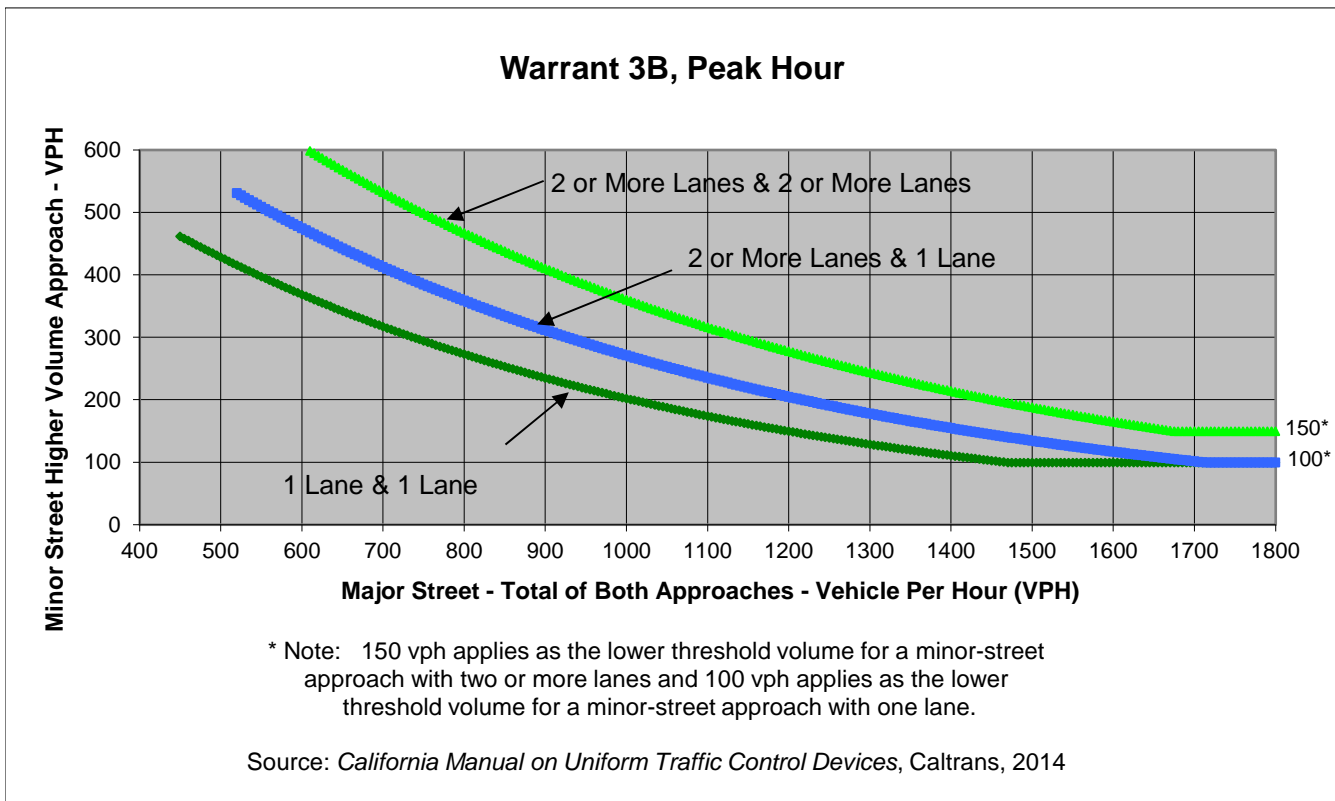
Project Rancho Monterey Traffic Study
 Scenario Future Year Plus Project Alternative 2
 Peak Hour PM

Turn Movement Volumes

	NB	SB	EB	WB
Left	99	130	137	0
Through	1,405	1,160		0
Right	139	71	55	166
Total	1,643	1,361	192	166

Major Street Direction

x	North/South
	East/West



	Major Street	Minor Street	Warrant Met
	Monterey Avenue	Proposed Project Access Driveway	
Number of Approach Lanes	3	1	YES
Traffic Volume (VPH) *	3,004	192	

* Note: Traffic Volume for Major Street is Total Volume of Both Approaches.
 Traffic Volume for Minor Street is the Volume of High Volume Approach.

Appendix G: Traffic Counts



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:
Tue, Oct 26, 21

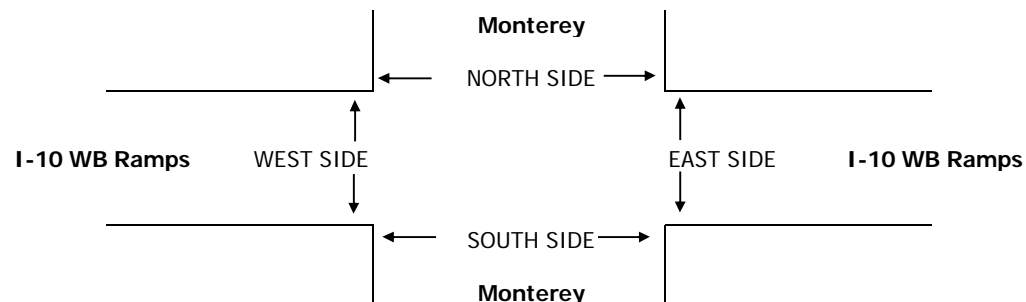
LOCATION: Rancho Mirage
NORTH & SOUTH: Monterey
EAST & WEST: I-10 WB Ramps

PROJECT #: SC3138
LOCATION #: 1
CONTROL: SIGNAL

NOTES:	AM		▲	
	PM		N	
	MD	◀ W	S	E ▶
	OTHER		▼	

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Monterey			Monterey			I-10 WB Ramps			I-10 WB Ramps			
	LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	
	2	2	1	1	2	1	1	1.5	1.5	2	2	0	

AM	7:00 AM	29	24	8	14	104	3	2	19	43	82	42	15	385
	7:15 AM	25	18	10	13	138	5	0	22	50	122	43	25	471
	7:30 AM	43	36	11	14	157	0	6	27	40	139	43	21	537
	7:45 AM	39	35	9	17	128	3	1	23	60	188	84	30	617
	8:00 AM	33	46	8	10	105	3	5	19	61	138	58	26	512
	8:15 AM	26	37	10	11	119	2	6	17	46	129	32	32	467
	8:30 AM	24	48	8	8	106	3	7	17	47	110	41	31	450
	8:45 AM	21	42	11	7	121	1	2	19	47	124	33	19	447
	VOLUMES	240	286	75	94	978	20	29	163	394	1,032	376	199	3,886
	APPROACH %	40%	48%	12%	9%	90%	2%	5%	28%	67%	64%	23%	12%	
APP/DEPART	601	/	515	1,092	/	2,405	586	/	331	1,607	/	635	0	
BEGIN PEAK HR	7:15 AM													
VOLUMES	140	135	38	54	528	11	12	91	211	587	228	102	2,137	
APPROACH %	45%	43%	12%	9%	89%	2%	4%	29%	67%	64%	25%	11%		
PEAK HR FACTOR	0.869			0.867			0.924			0.759			0.866	
APP/DEPART	313	/	250	593	/	1,327	314	/	182	917	/	378	0	
PM	4:00 PM	73	106	18	8	73	0	4	18	64	96	42	55	557
	4:15 PM	50	97	23	5	101	3	5	26	46	105	49	48	558
	4:30 PM	59	136	17	5	98	4	4	26	59	95	47	42	592
	4:45 PM	47	116	15	7	99	1	9	15	38	125	38	36	546
	5:00 PM	49	109	20	6	96	2	7	19	72	73	42	38	533
	5:15 PM	62	136	17	4	78	3	6	13	43	102	57	50	571
	5:30 PM	37	134	15	8	104	4	7	15	54	90	34	46	548
	5:45 PM	36	105	15	1	94	1	4	9	31	85	35	43	459
	VOLUMES	413	939	140	44	743	18	46	141	407	771	344	358	4,364
	APPROACH %	28%	63%	9%	5%	92%	2%	8%	24%	69%	52%	23%	24%	
APP/DEPART	1,492	/	1,344	805	/	1,942	594	/	324	1,473	/	754	0	
BEGIN PEAK HR	4:00 PM													
VOLUMES	229	455	73	25	371	8	22	85	207	421	176	181	2,253	
APPROACH %	30%	60%	10%	6%	92%	2%	7%	27%	66%	54%	23%	23%		
PEAK HR FACTOR	0.893			0.927			0.882			0.963			0.951	
APP/DEPART	757	/	659	404	/	1,009	314	/	182	778	/	403	0	



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:
Tue, Oct 26, 21

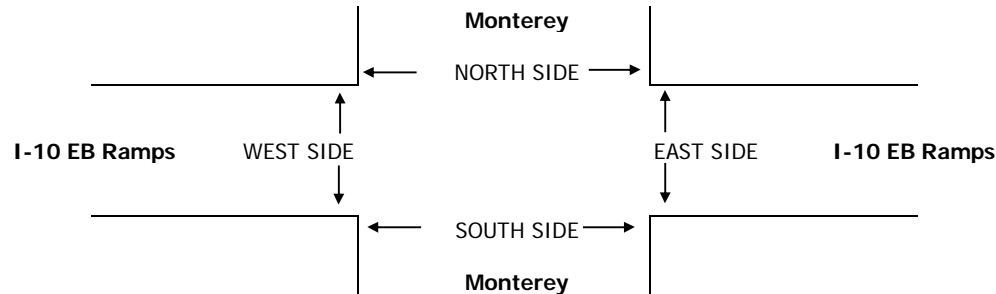
LOCATION: Rancho Mirage
NORTH & SOUTH: Monterey
EAST & WEST: I-10 EB Ramps

PROJECT #: SC3138
LOCATION #: 2
CONTROL: SIGNAL

NOTES:	AM		▲	
	PM		N	
	MD	◀ W		E ▶
	OTHER		S	
	OTHER		▼	

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Monterey			Monterey			I-10 EB Ramps			I-10 EB Ramps			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	X	3	1	2	3	X	1.3	0.3	1.3	X	X	X	

AM	7:00 AM	0	109	73	38	187	0	10	0	145	0	0	0	562
	7:15 AM	0	126	64	43	251	0	8	0	202	0	0	0	694
	7:30 AM	0	127	85	50	253	0	13	0	271	0	0	0	799
	7:45 AM	0	151	96	47	318	0	16	1	283	0	0	0	912
	8:00 AM	0	149	80	47	274	0	5	1	200	0	0	0	756
	8:15 AM	0	155	89	27	217	0	8	0	168	0	0	0	664
	8:30 AM	0	132	78	33	242	0	13	0	189	0	0	0	687
	8:45 AM	0	154	80	34	219	0	12	0	181	0	0	0	680
	VOLUMES	0	1,103	645	319	1,961	0	85	2	1,639	0	0	0	5,754
	APPROACH %	0%	63%	37%	14%	86%	0%	5%	0%	95%	0%	0%	0%	
	APP/DEPART	1,748	/	1,188	2,280	/	3,600	1,726	/	966	0	/	0	0
	BEGIN PEAK HR	7:15 AM												
	VOLUMES	0	553	325	187	1,096	0	42	2	956	0	0	0	3,161
	APPROACH %	0%	63%	37%	15%	85%	0%	4%	0%	96%	0%	0%	0%	
PEAK HR FACTOR	0.889			0.879			0.833			0.000			0.867	
APP/DEPART	878	/	595	1,283	/	2,052	1,000	/	514	0	/	0	0	
PM	4:00 PM	0	339	147	33	179	0	8	1	157	0	0	0	864
	4:15 PM	0	382	119	29	207	0	7	0	179	0	0	0	923
	4:30 PM	0	394	170	43	198	0	8	0	130	0	0	0	943
	4:45 PM	0	364	159	32	199	0	7	1	155	0	0	0	917
	5:00 PM	0	388	167	59	187	0	11	1	158	0	0	0	971
	5:15 PM	0	413	159	17	170	0	7	0	124	0	0	0	890
	5:30 PM	0	364	157	37	195	0	7	1	141	0	0	0	902
	5:45 PM	0	308	129	22	180	0	11	0	144	0	0	0	794
	VOLUMES	0	2,952	1,207	272	1,515	0	66	4	1,188	0	0	0	7,204
	APPROACH %	0%	71%	29%	15%	85%	0%	5%	0%	94%	0%	0%	0%	
	APP/DEPART	4,159	/	3,018	1,787	/	2,703	1,258	/	1,483	0	/	0	0
	BEGIN PEAK HR	4:15 PM												
	VOLUMES	0	1,528	615	163	791	0	33	2	622	0	0	0	3,754
	APPROACH %	0%	71%	29%	17%	83%	0%	5%	0%	95%	0%	0%	0%	
PEAK HR FACTOR	0.950			0.970			0.883			0.000			0.967	
APP/DEPART	2,143	/	1,561	954	/	1,413	657	/	780	0	/	0	0	



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

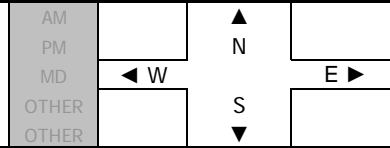
DATE:
Thu, Feb 10, 22

LOCATION:
NORTH & SOUTH:
EAST & WEST:

Rancho Mirage
Key Largo
Dinah Shore

PROJECT #: SC3140
LOCATION #: 3
CONTROL: SIGNAL

NOTES:



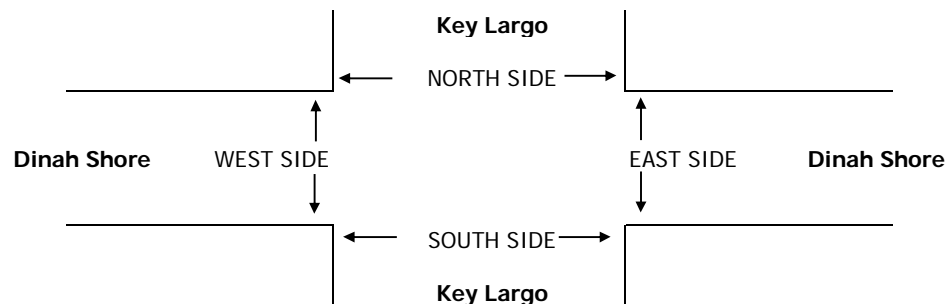
Add U-Turns to Left Turns

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Key Largo			Key Largo			Dinah Shore			Dinah Shore			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1	X	1	X	X	X	X	2.5	0.5	1	3	X	

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL	
	Key Largo			Key Largo			Dinah Shore			Dinah Shore				
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR		
AM	7:00 AM	2	0	8	0	0	0	0	67	2	7	106	0	192
	7:15 AM	5	0	7	0	0	0	0	71	5	8	107	0	203
	7:30 AM	11	0	7	0	0	0	0	142	3	9	124	0	296
	7:45 AM	8	0	6	0	0	0	0	144	3	18	127	0	306
	8:00 AM	2	0	5	0	0	0	0	168	10	14	113	0	312
	8:15 AM	0	0	4	0	0	0	0	121	8	20	133	0	286
	8:30 AM	4	0	8	0	0	0	0	127	8	15	114	0	276
	8:45 AM	8	0	9	0	0	0	0	174	6	11	116	0	324
	VOLUMES	40	0	54	0	0	0	0	1,014	45	102	940	0	2,199
	APPROACH %	43%	0%	57%	0%	0%	0%	0%	96%	4%	10%	90%	0%	
APP/DEPART	94	/	0	0	/	147	1,061	/	1,070	1,044	/	982	0	
BEGIN PEAK HR	8:00 AM													
VOLUMES	14	0	26	0	0	0	0	590	32	60	476	0	1,201	
APPROACH %	35%	0%	65%	0%	0%	0%	0%	95%	5%	11%	89%	0%		
PEAK HR FACTOR	0.556			0.000			0.862			0.877			0.924	
APP/DEPART	40	/	0	0	/	92	624	/	617	537	/	492	0	
PM	4:00 PM	4	0	17	0	0	0	0	209	10	10	223	0	473
	4:15 PM	3	0	10	0	0	0	0	212	6	5	220	0	456
	4:30 PM	6	0	13	0	0	0	0	170	16	7	205	0	417
	4:45 PM	4	0	10	0	0	0	0	215	6	4	219	0	458
	5:00 PM	2	0	28	0	0	0	0	179	8	7	192	0	416
	5:15 PM	4	0	14	0	0	0	0	182	6	10	243	0	459
	5:30 PM	5	0	14	0	0	0	0	192	3	8	218	0	440
	5:45 PM	1	0	14	0	0	0	0	143	4	6	194	0	362
	VOLUMES	29	0	120	0	0	0	0	1,502	59	57	1,714	0	3,502
	APPROACH %	19%	0%	81%	0%	0%	0%	0%	95%	4%	3%	97%	0%	
APP/DEPART	149	/	0	0	/	116	1,578	/	1,626	1,775	/	1,760	0	
BEGIN PEAK HR	4:00 PM													
VOLUMES	17	0	50	0	0	0	0	806	38	26	867	0	1,816	
APPROACH %	25%	0%	75%	0%	0%	0%	0%	94%	4%	3%	97%	0%		
PEAK HR FACTOR	0.798			0.000			0.960			0.958			0.958	
APP/DEPART	67	/	0	0	/	64	856	/	856	893	/	896	0	

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	1	1
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	1	1
0	0	1	0	1
0	0	2	2	4
0	0	1	0	1
0	0	3	0	3
0	0	6	0	6
0	0	2	0	2
0	0	2	1	3
0	0	1	1	2
0	0	2	2	4
0	0	0	0	0
0	0	17	4	21



INTERSECTION TURNING MOVEMENT COUNTS

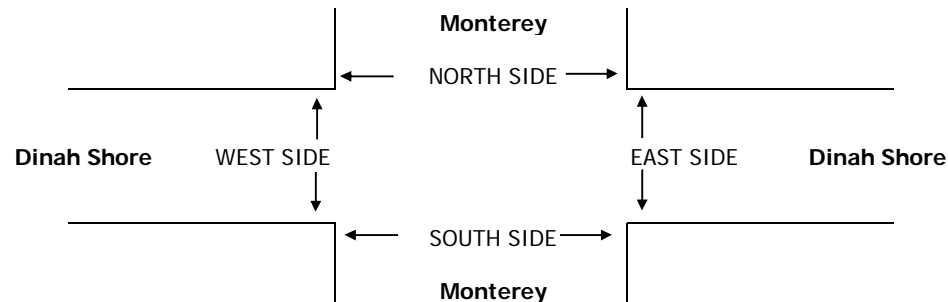
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Oct 26, 21	LOCATION: NORTH & SOUTH: Rancho Mirage EAST & WEST: Monterey Dinah Shore	PROJECT #: SC3138 LOCATION #: 4 CONTROL: SIGNAL
---------------------------------	--	--

NOTES: <p style="text-align: center; color: blue;">Queue NB PM</p>	AM PM MD OTHER OTHER	▲ N ◀ W E ▶ S ▼
---	----------------------------------	----------------------------------

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Monterey			Monterey			Dinah Shore			Dinah Shore			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	2	3	0	2	3	1	2	2	1	1	2	1	

AM	7:00 AM	15	78	3	53	221	69	47	27	20	9	19	76	637
	7:15 AM	38	67	2	83	220	81	45	36	14	10	57	95	748
	7:30 AM	33	80	2	80	335	101	75	48	23	3	47	99	926
	7:45 AM	25	97	0	109	404	116	65	64	26	7	56	99	1,068
	8:00 AM	29	93	4	93	290	94	65	63	42	9	42	99	923
	8:15 AM	44	81	6	68	258	88	78	57	41	7	59	48	835
	8:30 AM	31	89	3	62	261	98	56	54	44	15	54	31	798
	8:45 AM	52	93	4	71	257	83	66	50	39	11	51	36	813
	VOLUMES	267	678	24	619	2,246	730	497	399	249	71	385	583	6,748
	APPROACH %	28%	70%	2%	17%	62%	20%	43%	35%	22%	7%	37%	56%	
APP/DEPART	969	/	1,760	3,595	/	2,581	1,145	/	1,040	1,039	/	1,367	0	
BEGIN PEAK HR	7:30 AM													
VOLUMES	131	351	12	350	1,287	399	283	232	132	26	204	345	3,752	
APPROACH %	27%	71%	2%	17%	63%	20%	44%	36%	20%	5%	35%	60%		
PEAK HR FACTOR	0.943			0.809			0.919			0.887			0.878	
APP/DEPART	494	/	980	2,036	/	1,448	647	/	593	575	/	731	0	
PM	4:00 PM	87	218	2	55	172	114	136	96	78	15	82	127	1,182
	4:15 PM	88	241	2	80	222	98	122	80	76	5	85	134	1,233
	4:30 PM	95	256	6	75	160	93	156	79	66	13	79	152	1,230
	4:45 PM	69	249	3	77	151	109	125	79	67	11	103	131	1,174
	5:00 PM	85	269	4	65	194	87	161	81	75	19	61	146	1,247
	5:15 PM	75	291	3	70	182	78	143	47	69	9	79	145	1,191
	5:30 PM	87	244	3	47	175	52	110	42	32	7	64	151	1,014
	5:45 PM	65	219	5	87	156	97	108	51	60	8	74	130	1,060
	VOLUMES	651	1,987	28	556	1,412	728	1,061	555	523	87	627	1,116	9,331
	APPROACH %	24%	75%	1%	21%	52%	27%	50%	26%	24%	5%	34%	61%	
APP/DEPART	2,666	/	4,163	2,696	/	2,039	2,139	/	1,136	1,830	/	1,993	0	
BEGIN PEAK HR	4:15 PM													
VOLUMES	337	1,015	15	297	727	387	564	319	284	48	328	563	4,884	
APPROACH %	25%	74%	1%	21%	52%	27%	48%	27%	24%	5%	35%	60%		
PEAK HR FACTOR	0.955			0.882			0.920			0.958			0.979	
APP/DEPART	1,367	/	2,143	1,411	/	1,073	1,167	/	630	939	/	1,038	0	



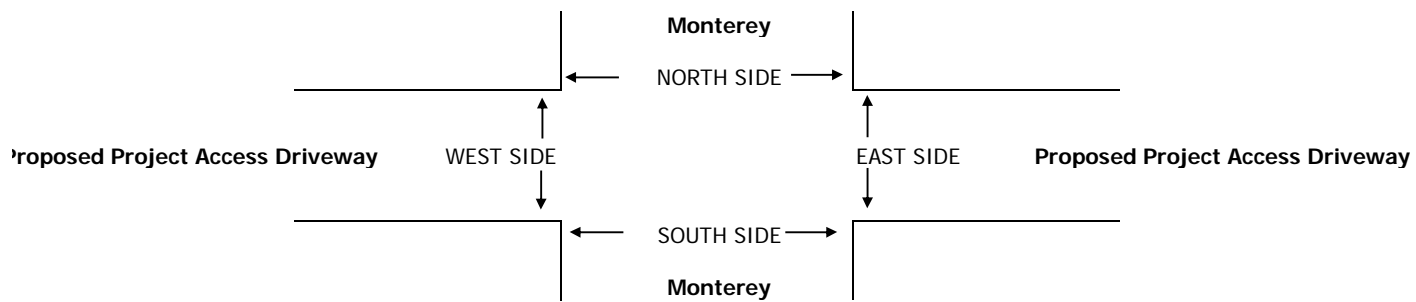
INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Oct 26, 21	LOCATION: NORTH & SOUTH: Rancho Mirage EAST & WEST: Monterey Proposed Project Access Driveway	PROJECT #: SC3138 LOCATION #: 6 CONTROL: STOP W															
NOTES:		<table border="1" style="margin: auto; border-collapse: collapse;"> <tr> <td style="padding: 2px;">AM</td> <td style="padding: 2px;">▲</td> <td style="padding: 2px;">N</td> </tr> <tr> <td style="padding: 2px;">PM</td> <td style="padding: 2px;">◀</td> <td style="padding: 2px;">W</td> </tr> <tr> <td style="padding: 2px;">MD</td> <td style="padding: 2px;">▶</td> <td style="padding: 2px;">E</td> </tr> <tr> <td style="padding: 2px;">OTHER</td> <td style="padding: 2px;">▼</td> <td style="padding: 2px;">S</td> </tr> <tr> <td style="padding: 2px;">OTHER</td> <td colspan="2"></td> </tr> </table>	AM	▲	N	PM	◀	W	MD	▶	E	OTHER	▼	S	OTHER		
AM	▲	N															
PM	◀	W															
MD	▶	E															
OTHER	▼	S															
OTHER																	

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Monterey			Monterey			Proposed Project Access Driveway			Proposed Project Access Driveway			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	X	3.5	0.5	1	3	X	X	X	X	X	X	0	

AM	7:00 AM	0	90	4	10	211	0	0	0	0	0	0	1	316
	7:15 AM	0	102	5	6	227	0	0	0	0	0	0	3	343
	7:30 AM	0	134	9	14	299	0	0	0	0	0	0	1	457
	7:45 AM	0	137	14	13	340	0	0	0	0	0	0	0	504
	8:00 AM	0	130	9	15	334	0	0	0	0	0	0	4	492
	8:15 AM	0	142	16	9	288	0	0	0	0	0	0	1	456
	8:30 AM	0	133	4	3	275	0	0	0	0	0	0	10	425
	8:45 AM	0	140	10	21	274	0	0	0	0	0	0	6	451
	VOLUMES	0	1,008	71	91	2,248	0	0	0	0	0	0	26	3,444
	APPROACH %	0%	93%	7%	4%	96%	0%	0%	0%	0%	0%	0%	100%	
APP/DEPART	1,079	/	1,036	2,339	/	2,248	0	/	160	26	/	0	0	
BEGIN PEAK HR	7:30 AM													
VOLUMES	0	543	48	51	1,261	0	0	0	0	0	0	6	1,909	
APPROACH %	0%	92%	8%	4%	96%	0%	0%	0%	0%	0%	0%	100%		
PEAK HR FACTOR	0.935			0.929			0.000			0.375			0.947	
APP/DEPART	591	/	551	1,312	/	1,261	0	/	97	6	/	0	0	
PM	4:00 PM	0	237	17	23	178	0	0	0	0	0	0	33	488
	4:15 PM	0	312	28	25	256	0	0	0	0	0	0	31	652
	4:30 PM	0	308	27	21	232	0	0	0	0	0	0	35	623
	4:45 PM	0	277	30	21	200	0	0	0	0	0	0	35	563
	5:00 PM	0	346	27	27	218	0	0	0	0	0	0	37	655
	5:15 PM	0	293	38	17	235	0	0	0	0	0	0	31	614
	5:30 PM	0	301	25	21	172	0	0	0	0	0	0	29	548
	5:45 PM	0	242	30	21	183	0	0	0	0	0	0	22	498
	VOLUMES	0	2,316	222	176	1,674	0	0	0	0	0	0	253	4,641
	APPROACH %	0%	91%	9%	10%	90%	0%	0%	0%	0%	0%	0%	100%	
APP/DEPART	2,538	/	2,573	1,850	/	1,674	0	/	394	253	/	0	0	
BEGIN PEAK HR	4:15 PM													
VOLUMES	0	1,243	112	94	906	0	0	0	0	0	0	138	2,493	
APPROACH %	0%	92%	8%	9%	91%	0%	0%	0%	0%	0%	0%	100%		
PEAK HR FACTOR	0.908			0.890			0.000			0.932			0.952	
APP/DEPART	1,355	/	1,383	1,000	/	906	0	/	204	138	/	0	0	



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

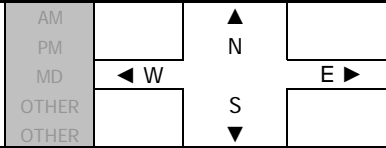
DATE:
Thu, Feb 10, 22

LOCATION:
NORTH & SOUTH:
EAST & WEST:

Rancho Mirage
Monterey
Dick Kelly

PROJECT #: SC3140
LOCATION #: 7
CONTROL: SIGNAL

NOTES:



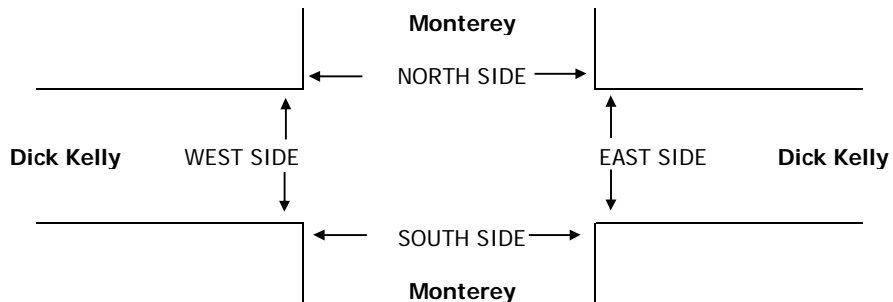
Add U-Turns to Left Turns

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Monterey			Monterey			Dick Kelly			Dick Kelly			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	X	3	1	1	3	X	X	X	X	1.5	X	0.5	

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL	
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR		
AM	7:00 AM	0	99	4	6	235	0	0	0	0	7	0	2	353
	7:15 AM	0	117	4	7	233	0	0	0	0	8	0	3	372
	7:30 AM	0	141	5	6	316	0	0	0	0	15	0	1	484
	7:45 AM	0	168	12	2	339	0	0	0	0	18	0	4	543
	8:00 AM	0	157	12	6	338	0	0	0	0	20	0	6	539
	8:15 AM	0	150	13	0	259	0	0	0	0	15	0	6	443
	8:30 AM	0	149	12	8	294	0	0	0	0	16	0	5	484
	8:45 AM	0	181	12	5	309	0	0	0	0	21	0	4	532
	VOLUMES	0	1,162	74	40	2,323	0	0	0	0	120	0	31	3,757
	APPROACH %	0%	94%	6%	2%	98%	0%	0%	0%	0%	79%	0%	21%	
APP/DEPART	1,242	/	1,194	2,364	/	2,449	0	/	114	151	/	0	0	
BEGIN PEAK HR	7:45 AM													
VOLUMES	0	624	49	16	1,230	0	0	0	0	69	0	21	2,015	
APPROACH %	0%	92%	7%	1%	99%	0%	0%	0%	0%	77%	0%	23%		
PEAK HR FACTOR	0.936			0.906			0.000			0.865			0.926	
APP/DEPART	678	/	646	1,247	/	1,304	0	/	65	90	/	0	0	
PM	4:00 PM	0	299	35	5	266	0	0	0	0	48	0	19	672
	4:15 PM	0	311	28	9	243	0	0	0	0	45	0	13	649
	4:30 PM	0	308	21	5	263	0	0	0	0	52	0	14	663
	4:45 PM	0	346	26	4	263	0	0	0	0	51	0	13	703
	5:00 PM	0	364	22	3	239	0	0	0	0	39	0	12	679
	5:15 PM	0	339	19	1	214	0	0	0	0	34	0	15	622
	5:30 PM	0	314	22	3	213	0	0	0	0	38	0	7	597
	5:45 PM	0	231	24	9	195	0	0	0	0	38	0	9	506
	VOLUMES	0	2,512	197	39	1,896	0	0	0	0	345	0	102	5,099
	APPROACH %	0%	92%	7%	2%	98%	0%	0%	0%	0%	77%	0%	23%	
APP/DEPART	2,717	/	2,614	1,935	/	2,249	0	/	236	447	/	0	0	
BEGIN PEAK HR	4:15 PM													
VOLUMES	0	1,329	97	21	1,008	0	0	0	0	187	0	52	2,699	
APPROACH %	0%	93%	7%	2%	98%	0%	0%	0%	0%	78%	0%	22%		
PEAK HR FACTOR	0.927			0.960			0.000			0.905			0.958	
APP/DEPART	1,431	/	1,381	1,029	/	1,200	0	/	118	239	/	0	0	

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
1	0	0	0	1
3	1	0	0	4
0	0	0	0	0
1	0	0	0	1
1	0	0	0	1
6	1	0	0	7
1	0	0	0	1
3	0	0	0	3
1	0	0	0	1
1	0	0	0	1
0	0	0	0	0
1	0	0	0	1
1	0	0	0	1
8	0	0	0	8



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:
Thu, Feb 10, 22

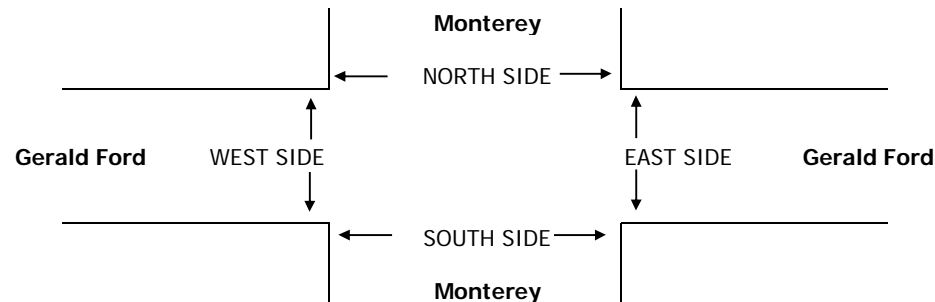
LOCATION: Rancho Mirage
NORTH & SOUTH: Monterey
EAST & WEST: Gerald Ford

PROJECT #: SC3140
LOCATION #: 8
CONTROL: SIGNAL

NOTES:	AM		▲	
	PM		N	
	MD	◀ W		E ▶
	OTHER		S	
	OTHER		▼	

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Monterey			Monterey			Gerald Ford			Gerald Ford			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	2	2.5	0.5	2	3	1	2	2	1	2	2	1	

AM	7:00 AM	20	79	5	11	171	27	18	46	18	15	80	8	498
	7:15 AM	17	109	1	9	233	12	12	44	23	13	83	12	568
	7:30 AM	17	101	3	5	240	24	20	77	35	20	92	11	645
	7:45 AM	20	158	10	13	340	28	20	76	52	37	124	11	889
	8:00 AM	30	119	9	11	268	33	23	73	26	31	111	21	755
	8:15 AM	25	139	5	12	261	25	13	57	33	23	109	20	722
	8:30 AM	27	126	5	12	218	27	17	55	31	29	132	19	698
	8:45 AM	29	154	9	13	322	21	26	58	34	23	90	18	797
	VOLUMES	185	985	47	86	2,053	197	149	486	252	191	821	120	5,572
	APPROACH %	15%	81%	4%	4%	88%	8%	17%	55%	28%	17%	73%	11%	
APP/DEPART	1,217	/	1,257	2,336	/	2,497	887	/	616	1,132	/	1,202	0	
BEGIN PEAK HR	7:45 AM													
VOLUMES	102	542	29	48	1,087	113	73	261	142	120	476	71	3,064	
APPROACH %	15%	81%	4%	4%	87%	9%	15%	55%	30%	18%	71%	11%		
PEAK HR FACTOR	0.895			0.819			0.804			0.926			0.862	
APP/DEPART	673	/	687	1,248	/	1,350	476	/	337	667	/	690	0	
PM	4:00 PM	42	264	23	8	242	31	46	82	28	31	88	18	903
	4:15 PM	45	310	15	16	244	30	38	68	23	32	74	17	912
	4:30 PM	48	255	24	16	224	42	30	77	31	31	106	22	906
	4:45 PM	28	298	11	11	243	38	25	72	47	20	73	16	882
	5:00 PM	43	309	21	11	199	32	30	109	27	25	60	18	884
	5:15 PM	53	312	25	23	228	20	28	97	23	21	87	24	941
	5:30 PM	54	273	18	11	185	21	31	90	38	24	70	20	835
	5:45 PM	36	222	20	13	207	15	17	71	33	14	40	10	698
	VOLUMES	349	2,243	157	109	1,772	229	245	666	250	198	598	145	6,961
	APPROACH %	13%	82%	6%	5%	84%	11%	21%	57%	22%	21%	64%	15%	
APP/DEPART	2,749	/	2,638	2,110	/	2,222	1,161	/	929	941	/	1,172	0	
BEGIN PEAK HR	4:30 PM													
VOLUMES	172	1,174	81	61	894	132	113	355	128	97	326	80	3,613	
APPROACH %	12%	82%	6%	6%	82%	12%	19%	60%	21%	19%	65%	16%		
PEAK HR FACTOR	0.915			0.931			0.898			0.791			0.960	
APP/DEPART	1,427	/	1,369	1,087	/	1,120	596	/	495	503	/	629	0	



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:
Tue, Oct 26, 21

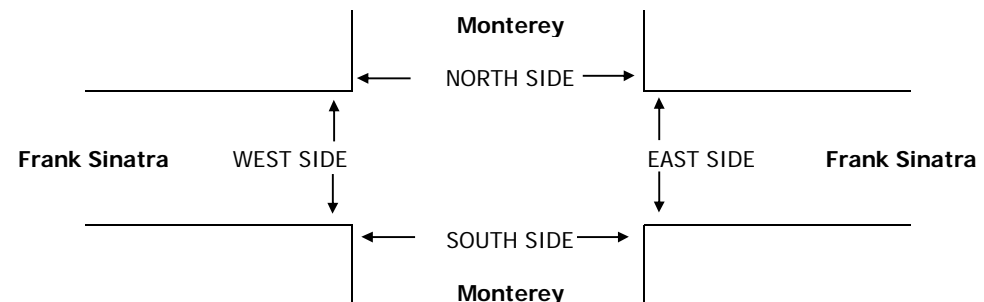
LOCATION: Rancho Mirage
NORTH & SOUTH: Monterey
EAST & WEST: Frank Sinatra

PROJECT #: SC3138
LOCATION #: 9
CONTROL: SIGNAL

NOTES:	AM		▲	
	PM		N	
	MD	◀ W		E ▶
	OTHER		S	
	OTHER		▼	

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Monterey			Monterey			Frank Sinatra			Frank Sinatra			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	2	2.5	0.5	2	3	1	2	2	1	2	2	1	

AM	7:00 AM	7	98	5	11	180	12	2	27	8	15	85	1	451
	7:15 AM	5	85	9	12	197	13	6	39	11	28	124	12	541
	7:30 AM	15	101	10	14	312	15	2	33	10	23	115	9	659
	7:45 AM	14	138	11	15	338	15	6	47	21	42	133	19	799
	8:00 AM	13	171	8	10	336	10	4	45	13	24	110	14	758
	8:15 AM	4	133	10	11	255	9	4	32	15	25	95	18	611
	8:30 AM	13	145	14	4	267	11	7	26	12	31	88	17	635
	8:45 AM	11	147	7	3	270	13	5	39	19	38	75	13	640
	VOLUMES	82	1,018	74	80	2,155	98	36	288	109	226	825	103	5,094
	APPROACH %	7%	87%	6%	3%	92%	4%	8%	67%	25%	20%	71%	9%	
APP/DEPART	1,174	/	1,157	2,333	/	2,488	433	/	445	1,154	/	1,004	0	
BEGIN PEAK HR	7:30 AM													
VOLUMES	46	543	39	50	1,241	49	16	157	59	114	453	60	2,827	
APPROACH %	7%	86%	6%	4%	93%	4%	7%	68%	25%	18%	72%	10%		
PEAK HR FACTOR	0.818			0.910			0.784			0.808			0.885	
APP/DEPART	628	/	619	1,340	/	1,411	232	/	248	627	/	549	0	
PM	4:00 PM	17	270	15	17	227	7	25	75	27	19	73	28	800
	4:15 PM	20	275	17	16	253	13	16	105	21	24	58	13	831
	4:30 PM	19	249	10	15	248	11	33	113	18	32	75	16	839
	4:45 PM	20	277	25	16	236	7	26	104	21	27	45	13	817
	5:00 PM	20	303	24	17	218	8	27	115	20	27	54	15	848
	5:15 PM	28	330	28	17	247	8	37	113	19	29	61	14	931
	5:30 PM	10	256	13	16	234	9	18	91	15	33	65	10	770
	5:45 PM	11	276	24	14	224	9	21	85	12	21	46	10	753
	VOLUMES	145	2,236	156	128	1,887	72	203	801	153	212	477	119	6,589
	APPROACH %	6%	88%	6%	6%	90%	3%	18%	69%	13%	26%	59%	15%	
APP/DEPART	2,537	/	2,558	2,087	/	2,249	1,157	/	1,088	808	/	694	0	
BEGIN PEAK HR	4:30 PM													
VOLUMES	87	1,159	87	65	949	34	123	445	78	115	235	58	3,435	
APPROACH %	7%	87%	7%	6%	91%	3%	19%	69%	12%	28%	58%	14%		
PEAK HR FACTOR	0.863			0.956			0.956			0.829			0.922	
APP/DEPART	1,333	/	1,339	1,048	/	1,142	646	/	598	408	/	356	0	



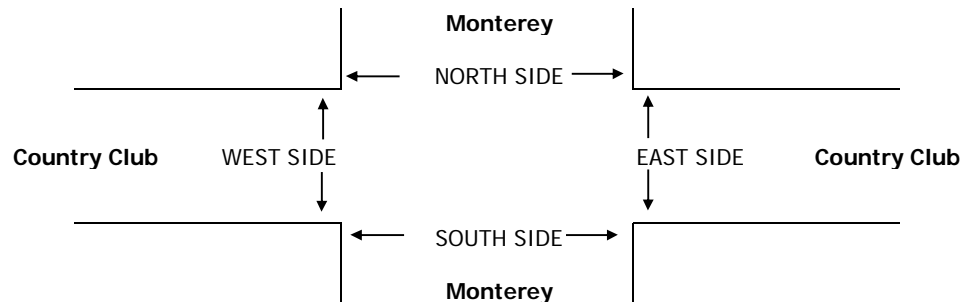
CHANGING TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Oct 26, 21	LOCATION: NORTH & SOUTH: Rancho Mirage EAST & WEST: Monterey Country Club	PROJECT #: SC3138 LOCATION #: 10 CONTROL: SIGNAL
NOTES:		

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Monterey			Monterey			Country Club			Country Club			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	2	3	1	2	3	1	2	3	1	2	3	1	

AM	7:00 AM	30	69	9	27	148	17	8	34	21	24	97	20	504
	7:15 AM	29	81	12	20	158	38	8	65	25	27	108	27	598
	7:30 AM	62	90	14	34	211	32	8	51	32	27	134	33	728
	7:45 AM	82	113	21	27	286	45	6	69	35	44	185	37	950
	8:00 AM	63	105	23	43	224	48	15	46	23	42	164	27	823
	8:15 AM	57	98	9	51	253	39	18	91	19	55	184	26	900
	8:30 AM	50	109	21	43	220	32	13	66	35	43	143	19	794
	8:45 AM	50	91	22	43	245	34	18	80	33	51	173	28	868
	VOLUMES	423	756	131	288	1,745	285	94	502	223	313	1,188	217	6,165
	APPROACH %	32%	58%	10%	12%	75%	12%	11%	61%	27%	18%	69%	13%	
	APP/DEPART	1,310	/	1,070	2,318	/	2,287	819	/	918	1,718	/	1,890	0
	BEGIN PEAK HR	7:45 AM												
VOLUMES	252	425	74	164	983	164	52	272	112	184	676	109	3,467	
APPROACH %	34%	57%	10%	13%	75%	13%	12%	62%	26%	19%	70%	11%		
PEAK HR FACTOR	0.869			0.916			0.852			0.911			0.912	
APP/DEPART	751	/	587	1,311	/	1,284	436	/	509	969	/	1,087	0	
PM	4:00 PM	47	270	34	54	227	21	32	173	26	51	91	30	1,056
	4:15 PM	33	261	34	44	218	9	33	182	37	55	98	34	1,038
	4:30 PM	29	220	33	58	245	24	44	156	84	35	74	40	1,042
	4:45 PM	26	242	29	36	193	20	40	154	92	52	69	38	991
	5:00 PM	44	273	38	59	223	20	46	141	69	38	58	41	1,050
	5:15 PM	28	280	38	67	221	16	37	185	43	49	67	27	1,058
	5:30 PM	29	219	40	54	215	10	30	102	50	44	60	31	884
	5:45 PM	30	215	28	49	202	13	24	99	28	44	63	20	815
	VOLUMES	266	1,980	274	421	1,744	133	286	1,192	429	368	580	261	7,934
	APPROACH %	11%	79%	11%	18%	76%	6%	15%	63%	22%	30%	48%	22%	
	APP/DEPART	2,520	/	2,548	2,298	/	2,577	1,907	/	1,867	1,209	/	942	0
	BEGIN PEAK HR	4:30 PM												
VOLUMES	127	1,015	138	220	882	80	167	636	288	174	268	146	4,141	
APPROACH %	10%	79%	11%	19%	75%	7%	15%	58%	26%	30%	46%	25%		
PEAK HR FACTOR	0.901			0.904			0.954			0.925			0.978	
APP/DEPART	1,280	/	1,341	1,182	/	1,361	1,091	/	982	588	/	457	0	



APPENDIX F:

CalEEMod Emissions: Models 1 through 6

CalEEMod Version 2020.4.0

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2615 Model 1 Rancho Monterey SP Amendment

Riverside-Salton Sea County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	400.00	Dwelling Unit	18.50	400,000.00	748

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	15			Operational Year	2026
Utility Company	Imperial Irrigation District				
CO2 Intensity (lb/MW hr)	189.98	CH4 Intensity (lb/MW hr)	0.033	N2O Intensity (lb/MW hr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Model 1: 400 DUs

Land Use - Average Household Size: 1.87 PPH per CADF. Lot areas are based on the respective planning areas in the SPA. Building areas are based on combined unit count or max retail space as applicable to the model.

Construction Phase - Assumes no demolition due to vacant condition.

Grading - Assumes balanced earthwork.

Architectural Coating - Factors SCAMQD Rule 1113 compliance.

Woodstoves - Assumes no fire places or wood stoves per SCAQMD Rule 445.

Area Coating - Factors SCAMQD Rule 1113 compliance.

Construction Off-road Equipment Mitigation - SCAQMD Rule 403/403.1 and RMMC are applied as a requirement.

Area Mitigation - Factors SCAMQD Rule 1113 compliance.

Energy Mitigation -

Water Mitigation -

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Parking	250	100
tblAreaCoating	Area_EF_Residential_Exterior	250	50
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	20
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	50
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	35.00
tblConstructionPhase	PhaseEndDate	12/11/2024	1/1/2025
tblFireplaces	FireplaceDayYear	82.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	457.60	0.00
tblFireplaces	NumberGas	320.00	0.00
tblFireplaces	NumberNoFireplace	40.00	0.00
tblFireplaces	NumberWood	40.00	0.00
tblGrading	AcresOfGrading	90.00	18.50
tblGrading	AcresOfGrading	15.00	18.50
tblLandUse	LotAcreage	25.00	18.50
tblLandUse	Population	1,144.00	748.00
tblWoodstoves	NumberCatalytic	20.00	0.00

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblWoodstoves	NumberNoncatalytic	20.00	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.1749	1.4018	1.6227	3.5800e-003	0.3223	0.0609	0.3832	0.1341	0.0567	0.1908	0.0000	318.8903	318.8903	0.0600	6.4200e-003	322.3033
2024	1.4658	1.6998	2.6382	5.7700e-003	0.2779	0.0717	0.3496	0.0743	0.0674	0.1417	0.0000	518.5611	518.5611	0.0696	0.0140	524.4774
2025	0.0359	6.2000e-004	1.5300e-003	0.0000	2.4000e-004	3.0000e-005	2.7000e-004	6.0000e-005	3.0000e-005	9.0000e-005	0.0000	0.3038	0.3038	1.0000e-005	0.0000	0.3054
Maximum	1.4658	1.6998	2.6382	5.7700e-003	0.3223	0.0717	0.3832	0.1341	0.0674	0.1908	0.0000	518.5611	518.5611	0.0696	0.0140	524.4774

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	0.1749	1.4018	1.6227	3.5800e-003	0.1558	0.0609	0.2167	0.0552	0.0567	0.1119	0.0000	318.8901	318.8901	0.0600	6.4200e-003	322.3031
2024	1.4658	1.6998	2.6382	5.7700e-003	0.2304	0.0717	0.3021	0.0627	0.0674	0.1301	0.0000	518.5608	518.5608	0.0696	0.0140	524.4771
2025	0.0359	6.2000e-004	1.5300e-003	0.0000	2.0000e-004	3.0000e-005	2.2000e-004	5.0000e-005	3.0000e-005	8.0000e-005	0.0000	0.3038	0.3038	1.0000e-005	0.0000	0.3054
Maximum	1.4658	1.6998	2.6382	5.7700e-003	0.2304	0.0717	0.3021	0.0627	0.0674	0.1301	0.0000	518.5608	518.5608	0.0696	0.0140	524.4771

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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
Percent Reduction	0.00	0.00	0.00	0.00	35.64	0.00	29.19	43.43	0.00	27.22	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	6-1-2023	8-31-2023	0.7737	0.7737
2	9-1-2023	11-30-2023	0.6062	0.6062
3	12-1-2023	2-29-2024	0.5816	0.5816
4	3-1-2024	5-31-2024	0.5746	0.5746
5	6-1-2024	8-31-2024	0.5744	0.5744
6	9-1-2024	11-30-2024	0.8373	0.8373
7	12-1-2024	2-28-2025	0.8361	0.8361
		Highest	0.8373	0.8373

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	1.7764	0.0342	2.9672	1.6000e-004		0.0165	0.0165		0.0165	0.0165	0.0000	4.8515	4.8515	4.6500e-003	0.0000	4.9677
Energy	0.0455	0.3889	0.1655	2.4800e-003		0.0314	0.0314		0.0314	0.0314	0.0000	621.8324	621.8324	0.0384	0.0119	626.3290
Mobile	1.0883	1.4838	9.8113	0.0220	2.4658	0.0180	2.4838	0.6586	0.0169	0.6755	0.0000	2,099.5469	2,099.5469	0.1182	0.1083	2,134.7774
Waste						0.0000	0.0000		0.0000	0.0000	37.3503	0.0000	37.3503	2.2073	0.0000	92.5339
Water						0.0000	0.0000		0.0000	0.0000	8.2682	44.9728	53.2410	0.8570	0.0210	80.9244
Total	2.9103	1.9068	12.9440	0.0247	2.4658	0.0659	2.5317	0.6586	0.0648	0.7234	45.6185	2,771.2037	2,816.8221	3.2256	0.1412	2,939.5324

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	1.6596	0.0342	2.9672	1.6000e-004		0.0165	0.0165		0.0165	0.0165	0.0000	4.8515	4.8515	4.6500e-003	0.0000	4.9677
Energy	0.0455	0.3889	0.1655	2.4800e-003		0.0314	0.0314		0.0314	0.0314	0.0000	616.3112	616.3112	0.0375	0.0118	620.7492
Mobile	1.0883	1.4838	9.8113	0.0220	2.4658	0.0180	2.4838	0.6586	0.0169	0.6755	0.0000	2,099.5469	2,099.5469	0.1182	0.1083	2,134.7774
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	6.6145	38.1647	44.7793	0.6860	0.0169	66.9492
Total	2.7935	1.9068	12.9440	0.0247	2.4658	0.0659	2.5317	0.6586	0.0648	0.7234	6.6145	2,758.8744	2,765.4889	0.8463	0.1369	2,827.4435

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	4.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	85.50	0.44	1.82	73.76	3.02	3.81

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	6/29/2023	7/12/2023	5	10	
2	Grading	Grading	7/13/2023	8/23/2023	5	30	
3	Building Construction	Building Construction	8/24/2023	10/16/2024	5	300	

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4	Paving	Paving	10/17/2024	11/13/2024	5	20
5	Architectural Coating	Architectural Coating	11/14/2024	1/1/2025	5	35

Acres of Grading (Site Preparation Phase): 18.5

Acres of Grading (Grading Phase): 18.5

Acres of Paving: 0

Residential Indoor: 810,000; Residential Outdoor: 270,000; 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
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	231	0.29
Grading	Excavators	2	8.00	158	0.38
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	288.00	43.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	58.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

- Use Soil Stabilizer
- Replace Ground Cover
- Water Exposed Area
- Water Unpaved Roads
- Reduce Vehicle Speed on Unpaved Roads
- Clean Paved Roads

3.2 Site Preparation - 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					0.1001	0.0000	0.1001	0.0507	0.0000	0.0507	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.1376	0.0912	1.9000e-004		6.3300e-003	6.3300e-003		5.8200e-003	5.8200e-003	0.0000	16.7254	16.7254	5.4100e-003	0.0000	16.8606
Total	0.0133	0.1376	0.0912	1.9000e-004	0.1001	6.3300e-003	0.1065	0.0507	5.8200e-003	0.0565	0.0000	16.7254	16.7254	5.4100e-003	0.0000	16.8606

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 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	2.5000e-004	1.7000e-004	2.2300e-003	1.0000e-005	7.4000e-004	0.0000	7.4000e-004	2.0000e-004	0.0000	2.0000e-004	0.0000	0.5739	0.5739	2.0000e-005	2.0000e-005	0.5792
Total	2.5000e-004	1.7000e-004	2.2300e-003	1.0000e-005	7.4000e-004	0.0000	7.4000e-004	2.0000e-004	0.0000	2.0000e-004	0.0000	0.5739	0.5739	2.0000e-005	2.0000e-005	0.5792

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					0.0273	0.0000	0.0273	0.0138	0.0000	0.0138	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.1376	0.0912	1.9000e-004		6.3300e-003	6.3300e-003		5.8200e-003	5.8200e-003	0.0000	16.7253	16.7253	5.4100e-003	0.0000	16.8606
Total	0.0133	0.1376	0.0912	1.9000e-004	0.0273	6.3300e-003	0.0337	0.0138	5.8200e-003	0.0197	0.0000	16.7253	16.7253	5.4100e-003	0.0000	16.8606

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 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	2.5000e-004	1.7000e-004	2.2300e-003	1.0000e-005	6.1000e-004	0.0000	6.2000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.5739	0.5739	2.0000e-005	2.0000e-005	0.5792
Total	2.5000e-004	1.7000e-004	2.2300e-003	1.0000e-005	6.1000e-004	0.0000	6.2000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.5739	0.5739	2.0000e-005	2.0000e-005	0.5792

3.3 Grading - 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					0.1001	0.0000	0.1001	0.0507	0.0000	0.0507	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0498	0.5177	0.4208	9.3000e-004		0.0214	0.0214		0.0197	0.0197	0.0000	81.8028	81.8028	0.0265	0.0000	82.4642
Total	0.0498	0.5177	0.4208	9.3000e-004	0.1001	0.0214	0.1215	0.0507	0.0197	0.0704	0.0000	81.8028	81.8028	0.0265	0.0000	82.4642

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 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	8.2000e-004	5.8000e-004	7.4300e-003	2.0000e-005	2.4700e-003	1.0000e-005	2.4800e-003	6.6000e-004	1.0000e-005	6.7000e-004	0.0000	1.9131	1.9131	6.0000e-005	5.0000e-005	1.9305
Total	8.2000e-004	5.8000e-004	7.4300e-003	2.0000e-005	2.4700e-003	1.0000e-005	2.4800e-003	6.6000e-004	1.0000e-005	6.7000e-004	0.0000	1.9131	1.9131	6.0000e-005	5.0000e-005	1.9305

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					0.0273	0.0000	0.0273	0.0138	0.0000	0.0138	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0498	0.5177	0.4208	9.3000e-004		0.0214	0.0214		0.0197	0.0197	0.0000	81.8027	81.8027	0.0265	0.0000	82.4641
Total	0.0498	0.5177	0.4208	9.3000e-004	0.0273	0.0214	0.0487	0.0138	0.0197	0.0335	0.0000	81.8027	81.8027	0.0265	0.0000	82.4641

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 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	8.2000e-004	5.8000e-004	7.4300e-003	2.0000e-005	2.0400e-003	1.0000e-005	2.0500e-003	5.5000e-004	1.0000e-005	5.6000e-004	0.0000	1.9131	1.9131	6.0000e-005	5.0000e-005	1.9305
Total	8.2000e-004	5.8000e-004	7.4300e-003	2.0000e-005	2.0400e-003	1.0000e-005	2.0500e-003	5.5000e-004	1.0000e-005	5.6000e-004	0.0000	1.9131	1.9131	6.0000e-005	5.0000e-005	1.9305

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0724	0.6617	0.7472	1.2400e-003		0.0322	0.0322		0.0303	0.0303	0.0000	106.6302	106.6302	0.0254	0.0000	107.2643
Total	0.0724	0.6617	0.7472	1.2400e-003		0.0322	0.0322		0.0303	0.0303	0.0000	106.6302	106.6302	0.0254	0.0000	107.2643

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.9900e-003	0.0586	0.0258	2.8000e-004	9.7900e-003	4.4000e-004	0.0102	2.8300e-003	4.3000e-004	3.2500e-003	0.0000	26.7641	26.7641	2.8000e-004	3.9700e-003	27.9527
Worker	0.0364	0.0254	0.3280	9.1000e-004	0.1090	5.4000e-004	0.1095	0.0290	4.9000e-004	0.0294	0.0000	84.4809	84.4809	2.4400e-003	2.3800e-003	85.2518
Total	0.0384	0.0840	0.3538	1.1900e-003	0.1188	9.8000e-004	0.1198	0.0318	9.2000e-004	0.0327	0.0000	111.2450	111.2450	2.7200e-003	6.3500e-003	113.2045

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0724	0.6617	0.7472	1.2400e-003		0.0322	0.0322		0.0303	0.0303	0.0000	106.6301	106.6301	0.0254	0.0000	107.2642
Total	0.0724	0.6617	0.7472	1.2400e-003		0.0322	0.0322		0.0303	0.0303	0.0000	106.6301	106.6301	0.0254	0.0000	107.2642

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.9900e-003	0.0586	0.0258	2.8000e-004	8.4100e-003	4.4000e-004	8.8500e-003	2.4900e-003	4.3000e-004	2.9100e-003	0.0000	26.7641	26.7641	2.8000e-004	3.9700e-003	27.9527
Worker	0.0364	0.0254	0.3280	9.1000e-004	0.0901	5.4000e-004	0.0906	0.0243	4.9000e-004	0.0248	0.0000	84.4809	84.4809	2.4400e-003	2.3800e-003	85.2518
Total	0.0384	0.0840	0.3538	1.1900e-003	0.0985	9.8000e-004	0.0995	0.0268	9.2000e-004	0.0277	0.0000	111.2450	111.2450	2.7200e-003	6.3500e-003	113.2045

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1530	1.3982	1.6814	2.8000e-003		0.0638	0.0638		0.0600	0.0600	0.0000	241.1231	241.1231	0.0570	0.0000	242.5485
Total	0.1530	1.3982	1.6814	2.8000e-003		0.0638	0.0638		0.0600	0.0600	0.0000	241.1231	241.1231	0.0570	0.0000	242.5485

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	4.4300e-003	0.1324	0.0577	6.2000e-004	0.0221	1.0000e-003	0.0231	6.3900e-003	9.5000e-004	7.3400e-003	0.0000	59.5775	59.5775	6.6000e-004	8.8100e-003	62.2202
Worker	0.0767	0.0513	0.6958	1.9900e-003	0.2464	1.1600e-003	0.2476	0.0654	1.0600e-003	0.0665	0.0000	186.4230	186.4230	5.0100e-003	5.0100e-003	188.0416
Total	0.0812	0.1838	0.7535	2.6100e-003	0.2686	2.1600e-003	0.2707	0.0718	2.0100e-003	0.0739	0.0000	246.0004	246.0004	5.6700e-003	0.0138	250.2619

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1530	1.3982	1.6814	2.8000e-003		0.0638	0.0638		0.0600	0.0600	0.0000	241.1228	241.1228	0.0570	0.0000	242.5483
Total	0.1530	1.3982	1.6814	2.8000e-003		0.0638	0.0638		0.0600	0.0600	0.0000	241.1228	241.1228	0.0570	0.0000	242.5483

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	4.4300e-003	0.1324	0.0577	6.2000e-004	0.0190	1.0000e-003	0.0200	5.6200e-003	9.5000e-004	6.5800e-003	0.0000	59.5775	59.5775	6.6000e-004	8.8100e-003	62.2202
Worker	0.0767	0.0513	0.6958	1.9900e-003	0.2037	1.1600e-003	0.2049	0.0550	1.0600e-003	0.0560	0.0000	186.4230	186.4230	5.0100e-003	5.0100e-003	188.0416
Total	0.0812	0.1838	0.7535	2.6100e-003	0.2227	2.1600e-003	0.2249	0.0606	2.0100e-003	0.0626	0.0000	246.0004	246.0004	5.6700e-003	0.0138	250.2619

3.5 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.8800e-003	0.0953	0.1463	2.3000e-004		4.6900e-003	4.6900e-003		4.3100e-003	4.3100e-003	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1885
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	9.8800e-003	0.0953	0.1463	2.3000e-004		4.6900e-003	4.6900e-003		4.3100e-003	4.3100e-003	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1885

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 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	3.8000e-004	2.6000e-004	3.4800e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.3000e-004	0.0000	0.9336	0.9336	3.0000e-005	3.0000e-005	0.9417
Total	3.8000e-004	2.6000e-004	3.4800e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.3000e-004	0.0000	0.9336	0.9336	3.0000e-005	3.0000e-005	0.9417

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.8800e-003	0.0953	0.1463	2.3000e-004		4.6900e-003	4.6900e-003		4.3100e-003	4.3100e-003	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1884
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	9.8800e-003	0.0953	0.1463	2.3000e-004		4.6900e-003	4.6900e-003		4.3100e-003	4.3100e-003	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1884

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 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	3.8000e-004	2.6000e-004	3.4800e-003	1.0000e-005	1.0200e-003	1.0000e-005	1.0300e-003	2.8000e-004	1.0000e-005	2.8000e-004	0.0000	0.9336	0.9336	3.0000e-005	3.0000e-005	0.9417
Total	3.8000e-004	2.6000e-004	3.4800e-003	1.0000e-005	1.0200e-003	1.0000e-005	1.0300e-003	2.8000e-004	1.0000e-005	2.8000e-004	0.0000	0.9336	0.9336	3.0000e-005	3.0000e-005	0.9417

3.6 Architectural Coating - 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					
Archit. Coating	1.2157					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.0700e-003	0.0207	0.0308	5.0000e-005		1.0400e-003	1.0400e-003		1.0400e-003	1.0400e-003	0.0000	4.3405	4.3405	2.4000e-004	0.0000	4.3466
Total	1.2188	0.0207	0.0308	5.0000e-005		1.0400e-003	1.0400e-003		1.0400e-003	1.0400e-003	0.0000	4.3405	4.3405	2.4000e-004	0.0000	4.3466

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 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	2.5300e-003	1.6900e-003	0.0229	7.0000e-005	8.1100e-003	4.0000e-005	8.1500e-003	2.1500e-003	4.0000e-005	2.1900e-003	0.0000	6.1369	6.1369	1.7000e-004	1.6000e-004	6.1902
Total	2.5300e-003	1.6900e-003	0.0229	7.0000e-005	8.1100e-003	4.0000e-005	8.1500e-003	2.1500e-003	4.0000e-005	2.1900e-003	0.0000	6.1369	6.1369	1.7000e-004	1.6000e-004	6.1902

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.2157					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.0700e-003	0.0207	0.0308	5.0000e-005		1.0400e-003	1.0400e-003		1.0400e-003	1.0400e-003	0.0000	4.3405	4.3405	2.4000e-004	0.0000	4.3466
Total	1.2188	0.0207	0.0308	5.0000e-005		1.0400e-003	1.0400e-003		1.0400e-003	1.0400e-003	0.0000	4.3405	4.3405	2.4000e-004	0.0000	4.3466

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 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	2.5300e-003	1.6900e-003	0.0229	7.0000e-005	6.7100e-003	4.0000e-005	6.7400e-003	1.8100e-003	4.0000e-005	1.8400e-003	0.0000	6.1369	6.1369	1.7000e-004	1.6000e-004	6.1902
Total	2.5300e-003	1.6900e-003	0.0229	7.0000e-005	6.7100e-003	4.0000e-005	6.7400e-003	1.8100e-003	4.0000e-005	1.8400e-003	0.0000	6.1369	6.1369	1.7000e-004	1.6000e-004	6.1902

3.6 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0358					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.0000e-005	5.7000e-004	9.0000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.1277	0.1277	1.0000e-005	0.0000	0.1278
Total	0.0359	5.7000e-004	9.0000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.1277	0.1277	1.0000e-005	0.0000	0.1278

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	7.0000e-005	4.0000e-005	6.3000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1761	0.1761	0.0000	0.0000	0.1776
Total	7.0000e-005	4.0000e-005	6.3000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1761	0.1761	0.0000	0.0000	0.1776

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0358					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.0000e-005	5.7000e-004	9.0000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.1277	0.1277	1.0000e-005	0.0000	0.1278
Total	0.0359	5.7000e-004	9.0000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.1277	0.1277	1.0000e-005	0.0000	0.1278

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	7.0000e-005	4.0000e-005	6.3000e-004	0.0000	2.0000e-004	0.0000	2.0000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1761	0.1761	0.0000	0.0000	0.1776
Total	7.0000e-005	4.0000e-005	6.3000e-004	0.0000	2.0000e-004	0.0000	2.0000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1761	0.1761	0.0000	0.0000	0.1776

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

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	tons/yr										MT/yr					
Mitigated	1.0883	1.4838	9.8113	0.0220	2.4658	0.0180	2.4838	0.6586	0.0169	0.6755	0.0000	2,099.5469	2,099.5469	0.1182	0.1083	2,134.7774
Unmitigated	1.0883	1.4838	9.8113	0.0220	2.4658	0.0180	2.4838	0.6586	0.0169	0.6755	0.0000	2,099.5469	2,099.5469	0.1182	0.1083	2,134.7774

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	2,928.00	3,256.00	2512.00	6,521,584	6,521,584
Total	2,928.00	3,256.00	2,512.00	6,521,584	6,521,584

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
Condo/Townhouse	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.542916	0.056689	0.174450	0.134041	0.024680	0.006960	0.011589	0.018600	0.000608	0.000298	0.023389	0.001091	0.004689

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	165.9213	165.9213	0.0288	3.4900e-003	167.6829
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	171.4425	171.4425	0.0298	3.6100e-003	173.2627
NaturalGas Mitigated	0.0455	0.3889	0.1655	2.4800e-003		0.0314	0.0314		0.0314	0.0314	0.0000	450.3899	450.3899	8.6300e-003	8.2600e-003	453.0663
NaturalGas Unmitigated	0.0455	0.3889	0.1655	2.4800e-003		0.0314	0.0314		0.0314	0.0314	0.0000	450.3899	450.3899	8.6300e-003	8.2600e-003	453.0663

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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					
Condo/Townhouse	8.43999e+006	0.0455	0.3889	0.1655	2.4800e-003		0.0314	0.0314		0.0314	0.0314	0.0000	450.3899	450.3899	8.6300e-003	8.2600e-003	453.0663
Total		0.0455	0.3889	0.1655	2.4800e-003		0.0314	0.0314		0.0314	0.0314	0.0000	450.3899	450.3899	8.6300e-003	8.2600e-003	453.0663

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Condo/Townhouse	8.43999e+006	0.0455	0.3889	0.1655	2.4800e-003		0.0314	0.0314		0.0314	0.0314	0.0000	450.3899	450.3899	8.6300e-003	8.2600e-003	453.0663
Total		0.0455	0.3889	0.1655	2.4800e-003		0.0314	0.0314		0.0314	0.0314	0.0000	450.3899	450.3899	8.6300e-003	8.2600e-003	453.0663

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	1.9895e+006	171.4425	0.0298	3.6100e-003	173.2627
Total		171.4425	0.0298	3.6100e-003	173.2627

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	1.92543e+006	165.9213	0.0288	3.4900e-003	167.6829
Total		165.9213	0.0288	3.4900e-003	167.6829

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.6596	0.0342	2.9672	1.6000e-004		0.0165	0.0165		0.0165	0.0165	0.0000	4.8515	4.8515	4.6500e-003	0.0000	4.9677
Unmitigated	1.7764	0.0342	2.9672	1.6000e-004		0.0165	0.0165		0.0165	0.0165	0.0000	4.8515	4.8515	4.6500e-003	0.0000	4.9677

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.1252					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.5622					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0891	0.0342	2.9672	1.6000e-004		0.0165	0.0165		0.0165	0.0165	0.0000	4.8515	4.8515	4.6500e-003	0.0000	4.9677
Total	1.7764	0.0342	2.9672	1.6000e-004		0.0165	0.0165		0.0165	0.0165	0.0000	4.8515	4.8515	4.6500e-003	0.0000	4.9677

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.1252					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.4454					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0891	0.0342	2.9672	1.6000e-004		0.0165	0.0165		0.0165	0.0165	0.0000	4.8515	4.8515	4.6500e-003	0.0000	4.9677
Total	1.6596	0.0342	2.9672	1.6000e-004		0.0165	0.0165		0.0165	0.0165	0.0000	4.8515	4.8515	4.6500e-003	0.0000	4.9677

7.0 Water Detail

7.1 Mitigation Measures Water

- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower
- Use Water Efficient Irrigation System

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	44.7793	0.6860	0.0169	66.9492
Unmitigated	53.2410	0.8570	0.0210	80.9244

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	26.0616 / 16.4301	53.2410	0.8570	0.0210	80.9244
Total		53.2410	0.8570	0.0210	80.9244

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	20.8493 / 15.4279	44.7793	0.6860	0.0169	66.9492
Total		44.7793	0.6860	0.0169	66.9492

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	37.3503	2.2073	0.0000	92.5339

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse	184	37.3503	2.2073	0.0000	92.5339
Total		37.3503	2.2073	0.0000	92.5339

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse		0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

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

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2615 Model 1 Rancho Monterey SP Amendment

Riverside-Salton Sea County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	400.00	Dwelling Unit	18.50	400,000.00	748

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	15			Operational Year	2026
Utility Company	Imperial Irrigation District				
CO2 Intensity (lb/MW hr)	189.98	CH4 Intensity (lb/MW hr)	0.033	N2O Intensity (lb/MW hr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Model 1: 400 DUs

Land Use - Average Household Size: 1.87 PPH per CADF. Lot areas are based on the respective planning areas in the SPA. Building areas are based on combined unit count or max retail space as applicable to the model.

Construction Phase - Assumes no demolition due to vacant condition.

Grading - Assumes balanced earthwork.

Architectural Coating - Factors SCAMQD Rule 1113 compliance.

Woodstoves - Assumes no fire places or wood stoves per SCAQMD Rule 445.

Area Coating - Factors SCAMQD Rule 1113 compliance.

Construction Off-road Equipment Mitigation - SCAQMD Rule 403/403.1 and RMMC are applied as a requirement.

Area Mitigation - Factors SCAMQD Rule 1113 compliance.

Energy Mitigation -

Water Mitigation -

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Parking	250	100
tblAreaCoating	Area_EF_Residential_Exterior	250	50
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	20
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	50
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	35.00
tblConstructionPhase	PhaseEndDate	12/11/2024	1/1/2025
tblFireplaces	FireplaceDayYear	82.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	457.60	0.00
tblFireplaces	NumberGas	320.00	0.00
tblFireplaces	NumberNoFireplace	40.00	0.00
tblFireplaces	NumberWood	40.00	0.00
tblGrading	AcresOfGrading	90.00	18.50
tblGrading	AcresOfGrading	15.00	18.50
tblLandUse	LotAcreage	25.00	18.50
tblLandUse	Population	1,144.00	748.00
tblWoodstoves	NumberCatalytic	20.00	0.00

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblWoodstoves	NumberNoncatalytic	20.00	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	3.3845	34.5517	28.6229	0.0636	20.1788	1.4253	21.4455	10.1825	1.3113	11.3479	0.0000	6,163.0505	6,163.0505	1.9482	0.1497	6,212.8904
2024	71.8618	15.1236	24.4310	0.0536	2.6254	0.6340	3.2594	0.7013	0.5963	1.2976	0.0000	5,316.3217	5,316.3217	0.7167	0.1443	5,375.8977
2025	71.8407	1.2296	3.2597	6.9900e-003	0.4853	0.0536	0.5389	0.1287	0.0535	0.1822	0.0000	699.8935	699.8935	0.0248	9.6000e-003	703.3765
Maximum	71.8618	34.5517	28.6229	0.0636	20.1788	1.4253	21.4455	10.1825	1.3113	11.3479	0.0000	6,163.0505	6,163.0505	1.9482	0.1497	6,212.8904

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	3.3845	34.5517	28.6229	0.0636	5.5921	1.4253	6.8589	2.8024	1.3113	3.9678	0.0000	6,163.0505	6,163.0505	1.9482	0.1497	6,212.8904
2024	71.8618	15.1236	24.4310	0.0536	2.1759	0.6340	2.8099	0.5910	0.5963	1.1872	0.0000	5,316.3217	5,316.3217	0.7167	0.1443	5,375.8977
2025	71.8407	1.2296	3.2597	6.9900e-003	0.4009	0.0536	0.4546	0.1080	0.0535	0.1615	0.0000	699.8935	699.8935	0.0248	9.6000e-003	703.3765
Maximum	71.8618	34.5517	28.6229	0.0636	5.5921	1.4253	6.8589	2.8024	1.3113	3.9678	0.0000	6,163.0505	6,163.0505	1.9482	0.1497	6,212.8904

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	10.2356	0.3798	32.9692	1.7400e-003		0.1829	0.1829		0.1829	0.1829	0.0000	59.4209	59.4209	0.0569	0.0000	60.8435
Energy	0.2494	2.1310	0.9068	0.0136		0.1723	0.1723		0.1723	0.1723		2,720.3829	2,720.3829	0.0521	0.0499	2,736.5488
Mobile	7.9657	8.5593	64.7039	0.1432	15.3844	0.1106	15.4950	4.1037	0.1036	4.2072		15,041.6747	15,041.6747	0.7734	0.7146	15,273.9651
Total	18.4507	11.0701	98.5799	0.1585	15.3844	0.4658	15.8502	4.1037	0.4588	4.5624	0.0000	17,821.4785	17,821.4785	0.8825	0.7645	18,071.3574

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	9.5956	0.3798	32.9692	1.7400e-003		0.1829	0.1829		0.1829	0.1829	0.0000	59.4209	59.4209	0.0569	0.0000	60.8435
Energy	0.2494	2.1310	0.9068	0.0136		0.1723	0.1723		0.1723	0.1723		2,720.3829	2,720.3829	0.0521	0.0499	2,736.5488
Mobile	7.9657	8.5593	64.7039	0.1432	15.3844	0.1106	15.4950	4.1037	0.1036	4.2072		15,041.6747	15,041.6747	0.7734	0.7146	15,273.9651
Total	17.8107	11.0701	98.5799	0.1585	15.3844	0.4658	15.8502	4.1037	0.4588	4.5624	0.0000	17,821.4785	17,821.4785	0.8825	0.7645	18,071.3574

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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
Percent Reduction	3.47	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	Site Preparation	Site Preparation	6/29/2023	7/12/2023	5	10	
2	Grading	Grading	7/13/2023	8/23/2023	5	30	
3	Building Construction	Building Construction	8/24/2023	10/16/2024	5	300	
4	Paving	Paving	10/17/2024	11/13/2024	5	20	
5	Architectural Coating	Architectural Coating	11/14/2024	1/1/2025	5	35	

Acres of Grading (Site Preparation Phase): 18.5

Acres of Grading (Grading Phase): 18.5

Acres of Paving: 0

Residential Indoor: 810,000; Residential Outdoor: 270,000; 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
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	231	0.29
Grading	Excavators	2	8.00	158	0.38
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	288.00	43.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	58.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 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					20.0282	0.0000	20.0282	10.1425	0.0000	10.1425			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647		3,687.3081	3,687.3081	1.1926		3,717.1219
Total	2.6595	27.5242	18.2443	0.0381	20.0282	1.2660	21.2942	10.1425	1.1647	11.3073		3,687.3081	3,687.3081	1.1926		3,717.1219

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0565	0.0325	0.5146	1.3300e-003	0.1506	7.3000e-004	0.1513	0.0400	6.7000e-004	0.0406		136.4155	136.4155	3.5900e-003	3.4300e-003	137.5262
Total	0.0565	0.0325	0.5146	1.3300e-003	0.1506	7.3000e-004	0.1513	0.0400	6.7000e-004	0.0406		136.4155	136.4155	3.5900e-003	3.4300e-003	137.5262

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 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					5.4677	0.0000	5.4677	2.7689	0.0000	2.7689			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647	0.0000	3,687.308 1	3,687.308 1	1.1926		3,717.121 9
Total	2.6595	27.5242	18.2443	0.0381	5.4677	1.2660	6.7337	2.7689	1.1647	3.9337	0.0000	3,687.308 1	3,687.308 1	1.1926		3,717.121 9

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0565	0.0325	0.5146	1.3300e-003	0.1244	7.3000e-004	0.1252	0.0335	6.7000e-004	0.0342		136.4155	136.4155	3.5900e-003	3.4300e-003	137.5262
Total	0.0565	0.0325	0.5146	1.3300e-003	0.1244	7.3000e-004	0.1252	0.0335	6.7000e-004	0.0342		136.4155	136.4155	3.5900e-003	3.4300e-003	137.5262

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 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					6.6761	0.0000	6.6761	3.3808	0.0000	3.3808			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105		6,011.4777	6,011.4777	1.9442		6,060.0836
Total	3.3217	34.5156	28.0512	0.0621	6.6761	1.4245	8.1006	3.3808	1.3105	4.6914		6,011.4777	6,011.4777	1.9442		6,060.0836

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0628	0.0361	0.5718	1.4800e-003	0.1673	8.1000e-004	0.1681	0.0444	7.4000e-004	0.0451		151.5728	151.5728	3.9800e-003	3.8100e-003	152.8069
Total	0.0628	0.0361	0.5718	1.4800e-003	0.1673	8.1000e-004	0.1681	0.0444	7.4000e-004	0.0451		151.5728	151.5728	3.9800e-003	3.8100e-003	152.8069

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 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					1.8226	0.0000	1.8226	0.9230	0.0000	0.9230			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836
Total	3.3217	34.5156	28.0512	0.0621	1.8226	1.4245	3.2471	0.9230	1.3105	2.2335	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0628	0.0361	0.5718	1.4800e-003	0.1383	8.1000e-004	0.1391	0.0372	7.4000e-004	0.0380		151.5728	151.5728	3.9800e-003	3.8100e-003	152.8069
Total	0.0628	0.0361	0.5718	1.4800e-003	0.1383	8.1000e-004	0.1391	0.0372	7.4000e-004	0.0380		151.5728	151.5728	3.9800e-003	3.8100e-003	152.8069

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0451	1.2157	0.5512	6.0400e-003	0.2158	9.6400e-003	0.2254	0.0622	9.2200e-003	0.0714		640.5235	640.5235	6.8000e-003	0.0948	668.9533
Worker	0.9044	0.5199	8.2335	0.0213	2.4096	0.0116	2.4213	0.6391	0.0107	0.6499		2,182.6477	2,182.6477	0.0574	0.0548	2,200.4188
Total	0.9495	1.7356	8.7847	0.0274	2.6254	0.0213	2.6467	0.7013	0.0199	0.7212		2,823.1712	2,823.1712	0.0642	0.1497	2,869.3720

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0451	1.2157	0.5512	6.0400e-003	0.1851	9.6400e-003	0.1947	0.0546	9.2200e-003	0.0639		640.5235	640.5235	6.8000e-003	0.0948	668.9533
Worker	0.9044	0.5199	8.2335	0.0213	1.9908	0.0116	2.0024	0.5363	0.0107	0.5470		2,182.6477	2,182.6477	0.0574	0.0548	2,200.4188
Total	0.9495	1.7356	8.7847	0.0274	2.1759	0.0213	2.1971	0.5910	0.0199	0.6109		2,823.1712	2,823.1712	0.0642	0.1497	2,869.3720

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0444	1.2154	0.5453	5.9500e-003	0.2158	9.5800e-003	0.2254	0.0622	9.1600e-003	0.0713		630.6455	630.6455	7.0200e-003	0.0932	658.6045
Worker	0.8422	0.4645	7.7189	0.0207	2.4096	0.0111	2.4207	0.6391	0.0102	0.6494		2,129.9773	2,129.9773	0.0521	0.0510	2,146.4855
Total	0.8866	1.6799	8.2642	0.0266	2.6254	0.0207	2.6461	0.7013	0.0194	0.7207		2,760.6228	2,760.6228	0.0591	0.1443	2,805.0900

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0444	1.2154	0.5453	5.9500e-003	0.1851	9.5800e-003	0.1947	0.0546	9.1600e-003	0.0638		630.6455	630.6455	7.0200e-003	0.0932	658.6045
Worker	0.8422	0.4645	7.7189	0.0207	1.9908	0.0111	2.0019	0.5363	0.0102	0.5466		2,129.9773	2,129.9773	0.0521	0.0510	2,146.4855
Total	0.8866	1.6799	8.2642	0.0266	2.1759	0.0207	2.1966	0.5910	0.0194	0.6103		2,760.6228	2,760.6228	0.0591	0.1443	2,805.0900

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.547 2	2,207.547 2	0.7140		2,225.396 3
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.547 2	2,207.547 2	0.7140		2,225.396 3

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0439	0.0242	0.4020	1.0800e-003	0.1255	5.8000e-004	0.1261	0.0333	5.3000e-004	0.0338		110.9363	110.9363	2.7100e-003	2.6600e-003	111.7961
Total	0.0439	0.0242	0.4020	1.0800e-003	0.1255	5.8000e-004	0.1261	0.0333	5.3000e-004	0.0338		110.9363	110.9363	2.7100e-003	2.6600e-003	111.7961

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.547 2	2,207.547 2	0.7140		2,225.396 3
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.547 2	2,207.547 2	0.7140		2,225.396 3

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0439	0.0242	0.4020	1.0800e-003	0.1037	5.8000e-004	0.1043	0.0279	5.3000e-004	0.0285		110.9363	110.9363	2.7100e-003	2.6600e-003	111.7961
Total	0.0439	0.0242	0.4020	1.0800e-003	0.1037	5.8000e-004	0.1043	0.0279	5.3000e-004	0.0285		110.9363	110.9363	2.7100e-003	2.6600e-003	111.7961

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 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					
Archit. Coating	71.5114					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	71.6922	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1696	0.0935	1.5545	4.1600e-003	0.4853	2.2400e-003	0.4875	0.1287	2.0600e-003	0.1308		428.9538	428.9538	0.0105	0.0103	432.2783
Total	0.1696	0.0935	1.5545	4.1600e-003	0.4853	2.2400e-003	0.4875	0.1287	2.0600e-003	0.1308		428.9538	428.9538	0.0105	0.0103	432.2783

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 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					
Archit. Coating	71.5114					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	71.6922	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1696	0.0935	1.5545	4.1600e-003	0.4009	2.2400e-003	0.4032	0.1080	2.0600e-003	0.1101		428.9538	428.9538	0.0105	0.0103	432.2783
Total	0.1696	0.0935	1.5545	4.1600e-003	0.4009	2.2400e-003	0.4032	0.1080	2.0600e-003	0.1101		428.9538	428.9538	0.0105	0.0103	432.2783

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	71.5114					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	71.6823	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1584	0.0841	1.4505	4.0200e-003	0.4853	2.1300e-003	0.4874	0.1287	1.9600e-003	0.1307		418.4455	418.4455	9.4800e-003	9.6000e-003	421.5446
Total	0.1584	0.0841	1.4505	4.0200e-003	0.4853	2.1300e-003	0.4874	0.1287	1.9600e-003	0.1307		418.4455	418.4455	9.4800e-003	9.6000e-003	421.5446

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	71.5114					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	71.6823	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1584	0.0841	1.4505	4.0200e-003	0.4009	2.1300e-003	0.4031	0.1080	1.9600e-003	0.1100		418.4455	418.4455	9.4800e-003	9.6000e-003	421.5446
Total	0.1584	0.0841	1.4505	4.0200e-003	0.4009	2.1300e-003	0.4031	0.1080	1.9600e-003	0.1100		418.4455	418.4455	9.4800e-003	9.6000e-003	421.5446

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

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	7.9657	8.5593	64.7039	0.1432	15.3844	0.1106	15.4950	4.1037	0.1036	4.2072		15,041.67 47	15,041.67 47	0.7734	0.7146	15,273.96 51
Unmitigated	7.9657	8.5593	64.7039	0.1432	15.3844	0.1106	15.4950	4.1037	0.1036	4.2072		15,041.67 47	15,041.67 47	0.7734	0.7146	15,273.96 51

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	2,928.00	3,256.00	2512.00	6,521,584	6,521,584
Total	2,928.00	3,256.00	2,512.00	6,521,584	6,521,584

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
Condo/Townhouse	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.542916	0.056689	0.174450	0.134041	0.024680	0.006960	0.011589	0.018600	0.000608	0.000298	0.023389	0.001091	0.004689

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.2494	2.1310	0.9068	0.0136		0.1723	0.1723		0.1723	0.1723		2,720.3829	2,720.3829	0.0521	0.0499	2,736.5488
NaturalGas Unmitigated	0.2494	2.1310	0.9068	0.0136		0.1723	0.1723		0.1723	0.1723		2,720.3829	2,720.3829	0.0521	0.0499	2,736.5488

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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					
Condo/Townhouse	23123.3	0.2494	2.1310	0.9068	0.0136		0.1723	0.1723		0.1723	0.1723		2,720.3829	2,720.3829	0.0521	0.0499	2,736.5488
Total		0.2494	2.1310	0.9068	0.0136		0.1723	0.1723		0.1723	0.1723		2,720.3829	2,720.3829	0.0521	0.0499	2,736.5488

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	23.1233	0.2494	2.1310	0.9068	0.0136		0.1723	0.1723		0.1723	0.1723		2,720.3829	2,720.3829	0.0521	0.0499	2,736.5488
Total		0.2494	2.1310	0.9068	0.0136		0.1723	0.1723		0.1723	0.1723		2,720.3829	2,720.3829	0.0521	0.0499	2,736.5488

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.5956	0.3798	32.9692	1.7400e-003		0.1829	0.1829		0.1829	0.1829	0.0000	59.4209	59.4209	0.0569	0.0000	60.8435
Unmitigated	10.2356	0.3798	32.9692	1.7400e-003		0.1829	0.1829		0.1829	0.1829	0.0000	59.4209	59.4209	0.0569	0.0000	60.8435

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.6857					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.5600					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.9899	0.3798	32.9692	1.7400e-003		0.1829	0.1829		0.1829	0.1829		59.4209	59.4209	0.0569		60.8435
Total	10.2356	0.3798	32.9692	1.7400e-003		0.1829	0.1829		0.1829	0.1829	0.0000	59.4209	59.4209	0.0569	0.0000	60.8435

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.6857					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	7.9200					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.9899	0.3798	32.9692	1.7400e-003		0.1829	0.1829		0.1829	0.1829		59.4209	59.4209	0.0569		60.8435
Total	9.5956	0.3798	32.9692	1.7400e-003		0.1829	0.1829		0.1829	0.1829	0.0000	59.4209	59.4209	0.0569	0.0000	60.8435

7.0 Water Detail

7.1 Mitigation Measures Water

- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower
- Use Water Efficient Irrigation System

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

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

10.0 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

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2615 Model 1 Rancho Monterey SP Amendment

Riverside-Salton Sea County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	400.00	Dwelling Unit	18.50	400,000.00	748

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	15			Operational Year	2026
Utility Company	Imperial Irrigation District				
CO2 Intensity (lb/MW hr)	189.98	CH4 Intensity (lb/MW hr)	0.033	N2O Intensity (lb/MW hr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Model 1: 400 DUs

Land Use - Average Household Size: 1.87 PPH per CADF. Lot areas are based on the respective planning areas in the SPA. Building areas are based on combined unit count or max retail space as applicable to the model.

Construction Phase - Assumes no demolition due to vacant condition.

Grading - Assumes balanced earthwork.

Architectural Coating - Factors SCAMQD Rule 1113 compliance.

Woodstoves - Assumes no fire places or wood stoves per SCAQMD Rule 445.

Area Coating - Factors SCAMQD Rule 1113 compliance.

Construction Off-road Equipment Mitigation - SCAQMD Rule 403/403.1 and RMMC are applied as a requirement.

Area Mitigation - Factors SCAMQD Rule 1113 compliance.

Energy Mitigation -

Water Mitigation -

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Parking	250	100
tblAreaCoating	Area_EF_Residential_Exterior	250	50
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	20
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	50
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	35.00
tblConstructionPhase	PhaseEndDate	12/11/2024	1/1/2025
tblFireplaces	FireplaceDayYear	82.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	457.60	0.00
tblFireplaces	NumberGas	320.00	0.00
tblFireplaces	NumberNoFireplace	40.00	0.00
tblFireplaces	NumberWood	40.00	0.00
tblGrading	AcresOfGrading	90.00	18.50
tblGrading	AcresOfGrading	15.00	18.50
tblLandUse	LotAcreage	25.00	18.50
tblLandUse	Population	1,144.00	748.00
tblWoodstoves	NumberCatalytic	20.00	0.00

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblWoodstoves	NumberNoncatalytic	20.00	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	3.3792	34.5531	28.5229	0.0634	20.1788	1.4253	21.4455	10.1825	1.3113	11.3479	0.0000	6,148.883 4	6,148.883 4	1.9483	0.1514	6,198.752 5
2024	71.8478	15.2161	23.1051	0.0516	2.6254	0.6341	3.2594	0.7013	0.5963	1.2976	0.0000	5,119.554 9	5,119.554 9	0.7167	0.1458	5,179.625 2
2025	71.8279	1.2327	3.0088	6.6100e-003	0.4853	0.0536	0.5389	0.1287	0.0535	0.1822	0.0000	660.9504	660.9504	0.0251	9.8300e-003	664.5065
Maximum	71.8478	34.5531	28.5229	0.0634	20.1788	1.4253	21.4455	10.1825	1.3113	11.3479	0.0000	6,148.883 4	6,148.883 4	1.9483	0.1514	6,198.752 5

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	3.3792	34.5531	28.5229	0.0634	5.5921	1.4253	6.8589	2.8024	1.3113	3.9678	0.0000	6,148.883 4	6,148.883 4	1.9483	0.1514	6,198.752 5
2024	71.8478	15.2161	23.1051	0.0516	2.1759	0.6341	2.8099	0.5910	0.5963	1.1873	0.0000	5,119.554 9	5,119.554 9	0.7167	0.1458	5,179.625 2
2025	71.8279	1.2327	3.0088	6.6100e-003	0.4009	0.0536	0.4546	0.1080	0.0535	0.1615	0.0000	660.9504	660.9504	0.0251	9.8300e-003	664.5065
Maximum	71.8478	34.5531	28.5229	0.0634	5.5921	1.4253	6.8589	2.8024	1.3113	3.9678	0.0000	6,148.883 4	6,148.883 4	1.9483	0.1514	6,198.752 5

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	10.2356	0.3798	32.9692	1.7400e-003		0.1829	0.1829		0.1829	0.1829	0.0000	59.4209	59.4209	0.0569	0.0000	60.8435
Energy	0.2494	2.1310	0.9068	0.0136		0.1723	0.1723		0.1723	0.1723		2,720.3829	2,720.3829	0.0521	0.0499	2,736.5488
Mobile	6.5912	9.0909	58.5926	0.1331	15.3844	0.1107	15.4951	4.1037	0.1037	4.2073		13,984.7497	13,984.7497	0.8031	0.7300	14,222.3808
Total	17.0762	11.6016	92.4686	0.1485	15.3844	0.4659	15.8503	4.1037	0.4589	4.5626	0.0000	16,764.5536	16,764.5536	0.9122	0.7799	17,019.7730

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	9.5956	0.3798	32.9692	1.7400e-003		0.1829	0.1829		0.1829	0.1829	0.0000	59.4209	59.4209	0.0569	0.0000	60.8435
Energy	0.2494	2.1310	0.9068	0.0136		0.1723	0.1723		0.1723	0.1723		2,720.3829	2,720.3829	0.0521	0.0499	2,736.5488
Mobile	6.5912	9.0909	58.5926	0.1331	15.3844	0.1107	15.4951	4.1037	0.1037	4.2073		13,984.7497	13,984.7497	0.8031	0.7300	14,222.3808
Total	16.4362	11.6016	92.4686	0.1485	15.3844	0.4659	15.8503	4.1037	0.4589	4.5626	0.0000	16,764.5536	16,764.5536	0.9122	0.7799	17,019.7730

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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
Percent Reduction	3.75	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	Site Preparation	Site Preparation	6/29/2023	7/12/2023	5	10	
2	Grading	Grading	7/13/2023	8/23/2023	5	30	
3	Building Construction	Building Construction	8/24/2023	10/16/2024	5	300	
4	Paving	Paving	10/17/2024	11/13/2024	5	20	
5	Architectural Coating	Architectural Coating	11/14/2024	1/1/2025	5	35	

Acres of Grading (Site Preparation Phase): 18.5

Acres of Grading (Grading Phase): 18.5

Acres of Paving: 0

Residential Indoor: 810,000; Residential Outdoor: 270,000; 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
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	231	0.29
Grading	Excavators	2	8.00	158	0.38
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	288.00	43.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	58.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 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					20.0282	0.0000	20.0282	10.1425	0.0000	10.1425			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647		3,687.308 1	3,687.308 1	1.1926		3,717.121 9
Total	2.6595	27.5242	18.2443	0.0381	20.0282	1.2660	21.2942	10.1425	1.1647	11.3073		3,687.308 1	3,687.308 1	1.1926		3,717.121 9

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0517	0.0337	0.4245	1.2100e-003	0.1506	7.3000e-004	0.1513	0.0400	6.7000e-004	0.0406		123.6651	123.6651	3.6600e-003	3.5100e-003	124.8020
Total	0.0517	0.0337	0.4245	1.2100e-003	0.1506	7.3000e-004	0.1513	0.0400	6.7000e-004	0.0406		123.6651	123.6651	3.6600e-003	3.5100e-003	124.8020

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 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					5.4677	0.0000	5.4677	2.7689	0.0000	2.7689			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647	0.0000	3,687.308 1	3,687.308 1	1.1926		3,717.121 9
Total	2.6595	27.5242	18.2443	0.0381	5.4677	1.2660	6.7337	2.7689	1.1647	3.9337	0.0000	3,687.308 1	3,687.308 1	1.1926		3,717.121 9

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0517	0.0337	0.4245	1.2100e-003	0.1244	7.3000e-004	0.1252	0.0335	6.7000e-004	0.0342		123.6651	123.6651	3.6600e-003	3.5100e-003	124.8020
Total	0.0517	0.0337	0.4245	1.2100e-003	0.1244	7.3000e-004	0.1252	0.0335	6.7000e-004	0.0342		123.6651	123.6651	3.6600e-003	3.5100e-003	124.8020

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 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					6.6761	0.0000	6.6761	3.3808	0.0000	3.3808			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105		6,011.4777	6,011.4777	1.9442		6,060.0836
Total	3.3217	34.5156	28.0512	0.0621	6.6761	1.4245	8.1006	3.3808	1.3105	4.6914		6,011.4777	6,011.4777	1.9442		6,060.0836

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0575	0.0375	0.4717	1.3400e-003	0.1673	8.1000e-004	0.1681	0.0444	7.4000e-004	0.0451		137.4057	137.4057	4.0600e-003	3.9000e-003	138.6689
Total	0.0575	0.0375	0.4717	1.3400e-003	0.1673	8.1000e-004	0.1681	0.0444	7.4000e-004	0.0451		137.4057	137.4057	4.0600e-003	3.9000e-003	138.6689

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 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					1.8226	0.0000	1.8226	0.9230	0.0000	0.9230			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836
Total	3.3217	34.5156	28.0512	0.0621	1.8226	1.4245	3.2471	0.9230	1.3105	2.2335	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0575	0.0375	0.4717	1.3400e-003	0.1383	8.1000e-004	0.1391	0.0372	7.4000e-004	0.0380		137.4057	137.4057	4.0600e-003	3.9000e-003	138.6689
Total	0.0575	0.0375	0.4717	1.3400e-003	0.1383	8.1000e-004	0.1391	0.0372	7.4000e-004	0.0380		137.4057	137.4057	4.0600e-003	3.9000e-003	138.6689

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0414	1.2907	0.5710	6.0600e-003	0.2158	9.6900e-003	0.2255	0.0622	9.2700e-003	0.0714		642.5011	642.5011	6.6400e-003	0.0952	671.0392
Worker	0.8276	0.5395	6.7922	0.0193	2.4096	0.0116	2.4213	0.6391	0.0107	0.6499		1,978.6416	1,978.6416	0.0585	0.0561	1,996.8320
Total	0.8690	1.8302	7.3631	0.0254	2.6254	0.0213	2.6467	0.7013	0.0200	0.7213		2,621.1428	2,621.1428	0.0651	0.1514	2,667.8712

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0414	1.2907	0.5710	6.0600e-003	0.1851	9.6900e-003	0.1948	0.0546	9.2700e-003	0.0639		642.5011	642.5011	6.6400e-003	0.0952	671.0392
Worker	0.8276	0.5395	6.7922	0.0193	1.9908	0.0116	2.0024	0.5363	0.0107	0.5470		1,978.6416	1,978.6416	0.0585	0.0561	1,996.8320
Total	0.8690	1.8302	7.3631	0.0254	2.1759	0.0213	2.1972	0.5910	0.0200	0.6109		2,621.1428	2,621.1428	0.0651	0.1514	2,667.8712

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0408	1.2905	0.5650	5.9600e-003	0.2158	9.6200e-003	0.2254	0.0622	9.2000e-003	0.0714		632.6062	632.6062	6.8600e-003	0.0936	660.6712
Worker	0.7726	0.4818	6.3733	0.0187	2.4096	0.0111	2.4207	0.6391	0.0102	0.6494		1,931.2498	1,931.2498	0.0532	0.0522	1,948.1464
Total	0.8134	1.7723	6.9383	0.0247	2.6254	0.0207	2.6461	0.7013	0.0194	0.7207		2,563.8560	2,563.8560	0.0600	0.1458	2,608.8176

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0408	1.2905	0.5650	5.9600e-003	0.1851	9.6200e-003	0.1947	0.0546	9.2000e-003	0.0638		632.6062	632.6062	6.8600e-003	0.0936	660.6712
Worker	0.7726	0.4818	6.3733	0.0187	1.9908	0.0111	2.0019	0.5363	0.0102	0.5466		1,931.2498	1,931.2498	0.0532	0.0522	1,948.1464
Total	0.8134	1.7723	6.9383	0.0247	2.1759	0.0207	2.1966	0.5910	0.0194	0.6104		2,563.8560	2,563.8560	0.0600	0.1458	2,608.8176

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.547 2	2,207.547 2	0.7140		2,225.396 3
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.547 2	2,207.547 2	0.7140		2,225.396 3

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0402	0.0251	0.3319	9.8000e-004	0.1255	5.8000e-004	0.1261	0.0333	5.3000e-004	0.0338		100.5859	100.5859	2.7700e-003	2.7200e-003	101.4660
Total	0.0402	0.0251	0.3319	9.8000e-004	0.1255	5.8000e-004	0.1261	0.0333	5.3000e-004	0.0338		100.5859	100.5859	2.7700e-003	2.7200e-003	101.4660

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.547 2	2,207.547 2	0.7140		2,225.396 3
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.547 2	2,207.547 2	0.7140		2,225.396 3

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0402	0.0251	0.3319	9.8000e-004	0.1037	5.8000e-004	0.1043	0.0279	5.3000e-004	0.0285		100.5859	100.5859	2.7700e-003	2.7200e-003	101.4660
Total	0.0402	0.0251	0.3319	9.8000e-004	0.1037	5.8000e-004	0.1043	0.0279	5.3000e-004	0.0285		100.5859	100.5859	2.7700e-003	2.7200e-003	101.4660

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 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					
Archit. Coating	71.5114					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	71.6922	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1556	0.0970	1.2835	3.7700e-003	0.4853	2.2400e-003	0.4875	0.1287	2.0600e-003	0.1308		388.9323	388.9323	0.0107	0.0105	392.3350
Total	0.1556	0.0970	1.2835	3.7700e-003	0.4853	2.2400e-003	0.4875	0.1287	2.0600e-003	0.1308		388.9323	388.9323	0.0107	0.0105	392.3350

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 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					
Archit. Coating	71.5114					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	71.6922	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1556	0.0970	1.2835	3.7700e-003	0.4009	2.2400e-003	0.4032	0.1080	2.0600e-003	0.1101		388.9323	388.9323	0.0107	0.0105	392.3350
Total	0.1556	0.0970	1.2835	3.7700e-003	0.4009	2.2400e-003	0.4032	0.1080	2.0600e-003	0.1101		388.9323	388.9323	0.0107	0.0105	392.3350

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	71.5114					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	71.6823	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1456	0.0872	1.1997	3.6400e-003	0.4853	2.1300e-003	0.4874	0.1287	1.9600e-003	0.1307		379.5023	379.5023	9.7100e-003	9.8300e-003	382.6746
Total	0.1456	0.0872	1.1997	3.6400e-003	0.4853	2.1300e-003	0.4874	0.1287	1.9600e-003	0.1307		379.5023	379.5023	9.7100e-003	9.8300e-003	382.6746

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	71.5114					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	71.6823	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1456	0.0872	1.1997	3.6400e-003	0.4009	2.1300e-003	0.4031	0.1080	1.9600e-003	0.1100		379.5023	379.5023	9.7100e-003	9.8300e-003	382.6746
Total	0.1456	0.0872	1.1997	3.6400e-003	0.4009	2.1300e-003	0.4031	0.1080	1.9600e-003	0.1100		379.5023	379.5023	9.7100e-003	9.8300e-003	382.6746

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

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	6.5912	9.0909	58.5926	0.1331	15.3844	0.1107	15.4951	4.1037	0.1037	4.2073		13,984.74 97	13,984.74 97	0.8031	0.7300	14,222.38 08
Unmitigated	6.5912	9.0909	58.5926	0.1331	15.3844	0.1107	15.4951	4.1037	0.1037	4.2073		13,984.74 97	13,984.74 97	0.8031	0.7300	14,222.38 08

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	2,928.00	3,256.00	2512.00	6,521,584	6,521,584
Total	2,928.00	3,256.00	2,512.00	6,521,584	6,521,584

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
Condo/Townhouse	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.542916	0.056689	0.174450	0.134041	0.024680	0.006960	0.011589	0.018600	0.000608	0.000298	0.023389	0.001091	0.004689

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.2494	2.1310	0.9068	0.0136		0.1723	0.1723		0.1723	0.1723		2,720.3829	2,720.3829	0.0521	0.0499	2,736.5488
NaturalGas Unmitigated	0.2494	2.1310	0.9068	0.0136		0.1723	0.1723		0.1723	0.1723		2,720.3829	2,720.3829	0.0521	0.0499	2,736.5488

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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					
Condo/Townhouse	23123.3	0.2494	2.1310	0.9068	0.0136		0.1723	0.1723		0.1723	0.1723		2,720.3829	2,720.3829	0.0521	0.0499	2,736.5488
Total		0.2494	2.1310	0.9068	0.0136		0.1723	0.1723		0.1723	0.1723		2,720.3829	2,720.3829	0.0521	0.0499	2,736.5488

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	23.1233	0.2494	2.1310	0.9068	0.0136		0.1723	0.1723		0.1723	0.1723		2,720.3829	2,720.3829	0.0521	0.0499	2,736.5488
Total		0.2494	2.1310	0.9068	0.0136		0.1723	0.1723		0.1723	0.1723		2,720.3829	2,720.3829	0.0521	0.0499	2,736.5488

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.5956	0.3798	32.9692	1.7400e-003		0.1829	0.1829		0.1829	0.1829	0.0000	59.4209	59.4209	0.0569	0.0000	60.8435
Unmitigated	10.2356	0.3798	32.9692	1.7400e-003		0.1829	0.1829		0.1829	0.1829	0.0000	59.4209	59.4209	0.0569	0.0000	60.8435

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.6857					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.5600					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.9899	0.3798	32.9692	1.7400e-003		0.1829	0.1829		0.1829	0.1829		59.4209	59.4209	0.0569		60.8435
Total	10.2356	0.3798	32.9692	1.7400e-003		0.1829	0.1829		0.1829	0.1829	0.0000	59.4209	59.4209	0.0569	0.0000	60.8435

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.6857					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	7.9200					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.9899	0.3798	32.9692	1.7400e-003		0.1829	0.1829		0.1829	0.1829		59.4209	59.4209	0.0569		60.8435
Total	9.5956	0.3798	32.9692	1.7400e-003		0.1829	0.1829		0.1829	0.1829	0.0000	59.4209	59.4209	0.0569	0.0000	60.8435

7.0 Water Detail

7.1 Mitigation Measures Water

- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower
- Use Water Efficient Irrigation System

2615 Model 1 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

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

10.0 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

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2615 Model 2 Rancho Monterey SP Amendment

Riverside-Salton Sea County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Regional Shopping Center	150.00	1000sqft	23.25	150,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	15			Operational Year	2026
Utility Company	Imperial Irrigation District				
CO2 Intensity (lb/MW hr)	189.98	CH4 Intensity (lb/MW hr)	0.033	N2O Intensity (lb/MW hr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Model 2: 150,000 SF of Commercial

Land Use - Average Household Size: 1.87 PPH per CADF. Lot area is based on PA1 and flex portion of PA2. Building areas are based on combined unit count or max retail space as applicable to the model

Construction Phase - No demolition is involved.

Grading - Assumes balanced earthwork.

Architectural Coating - Factors SCAMQD Rule 1113 compliance.

Area Coating - Factors SCAMQD Rule 1113 compliance.

Construction Off-road Equipment Mitigation - SCAQMD Rule 403/403.1 and RMMC are applied as a requirement.

Area Mitigation - Factors SCAMQD Rule 1113 compliance.

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Parking	250	100
tblAreaCoating	Area_EF_Residential_Exterior	250	50
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	20
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	50
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	35.00
tblConstructionPhase	PhaseEndDate	2/26/2025	3/19/2025
tblGrading	AcresOfGrading	105.00	23.25
tblGrading	AcresOfGrading	15.00	23.25
tblLandUse	LotAcreage	3.44	23.25

2.0 Emissions Summary

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.1652	1.5566	1.5431	3.1100e-003	0.2517	0.0691	0.3209	0.1187	0.0644	0.1831	0.0000	273.4567	273.4567	0.0665	3.2200e-003	276.0799
2024	0.2121	1.8689	2.3061	4.4000e-003	0.0679	0.0813	0.1493	0.0184	0.0765	0.0949	0.0000	386.4898	386.4898	0.0734	7.5100e-003	390.5606
2025	0.3613	0.1130	0.1932	3.2000e-004	2.9300e-003	5.3700e-003	8.3000e-003	7.8000e-004	5.0100e-003	5.7900e-003	0.0000	27.9300	27.9300	7.0500e-003	8.0000e-005	28.1296
Maximum	0.3613	1.8689	2.3061	4.4000e-003	0.2517	0.0813	0.3209	0.1187	0.0765	0.1831	0.0000	386.4898	386.4898	0.0734	7.5100e-003	390.5606

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	0.1652	1.5566	1.5431	3.1100e-003	0.0863	0.0691	0.1554	0.0373	0.0644	0.1017	0.0000	273.4564	273.4564	0.0665	3.2200e-003	276.0796
2024	0.2121	1.8689	2.3061	4.4000e-003	0.0567	0.0813	0.1380	0.0157	0.0765	0.0922	0.0000	386.4895	386.4895	0.0734	7.5100e-003	390.5602
2025	0.3613	0.1130	0.1932	3.2000e-004	2.4300e-003	5.3700e-003	7.7900e-003	6.6000e-004	5.0100e-003	5.6700e-003	0.0000	27.9300	27.9300	7.0500e-003	8.0000e-005	28.1296
Maximum	0.3613	1.8689	2.3061	4.4000e-003	0.0863	0.0813	0.1554	0.0373	0.0765	0.1017	0.0000	386.4895	386.4895	0.0734	7.5100e-003	390.5602

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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
Percent Reduction	0.00	0.00	0.00	0.00	54.93	0.00	37.04	61.13	0.00	29.71	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	6-1-2023	8-31-2023	0.9906	0.9906
2	9-1-2023	11-30-2023	0.5509	0.5509
3	12-1-2023	2-29-2024	0.5285	0.5285
4	3-1-2024	5-31-2024	0.5217	0.5217
5	6-1-2024	8-31-2024	0.5213	0.5213
6	9-1-2024	11-30-2024	0.5163	0.5163
7	12-1-2024	2-28-2025	0.5042	0.5042
8	3-1-2025	5-31-2025	0.1440	0.1440
		Highest	0.9906	0.9906

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.6207	1.0000e-005	1.3700e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.6800e-003	2.6800e-003	1.0000e-005	0.0000	2.8500e-003
Energy	1.7800e-003	0.0162	0.0136	1.0000e-004		1.2300e-003	1.2300e-003		1.2300e-003	1.2300e-003	0.0000	174.5320	174.5320	0.0276	3.6300e-003	176.3026
Mobile	1.7267	1.9858	12.9445	0.0252	2.7467	0.0215	2.7682	0.7336	0.0201	0.7538	0.0000	2,402.5376	2,402.5376	0.1687	0.1420	2,449.0733
Waste						0.0000	0.0000		0.0000	0.0000	31.9711	0.0000	31.9711	1.8894	0.0000	79.2070
Water						0.0000	0.0000		0.0000	0.0000	3.5250	18.9868	22.5118	0.3654	8.9500e-003	34.3121
Total	2.3492	2.0020	12.9594	0.0253	2.7467	0.0228	2.7694	0.7336	0.0214	0.7550	35.4961	2,596.0591	2,631.5551	2.4511	0.1546	2,738.8979

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.5769	1.0000e-005	1.3700e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.6800e-003	2.6800e-003	1.0000e-005	0.0000	2.8500e-003
Energy	1.7800e-003	0.0162	0.0136	1.0000e-004		1.2300e-003	1.2300e-003		1.2300e-003	1.2300e-003	0.0000	162.9296	162.9296	0.0256	3.3800e-003	164.5771
Mobile	1.7267	1.9858	12.9445	0.0252	2.7467	0.0215	2.7682	0.7336	0.0201	0.7538	0.0000	2,402.5376	2,402.5376	0.1687	0.1420	2,449.0733
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	2.8200	16.0957	18.9157	0.2924	7.1800e-003	28.3656
Total	2.3054	2.0020	12.9594	0.0253	2.7467	0.0228	2.7694	0.7336	0.0214	0.7550	2.8200	2,581.5656	2,584.3855	0.4867	0.1526	2,642.0188

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	1.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	92.06	0.56	1.79	80.14	1.31	3.54

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	6/1/2023	6/14/2023	5	10	
2	Grading	Grading	6/15/2023	8/2/2023	5	35	
3	Building Construction	Building Construction	8/3/2023	1/1/2025	5	370	

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4	Paving	Paving	1/2/2025	1/29/2025	5	20
5	Architectural Coating	Architectural Coating	1/30/2025	3/19/2025	5	35

Acres of Grading (Site Preparation Phase): 23.25

Acres of Grading (Grading Phase): 23.25

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 225,000; Non-Residential Outdoor: 75,000; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	231	0.29
Grading	Excavators	2	8.00	158	0.38
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	48.00	25.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	10.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

- Use Soil Stabilizer
- Replace Ground Cover
- Water Exposed Area
- Water Unpaved Roads
- Reduce Vehicle Speed on Unpaved Roads
- Clean Paved Roads

3.2 Site Preparation - 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					0.1027	0.0000	0.1027	0.0510	0.0000	0.0510	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.1376	0.0912	1.9000e-004		6.3300e-003	6.3300e-003		5.8200e-003	5.8200e-003	0.0000	16.7254	16.7254	5.4100e-003	0.0000	16.8606
Total	0.0133	0.1376	0.0912	1.9000e-004	0.1027	6.3300e-003	0.1090	0.0510	5.8200e-003	0.0568	0.0000	16.7254	16.7254	5.4100e-003	0.0000	16.8606

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 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	2.5000e-004	1.7000e-004	2.2300e-003	1.0000e-005	7.4000e-004	0.0000	7.4000e-004	2.0000e-004	0.0000	2.0000e-004	0.0000	0.5739	0.5739	2.0000e-005	2.0000e-005	0.5792
Total	2.5000e-004	1.7000e-004	2.2300e-003	1.0000e-005	7.4000e-004	0.0000	7.4000e-004	2.0000e-004	0.0000	2.0000e-004	0.0000	0.5739	0.5739	2.0000e-005	2.0000e-005	0.5792

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					0.0280	0.0000	0.0280	0.0139	0.0000	0.0139	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.1376	0.0912	1.9000e-004		6.3300e-003	6.3300e-003		5.8200e-003	5.8200e-003	0.0000	16.7253	16.7253	5.4100e-003	0.0000	16.8606
Total	0.0133	0.1376	0.0912	1.9000e-004	0.0280	6.3300e-003	0.0344	0.0139	5.8200e-003	0.0197	0.0000	16.7253	16.7253	5.4100e-003	0.0000	16.8606

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 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	2.5000e-004	1.7000e-004	2.2300e-003	1.0000e-005	6.1000e-004	0.0000	6.2000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.5739	0.5739	2.0000e-005	2.0000e-005	0.5792
Total	2.5000e-004	1.7000e-004	2.2300e-003	1.0000e-005	6.1000e-004	0.0000	6.2000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.5739	0.5739	2.0000e-005	2.0000e-005	0.5792

3.3 Grading - 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					0.1177	0.0000	0.1177	0.0593	0.0000	0.0593	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0581	0.6040	0.4909	1.0900e-003		0.0249	0.0249		0.0229	0.0229	0.0000	95.4366	95.4366	0.0309	0.0000	96.2083
Total	0.0581	0.6040	0.4909	1.0900e-003	0.1177	0.0249	0.1426	0.0593	0.0229	0.0822	0.0000	95.4366	95.4366	0.0309	0.0000	96.2083

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 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	9.6000e-004	6.7000e-004	8.6700e-003	2.0000e-005	2.8800e-003	1.0000e-005	2.8900e-003	7.6000e-004	1.0000e-005	7.8000e-004	0.0000	2.2319	2.2319	6.0000e-005	6.0000e-005	2.2523
Total	9.6000e-004	6.7000e-004	8.6700e-003	2.0000e-005	2.8800e-003	1.0000e-005	2.8900e-003	7.6000e-004	1.0000e-005	7.8000e-004	0.0000	2.2319	2.2319	6.0000e-005	6.0000e-005	2.2523

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					0.0321	0.0000	0.0321	0.0162	0.0000	0.0162	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0581	0.6040	0.4909	1.0900e-003		0.0249	0.0249		0.0229	0.0229	0.0000	95.4365	95.4365	0.0309	0.0000	96.2082
Total	0.0581	0.6040	0.4909	1.0900e-003	0.0321	0.0249	0.0571	0.0162	0.0229	0.0391	0.0000	95.4365	95.4365	0.0309	0.0000	96.2082

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 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	9.6000e-004	6.7000e-004	8.6700e-003	2.0000e-005	2.3800e-003	1.0000e-005	2.3900e-003	6.4000e-004	1.0000e-005	6.6000e-004	0.0000	2.2319	2.2319	6.0000e-005	6.0000e-005	2.2523
Total	9.6000e-004	6.7000e-004	8.6700e-003	2.0000e-005	2.3800e-003	1.0000e-005	2.3900e-003	6.4000e-004	1.0000e-005	6.6000e-004	0.0000	2.2319	2.2319	6.0000e-005	6.0000e-005	2.2523

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0841	0.7696	0.8691	1.4400e-003		0.0374	0.0374		0.0352	0.0352	0.0000	124.0155	124.0155	0.0295	0.0000	124.7531
Total	0.0841	0.7696	0.8691	1.4400e-003		0.0374	0.0374		0.0352	0.0352	0.0000	124.0155	124.0155	0.0295	0.0000	124.7531

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3400e-003	0.0396	0.0174	1.9000e-004	6.6200e-003	3.0000e-004	6.9200e-003	1.9100e-003	2.9000e-004	2.2000e-003	0.0000	18.0976	18.0976	1.9000e-004	2.6800e-003	18.9013
Worker	7.0600e-003	4.9300e-003	0.0636	1.8000e-004	0.0211	1.0000e-004	0.0212	5.6100e-003	1.0000e-004	5.7100e-003	0.0000	16.3758	16.3758	4.7000e-004	4.6000e-004	16.5253
Total	8.4000e-003	0.0446	0.0810	3.7000e-004	0.0278	4.0000e-004	0.0282	7.5200e-003	3.9000e-004	7.9100e-003	0.0000	34.4734	34.4734	6.6000e-004	3.1400e-003	35.4266

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0841	0.7696	0.8691	1.4400e-003		0.0374	0.0374		0.0352	0.0352	0.0000	124.0154	124.0154	0.0295	0.0000	124.7529
Total	0.0841	0.7696	0.8691	1.4400e-003		0.0374	0.0374		0.0352	0.0352	0.0000	124.0154	124.0154	0.0295	0.0000	124.7529

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3400e-003	0.0396	0.0174	1.9000e-004	5.6800e-003	3.0000e-004	5.9800e-003	1.6800e-003	2.9000e-004	1.9700e-003	0.0000	18.0976	18.0976	1.9000e-004	2.6800e-003	18.9013
Worker	7.0600e-003	4.9300e-003	0.0636	1.8000e-004	0.0175	1.0000e-004	0.0176	4.7100e-003	1.0000e-004	4.8100e-003	0.0000	16.3758	16.3758	4.7000e-004	4.6000e-004	16.5253
Total	8.4000e-003	0.0446	0.0810	3.7000e-004	0.0231	4.0000e-004	0.0236	6.3900e-003	3.9000e-004	6.7800e-003	0.0000	34.4734	34.4734	6.6000e-004	3.1400e-003	35.4266

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7223	303.7223	0.0718	0.0000	305.5179
Total	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7223	303.7223	0.0718	0.0000	305.5179

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	3.2400e-003	0.0970	0.0422	4.5000e-004	0.0162	7.3000e-004	0.0169	4.6800e-003	7.0000e-004	5.3800e-003	0.0000	43.6306	43.6306	4.8000e-004	6.4500e-003	45.5660
Worker	0.0161	0.0108	0.1461	4.2000e-004	0.0517	2.4000e-004	0.0520	0.0137	2.2000e-004	0.0140	0.0000	39.1369	39.1369	1.0500e-003	1.0500e-003	39.4767
Total	0.0194	0.1078	0.1883	8.7000e-004	0.0679	9.7000e-004	0.0689	0.0184	9.2000e-004	0.0193	0.0000	82.7675	82.7675	1.5300e-003	7.5000e-003	85.0427

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7220	303.7220	0.0718	0.0000	305.5175
Total	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7220	303.7220	0.0718	0.0000	305.5175

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	3.2400e-003	0.0970	0.0422	4.5000e-004	0.0139	7.3000e-004	0.0147	4.1200e-003	7.0000e-004	4.8200e-003	0.0000	43.6306	43.6306	4.8000e-004	6.4500e-003	45.5660
Worker	0.0161	0.0108	0.1461	4.2000e-004	0.0428	2.4000e-004	0.0430	0.0115	2.2000e-004	0.0118	0.0000	39.1369	39.1369	1.0500e-003	1.0500e-003	39.4767
Total	0.0194	0.1078	0.1883	8.7000e-004	0.0567	9.7000e-004	0.0577	0.0157	9.2000e-004	0.0166	0.0000	82.7675	82.7675	1.5300e-003	7.5000e-003	85.0427

3.4 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.8000e-004	6.2300e-003	8.0400e-003	1.0000e-005		2.6000e-004	2.6000e-004		2.5000e-004	2.5000e-004	0.0000	1.1596	1.1596	2.7000e-004	0.0000	1.1664
Total	6.8000e-004	6.2300e-003	8.0400e-003	1.0000e-005		2.6000e-004	2.6000e-004		2.5000e-004	2.5000e-004	0.0000	1.1596	1.1596	2.7000e-004	0.0000	1.1664

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0000e-005	3.7000e-004	1.6000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.1636	0.1636	0.0000	2.0000e-005	0.1708
Worker	6.0000e-005	4.0000e-005	5.2000e-004	0.0000	2.0000e-004	0.0000	2.0000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1458	0.1458	0.0000	0.0000	0.1470
Total	7.0000e-005	4.1000e-004	6.8000e-004	0.0000	2.6000e-004	0.0000	2.6000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.3093	0.3093	0.0000	2.0000e-005	0.3178

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.8000e-004	6.2300e-003	8.0400e-003	1.0000e-005		2.6000e-004	2.6000e-004		2.5000e-004	2.5000e-004	0.0000	1.1596	1.1596	2.7000e-004	0.0000	1.1664
Total	6.8000e-004	6.2300e-003	8.0400e-003	1.0000e-005		2.6000e-004	2.6000e-004		2.5000e-004	2.5000e-004	0.0000	1.1596	1.1596	2.7000e-004	0.0000	1.1664

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0000e-005	3.7000e-004	1.6000e-004	0.0000	5.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.1636	0.1636	0.0000	2.0000e-005	0.1708
Worker	6.0000e-005	4.0000e-005	5.2000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1458	0.1458	0.0000	0.0000	0.1470
Total	7.0000e-005	4.1000e-004	6.8000e-004	0.0000	2.1000e-004	0.0000	2.2000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.3093	0.3093	0.0000	2.0000e-005	0.3178

3.5 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.1500e-003	0.0858	0.1458	2.3000e-004		4.1900e-003	4.1900e-003		3.8500e-003	3.8500e-003	0.0000	20.0193	20.0193	6.4700e-003	0.0000	20.1811
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	9.1500e-003	0.0858	0.1458	2.3000e-004		4.1900e-003	4.1900e-003		3.8500e-003	3.8500e-003	0.0000	20.0193	20.0193	6.4700e-003	0.0000	20.1811

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6000e-004	2.3000e-004	3.2600e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.3000e-004	0.0000	0.9109	0.9109	2.0000e-005	2.0000e-005	0.9185
Total	3.6000e-004	2.3000e-004	3.2600e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.3000e-004	0.0000	0.9109	0.9109	2.0000e-005	2.0000e-005	0.9185

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.1500e-003	0.0858	0.1458	2.3000e-004		4.1900e-003	4.1900e-003		3.8500e-003	3.8500e-003	0.0000	20.0192	20.0192	6.4700e-003	0.0000	20.1811
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	9.1500e-003	0.0858	0.1458	2.3000e-004		4.1900e-003	4.1900e-003		3.8500e-003	3.8500e-003	0.0000	20.0192	20.0192	6.4700e-003	0.0000	20.1811

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6000e-004	2.3000e-004	3.2600e-003	1.0000e-005	1.0200e-003	1.0000e-005	1.0300e-003	2.8000e-004	1.0000e-005	2.8000e-004	0.0000	0.9109	0.9109	2.0000e-005	2.0000e-005	0.9185
Total	3.6000e-004	2.3000e-004	3.2600e-003	1.0000e-005	1.0200e-003	1.0000e-005	1.0300e-003	2.8000e-004	1.0000e-005	2.8000e-004	0.0000	0.9109	0.9109	2.0000e-005	2.0000e-005	0.9185

3.6 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3476					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9900e-003	0.0201	0.0317	5.0000e-005		9.0000e-004	9.0000e-004		9.0000e-004	9.0000e-004	0.0000	4.4682	4.4682	2.4000e-004	0.0000	4.4743
Total	0.3506	0.0201	0.0317	5.0000e-005		9.0000e-004	9.0000e-004		9.0000e-004	9.0000e-004	0.0000	4.4682	4.4682	2.4000e-004	0.0000	4.4743

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.2000e-004	2.7000e-004	3.8000e-003	1.0000e-005	1.4400e-003	1.0000e-005	1.4500e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.0627	1.0627	3.0000e-005	3.0000e-005	1.0715
Total	4.2000e-004	2.7000e-004	3.8000e-003	1.0000e-005	1.4400e-003	1.0000e-005	1.4500e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.0627	1.0627	3.0000e-005	3.0000e-005	1.0715

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3476					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9900e-003	0.0201	0.0317	5.0000e-005		9.0000e-004	9.0000e-004		9.0000e-004	9.0000e-004	0.0000	4.4682	4.4682	2.4000e-004	0.0000	4.4743
Total	0.3506	0.0201	0.0317	5.0000e-005		9.0000e-004	9.0000e-004		9.0000e-004	9.0000e-004	0.0000	4.4682	4.4682	2.4000e-004	0.0000	4.4743

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.2000e-004	2.7000e-004	3.8000e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0627	1.0627	3.0000e-005	3.0000e-005	1.0715
Total	4.2000e-004	2.7000e-004	3.8000e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0627	1.0627	3.0000e-005	3.0000e-005	1.0715

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

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	tons/yr										MT/yr					
Mitigated	1.7267	1.9858	12.9445	0.0252	2.7467	0.0215	2.7682	0.7336	0.0201	0.7538	0.0000	2,402.5376	2,402.5376	0.1687	0.1420	2,449.0733
Unmitigated	1.7267	1.9858	12.9445	0.0252	2.7467	0.0215	2.7682	0.7336	0.0201	0.7538	0.0000	2,402.5376	2,402.5376	0.1687	0.1420	2,449.0733

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Regional Shopping Center	5,662.50	6,918.00	3165.00	7,264,535	7,264,535
Total	5,662.50	6,918.00	3,165.00	7,264,535	7,264,535

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Regional Shopping Center	0.542916	0.056689	0.174450	0.134041	0.024680	0.006960	0.011589	0.018600	0.000608	0.000298	0.023389	0.001091	0.004689

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	145.3195	145.3195	0.0252	3.0600e-003	146.8624
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	156.9219	156.9219	0.0273	3.3000e-003	158.5879
NaturalGas Mitigated	1.7800e-003	0.0162	0.0136	1.0000e-004		1.2300e-003	1.2300e-003		1.2300e-003	1.2300e-003	0.0000	17.6101	17.6101	3.4000e-004	3.2000e-004	17.7147
NaturalGas Unmitigated	1.7800e-003	0.0162	0.0136	1.0000e-004		1.2300e-003	1.2300e-003		1.2300e-003	1.2300e-003	0.0000	17.6101	17.6101	3.4000e-004	3.2000e-004	17.7147

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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					
Regional Shopping Center	330000	1.7800e-003	0.0162	0.0136	1.0000e-004		1.2300e-003	1.2300e-003		1.2300e-003	1.2300e-003	0.0000	17.6101	17.6101	3.4000e-004	3.2000e-004	17.7147
Total		1.7800e-003	0.0162	0.0136	1.0000e-004		1.2300e-003	1.2300e-003		1.2300e-003	1.2300e-003	0.0000	17.6101	17.6101	3.4000e-004	3.2000e-004	17.7147

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					
Regional Shopping Center	330000	1.7800e-003	0.0162	0.0136	1.0000e-004		1.2300e-003	1.2300e-003		1.2300e-003	1.2300e-003	0.0000	17.6101	17.6101	3.4000e-004	3.2000e-004	17.7147
Total		1.7800e-003	0.0162	0.0136	1.0000e-004		1.2300e-003	1.2300e-003		1.2300e-003	1.2300e-003	0.0000	17.6101	17.6101	3.4000e-004	3.2000e-004	17.7147

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Regional Shopping Center	1.821e+006	156.9219	0.0273	3.3000e-003	158.5879
Total		156.9219	0.0273	3.3000e-003	158.5879

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Regional Shopping Center	1.68636e+006	145.3195	0.0252	3.0600e-003	146.8624
Total		145.3195	0.0252	3.0600e-003	146.8624

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.5769	1.0000e-005	1.3700e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.6800e-003	2.6800e-003	1.0000e-005	0.0000	2.8500e-003
Unmitigated	0.6207	1.0000e-005	1.3700e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.6800e-003	2.6800e-003	1.0000e-005	0.0000	2.8500e-003

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.0348					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5858					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.3000e-004	1.0000e-005	1.3700e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.6800e-003	2.6800e-003	1.0000e-005	0.0000	2.8500e-003
Total	0.6207	1.0000e-005	1.3700e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.6800e-003	2.6800e-003	1.0000e-005	0.0000	2.8500e-003

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.0348					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5420					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.3000e-004	1.0000e-005	1.3700e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.6800e-003	2.6800e-003	1.0000e-005	0.0000	2.8500e-003
Total	0.5769	1.0000e-005	1.3700e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.6800e-003	2.6800e-003	1.0000e-005	0.0000	2.8500e-003

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	18.9157	0.2924	7.1800e-003	28.3656
Unmitigated	22.5118	0.3654	8.9500e-003	34.3121

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Regional Shopping Center	11.1109 / 6.80989	22.5118	0.3654	8.9500e-003	34.3121
Total		22.5118	0.3654	8.9500e-003	34.3121

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Regional Shopping Center	8.8887 / 6.39449	18.9157	0.2924	7.1800e-003	28.3656
Total		18.9157	0.2924	7.1800e-003	28.3656

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	31.9711	1.8894	0.0000	79.2070

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Regional Shopping Center	157.5	31.9711	1.8894	0.0000	79.2070
Total		31.9711	1.8894	0.0000	79.2070

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Regional Shopping Center		0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

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

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2615 Model 2 Rancho Monterey SP Amendment

Riverside-Salton Sea County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Regional Shopping Center	150.00	1000sqft	23.25	150,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	15			Operational Year	2026
Utility Company	Imperial Irrigation District				
CO2 Intensity (lb/MW hr)	189.98	CH4 Intensity (lb/MW hr)	0.033	N2O Intensity (lb/MW hr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Model 2: 150,000 SF of Commercial

Land Use - Average Household Size: 1.87 PPH per CADF. Lot area is based on PA1 and flex portion of PA2. Building areas are based on combined unit count or max retail space as applicable to the model

Construction Phase - No demolition is involved.

Grading - Assumes balanced earthwork.

Architectural Coating - Factors SCAMQD Rule 1113 compliance.

Area Coating - Factors SCAMQD Rule 1113 compliance.

Construction Off-road Equipment Mitigation - SCAQMD Rule 403/403.1 and RMMC are applied as a requirement.

Area Mitigation - Factors SCAMQD Rule 1113 compliance.

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Parking	250	100
tblAreaCoating	Area_EF_Residential_Exterior	250	50
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	20
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	50
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	35.00
tblConstructionPhase	PhaseEndDate	2/26/2025	3/19/2025
tblGrading	AcresOfGrading	105.00	23.25
tblGrading	AcresOfGrading	15.00	23.25
tblLandUse	LotAcreage	3.44	23.25

2.0 Emissions Summary

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	3.3845	34.5517	28.6229	0.0636	20.6825	1.4253	21.9493	10.2369	1.3113	11.4023	0.0000	6,163.0505	6,163.0505	1.9482	0.0643	6,212.8904
2024	1.6378	14.2278	17.7703	0.0339	0.5271	0.6207	1.1478	0.1427	0.5839	0.7266	0.0000	3,277.3495	3,277.3495	0.6171	0.0627	3,311.4648
2025	20.0625	13.2404	17.5988	0.0337	0.5271	0.5349	1.0620	0.1427	0.5032	0.6459	0.0000	3,262.9604	3,262.9604	0.7162	0.0611	3,296.4920
Maximum	20.0625	34.5517	28.6229	0.0636	20.6825	1.4253	21.9493	10.2369	1.3113	11.4023	0.0000	6,163.0505	6,163.0505	1.9482	0.0643	6,212.8904

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	3.3845	34.5517	28.6229	0.0636	5.7296	1.4253	6.9964	2.8173	1.3113	3.9827	0.0000	6,163.0505	6,163.0505	1.9482	0.0643	6,212.8904
2024	1.6378	14.2278	17.7703	0.0339	0.4394	0.6207	1.0601	0.1212	0.5839	0.7051	0.0000	3,277.3495	3,277.3495	0.6171	0.0627	3,311.4648
2025	20.0625	13.2404	17.5988	0.0337	0.4394	0.5349	0.9743	0.1212	0.5032	0.6244	0.0000	3,262.9604	3,262.9604	0.7162	0.0611	3,296.4920
Maximum	20.0625	34.5517	28.6229	0.0636	5.7296	1.4253	6.9964	2.8173	1.3113	3.9827	0.0000	6,163.0505	6,163.0505	1.9482	0.0643	6,212.8904

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	3.4019	1.4000e-004	0.0153	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0328	0.0328	9.0000e-005		0.0350
Energy	9.7500e-003	0.0886	0.0745	5.3000e-004		6.7400e-003	6.7400e-003		6.7400e-003	6.7400e-003		106.3658	106.3658	2.0400e-003	1.9500e-003	106.9979
Mobile	14.6813	12.9991	93.9394	0.1847	19.3532	0.1492	19.5024	5.1623	0.1396	5.3019		19,405.22 17	19,405.22 17	1.2248	1.0590	19,751.40 97
Total	18.0930	13.0878	94.0291	0.1853	19.3532	0.1560	19.5092	5.1623	0.1464	5.3087		19,511.62 03	19,511.62 03	1.2269	1.0609	19,858.44 26

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	3.1619	1.4000e-004	0.0153	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0328	0.0328	9.0000e-005		0.0350
Energy	9.7500e-003	0.0886	0.0745	5.3000e-004		6.7400e-003	6.7400e-003		6.7400e-003	6.7400e-003		106.3658	106.3658	2.0400e-003	1.9500e-003	106.9979
Mobile	14.6813	12.9991	93.9394	0.1847	19.3532	0.1492	19.5024	5.1623	0.1396	5.3019		19,405.22 17	19,405.22 17	1.2248	1.0590	19,751.40 97
Total	17.8530	13.0878	94.0291	0.1853	19.3532	0.1560	19.5092	5.1623	0.1464	5.3087		19,511.62 03	19,511.62 03	1.2269	1.0609	19,858.44 26

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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
Percent Reduction	1.33	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	Site Preparation	Site Preparation	6/1/2023	6/14/2023	5	10	
2	Grading	Grading	6/15/2023	8/2/2023	5	35	
3	Building Construction	Building Construction	8/3/2023	1/1/2025	5	370	
4	Paving	Paving	1/2/2025	1/29/2025	5	20	
5	Architectural Coating	Architectural Coating	1/30/2025	3/19/2025	5	35	

Acres of Grading (Site Preparation Phase): 23.25

Acres of Grading (Grading Phase): 23.25

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 225,000; Non-Residential Outdoor: 75,000; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	231	0.29
Grading	Excavators	2	8.00	158	0.38
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	48.00	25.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	10.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 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					20.5319	0.0000	20.5319	10.1969	0.0000	10.1969			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647		3,687.308 1	3,687.308 1	1.1926		3,717.121 9
Total	2.6595	27.5242	18.2443	0.0381	20.5319	1.2660	21.7979	10.1969	1.1647	11.3617		3,687.308 1	3,687.308 1	1.1926		3,717.121 9

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0565	0.0325	0.5146	1.3300e-003	0.1506	7.3000e-004	0.1513	0.0400	6.7000e-004	0.0406		136.4155	136.4155	3.5900e-003	3.4300e-003	137.5262
Total	0.0565	0.0325	0.5146	1.3300e-003	0.1506	7.3000e-004	0.1513	0.0400	6.7000e-004	0.0406		136.4155	136.4155	3.5900e-003	3.4300e-003	137.5262

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 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					5.6052	0.0000	5.6052	2.7838	0.0000	2.7838			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647	0.0000	3,687.308 1	3,687.308 1	1.1926		3,717.121 9
Total	2.6595	27.5242	18.2443	0.0381	5.6052	1.2660	6.8712	2.7838	1.1647	3.9485	0.0000	3,687.308 1	3,687.308 1	1.1926		3,717.121 9

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0565	0.0325	0.5146	1.3300e-003	0.1244	7.3000e-004	0.1252	0.0335	6.7000e-004	0.0342		136.4155	136.4155	3.5900e-003	3.4300e-003	137.5262
Total	0.0565	0.0325	0.5146	1.3300e-003	0.1244	7.3000e-004	0.1252	0.0335	6.7000e-004	0.0342		136.4155	136.4155	3.5900e-003	3.4300e-003	137.5262

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 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					6.7266	0.0000	6.7266	3.3863	0.0000	3.3863			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105		6,011.4777	6,011.4777	1.9442		6,060.0836
Total	3.3217	34.5156	28.0512	0.0621	6.7266	1.4245	8.1511	3.3863	1.3105	4.6968		6,011.4777	6,011.4777	1.9442		6,060.0836

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0628	0.0361	0.5718	1.4800e-003	0.1673	8.1000e-004	0.1681	0.0444	7.4000e-004	0.0451		151.5728	151.5728	3.9800e-003	3.8100e-003	152.8069
Total	0.0628	0.0361	0.5718	1.4800e-003	0.1673	8.1000e-004	0.1681	0.0444	7.4000e-004	0.0451		151.5728	151.5728	3.9800e-003	3.8100e-003	152.8069

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 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					1.8364	0.0000	1.8364	0.9245	0.0000	0.9245			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836
Total	3.3217	34.5156	28.0512	0.0621	1.8364	1.4245	3.2608	0.9245	1.3105	2.2350	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0628	0.0361	0.5718	1.4800e-003	0.1383	8.1000e-004	0.1391	0.0372	7.4000e-004	0.0380		151.5728	151.5728	3.9800e-003	3.8100e-003	152.8069
Total	0.0628	0.0361	0.5718	1.4800e-003	0.1383	8.1000e-004	0.1391	0.0372	7.4000e-004	0.0380		151.5728	151.5728	3.9800e-003	3.8100e-003	152.8069

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0262	0.7068	0.3205	3.5100e-003	0.1255	5.6100e-003	0.1311	0.0361	5.3600e-003	0.0415		372.3974	372.3974	3.9500e-003	0.0551	388.9263
Worker	0.1507	0.0867	1.3723	3.5500e-003	0.4016	1.9400e-003	0.4035	0.1065	1.7900e-003	0.1083		363.7746	363.7746	9.5600e-003	9.1400e-003	366.7365
Total	0.1769	0.7935	1.6927	7.0600e-003	0.5271	7.5500e-003	0.5346	0.1427	7.1500e-003	0.1498		736.1720	736.1720	0.0135	0.0643	755.6628

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0262	0.7068	0.3205	3.5100e-003	0.1076	5.6100e-003	0.1132	0.0318	5.3600e-003	0.0371		372.3974	372.3974	3.9500e-003	0.0551	388.9263
Worker	0.1507	0.0867	1.3723	3.5500e-003	0.3318	1.9400e-003	0.3337	0.0894	1.7900e-003	0.0912		363.7746	363.7746	9.5600e-003	9.1400e-003	366.7365
Total	0.1769	0.7935	1.6927	7.0600e-003	0.4394	7.5500e-003	0.4470	0.1212	7.1500e-003	0.1283		736.1720	736.1720	0.0135	0.0643	755.6628

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0258	0.7066	0.3170	3.4600e-003	0.1255	5.5700e-003	0.1310	0.0361	5.3300e-003	0.0415		366.6544	366.6544	4.0800e-003	0.0542	382.9096
Worker	0.1404	0.0774	1.2865	3.4400e-003	0.4016	1.8500e-003	0.4035	0.1065	1.7100e-003	0.1082		354.9962	354.9962	8.6800e-003	8.5000e-003	357.7476
Total	0.1662	0.7840	1.6035	6.9000e-003	0.5271	7.4200e-003	0.5345	0.1427	7.0400e-003	0.1497		721.6506	721.6506	0.0128	0.0627	740.6572

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0258	0.7066	0.3170	3.4600e-003	0.1076	5.5700e-003	0.1132	0.0318	5.3300e-003	0.0371		366.6544	366.6544	4.0800e-003	0.0542	382.9096
Worker	0.1404	0.0774	1.2865	3.4400e-003	0.3318	1.8500e-003	0.3337	0.0894	1.7100e-003	0.0911		354.9962	354.9962	8.6800e-003	8.5000e-003	357.7476
Total	0.1662	0.7840	1.6035	6.9000e-003	0.4394	7.4200e-003	0.4468	0.1212	7.0400e-003	0.1282		721.6506	721.6506	0.0128	0.0627	740.6572

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0255	0.7011	0.3137	3.3900e-003	0.1255	5.5700e-003	0.1310	0.0361	5.3300e-003	0.0415		360.1864	360.1864	4.2200e-003	0.0532	376.1294
Worker	0.1311	0.0696	1.2004	3.3200e-003	0.4016	1.7600e-003	0.4034	0.1065	1.6200e-003	0.1082		346.2997	346.2997	7.8500e-003	7.9500e-003	348.8645
Total	0.1566	0.7707	1.5142	6.7100e-003	0.5271	7.3300e-003	0.5344	0.1427	6.9500e-003	0.1496		706.4860	706.4860	0.0121	0.0611	724.9939

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.474 4	2,556.474 4	0.6010		2,571.498 1

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0255	0.7011	0.3137	3.3900e-003	0.1076	5.5700e-003	0.1132	0.0318	5.3300e-003	0.0371		360.1864	360.1864	4.2200e-003	0.0532	376.1294
Worker	0.1311	0.0696	1.2004	3.3200e-003	0.3318	1.7600e-003	0.3336	0.0894	1.6200e-003	0.0910		346.2997	346.2997	7.8500e-003	7.9500e-003	348.8645
Total	0.1566	0.7707	1.5142	6.7100e-003	0.4394	7.3300e-003	0.4467	0.1212	6.9500e-003	0.1281		706.4860	706.4860	0.0121	0.0611	724.9939

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.745 2	2,206.745 2	0.7137		2,224.587 8
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.745 2	2,206.745 2	0.7137		2,224.587 8

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0410	0.0218	0.3751	1.0400e-003	0.1255	5.5000e-004	0.1261	0.0333	5.1000e-004	0.0338		108.2187	108.2187	2.4500e-003	2.4800e-003	109.0202
Total	0.0410	0.0218	0.3751	1.0400e-003	0.1255	5.5000e-004	0.1261	0.0333	5.1000e-004	0.0338		108.2187	108.2187	2.4500e-003	2.4800e-003	109.0202

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850	0.0000	2,206.745 2	2,206.745 2	0.7137		2,224.587 8
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850	0.0000	2,206.745 2	2,206.745 2	0.7137		2,224.587 8

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0410	0.0218	0.3751	1.0400e-003	0.1037	5.5000e-004	0.1042	0.0279	5.1000e-004	0.0284		108.2187	108.2187	2.4500e-003	2.4800e-003	109.0202
Total	0.0410	0.0218	0.3751	1.0400e-003	0.1037	5.5000e-004	0.1042	0.0279	5.1000e-004	0.0284		108.2187	108.2187	2.4500e-003	2.4800e-003	109.0202

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	19.8643					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	20.0352	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	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	0.0145	0.2501	6.9000e-004	0.0837	3.7000e-004	0.0840	0.0222	3.4000e-004	0.0225		72.1458	72.1458	1.6300e-003	1.6600e-003	72.6801
Total	0.0273	0.0145	0.2501	6.9000e-004	0.0837	3.7000e-004	0.0840	0.0222	3.4000e-004	0.0225		72.1458	72.1458	1.6300e-003	1.6600e-003	72.6801

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	19.8643					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	20.0352	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	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	0.0145	0.2501	6.9000e-004	0.0691	3.7000e-004	0.0695	0.0186	3.4000e-004	0.0190		72.1458	72.1458	1.6300e-003	1.6600e-003	72.6801
Total	0.0273	0.0145	0.2501	6.9000e-004	0.0691	3.7000e-004	0.0695	0.0186	3.4000e-004	0.0190		72.1458	72.1458	1.6300e-003	1.6600e-003	72.6801

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

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	14.6813	12.9991	93.9394	0.1847	19.3532	0.1492	19.5024	5.1623	0.1396	5.3019		19,405.22 17	19,405.22 17	1.2248	1.0590	19,751.40 97
Unmitigated	14.6813	12.9991	93.9394	0.1847	19.3532	0.1492	19.5024	5.1623	0.1396	5.3019		19,405.22 17	19,405.22 17	1.2248	1.0590	19,751.40 97

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Regional Shopping Center	5,662.50	6,918.00	3165.00	7,264,535	7,264,535
Total	5,662.50	6,918.00	3,165.00	7,264,535	7,264,535

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Regional Shopping Center	0.542916	0.056689	0.174450	0.134041	0.024680	0.006960	0.011589	0.018600	0.000608	0.000298	0.023389	0.001091	0.004689

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	9.7500e-003	0.0886	0.0745	5.3000e-004		6.7400e-003	6.7400e-003		6.7400e-003	6.7400e-003		106.3658	106.3658	2.0400e-003	1.9500e-003	106.9979
NaturalGas Unmitigated	9.7500e-003	0.0886	0.0745	5.3000e-004		6.7400e-003	6.7400e-003		6.7400e-003	6.7400e-003		106.3658	106.3658	2.0400e-003	1.9500e-003	106.9979

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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					
Regional Shopping Center	904.11	9.7500e-003	0.0886	0.0745	5.3000e-004		6.7400e-003	6.7400e-003		6.7400e-003	6.7400e-003		106.3658	106.3658	2.0400e-003	1.9500e-003	106.9979
Total		9.7500e-003	0.0886	0.0745	5.3000e-004		6.7400e-003	6.7400e-003		6.7400e-003	6.7400e-003		106.3658	106.3658	2.0400e-003	1.9500e-003	106.9979

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					
Regional Shopping Center	0.90411	9.7500e-003	0.0886	0.0745	5.3000e-004		6.7400e-003	6.7400e-003		6.7400e-003	6.7400e-003		106.3658	106.3658	2.0400e-003	1.9500e-003	106.9979
Total		9.7500e-003	0.0886	0.0745	5.3000e-004		6.7400e-003	6.7400e-003		6.7400e-003	6.7400e-003		106.3658	106.3658	2.0400e-003	1.9500e-003	106.9979

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.1619	1.4000e-004	0.0153	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0328	0.0328	9.0000e-005		0.0350
Unmitigated	3.4019	1.4000e-004	0.0153	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0328	0.0328	9.0000e-005		0.0350

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.1905					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.2100					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.4100e-003	1.4000e-004	0.0153	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0328	0.0328	9.0000e-005		0.0350
Total	3.4019	1.4000e-004	0.0153	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0328	0.0328	9.0000e-005		0.0350

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.1905					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.9700					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.4100e-003	1.4000e-004	0.0153	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0328	0.0328	9.0000e-005		0.0350
Total	3.1619	1.4000e-004	0.0153	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0328	0.0328	9.0000e-005		0.0350

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

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

10.0 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

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2615 Model 2 Rancho Monterey SP Amendment

Riverside-Salton Sea County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Regional Shopping Center	150.00	1000sqft	23.25	150,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	15			Operational Year	2026
Utility Company	Imperial Irrigation District				
CO2 Intensity (lb/MW hr)	189.98	CH4 Intensity (lb/MW hr)	0.033	N2O Intensity (lb/MW hr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Model 2: 150,000 SF of Commercial

Land Use - Average Household Size: 1.87 PPH per CADF. Lot area is based on PA1 and flex portion of PA2. Building areas are based on combined unit count or max retail space as applicable to the model

Construction Phase - No demolition is involved.

Grading - Assumes balanced earthwork.

Architectural Coating - Factors SCAMQD Rule 1113 compliance.

Area Coating - Factors SCAMQD Rule 1113 compliance.

Construction Off-road Equipment Mitigation - SCAQMD Rule 403/403.1 and RMMC are applied as a requirement.

Area Mitigation - Factors SCAMQD Rule 1113 compliance.

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Parking	250	100
tblAreaCoating	Area_EF_Residential_Exterior	250	50
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	20
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	50
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	35.00
tblConstructionPhase	PhaseEndDate	2/26/2025	3/19/2025
tblGrading	AcresOfGrading	105.00	23.25
tblGrading	AcresOfGrading	15.00	23.25
tblLandUse	LotAcreage	3.44	23.25

2.0 Emissions Summary

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	3.3792	34.5531	28.5229	0.0634	20.6825	1.4253	21.9493	10.2369	1.3113	11.4023	0.0000	6,148.883 4	6,148.883 4	1.9483	0.0647	6,198.752 5
2024	1.6241	14.2743	17.5575	0.0335	0.5271	0.6208	1.1478	0.1427	0.5840	0.7266	0.0000	3,245.368 2	3,245.368 2	0.6172	0.0631	3,279.609 9
2025	20.0603	13.2863	17.4026	0.0334	0.5271	0.5349	1.0620	0.1427	0.5032	0.6459	0.0000	3,231.857 9	3,231.857 9	0.7162	0.0615	3,265.510 3
Maximum	20.0603	34.5531	28.5229	0.0634	20.6825	1.4253	21.9493	10.2369	1.3113	11.4023	0.0000	6,148.883 4	6,148.883 4	1.9483	0.0647	6,198.752 5

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	3.3792	34.5531	28.5229	0.0634	5.7296	1.4253	6.9964	2.8173	1.3113	3.9827	0.0000	6,148.883 4	6,148.883 4	1.9483	0.0647	6,198.752 5
2024	1.6241	14.2743	17.5575	0.0335	0.4394	0.6208	1.0602	0.1212	0.5840	0.7051	0.0000	3,245.368 2	3,245.368 2	0.6172	0.0631	3,279.609 9
2025	20.0603	13.2863	17.4026	0.0334	0.4394	0.5349	0.9743	0.1212	0.5032	0.6244	0.0000	3,231.857 9	3,231.857 9	0.7162	0.0615	3,265.510 3
Maximum	20.0603	34.5531	28.5229	0.0634	5.7296	1.4253	6.9964	2.8173	1.3113	3.9827	0.0000	6,148.883 4	6,148.883 4	1.9483	0.0647	6,198.752 5

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	3.4019	1.4000e-004	0.0153	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0328	0.0328	9.0000e-005		0.0350
Energy	9.7500e-003	0.0886	0.0745	5.3000e-004		6.7400e-003	6.7400e-003		6.7400e-003	6.7400e-003		106.3658	106.3658	2.0400e-003	1.9500e-003	106.9979
Mobile	11.7964	13.8012	87.9483	0.1721	19.3532	0.1495	19.5026	5.1623	0.1399	5.3022		18,083.5222	18,083.5222	1.3000	1.0831	18,438.7866
Total	15.2080	13.8900	88.0380	0.1727	19.3532	0.1563	19.5094	5.1623	0.1467	5.3090		18,189.9209	18,189.9209	1.3021	1.0851	18,545.8195

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	3.1619	1.4000e-004	0.0153	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0328	0.0328	9.0000e-005		0.0350
Energy	9.7500e-003	0.0886	0.0745	5.3000e-004		6.7400e-003	6.7400e-003		6.7400e-003	6.7400e-003		106.3658	106.3658	2.0400e-003	1.9500e-003	106.9979
Mobile	11.7964	13.8012	87.9483	0.1721	19.3532	0.1495	19.5026	5.1623	0.1399	5.3022		18,083.5222	18,083.5222	1.3000	1.0831	18,438.7866
Total	14.9680	13.8900	88.0380	0.1727	19.3532	0.1563	19.5094	5.1623	0.1467	5.3090		18,189.9209	18,189.9209	1.3021	1.0851	18,545.8195

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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
Percent Reduction	1.58	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	Site Preparation	Site Preparation	6/1/2023	6/14/2023	5	10	
2	Grading	Grading	6/15/2023	8/2/2023	5	35	
3	Building Construction	Building Construction	8/3/2023	1/1/2025	5	370	
4	Paving	Paving	1/2/2025	1/29/2025	5	20	
5	Architectural Coating	Architectural Coating	1/30/2025	3/19/2025	5	35	

Acres of Grading (Site Preparation Phase): 23.25

Acres of Grading (Grading Phase): 23.25

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 225,000; Non-Residential Outdoor: 75,000; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	231	0.29
Grading	Excavators	2	8.00	158	0.38
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	48.00	25.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	10.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 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					20.5319	0.0000	20.5319	10.1969	0.0000	10.1969			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647		3,687.308 1	3,687.308 1	1.1926		3,717.121 9
Total	2.6595	27.5242	18.2443	0.0381	20.5319	1.2660	21.7979	10.1969	1.1647	11.3617		3,687.308 1	3,687.308 1	1.1926		3,717.121 9

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0517	0.0337	0.4245	1.2100e-003	0.1506	7.3000e-004	0.1513	0.0400	6.7000e-004	0.0406		123.6651	123.6651	3.6600e-003	3.5100e-003	124.8020
Total	0.0517	0.0337	0.4245	1.2100e-003	0.1506	7.3000e-004	0.1513	0.0400	6.7000e-004	0.0406		123.6651	123.6651	3.6600e-003	3.5100e-003	124.8020

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 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					5.6052	0.0000	5.6052	2.7838	0.0000	2.7838			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647	0.0000	3,687.308 1	3,687.308 1	1.1926		3,717.121 9
Total	2.6595	27.5242	18.2443	0.0381	5.6052	1.2660	6.8712	2.7838	1.1647	3.9485	0.0000	3,687.308 1	3,687.308 1	1.1926		3,717.121 9

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0517	0.0337	0.4245	1.2100e-003	0.1244	7.3000e-004	0.1252	0.0335	6.7000e-004	0.0342		123.6651	123.6651	3.6600e-003	3.5100e-003	124.8020
Total	0.0517	0.0337	0.4245	1.2100e-003	0.1244	7.3000e-004	0.1252	0.0335	6.7000e-004	0.0342		123.6651	123.6651	3.6600e-003	3.5100e-003	124.8020

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 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					6.7266	0.0000	6.7266	3.3863	0.0000	3.3863			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105		6,011.4777	6,011.4777	1.9442		6,060.0836
Total	3.3217	34.5156	28.0512	0.0621	6.7266	1.4245	8.1511	3.3863	1.3105	4.6968		6,011.4777	6,011.4777	1.9442		6,060.0836

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0575	0.0375	0.4717	1.3400e-003	0.1673	8.1000e-004	0.1681	0.0444	7.4000e-004	0.0451		137.4057	137.4057	4.0600e-003	3.9000e-003	138.6689
Total	0.0575	0.0375	0.4717	1.3400e-003	0.1673	8.1000e-004	0.1681	0.0444	7.4000e-004	0.0451		137.4057	137.4057	4.0600e-003	3.9000e-003	138.6689

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 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					1.8364	0.0000	1.8364	0.9245	0.0000	0.9245			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836
Total	3.3217	34.5156	28.0512	0.0621	1.8364	1.4245	3.2608	0.9245	1.3105	2.2350	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0575	0.0375	0.4717	1.3400e-003	0.1383	8.1000e-004	0.1391	0.0372	7.4000e-004	0.0380		137.4057	137.4057	4.0600e-003	3.9000e-003	138.6689
Total	0.0575	0.0375	0.4717	1.3400e-003	0.1383	8.1000e-004	0.1391	0.0372	7.4000e-004	0.0380		137.4057	137.4057	4.0600e-003	3.9000e-003	138.6689

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0241	0.7504	0.3319	3.5200e-003	0.1255	5.6300e-003	0.1311	0.0361	5.3900e-003	0.0415		373.5472	373.5472	3.8600e-003	0.0554	390.1391
Worker	0.1379	0.0899	1.1320	3.2200e-003	0.4016	1.9400e-003	0.4035	0.1065	1.7900e-003	0.1083		329.7736	329.7736	9.7500e-003	9.3600e-003	332.8053
Total	0.1620	0.8403	1.4640	6.7400e-003	0.5271	7.5700e-003	0.5346	0.1427	7.1800e-003	0.1498		703.3208	703.3208	0.0136	0.0647	722.9444

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0241	0.7504	0.3319	3.5200e-003	0.1076	5.6300e-003	0.1132	0.0318	5.3900e-003	0.0371		373.5472	373.5472	3.8600e-003	0.0554	390.1391
Worker	0.1379	0.0899	1.1320	3.2200e-003	0.3318	1.9400e-003	0.3337	0.0894	1.7900e-003	0.0912		329.7736	329.7736	9.7500e-003	9.3600e-003	332.8053
Total	0.1620	0.8403	1.4640	6.7400e-003	0.4394	7.5700e-003	0.4470	0.1212	7.1800e-003	0.1283		703.3208	703.3208	0.0136	0.0647	722.9444

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0237	0.7503	0.3285	3.4700e-003	0.1255	5.5900e-003	0.1311	0.0361	5.3500e-003	0.0415		367.7943	367.7943	3.9900e-003	0.0544	384.1111
Worker	0.1288	0.0803	1.0622	3.1200e-003	0.4016	1.8500e-003	0.4035	0.1065	1.7100e-003	0.1082		321.8750	321.8750	8.8600e-003	8.7100e-003	324.6911
Total	0.1525	0.8306	1.3907	6.5900e-003	0.5271	7.4400e-003	0.5345	0.1427	7.0600e-003	0.1497		689.6693	689.6693	0.0129	0.0631	708.8022

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0237	0.7503	0.3285	3.4700e-003	0.1076	5.5900e-003	0.1132	0.0318	5.3500e-003	0.0371		367.7943	367.7943	3.9900e-003	0.0544	384.1111
Worker	0.1288	0.0803	1.0622	3.1200e-003	0.3318	1.8500e-003	0.3337	0.0894	1.7100e-003	0.0911		321.8750	321.8750	8.8600e-003	8.7100e-003	324.6911
Total	0.1525	0.8306	1.3907	6.5900e-003	0.4394	7.4400e-003	0.4469	0.1212	7.0600e-003	0.1282		689.6693	689.6693	0.0129	0.0631	708.8022

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0234	0.7445	0.3251	3.4000e-003	0.1255	5.6000e-003	0.1311	0.0361	5.3500e-003	0.0415		361.3126	361.3126	4.1300e-003	0.0534	377.3160
Worker	0.1205	0.0722	0.9928	3.0100e-003	0.4016	1.7600e-003	0.4034	0.1065	1.6200e-003	0.1082		314.0709	314.0709	8.0400e-003	8.1400e-003	316.6962
Total	0.1439	0.8166	1.3180	6.4100e-003	0.5271	7.3600e-003	0.5344	0.1427	6.9700e-003	0.1496		675.3835	675.3835	0.0122	0.0615	694.0122

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.474 4	2,556.474 4	0.6010		2,571.498 1

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0234	0.7445	0.3251	3.4000e-003	0.1076	5.6000e-003	0.1132	0.0318	5.3500e-003	0.0371		361.3126	361.3126	4.1300e-003	0.0534	377.3160
Worker	0.1205	0.0722	0.9928	3.0100e-003	0.3318	1.7600e-003	0.3336	0.0894	1.6200e-003	0.0910		314.0709	314.0709	8.0400e-003	8.1400e-003	316.6962
Total	0.1439	0.8166	1.3180	6.4100e-003	0.4394	7.3600e-003	0.4468	0.1212	6.9700e-003	0.1281		675.3835	675.3835	0.0122	0.0615	694.0122

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.745 2	2,206.745 2	0.7137		2,224.587 8
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.745 2	2,206.745 2	0.7137		2,224.587 8

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0377	0.0226	0.3103	9.4000e-004	0.1255	5.5000e-004	0.1261	0.0333	5.1000e-004	0.0338		98.1472	98.1472	2.5100e-003	2.5400e-003	98.9676
Total	0.0377	0.0226	0.3103	9.4000e-004	0.1255	5.5000e-004	0.1261	0.0333	5.1000e-004	0.0338		98.1472	98.1472	2.5100e-003	2.5400e-003	98.9676

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850	0.0000	2,206.745 2	2,206.745 2	0.7137		2,224.587 8
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850	0.0000	2,206.745 2	2,206.745 2	0.7137		2,224.587 8

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0377	0.0226	0.3103	9.4000e-004	0.1037	5.5000e-004	0.1042	0.0279	5.1000e-004	0.0284		98.1472	98.1472	2.5100e-003	2.5400e-003	98.9676
Total	0.0377	0.0226	0.3103	9.4000e-004	0.1037	5.5000e-004	0.1042	0.0279	5.1000e-004	0.0284		98.1472	98.1472	2.5100e-003	2.5400e-003	98.9676

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	19.8643					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	20.0352	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0251	0.0150	0.2068	6.3000e-004	0.0837	3.7000e-004	0.0840	0.0222	3.4000e-004	0.0225		65.4314	65.4314	1.6700e-003	1.6900e-003	65.9784
Total	0.0251	0.0150	0.2068	6.3000e-004	0.0837	3.7000e-004	0.0840	0.0222	3.4000e-004	0.0225		65.4314	65.4314	1.6700e-003	1.6900e-003	65.9784

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	19.8643					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	20.0352	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0251	0.0150	0.2068	6.3000e-004	0.0691	3.7000e-004	0.0695	0.0186	3.4000e-004	0.0190		65.4314	65.4314	1.6700e-003	1.6900e-003	65.9784
Total	0.0251	0.0150	0.2068	6.3000e-004	0.0691	3.7000e-004	0.0695	0.0186	3.4000e-004	0.0190		65.4314	65.4314	1.6700e-003	1.6900e-003	65.9784

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

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	11.7964	13.8012	87.9483	0.1721	19.3532	0.1495	19.5026	5.1623	0.1399	5.3022		18,083.52 22	18,083.52 22	1.3000	1.0831	18,438.78 66
Unmitigated	11.7964	13.8012	87.9483	0.1721	19.3532	0.1495	19.5026	5.1623	0.1399	5.3022		18,083.52 22	18,083.52 22	1.3000	1.0831	18,438.78 66

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Regional Shopping Center	5,662.50	6,918.00	3165.00	7,264,535	7,264,535
Total	5,662.50	6,918.00	3,165.00	7,264,535	7,264,535

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Regional Shopping Center	0.542916	0.056689	0.174450	0.134041	0.024680	0.006960	0.011589	0.018600	0.000608	0.000298	0.023389	0.001091	0.004689

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	9.7500e-003	0.0886	0.0745	5.3000e-004		6.7400e-003	6.7400e-003		6.7400e-003	6.7400e-003		106.3658	106.3658	2.0400e-003	1.9500e-003	106.9979
NaturalGas Unmitigated	9.7500e-003	0.0886	0.0745	5.3000e-004		6.7400e-003	6.7400e-003		6.7400e-003	6.7400e-003		106.3658	106.3658	2.0400e-003	1.9500e-003	106.9979

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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					
Regional Shopping Center	904.11	9.7500e-003	0.0886	0.0745	5.3000e-004		6.7400e-003	6.7400e-003		6.7400e-003	6.7400e-003		106.3658	106.3658	2.0400e-003	1.9500e-003	106.9979
Total		9.7500e-003	0.0886	0.0745	5.3000e-004		6.7400e-003	6.7400e-003		6.7400e-003	6.7400e-003		106.3658	106.3658	2.0400e-003	1.9500e-003	106.9979

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					
Regional Shopping Center	0.90411	9.7500e-003	0.0886	0.0745	5.3000e-004		6.7400e-003	6.7400e-003		6.7400e-003	6.7400e-003		106.3658	106.3658	2.0400e-003	1.9500e-003	106.9979
Total		9.7500e-003	0.0886	0.0745	5.3000e-004		6.7400e-003	6.7400e-003		6.7400e-003	6.7400e-003		106.3658	106.3658	2.0400e-003	1.9500e-003	106.9979

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.1619	1.4000e-004	0.0153	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0328	0.0328	9.0000e-005		0.0350
Unmitigated	3.4019	1.4000e-004	0.0153	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0328	0.0328	9.0000e-005		0.0350

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.1905					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.2100					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.4100e-003	1.4000e-004	0.0153	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0328	0.0328	9.0000e-005		0.0350
Total	3.4019	1.4000e-004	0.0153	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0328	0.0328	9.0000e-005		0.0350

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.1905					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.9700					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.4100e-003	1.4000e-004	0.0153	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0328	0.0328	9.0000e-005		0.0350
Total	3.1619	1.4000e-004	0.0153	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0328	0.0328	9.0000e-005		0.0350

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

2615 Model 2 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

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

10.0 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

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2615 Model 3 Rancho Monterey SP Amendment

Riverside-Salton Sea County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	200.00	Dwelling Unit	18.50	200,000.00	374
Regional Shopping Center	75.00	1000sqft	14.00	75,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	15			Operational Year	2026
Utility Company	Imperial Irrigation District				
CO2 Intensity (lb/MWhr)	189.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Model 3: 200 DUs + 75,000 SF of Commercial

Land Use - Average Household Size: 1.87 PPH per CADF. Lot areas are based on the respective planning areas in the SPA. Building areas are based on combined unit count or max retail space as applicable to the model.

Construction Phase - Assumes no demolition due to undeveloped condition.

Grading - Assumes balanced earthwork.

Architectural Coating - Factors SCAMQD Rule 1113 compliance.

Woodstoves - Assumes no fire places or wood stoves per SCAQMD Rule 445.

Area Coating - Factors SCAMQD Rule 1113 compliance.

Construction Off-road Equipment Mitigation - SCAQMD Rule 403/403.1 and RMMC are applied as a requirement.

Area Mitigation - Factors SCAMQD Rule 1113 compliance.

Energy Mitigation -

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Parking	250	100
tblAreaCoating	Area_EF_Residential_Exterior	250	50
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	20
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	50
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblFireplaces	FireplaceDayYear	82.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	457.60	0.00
tblFireplaces	NumberGas	160.00	0.00
tblFireplaces	NumberNoFireplace	20.00	0.00
tblFireplaces	NumberWood	20.00	0.00
tblGrading	AcresOfGrading	135.00	32.50
tblGrading	AcresOfGrading	30.00	32.50
tblLandUse	LotAcreage	12.50	18.50
tblLandUse	LotAcreage	1.72	14.00
tblLandUse	Population	572.00	374.00
tblWoodstoves	NumberCatalytic	10.00	0.00

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblWoodstoves	NumberNoncatalytic	10.00	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.1931	1.7366	1.7360	3.7000e-003	0.4233	0.0758	0.4991	0.1970	0.0704	0.2674	0.0000	327.6218	327.6218	0.0762	4.3900e-003	330.8348
2024	0.2536	1.9308	2.6865	5.6100e-003	0.2031	0.0822	0.2853	0.0545	0.0773	0.1318	0.0000	500.0391	500.0391	0.0762	0.0125	505.6561
2025	0.9567	1.2080	1.8278	3.7100e-003	0.1241	0.0491	0.1732	0.0333	0.0461	0.0794	0.0000	330.4302	330.4302	0.0552	7.0800e-003	333.9186
Maximum	0.9567	1.9308	2.6865	5.6100e-003	0.4233	0.0822	0.4991	0.1970	0.0773	0.2674	0.0000	500.0391	500.0391	0.0762	0.0125	505.6561

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	0.1931	1.7366	1.7360	3.7000e-003	0.1560	0.0758	0.2318	0.0649	0.0704	0.1353	0.0000	327.6215	327.6215	0.0762	4.3900e-003	330.8345
2024	0.2536	1.9308	2.6865	5.6100e-003	0.1686	0.0822	0.2508	0.0460	0.0773	0.1233	0.0000	500.0387	500.0387	0.0762	0.0125	505.6557
2025	0.9567	1.2080	1.8278	3.7100e-003	0.1030	0.0491	0.1521	0.0281	0.0461	0.0742	0.0000	330.4300	330.4300	0.0552	7.0800e-003	333.9183
Maximum	0.9567	1.9308	2.6865	5.6100e-003	0.1686	0.0822	0.2508	0.0649	0.0773	0.1353	0.0000	500.0387	500.0387	0.0762	0.0125	505.6557

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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
Percent Reduction	0.00	0.00	0.00	0.00	43.02	0.00	33.72	51.20	0.00	30.46	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	6-1-2023	8-31-2023	1.1626	1.1626
2	9-1-2023	11-30-2023	0.5785	0.5785
3	12-1-2023	2-29-2024	0.5550	0.5550
4	3-1-2024	5-31-2024	0.5481	0.5481
5	6-1-2024	8-31-2024	0.5479	0.5479
6	9-1-2024	11-30-2024	0.5425	0.5425
7	12-1-2024	2-28-2025	0.5127	0.5127
8	3-1-2025	5-31-2025	0.5105	0.5105
9	6-1-2025	8-31-2025	0.4420	0.4420
10	9-1-2025	9-30-2025	0.2769	0.2769
		Highest	1.1626	1.1626

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	1.1986	0.0171	1.4843	8.0000e-005		8.2300e-003	8.2300e-003		8.2300e-003	8.2300e-003	0.0000	2.4271	2.4271	2.3300e-003	0.0000	2.4853
Energy	0.0236	0.2025	0.0895	1.2900e-003		0.0163	0.0163		0.0163	0.0163	0.0000	398.1822	398.1822	0.0330	7.7500e-003	401.3158
Mobile	1.4075	1.7348	11.3779	0.0236	2.6062	0.0198	2.6260	0.6961	0.0185	0.7146	0.0000	2,251.0423	2,251.0423	0.1434	0.1252	2,291.9254
Waste						0.0000	0.0000		0.0000	0.0000	34.6607	0.0000	34.6607	2.0484	0.0000	85.8704
Water						0.0000	0.0000		0.0000	0.0000	5.8966	31.9798	37.8764	0.6112	0.0150	57.6182
Total	2.6297	1.9544	12.9517	0.0250	2.6062	0.0443	2.6505	0.6961	0.0431	0.7392	40.5573	2,683.6314	2,724.1886	2.8383	0.1479	2,839.2151

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	1.1183	0.0171	1.4843	8.0000e-005		8.2300e-003	8.2300e-003		8.2300e-003	8.2300e-003	0.0000	2.4271	2.4271	2.3300e-003	0.0000	2.4853
Energy	0.0236	0.2025	0.0895	1.2900e-003		0.0163	0.0163		0.0163	0.0163	0.0000	389.6204	389.6204	0.0315	7.5700e-003	392.6631
Mobile	1.4075	1.7348	11.3779	0.0236	2.6062	0.0198	2.6260	0.6961	0.0185	0.7146	0.0000	2,251.0423	2,251.0423	0.1434	0.1252	2,291.9254
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	4.7173	27.1302	31.8475	0.4892	0.0120	47.6574
Total	2.5494	1.9544	12.9517	0.0250	2.6062	0.0443	2.6505	0.6961	0.0431	0.7392	4.7173	2,670.2200	2,674.9372	0.6665	0.1447	2,734.7311

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	3.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	88.37	0.50	1.81	76.52	2.12	3.68

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	6/1/2023	6/28/2023	5	20	
2	Grading	Grading	6/29/2023	8/30/2023	5	45	
3	Building Construction	Building Construction	8/31/2023	7/30/2025	5	500	

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4	Paving	Paving	7/31/2025	9/17/2025	5	35
5	Architectural Coating	Architectural Coating	9/18/2025	11/5/2025	5	35

Acres of Grading (Site Preparation Phase): 32.5

Acres of Grading (Grading Phase): 32.5

Acres of Paving: 0

Residential Indoor: 405,000; Residential Outdoor: 135,000; Non-Residential Indoor: 112,500; Non-Residential Outdoor: 37,500; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	231	0.29
Grading	Excavators	2	8.00	158	0.38
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	168.00	34.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	34.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

- Use Soil Stabilizer
- Replace Ground Cover
- Water Exposed Area
- Water Unpaved Roads
- Reduce Vehicle Speed on Unpaved Roads
- Clean Paved Roads

3.2 Site Preparation - 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					0.1979	0.0000	0.1979	0.1012	0.0000	0.1012	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0266	0.2752	0.1824	3.8000e-004		0.0127	0.0127		0.0117	0.0117	0.0000	33.4507	33.4507	0.0108	0.0000	33.7212
Total	0.0266	0.2752	0.1824	3.8000e-004	0.1979	0.0127	0.2106	0.1012	0.0117	0.1128	0.0000	33.4507	33.4507	0.0108	0.0000	33.7212

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 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	4.9000e-004	3.5000e-004	4.4600e-003	1.0000e-005	1.4800e-003	1.0000e-005	1.4900e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.1478	1.1478	3.0000e-005	3.0000e-005	1.1583
Total	4.9000e-004	3.5000e-004	4.4600e-003	1.0000e-005	1.4800e-003	1.0000e-005	1.4900e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.1478	1.1478	3.0000e-005	3.0000e-005	1.1583

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					0.0540	0.0000	0.0540	0.0276	0.0000	0.0276	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0266	0.2752	0.1824	3.8000e-004		0.0127	0.0127		0.0117	0.0117	0.0000	33.4507	33.4507	0.0108	0.0000	33.7211
Total	0.0266	0.2752	0.1824	3.8000e-004	0.0540	0.0127	0.0667	0.0276	0.0117	0.0393	0.0000	33.4507	33.4507	0.0108	0.0000	33.7211

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 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	4.9000e-004	3.5000e-004	4.4600e-003	1.0000e-005	1.2200e-003	1.0000e-005	1.2300e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.1478	1.1478	3.0000e-005	3.0000e-005	1.1583
Total	4.9000e-004	3.5000e-004	4.4600e-003	1.0000e-005	1.2200e-003	1.0000e-005	1.2300e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.1478	1.1478	3.0000e-005	3.0000e-005	1.1583

3.3 Grading - 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					0.1527	0.0000	0.1527	0.0763	0.0000	0.0763	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0747	0.7766	0.6312	1.4000e-003		0.0321	0.0321		0.0295	0.0295	0.0000	122.7042	122.7042	0.0397	0.0000	123.6964
Total	0.0747	0.7766	0.6312	1.4000e-003	0.1527	0.0321	0.1848	0.0763	0.0295	0.1058	0.0000	122.7042	122.7042	0.0397	0.0000	123.6964

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 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	1.2400e-003	8.6000e-004	0.0111	3.0000e-005	3.7000e-003	2.0000e-005	3.7200e-003	9.8000e-004	2.0000e-005	1.0000e-003	0.0000	2.8696	2.8696	8.0000e-005	8.0000e-005	2.8958
Total	1.2400e-003	8.6000e-004	0.0111	3.0000e-005	3.7000e-003	2.0000e-005	3.7200e-003	9.8000e-004	2.0000e-005	1.0000e-003	0.0000	2.8696	2.8696	8.0000e-005	8.0000e-005	2.8958

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					0.0417	0.0000	0.0417	0.0208	0.0000	0.0208	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0747	0.7766	0.6312	1.4000e-003		0.0321	0.0321		0.0295	0.0295	0.0000	122.7041	122.7041	0.0397	0.0000	123.6962
Total	0.0747	0.7766	0.6312	1.4000e-003	0.0417	0.0321	0.0738	0.0208	0.0295	0.0503	0.0000	122.7041	122.7041	0.0397	0.0000	123.6962

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 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	1.2400e-003	8.6000e-004	0.0111	3.0000e-005	3.0600e-003	2.0000e-005	3.0800e-003	8.3000e-004	2.0000e-005	8.4000e-004	0.0000	2.8696	2.8696	8.0000e-005	8.0000e-005	2.8958
Total	1.2400e-003	8.6000e-004	0.0111	3.0000e-005	3.0600e-003	2.0000e-005	3.0800e-003	8.3000e-004	2.0000e-005	8.4000e-004	0.0000	2.8696	2.8696	8.0000e-005	8.0000e-005	2.8958

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0684	0.6257	0.7066	1.1700e-003		0.0304	0.0304		0.0286	0.0286	0.0000	100.8351	100.8351	0.0240	0.0000	101.4347
Total	0.0684	0.6257	0.7066	1.1700e-003		0.0304	0.0304		0.0286	0.0286	0.0000	100.8351	100.8351	0.0240	0.0000	101.4347

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4900e-003	0.0438	0.0193	2.1000e-004	7.3200e-003	3.3000e-004	7.6500e-003	2.1100e-003	3.2000e-004	2.4300e-003	0.0000	20.0122	20.0122	2.1000e-004	2.9600e-003	20.9010
Worker	0.0201	0.0140	0.1809	5.0000e-004	0.0601	3.0000e-004	0.0604	0.0160	2.7000e-004	0.0162	0.0000	46.6022	46.6022	1.3500e-003	1.3100e-003	47.0275
Total	0.0216	0.0578	0.2002	7.1000e-004	0.0674	6.3000e-004	0.0681	0.0181	5.9000e-004	0.0187	0.0000	66.6144	66.6144	1.5600e-003	4.2700e-003	67.9284

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0684	0.6257	0.7066	1.1700e-003		0.0304	0.0304		0.0286	0.0286	0.0000	100.8349	100.8349	0.0240	0.0000	101.4346
Total	0.0684	0.6257	0.7066	1.1700e-003		0.0304	0.0304		0.0286	0.0286	0.0000	100.8349	100.8349	0.0240	0.0000	101.4346

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4900e-003	0.0438	0.0193	2.1000e-004	6.2900e-003	3.3000e-004	6.6200e-003	1.8600e-003	3.2000e-004	2.1800e-003	0.0000	20.0122	20.0122	2.1000e-004	2.9600e-003	20.9010
Worker	0.0201	0.0140	0.1809	5.0000e-004	0.0497	3.0000e-004	0.0500	0.0134	2.7000e-004	0.0137	0.0000	46.6022	46.6022	1.3500e-003	1.3100e-003	47.0275
Total	0.0216	0.0578	0.2002	7.1000e-004	0.0560	6.3000e-004	0.0566	0.0153	5.9000e-004	0.0159	0.0000	66.6144	66.6144	1.5600e-003	4.2700e-003	67.9284

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7223	303.7223	0.0718	0.0000	305.5179
Total	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7223	303.7223	0.0718	0.0000	305.5179

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	4.4100e-003	0.1319	0.0574	6.2000e-004	0.0221	9.9000e-004	0.0230	6.3600e-003	9.5000e-004	7.3100e-003	0.0000	59.3377	59.3377	6.5000e-004	8.7800e-003	61.9698
Worker	0.0564	0.0377	0.5113	1.4600e-003	0.1811	8.5000e-004	0.1819	0.0481	7.8000e-004	0.0489	0.0000	136.9791	136.9791	3.6800e-003	3.6800e-003	138.1684
Total	0.0608	0.1696	0.5687	2.0800e-003	0.2031	1.8400e-003	0.2050	0.0545	1.7300e-003	0.0562	0.0000	196.3167	196.3167	4.3300e-003	0.0125	200.1382

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7220	303.7220	0.0718	0.0000	305.5175
Total	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7220	303.7220	0.0718	0.0000	305.5175

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	4.4100e-003	0.1319	0.0574	6.2000e-004	0.0189	9.9000e-004	0.0199	5.6000e-003	9.5000e-004	6.5500e-003	0.0000	59.3377	59.3377	6.5000e-004	8.7800e-003	61.9698
Worker	0.0564	0.0377	0.5113	1.4600e-003	0.1497	8.5000e-004	0.1505	0.0404	7.8000e-004	0.0412	0.0000	136.9791	136.9791	3.6800e-003	3.6800e-003	138.1684
Total	0.0608	0.1696	0.5687	2.0800e-003	0.1686	1.8400e-003	0.1704	0.0460	1.7300e-003	0.0477	0.0000	196.3167	196.3167	4.3300e-003	0.0125	200.1382

3.4 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1032	0.9415	1.2144	2.0400e-003		0.0398	0.0398		0.0375	0.0375	0.0000	175.0992	175.0992	0.0412	0.0000	176.1282
Total	0.1032	0.9415	1.2144	2.0400e-003		0.0398	0.0398		0.0375	0.0375	0.0000	175.0992	175.0992	0.0412	0.0000	176.1282

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	2.5100e-003	0.0754	0.0328	3.5000e-004	0.0127	5.7000e-004	0.0133	3.6700e-003	5.5000e-004	4.2200e-003	0.0000	33.5954	33.5954	3.9000e-004	4.9600e-003	35.0832
Worker	0.0304	0.0195	0.2753	8.1000e-004	0.1044	4.7000e-004	0.1048	0.0277	4.3000e-004	0.0281	0.0000	77.0264	77.0264	1.9200e-003	1.9800e-003	77.6654
Total	0.0329	0.0950	0.3081	1.1600e-003	0.1171	1.0400e-003	0.1181	0.0314	9.8000e-004	0.0324	0.0000	110.6218	110.6218	2.3100e-003	6.9400e-003	112.7486

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1032	0.9415	1.2144	2.0400e-003		0.0398	0.0398		0.0375	0.0375	0.0000	175.0990	175.0990	0.0412	0.0000	176.1280
Total	0.1032	0.9415	1.2144	2.0400e-003		0.0398	0.0398		0.0375	0.0375	0.0000	175.0990	175.0990	0.0412	0.0000	176.1280

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	2.5100e-003	0.0754	0.0328	3.5000e-004	0.0109	5.7000e-004	0.0115	3.2300e-003	5.5000e-004	3.7700e-003	0.0000	33.5954	33.5954	3.9000e-004	4.9600e-003	35.0832
Worker	0.0304	0.0195	0.2753	8.1000e-004	0.0863	4.7000e-004	0.0867	0.0233	4.3000e-004	0.0237	0.0000	77.0264	77.0264	1.9200e-003	1.9800e-003	77.6654
Total	0.0329	0.0950	0.3081	1.1600e-003	0.0972	1.0400e-003	0.0982	0.0265	9.8000e-004	0.0275	0.0000	110.6218	110.6218	2.3100e-003	6.9400e-003	112.7486

3.5 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0160	0.1502	0.2551	4.0000e-004		7.3200e-003	7.3200e-003		6.7400e-003	6.7400e-003	0.0000	35.0337	35.0337	0.0113	0.0000	35.3170
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0160	0.1502	0.2551	4.0000e-004		7.3200e-003	7.3200e-003		6.7400e-003	6.7400e-003	0.0000	35.0337	35.0337	0.0113	0.0000	35.3170

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.3000e-004	4.0000e-004	5.7000e-003	2.0000e-005	2.1600e-003	1.0000e-005	2.1700e-003	5.7000e-004	1.0000e-005	5.8000e-004	0.0000	1.5941	1.5941	4.0000e-005	4.0000e-005	1.6073
Total	6.3000e-004	4.0000e-004	5.7000e-003	2.0000e-005	2.1600e-003	1.0000e-005	2.1700e-003	5.7000e-004	1.0000e-005	5.8000e-004	0.0000	1.5941	1.5941	4.0000e-005	4.0000e-005	1.6073

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0160	0.1502	0.2551	4.0000e-004		7.3200e-003	7.3200e-003		6.7400e-003	6.7400e-003	0.0000	35.0337	35.0337	0.0113	0.0000	35.3169
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0160	0.1502	0.2551	4.0000e-004		7.3200e-003	7.3200e-003		6.7400e-003	6.7400e-003	0.0000	35.0337	35.0337	0.0113	0.0000	35.3169

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.3000e-004	4.0000e-004	5.7000e-003	2.0000e-005	1.7900e-003	1.0000e-005	1.7900e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.5941	1.5941	4.0000e-005	4.0000e-005	1.6073
Total	6.3000e-004	4.0000e-004	5.7000e-003	2.0000e-005	1.7900e-003	1.0000e-005	1.7900e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.5941	1.5941	4.0000e-005	4.0000e-005	1.6073

3.6 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7995					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9900e-003	0.0201	0.0317	5.0000e-005		9.0000e-004	9.0000e-004		9.0000e-004	9.0000e-004	0.0000	4.4682	4.4682	2.4000e-004	0.0000	4.4743
Total	0.8025	0.0201	0.0317	5.0000e-005		9.0000e-004	9.0000e-004		9.0000e-004	9.0000e-004	0.0000	4.4682	4.4682	2.4000e-004	0.0000	4.4743

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	1.4300e-003	9.2000e-004	0.0129	4.0000e-005	4.9000e-003	2.0000e-005	4.9200e-003	1.3000e-003	2.0000e-005	1.3200e-003	0.0000	3.6133	3.6133	9.0000e-005	9.0000e-005	3.6432
Total	1.4300e-003	9.2000e-004	0.0129	4.0000e-005	4.9000e-003	2.0000e-005	4.9200e-003	1.3000e-003	2.0000e-005	1.3200e-003	0.0000	3.6133	3.6133	9.0000e-005	9.0000e-005	3.6432

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7995					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9900e-003	0.0201	0.0317	5.0000e-005		9.0000e-004	9.0000e-004		9.0000e-004	9.0000e-004	0.0000	4.4682	4.4682	2.4000e-004	0.0000	4.4743
Total	0.8025	0.0201	0.0317	5.0000e-005		9.0000e-004	9.0000e-004		9.0000e-004	9.0000e-004	0.0000	4.4682	4.4682	2.4000e-004	0.0000	4.4743

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	1.4300e-003	9.2000e-004	0.0129	4.0000e-005	4.0500e-003	2.0000e-005	4.0700e-003	1.0900e-003	2.0000e-005	1.1100e-003	0.0000	3.6133	3.6133	9.0000e-005	9.0000e-005	3.6432
Total	1.4300e-003	9.2000e-004	0.0129	4.0000e-005	4.0500e-003	2.0000e-005	4.0700e-003	1.0900e-003	2.0000e-005	1.1100e-003	0.0000	3.6133	3.6133	9.0000e-005	9.0000e-005	3.6432

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	1.4075	1.7348	11.3779	0.0236	2.6062	0.0198	2.6260	0.6961	0.0185	0.7146	0.0000	2,251.0423	2,251.0423	0.1434	0.1252	2,291.9254
Unmitigated	1.4075	1.7348	11.3779	0.0236	2.6062	0.0198	2.6260	0.6961	0.0185	0.7146	0.0000	2,251.0423	2,251.0423	0.1434	0.1252	2,291.9254

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	1,464.00	1,628.00	1256.00	3,260,792	3,260,792
Regional Shopping Center	2,831.25	3,459.00	1582.50	3,632,267	3,632,267
Total	4,295.25	5,087.00	2,838.50	6,893,059	6,893,059

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
Condo/Townhouse	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.542916	0.056689	0.174450	0.134041	0.024680	0.006960	0.011589	0.018600	0.000608	0.000298	0.023389	0.001091	0.004689
Regional Shopping Center	0.542916	0.056689	0.174450	0.134041	0.024680	0.006960	0.011589	0.018600	0.000608	0.000298	0.023389	0.001091	0.004689

5.0 Energy Detail

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	155.6204	155.6204	0.0270	3.2800e-003	157.2726
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	164.1822	164.1822	0.0285	3.4600e-003	165.9253
NaturalGas Mitigated	0.0236	0.2025	0.0895	1.2900e-003		0.0163	0.0163		0.0163	0.0163	0.0000	234.0000	234.0000	4.4800e-003	4.2900e-003	235.3905
NaturalGas Unmitigated	0.0236	0.2025	0.0895	1.2900e-003		0.0163	0.0163		0.0163	0.0163	0.0000	234.0000	234.0000	4.4800e-003	4.2900e-003	235.3905

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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					
Condo/Townhouse	4.21999e+006	0.0228	0.1945	0.0827	1.2400e-003		0.0157	0.0157		0.0157	0.0157	0.0000	225.1950	225.1950	4.3200e-003	4.1300e-003	226.5332
Regional Shopping Center	165000	8.9000e-004	8.0900e-003	6.7900e-003	5.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	8.8050	8.8050	1.7000e-004	1.6000e-004	8.8574
Total		0.0236	0.2025	0.0895	1.2900e-003		0.0163	0.0163		0.0163	0.0163	0.0000	234.0000	234.0000	4.4900e-003	4.2900e-003	235.3905

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Condo/Townhouse	4.21999e+006	0.0228	0.1945	0.0827	1.2400e-003		0.0157	0.0157		0.0157	0.0157	0.0000	225.1950	225.1950	4.3200e-003	4.1300e-003	226.5332
Regional Shopping Center	165000	8.9000e-004	8.0900e-003	6.7900e-003	5.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	8.8050	8.8050	1.7000e-004	1.6000e-004	8.8574
Total		0.0236	0.2025	0.0895	1.2900e-003		0.0163	0.0163		0.0163	0.0163	0.0000	234.0000	234.0000	4.4900e-003	4.2900e-003	235.3905

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	994752	85.7212	0.0149	1.8000e-003	86.6313
Regional Shopping Center	910500	78.4610	0.0136	1.6500e-003	79.2940
Total		164.1822	0.0285	3.4500e-003	165.9253

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	962717	82.9607	0.0144	1.7500e-003	83.8414
Regional Shopping Center	843180	72.6598	0.0126	1.5300e-003	73.4312
Total		155.6204	0.0270	3.2800e-003	157.2726

6.0 Area Detail

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.1 Mitigation Measures Area

- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- No Hearths Installed
- Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.1183	0.0171	1.4843	8.0000e-005		8.2300e-003	8.2300e-003		8.2300e-003	8.2300e-003	0.0000	2.4271	2.4271	2.3300e-003	0.0000	2.4853
Unmitigated	1.1986	0.0171	1.4843	8.0000e-005		8.2300e-003	8.2300e-003		8.2300e-003	8.2300e-003	0.0000	2.4271	2.4271	2.3300e-003	0.0000	2.4853

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.0800					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.0740					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0446	0.0171	1.4843	8.0000e-005		8.2300e-003	8.2300e-003		8.2300e-003	8.2300e-003	0.0000	2.4271	2.4271	2.3300e-003	0.0000	2.4853
Total	1.1986	0.0171	1.4843	8.0000e-005		8.2300e-003	8.2300e-003		8.2300e-003	8.2300e-003	0.0000	2.4271	2.4271	2.3300e-003	0.0000	2.4853

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.0800					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.9937					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0446	0.0171	1.4843	8.0000e-005		8.2300e-003	8.2300e-003		8.2300e-003	8.2300e-003	0.0000	2.4271	2.4271	2.3300e-003	0.0000	2.4853
Total	1.1183	0.0171	1.4843	8.0000e-005		8.2300e-003	8.2300e-003		8.2300e-003	8.2300e-003	0.0000	2.4271	2.4271	2.3300e-003	0.0000	2.4853

7.0 Water Detail

7.1 Mitigation Measures Water

- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower
- Use Water Efficient Irrigation System

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	31.8475	0.4892	0.0120	47.6574
Unmitigated	37.8764	0.6112	0.0150	57.6182

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	13.0308 / 8.21507	26.6205	0.4285	0.0105	40.4622
Regional Shopping Center	5.55544 / 3.40495	11.2559	0.1827	4.4700e-003	17.1561
Total		37.8764	0.6112	0.0150	57.6182

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	10.4246 / 7.71395	22.3896	0.3430	8.4200e-003	33.4746
Regional Shopping Center	4.44435 / 3.19724	9.4578	0.1462	3.5900e-003	14.1828
Total		31.8475	0.4892	0.0120	47.6574

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	34.6607	2.0484	0.0000	85.8704

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse	92	18.6752	1.1037	0.0000	46.2669
Regional Shopping Center	78.75	15.9855	0.9447	0.0000	39.6035
Total		34.6607	2.0484	0.0000	85.8704

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse		0.0000	0.0000	0.0000	0.0000
Regional Shopping Center		0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

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

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2615 Model 3 Rancho Monterey SP Amendment

Riverside-Salton Sea County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	200.00	Dwelling Unit	18.50	200,000.00	374
Regional Shopping Center	75.00	1000sqft	14.00	75,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	15			Operational Year	2026
Utility Company	Imperial Irrigation District				
CO2 Intensity (lb/MWhr)	189.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Model 3: 200 DUs + 75,000 SF of Commercial

Land Use - Average Household Size: 1.87 PPH per CADF. Lot areas are based on the respective planning areas in the SPA. Building areas are based on combined unit count or max retail space as applicable to the model.

Construction Phase - Assumes no demolition due to undeveloped condition.

Grading - Assumes balanced earthwork.

Architectural Coating - Factors SCAMQD Rule 1113 compliance.

Woodstoves - Assumes no fire places or wood stoves per SCAQMD Rule 445.

Area Coating - Factors SCAMQD Rule 1113 compliance.

Construction Off-road Equipment Mitigation - SCAQMD Rule 403/403.1 and RMMC are applied as a requirement.

Area Mitigation - Factors SCAMQD Rule 1113 compliance.

Energy Mitigation -

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Parking	250	100
tblAreaCoating	Area_EF_Residential_Exterior	250	50
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	20
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	50
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblFireplaces	FireplaceDayYear	82.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	457.60	0.00
tblFireplaces	NumberGas	160.00	0.00
tblFireplaces	NumberNoFireplace	20.00	0.00
tblFireplaces	NumberWood	20.00	0.00
tblGrading	AcresOfGrading	135.00	32.50
tblGrading	AcresOfGrading	30.00	32.50
tblLandUse	LotAcreage	12.50	18.50
tblLandUse	LotAcreage	1.72	14.00
tblLandUse	Population	572.00	374.00
tblWoodstoves	NumberCatalytic	10.00	0.00

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblWoodstoves	NumberNoncatalytic	10.00	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	3.3845	34.5517	28.6229	0.0636	19.9402	1.4253	21.2069	10.1567	1.3113	11.3221	0.0000	6,163.0505	6,163.0505	1.9482	0.1070	6,212.8904
2024	1.9980	14.6757	21.1007	0.0437	1.5762	0.6274	2.2036	0.4220	0.5901	1.0121	0.0000	4,296.8356	4,296.8356	0.6403	0.1035	4,343.6812
2025	45.9516	13.6667	20.7129	0.0432	1.5762	0.5413	2.1175	0.4220	0.5092	0.9312	0.0000	4,258.3767	4,258.3767	0.7162	0.1001	4,304.0599
Maximum	45.9516	34.5517	28.6229	0.0636	19.9402	1.4253	21.2069	10.1567	1.3113	11.3221	0.0000	6,163.0505	6,163.0505	1.9482	0.1070	6,212.8904

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	3.3845	34.5517	28.6229	0.0636	5.5270	1.4253	6.7937	2.7954	1.3113	3.9608	0.0000	6,163.0505	6,163.0505	1.9482	0.1070	6,212.8904
2024	1.9980	14.6757	21.1007	0.0437	1.3076	0.6274	1.9350	0.3561	0.5901	0.9462	0.0000	4,296.8356	4,296.8356	0.6403	0.1035	4,343.6812
2025	45.9516	13.6667	20.7129	0.0432	1.3076	0.5413	1.8489	0.3561	0.5092	0.8652	0.0000	4,258.3767	4,258.3767	0.7162	0.1001	4,304.0599
Maximum	45.9516	34.5517	28.6229	0.0636	5.5270	1.4253	6.7937	2.7954	1.3113	3.9608	0.0000	6,163.0505	6,163.0505	1.9482	0.1070	6,212.8904

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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
Percent Reduction	0.00	0.00	0.00	0.00	64.74	0.00	58.56	68.12	0.00	56.49	0.00	0.00	0.00	0.00	0.00	0.00

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	6.8188	0.1900	16.4923	8.7000e-004		0.0915	0.0915		0.0915	0.0915	0.0000	29.7269	29.7269	0.0285	0.0000	30.4392
Energy	0.1296	1.1098	0.4906	7.0700e-003		0.0895	0.0895		0.0895	0.0895		1,413.3744	1,413.3744	0.0271	0.0259	1,421.7734
Mobile	11.3235	10.7792	79.3216	0.1640	17.3688	0.1299	17.4987	4.6330	0.1216	4.7546		17,223.4482	17,223.4482	0.9991	0.8868	17,512.6874
Total	18.2718	12.0790	96.3045	0.1719	17.3688	0.3109	17.6797	4.6330	0.3026	4.9356	0.0000	18,666.5494	18,666.5494	1.0547	0.9127	18,964.9000

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	6.3788	0.1900	16.4923	8.7000e-004		0.0915	0.0915		0.0915	0.0915	0.0000	29.7269	29.7269	0.0285	0.0000	30.4392
Energy	0.1296	1.1098	0.4906	7.0700e-003		0.0895	0.0895		0.0895	0.0895		1,413.3744	1,413.3744	0.0271	0.0259	1,421.7734
Mobile	11.3235	10.7792	79.3216	0.1640	17.3688	0.1299	17.4987	4.6330	0.1216	4.7546		17,223.4482	17,223.4482	0.9991	0.8868	17,512.6874
Total	17.8318	12.0790	96.3045	0.1719	17.3688	0.3109	17.6797	4.6330	0.3026	4.9356	0.0000	18,666.5494	18,666.5494	1.0547	0.9127	18,964.9000

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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
Percent Reduction	2.41	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	Site Preparation	Site Preparation	6/1/2023	6/28/2023	5	20	
2	Grading	Grading	6/29/2023	8/30/2023	5	45	
3	Building Construction	Building Construction	8/31/2023	7/30/2025	5	500	
4	Paving	Paving	7/31/2025	9/17/2025	5	35	
5	Architectural Coating	Architectural Coating	9/18/2025	11/5/2025	5	35	

Acres of Grading (Site Preparation Phase): 32.5

Acres of Grading (Grading Phase): 32.5

Acres of Paving: 0

Residential Indoor: 405,000; Residential Outdoor: 135,000; Non-Residential Indoor: 112,500; Non-Residential Outdoor: 37,500; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	231	0.29
Grading	Excavators	2	8.00	158	0.38
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	168.00	34.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	34.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 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					19.7896	0.0000	19.7896	10.1168	0.0000	10.1168			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647		3,687.308 1	3,687.308 1	1.1926		3,717.121 9
Total	2.6595	27.5242	18.2443	0.0381	19.7896	1.2660	21.0556	10.1168	1.1647	11.2815		3,687.308 1	3,687.308 1	1.1926		3,717.121 9

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0565	0.0325	0.5146	1.3300e-003	0.1506	7.3000e-004	0.1513	0.0400	6.7000e-004	0.0406		136.4155	136.4155	3.5900e-003	3.4300e-003	137.5262
Total	0.0565	0.0325	0.5146	1.3300e-003	0.1506	7.3000e-004	0.1513	0.0400	6.7000e-004	0.0406		136.4155	136.4155	3.5900e-003	3.4300e-003	137.5262

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 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					5.4026	0.0000	5.4026	2.7619	0.0000	2.7619			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647	0.0000	3,687.308 1	3,687.308 1	1.1926		3,717.121 9
Total	2.6595	27.5242	18.2443	0.0381	5.4026	1.2660	6.6686	2.7619	1.1647	3.9266	0.0000	3,687.308 1	3,687.308 1	1.1926		3,717.121 9

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0565	0.0325	0.5146	1.3300e-003	0.1244	7.3000e-004	0.1252	0.0335	6.7000e-004	0.0342		136.4155	136.4155	3.5900e-003	3.4300e-003	137.5262
Total	0.0565	0.0325	0.5146	1.3300e-003	0.1244	7.3000e-004	0.1252	0.0335	6.7000e-004	0.0342		136.4155	136.4155	3.5900e-003	3.4300e-003	137.5262

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 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					6.7880	0.0000	6.7880	3.3929	0.0000	3.3929			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105		6,011.4777	6,011.4777	1.9442		6,060.0836
Total	3.3217	34.5156	28.0512	0.0621	6.7880	1.4245	8.2125	3.3929	1.3105	4.7035		6,011.4777	6,011.4777	1.9442		6,060.0836

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0628	0.0361	0.5718	1.4800e-003	0.1673	8.1000e-004	0.1681	0.0444	7.4000e-004	0.0451		151.5728	151.5728	3.9800e-003	3.8100e-003	152.8069
Total	0.0628	0.0361	0.5718	1.4800e-003	0.1673	8.1000e-004	0.1681	0.0444	7.4000e-004	0.0451		151.5728	151.5728	3.9800e-003	3.8100e-003	152.8069

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 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					1.8531	0.0000	1.8531	0.9263	0.0000	0.9263			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836
Total	3.3217	34.5156	28.0512	0.0621	1.8531	1.4245	3.2776	0.9263	1.3105	2.2368	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0628	0.0361	0.5718	1.4800e-003	0.1383	8.1000e-004	0.1391	0.0372	7.4000e-004	0.0380		151.5728	151.5728	3.9800e-003	3.8100e-003	152.8069
Total	0.0628	0.0361	0.5718	1.4800e-003	0.1383	8.1000e-004	0.1391	0.0372	7.4000e-004	0.0380		151.5728	151.5728	3.9800e-003	3.8100e-003	152.8069

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0356	0.9613	0.4358	4.7800e-003	0.1706	7.6200e-003	0.1783	0.0492	7.2900e-003	0.0564		506.4604	506.4604	5.3700e-003	0.0750	528.9398
Worker	0.5276	0.3033	4.8029	0.0124	1.4056	6.7900e-003	1.4124	0.3728	6.2500e-003	0.3791		1,273.2111	1,273.2111	0.0335	0.0320	1,283.5776
Total	0.5632	1.2645	5.2387	0.0172	1.5762	0.0144	1.5907	0.4220	0.0135	0.4355		1,779.6716	1,779.6716	0.0388	0.1070	1,812.5174

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0356	0.9613	0.4358	4.7800e-003	0.1464	7.6200e-003	0.1540	0.0432	7.2900e-003	0.0505		506.4604	506.4604	5.3700e-003	0.0750	528.9398
Worker	0.5276	0.3033	4.8029	0.0124	1.1613	6.7900e-003	1.1681	0.3129	6.2500e-003	0.3191		1,273.2111	1,273.2111	0.0335	0.0320	1,283.5776
Total	0.5632	1.2645	5.2387	0.0172	1.3076	0.0144	1.3220	0.3561	0.0135	0.3696		1,779.6716	1,779.6716	0.0388	0.1070	1,812.5174

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0351	0.9610	0.4312	4.7000e-003	0.1706	7.5700e-003	0.1782	0.0492	7.2400e-003	0.0564		498.6500	498.6500	5.5500e-003	0.0737	520.7570
Worker	0.4913	0.2710	4.5027	0.0120	1.4056	6.4900e-003	1.4121	0.3728	5.9700e-003	0.3788		1,242.4867	1,242.4867	0.0304	0.0298	1,252.1166
Total	0.5264	1.2320	4.9338	0.0167	1.5762	0.0141	1.5903	0.4220	0.0132	0.4352		1,741.1367	1,741.1367	0.0359	0.1035	1,772.8736

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0351	0.9610	0.4312	4.7000e-003	0.1464	7.5700e-003	0.1539	0.0432	7.2400e-003	0.0504		498.6500	498.6500	5.5500e-003	0.0737	520.7570
Worker	0.4913	0.2710	4.5027	0.0120	1.1613	6.4900e-003	1.1678	0.3129	5.9700e-003	0.3188		1,242.4867	1,242.4867	0.0304	0.0298	1,252.1166
Total	0.5264	1.2320	4.9338	0.0167	1.3076	0.0141	1.3217	0.3561	0.0132	0.3693		1,741.1367	1,741.1367	0.0359	0.1035	1,772.8736

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0347	0.9535	0.4267	4.6200e-003	0.1706	7.5800e-003	0.1782	0.0492	7.2500e-003	0.0564		489.8534	489.8534	5.7400e-003	0.0723	511.5360
Worker	0.4588	0.2436	4.2015	0.0116	1.4056	6.1700e-003	1.4118	0.3728	5.6800e-003	0.3785		1,212.048 9	1,212.048 9	0.0275	0.0278	1,221.025 8
Total	0.4935	1.1971	4.6282	0.0163	1.5762	0.0138	1.5900	0.4220	0.0129	0.4349		1,701.902 3	1,701.902 3	0.0332	0.1001	1,732.561 8

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.474 4	2,556.474 4	0.6010		2,571.498 1

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0347	0.9535	0.4267	4.6200e-003	0.1463	7.5800e-003	0.1539	0.0432	7.2500e-003	0.0504		489.8534	489.8534	5.7400e-003	0.0723	511.5360
Worker	0.4588	0.2436	4.2015	0.0116	1.1613	6.1700e-003	1.1675	0.3129	5.6800e-003	0.3185		1,212.048 9	1,212.048 9	0.0275	0.0278	1,221.025 8
Total	0.4935	1.1971	4.6282	0.0163	1.3076	0.0138	1.3214	0.3561	0.0129	0.3690		1,701.902 3	1,701.902 3	0.0332	0.1001	1,732.561 8

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.745 2	2,206.745 2	0.7137		2,224.587 8
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.745 2	2,206.745 2	0.7137		2,224.587 8

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0410	0.0218	0.3751	1.0400e-003	0.1255	5.5000e-004	0.1261	0.0333	5.1000e-004	0.0338		108.2187	108.2187	2.4500e-003	2.4800e-003	109.0202
Total	0.0410	0.0218	0.3751	1.0400e-003	0.1255	5.5000e-004	0.1261	0.0333	5.1000e-004	0.0338		108.2187	108.2187	2.4500e-003	2.4800e-003	109.0202

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850	0.0000	2,206.745 2	2,206.745 2	0.7137		2,224.587 8
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850	0.0000	2,206.745 2	2,206.745 2	0.7137		2,224.587 8

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0410	0.0218	0.3751	1.0400e-003	0.1037	5.5000e-004	0.1042	0.0279	5.1000e-004	0.0284		108.2187	108.2187	2.4500e-003	2.4800e-003	109.0202
Total	0.0410	0.0218	0.3751	1.0400e-003	0.1037	5.5000e-004	0.1042	0.0279	5.1000e-004	0.0284		108.2187	108.2187	2.4500e-003	2.4800e-003	109.0202

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	45.6879					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	45.8587	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0929	0.0493	0.8503	2.3500e-003	0.2845	1.2500e-003	0.2857	0.0755	1.1500e-003	0.0766		245.2956	245.2956	5.5600e-003	5.6300e-003	247.1124
Total	0.0929	0.0493	0.8503	2.3500e-003	0.2845	1.2500e-003	0.2857	0.0755	1.1500e-003	0.0766		245.2956	245.2956	5.5600e-003	5.6300e-003	247.1124

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	45.6879					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	45.8587	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0929	0.0493	0.8503	2.3500e-003	0.2350	1.2500e-003	0.2363	0.0633	1.1500e-003	0.0645		245.2956	245.2956	5.5600e-003	5.6300e-003	247.1124
Total	0.0929	0.0493	0.8503	2.3500e-003	0.2350	1.2500e-003	0.2363	0.0633	1.1500e-003	0.0645		245.2956	245.2956	5.5600e-003	5.6300e-003	247.1124

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

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	11.3235	10.7792	79.3216	0.1640	17.3688	0.1299	17.4987	4.6330	0.1216	4.7546		17,223.44 82	17,223.44 82	0.9991	0.8868	17,512.68 74
Unmitigated	11.3235	10.7792	79.3216	0.1640	17.3688	0.1299	17.4987	4.6330	0.1216	4.7546		17,223.44 82	17,223.44 82	0.9991	0.8868	17,512.68 74

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	1,464.00	1,628.00	1256.00	3,260,792	3,260,792
Regional Shopping Center	2,831.25	3,459.00	1582.50	3,632,267	3,632,267
Total	4,295.25	5,087.00	2,838.50	6,893,059	6,893,059

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
Condo/Townhouse	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.542916	0.056689	0.174450	0.134041	0.024680	0.006960	0.011589	0.018600	0.000608	0.000298	0.023389	0.001091	0.004689
Regional Shopping Center	0.542916	0.056689	0.174450	0.134041	0.024680	0.006960	0.011589	0.018600	0.000608	0.000298	0.023389	0.001091	0.004689

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.1296	1.1098	0.4906	7.0700e-003		0.0895	0.0895		0.0895	0.0895		1,413.3744	1,413.3744	0.0271	0.0259	1,421.7734
NaturalGas Unmitigated	0.1296	1.1098	0.4906	7.0700e-003		0.0895	0.0895		0.0895	0.0895		1,413.3744	1,413.3744	0.0271	0.0259	1,421.7734

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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					
Condo/Townhouse	11561.6	0.1247	1.0655	0.4534	6.8000e-003		0.0862	0.0862		0.0862	0.0862		1,360.1915	1,360.1915	0.0261	0.0249	1,368.2744
Regional Shopping Center	452.055	4.8800e-003	0.0443	0.0372	2.7000e-004		3.3700e-003	3.3700e-003		3.3700e-003	3.3700e-003		53.1829	53.1829	1.0200e-003	9.8000e-004	53.4990
Total		0.1296	1.1098	0.4906	7.0700e-003		0.0895	0.0895		0.0895	0.0895		1,413.3744	1,413.3744	0.0271	0.0259	1,421.7734

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	11.5616	0.1247	1.0655	0.4534	6.8000e-003		0.0862	0.0862		0.0862	0.0862		1,360.1915	1,360.1915	0.0261	0.0249	1,368.2744
Regional Shopping Center	0.452055	4.8800e-003	0.0443	0.0372	2.7000e-004		3.3700e-003	3.3700e-003		3.3700e-003	3.3700e-003		53.1829	53.1829	1.0200e-003	9.8000e-004	53.4990
Total		0.1296	1.1098	0.4906	7.0700e-003		0.0895	0.0895		0.0895	0.0895		1,413.3744	1,413.3744	0.0271	0.0259	1,421.7734

6.0 Area Detail

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.1 Mitigation Measures Area

- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- No Hearths Installed
- Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.3788	0.1900	16.4923	8.7000e-004		0.0915	0.0915		0.0915	0.0915	0.0000	29.7269	29.7269	0.0285	0.0000	30.4392
Unmitigated	6.8188	0.1900	16.4923	8.7000e-004		0.0915	0.0915		0.0915	0.0915	0.0000	29.7269	29.7269	0.0285	0.0000	30.4392

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.4381					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.8850					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.4957	0.1900	16.4923	8.7000e-004		0.0915	0.0915		0.0915	0.0915		29.7269	29.7269	0.0285		30.4392
Total	6.8188	0.1900	16.4923	8.7000e-004		0.0915	0.0915		0.0915	0.0915	0.0000	29.7269	29.7269	0.0285	0.0000	30.4392

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.4381					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.4450					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.4957	0.1900	16.4923	8.7000e-004		0.0915	0.0915		0.0915	0.0915		29.7269	29.7269	0.0285		30.4392
Total	6.3788	0.1900	16.4923	8.7000e-004		0.0915	0.0915		0.0915	0.0915	0.0000	29.7269	29.7269	0.0285	0.0000	30.4392

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

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

10.0 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

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2615 Model 3 Rancho Monterey SP Amendment

Riverside-Salton Sea County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	200.00	Dwelling Unit	18.50	200,000.00	374
Regional Shopping Center	75.00	1000sqft	14.00	75,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	15			Operational Year	2026
Utility Company	Imperial Irrigation District				
CO2 Intensity (lb/MWhr)	189.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Model 3: 200 DUs + 75,000 SF of Commercial

Land Use - Average Household Size: 1.87 PPH per CADF. Lot areas are based on the respective planning areas in the SPA. Building areas are based on combined unit count or max retail space as applicable to the model.

Construction Phase - Assumes no demolition due to undeveloped condition.

Grading - Assumes balanced earthwork.

Architectural Coating - Factors SCAMQD Rule 1113 compliance.

Woodstoves - Assumes no fire places or wood stoves per SCAQMD Rule 445.

Area Coating - Factors SCAMQD Rule 1113 compliance.

Construction Off-road Equipment Mitigation - SCAQMD Rule 403/403.1 and RMMC are applied as a requirement.

Area Mitigation - Factors SCAMQD Rule 1113 compliance.

Energy Mitigation -

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Parking	250	100
tblAreaCoating	Area_EF_Residential_Exterior	250	50
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	20
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	50
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblFireplaces	FireplaceDayYear	82.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	457.60	0.00
tblFireplaces	NumberGas	160.00	0.00
tblFireplaces	NumberNoFireplace	20.00	0.00
tblFireplaces	NumberWood	20.00	0.00
tblGrading	AcresOfGrading	135.00	32.50
tblGrading	AcresOfGrading	30.00	32.50
tblLandUse	LotAcreage	12.50	18.50
tblLandUse	LotAcreage	1.72	14.00
tblLandUse	Population	572.00	374.00
tblWoodstoves	NumberCatalytic	10.00	0.00

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblWoodstoves	NumberNoncatalytic	10.00	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	3.3792	34.5531	28.5229	0.0634	19.9402	1.4253	21.2069	10.1567	1.3113	11.3221	0.0000	6,148.883 4	6,148.883 4	1.9483	0.1080	6,198.752 5
2024	1.9545	14.7452	20.3313	0.0426	1.5762	0.6274	2.2036	0.4220	0.5902	1.0121	0.0000	4,182.461 6	4,182.461 6	0.6408	0.1045	4,229.617 6
2025	45.9441	13.7348	20.0017	0.0421	1.5762	0.5413	2.1176	0.4220	0.5092	0.9312	0.0000	4,147.107 7	4,147.107 7	0.7162	0.1010	4,193.084 6
Maximum	45.9441	34.5531	28.5229	0.0634	19.9402	1.4253	21.2069	10.1567	1.3113	11.3221	0.0000	6,148.883 4	6,148.883 4	1.9483	0.1080	6,198.752 5

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	3.3792	34.5531	28.5229	0.0634	5.5270	1.4253	6.7937	2.7954	1.3113	3.9608	0.0000	6,148.883 4	6,148.883 4	1.9483	0.1080	6,198.752 5
2024	1.9545	14.7452	20.3313	0.0426	1.3076	0.6274	1.9350	0.3561	0.5902	0.9462	0.0000	4,182.461 6	4,182.461 6	0.6408	0.1045	4,229.617 6
2025	45.9441	13.7348	20.0017	0.0421	1.3076	0.5413	1.8490	0.3561	0.5092	0.8653	0.0000	4,147.107 7	4,147.107 7	0.7162	0.1010	4,193.084 6
Maximum	45.9441	34.5531	28.5229	0.0634	5.5270	1.4253	6.7937	2.7954	1.3113	3.9608	0.0000	6,148.883 4	6,148.883 4	1.9483	0.1080	6,198.752 5

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	6.8188	0.1900	16.4923	8.7000e-004		0.0915	0.0915		0.0915	0.0915	0.0000	29.7269	29.7269	0.0285	0.0000	30.4392
Energy	0.1296	1.1098	0.4906	7.0700e-003		0.0895	0.0895		0.0895	0.0895		1,413.3744	1,413.3744	0.0271	0.0259	1,421.7734
Mobile	9.1938	11.4460	73.2704	0.1526	17.3688	0.1301	17.4989	4.6330	0.1218	4.7547		16,034.1360	16,034.1360	1.0516	0.9066	16,330.5837
Total	16.1421	12.7458	90.2533	0.1606	17.3688	0.3111	17.6799	4.6330	0.3028	4.9358	0.0000	17,477.2372	17,477.2372	1.1071	0.9325	17,782.7963

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	6.3788	0.1900	16.4923	8.7000e-004		0.0915	0.0915		0.0915	0.0915	0.0000	29.7269	29.7269	0.0285	0.0000	30.4392
Energy	0.1296	1.1098	0.4906	7.0700e-003		0.0895	0.0895		0.0895	0.0895		1,413.3744	1,413.3744	0.0271	0.0259	1,421.7734
Mobile	9.1938	11.4460	73.2704	0.1526	17.3688	0.1301	17.4989	4.6330	0.1218	4.7547		16,034.1360	16,034.1360	1.0516	0.9066	16,330.5837
Total	15.7021	12.7458	90.2533	0.1606	17.3688	0.3111	17.6799	4.6330	0.3028	4.9358	0.0000	17,477.2372	17,477.2372	1.1071	0.9325	17,782.7963

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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
Percent Reduction	2.73	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	Site Preparation	Site Preparation	6/1/2023	6/28/2023	5	20	
2	Grading	Grading	6/29/2023	8/30/2023	5	45	
3	Building Construction	Building Construction	8/31/2023	7/30/2025	5	500	
4	Paving	Paving	7/31/2025	9/17/2025	5	35	
5	Architectural Coating	Architectural Coating	9/18/2025	11/5/2025	5	35	

Acres of Grading (Site Preparation Phase): 32.5

Acres of Grading (Grading Phase): 32.5

Acres of Paving: 0

Residential Indoor: 405,000; Residential Outdoor: 135,000; Non-Residential Indoor: 112,500; Non-Residential Outdoor: 37,500; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	231	0.29
Grading	Excavators	2	8.00	158	0.38
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	168.00	34.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	34.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 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					19.7896	0.0000	19.7896	10.1168	0.0000	10.1168			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647		3,687.308 1	3,687.308 1	1.1926		3,717.121 9
Total	2.6595	27.5242	18.2443	0.0381	19.7896	1.2660	21.0556	10.1168	1.1647	11.2815		3,687.308 1	3,687.308 1	1.1926		3,717.121 9

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0517	0.0337	0.4245	1.2100e-003	0.1506	7.3000e-004	0.1513	0.0400	6.7000e-004	0.0406		123.6651	123.6651	3.6600e-003	3.5100e-003	124.8020
Total	0.0517	0.0337	0.4245	1.2100e-003	0.1506	7.3000e-004	0.1513	0.0400	6.7000e-004	0.0406		123.6651	123.6651	3.6600e-003	3.5100e-003	124.8020

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 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					5.4026	0.0000	5.4026	2.7619	0.0000	2.7619			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647	0.0000	3,687.308 1	3,687.308 1	1.1926		3,717.121 9
Total	2.6595	27.5242	18.2443	0.0381	5.4026	1.2660	6.6686	2.7619	1.1647	3.9266	0.0000	3,687.308 1	3,687.308 1	1.1926		3,717.121 9

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0517	0.0337	0.4245	1.2100e-003	0.1244	7.3000e-004	0.1252	0.0335	6.7000e-004	0.0342		123.6651	123.6651	3.6600e-003	3.5100e-003	124.8020
Total	0.0517	0.0337	0.4245	1.2100e-003	0.1244	7.3000e-004	0.1252	0.0335	6.7000e-004	0.0342		123.6651	123.6651	3.6600e-003	3.5100e-003	124.8020

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 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					6.7880	0.0000	6.7880	3.3929	0.0000	3.3929			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105		6,011.4777	6,011.4777	1.9442		6,060.0836
Total	3.3217	34.5156	28.0512	0.0621	6.7880	1.4245	8.2125	3.3929	1.3105	4.7035		6,011.4777	6,011.4777	1.9442		6,060.0836

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0575	0.0375	0.4717	1.3400e-003	0.1673	8.1000e-004	0.1681	0.0444	7.4000e-004	0.0451		137.4057	137.4057	4.0600e-003	3.9000e-003	138.6689
Total	0.0575	0.0375	0.4717	1.3400e-003	0.1673	8.1000e-004	0.1681	0.0444	7.4000e-004	0.0451		137.4057	137.4057	4.0600e-003	3.9000e-003	138.6689

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 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					1.8531	0.0000	1.8531	0.9263	0.0000	0.9263			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836
Total	3.3217	34.5156	28.0512	0.0621	1.8531	1.4245	3.2776	0.9263	1.3105	2.2368	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0575	0.0375	0.4717	1.3400e-003	0.1383	8.1000e-004	0.1391	0.0372	7.4000e-004	0.0380		137.4057	137.4057	4.0600e-003	3.9000e-003	138.6689
Total	0.0575	0.0375	0.4717	1.3400e-003	0.1383	8.1000e-004	0.1391	0.0372	7.4000e-004	0.0380		137.4057	137.4057	4.0600e-003	3.9000e-003	138.6689

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0328	1.0206	0.4515	4.7900e-003	0.1706	7.6600e-003	0.1783	0.0492	7.3300e-003	0.0565		508.0242	508.0242	5.2500e-003	0.0753	530.5891
Worker	0.4827	0.3147	3.9621	0.0113	1.4056	6.7900e-003	1.4124	0.3728	6.2500e-003	0.3791		1,154.2076	1,154.2076	0.0341	0.0328	1,164.8187
Total	0.5155	1.3353	4.4136	0.0161	1.5762	0.0145	1.5907	0.4220	0.0136	0.4356		1,662.2318	1,662.2318	0.0394	0.1080	1,695.4078

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0328	1.0206	0.4515	4.7900e-003	0.1464	7.6600e-003	0.1540	0.0432	7.3300e-003	0.0505		508.0242	508.0242	5.2500e-003	0.0753	530.5891
Worker	0.4827	0.3147	3.9621	0.0113	1.1613	6.7900e-003	1.1681	0.3129	6.2500e-003	0.3191		1,154.2076	1,154.2076	0.0341	0.0328	1,164.8187
Total	0.5155	1.3353	4.4136	0.0161	1.3076	0.0145	1.3221	0.3561	0.0136	0.3696		1,662.2318	1,662.2318	0.0394	0.1080	1,695.4078

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0322	1.0204	0.4467	4.7200e-003	0.1706	7.6100e-003	0.1782	0.0492	7.2800e-003	0.0564		500.2003	500.2003	5.4200e-003	0.0740	522.3911
Worker	0.4507	0.2811	3.7178	0.0109	1.4056	6.4900e-003	1.4121	0.3728	5.9700e-003	0.3788		1,126.5624	1,126.5624	0.0310	0.0305	1,136.4188
Total	0.4829	1.3014	4.1645	0.0156	1.5762	0.0141	1.5903	0.4220	0.0133	0.4352		1,626.7627	1,626.7627	0.0364	0.1045	1,658.8099

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0322	1.0204	0.4467	4.7200e-003	0.1464	7.6100e-003	0.1540	0.0432	7.2800e-003	0.0505		500.2003	500.2003	5.4200e-003	0.0740	522.3911
Worker	0.4507	0.2811	3.7178	0.0109	1.1613	6.4900e-003	1.1678	0.3129	5.9700e-003	0.3188		1,126.5624	1,126.5624	0.0310	0.0305	1,136.4188
Total	0.4829	1.3014	4.1645	0.0156	1.3076	0.0141	1.3217	0.3561	0.0133	0.3693		1,626.7627	1,626.7627	0.0364	0.1045	1,658.8099

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0318	1.0125	0.4422	4.6300e-003	0.1706	7.6100e-003	0.1782	0.0492	7.2800e-003	0.0564		491.3852	491.3852	5.6200e-003	0.0726	513.1497
Worker	0.4219	0.2526	3.4749	0.0106	1.4056	6.1700e-003	1.4118	0.3728	5.6800e-003	0.3785		1,099.248 1	1,099.248 1	0.0281	0.0285	1,108.436 8
Total	0.4537	1.2651	3.9171	0.0152	1.5762	0.0138	1.5900	0.4220	0.0130	0.4349		1,590.633 3	1,590.633 3	0.0337	0.1010	1,621.586 5

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.474 4	2,556.474 4	0.6010		2,571.498 1

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0318	1.0125	0.4422	4.6300e-003	0.1463	7.6100e-003	0.1540	0.0432	7.2800e-003	0.0505		491.3852	491.3852	5.6200e-003	0.0726	513.1497
Worker	0.4219	0.2526	3.4749	0.0106	1.1613	6.1700e-003	1.1675	0.3129	5.6800e-003	0.3185		1,099.248 1	1,099.248 1	0.0281	0.0285	1,108.436 8
Total	0.4537	1.2651	3.9171	0.0152	1.3076	0.0138	1.3214	0.3561	0.0130	0.3690		1,590.633 3	1,590.633 3	0.0337	0.1010	1,621.586 5

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.745 2	2,206.745 2	0.7137		2,224.587 8
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.745 2	2,206.745 2	0.7137		2,224.587 8

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0377	0.0226	0.3103	9.4000e-004	0.1255	5.5000e-004	0.1261	0.0333	5.1000e-004	0.0338		98.1472	98.1472	2.5100e-003	2.5400e-003	98.9676
Total	0.0377	0.0226	0.3103	9.4000e-004	0.1255	5.5000e-004	0.1261	0.0333	5.1000e-004	0.0338		98.1472	98.1472	2.5100e-003	2.5400e-003	98.9676

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850	0.0000	2,206.745 2	2,206.745 2	0.7137		2,224.587 8
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850	0.0000	2,206.745 2	2,206.745 2	0.7137		2,224.587 8

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0377	0.0226	0.3103	9.4000e-004	0.1037	5.5000e-004	0.1042	0.0279	5.1000e-004	0.0284		98.1472	98.1472	2.5100e-003	2.5400e-003	98.9676
Total	0.0377	0.0226	0.3103	9.4000e-004	0.1037	5.5000e-004	0.1042	0.0279	5.1000e-004	0.0284		98.1472	98.1472	2.5100e-003	2.5400e-003	98.9676

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	45.6879					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	45.8587	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0854	0.0511	0.7033	2.1400e-003	0.2845	1.2500e-003	0.2857	0.0755	1.1500e-003	0.0766		222.4669	222.4669	5.6900e-003	5.7600e-003	224.3265
Total	0.0854	0.0511	0.7033	2.1400e-003	0.2845	1.2500e-003	0.2857	0.0755	1.1500e-003	0.0766		222.4669	222.4669	5.6900e-003	5.7600e-003	224.3265

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	45.6879					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	45.8587	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0854	0.0511	0.7033	2.1400e-003	0.2350	1.2500e-003	0.2363	0.0633	1.1500e-003	0.0645		222.4669	222.4669	5.6900e-003	5.7600e-003	224.3265
Total	0.0854	0.0511	0.7033	2.1400e-003	0.2350	1.2500e-003	0.2363	0.0633	1.1500e-003	0.0645		222.4669	222.4669	5.6900e-003	5.7600e-003	224.3265

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

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	9.1938	11.4460	73.2704	0.1526	17.3688	0.1301	17.4989	4.6330	0.1218	4.7547		16,034.13 60	16,034.13 60	1.0516	0.9066	16,330.58 37
Unmitigated	9.1938	11.4460	73.2704	0.1526	17.3688	0.1301	17.4989	4.6330	0.1218	4.7547		16,034.13 60	16,034.13 60	1.0516	0.9066	16,330.58 37

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	1,464.00	1,628.00	1256.00	3,260,792	3,260,792
Regional Shopping Center	2,831.25	3,459.00	1582.50	3,632,267	3,632,267
Total	4,295.25	5,087.00	2,838.50	6,893,059	6,893,059

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
Condo/Townhouse	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.542916	0.056689	0.174450	0.134041	0.024680	0.006960	0.011589	0.018600	0.000608	0.000298	0.023389	0.001091	0.004689
Regional Shopping Center	0.542916	0.056689	0.174450	0.134041	0.024680	0.006960	0.011589	0.018600	0.000608	0.000298	0.023389	0.001091	0.004689

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.1296	1.1098	0.4906	7.0700e-003		0.0895	0.0895		0.0895	0.0895		1,413.3744	1,413.3744	0.0271	0.0259	1,421.7734
NaturalGas Unmitigated	0.1296	1.1098	0.4906	7.0700e-003		0.0895	0.0895		0.0895	0.0895		1,413.3744	1,413.3744	0.0271	0.0259	1,421.7734

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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					
Condo/Townhouse	11561.6	0.1247	1.0655	0.4534	6.8000e-003		0.0862	0.0862		0.0862	0.0862		1,360.1915	1,360.1915	0.0261	0.0249	1,368.2744
Regional Shopping Center	452.055	4.8800e-003	0.0443	0.0372	2.7000e-004		3.3700e-003	3.3700e-003		3.3700e-003	3.3700e-003		53.1829	53.1829	1.0200e-003	9.8000e-004	53.4990
Total		0.1296	1.1098	0.4906	7.0700e-003		0.0895	0.0895		0.0895	0.0895		1,413.3744	1,413.3744	0.0271	0.0259	1,421.7734

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	11.5616	0.1247	1.0655	0.4534	6.8000e-003		0.0862	0.0862		0.0862	0.0862		1,360.1915	1,360.1915	0.0261	0.0249	1,368.2744
Regional Shopping Center	0.452055	4.8800e-003	0.0443	0.0372	2.7000e-004		3.3700e-003	3.3700e-003		3.3700e-003	3.3700e-003		53.1829	53.1829	1.0200e-003	9.8000e-004	53.4990
Total		0.1296	1.1098	0.4906	7.0700e-003		0.0895	0.0895		0.0895	0.0895		1,413.3744	1,413.3744	0.0271	0.0259	1,421.7734

6.0 Area Detail

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.1 Mitigation Measures Area

- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- No Hearths Installed
- Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.3788	0.1900	16.4923	8.7000e-004		0.0915	0.0915		0.0915	0.0915	0.0000	29.7269	29.7269	0.0285	0.0000	30.4392
Unmitigated	6.8188	0.1900	16.4923	8.7000e-004		0.0915	0.0915		0.0915	0.0915	0.0000	29.7269	29.7269	0.0285	0.0000	30.4392

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.4381					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.8850					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.4957	0.1900	16.4923	8.7000e-004		0.0915	0.0915		0.0915	0.0915		29.7269	29.7269	0.0285		30.4392
Total	6.8188	0.1900	16.4923	8.7000e-004		0.0915	0.0915		0.0915	0.0915	0.0000	29.7269	29.7269	0.0285	0.0000	30.4392

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.4381					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.4450					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.4957	0.1900	16.4923	8.7000e-004		0.0915	0.0915		0.0915	0.0915		29.7269	29.7269	0.0285		30.4392
Total	6.3788	0.1900	16.4923	8.7000e-004		0.0915	0.0915		0.0915	0.0915	0.0000	29.7269	29.7269	0.0285	0.0000	30.4392

7.0 Water Detail

7.1 Mitigation Measures Water

- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower
- Use Water Efficient Irrigation System

2615 Model 3 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

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

10.0 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

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2615 Model 4 Rancho Monterey SP Amendment

Riverside-Salton Sea County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	300.00	Dwelling Unit	18.50	300,000.00	561
Regional Shopping Center	37.50	1000sqft	14.00	37,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	15			Operational Year	2026
Utility Company	Imperial Irrigation District				
CO2 Intensity (lb/MWhr)	189.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Model 4: 300 DUs + 37,500 SF of Commercial

Land Use - Average Household Size: 1.87 PPH per CADF. Lot areas are based on the respective planning areas in the SPA. Building areas are based on combined unit count or max retail space as applicable to the model

Construction Phase - Assumes no demolition due to undeveloped condition.

Grading - Assumes balanced earthwork.

Architectural Coating - Factors SCAMQD Rule 1113 compliance.

Woodstoves - Assumes no fire places or wood stoves per SCAQMD Rule 445.

Area Coating - Factors SCAMQD Rule 1113 compliance.

Construction Off-road Equipment Mitigation - SCAQMD Rule 403/403.1 and RMMC are applied as a requirement.

Area Mitigation - Factors SCAMQD Rule 1113 compliance.

Energy Mitigation -

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Parking	250	100
tblAreaCoating	Area_EF_Residential_Exterior	250	50
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	20
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	50
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblFireplaces	FireplaceDayYear	82.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	457.60	0.00
tblFireplaces	NumberGas	240.00	0.00
tblFireplaces	NumberNoFireplace	30.00	0.00
tblFireplaces	NumberWood	30.00	0.00
tblGrading	AcresOfGrading	135.00	32.50
tblGrading	AcresOfGrading	30.00	32.50
tblLandUse	LotAcreage	18.75	18.50
tblLandUse	LotAcreage	0.86	14.00
tblLandUse	Population	858.00	561.00
tblWoodstoves	NumberCatalytic	15.00	0.00

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblWoodstoves	NumberNoncatalytic	15.00	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.1668	1.5076	1.4672	3.1900e-003	0.4146	0.0652	0.4798	0.1946	0.0604	0.2550	0.0000	282.3276	282.3276	0.0677	3.4500e-003	285.0487
2024	0.2742	1.9598	2.8759	6.2100e-003	0.2704	0.0826	0.3530	0.0724	0.0777	0.1501	0.0000	555.9411	555.9411	0.0776	0.0148	562.2925
2025	1.2236	1.4332	2.2573	4.7500e-003	0.1956	0.0575	0.2531	0.0523	0.0540	0.1064	0.0000	426.1838	426.1838	0.0647	0.0100	430.7931
Maximum	1.2236	1.9598	2.8759	6.2100e-003	0.4146	0.0826	0.4798	0.1946	0.0777	0.2550	0.0000	555.9411	555.9411	0.0776	0.0148	562.2925

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	0.1668	1.5076	1.4672	3.1900e-003	0.1488	0.0652	0.2140	0.0629	0.0604	0.1233	0.0000	282.3274	282.3274	0.0677	3.4500e-003	285.0484
2024	0.2742	1.9598	2.8759	6.2100e-003	0.2243	0.0826	0.3069	0.0611	0.0777	0.1388	0.0000	555.9407	555.9407	0.0776	0.0148	562.2921
2025	1.2236	1.4332	2.2573	4.7500e-003	0.1622	0.0575	0.2197	0.0441	0.0540	0.0982	0.0000	426.1835	426.1835	0.0647	0.0100	430.7928
Maximum	1.2236	1.9598	2.8759	6.2100e-003	0.2243	0.0826	0.3069	0.0629	0.0777	0.1388	0.0000	555.9407	555.9407	0.0776	0.0148	562.2921

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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
Percent Reduction	0.00	0.00	0.00	0.00	39.21	0.00	31.80	47.36	0.00	29.57	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	6-1-2023	8-31-2023	0.6008	0.6008
2	9-1-2023	11-30-2023	0.8808	0.8808
3	12-1-2023	2-29-2024	0.5678	0.5678
4	3-1-2024	5-31-2024	0.5609	0.5609
5	6-1-2024	8-31-2024	0.5606	0.5606
6	9-1-2024	11-30-2024	0.5550	0.5550
7	12-1-2024	2-28-2025	0.5246	0.5246
8	3-1-2025	5-31-2025	0.5225	0.5225
9	6-1-2025	8-31-2025	0.5223	0.5223
10	9-1-2025	9-30-2025	0.1250	0.1250
		Highest	0.8808	0.8808

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	1.4875	0.0256	2.2258	1.2000e-004		0.0124	0.0124		0.0124	0.0124	0.0000	3.6393	3.6393	3.4900e-003	0.0000	3.7265
Energy	0.0346	0.2957	0.1275	1.8900e-003		0.0239	0.0239		0.0239	0.0239	0.0000	510.0073	510.0073	0.0357	9.8100e-003	513.8224
Mobile	1.2479	1.6093	10.5946	0.0228	2.5360	0.0189	2.5549	0.6774	0.0177	0.6950	0.0000	2,175.2946	2,175.2946	0.1308	0.1167	2,213.3514
Waste						0.0000	0.0000		0.0000	0.0000	36.0065	0.0000	36.0065	2.1279	0.0000	89.2047
Water						0.0000	0.0000		0.0000	0.0000	7.0824	38.4763	45.5587	0.7341	0.0180	69.2713
Total	2.7700	1.9306	12.9479	0.0248	2.5360	0.0551	2.5911	0.6774	0.0539	0.7313	43.0889	2,727.4175	2,770.5064	3.0320	0.1445	2,889.3762

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	1.3890	0.0256	2.2258	1.2000e-004		0.0124	0.0124		0.0124	0.0124	0.0000	3.6393	3.6393	3.4900e-003	0.0000	3.7265
Energy	0.0346	0.2957	0.1275	1.8900e-003		0.0239	0.0239		0.0239	0.0239	0.0000	502.9658	502.9658	0.0345	9.6600e-003	506.7062
Mobile	1.2479	1.6093	10.5946	0.0228	2.5360	0.0189	2.5549	0.6774	0.0177	0.6950	0.0000	2,175.2946	2,175.2946	0.1308	0.1167	2,213.3514
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	5.6659	32.6475	38.3134	0.5876	0.0144	57.3033
Total	2.6715	1.9306	12.9479	0.0248	2.5360	0.0551	2.5911	0.6774	0.0539	0.7313	5.6659	2,714.5472	2,720.2131	0.7564	0.1408	2,781.0873

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	3.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	86.85	0.47	1.82	75.05	2.57	3.75

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	7/13/2023	8/9/2023	5	20	
2	Grading	Grading	8/10/2023	10/11/2023	5	45	
3	Building Construction	Building Construction	10/12/2023	9/10/2025	5	500	

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4	Paving	Paving	9/11/2025	10/29/2025	5	35
5	Architectural Coating	Architectural Coating	10/30/2025	12/17/2025	5	35

Acres of Grading (Site Preparation Phase): 32.5

Acres of Grading (Grading Phase): 32.5

Acres of Paving: 0

Residential Indoor: 607,500; Residential Outdoor: 202,500; Non-Residential Indoor: 56,250; Non-Residential Outdoor: 18,750; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	231	0.29
Grading	Excavators	2	8.00	158	0.38
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	228.00	38.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	46.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

- Use Soil Stabilizer
- Replace Ground Cover
- Water Exposed Area
- Water Unpaved Roads
- Reduce Vehicle Speed on Unpaved Roads
- Clean Paved Roads

3.2 Site Preparation - 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					0.1979	0.0000	0.1979	0.1012	0.0000	0.1012	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0266	0.2752	0.1824	3.8000e-004		0.0127	0.0127		0.0117	0.0117	0.0000	33.4507	33.4507	0.0108	0.0000	33.7212
Total	0.0266	0.2752	0.1824	3.8000e-004	0.1979	0.0127	0.2106	0.1012	0.0117	0.1128	0.0000	33.4507	33.4507	0.0108	0.0000	33.7212

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 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	4.9000e-004	3.5000e-004	4.4600e-003	1.0000e-005	1.4800e-003	1.0000e-005	1.4900e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.1478	1.1478	3.0000e-005	3.0000e-005	1.1583
Total	4.9000e-004	3.5000e-004	4.4600e-003	1.0000e-005	1.4800e-003	1.0000e-005	1.4900e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.1478	1.1478	3.0000e-005	3.0000e-005	1.1583

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					0.0540	0.0000	0.0540	0.0276	0.0000	0.0276	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0266	0.2752	0.1824	3.8000e-004		0.0127	0.0127		0.0117	0.0117	0.0000	33.4507	33.4507	0.0108	0.0000	33.7211
Total	0.0266	0.2752	0.1824	3.8000e-004	0.0540	0.0127	0.0667	0.0276	0.0117	0.0393	0.0000	33.4507	33.4507	0.0108	0.0000	33.7211

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 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	4.9000e-004	3.5000e-004	4.4600e-003	1.0000e-005	1.2200e-003	1.0000e-005	1.2300e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.1478	1.1478	3.0000e-005	3.0000e-005	1.1583
Total	4.9000e-004	3.5000e-004	4.4600e-003	1.0000e-005	1.2200e-003	1.0000e-005	1.2300e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.1478	1.1478	3.0000e-005	3.0000e-005	1.1583

3.3 Grading - 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					0.1527	0.0000	0.1527	0.0763	0.0000	0.0763	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0747	0.7766	0.6312	1.4000e-003		0.0321	0.0321		0.0295	0.0295	0.0000	122.7042	122.7042	0.0397	0.0000	123.6964
Total	0.0747	0.7766	0.6312	1.4000e-003	0.1527	0.0321	0.1848	0.0763	0.0295	0.1058	0.0000	122.7042	122.7042	0.0397	0.0000	123.6964

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 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	1.2400e-003	8.6000e-004	0.0111	3.0000e-005	3.7000e-003	2.0000e-005	3.7200e-003	9.8000e-004	2.0000e-005	1.0000e-003	0.0000	2.8696	2.8696	8.0000e-005	8.0000e-005	2.8958
Total	1.2400e-003	8.6000e-004	0.0111	3.0000e-005	3.7000e-003	2.0000e-005	3.7200e-003	9.8000e-004	2.0000e-005	1.0000e-003	0.0000	2.8696	2.8696	8.0000e-005	8.0000e-005	2.8958

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					0.0417	0.0000	0.0417	0.0208	0.0000	0.0208	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0747	0.7766	0.6312	1.4000e-003		0.0321	0.0321		0.0295	0.0295	0.0000	122.7041	122.7041	0.0397	0.0000	123.6962
Total	0.0747	0.7766	0.6312	1.4000e-003	0.0417	0.0321	0.0738	0.0208	0.0295	0.0503	0.0000	122.7041	122.7041	0.0397	0.0000	123.6962

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 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	1.2400e-003	8.6000e-004	0.0111	3.0000e-005	3.0600e-003	2.0000e-005	3.0800e-003	8.3000e-004	2.0000e-005	8.4000e-004	0.0000	2.8696	2.8696	8.0000e-005	8.0000e-005	2.8958
Total	1.2400e-003	8.6000e-004	0.0111	3.0000e-005	3.0600e-003	2.0000e-005	3.0800e-003	8.3000e-004	2.0000e-005	8.4000e-004	0.0000	2.8696	2.8696	8.0000e-005	8.0000e-005	2.8958

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0448	0.4100	0.4630	7.7000e-004		0.0199	0.0199		0.0188	0.0188	0.0000	66.0644	66.0644	0.0157	0.0000	66.4572
Total	0.0448	0.4100	0.4630	7.7000e-004		0.0199	0.0199		0.0188	0.0188	0.0000	66.0644	66.0644	0.0157	0.0000	66.4572

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0900e-003	0.0321	0.0141	1.5000e-004	5.3600e-003	2.4000e-004	5.6000e-003	1.5500e-003	2.3000e-004	1.7800e-003	0.0000	14.6540	14.6540	1.5000e-004	2.1700e-003	15.3048
Worker	0.0179	0.0125	0.1609	4.5000e-004	0.0535	2.6000e-004	0.0537	0.0142	2.4000e-004	0.0144	0.0000	41.4370	41.4370	1.2000e-003	1.1700e-003	41.8151
Total	0.0189	0.0446	0.1750	6.0000e-004	0.0588	5.0000e-004	0.0593	0.0158	4.7000e-004	0.0162	0.0000	56.0909	56.0909	1.3500e-003	3.3400e-003	57.1198

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0448	0.4100	0.4630	7.7000e-004		0.0199	0.0199		0.0188	0.0188	0.0000	66.0643	66.0643	0.0157	0.0000	66.4572
Total	0.0448	0.4100	0.4630	7.7000e-004		0.0199	0.0199		0.0188	0.0188	0.0000	66.0643	66.0643	0.0157	0.0000	66.4572

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0900e-003	0.0321	0.0141	1.5000e-004	4.6000e-003	2.4000e-004	4.8500e-003	1.3600e-003	2.3000e-004	1.5900e-003	0.0000	14.6540	14.6540	1.5000e-004	2.1700e-003	15.3048
Worker	0.0179	0.0125	0.1609	4.5000e-004	0.0442	2.6000e-004	0.0445	0.0119	2.4000e-004	0.0122	0.0000	41.4370	41.4370	1.2000e-003	1.1700e-003	41.8151
Total	0.0189	0.0446	0.1750	6.0000e-004	0.0488	5.0000e-004	0.0493	0.0133	4.7000e-004	0.0138	0.0000	56.0909	56.0909	1.3500e-003	3.3400e-003	57.1198

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7223	303.7223	0.0718	0.0000	305.5179
Total	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7223	303.7223	0.0718	0.0000	305.5179

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	4.9300e-003	0.1474	0.0642	6.9000e-004	0.0246	1.1100e-003	0.0258	7.1100e-003	1.0600e-003	8.1700e-003	0.0000	66.3186	66.3186	7.3000e-004	9.8100e-003	69.2604
Worker	0.0765	0.0512	0.6939	1.9900e-003	0.2457	1.1500e-003	0.2469	0.0653	1.0600e-003	0.0663	0.0000	185.9002	185.9002	5.0000e-003	5.0000e-003	187.5143
Total	0.0815	0.1986	0.7580	2.6800e-003	0.2704	2.2600e-003	0.2726	0.0724	2.1200e-003	0.0745	0.0000	252.2187	252.2187	5.7300e-003	0.0148	256.7746

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7220	303.7220	0.0718	0.0000	305.5175
Total	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7220	303.7220	0.0718	0.0000	305.5175

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	4.9300e-003	0.1474	0.0642	6.9000e-004	0.0212	1.1100e-003	0.0223	6.2600e-003	1.0600e-003	7.3200e-003	0.0000	66.3186	66.3186	7.3000e-004	9.8100e-003	69.2604
Worker	0.0765	0.0512	0.6939	1.9900e-003	0.2031	1.1500e-003	0.2043	0.0548	1.0600e-003	0.0559	0.0000	185.9002	185.9002	5.0000e-003	5.0000e-003	187.5143
Total	0.0815	0.1986	0.7580	2.6800e-003	0.2243	2.2600e-003	0.2265	0.0611	2.1200e-003	0.0632	0.0000	252.2187	252.2187	5.7300e-003	0.0148	256.7746

3.4 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1238	1.1285	1.4557	2.4400e-003		0.0477	0.0477		0.0449	0.0449	0.0000	209.8871	209.8871	0.0493	0.0000	211.1206
Total	0.1238	1.1285	1.4557	2.4400e-003		0.0477	0.0477		0.0449	0.0449	0.0000	209.8871	209.8871	0.0493	0.0000	211.1206

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	3.3700e-003	0.1010	0.0439	4.7000e-004	0.0170	7.7000e-004	0.0178	4.9100e-003	7.3000e-004	5.6500e-003	0.0000	45.0076	45.0076	5.2000e-004	6.6400e-003	47.0009
Worker	0.0494	0.0318	0.4479	1.3300e-003	0.1698	7.6000e-004	0.1705	0.0451	7.0000e-004	0.0458	0.0000	125.3045	125.3045	3.1300e-003	3.2300e-003	126.3440
Total	0.0528	0.1328	0.4917	1.8000e-003	0.1868	1.5300e-003	0.1883	0.0500	1.4300e-003	0.0514	0.0000	170.3122	170.3122	3.6500e-003	9.8700e-003	173.3449

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1238	1.1285	1.4557	2.4400e-003		0.0477	0.0477		0.0449	0.0449	0.0000	209.8869	209.8869	0.0493	0.0000	211.1203
Total	0.1238	1.1285	1.4557	2.4400e-003		0.0477	0.0477		0.0449	0.0449	0.0000	209.8869	209.8869	0.0493	0.0000	211.1203

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	3.3700e-003	0.1010	0.0439	4.7000e-004	0.0146	7.7000e-004	0.0154	4.3200e-003	7.3000e-004	5.0600e-003	0.0000	45.0076	45.0076	5.2000e-004	6.6400e-003	47.0009
Worker	0.0494	0.0318	0.4479	1.3300e-003	0.1403	7.6000e-004	0.1411	0.0379	7.0000e-004	0.0386	0.0000	125.3045	125.3045	3.1300e-003	3.2300e-003	126.3440
Total	0.0528	0.1328	0.4917	1.8000e-003	0.1549	1.5300e-003	0.1565	0.0422	1.4300e-003	0.0436	0.0000	170.3122	170.3122	3.6500e-003	9.8700e-003	173.3449

3.5 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0160	0.1502	0.2551	4.0000e-004		7.3200e-003	7.3200e-003		6.7400e-003	6.7400e-003	0.0000	35.0337	35.0337	0.0113	0.0000	35.3170
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0160	0.1502	0.2551	4.0000e-004		7.3200e-003	7.3200e-003		6.7400e-003	6.7400e-003	0.0000	35.0337	35.0337	0.0113	0.0000	35.3170

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.3000e-004	4.0000e-004	5.7000e-003	2.0000e-005	2.1600e-003	1.0000e-005	2.1700e-003	5.7000e-004	1.0000e-005	5.8000e-004	0.0000	1.5941	1.5941	4.0000e-005	4.0000e-005	1.6073
Total	6.3000e-004	4.0000e-004	5.7000e-003	2.0000e-005	2.1600e-003	1.0000e-005	2.1700e-003	5.7000e-004	1.0000e-005	5.8000e-004	0.0000	1.5941	1.5941	4.0000e-005	4.0000e-005	1.6073

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0160	0.1502	0.2551	4.0000e-004		7.3200e-003	7.3200e-003		6.7400e-003	6.7400e-003	0.0000	35.0337	35.0337	0.0113	0.0000	35.3169
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0160	0.1502	0.2551	4.0000e-004		7.3200e-003	7.3200e-003		6.7400e-003	6.7400e-003	0.0000	35.0337	35.0337	0.0113	0.0000	35.3169

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.3000e-004	4.0000e-004	5.7000e-003	2.0000e-005	1.7900e-003	1.0000e-005	1.7900e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.5941	1.5941	4.0000e-005	4.0000e-005	1.6073
Total	6.3000e-004	4.0000e-004	5.7000e-003	2.0000e-005	1.7900e-003	1.0000e-005	1.7900e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.5941	1.5941	4.0000e-005	4.0000e-005	1.6073

3.6 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.0255					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9900e-003	0.0201	0.0317	5.0000e-005		9.0000e-004	9.0000e-004		9.0000e-004	9.0000e-004	0.0000	4.4682	4.4682	2.4000e-004	0.0000	4.4743
Total	1.0285	0.0201	0.0317	5.0000e-005		9.0000e-004	9.0000e-004		9.0000e-004	9.0000e-004	0.0000	4.4682	4.4682	2.4000e-004	0.0000	4.4743

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	1.9300e-003	1.2400e-003	0.0175	5.0000e-005	6.6200e-003	3.0000e-005	6.6500e-003	1.7600e-003	3.0000e-005	1.7900e-003	0.0000	4.8885	4.8885	1.2000e-004	1.3000e-004	4.9291
Total	1.9300e-003	1.2400e-003	0.0175	5.0000e-005	6.6200e-003	3.0000e-005	6.6500e-003	1.7600e-003	3.0000e-005	1.7900e-003	0.0000	4.8885	4.8885	1.2000e-004	1.3000e-004	4.9291

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.0255					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9900e-003	0.0201	0.0317	5.0000e-005		9.0000e-004	9.0000e-004		9.0000e-004	9.0000e-004	0.0000	4.4682	4.4682	2.4000e-004	0.0000	4.4743
Total	1.0285	0.0201	0.0317	5.0000e-005		9.0000e-004	9.0000e-004		9.0000e-004	9.0000e-004	0.0000	4.4682	4.4682	2.4000e-004	0.0000	4.4743

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	1.9300e-003	1.2400e-003	0.0175	5.0000e-005	5.4700e-003	3.0000e-005	5.5000e-003	1.4800e-003	3.0000e-005	1.5000e-003	0.0000	4.8885	4.8885	1.2000e-004	1.3000e-004	4.9291
Total	1.9300e-003	1.2400e-003	0.0175	5.0000e-005	5.4700e-003	3.0000e-005	5.5000e-003	1.4800e-003	3.0000e-005	1.5000e-003	0.0000	4.8885	4.8885	1.2000e-004	1.3000e-004	4.9291

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	1.2479	1.6093	10.5946	0.0228	2.5360	0.0189	2.5549	0.6774	0.0177	0.6950	0.0000	2,175.2946	2,175.2946	0.1308	0.1167	2,213.3514
Unmitigated	1.2479	1.6093	10.5946	0.0228	2.5360	0.0189	2.5549	0.6774	0.0177	0.6950	0.0000	2,175.2946	2,175.2946	0.1308	0.1167	2,213.3514

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	2,196.00	2,442.00	1884.00	4,891,188	4,891,188
Regional Shopping Center	1,415.63	1,729.50	791.25	1,816,134	1,816,134
Total	3,611.63	4,171.50	2,675.25	6,707,321	6,707,321

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
Condo/Townhouse	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.542916	0.056689	0.174450	0.134041	0.024680	0.006960	0.011589	0.018600	0.000608	0.000298	0.023389	0.001091	0.004689
Regional Shopping Center	0.542916	0.056689	0.174450	0.134041	0.024680	0.006960	0.011589	0.018600	0.000608	0.000298	0.023389	0.001091	0.004689

5.0 Energy Detail

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	160.7709	160.7709	0.0279	3.3900e-003	162.4778
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	167.8123	167.8123	0.0292	3.5300e-003	169.5940
NaturalGas Mitigated	0.0346	0.2957	0.1275	1.8900e-003		0.0239	0.0239		0.0239	0.0239	0.0000	342.1949	342.1949	6.5600e-003	6.2700e-003	344.2284
NaturalGas Unmitigated	0.0346	0.2957	0.1275	1.8900e-003		0.0239	0.0239		0.0239	0.0239	0.0000	342.1949	342.1949	6.5600e-003	6.2700e-003	344.2284

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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					
Condo/Townhouse	6.32999e+006	0.0341	0.2917	0.1241	1.8600e-003		0.0236	0.0236		0.0236	0.0236	0.0000	337.7924	337.7924	6.4700e-003	6.1900e-003	339.7998
Regional Shopping Center	82500	4.4000e-004	4.0400e-003	3.4000e-003	2.0000e-005		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	4.4025	4.4025	8.0000e-005	8.0000e-005	4.4287
Total		0.0346	0.2957	0.1275	1.8800e-003		0.0239	0.0239		0.0239	0.0239	0.0000	342.1949	342.1949	6.5500e-003	6.2700e-003	344.2284

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Condo/Townhouse	6.32999e+006	0.0341	0.2917	0.1241	1.8600e-003		0.0236	0.0236		0.0236	0.0236	0.0000	337.7924	337.7924	6.4700e-003	6.1900e-003	339.7998
Regional Shopping Center	82500	4.4000e-004	4.0400e-003	3.4000e-003	2.0000e-005		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	4.4025	4.4025	8.0000e-005	8.0000e-005	4.4287
Total		0.0346	0.2957	0.1275	1.8800e-003		0.0239	0.0239		0.0239	0.0239	0.0000	342.1949	342.1949	6.5500e-003	6.2700e-003	344.2284

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	1.49213e+006	128.5819	0.0223	2.7100e-003	129.9470
Regional Shopping Center	455250	39.2305	6.8100e-003	8.3000e-004	39.6470
Total		167.8123	0.0291	3.5400e-003	169.5940

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	1.44408e+006	124.4410	0.0216	2.6200e-003	125.7622
Regional Shopping Center	421590	36.3299	6.3100e-003	7.6000e-004	36.7156
Total		160.7709	0.0279	3.3800e-003	162.4778

6.0 Area Detail

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.1 Mitigation Measures Area

- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- No Hearths Installed
- Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.3890	0.0256	2.2258	1.2000e-004		0.0124	0.0124		0.0124	0.0124	0.0000	3.6393	3.6393	3.4900e-003	0.0000	3.7265
Unmitigated	1.4875	0.0256	2.2258	1.2000e-004		0.0124	0.0124		0.0124	0.0124	0.0000	3.6393	3.6393	3.4900e-003	0.0000	3.7265

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.1026					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.3181					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0669	0.0256	2.2258	1.2000e-004		0.0124	0.0124		0.0124	0.0124	0.0000	3.6393	3.6393	3.4900e-003	0.0000	3.7265
Total	1.4875	0.0256	2.2258	1.2000e-004		0.0124	0.0124		0.0124	0.0124	0.0000	3.6393	3.6393	3.4900e-003	0.0000	3.7265

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.1026					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.2196					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0669	0.0256	2.2258	1.2000e-004		0.0124	0.0124		0.0124	0.0124	0.0000	3.6393	3.6393	3.4900e-003	0.0000	3.7265
Total	1.3890	0.0256	2.2258	1.2000e-004		0.0124	0.0124		0.0124	0.0124	0.0000	3.6393	3.6393	3.4900e-003	0.0000	3.7265

7.0 Water Detail

7.1 Mitigation Measures Water

- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower
- Use Water Efficient Irrigation System

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	38.3134	0.5876	0.0144	57.3033
Unmitigated	45.5587	0.7341	0.0180	69.2713

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	19.5462 / 12.3226	39.9307	0.6428	0.0158	60.6933
Regional Shopping Center	2.77772 / 1.70247	5.6280	0.0913	2.2400e-003	8.5780
Total		45.5587	0.7341	0.0180	69.2713

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	15.637 / 11.5709	33.5844	0.5145	0.0126	50.2119
Regional Shopping Center	2.22218 / 1.59862	4.7289	0.0731	1.7900e-003	7.0914
Total		38.3134	0.5876	0.0144	57.3033

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	36.0065	2.1279	0.0000	89.2047

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse	138	28.0128	1.6555	0.0000	69.4004
Regional Shopping Center	39.38	7.9938	0.4724	0.0000	19.8043
Total		36.0065	2.1279	0.0000	89.2047

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse		0.0000	0.0000	0.0000	0.0000
Regional Shopping Center		0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

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

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2615 Model 4 Rancho Monterey SP Amendment

Riverside-Salton Sea County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	300.00	Dwelling Unit	18.50	300,000.00	561
Regional Shopping Center	37.50	1000sqft	14.00	37,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	15			Operational Year	2026
Utility Company	Imperial Irrigation District				
CO2 Intensity (lb/MWhr)	189.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Model 4: 300 DUs + 37,500 SF of Commercial

Land Use - Average Household Size: 1.87 PPH per CADF. Lot areas are based on the respective planning areas in the SPA. Building areas are based on combined unit count or max retail space as applicable to the model

Construction Phase - Assumes no demolition due to undeveloped condition.

Grading - Assumes balanced earthwork.

Architectural Coating - Factors SCAMQD Rule 1113 compliance.

Woodstoves - Assumes no fire places or wood stoves per SCAQMD Rule 445.

Area Coating - Factors SCAMQD Rule 1113 compliance.

Construction Off-road Equipment Mitigation - SCAQMD Rule 403/403.1 and RMMC are applied as a requirement.

Area Mitigation - Factors SCAMQD Rule 1113 compliance.

Energy Mitigation -

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Parking	250	100
tblAreaCoating	Area_EF_Residential_Exterior	250	50
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	20
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	50
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblFireplaces	FireplaceDayYear	82.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	457.60	0.00
tblFireplaces	NumberGas	240.00	0.00
tblFireplaces	NumberNoFireplace	30.00	0.00
tblFireplaces	NumberWood	30.00	0.00
tblGrading	AcresOfGrading	135.00	32.50
tblGrading	AcresOfGrading	30.00	32.50
tblLandUse	LotAcreage	18.75	18.50
tblLandUse	LotAcreage	0.86	14.00
tblLandUse	Population	858.00	561.00
tblWoodstoves	NumberCatalytic	15.00	0.00

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblWoodstoves	NumberNoncatalytic	15.00	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	3.3845	34.5517	28.6229	0.0636	19.9402	1.4253	21.2069	10.1567	1.3113	11.3221	0.0000	6,163.0505	6,163.0505	1.9482	0.1272	6,212.8904
2024	2.1776	14.8855	22.7595	0.0486	2.0983	0.6306	2.7289	0.5609	0.5931	1.1540	0.0000	4,799.2455	4,799.2455	0.6518	0.1228	4,852.1313
2025	58.8961	13.8659	22.2636	0.0479	2.0983	0.5444	2.6427	0.5609	0.5121	1.0730	0.0000	4,748.8811	4,748.8811	0.7162	0.1185	4,800.3213
Maximum	58.8961	34.5517	28.6229	0.0636	19.9402	1.4253	21.2069	10.1567	1.3113	11.3221	0.0000	6,163.0505	6,163.0505	1.9482	0.1272	6,212.8904

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	3.3845	34.5517	28.6229	0.0636	5.5270	1.4253	6.7937	2.7954	1.3113	3.9608	0.0000	6,163.0505	6,163.0505	1.9482	0.1272	6,212.8904
2024	2.1776	14.8855	22.7595	0.0486	1.7396	0.6306	2.3702	0.4729	0.5931	1.0660	0.0000	4,799.2455	4,799.2455	0.6518	0.1228	4,852.1313
2025	58.8961	13.8659	22.2636	0.0479	1.7396	0.5444	2.2840	0.4729	0.5121	0.9849	0.0000	4,748.8811	4,748.8811	0.7162	0.1185	4,800.3213
Maximum	58.8961	34.5517	28.6229	0.0636	5.5270	1.4253	6.7937	2.7954	1.3113	3.9608	0.0000	6,163.0505	6,163.0505	1.9482	0.1272	6,212.8904

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	8.5272	0.2849	24.7308	1.3100e-003		0.1372	0.1372		0.1372	0.1372	0.0000	44.5739	44.5739	0.0427	0.0000	45.6414
Energy	0.1895	1.6204	0.6987	0.0103		0.1309	0.1309		0.1309	0.1309		2,066.8787	2,066.8787	0.0396	0.0379	2,079.1611
Mobile	9.6446	9.6693	72.0128	0.1536	16.3766	0.1202	16.4968	4.3683	0.1126	4.4809		16,132.5614	16,132.5614	0.8863	0.8007	16,393.3263
Total	18.3612	11.5745	97.4422	0.1652	16.3766	0.3883	16.7649	4.3683	0.3807	4.7490	0.0000	18,244.0140	18,244.0140	0.9686	0.8386	18,518.1287

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	7.9872	0.2849	24.7308	1.3100e-003		0.1372	0.1372		0.1372	0.1372	0.0000	44.5739	44.5739	0.0427	0.0000	45.6414
Energy	0.1895	1.6204	0.6987	0.0103		0.1309	0.1309		0.1309	0.1309		2,066.8787	2,066.8787	0.0396	0.0379	2,079.1611
Mobile	9.6446	9.6693	72.0128	0.1536	16.3766	0.1202	16.4968	4.3683	0.1126	4.4809		16,132.5614	16,132.5614	0.8863	0.8007	16,393.3263
Total	17.8212	11.5745	97.4422	0.1652	16.3766	0.3883	16.7649	4.3683	0.3807	4.7490	0.0000	18,244.0140	18,244.0140	0.9686	0.8386	18,518.1287

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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
Percent Reduction	2.94	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	Site Preparation	Site Preparation	7/13/2023	8/9/2023	5	20	
2	Grading	Grading	8/10/2023	10/11/2023	5	45	
3	Building Construction	Building Construction	10/12/2023	9/10/2025	5	500	
4	Paving	Paving	9/11/2025	10/29/2025	5	35	
5	Architectural Coating	Architectural Coating	10/30/2025	12/17/2025	5	35	

Acres of Grading (Site Preparation Phase): 32.5

Acres of Grading (Grading Phase): 32.5

Acres of Paving: 0

Residential Indoor: 607,500; Residential Outdoor: 202,500; Non-Residential Indoor: 56,250; Non-Residential Outdoor: 18,750; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	231	0.29
Grading	Excavators	2	8.00	158	0.38
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	228.00	38.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	46.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 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					19.7896	0.0000	19.7896	10.1168	0.0000	10.1168			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647		3,687.308 1	3,687.308 1	1.1926		3,717.121 9
Total	2.6595	27.5242	18.2443	0.0381	19.7896	1.2660	21.0556	10.1168	1.1647	11.2815		3,687.308 1	3,687.308 1	1.1926		3,717.121 9

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0565	0.0325	0.5146	1.3300e-003	0.1506	7.3000e-004	0.1513	0.0400	6.7000e-004	0.0406		136.4155	136.4155	3.5900e-003	3.4300e-003	137.5262
Total	0.0565	0.0325	0.5146	1.3300e-003	0.1506	7.3000e-004	0.1513	0.0400	6.7000e-004	0.0406		136.4155	136.4155	3.5900e-003	3.4300e-003	137.5262

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 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					5.4026	0.0000	5.4026	2.7619	0.0000	2.7619			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647	0.0000	3,687.308 1	3,687.308 1	1.1926		3,717.121 9
Total	2.6595	27.5242	18.2443	0.0381	5.4026	1.2660	6.6686	2.7619	1.1647	3.9266	0.0000	3,687.308 1	3,687.308 1	1.1926		3,717.121 9

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0565	0.0325	0.5146	1.3300e-003	0.1244	7.3000e-004	0.1252	0.0335	6.7000e-004	0.0342		136.4155	136.4155	3.5900e-003	3.4300e-003	137.5262
Total	0.0565	0.0325	0.5146	1.3300e-003	0.1244	7.3000e-004	0.1252	0.0335	6.7000e-004	0.0342		136.4155	136.4155	3.5900e-003	3.4300e-003	137.5262

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 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					6.7880	0.0000	6.7880	3.3929	0.0000	3.3929			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105		6,011.4777	6,011.4777	1.9442		6,060.0836
Total	3.3217	34.5156	28.0512	0.0621	6.7880	1.4245	8.2125	3.3929	1.3105	4.7035		6,011.4777	6,011.4777	1.9442		6,060.0836

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0628	0.0361	0.5718	1.4800e-003	0.1673	8.1000e-004	0.1681	0.0444	7.4000e-004	0.0451		151.5728	151.5728	3.9800e-003	3.8100e-003	152.8069
Total	0.0628	0.0361	0.5718	1.4800e-003	0.1673	8.1000e-004	0.1681	0.0444	7.4000e-004	0.0451		151.5728	151.5728	3.9800e-003	3.8100e-003	152.8069

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 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					1.8531	0.0000	1.8531	0.9263	0.0000	0.9263			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836
Total	3.3217	34.5156	28.0512	0.0621	1.8531	1.4245	3.2776	0.9263	1.3105	2.2368	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0628	0.0361	0.5718	1.4800e-003	0.1383	8.1000e-004	0.1391	0.0372	7.4000e-004	0.0380		151.5728	151.5728	3.9800e-003	3.8100e-003	152.8069
Total	0.0628	0.0361	0.5718	1.4800e-003	0.1383	8.1000e-004	0.1391	0.0372	7.4000e-004	0.0380		151.5728	151.5728	3.9800e-003	3.8100e-003	152.8069

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0398	1.0743	0.4871	5.3400e-003	0.1907	8.5200e-003	0.1992	0.0549	8.1500e-003	0.0631		566.0440	566.0440	6.0100e-003	0.0838	591.1680
Worker	0.7160	0.4116	6.5182	0.0169	1.9076	9.2100e-003	1.9168	0.5060	8.4800e-003	0.5145		1,727.9294	1,727.9294	0.0454	0.0434	1,741.9982
Total	0.7558	1.4859	7.0053	0.0222	2.0983	0.0177	2.1160	0.5609	0.0166	0.5775		2,293.9734	2,293.9734	0.0514	0.1272	2,333.1662

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0398	1.0743	0.4871	5.3400e-003	0.1636	8.5200e-003	0.1721	0.0483	8.1500e-003	0.0564		566.0440	566.0440	6.0100e-003	0.0838	591.1680
Worker	0.7160	0.4116	6.5182	0.0169	1.5760	9.2100e-003	1.5852	0.4246	8.4800e-003	0.4331		1,727.9294	1,727.9294	0.0454	0.0434	1,741.9982
Total	0.7558	1.4859	7.0053	0.0222	1.7396	0.0177	1.7573	0.4729	0.0166	0.4895		2,293.9734	2,293.9734	0.0514	0.1272	2,333.1662

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0392	1.0741	0.4819	5.2500e-003	0.1907	8.4600e-003	0.1992	0.0549	8.1000e-003	0.0630		557.3147	557.3147	6.2000e-003	0.0824	582.0226
Worker	0.6668	0.3677	6.1108	0.0164	1.9076	8.8000e-003	1.9164	0.5060	8.1000e-003	0.5141		1,686.2320	1,686.2320	0.0412	0.0404	1,699.3010
Total	0.7060	1.4418	6.5927	0.0216	2.0983	0.0173	2.1156	0.5609	0.0162	0.5771		2,243.5466	2,243.5466	0.0474	0.1228	2,281.3236

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0392	1.0741	0.4819	5.2500e-003	0.1636	8.4600e-003	0.1720	0.0483	8.1000e-003	0.0564		557.3147	557.3147	6.2000e-003	0.0824	582.0226
Worker	0.6668	0.3677	6.1108	0.0164	1.5760	8.8000e-003	1.5848	0.4246	8.1000e-003	0.4327		1,686.2320	1,686.2320	0.0412	0.0404	1,699.3010
Total	0.7060	1.4418	6.5927	0.0216	1.7396	0.0173	1.7569	0.4729	0.0162	0.4891		2,243.5466	2,243.5466	0.0474	0.1228	2,281.3236

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0388	1.0657	0.4769	5.1600e-003	0.1907	8.4700e-003	0.1992	0.0549	8.1000e-003	0.0630		547.4833	547.4833	6.4200e-003	0.0808	571.7167
Worker	0.6227	0.3306	5.7021	0.0158	1.9076	8.3800e-003	1.9160	0.5060	7.7100e-003	0.5137		1,644.923 5	1,644.923 5	0.0373	0.0378	1,657.106 5
Total	0.6615	1.3962	6.1789	0.0210	2.0983	0.0169	2.1151	0.5609	0.0158	0.5767		2,192.406 7	2,192.406 7	0.0437	0.1185	2,228.823 2

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.474 4	2,556.474 4	0.6010		2,571.498 1

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0388	1.0657	0.4769	5.1600e-003	0.1636	8.4700e-003	0.1720	0.0483	8.1000e-003	0.0564		547.4833	547.4833	6.4200e-003	0.0808	571.7167
Worker	0.6227	0.3306	5.7021	0.0158	1.5760	8.3800e-003	1.5844	0.4246	7.7100e-003	0.4323		1,644.923 5	1,644.923 5	0.0373	0.0378	1,657.106 5
Total	0.6615	1.3962	6.1789	0.0210	1.7396	0.0169	1.7564	0.4729	0.0158	0.4887		2,192.406 7	2,192.406 7	0.0437	0.1185	2,228.823 2

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.745 2	2,206.745 2	0.7137		2,224.587 8
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.745 2	2,206.745 2	0.7137		2,224.587 8

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0410	0.0218	0.3751	1.0400e-003	0.1255	5.5000e-004	0.1261	0.0333	5.1000e-004	0.0338		108.2187	108.2187	2.4500e-003	2.4800e-003	109.0202
Total	0.0410	0.0218	0.3751	1.0400e-003	0.1255	5.5000e-004	0.1261	0.0333	5.1000e-004	0.0338		108.2187	108.2187	2.4500e-003	2.4800e-003	109.0202

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850	0.0000	2,206.745 2	2,206.745 2	0.7137		2,224.587 8
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850	0.0000	2,206.745 2	2,206.745 2	0.7137		2,224.587 8

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0410	0.0218	0.3751	1.0400e-003	0.1037	5.5000e-004	0.1042	0.0279	5.1000e-004	0.0284		108.2187	108.2187	2.4500e-003	2.4800e-003	109.0202
Total	0.0410	0.0218	0.3751	1.0400e-003	0.1037	5.5000e-004	0.1042	0.0279	5.1000e-004	0.0284		108.2187	108.2187	2.4500e-003	2.4800e-003	109.0202

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	58.5996					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	58.7705	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1256	0.0667	1.1504	3.1900e-003	0.3849	1.6900e-003	0.3866	0.1021	1.5600e-003	0.1036		331.8705	331.8705	7.5200e-003	7.6200e-003	334.3285
Total	0.1256	0.0667	1.1504	3.1900e-003	0.3849	1.6900e-003	0.3866	0.1021	1.5600e-003	0.1036		331.8705	331.8705	7.5200e-003	7.6200e-003	334.3285

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	58.5996					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	58.7705	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1256	0.0667	1.1504	3.1900e-003	0.3180	1.6900e-003	0.3197	0.0857	1.5600e-003	0.0872		331.8705	331.8705	7.5200e-003	7.6200e-003	334.3285
Total	0.1256	0.0667	1.1504	3.1900e-003	0.3180	1.6900e-003	0.3197	0.0857	1.5600e-003	0.0872		331.8705	331.8705	7.5200e-003	7.6200e-003	334.3285

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

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	9.6446	9.6693	72.0128	0.1536	16.3766	0.1202	16.4968	4.3683	0.1126	4.4809		16,132.56 14	16,132.56 14	0.8863	0.8007	16,393.32 63
Unmitigated	9.6446	9.6693	72.0128	0.1536	16.3766	0.1202	16.4968	4.3683	0.1126	4.4809		16,132.56 14	16,132.56 14	0.8863	0.8007	16,393.32 63

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	2,196.00	2,442.00	1884.00	4,891,188	4,891,188
Regional Shopping Center	1,415.63	1,729.50	791.25	1,816,134	1,816,134
Total	3,611.63	4,171.50	2,675.25	6,707,321	6,707,321

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
Condo/Townhouse	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.542916	0.056689	0.174450	0.134041	0.024680	0.006960	0.011589	0.018600	0.000608	0.000298	0.023389	0.001091	0.004689
Regional Shopping Center	0.542916	0.056689	0.174450	0.134041	0.024680	0.006960	0.011589	0.018600	0.000608	0.000298	0.023389	0.001091	0.004689

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.1895	1.6204	0.6987	0.0103		0.1309	0.1309		0.1309	0.1309		2,066.8787	2,066.8787	0.0396	0.0379	2,079.1611
NaturalGas Unmitigated	0.1895	1.6204	0.6987	0.0103		0.1309	0.1309		0.1309	0.1309		2,066.8787	2,066.8787	0.0396	0.0379	2,079.1611

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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					
Condo/Townhouse	17342.4	0.1870	1.5982	0.6801	0.0102		0.1292	0.1292		0.1292	0.1292		2,040.2872	2,040.2872	0.0391	0.0374	2,052.4116
Regional Shopping Center	226.027	2.4400e-003	0.0222	0.0186	1.3000e-004		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003		26.5915	26.5915	5.1000e-004	4.9000e-004	26.7495
Total		0.1895	1.6204	0.6987	0.0103		0.1309	0.1309		0.1309	0.1309		2,066.8787	2,066.8787	0.0396	0.0379	2,079.1611

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	17.3424	0.1870	1.5982	0.6801	0.0102		0.1292	0.1292		0.1292	0.1292		2,040.2872	2,040.2872	0.0391	0.0374	2,052.4116
Regional Shopping Center	0.226027	2.4400e-003	0.0222	0.0186	1.3000e-004		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003		26.5915	26.5915	5.1000e-004	4.9000e-004	26.7495
Total		0.1895	1.6204	0.6987	0.0103		0.1309	0.1309		0.1309	0.1309		2,066.8787	2,066.8787	0.0396	0.0379	2,079.1611

6.0 Area Detail

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.1 Mitigation Measures Area

- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- No Hearths Installed
- Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	7.9872	0.2849	24.7308	1.3100e-003		0.1372	0.1372		0.1372	0.1372	0.0000	44.5739	44.5739	0.0427	0.0000	45.6414
Unmitigated	8.5272	0.2849	24.7308	1.3100e-003		0.1372	0.1372		0.1372	0.1372	0.0000	44.5739	44.5739	0.0427	0.0000	45.6414

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.5619					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	7.2225					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.7428	0.2849	24.7308	1.3100e-003		0.1372	0.1372		0.1372	0.1372		44.5739	44.5739	0.0427		45.6414
Total	8.5272	0.2849	24.7308	1.3100e-003		0.1372	0.1372		0.1372	0.1372	0.0000	44.5739	44.5739	0.0427	0.0000	45.6414

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.5619					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.6825					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.7428	0.2849	24.7308	1.3100e-003		0.1372	0.1372		0.1372	0.1372		44.5739	44.5739	0.0427		45.6414
Total	7.9872	0.2849	24.7308	1.3100e-003		0.1372	0.1372		0.1372	0.1372	0.0000	44.5739	44.5739	0.0427	0.0000	45.6414

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

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

10.0 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

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2615 Model 4 Rancho Monterey SP Amendment

Riverside-Salton Sea County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	300.00	Dwelling Unit	18.50	300,000.00	561
Regional Shopping Center	37.50	1000sqft	14.00	37,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	15			Operational Year	2026
Utility Company	Imperial Irrigation District				
CO2 Intensity (lb/MWhr)	189.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Model 4: 300 DUs + 37,500 SF of Commercial

Land Use - Average Household Size: 1.87 PPH per CADF. Lot areas are based on the respective planning areas in the SPA. Building areas are based on combined unit count or max retail space as applicable to the model

Construction Phase - Assumes no demolition due to undeveloped condition.

Grading - Assumes balanced earthwork.

Architectural Coating - Factors SCAMQD Rule 1113 compliance.

Woodstoves - Assumes no fire places or wood stoves per SCAQMD Rule 445.

Area Coating - Factors SCAMQD Rule 1113 compliance.

Construction Off-road Equipment Mitigation - SCAQMD Rule 403/403.1 and RMMC are applied as a requirement.

Area Mitigation - Factors SCAMQD Rule 1113 compliance.

Energy Mitigation -

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Parking	250	100
tblAreaCoating	Area_EF_Residential_Exterior	250	50
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	20
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	50
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblFireplaces	FireplaceDayYear	82.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	457.60	0.00
tblFireplaces	NumberGas	240.00	0.00
tblFireplaces	NumberNoFireplace	30.00	0.00
tblFireplaces	NumberWood	30.00	0.00
tblGrading	AcresOfGrading	135.00	32.50
tblGrading	AcresOfGrading	30.00	32.50
tblLandUse	LotAcreage	18.75	18.50
tblLandUse	LotAcreage	0.86	14.00
tblLandUse	Population	858.00	561.00
tblWoodstoves	NumberCatalytic	15.00	0.00

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblWoodstoves	NumberNoncatalytic	15.00	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	3.3792	34.5531	28.5229	0.0634	19.9402	1.4253	21.2069	10.1567	1.3113	11.3221	0.0000	6,148.883 4	6,148.883 4	1.9483	0.1286	6,198.752 5
2024	2.1193	14.9656	21.7116	0.0470	2.0983	0.6306	2.7289	0.5609	0.5931	1.1541	0.0000	4,643.652 3	4,643.652 3	0.6525	0.1241	4,696.939 2
2025	58.8860	13.9441	21.2948	0.0465	2.0983	0.5444	2.6427	0.5609	0.5121	1.0730	0.0000	4,597.506 3	4,597.506 3	0.7162	0.1197	4,649.325 4
Maximum	58.8860	34.5531	28.5229	0.0634	19.9402	1.4253	21.2069	10.1567	1.3113	11.3221	0.0000	6,148.883 4	6,148.883 4	1.9483	0.1286	6,198.752 5

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	3.3792	34.5531	28.5229	0.0634	5.5270	1.4253	6.7937	2.7954	1.3113	3.9608	0.0000	6,148.883 4	6,148.883 4	1.9483	0.1286	6,198.752 5
2024	2.1193	14.9656	21.7116	0.0470	1.7396	0.6306	2.3702	0.4729	0.5931	1.0660	0.0000	4,643.652 3	4,643.652 3	0.6525	0.1241	4,696.939 2
2025	58.8860	13.9441	21.2948	0.0465	1.7396	0.5444	2.2840	0.4729	0.5121	0.9850	0.0000	4,597.506 3	4,597.506 3	0.7162	0.1197	4,649.325 4
Maximum	58.8860	34.5531	28.5229	0.0634	5.5270	1.4253	6.7937	2.7954	1.3113	3.9608	0.0000	6,148.883 4	6,148.883 4	1.9483	0.1286	6,198.752 5

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	8.5272	0.2849	24.7308	1.3100e-003		0.1372	0.1372		0.1372	0.1372	0.0000	44.5739	44.5739	0.0427	0.0000	45.6414
Energy	0.1895	1.6204	0.6987	0.0103		0.1309	0.1309		0.1309	0.1309		2,066.8787	2,066.8787	0.0396	0.0379	2,079.1611
Mobile	7.8925	10.2685	65.9315	0.1429	16.3766	0.1204	16.4970	4.3683	0.1127	4.4810		15,009.4428	15,009.4428	0.9273	0.8183	15,276.4822
Total	16.6091	12.1737	91.3610	0.1545	16.3766	0.3885	16.7651	4.3683	0.3808	4.7492	0.0000	17,120.8954	17,120.8954	1.0097	0.8562	17,401.2846

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	7.9872	0.2849	24.7308	1.3100e-003		0.1372	0.1372		0.1372	0.1372	0.0000	44.5739	44.5739	0.0427	0.0000	45.6414
Energy	0.1895	1.6204	0.6987	0.0103		0.1309	0.1309		0.1309	0.1309		2,066.8787	2,066.8787	0.0396	0.0379	2,079.1611
Mobile	7.8925	10.2685	65.9315	0.1429	16.3766	0.1204	16.4970	4.3683	0.1127	4.4810		15,009.4428	15,009.4428	0.9273	0.8183	15,276.4822
Total	16.0691	12.1737	91.3610	0.1545	16.3766	0.3885	16.7651	4.3683	0.3808	4.7492	0.0000	17,120.8954	17,120.8954	1.0097	0.8562	17,401.2846

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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
Percent Reduction	3.25	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	Site Preparation	Site Preparation	7/13/2023	8/9/2023	5	20	
2	Grading	Grading	8/10/2023	10/11/2023	5	45	
3	Building Construction	Building Construction	10/12/2023	9/10/2025	5	500	
4	Paving	Paving	9/11/2025	10/29/2025	5	35	
5	Architectural Coating	Architectural Coating	10/30/2025	12/17/2025	5	35	

Acres of Grading (Site Preparation Phase): 32.5

Acres of Grading (Grading Phase): 32.5

Acres of Paving: 0

Residential Indoor: 607,500; Residential Outdoor: 202,500; Non-Residential Indoor: 56,250; Non-Residential Outdoor: 18,750; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	231	0.29
Grading	Excavators	2	8.00	158	0.38
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	228.00	38.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	46.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 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					19.7896	0.0000	19.7896	10.1168	0.0000	10.1168			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647		3,687.308 1	3,687.308 1	1.1926		3,717.121 9
Total	2.6595	27.5242	18.2443	0.0381	19.7896	1.2660	21.0556	10.1168	1.1647	11.2815		3,687.308 1	3,687.308 1	1.1926		3,717.121 9

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0517	0.0337	0.4245	1.2100e-003	0.1506	7.3000e-004	0.1513	0.0400	6.7000e-004	0.0406		123.6651	123.6651	3.6600e-003	3.5100e-003	124.8020
Total	0.0517	0.0337	0.4245	1.2100e-003	0.1506	7.3000e-004	0.1513	0.0400	6.7000e-004	0.0406		123.6651	123.6651	3.6600e-003	3.5100e-003	124.8020

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 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					5.4026	0.0000	5.4026	2.7619	0.0000	2.7619			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647	0.0000	3,687.308 1	3,687.308 1	1.1926		3,717.121 9
Total	2.6595	27.5242	18.2443	0.0381	5.4026	1.2660	6.6686	2.7619	1.1647	3.9266	0.0000	3,687.308 1	3,687.308 1	1.1926		3,717.121 9

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0517	0.0337	0.4245	1.2100e-003	0.1244	7.3000e-004	0.1252	0.0335	6.7000e-004	0.0342		123.6651	123.6651	3.6600e-003	3.5100e-003	124.8020
Total	0.0517	0.0337	0.4245	1.2100e-003	0.1244	7.3000e-004	0.1252	0.0335	6.7000e-004	0.0342		123.6651	123.6651	3.6600e-003	3.5100e-003	124.8020

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 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					6.7880	0.0000	6.7880	3.3929	0.0000	3.3929			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105		6,011.4777	6,011.4777	1.9442		6,060.0836
Total	3.3217	34.5156	28.0512	0.0621	6.7880	1.4245	8.2125	3.3929	1.3105	4.7035		6,011.4777	6,011.4777	1.9442		6,060.0836

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0575	0.0375	0.4717	1.3400e-003	0.1673	8.1000e-004	0.1681	0.0444	7.4000e-004	0.0451		137.4057	137.4057	4.0600e-003	3.9000e-003	138.6689
Total	0.0575	0.0375	0.4717	1.3400e-003	0.1673	8.1000e-004	0.1681	0.0444	7.4000e-004	0.0451		137.4057	137.4057	4.0600e-003	3.9000e-003	138.6689

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 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					1.8531	0.0000	1.8531	0.9263	0.0000	0.9263			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836
Total	3.3217	34.5156	28.0512	0.0621	1.8531	1.4245	3.2776	0.9263	1.3105	2.2368	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0575	0.0375	0.4717	1.3400e-003	0.1383	8.1000e-004	0.1391	0.0372	7.4000e-004	0.0380		137.4057	137.4057	4.0600e-003	3.9000e-003	138.6689
Total	0.0575	0.0375	0.4717	1.3400e-003	0.1383	8.1000e-004	0.1391	0.0372	7.4000e-004	0.0380		137.4057	137.4057	4.0600e-003	3.9000e-003	138.6689

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0366	1.1406	0.5046	5.3500e-003	0.1907	8.5600e-003	0.1993	0.0549	8.1900e-003	0.0631		567.7917	567.7917	5.8700e-003	0.0841	593.0114
Worker	0.6552	0.4271	5.3771	0.0153	1.9076	9.2100e-003	1.9168	0.5060	8.4800e-003	0.5145		1,566.4246	1,566.4246	0.0463	0.0444	1,580.8253
Total	0.6918	1.5678	5.8817	0.0207	2.0983	0.0178	2.1161	0.5609	0.0167	0.5776		2,134.2163	2,134.2163	0.0522	0.1286	2,173.8367

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0366	1.1406	0.5046	5.3500e-003	0.1636	8.5600e-003	0.1721	0.0483	8.1900e-003	0.0565		567.7917	567.7917	5.8700e-003	0.0841	593.0114
Worker	0.6552	0.4271	5.3771	0.0153	1.5760	9.2100e-003	1.5852	0.4246	8.4800e-003	0.4331		1,566.4246	1,566.4246	0.0463	0.0444	1,580.8253
Total	0.6918	1.5678	5.8817	0.0207	1.7396	0.0178	1.7574	0.4729	0.0167	0.4895		2,134.2163	2,134.2163	0.0522	0.1286	2,173.8367

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0360	1.1404	0.4993	5.2700e-003	0.1907	8.5000e-003	0.1992	0.0549	8.1300e-003	0.0631		559.0474	559.0474	6.0600e-003	0.0827	583.8489
Worker	0.6117	0.3815	5.0455	0.0148	1.9076	8.8000e-003	1.9164	0.5060	8.1000e-003	0.5141		1,528.9061	1,528.9061	0.0421	0.0414	1,542.2826
Total	0.6477	1.5219	5.5448	0.0201	2.0983	0.0173	2.1156	0.5609	0.0162	0.5772		2,087.9534	2,087.9534	0.0482	0.1241	2,126.1315

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0360	1.1404	0.4993	5.2700e-003	0.1636	8.5000e-003	0.1721	0.0483	8.1300e-003	0.0564		559.0474	559.0474	6.0600e-003	0.0827	583.8489
Worker	0.6117	0.3815	5.0455	0.0148	1.5760	8.8000e-003	1.5848	0.4246	8.1000e-003	0.4327		1,528.9061	1,528.9061	0.0421	0.0414	1,542.2826
Total	0.6477	1.5219	5.5448	0.0201	1.7396	0.0173	1.7569	0.4729	0.0162	0.4891		2,087.9534	2,087.9534	0.0482	0.1241	2,126.1315

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0356	1.1316	0.4942	5.1800e-003	0.1907	8.5000e-003	0.1992	0.0549	8.1400e-003	0.0631		549.1952	549.1952	6.2800e-003	0.0811	573.5203
Worker	0.5725	0.3428	4.7159	0.0143	1.9076	8.3800e-003	1.9160	0.5060	7.7100e-003	0.5137		1,491.836 8	1,491.836 8	0.0382	0.0386	1,504.307 0
Total	0.6081	1.4744	5.2101	0.0195	2.0983	0.0169	2.1152	0.5609	0.0159	0.5768		2,041.032 0	2,041.032 0	0.0445	0.1197	2,077.827 3

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.474 4	2,556.474 4	0.6010		2,571.498 1

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0356	1.1316	0.4942	5.1800e-003	0.1636	8.5000e-003	0.1721	0.0483	8.1400e-003	0.0564		549.1952	549.1952	6.2800e-003	0.0811	573.5203
Worker	0.5725	0.3428	4.7159	0.0143	1.5760	8.3800e-003	1.5844	0.4246	7.7100e-003	0.4323		1,491.836 8	1,491.836 8	0.0382	0.0386	1,504.307 0
Total	0.6081	1.4744	5.2101	0.0195	1.7396	0.0169	1.7565	0.4729	0.0159	0.4887		2,041.032 0	2,041.032 0	0.0445	0.1197	2,077.827 3

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.745 2	2,206.745 2	0.7137		2,224.587 8
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.745 2	2,206.745 2	0.7137		2,224.587 8

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0377	0.0226	0.3103	9.4000e-004	0.1255	5.5000e-004	0.1261	0.0333	5.1000e-004	0.0338		98.1472	98.1472	2.5100e-003	2.5400e-003	98.9676
Total	0.0377	0.0226	0.3103	9.4000e-004	0.1255	5.5000e-004	0.1261	0.0333	5.1000e-004	0.0338		98.1472	98.1472	2.5100e-003	2.5400e-003	98.9676

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850	0.0000	2,206.745 2	2,206.745 2	0.7137		2,224.587 8
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850	0.0000	2,206.745 2	2,206.745 2	0.7137		2,224.587 8

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0377	0.0226	0.3103	9.4000e-004	0.1037	5.5000e-004	0.1042	0.0279	5.1000e-004	0.0284		98.1472	98.1472	2.5100e-003	2.5400e-003	98.9676
Total	0.0377	0.0226	0.3103	9.4000e-004	0.1037	5.5000e-004	0.1042	0.0279	5.1000e-004	0.0284		98.1472	98.1472	2.5100e-003	2.5400e-003	98.9676

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	58.5996					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	58.7705	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1155	0.0692	0.9515	2.8900e-003	0.3849	1.6900e-003	0.3866	0.1021	1.5600e-003	0.1036		300.9846	300.9846	7.7000e-003	7.8000e-003	303.5005
Total	0.1155	0.0692	0.9515	2.8900e-003	0.3849	1.6900e-003	0.3866	0.1021	1.5600e-003	0.1036		300.9846	300.9846	7.7000e-003	7.8000e-003	303.5005

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	58.5996					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	58.7705	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1155	0.0692	0.9515	2.8900e-003	0.3180	1.6900e-003	0.3197	0.0857	1.5600e-003	0.0872		300.9846	300.9846	7.7000e-003	7.8000e-003	303.5005
Total	0.1155	0.0692	0.9515	2.8900e-003	0.3180	1.6900e-003	0.3197	0.0857	1.5600e-003	0.0872		300.9846	300.9846	7.7000e-003	7.8000e-003	303.5005

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

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	7.8925	10.2685	65.9315	0.1429	16.3766	0.1204	16.4970	4.3683	0.1127	4.4810		15,009.44 28	15,009.44 28	0.9273	0.8183	15,276.48 22
Unmitigated	7.8925	10.2685	65.9315	0.1429	16.3766	0.1204	16.4970	4.3683	0.1127	4.4810		15,009.44 28	15,009.44 28	0.9273	0.8183	15,276.48 22

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	2,196.00	2,442.00	1884.00	4,891,188	4,891,188
Regional Shopping Center	1,415.63	1,729.50	791.25	1,816,134	1,816,134
Total	3,611.63	4,171.50	2,675.25	6,707,321	6,707,321

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
Condo/Townhouse	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.542916	0.056689	0.174450	0.134041	0.024680	0.006960	0.011589	0.018600	0.000608	0.000298	0.023389	0.001091	0.004689
Regional Shopping Center	0.542916	0.056689	0.174450	0.134041	0.024680	0.006960	0.011589	0.018600	0.000608	0.000298	0.023389	0.001091	0.004689

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.1895	1.6204	0.6987	0.0103		0.1309	0.1309		0.1309	0.1309		2,066.8787	2,066.8787	0.0396	0.0379	2,079.1611
NaturalGas Unmitigated	0.1895	1.6204	0.6987	0.0103		0.1309	0.1309		0.1309	0.1309		2,066.8787	2,066.8787	0.0396	0.0379	2,079.1611

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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					
Condo/Townhouse	17342.4	0.1870	1.5982	0.6801	0.0102		0.1292	0.1292		0.1292	0.1292		2,040.2872	2,040.2872	0.0391	0.0374	2,052.4116
Regional Shopping Center	226.027	2.4400e-003	0.0222	0.0186	1.3000e-004		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003		26.5915	26.5915	5.1000e-004	4.9000e-004	26.7495
Total		0.1895	1.6204	0.6987	0.0103		0.1309	0.1309		0.1309	0.1309		2,066.8787	2,066.8787	0.0396	0.0379	2,079.1611

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	17.3424	0.1870	1.5982	0.6801	0.0102		0.1292	0.1292		0.1292	0.1292		2,040.2872	2,040.2872	0.0391	0.0374	2,052.4116
Regional Shopping Center	0.226027	2.4400e-003	0.0222	0.0186	1.3000e-004		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003		26.5915	26.5915	5.1000e-004	4.9000e-004	26.7495
Total		0.1895	1.6204	0.6987	0.0103		0.1309	0.1309		0.1309	0.1309		2,066.8787	2,066.8787	0.0396	0.0379	2,079.1611

6.0 Area Detail

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.1 Mitigation Measures Area

- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- No Hearths Installed
- Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	7.9872	0.2849	24.7308	1.3100e-003		0.1372	0.1372		0.1372	0.1372	0.0000	44.5739	44.5739	0.0427	0.0000	45.6414
Unmitigated	8.5272	0.2849	24.7308	1.3100e-003		0.1372	0.1372		0.1372	0.1372	0.0000	44.5739	44.5739	0.0427	0.0000	45.6414

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.5619					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	7.2225					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.7428	0.2849	24.7308	1.3100e-003		0.1372	0.1372		0.1372	0.1372		44.5739	44.5739	0.0427		45.6414
Total	8.5272	0.2849	24.7308	1.3100e-003		0.1372	0.1372		0.1372	0.1372	0.0000	44.5739	44.5739	0.0427	0.0000	45.6414

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.5619					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.6825					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.7428	0.2849	24.7308	1.3100e-003		0.1372	0.1372		0.1372	0.1372		44.5739	44.5739	0.0427		45.6414
Total	7.9872	0.2849	24.7308	1.3100e-003		0.1372	0.1372		0.1372	0.1372	0.0000	44.5739	44.5739	0.0427	0.0000	45.6414

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

2615 Model 4 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

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

10.0 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

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2615 Model 5 Rancho Monterey SP Amendment

Riverside-Salton Sea County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	100.00	Dwelling Unit	18.50	100,000.00	187
Regional Shopping Center	112.50	1000sqft	14.00	112,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	15			Operational Year	2026
Utility Company	Imperial Irrigation District				
CO2 Intensity (lb/MWhr)	189.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Model 5: 100 DUs + 112,500 SF of Commercial

Land Use - Average Household Size: 1.87 PPH per CADF. Lot areas are based on the respective planning areas in the SPA. Building areas are based on combined unit count or max retail space as applicable to the model.

Construction Phase - Assumes no demolition due to undeveloped condition.

Grading - Assumes balanced earthwork.

Architectural Coating - Average Household Size: 1.87 PPH per CADF. Lot areas are based on the respective planning areas in the SPA. Building areas are based on combined unit count or max retail space as applicable to the model

Woodstoves - Assumes no fire places or wood stoves per SCAQMD Rule 445.

Area Coating - Factors SCAMQD Rule 1113 compliance.

Construction Off-road Equipment Mitigation - SCAQMD Rule 403/403.1 and RMMC are applied as a requirement.

Area Mitigation - Factors SCAMQD Rule 1113 compliance.

Energy Mitigation -

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Parking	250	100
tblAreaCoating	Area_EF_Residential_Exterior	250	50
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	20
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	50
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblFireplaces	FireplaceDayYear	82.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	457.60	0.00
tblFireplaces	NumberGas	80.00	0.00
tblFireplaces	NumberNoFireplace	10.00	0.00
tblFireplaces	NumberWood	10.00	0.00
tblGrading	AcresOfGrading	135.00	32.50
tblGrading	AcresOfGrading	30.00	32.50
tblLandUse	LotAcreage	6.25	18.50
tblLandUse	LotAcreage	2.58	14.00
tblLandUse	Population	286.00	187.00

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblWoodstoves	NumberCatalytic	5.00	0.00
tblWoodstoves	NumberNoncatalytic	5.00	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.1572	1.4934	1.3791	2.9200e-003	0.3852	0.0650	0.4502	0.1868	0.0602	0.2470	0.0000	257.0480	257.0480	0.0670	2.3200e-003	259.4159
2024	0.2328	1.8979	2.4955	5.0000e-003	0.1352	0.0817	0.2169	0.0363	0.0769	0.1132	0.0000	442.3918	442.3918	0.0748	9.8500e-003	447.1970
2025	0.7439	1.3919	2.0021	3.9200e-003	0.0987	0.0569	0.1557	0.0265	0.0535	0.0800	0.0000	347.0238	347.0238	0.0629	6.7000e-003	350.5927
Maximum	0.7439	1.8979	2.4955	5.0000e-003	0.3852	0.0817	0.4502	0.1868	0.0769	0.2470	0.0000	442.3918	442.3918	0.0748	9.8500e-003	447.1970

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	0.1572	1.4934	1.3791	2.9200e-003	0.1245	0.0650	0.1894	0.0563	0.0602	0.1165	0.0000	257.0478	257.0478	0.0670	2.3200e-003	259.4157
2024	0.2328	1.8979	2.4955	5.0000e-003	0.1124	0.0817	0.1941	0.0307	0.0769	0.1076	0.0000	442.3915	442.3915	0.0748	9.8500e-003	447.1967
2025	0.7439	1.3919	2.0021	3.9200e-003	0.0820	0.0569	0.1390	0.0224	0.0535	0.0759	0.0000	347.0235	347.0235	0.0629	6.7000e-003	350.5924
Maximum	0.7439	1.8979	2.4955	5.0000e-003	0.1245	0.0817	0.1941	0.0563	0.0769	0.1165	0.0000	442.3915	442.3915	0.0748	9.8500e-003	447.1967

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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
Percent Reduction	0.00	0.00	0.00	0.00	48.50	0.00	36.50	56.16	0.01	31.85	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	6-1-2023	8-31-2023	0.6008	0.6008
2	9-1-2023	11-30-2023	0.8656	0.8656
3	12-1-2023	2-29-2024	0.5412	0.5412
4	3-1-2024	5-31-2024	0.5344	0.5344
5	6-1-2024	8-31-2024	0.5341	0.5341
6	9-1-2024	11-30-2024	0.5289	0.5289
7	12-1-2024	2-28-2025	0.4998	0.4998
8	3-1-2025	5-31-2025	0.4975	0.4975
9	6-1-2025	8-31-2025	0.4972	0.4972
10	9-1-2025	9-30-2025	0.1223	0.1223
		Highest	0.8656	0.8656

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.9096	8.5500e-003	0.7428	4.0000e-005		4.1200e-003	4.1200e-003		4.1200e-003	4.1200e-003	0.0000	1.2149	1.2149	1.1700e-003	0.0000	1.2441
Energy	0.0127	0.1094	0.0516	6.9000e-004		8.7800e-003	8.7800e-003		8.7800e-003	8.7800e-003	0.0000	286.3571	286.3571	0.0303	5.6900e-003	288.8092
Mobile	1.5671	1.8603	12.1612	0.0244	2.6764	0.0206	2.6971	0.7149	0.0193	0.7342	0.0000	2,326.7899	2,326.7899	0.1561	0.1336	2,370.4993
Waste						0.0000	0.0000		0.0000	0.0000	33.3169	0.0000	33.3169	1.9690	0.0000	82.5412
Water						0.0000	0.0000		0.0000	0.0000	4.7108	25.4833	30.1941	0.4883	0.0120	45.9652
Total	2.4895	1.9782	12.9556	0.0252	2.6764	0.0335	2.7100	0.7149	0.0322	0.7471	38.0277	2,639.8452	2,677.8729	2.6448	0.1512	2,789.0590

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.8476	8.5500e-003	0.7428	4.0000e-005		4.1200e-003	4.1200e-003		4.1200e-003	4.1200e-003	0.0000	1.2149	1.2149	1.1700e-003	0.0000	1.2441
Energy	0.0127	0.1094	0.0516	6.9000e-004		8.7800e-003	8.7800e-003		8.7800e-003	8.7800e-003	0.0000	276.2750	276.2750	0.0286	5.4700e-003	278.6201
Mobile	1.5671	1.8603	12.1612	0.0244	2.6764	0.0206	2.6971	0.7149	0.0193	0.7342	0.0000	2,326.7899	2,326.7899	0.1561	0.1336	2,370.4993
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	3.7686	21.6130	25.3816	0.3908	9.5900e-003	38.0115
Total	2.4274	1.9782	12.9556	0.0252	2.6764	0.0335	2.7100	0.7149	0.0322	0.7471	3.7686	2,625.8928	2,629.6614	0.5766	0.1486	2,688.3749

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	2.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	90.09	0.53	1.80	78.20	1.71	3.61

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	7/13/2023	8/9/2023	5	20	
2	Grading	Grading	8/10/2023	10/11/2023	5	45	
3	Building Construction	Building Construction	10/12/2023	9/10/2025	5	500	

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4	Paving	Paving	9/11/2025	10/29/2025	5	35
5	Architectural Coating	Architectural Coating	10/30/2025	12/17/2025	5	35

Acres of Grading (Site Preparation Phase): 32.5

Acres of Grading (Grading Phase): 32.5

Acres of Paving: 0

Residential Indoor: 202,500; Residential Outdoor: 67,500; Non-Residential Indoor: 168,750; Non-Residential Outdoor: 56,250; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	231	0.29
Grading	Excavators	2	8.00	158	0.38
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	108.00	29.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	22.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

- Use Soil Stabilizer
- Replace Ground Cover
- Water Exposed Area
- Water Unpaved Roads
- Reduce Vehicle Speed on Unpaved Roads
- Clean Paved Roads

3.2 Site Preparation - 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					0.1979	0.0000	0.1979	0.1012	0.0000	0.1012	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0266	0.2752	0.1824	3.8000e-004		0.0127	0.0127		0.0117	0.0117	0.0000	33.4507	33.4507	0.0108	0.0000	33.7212
Total	0.0266	0.2752	0.1824	3.8000e-004	0.1979	0.0127	0.2106	0.1012	0.0117	0.1128	0.0000	33.4507	33.4507	0.0108	0.0000	33.7212

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 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	4.9000e-004	3.5000e-004	4.4600e-003	1.0000e-005	1.4800e-003	1.0000e-005	1.4900e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.1478	1.1478	3.0000e-005	3.0000e-005	1.1583
Total	4.9000e-004	3.5000e-004	4.4600e-003	1.0000e-005	1.4800e-003	1.0000e-005	1.4900e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.1478	1.1478	3.0000e-005	3.0000e-005	1.1583

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					0.0540	0.0000	0.0540	0.0276	0.0000	0.0276	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0266	0.2752	0.1824	3.8000e-004		0.0127	0.0127		0.0117	0.0117	0.0000	33.4507	33.4507	0.0108	0.0000	33.7211
Total	0.0266	0.2752	0.1824	3.8000e-004	0.0540	0.0127	0.0667	0.0276	0.0117	0.0393	0.0000	33.4507	33.4507	0.0108	0.0000	33.7211

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 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	4.9000e-004	3.5000e-004	4.4600e-003	1.0000e-005	1.2200e-003	1.0000e-005	1.2300e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.1478	1.1478	3.0000e-005	3.0000e-005	1.1583
Total	4.9000e-004	3.5000e-004	4.4600e-003	1.0000e-005	1.2200e-003	1.0000e-005	1.2300e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.1478	1.1478	3.0000e-005	3.0000e-005	1.1583

3.3 Grading - 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					0.1527	0.0000	0.1527	0.0763	0.0000	0.0763	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0747	0.7766	0.6312	1.4000e-003		0.0321	0.0321		0.0295	0.0295	0.0000	122.7042	122.7042	0.0397	0.0000	123.6964
Total	0.0747	0.7766	0.6312	1.4000e-003	0.1527	0.0321	0.1848	0.0763	0.0295	0.1058	0.0000	122.7042	122.7042	0.0397	0.0000	123.6964

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 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	1.2400e-003	8.6000e-004	0.0111	3.0000e-005	3.7000e-003	2.0000e-005	3.7200e-003	9.8000e-004	2.0000e-005	1.0000e-003	0.0000	2.8696	2.8696	8.0000e-005	8.0000e-005	2.8958
Total	1.2400e-003	8.6000e-004	0.0111	3.0000e-005	3.7000e-003	2.0000e-005	3.7200e-003	9.8000e-004	2.0000e-005	1.0000e-003	0.0000	2.8696	2.8696	8.0000e-005	8.0000e-005	2.8958

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					0.0417	0.0000	0.0417	0.0208	0.0000	0.0208	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0747	0.7766	0.6312	1.4000e-003		0.0321	0.0321		0.0295	0.0295	0.0000	122.7041	122.7041	0.0397	0.0000	123.6962
Total	0.0747	0.7766	0.6312	1.4000e-003	0.0417	0.0321	0.0738	0.0208	0.0295	0.0503	0.0000	122.7041	122.7041	0.0397	0.0000	123.6962

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 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	1.2400e-003	8.6000e-004	0.0111	3.0000e-005	3.0600e-003	2.0000e-005	3.0800e-003	8.3000e-004	2.0000e-005	8.4000e-004	0.0000	2.8696	2.8696	8.0000e-005	8.0000e-005	2.8958
Total	1.2400e-003	8.6000e-004	0.0111	3.0000e-005	3.0600e-003	2.0000e-005	3.0800e-003	8.3000e-004	2.0000e-005	8.4000e-004	0.0000	2.8696	2.8696	8.0000e-005	8.0000e-005	2.8958

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0448	0.4100	0.4630	7.7000e-004		0.0199	0.0199		0.0188	0.0188	0.0000	66.0644	66.0644	0.0157	0.0000	66.4572
Total	0.0448	0.4100	0.4630	7.7000e-004		0.0199	0.0199		0.0188	0.0188	0.0000	66.0644	66.0644	0.0157	0.0000	66.4572

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	8.3000e-004	0.0245	0.0108	1.2000e-004	4.0900e-003	1.9000e-004	4.2800e-003	1.1800e-003	1.8000e-004	1.3600e-003	0.0000	11.1833	11.1833	1.2000e-004	1.6600e-003	11.6799
Worker	8.4600e-003	5.9100e-003	0.0762	2.1000e-004	0.0253	1.2000e-004	0.0255	6.7300e-003	1.1000e-004	6.8400e-003	0.0000	19.6280	19.6280	5.7000e-004	5.5000e-004	19.8071
Total	9.2900e-003	0.0304	0.0870	3.3000e-004	0.0294	3.1000e-004	0.0297	7.9100e-003	2.9000e-004	8.2000e-003	0.0000	30.8113	30.8113	6.9000e-004	2.2100e-003	31.4871

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0448	0.4100	0.4630	7.7000e-004		0.0199	0.0199		0.0188	0.0188	0.0000	66.0643	66.0643	0.0157	0.0000	66.4572
Total	0.0448	0.4100	0.4630	7.7000e-004		0.0199	0.0199		0.0188	0.0188	0.0000	66.0643	66.0643	0.0157	0.0000	66.4572

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	8.3000e-004	0.0245	0.0108	1.2000e-004	3.5100e-003	1.9000e-004	3.7000e-003	1.0400e-003	1.8000e-004	1.2200e-003	0.0000	11.1833	11.1833	1.2000e-004	1.6600e-003	11.6799
Worker	8.4600e-003	5.9100e-003	0.0762	2.1000e-004	0.0209	1.2000e-004	0.0211	5.6500e-003	1.1000e-004	5.7600e-003	0.0000	19.6280	19.6280	5.7000e-004	5.5000e-004	19.8071
Total	9.2900e-003	0.0304	0.0870	3.3000e-004	0.0244	3.1000e-004	0.0248	6.6900e-003	2.9000e-004	6.9800e-003	0.0000	30.8113	30.8113	6.9000e-004	2.2100e-003	31.4871

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7223	303.7223	0.0718	0.0000	305.5179
Total	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7223	303.7223	0.0718	0.0000	305.5179

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	3.7600e-003	0.1125	0.0490	5.3000e-004	0.0188	8.5000e-004	0.0197	5.4300e-003	8.1000e-004	6.2400e-003	0.0000	50.6115	50.6115	5.6000e-004	7.4900e-003	52.8566
Worker	0.0363	0.0243	0.3287	9.4000e-004	0.1164	5.5000e-004	0.1170	0.0309	5.0000e-004	0.0314	0.0000	88.0580	88.0580	2.3700e-003	2.3700e-003	88.8226
Total	0.0400	0.1368	0.3776	1.4700e-003	0.1352	1.4000e-003	0.1366	0.0363	1.3100e-003	0.0377	0.0000	138.6695	138.6695	2.9300e-003	9.8600e-003	141.6791

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7220	303.7220	0.0718	0.0000	305.5175
Total	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7220	303.7220	0.0718	0.0000	305.5175

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	3.7600e-003	0.1125	0.0490	5.3000e-004	0.0161	8.5000e-004	0.0170	4.7700e-003	8.1000e-004	5.5900e-003	0.0000	50.6115	50.6115	5.6000e-004	7.4900e-003	52.8566
Worker	0.0363	0.0243	0.3287	9.4000e-004	0.0962	5.5000e-004	0.0968	0.0260	5.0000e-004	0.0265	0.0000	88.0580	88.0580	2.3700e-003	2.3700e-003	88.8226
Total	0.0400	0.1368	0.3776	1.4700e-003	0.1124	1.4000e-003	0.1138	0.0307	1.3100e-003	0.0321	0.0000	138.6695	138.6695	2.9300e-003	9.8600e-003	141.6791

3.4 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1238	1.1285	1.4557	2.4400e-003		0.0477	0.0477		0.0449	0.0449	0.0000	209.8871	209.8871	0.0493	0.0000	211.1206
Total	0.1238	1.1285	1.4557	2.4400e-003		0.0477	0.0477		0.0449	0.0449	0.0000	209.8871	209.8871	0.0493	0.0000	211.1206

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	2.5700e-003	0.0771	0.0335	3.6000e-004	0.0130	5.9000e-004	0.0136	3.7500e-003	5.6000e-004	4.3100e-003	0.0000	34.3479	34.3479	4.0000e-004	5.0700e-003	35.8691
Worker	0.0234	0.0151	0.2121	6.3000e-004	0.0804	3.6000e-004	0.0808	0.0214	3.3000e-004	0.0217	0.0000	59.3548	59.3548	1.4800e-003	1.5300e-003	59.8472
Total	0.0260	0.0922	0.2456	9.9000e-004	0.0934	9.5000e-004	0.0944	0.0251	8.9000e-004	0.0260	0.0000	93.7027	93.7027	1.8800e-003	6.6000e-003	95.7162

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1238	1.1285	1.4557	2.4400e-003		0.0477	0.0477		0.0449	0.0449	0.0000	209.8869	209.8869	0.0493	0.0000	211.1203
Total	0.1238	1.1285	1.4557	2.4400e-003		0.0477	0.0477		0.0449	0.0449	0.0000	209.8869	209.8869	0.0493	0.0000	211.1203

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	2.5700e-003	0.0771	0.0335	3.6000e-004	0.0112	5.9000e-004	0.0117	3.3000e-003	5.6000e-004	3.8600e-003	0.0000	34.3479	34.3479	4.0000e-004	5.0700e-003	35.8691
Worker	0.0234	0.0151	0.2121	6.3000e-004	0.0665	3.6000e-004	0.0668	0.0179	3.3000e-004	0.0183	0.0000	59.3548	59.3548	1.4800e-003	1.5300e-003	59.8472
Total	0.0260	0.0922	0.2456	9.9000e-004	0.0776	9.5000e-004	0.0786	0.0212	8.9000e-004	0.0221	0.0000	93.7027	93.7027	1.8800e-003	6.6000e-003	95.7162

3.5 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0160	0.1502	0.2551	4.0000e-004		7.3200e-003	7.3200e-003		6.7400e-003	6.7400e-003	0.0000	35.0337	35.0337	0.0113	0.0000	35.3170
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0160	0.1502	0.2551	4.0000e-004		7.3200e-003	7.3200e-003		6.7400e-003	6.7400e-003	0.0000	35.0337	35.0337	0.0113	0.0000	35.3170

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.3000e-004	4.0000e-004	5.7000e-003	2.0000e-005	2.1600e-003	1.0000e-005	2.1700e-003	5.7000e-004	1.0000e-005	5.8000e-004	0.0000	1.5941	1.5941	4.0000e-005	4.0000e-005	1.6073
Total	6.3000e-004	4.0000e-004	5.7000e-003	2.0000e-005	2.1600e-003	1.0000e-005	2.1700e-003	5.7000e-004	1.0000e-005	5.8000e-004	0.0000	1.5941	1.5941	4.0000e-005	4.0000e-005	1.6073

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0160	0.1502	0.2551	4.0000e-004		7.3200e-003	7.3200e-003		6.7400e-003	6.7400e-003	0.0000	35.0337	35.0337	0.0113	0.0000	35.3169
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0160	0.1502	0.2551	4.0000e-004		7.3200e-003	7.3200e-003		6.7400e-003	6.7400e-003	0.0000	35.0337	35.0337	0.0113	0.0000	35.3169

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.3000e-004	4.0000e-004	5.7000e-003	2.0000e-005	1.7900e-003	1.0000e-005	1.7900e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.5941	1.5941	4.0000e-005	4.0000e-005	1.6073
Total	6.3000e-004	4.0000e-004	5.7000e-003	2.0000e-005	1.7900e-003	1.0000e-005	1.7900e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.5941	1.5941	4.0000e-005	4.0000e-005	1.6073

3.6 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5736					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9900e-003	0.0201	0.0317	5.0000e-005		9.0000e-004	9.0000e-004		9.0000e-004	9.0000e-004	0.0000	4.4682	4.4682	2.4000e-004	0.0000	4.4743
Total	0.5766	0.0201	0.0317	5.0000e-005		9.0000e-004	9.0000e-004		9.0000e-004	9.0000e-004	0.0000	4.4682	4.4682	2.4000e-004	0.0000	4.4743

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.2000e-004	5.9000e-004	8.3600e-003	2.0000e-005	3.1700e-003	1.0000e-005	3.1800e-003	8.4000e-004	1.0000e-005	8.5000e-004	0.0000	2.3380	2.3380	6.0000e-005	6.0000e-005	2.3574
Total	9.2000e-004	5.9000e-004	8.3600e-003	2.0000e-005	3.1700e-003	1.0000e-005	3.1800e-003	8.4000e-004	1.0000e-005	8.5000e-004	0.0000	2.3380	2.3380	6.0000e-005	6.0000e-005	2.3574

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5736					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9900e-003	0.0201	0.0317	5.0000e-005		9.0000e-004	9.0000e-004		9.0000e-004	9.0000e-004	0.0000	4.4682	4.4682	2.4000e-004	0.0000	4.4743
Total	0.5766	0.0201	0.0317	5.0000e-005		9.0000e-004	9.0000e-004		9.0000e-004	9.0000e-004	0.0000	4.4682	4.4682	2.4000e-004	0.0000	4.4743

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.2000e-004	5.9000e-004	8.3600e-003	2.0000e-005	2.6200e-003	1.0000e-005	2.6300e-003	7.1000e-004	1.0000e-005	7.2000e-004	0.0000	2.3380	2.3380	6.0000e-005	6.0000e-005	2.3574
Total	9.2000e-004	5.9000e-004	8.3600e-003	2.0000e-005	2.6200e-003	1.0000e-005	2.6300e-003	7.1000e-004	1.0000e-005	7.2000e-004	0.0000	2.3380	2.3380	6.0000e-005	6.0000e-005	2.3574

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	1.5671	1.8603	12.1612	0.0244	2.6764	0.0206	2.6971	0.7149	0.0193	0.7342	0.0000	2,326.7899	2,326.7899	0.1561	0.1336	2,370.4993
Unmitigated	1.5671	1.8603	12.1612	0.0244	2.6764	0.0206	2.6971	0.7149	0.0193	0.7342	0.0000	2,326.7899	2,326.7899	0.1561	0.1336	2,370.4993

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	732.00	814.00	628.00	1,630,396	1,630,396
Regional Shopping Center	4,246.88	5,188.50	2373.75	5,448,401	5,448,401
Total	4,978.88	6,002.50	3,001.75	7,078,797	7,078,797

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
Condo/Townhouse	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.542916	0.056689	0.174450	0.134041	0.024680	0.006960	0.011589	0.018600	0.000608	0.000298	0.023389	0.001091	0.004689
Regional Shopping Center	0.542916	0.056689	0.174450	0.134041	0.024680	0.006960	0.011589	0.018600	0.000608	0.000298	0.023389	0.001091	0.004689

5.0 Energy Detail

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	150.4700	150.4700	0.0261	3.1700e-003	152.0675
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	160.5521	160.5521	0.0279	3.3800e-003	162.2566
NaturalGas Mitigated	0.0127	0.1094	0.0516	6.9000e-004		8.7800e-003	8.7800e-003		8.7800e-003	8.7800e-003	0.0000	125.8050	125.8050	2.4100e-003	2.3100e-003	126.5526
NaturalGas Unmitigated	0.0127	0.1094	0.0516	6.9000e-004		8.7800e-003	8.7800e-003		8.7800e-003	8.7800e-003	0.0000	125.8050	125.8050	2.4100e-003	2.3100e-003	126.5526

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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					
Condo/Townhouse	2.11e+006	0.0114	0.0972	0.0414	6.2000e-004		7.8600e-003	7.8600e-003		7.8600e-003	7.8600e-003	0.0000	112.5975	112.5975	2.1600e-003	2.0600e-003	113.2666
Regional Shopping Center	247500	1.3300e-003	0.0121	0.0102	7.0000e-005		9.2000e-004	9.2000e-004		9.2000e-004	9.2000e-004	0.0000	13.2075	13.2075	2.5000e-004	2.4000e-004	13.2860
Total		0.0127	0.1094	0.0516	6.9000e-004		8.7800e-003	8.7800e-003		8.7800e-003	8.7800e-003	0.0000	125.8050	125.8050	2.4100e-003	2.3000e-003	126.5526

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Condo/Townhouse	2.11e+006	0.0114	0.0972	0.0414	6.2000e-004		7.8600e-003	7.8600e-003		7.8600e-003	7.8600e-003	0.0000	112.5975	112.5975	2.1600e-003	2.0600e-003	113.2666
Regional Shopping Center	247500	1.3300e-003	0.0121	0.0102	7.0000e-005		9.2000e-004	9.2000e-004		9.2000e-004	9.2000e-004	0.0000	13.2075	13.2075	2.5000e-004	2.4000e-004	13.2860
Total		0.0127	0.1094	0.0516	6.9000e-004		8.7800e-003	8.7800e-003		8.7800e-003	8.7800e-003	0.0000	125.8050	125.8050	2.4100e-003	2.3000e-003	126.5526

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	497376	42.8606	7.4400e-003	9.0000e-004	43.3157
Regional Shopping Center	1.36575e+006	117.6914	0.0204	2.4800e-003	118.9410
Total		160.5521	0.0279	3.3800e-003	162.2566

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	481358	41.4803	7.2100e-003	8.7000e-004	41.9207
Regional Shopping Center	1.26477e+006	108.9896	0.0189	2.2900e-003	110.1468
Total		150.4700	0.0261	3.1600e-003	152.0675

6.0 Area Detail

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.1 Mitigation Measures Area

- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- No Hearths Installed
- Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.8476	8.5500e-003	0.7428	4.0000e-005		4.1200e-003	4.1200e-003		4.1200e-003	4.1200e-003	0.0000	1.2149	1.2149	1.1700e-003	0.0000	1.2441
Unmitigated	0.9096	8.5500e-003	0.7428	4.0000e-005		4.1200e-003	4.1200e-003		4.1200e-003	4.1200e-003	0.0000	1.2149	1.2149	1.1700e-003	0.0000	1.2441

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.0574					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.8299					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0224	8.5500e-003	0.7428	4.0000e-005		4.1200e-003	4.1200e-003		4.1200e-003	4.1200e-003	0.0000	1.2149	1.2149	1.1700e-003	0.0000	1.2441
Total	0.9097	8.5500e-003	0.7428	4.0000e-005		4.1200e-003	4.1200e-003		4.1200e-003	4.1200e-003	0.0000	1.2149	1.2149	1.1700e-003	0.0000	1.2441

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.0574					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.7679					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0224	8.5500e-003	0.7428	4.0000e-005		4.1200e-003	4.1200e-003		4.1200e-003	4.1200e-003	0.0000	1.2149	1.2149	1.1700e-003	0.0000	1.2441
Total	0.8476	8.5500e-003	0.7428	4.0000e-005		4.1200e-003	4.1200e-003		4.1200e-003	4.1200e-003	0.0000	1.2149	1.2149	1.1700e-003	0.0000	1.2441

7.0 Water Detail

7.1 Mitigation Measures Water

- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower
- Use Water Efficient Irrigation System

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	25.3816	0.3908	9.5900e-003	38.0115
Unmitigated	30.1941	0.4883	0.0120	45.9652

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	6.5154 / 4.10754	13.3102	0.2143	5.2500e-003	20.2311
Regional Shopping Center	8.33316 / 5.10742	16.8839	0.2740	6.7100e-003	25.7341
Total		30.1941	0.4883	0.0120	45.9652

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	5.21232 / 3.85698	11.1948	0.1715	4.2100e-003	16.7373
Regional Shopping Center	6.66653 / 4.79587	14.1868	0.2193	5.3800e-003	21.2742
Total		25.3816	0.3908	9.5900e-003	38.0115

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	33.3169	1.9690	0.0000	82.5412

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse	46	9.3376	0.5518	0.0000	23.1335
Regional Shopping Center	118.13	23.9793	1.4171	0.0000	59.4078
Total		33.3169	1.9690	0.0000	82.5412

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse		0.0000	0.0000	0.0000	0.0000
Regional Shopping Center		0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

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

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2615 Model 5 Rancho Monterey SP Amendment

Riverside-Salton Sea County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	100.00	Dwelling Unit	18.50	100,000.00	187
Regional Shopping Center	112.50	1000sqft	14.00	112,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	15			Operational Year	2026
Utility Company	Imperial Irrigation District				
CO2 Intensity (lb/MWhr)	189.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Model 5: 100 DUs + 112,500 SF of Commercial

Land Use - Average Household Size: 1.87 PPH per CADF. Lot areas are based on the respective planning areas in the SPA. Building areas are based on combined unit count or max retail space as applicable to the model.

Construction Phase - Assumes no demolition due to undeveloped condition.

Grading - Assumes balanced earthwork.

Architectural Coating - Average Household Size: 1.87 PPH per CADF. Lot areas are based on the respective planning areas in the SPA. Building areas are based on combined unit count or max retail space as applicable to the model

Woodstoves - Assumes no fire places or wood stoves per SCAQMD Rule 445.

Area Coating - Factors SCAMQD Rule 1113 compliance.

Construction Off-road Equipment Mitigation - SCAQMD Rule 403/403.1 and RMMC are applied as a requirement.

Area Mitigation - Factors SCAMQD Rule 1113 compliance.

Energy Mitigation -

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Parking	250	100
tblAreaCoating	Area_EF_Residential_Exterior	250	50
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	20
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	50
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblFireplaces	FireplaceDayYear	82.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	457.60	0.00
tblFireplaces	NumberGas	80.00	0.00
tblFireplaces	NumberNoFireplace	10.00	0.00
tblFireplaces	NumberWood	10.00	0.00
tblGrading	AcresOfGrading	135.00	32.50
tblGrading	AcresOfGrading	30.00	32.50
tblLandUse	LotAcreage	6.25	18.50
tblLandUse	LotAcreage	2.58	14.00
tblLandUse	Population	286.00	187.00

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblWoodstoves	NumberCatalytic	5.00	0.00
tblWoodstoves	NumberNoncatalytic	5.00	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	3.3845	34.5517	28.6229	0.0636	19.9402	1.4253	21.2069	10.1567	1.3113	11.3221	0.0000	6,163.0505	6,163.0505	1.9482	0.0845	6,212.8904
2024	1.8174	14.4376	19.4292	0.0387	1.0491	0.6239	1.6731	0.2816	0.5869	0.8685	0.0000	3,779.7594	3,779.7594	0.6286	0.0820	3,819.9148
2025	33.0070	13.4395	19.1496	0.0384	1.0491	0.5380	1.5871	0.2816	0.5061	0.7877	0.0000	3,753.4648	3,753.4648	0.7162	0.0795	3,792.7534
Maximum	33.0070	34.5517	28.6229	0.0636	19.9402	1.4253	21.2069	10.1567	1.3113	11.3221	0.0000	6,163.0505	6,163.0505	1.9482	0.0845	6,212.8904

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	3.3845	34.5517	28.6229	0.0636	5.5270	1.4253	6.7937	2.7954	1.3113	3.9608	0.0000	6,163.0505	6,163.0505	1.9482	0.0845	6,212.8904
2024	1.8174	14.4376	19.4292	0.0387	0.8714	0.6239	1.4953	0.2380	0.5869	0.8249	0.0000	3,779.7594	3,779.7594	0.6286	0.0820	3,819.9148
2025	33.0070	13.4395	19.1496	0.0384	0.8714	0.5380	1.4094	0.2380	0.5061	0.7441	0.0000	3,753.4648	3,753.4648	0.7162	0.0795	3,792.7534
Maximum	33.0070	34.5517	28.6229	0.0636	5.5270	1.4253	6.7937	2.7954	1.3113	3.9608	0.0000	6,163.0505	6,163.0505	1.9482	0.0845	6,212.8904

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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
Percent Reduction	0.00	0.00	0.00	0.00	67.01	0.00	60.36	69.48	0.00	57.39	0.00	0.00	0.00	0.00	0.00	0.00

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	5.1103	0.0951	8.2538	4.4000e-004		0.0458	0.0458		0.0458	0.0458	0.0000	14.8799	14.8799	0.0143	0.0000	15.2371
Energy	0.0697	0.5992	0.2825	3.8000e-003		0.0481	0.0481		0.0481	0.0481		759.8701	759.8701	0.0146	0.0139	764.3856
Mobile	13.0024	11.8891	86.6305	0.1743	18.3610	0.1396	18.5005	4.8976	0.1306	5.0283		18,314.3349	18,314.3349	1.1120	0.9729	18,632.0486
Total	18.1824	12.5834	95.1668	0.1786	18.3610	0.2335	18.5944	4.8976	0.2245	5.1222	0.0000	19,089.0849	19,089.0849	1.1408	0.9868	19,411.6713

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	4.7703	0.0951	8.2538	4.4000e-004		0.0458	0.0458		0.0458	0.0458	0.0000	14.8799	14.8799	0.0143	0.0000	15.2371
Energy	0.0697	0.5992	0.2825	3.8000e-003		0.0481	0.0481		0.0481	0.0481		759.8701	759.8701	0.0146	0.0139	764.3856
Mobile	13.0024	11.8891	86.6305	0.1743	18.3610	0.1396	18.5005	4.8976	0.1306	5.0283		18,314.3349	18,314.3349	1.1120	0.9729	18,632.0486
Total	17.8424	12.5834	95.1668	0.1786	18.3610	0.2335	18.5944	4.8976	0.2245	5.1222	0.0000	19,089.0849	19,089.0849	1.1408	0.9868	19,411.6713

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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
Percent Reduction	1.87	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	Site Preparation	Site Preparation	7/13/2023	8/9/2023	5	20	
2	Grading	Grading	8/10/2023	10/11/2023	5	45	
3	Building Construction	Building Construction	10/12/2023	9/10/2025	5	500	
4	Paving	Paving	9/11/2025	10/29/2025	5	35	
5	Architectural Coating	Architectural Coating	10/30/2025	12/17/2025	5	35	

Acres of Grading (Site Preparation Phase): 32.5

Acres of Grading (Grading Phase): 32.5

Acres of Paving: 0

Residential Indoor: 202,500; Residential Outdoor: 67,500; Non-Residential Indoor: 168,750; Non-Residential Outdoor: 56,250; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	231	0.29
Grading	Excavators	2	8.00	158	0.38
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	108.00	29.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	22.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 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					19.7896	0.0000	19.7896	10.1168	0.0000	10.1168			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647		3,687.308 1	3,687.308 1	1.1926		3,717.121 9
Total	2.6595	27.5242	18.2443	0.0381	19.7896	1.2660	21.0556	10.1168	1.1647	11.2815		3,687.308 1	3,687.308 1	1.1926		3,717.121 9

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0565	0.0325	0.5146	1.3300e-003	0.1506	7.3000e-004	0.1513	0.0400	6.7000e-004	0.0406		136.4155	136.4155	3.5900e-003	3.4300e-003	137.5262
Total	0.0565	0.0325	0.5146	1.3300e-003	0.1506	7.3000e-004	0.1513	0.0400	6.7000e-004	0.0406		136.4155	136.4155	3.5900e-003	3.4300e-003	137.5262

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 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					5.4026	0.0000	5.4026	2.7619	0.0000	2.7619			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647	0.0000	3,687.308 1	3,687.308 1	1.1926		3,717.121 9
Total	2.6595	27.5242	18.2443	0.0381	5.4026	1.2660	6.6686	2.7619	1.1647	3.9266	0.0000	3,687.308 1	3,687.308 1	1.1926		3,717.121 9

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0565	0.0325	0.5146	1.3300e-003	0.1244	7.3000e-004	0.1252	0.0335	6.7000e-004	0.0342		136.4155	136.4155	3.5900e-003	3.4300e-003	137.5262
Total	0.0565	0.0325	0.5146	1.3300e-003	0.1244	7.3000e-004	0.1252	0.0335	6.7000e-004	0.0342		136.4155	136.4155	3.5900e-003	3.4300e-003	137.5262

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 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					6.7880	0.0000	6.7880	3.3929	0.0000	3.3929			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105		6,011.4777	6,011.4777	1.9442		6,060.0836
Total	3.3217	34.5156	28.0512	0.0621	6.7880	1.4245	8.2125	3.3929	1.3105	4.7035		6,011.4777	6,011.4777	1.9442		6,060.0836

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0628	0.0361	0.5718	1.4800e-003	0.1673	8.1000e-004	0.1681	0.0444	7.4000e-004	0.0451		151.5728	151.5728	3.9800e-003	3.8100e-003	152.8069
Total	0.0628	0.0361	0.5718	1.4800e-003	0.1673	8.1000e-004	0.1681	0.0444	7.4000e-004	0.0451		151.5728	151.5728	3.9800e-003	3.8100e-003	152.8069

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 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					1.8531	0.0000	1.8531	0.9263	0.0000	0.9263			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836
Total	3.3217	34.5156	28.0512	0.0621	1.8531	1.4245	3.2776	0.9263	1.3105	2.2368	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0628	0.0361	0.5718	1.4800e-003	0.1383	8.1000e-004	0.1391	0.0372	7.4000e-004	0.0380		151.5728	151.5728	3.9800e-003	3.8100e-003	152.8069
Total	0.0628	0.0361	0.5718	1.4800e-003	0.1383	8.1000e-004	0.1391	0.0372	7.4000e-004	0.0380		151.5728	151.5728	3.9800e-003	3.8100e-003	152.8069

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0304	0.8199	0.3717	4.0700e-003	0.1455	6.5000e-003	0.1520	0.0419	6.2200e-003	0.0481		431.9810	431.9810	4.5800e-003	0.0640	451.1545
Worker	0.3392	0.1950	3.0876	8.0000e-003	0.9036	4.3600e-003	0.9080	0.2397	4.0200e-003	0.2437		818.4929	818.4929	0.0215	0.0206	825.1570
Total	0.3695	1.0149	3.4593	0.0121	1.0491	0.0109	1.0600	0.2816	0.0102	0.2918		1,250.4738	1,250.4738	0.0261	0.0845	1,276.3116

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0304	0.8199	0.3717	4.0700e-003	0.1248	6.5000e-003	0.1313	0.0368	6.2200e-003	0.0431		431.9810	431.9810	4.5800e-003	0.0640	451.1545
Worker	0.3392	0.1950	3.0876	8.0000e-003	0.7465	4.3600e-003	0.7509	0.2011	4.0200e-003	0.2051		818.4929	818.4929	0.0215	0.0206	825.1570
Total	0.3695	1.0149	3.4593	0.0121	0.8714	0.0109	0.8822	0.2380	0.0102	0.2482		1,250.4738	1,250.4738	0.0261	0.0845	1,276.3116

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0300	0.8197	0.3678	4.0100e-003	0.1455	6.4600e-003	0.1520	0.0419	6.1800e-003	0.0481		425.3191	425.3191	4.7300e-003	0.0629	444.1751
Worker	0.3158	0.1742	2.8946	7.7400e-003	0.9036	4.1700e-003	0.9078	0.2397	3.8400e-003	0.2435		798.7415	798.7415	0.0195	0.0191	804.9321
Total	0.3458	0.9939	3.2623	0.0118	1.0491	0.0106	1.0598	0.2816	0.0100	0.2916		1,224.0605	1,224.0605	0.0243	0.0820	1,249.1072

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0300	0.8197	0.3678	4.0100e-003	0.1248	6.4600e-003	0.1313	0.0368	6.1800e-003	0.0430		425.3191	425.3191	4.7300e-003	0.0629	444.1751
Worker	0.3158	0.1742	2.8946	7.7400e-003	0.7465	4.1700e-003	0.7507	0.2011	3.8400e-003	0.2050		798.7415	798.7415	0.0195	0.0191	804.9321
Total	0.3458	0.9939	3.2623	0.0118	0.8714	0.0106	0.8820	0.2380	0.0100	0.2480		1,224.0605	1,224.0605	0.0243	0.0820	1,249.1072

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0296	0.8133	0.3639	3.9400e-003	0.1455	6.4600e-003	0.1520	0.0419	6.1800e-003	0.0481		417.8162	417.8162	4.9000e-003	0.0617	436.3101
Worker	0.2950	0.1566	2.7010	7.4800e-003	0.9036	3.9700e-003	0.9076	0.2397	3.6500e-003	0.2433		779.1743	779.1743	0.0177	0.0179	784.9452
Total	0.3245	0.9699	3.0649	0.0114	1.0491	0.0104	1.0596	0.2816	9.8300e-003	0.2914		1,196.990 5	1,196.990 5	0.0226	0.0795	1,221.255 3

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.474 4	2,556.474 4	0.6010		2,571.498 1

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0296	0.8133	0.3639	3.9400e-003	0.1248	6.4600e-003	0.1313	0.0368	6.1800e-003	0.0430		417.8162	417.8162	4.9000e-003	0.0617	436.3101
Worker	0.2950	0.1566	2.7010	7.4800e-003	0.7465	3.9700e-003	0.7505	0.2011	3.6500e-003	0.2048		779.1743	779.1743	0.0177	0.0179	784.9452
Total	0.3245	0.9699	3.0649	0.0114	0.8714	0.0104	0.8818	0.2380	9.8300e-003	0.2478		1,196.990 5	1,196.990 5	0.0226	0.0795	1,221.255 3

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.745 2	2,206.745 2	0.7137		2,224.587 8
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.745 2	2,206.745 2	0.7137		2,224.587 8

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0410	0.0218	0.3751	1.0400e-003	0.1255	5.5000e-004	0.1261	0.0333	5.1000e-004	0.0338		108.2187	108.2187	2.4500e-003	2.4800e-003	109.0202
Total	0.0410	0.0218	0.3751	1.0400e-003	0.1255	5.5000e-004	0.1261	0.0333	5.1000e-004	0.0338		108.2187	108.2187	2.4500e-003	2.4800e-003	109.0202

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850	0.0000	2,206.745 2	2,206.745 2	0.7137		2,224.587 8
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850	0.0000	2,206.745 2	2,206.745 2	0.7137		2,224.587 8

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0410	0.0218	0.3751	1.0400e-003	0.1037	5.5000e-004	0.1042	0.0279	5.1000e-004	0.0284		108.2187	108.2187	2.4500e-003	2.4800e-003	109.0202
Total	0.0410	0.0218	0.3751	1.0400e-003	0.1037	5.5000e-004	0.1042	0.0279	5.1000e-004	0.0284		108.2187	108.2187	2.4500e-003	2.4800e-003	109.0202

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	32.7761					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	32.9469	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0601	0.0319	0.5502	1.5200e-003	0.1841	8.1000e-004	0.1849	0.0488	7.4000e-004	0.0496		158.7207	158.7207	3.6000e-003	3.6400e-003	159.8962
Total	0.0601	0.0319	0.5502	1.5200e-003	0.1841	8.1000e-004	0.1849	0.0488	7.4000e-004	0.0496		158.7207	158.7207	3.6000e-003	3.6400e-003	159.8962

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	32.7761					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	32.9469	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0601	0.0319	0.5502	1.5200e-003	0.1521	8.1000e-004	0.1529	0.0410	7.4000e-004	0.0417		158.7207	158.7207	3.6000e-003	3.6400e-003	159.8962
Total	0.0601	0.0319	0.5502	1.5200e-003	0.1521	8.1000e-004	0.1529	0.0410	7.4000e-004	0.0417		158.7207	158.7207	3.6000e-003	3.6400e-003	159.8962

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

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	13.0024	11.8891	86.6305	0.1743	18.3610	0.1396	18.5005	4.8976	0.1306	5.0283		18,314.33 49	18,314.33 49	1.1120	0.9729	18,632.04 86
Unmitigated	13.0024	11.8891	86.6305	0.1743	18.3610	0.1396	18.5005	4.8976	0.1306	5.0283		18,314.33 49	18,314.33 49	1.1120	0.9729	18,632.04 86

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	732.00	814.00	628.00	1,630,396	1,630,396
Regional Shopping Center	4,246.88	5,188.50	2373.75	5,448,401	5,448,401
Total	4,978.88	6,002.50	3,001.75	7,078,797	7,078,797

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
Condo/Townhouse	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.542916	0.056689	0.174450	0.134041	0.024680	0.006960	0.011589	0.018600	0.000608	0.000298	0.023389	0.001091	0.004689
Regional Shopping Center	0.542916	0.056689	0.174450	0.134041	0.024680	0.006960	0.011589	0.018600	0.000608	0.000298	0.023389	0.001091	0.004689

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0697	0.5992	0.2825	3.8000e-003		0.0481	0.0481		0.0481	0.0481		759.8701	759.8701	0.0146	0.0139	764.3856
NaturalGas Unmitigated	0.0697	0.5992	0.2825	3.8000e-003		0.0481	0.0481		0.0481	0.0481		759.8701	759.8701	0.0146	0.0139	764.3856

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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					
Condo/Townhouse	5780.81	0.0623	0.5327	0.2267	3.4000e-003		0.0431	0.0431		0.0431	0.0431		680.0957	680.0957	0.0130	0.0125	684.1372
Regional Shopping Center	678.082	7.3100e-003	0.0665	0.0558	4.0000e-004		5.0500e-003	5.0500e-003		5.0500e-003	5.0500e-003		79.7744	79.7744	1.5300e-003	1.4600e-003	80.2484
Total		0.0697	0.5992	0.2825	3.8000e-003		0.0481	0.0481		0.0481	0.0481		759.8701	759.8701	0.0146	0.0139	764.3856

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	5.78081	0.0623	0.5327	0.2267	3.4000e-003		0.0431	0.0431		0.0431	0.0431		680.0957	680.0957	0.0130	0.0125	684.1372
Regional Shopping Center	0.678082	7.3100e-003	0.0665	0.0558	4.0000e-004		5.0500e-003	5.0500e-003		5.0500e-003	5.0500e-003		79.7744	79.7744	1.5300e-003	1.4600e-003	80.2484
Total		0.0697	0.5992	0.2825	3.8000e-003		0.0481	0.0481		0.0481	0.0481		759.8701	759.8701	0.0146	0.0139	764.3856

6.0 Area Detail

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.1 Mitigation Measures Area

- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- No Hearths Installed
- Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	4.7703	0.0951	8.2538	4.4000e-004		0.0458	0.0458		0.0458	0.0458	0.0000	14.8799	14.8799	0.0143	0.0000	15.2371
Unmitigated	5.1103	0.0951	8.2538	4.4000e-004		0.0458	0.0458		0.0458	0.0458	0.0000	14.8799	14.8799	0.0143	0.0000	15.2371

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.3143					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.5475					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.2485	0.0951	8.2538	4.4000e-004		0.0458	0.0458		0.0458	0.0458		14.8799	14.8799	0.0143		15.2371
Total	5.1103	0.0951	8.2538	4.4000e-004		0.0458	0.0458		0.0458	0.0458	0.0000	14.8799	14.8799	0.0143	0.0000	15.2371

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.3143					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.2075					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.2485	0.0951	8.2538	4.4000e-004		0.0458	0.0458		0.0458	0.0458		14.8799	14.8799	0.0143		15.2371
Total	4.7703	0.0951	8.2538	4.4000e-004		0.0458	0.0458		0.0458	0.0458	0.0000	14.8799	14.8799	0.0143	0.0000	15.2371

7.0 Water Detail

7.1 Mitigation Measures Water

- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower
- Use Water Efficient Irrigation System

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

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

10.0 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

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2615 Model 5 Rancho Monterey SP Amendment

Riverside-Salton Sea County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	100.00	Dwelling Unit	18.50	100,000.00	187
Regional Shopping Center	112.50	1000sqft	14.00	112,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	15			Operational Year	2026
Utility Company	Imperial Irrigation District				
CO2 Intensity (lb/MWhr)	189.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Model 5: 100 DUs + 112,500 SF of Commercial

Land Use - Average Household Size: 1.87 PPH per CADF. Lot areas are based on the respective planning areas in the SPA. Building areas are based on combined unit count or max retail space as applicable to the model.

Construction Phase - Assumes no demolition due to undeveloped condition.

Grading - Assumes balanced earthwork.

Architectural Coating - Average Household Size: 1.87 PPH per CADF. Lot areas are based on the respective planning areas in the SPA. Building areas are based on combined unit count or max retail space as applicable to the model

Woodstoves - Assumes no fire places or wood stoves per SCAQMD Rule 445.

Area Coating - Factors SCAMQD Rule 1113 compliance.

Construction Off-road Equipment Mitigation - SCAQMD Rule 403/403.1 and RMMC are applied as a requirement.

Area Mitigation - Factors SCAMQD Rule 1113 compliance.

Energy Mitigation -

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Parking	250	100
tblAreaCoating	Area_EF_Residential_Exterior	250	50
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	20
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	50
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblFireplaces	FireplaceDayYear	82.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	457.60	0.00
tblFireplaces	NumberGas	80.00	0.00
tblFireplaces	NumberNoFireplace	10.00	0.00
tblFireplaces	NumberWood	10.00	0.00
tblGrading	AcresOfGrading	135.00	32.50
tblGrading	AcresOfGrading	30.00	32.50
tblLandUse	LotAcreage	6.25	18.50
tblLandUse	LotAcreage	2.58	14.00
tblLandUse	Population	286.00	187.00

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblWoodstoves	NumberCatalytic	5.00	0.00
tblWoodstoves	NumberNoncatalytic	5.00	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	3.3792	34.5531	28.5229	0.0634	19.9402	1.4253	21.2069	10.1567	1.3113	11.3221	0.0000	6,148.883 4	6,148.883 4	1.9483	0.0853	6,198.752 5
2024	1.7888	14.4948	18.9378	0.0380	1.0491	0.6240	1.6731	0.2816	0.5869	0.8685	0.0000	3,706.559 0	3,706.559 0	0.6289	0.0827	3,746.931 5
2025	33.0022	13.4957	18.6957	0.0377	1.0491	0.5380	1.5872	0.2816	0.5061	0.7877	0.0000	3,682.256 6	3,682.256 6	0.7162	0.0802	3,721.751 1
Maximum	33.0022	34.5531	28.5229	0.0634	19.9402	1.4253	21.2069	10.1567	1.3113	11.3221	0.0000	6,148.883 4	6,148.883 4	1.9483	0.0853	6,198.752 5

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	3.3792	34.5531	28.5229	0.0634	5.5270	1.4253	6.7937	2.7954	1.3113	3.9608	0.0000	6,148.883 4	6,148.883 4	1.9483	0.0853	6,198.752 5
2024	1.7888	14.4948	18.9378	0.0380	0.8714	0.6240	1.4953	0.2380	0.5869	0.8249	0.0000	3,706.559 0	3,706.559 0	0.6289	0.0827	3,746.931 5
2025	33.0022	13.4957	18.6957	0.0377	0.8714	0.5380	1.4094	0.2380	0.5061	0.7441	0.0000	3,682.256 6	3,682.256 6	0.7162	0.0802	3,721.751 1
Maximum	33.0022	34.5531	28.5229	0.0634	5.5270	1.4253	6.7937	2.7954	1.3113	3.9608	0.0000	6,148.883 4	6,148.883 4	1.9483	0.0853	6,198.752 5

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	5.1103	0.0951	8.2538	4.4000e-004		0.0458	0.0458		0.0458	0.0458	0.0000	14.8799	14.8799	0.0143	0.0000	15.2371
Energy	0.0697	0.5992	0.2825	3.8000e-003		0.0481	0.0481		0.0481	0.0481		759.8701	759.8701	0.0146	0.0139	764.3856
Mobile	10.4951	12.6236	80.6094	0.1624	18.3610	0.1398	18.5007	4.8976	0.1308	5.0285		17,058.8291	17,058.8291	1.1758	0.9948	17,384.6852
Total	15.6750	13.3179	89.1457	0.1666	18.3610	0.2337	18.5946	4.8976	0.2247	5.1224	0.0000	17,833.5790	17,833.5790	1.2046	1.0088	18,164.3079

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	4.7703	0.0951	8.2538	4.4000e-004		0.0458	0.0458		0.0458	0.0458	0.0000	14.8799	14.8799	0.0143	0.0000	15.2371
Energy	0.0697	0.5992	0.2825	3.8000e-003		0.0481	0.0481		0.0481	0.0481		759.8701	759.8701	0.0146	0.0139	764.3856
Mobile	10.4951	12.6236	80.6094	0.1624	18.3610	0.1398	18.5007	4.8976	0.1308	5.0285		17,058.8291	17,058.8291	1.1758	0.9948	17,384.6852
Total	15.3350	13.3179	89.1457	0.1666	18.3610	0.2337	18.5946	4.8976	0.2247	5.1224	0.0000	17,833.5790	17,833.5790	1.2046	1.0088	18,164.3079

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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
Percent Reduction	2.17	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	Site Preparation	Site Preparation	7/13/2023	8/9/2023	5	20	
2	Grading	Grading	8/10/2023	10/11/2023	5	45	
3	Building Construction	Building Construction	10/12/2023	9/10/2025	5	500	
4	Paving	Paving	9/11/2025	10/29/2025	5	35	
5	Architectural Coating	Architectural Coating	10/30/2025	12/17/2025	5	35	

Acres of Grading (Site Preparation Phase): 32.5

Acres of Grading (Grading Phase): 32.5

Acres of Paving: 0

Residential Indoor: 202,500; Residential Outdoor: 67,500; Non-Residential Indoor: 168,750; Non-Residential Outdoor: 56,250; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	231	0.29
Grading	Excavators	2	8.00	158	0.38
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	108.00	29.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	22.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 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					19.7896	0.0000	19.7896	10.1168	0.0000	10.1168			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647		3,687.308 1	3,687.308 1	1.1926		3,717.121 9
Total	2.6595	27.5242	18.2443	0.0381	19.7896	1.2660	21.0556	10.1168	1.1647	11.2815		3,687.308 1	3,687.308 1	1.1926		3,717.121 9

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0517	0.0337	0.4245	1.2100e-003	0.1506	7.3000e-004	0.1513	0.0400	6.7000e-004	0.0406		123.6651	123.6651	3.6600e-003	3.5100e-003	124.8020
Total	0.0517	0.0337	0.4245	1.2100e-003	0.1506	7.3000e-004	0.1513	0.0400	6.7000e-004	0.0406		123.6651	123.6651	3.6600e-003	3.5100e-003	124.8020

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 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					5.4026	0.0000	5.4026	2.7619	0.0000	2.7619			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647	0.0000	3,687.308 1	3,687.308 1	1.1926		3,717.121 9
Total	2.6595	27.5242	18.2443	0.0381	5.4026	1.2660	6.6686	2.7619	1.1647	3.9266	0.0000	3,687.308 1	3,687.308 1	1.1926		3,717.121 9

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0517	0.0337	0.4245	1.2100e-003	0.1244	7.3000e-004	0.1252	0.0335	6.7000e-004	0.0342		123.6651	123.6651	3.6600e-003	3.5100e-003	124.8020
Total	0.0517	0.0337	0.4245	1.2100e-003	0.1244	7.3000e-004	0.1252	0.0335	6.7000e-004	0.0342		123.6651	123.6651	3.6600e-003	3.5100e-003	124.8020

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 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					6.7880	0.0000	6.7880	3.3929	0.0000	3.3929			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105		6,011.4777	6,011.4777	1.9442		6,060.0836
Total	3.3217	34.5156	28.0512	0.0621	6.7880	1.4245	8.2125	3.3929	1.3105	4.7035		6,011.4777	6,011.4777	1.9442		6,060.0836

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0575	0.0375	0.4717	1.3400e-003	0.1673	8.1000e-004	0.1681	0.0444	7.4000e-004	0.0451		137.4057	137.4057	4.0600e-003	3.9000e-003	138.6689
Total	0.0575	0.0375	0.4717	1.3400e-003	0.1673	8.1000e-004	0.1681	0.0444	7.4000e-004	0.0451		137.4057	137.4057	4.0600e-003	3.9000e-003	138.6689

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 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					1.8531	0.0000	1.8531	0.9263	0.0000	0.9263			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836
Total	3.3217	34.5156	28.0512	0.0621	1.8531	1.4245	3.2776	0.9263	1.3105	2.2368	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0575	0.0375	0.4717	1.3400e-003	0.1383	8.1000e-004	0.1391	0.0372	7.4000e-004	0.0380		137.4057	137.4057	4.0600e-003	3.9000e-003	138.6689
Total	0.0575	0.0375	0.4717	1.3400e-003	0.1383	8.1000e-004	0.1391	0.0372	7.4000e-004	0.0380		137.4057	137.4057	4.0600e-003	3.9000e-003	138.6689

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0279	0.8705	0.3851	4.0900e-003	0.1455	6.5300e-003	0.1521	0.0419	6.2500e-003	0.0482		433.3147	433.3147	4.4800e-003	0.0642	452.5613
Worker	0.3103	0.2023	2.5471	7.2500e-003	0.9036	4.3600e-003	0.9080	0.2397	4.0200e-003	0.2437		741.9906	741.9906	0.0219	0.0211	748.8120
Total	0.3383	1.0728	2.9321	0.0113	1.0491	0.0109	1.0600	0.2816	0.0103	0.2919		1,175.3053	1,175.3053	0.0264	0.0853	1,201.3733

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0279	0.8705	0.3851	4.0900e-003	0.1248	6.5300e-003	0.1314	0.0368	6.2500e-003	0.0431		433.3147	433.3147	4.4800e-003	0.0642	452.5613
Worker	0.3103	0.2023	2.5471	7.2500e-003	0.7465	4.3600e-003	0.7509	0.2011	4.0200e-003	0.2051		741.9906	741.9906	0.0219	0.0211	748.8120
Total	0.3383	1.0728	2.9321	0.0113	0.8714	0.0109	0.8823	0.2380	0.0103	0.2482		1,175.3053	1,175.3053	0.0264	0.0853	1,201.3733

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0275	0.8703	0.3810	4.0200e-003	0.1455	6.4900e-003	0.1520	0.0419	6.2100e-003	0.0481		426.6414	426.6414	4.6300e-003	0.0631	445.5689
Worker	0.2897	0.1807	2.3900	7.0200e-003	0.9036	4.1700e-003	0.9078	0.2397	3.8400e-003	0.2435		724.2187	724.2187	0.0199	0.0196	730.5549
Total	0.3172	1.0510	2.7710	0.0110	1.0491	0.0107	1.0598	0.2816	0.0101	0.2916		1,150.8601	1,150.8601	0.0246	0.0827	1,176.1238

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0275	0.8703	0.3810	4.0200e-003	0.1248	6.4900e-003	0.1313	0.0368	6.2100e-003	0.0430		426.6414	426.6414	4.6300e-003	0.0631	445.5689
Worker	0.2897	0.1807	2.3900	7.0200e-003	0.7465	4.1700e-003	0.7507	0.2011	3.8400e-003	0.2050		724.2187	724.2187	0.0199	0.0196	730.5549
Total	0.3172	1.0510	2.7710	0.0110	0.8714	0.0107	0.8820	0.2380	0.0101	0.2480		1,150.8601	1,150.8601	0.0246	0.0827	1,176.1238

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0272	0.8636	0.3772	3.9500e-003	0.1455	6.4900e-003	0.1520	0.0419	6.2100e-003	0.0481		419.1227	419.1227	4.7900e-003	0.0619	437.6866
Worker	0.2712	0.1624	2.2339	6.7800e-003	0.9036	3.9700e-003	0.9076	0.2397	3.6500e-003	0.2433		706.6595	706.6595	0.0181	0.0183	712.5665
Total	0.2983	1.0260	2.6110	0.0107	1.0491	0.0105	1.0596	0.2816	9.8600e-003	0.2915		1,125.782 2	1,125.782 2	0.0229	0.0802	1,150.253 0

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.474 4	2,556.474 4	0.6010		2,571.498 1

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0272	0.8636	0.3772	3.9500e-003	0.1248	6.4900e-003	0.1313	0.0368	6.2100e-003	0.0431		419.1227	419.1227	4.7900e-003	0.0619	437.6866
Worker	0.2712	0.1624	2.2339	6.7800e-003	0.7465	3.9700e-003	0.7505	0.2011	3.6500e-003	0.2048		706.6595	706.6595	0.0181	0.0183	712.5665
Total	0.2983	1.0260	2.6110	0.0107	0.8714	0.0105	0.8818	0.2380	9.8600e-003	0.2478		1,125.782 2	1,125.782 2	0.0229	0.0802	1,150.253 0

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.745 2	2,206.745 2	0.7137		2,224.587 8
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.745 2	2,206.745 2	0.7137		2,224.587 8

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0377	0.0226	0.3103	9.4000e-004	0.1255	5.5000e-004	0.1261	0.0333	5.1000e-004	0.0338		98.1472	98.1472	2.5100e-003	2.5400e-003	98.9676
Total	0.0377	0.0226	0.3103	9.4000e-004	0.1255	5.5000e-004	0.1261	0.0333	5.1000e-004	0.0338		98.1472	98.1472	2.5100e-003	2.5400e-003	98.9676

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850	0.0000	2,206.745 2	2,206.745 2	0.7137		2,224.587 8
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850	0.0000	2,206.745 2	2,206.745 2	0.7137		2,224.587 8

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0377	0.0226	0.3103	9.4000e-004	0.1037	5.5000e-004	0.1042	0.0279	5.1000e-004	0.0284		98.1472	98.1472	2.5100e-003	2.5400e-003	98.9676
Total	0.0377	0.0226	0.3103	9.4000e-004	0.1037	5.5000e-004	0.1042	0.0279	5.1000e-004	0.0284		98.1472	98.1472	2.5100e-003	2.5400e-003	98.9676

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	32.7761					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	32.9469	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0552	0.0331	0.4550	1.3800e-003	0.1841	8.1000e-004	0.1849	0.0488	7.4000e-004	0.0496		143.9492	143.9492	3.6800e-003	3.7300e-003	145.1524
Total	0.0552	0.0331	0.4550	1.3800e-003	0.1841	8.1000e-004	0.1849	0.0488	7.4000e-004	0.0496		143.9492	143.9492	3.6800e-003	3.7300e-003	145.1524

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	32.7761					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	32.9469	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0552	0.0331	0.4550	1.3800e-003	0.1521	8.1000e-004	0.1529	0.0410	7.4000e-004	0.0417		143.9492	143.9492	3.6800e-003	3.7300e-003	145.1524
Total	0.0552	0.0331	0.4550	1.3800e-003	0.1521	8.1000e-004	0.1529	0.0410	7.4000e-004	0.0417		143.9492	143.9492	3.6800e-003	3.7300e-003	145.1524

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

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	10.4951	12.6236	80.6094	0.1624	18.3610	0.1398	18.5007	4.8976	0.1308	5.0285		17,058.82 91	17,058.82 91	1.1758	0.9948	17,384.68 52
Unmitigated	10.4951	12.6236	80.6094	0.1624	18.3610	0.1398	18.5007	4.8976	0.1308	5.0285		17,058.82 91	17,058.82 91	1.1758	0.9948	17,384.68 52

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	732.00	814.00	628.00	1,630,396	1,630,396
Regional Shopping Center	4,246.88	5,188.50	2373.75	5,448,401	5,448,401
Total	4,978.88	6,002.50	3,001.75	7,078,797	7,078,797

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
Condo/Townhouse	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.542916	0.056689	0.174450	0.134041	0.024680	0.006960	0.011589	0.018600	0.000608	0.000298	0.023389	0.001091	0.004689
Regional Shopping Center	0.542916	0.056689	0.174450	0.134041	0.024680	0.006960	0.011589	0.018600	0.000608	0.000298	0.023389	0.001091	0.004689

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0697	0.5992	0.2825	3.8000e-003		0.0481	0.0481		0.0481	0.0481		759.8701	759.8701	0.0146	0.0139	764.3856
NaturalGas Unmitigated	0.0697	0.5992	0.2825	3.8000e-003		0.0481	0.0481		0.0481	0.0481		759.8701	759.8701	0.0146	0.0139	764.3856

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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					
Condo/Townhouse	5780.81	0.0623	0.5327	0.2267	3.4000e-003		0.0431	0.0431		0.0431	0.0431		680.0957	680.0957	0.0130	0.0125	684.1372
Regional Shopping Center	678.082	7.3100e-003	0.0665	0.0558	4.0000e-004		5.0500e-003	5.0500e-003		5.0500e-003	5.0500e-003		79.7744	79.7744	1.5300e-003	1.4600e-003	80.2484
Total		0.0697	0.5992	0.2825	3.8000e-003		0.0481	0.0481		0.0481	0.0481		759.8701	759.8701	0.0146	0.0139	764.3856

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	5.78081	0.0623	0.5327	0.2267	3.4000e-003		0.0431	0.0431		0.0431	0.0431		680.0957	680.0957	0.0130	0.0125	684.1372
Regional Shopping Center	0.678082	7.3100e-003	0.0665	0.0558	4.0000e-004		5.0500e-003	5.0500e-003		5.0500e-003	5.0500e-003		79.7744	79.7744	1.5300e-003	1.4600e-003	80.2484
Total		0.0697	0.5992	0.2825	3.8000e-003		0.0481	0.0481		0.0481	0.0481		759.8701	759.8701	0.0146	0.0139	764.3856

6.0 Area Detail

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.1 Mitigation Measures Area

- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- No Hearths Installed
- Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	4.7703	0.0951	8.2538	4.4000e-004		0.0458	0.0458		0.0458	0.0458	0.0000	14.8799	14.8799	0.0143	0.0000	15.2371
Unmitigated	5.1103	0.0951	8.2538	4.4000e-004		0.0458	0.0458		0.0458	0.0458	0.0000	14.8799	14.8799	0.0143	0.0000	15.2371

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.3143					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.5475					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.2485	0.0951	8.2538	4.4000e-004		0.0458	0.0458		0.0458	0.0458		14.8799	14.8799	0.0143		15.2371
Total	5.1103	0.0951	8.2538	4.4000e-004		0.0458	0.0458		0.0458	0.0458	0.0000	14.8799	14.8799	0.0143	0.0000	15.2371

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.3143					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.2075					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.2485	0.0951	8.2538	4.4000e-004		0.0458	0.0458		0.0458	0.0458		14.8799	14.8799	0.0143		15.2371
Total	4.7703	0.0951	8.2538	4.4000e-004		0.0458	0.0458		0.0458	0.0458	0.0000	14.8799	14.8799	0.0143	0.0000	15.2371

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

2615 Model 5 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

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

10.0 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

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2615 Model 6 Rancho Monterey SP Amendment

Riverside-Salton Sea County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	400.00	Dwelling Unit	18.50	400,000.00	748
Regional Shopping Center	150.00	1000sqft	14.00	150,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	15			Operational Year	2026
Utility Company	Imperial Irrigation District				
CO2 Intensity (lb/MWhr)	189.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Model 6: 400 DUs + 150,000 SF of Commercial

Land Use - Average Household Size: 1.87 PPH per CADF. Lot areas are based on the respective planning areas in the SPA. Building areas are based on combined unit count or max retail space as applicable to the model.

Construction Phase - Assumes no demolition due to undeveloped condition.

Grading - Assumes balanced earthwork.

Architectural Coating - Factors SCAMQD Rule 1113 compliance.

Woodstoves - Assumes no fire places or wood stoves per SCAQMD Rule 445.

Area Coating - Factors SCAMQD Rule 1113 compliance.

Construction Off-road Equipment Mitigation - SCAQMD Rule 403/403.1 and RMMC are applied as a requirement.

Area Mitigation - Factors SCAMQD Rule 1113 compliance.

Energy Mitigation -

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Parking	250	100
tblAreaCoating	Area_EF_Residential_Exterior	250	50
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	20
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	50
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	35.00	45.00
tblConstructionPhase	NumDays	35.00	45.00
tblConstructionPhase	PhaseEndDate	12/17/2025	12/31/2025
tblConstructionPhase	PhaseEndDate	10/29/2025	11/12/2025
tblFireplaces	FireplaceDayYear	82.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	457.60	0.00
tblFireplaces	NumberGas	320.00	0.00
tblFireplaces	NumberNoFireplace	40.00	0.00
tblFireplaces	NumberWood	40.00	0.00
tblGrading	AcresOfGrading	135.00	32.50
tblGrading	AcresOfGrading	30.00	32.50

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblLandUse	LotAcreage	25.00	18.50
tblLandUse	LotAcreage	3.44	14.00
tblLandUse	Population	1,144.00	748.00
tblWoodstoves	NumberCatalytic	20.00	0.00
tblWoodstoves	NumberNoncatalytic	20.00	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.1761	1.5380	1.5541	3.5200e-003	0.4440	0.0655	0.5095	0.2025	0.0607	0.2632	0.0000	313.1389	313.1389	0.0684	5.6600e-003	316.5358
2024	0.3143	2.0965	3.2535	7.6700e-003	0.4056	0.0840	0.4896	0.1087	0.0790	0.1877	0.0000	694.6106	694.6106	0.0805	0.0247	703.9716
2025	1.8304	1.5752	2.6018	5.9200e-003	0.2954	0.0609	0.3562	0.0791	0.0571	0.1363	0.0000	535.8943	535.8943	0.0700	0.0168	542.6389
Maximum	1.8304	2.0965	3.2535	7.6700e-003	0.4440	0.0840	0.5095	0.2025	0.0790	0.2632	0.0000	694.6106	694.6106	0.0805	0.0247	703.9716

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	0.1761	1.5380	1.5541	3.5200e-003	0.1732	0.0655	0.2387	0.0696	0.0607	0.1303	0.0000	313.1387	313.1387	0.0684	5.6600e-003	316.5355
2024	0.3143	2.0965	3.2535	7.6700e-003	0.3366	0.0840	0.4206	0.0918	0.0790	0.1708	0.0000	694.6102	694.6102	0.0805	0.0247	703.9713
2025	1.8304	1.5752	2.6018	5.9200e-003	0.2451	0.0609	0.3060	0.0668	0.0571	0.1239	0.0000	535.8940	535.8940	0.0700	0.0168	542.6386
Maximum	1.8304	2.0965	3.2535	7.6700e-003	0.3366	0.0840	0.4206	0.0918	0.0790	0.1708	0.0000	694.6102	694.6102	0.0805	0.0247	703.9713

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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
Percent Reduction	0.00	0.00	0.00	0.00	34.06	0.00	28.77	41.55	0.00	27.62	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	6-1-2023	8-31-2023	0.6008	0.6008
2	9-1-2023	11-30-2023	0.9060	0.9060
3	12-1-2023	2-29-2024	0.6127	0.6127
4	3-1-2024	5-31-2024	0.6052	0.6052
5	6-1-2024	8-31-2024	0.6047	0.6047
6	9-1-2024	11-30-2024	0.5992	0.5992
7	12-1-2024	2-28-2025	0.5677	0.5677
8	3-1-2025	5-31-2025	0.5654	0.5654
9	6-1-2025	8-31-2025	0.5648	0.5648
10	9-1-2025	9-30-2025	0.1297	0.1297
		Highest	0.9060	0.9060

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	2.3972	0.0342	2.9686	1.6000e-004		0.0165	0.0165		0.0165	0.0165	0.0000	4.8542	4.8542	4.6500e-003	0.0000	4.9705
Energy	0.0473	0.4051	0.1791	2.5800e-003		0.0327	0.0327		0.0327	0.0327	0.0000	796.3643	796.3643	0.0660	0.0155	802.6317
Mobile	2.8150	3.4695	22.7557	0.0472	5.2124	0.0395	5.2519	1.3922	0.0370	1.4292	0.0000	4,502.0845	4,502.0845	0.2869	0.2503	4,583.8507
Waste						0.0000	0.0000		0.0000	0.0000	69.3214	0.0000	69.3214	4.0968	0.0000	171.7409
Water						0.0000	0.0000		0.0000	0.0000	11.7931	63.9597	75.7528	1.2224	0.0300	115.2365
Total	5.2595	3.9088	25.9034	0.0500	5.2124	0.0887	5.3011	1.3922	0.0861	1.4784	81.1145	5,367.2627	5,448.3773	5.6767	0.2958	5,678.4302

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	2.2366	0.0342	2.9686	1.6000e-004		0.0165	0.0165		0.0165	0.0165	0.0000	4.8542	4.8542	4.6500e-003	0.0000	4.9705
Energy	0.0473	0.4051	0.1791	2.5800e-003		0.0327	0.0327		0.0327	0.0327	0.0000	779.2408	779.2408	0.0630	0.0151	785.3263
Mobile	2.8150	3.4695	22.7557	0.0472	5.2124	0.0395	5.2519	1.3922	0.0370	1.4292	0.0000	4,502.0845	4,502.0845	0.2869	0.2503	4,583.8507
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	9.4345	54.2604	63.6949	0.9784	0.0240	95.3147
Total	5.0989	3.9088	25.9034	0.0500	5.2124	0.0887	5.3011	1.3922	0.0861	1.4784	9.4345	5,340.4400	5,349.8744	1.3330	0.2895	5,469.4622

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	3.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	88.37	0.50	1.81	76.52	2.13	3.68

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	7/13/2023	8/9/2023	5	20	
2	Grading	Grading	8/10/2023	10/11/2023	5	45	
3	Building Construction	Building Construction	10/12/2023	9/10/2025	5	500	

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4	Paving	Paving	9/11/2025	11/12/2025	5	45
5	Architectural Coating	Architectural Coating	10/30/2025	12/31/2025	5	45

Acres of Grading (Site Preparation Phase): 32.5

Acres of Grading (Grading Phase): 32.5

Acres of Paving: 0

Residential Indoor: 810,000; Residential Outdoor: 270,000; Non-Residential Indoor: 225,000; Non-Residential Outdoor: 75,000; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	231	0.29
Grading	Excavators	2	8.00	158	0.38
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	336.00	67.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	67.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Site Preparation - 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					0.1979	0.0000	0.1979	0.1012	0.0000	0.1012	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0266	0.2752	0.1824	3.8000e-004		0.0127	0.0127		0.0117	0.0117	0.0000	33.4507	33.4507	0.0108	0.0000	33.7212
Total	0.0266	0.2752	0.1824	3.8000e-004	0.1979	0.0127	0.2106	0.1012	0.0117	0.1128	0.0000	33.4507	33.4507	0.0108	0.0000	33.7212

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 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	4.9000e-004	3.5000e-004	4.4600e-003	1.0000e-005	1.4800e-003	1.0000e-005	1.4900e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.1478	1.1478	3.0000e-005	3.0000e-005	1.1583
Total	4.9000e-004	3.5000e-004	4.4600e-003	1.0000e-005	1.4800e-003	1.0000e-005	1.4900e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.1478	1.1478	3.0000e-005	3.0000e-005	1.1583

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					0.0540	0.0000	0.0540	0.0276	0.0000	0.0276	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0266	0.2752	0.1824	3.8000e-004		0.0127	0.0127		0.0117	0.0117	0.0000	33.4507	33.4507	0.0108	0.0000	33.7211
Total	0.0266	0.2752	0.1824	3.8000e-004	0.0540	0.0127	0.0667	0.0276	0.0117	0.0393	0.0000	33.4507	33.4507	0.0108	0.0000	33.7211

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 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	4.9000e-004	3.5000e-004	4.4600e-003	1.0000e-005	1.2200e-003	1.0000e-005	1.2300e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.1478	1.1478	3.0000e-005	3.0000e-005	1.1583
Total	4.9000e-004	3.5000e-004	4.4600e-003	1.0000e-005	1.2200e-003	1.0000e-005	1.2300e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.1478	1.1478	3.0000e-005	3.0000e-005	1.1583

3.3 Grading - 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					0.1527	0.0000	0.1527	0.0763	0.0000	0.0763	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0747	0.7766	0.6312	1.4000e-003		0.0321	0.0321		0.0295	0.0295	0.0000	122.7042	122.7042	0.0397	0.0000	123.6964
Total	0.0747	0.7766	0.6312	1.4000e-003	0.1527	0.0321	0.1848	0.0763	0.0295	0.1058	0.0000	122.7042	122.7042	0.0397	0.0000	123.6964

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 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	1.2400e-003	8.6000e-004	0.0111	3.0000e-005	3.7000e-003	2.0000e-005	3.7200e-003	9.8000e-004	2.0000e-005	1.0000e-003	0.0000	2.8696	2.8696	8.0000e-005	8.0000e-005	2.8958
Total	1.2400e-003	8.6000e-004	0.0111	3.0000e-005	3.7000e-003	2.0000e-005	3.7200e-003	9.8000e-004	2.0000e-005	1.0000e-003	0.0000	2.8696	2.8696	8.0000e-005	8.0000e-005	2.8958

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					0.0417	0.0000	0.0417	0.0208	0.0000	0.0208	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0747	0.7766	0.6312	1.4000e-003		0.0321	0.0321		0.0295	0.0295	0.0000	122.7041	122.7041	0.0397	0.0000	123.6962
Total	0.0747	0.7766	0.6312	1.4000e-003	0.0417	0.0321	0.0738	0.0208	0.0295	0.0503	0.0000	122.7041	122.7041	0.0397	0.0000	123.6962

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 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	1.2400e-003	8.6000e-004	0.0111	3.0000e-005	3.0600e-003	2.0000e-005	3.0800e-003	8.3000e-004	2.0000e-005	8.4000e-004	0.0000	2.8696	2.8696	8.0000e-005	8.0000e-005	2.8958
Total	1.2400e-003	8.6000e-004	0.0111	3.0000e-005	3.0600e-003	2.0000e-005	3.0800e-003	8.3000e-004	2.0000e-005	8.4000e-004	0.0000	2.8696	2.8696	8.0000e-005	8.0000e-005	2.8958

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0448	0.4100	0.4630	7.7000e-004		0.0199	0.0199		0.0188	0.0188	0.0000	66.0644	66.0644	0.0157	0.0000	66.4572
Total	0.0448	0.4100	0.4630	7.7000e-004		0.0199	0.0199		0.0188	0.0188	0.0000	66.0644	66.0644	0.0157	0.0000	66.4572

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.9200e-003	0.0566	0.0249	2.7000e-004	9.4500e-003	4.3000e-004	9.8800e-003	2.7300e-003	4.1000e-004	3.1400e-003	0.0000	25.8372	25.8372	2.7000e-004	3.8300e-003	26.9847
Worker	0.0263	0.0184	0.2371	6.6000e-004	0.0788	3.9000e-004	0.0792	0.0209	3.6000e-004	0.0213	0.0000	61.0650	61.0650	1.7600e-003	1.7200e-003	61.6222
Total	0.0282	0.0749	0.2620	9.3000e-004	0.0882	8.2000e-004	0.0891	0.0237	7.7000e-004	0.0244	0.0000	86.9022	86.9022	2.0300e-003	5.5500e-003	88.6069

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0448	0.4100	0.4630	7.7000e-004		0.0199	0.0199		0.0188	0.0188	0.0000	66.0643	66.0643	0.0157	0.0000	66.4572
Total	0.0448	0.4100	0.4630	7.7000e-004		0.0199	0.0199		0.0188	0.0188	0.0000	66.0643	66.0643	0.0157	0.0000	66.4572

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.9200e-003	0.0566	0.0249	2.7000e-004	8.1100e-003	4.3000e-004	8.5400e-003	2.4000e-003	4.1000e-004	2.8100e-003	0.0000	25.8372	25.8372	2.7000e-004	3.8300e-003	26.9847
Worker	0.0263	0.0184	0.2371	6.6000e-004	0.0651	3.9000e-004	0.0655	0.0176	3.6000e-004	0.0179	0.0000	61.0650	61.0650	1.7600e-003	1.7200e-003	61.6222
Total	0.0282	0.0749	0.2620	9.3000e-004	0.0732	8.2000e-004	0.0741	0.0200	7.7000e-004	0.0207	0.0000	86.9022	86.9022	2.0300e-003	5.5500e-003	88.6069

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7223	303.7223	0.0718	0.0000	305.5179
Total	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7223	303.7223	0.0718	0.0000	305.5179

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	8.6900e-003	0.2599	0.1131	1.2200e-003	0.0434	1.9600e-003	0.0454	0.0125	1.8700e-003	0.0144	0.0000	116.9301	116.9301	1.2900e-003	0.0173	122.1170
Worker	0.1128	0.0754	1.0225	2.9300e-003	0.3621	1.7000e-003	0.3638	0.0962	1.5600e-003	0.0977	0.0000	273.9581	273.9581	7.3700e-003	7.3600e-003	276.3368
Total	0.1215	0.3354	1.1357	4.1500e-003	0.4056	3.6600e-003	0.4092	0.1087	3.4300e-003	0.1122	0.0000	390.8882	390.8882	8.6600e-003	0.0247	398.4538

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7220	303.7220	0.0718	0.0000	305.5175
Total	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7220	303.7220	0.0718	0.0000	305.5175

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	8.6900e-003	0.2599	0.1131	1.2200e-003	0.0373	1.9600e-003	0.0393	0.0110	1.8700e-003	0.0129	0.0000	116.9301	116.9301	1.2900e-003	0.0173	122.1170
Worker	0.1128	0.0754	1.0225	2.9300e-003	0.2993	1.7000e-003	0.3010	0.0808	1.5600e-003	0.0823	0.0000	273.9581	273.9581	7.3700e-003	7.3600e-003	276.3368
Total	0.1215	0.3354	1.1357	4.1500e-003	0.3366	3.6600e-003	0.3403	0.0918	3.4300e-003	0.0952	0.0000	390.8882	390.8882	8.6600e-003	0.0247	398.4538

3.4 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1238	1.1285	1.4557	2.4400e-003		0.0477	0.0477		0.0449	0.0449	0.0000	209.8871	209.8871	0.0493	0.0000	211.1206
Total	0.1238	1.1285	1.4557	2.4400e-003		0.0477	0.0477		0.0449	0.0449	0.0000	209.8871	209.8871	0.0493	0.0000	211.1206

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	5.9300e-003	0.1782	0.0774	8.2000e-004	0.0300	1.3500e-003	0.0314	8.6600e-003	1.3000e-003	9.9600e-003	0.0000	79.3556	79.3556	9.2000e-004	0.0117	82.8700
Worker	0.0728	0.0468	0.6600	1.9500e-003	0.2502	1.1200e-003	0.2513	0.0664	1.0300e-003	0.0675	0.0000	184.6593	184.6593	4.6100e-003	4.7500e-003	186.1911
Total	0.0788	0.2250	0.7373	2.7700e-003	0.2802	2.4700e-003	0.2827	0.0751	2.3300e-003	0.0774	0.0000	264.0149	264.0149	5.5300e-003	0.0165	269.0611

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1238	1.1285	1.4557	2.4400e-003		0.0477	0.0477		0.0449	0.0449	0.0000	209.8869	209.8869	0.0493	0.0000	211.1203
Total	0.1238	1.1285	1.4557	2.4400e-003		0.0477	0.0477		0.0449	0.0449	0.0000	209.8869	209.8869	0.0493	0.0000	211.1203

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	5.9300e-003	0.1782	0.0774	8.2000e-004	0.0258	1.3500e-003	0.0271	7.6200e-003	1.3000e-003	8.9200e-003	0.0000	79.3556	79.3556	9.2000e-004	0.0117	82.8700
Worker	0.0728	0.0468	0.6600	1.9500e-003	0.2068	1.1200e-003	0.2079	0.0558	1.0300e-003	0.0568	0.0000	184.6593	184.6593	4.6100e-003	4.7500e-003	186.1911
Total	0.0788	0.2250	0.7373	2.7700e-003	0.2326	2.4700e-003	0.2350	0.0634	2.3300e-003	0.0657	0.0000	264.0149	264.0149	5.5300e-003	0.0165	269.0611

3.5 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0206	0.1931	0.3280	5.1000e-004		9.4200e-003	9.4200e-003		8.6600e-003	8.6600e-003	0.0000	45.0433	45.0433	0.0146	0.0000	45.4075
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0206	0.1931	0.3280	5.1000e-004		9.4200e-003	9.4200e-003		8.6600e-003	8.6600e-003	0.0000	45.0433	45.0433	0.0146	0.0000	45.4075

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.1000e-004	5.2000e-004	7.3300e-003	2.0000e-005	2.7800e-003	1.0000e-005	2.7900e-003	7.4000e-004	1.0000e-005	7.5000e-004	0.0000	2.0495	2.0495	5.0000e-005	5.0000e-005	2.0666
Total	8.1000e-004	5.2000e-004	7.3300e-003	2.0000e-005	2.7800e-003	1.0000e-005	2.7900e-003	7.4000e-004	1.0000e-005	7.5000e-004	0.0000	2.0495	2.0495	5.0000e-005	5.0000e-005	2.0666

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0206	0.1931	0.3280	5.1000e-004		9.4200e-003	9.4200e-003		8.6600e-003	8.6600e-003	0.0000	45.0433	45.0433	0.0146	0.0000	45.4075
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0206	0.1931	0.3280	5.1000e-004		9.4200e-003	9.4200e-003		8.6600e-003	8.6600e-003	0.0000	45.0433	45.0433	0.0146	0.0000	45.4075

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.1000e-004	5.2000e-004	7.3300e-003	2.0000e-005	2.3000e-003	1.0000e-005	2.3100e-003	6.2000e-004	1.0000e-005	6.3000e-004	0.0000	2.0495	2.0495	5.0000e-005	5.0000e-005	2.0666
Total	8.1000e-004	5.2000e-004	7.3300e-003	2.0000e-005	2.3000e-003	1.0000e-005	2.3100e-003	6.2000e-004	1.0000e-005	6.3000e-004	0.0000	2.0495	2.0495	5.0000e-005	5.0000e-005	2.0666

3.6 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.5991					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.8400e-003	0.0258	0.0407	7.0000e-005		1.1600e-003	1.1600e-003		1.1600e-003	1.1600e-003	0.0000	5.7448	5.7448	3.1000e-004	0.0000	5.7527
Total	1.6029	0.0258	0.0407	7.0000e-005		1.1600e-003	1.1600e-003		1.1600e-003	1.1600e-003	0.0000	5.7448	5.7448	3.1000e-004	0.0000	5.7527

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6100e-003	2.3200e-003	0.0327	1.0000e-004	0.0124	6.0000e-005	0.0125	3.2900e-003	5.0000e-005	3.3400e-003	0.0000	9.1546	9.1546	2.3000e-004	2.4000e-004	9.2306
Total	3.6100e-003	2.3200e-003	0.0327	1.0000e-004	0.0124	6.0000e-005	0.0125	3.2900e-003	5.0000e-005	3.3400e-003	0.0000	9.1546	9.1546	2.3000e-004	2.4000e-004	9.2306

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.5991					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.8400e-003	0.0258	0.0407	7.0000e-005		1.1600e-003	1.1600e-003		1.1600e-003	1.1600e-003	0.0000	5.7448	5.7448	3.1000e-004	0.0000	5.7527
Total	1.6029	0.0258	0.0407	7.0000e-005		1.1600e-003	1.1600e-003		1.1600e-003	1.1600e-003	0.0000	5.7448	5.7448	3.1000e-004	0.0000	5.7527

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6100e-003	2.3200e-003	0.0327	1.0000e-004	0.0103	6.0000e-005	0.0103	2.7700e-003	5.0000e-005	2.8200e-003	0.0000	9.1546	9.1546	2.3000e-004	2.4000e-004	9.2306
Total	3.6100e-003	2.3200e-003	0.0327	1.0000e-004	0.0103	6.0000e-005	0.0103	2.7700e-003	5.0000e-005	2.8200e-003	0.0000	9.1546	9.1546	2.3000e-004	2.4000e-004	9.2306

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	2.8150	3.4695	22.7557	0.0472	5.2124	0.0395	5.2519	1.3922	0.0370	1.4292	0.0000	4,502.0845	4,502.0845	0.2869	0.2503	4,583.8507
Unmitigated	2.8150	3.4695	22.7557	0.0472	5.2124	0.0395	5.2519	1.3922	0.0370	1.4292	0.0000	4,502.0845	4,502.0845	0.2869	0.2503	4,583.8507

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	2,928.00	3,256.00	2512.00	6,521,584	6,521,584
Regional Shopping Center	5,662.50	6,918.00	3165.00	7,264,535	7,264,535
Total	8,590.50	10,174.00	5,677.00	13,786,118	13,786,118

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
Condo/Townhouse	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.542916	0.056689	0.174450	0.134041	0.024680	0.006960	0.011589	0.018600	0.000608	0.000298	0.023389	0.001091	0.004689
Regional Shopping Center	0.542916	0.056689	0.174450	0.134041	0.024680	0.006960	0.011589	0.018600	0.000608	0.000298	0.023389	0.001091	0.004689

5.0 Energy Detail

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	311.2408	311.2408	0.0541	6.5500e-003	314.5452
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	328.3644	328.3644	0.0570	6.9100e-003	331.8506
NaturalGas Mitigated	0.0473	0.4051	0.1791	2.5800e-003		0.0327	0.0327		0.0327	0.0327	0.0000	468.0000	468.0000	8.9700e-003	8.5800e-003	470.7811
NaturalGas Unmitigated	0.0473	0.4051	0.1791	2.5800e-003		0.0327	0.0327		0.0327	0.0327	0.0000	468.0000	468.0000	8.9700e-003	8.5800e-003	470.7811

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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					
Condo/Townhouse	8.43999e+006	0.0455	0.3889	0.1655	2.4800e-003		0.0314	0.0314		0.0314	0.0314	0.0000	450.3899	450.3899	8.6300e-003	8.2600e-003	453.0663
Regional Shopping Center	330000	1.7800e-003	0.0162	0.0136	1.0000e-004		1.2300e-003	1.2300e-003		1.2300e-003	1.2300e-003	0.0000	17.6101	17.6101	3.4000e-004	3.2000e-004	17.7147
Total		0.0473	0.4051	0.1791	2.5800e-003		0.0327	0.0327		0.0327	0.0327	0.0000	468.0000	468.0000	8.9700e-003	8.5800e-003	470.7810

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Condo/Townhouse	8.43999e+006	0.0455	0.3889	0.1655	2.4800e-003		0.0314	0.0314		0.0314	0.0314	0.0000	450.3899	450.3899	8.6300e-003	8.2600e-003	453.0663
Regional Shopping Center	330000	1.7800e-003	0.0162	0.0136	1.0000e-004		1.2300e-003	1.2300e-003		1.2300e-003	1.2300e-003	0.0000	17.6101	17.6101	3.4000e-004	3.2000e-004	17.7147
Total		0.0473	0.4051	0.1791	2.5800e-003		0.0327	0.0327		0.0327	0.0327	0.0000	468.0000	468.0000	8.9700e-003	8.5800e-003	470.7810

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	1.9895e+006	171.4425	0.0298	3.6100e-003	173.2627
Regional Shopping Center	1.821e+006	156.9219	0.0273	3.3000e-003	158.5879
Total		328.3644	0.0570	6.9100e-003	331.8506

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	1.92543e+006	165.9213	0.0288	3.4900e-003	167.6829
Regional Shopping Center	1.68636e+006	145.3195	0.0252	3.0600e-003	146.8624
Total		311.2408	0.0541	6.5500e-003	314.5452

6.0 Area Detail

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.1 Mitigation Measures Area

- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- No Hearths Installed
- Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.2366	0.0342	2.9686	1.6000e-004		0.0165	0.0165		0.0165	0.0165	0.0000	4.8542	4.8542	4.6500e-003	0.0000	4.9705
Unmitigated	2.3972	0.0342	2.9686	1.6000e-004		0.0165	0.0165		0.0165	0.0165	0.0000	4.8542	4.8542	4.6500e-003	0.0000	4.9705

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.1599					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.1480					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0892	0.0342	2.9686	1.6000e-004		0.0165	0.0165		0.0165	0.0165	0.0000	4.8542	4.8542	4.6500e-003	0.0000	4.9705
Total	2.3972	0.0342	2.9686	1.6000e-004		0.0165	0.0165		0.0165	0.0165	0.0000	4.8542	4.8542	4.6500e-003	0.0000	4.9705

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.1599					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.9874					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0892	0.0342	2.9686	1.6000e-004		0.0165	0.0165		0.0165	0.0165	0.0000	4.8542	4.8542	4.6500e-003	0.0000	4.9705
Total	2.2366	0.0342	2.9686	1.6000e-004		0.0165	0.0165		0.0165	0.0165	0.0000	4.8542	4.8542	4.6500e-003	0.0000	4.9705

7.0 Water Detail

7.1 Mitigation Measures Water

- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower
- Use Water Efficient Irrigation System

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	63.6949	0.9784	0.0240	95.3147
Unmitigated	75.7528	1.2224	0.0300	115.2365

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	26.0616 / 16.4301	53.2410	0.8570	0.0210	80.9244
Regional Shopping Center	11.1109 / 6.80989	22.5118	0.3654	8.9500e-003	34.3121
Total		75.7528	1.2224	0.0300	115.2365

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	20.8493 / 15.4279	44.7793	0.6860	0.0169	66.9492
Regional Shopping Center	8.8887 / 6.39449	18.9157	0.2924	7.1800e-003	28.3656
Total		63.6949	0.9784	0.0240	95.3147

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	69.3214	4.0968	0.0000	171.7409

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse	184	37.3503	2.2073	0.0000	92.5339
Regional Shopping Center	157.5	31.9711	1.8894	0.0000	79.2070
Total		69.3214	4.0968	0.0000	171.7409

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse		0.0000	0.0000	0.0000	0.0000
Regional Shopping Center		0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

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

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2615 Model 6 Rancho Monterey SP Amendment

Riverside-Salton Sea County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	400.00	Dwelling Unit	18.50	400,000.00	748
Regional Shopping Center	150.00	1000sqft	14.00	150,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	15			Operational Year	2026
Utility Company	Imperial Irrigation District				
CO2 Intensity (lb/MWhr)	189.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Model 6: 400 DUs + 150,000 SF of Commercial

Land Use - Average Household Size: 1.87 PPH per CADF. Lot areas are based on the respective planning areas in the SPA. Building areas are based on combined unit count or max retail space as applicable to the model.

Construction Phase - Assumes no demolition due to undeveloped condition.

Grading - Assumes balanced earthwork.

Architectural Coating - Factors SCAMQD Rule 1113 compliance.

Woodstoves - Assumes no fire places or wood stoves per SCAQMD Rule 445.

Area Coating - Factors SCAMQD Rule 1113 compliance.

Construction Off-road Equipment Mitigation - SCAQMD Rule 403/403.1 and RMMC are applied as a requirement.

Area Mitigation - Factors SCAMQD Rule 1113 compliance.

Energy Mitigation -

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Parking	250	100
tblAreaCoating	Area_EF_Residential_Exterior	250	50
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	20
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	50
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	35.00	45.00
tblConstructionPhase	NumDays	35.00	45.00
tblConstructionPhase	PhaseEndDate	12/17/2025	12/31/2025
tblConstructionPhase	PhaseEndDate	10/29/2025	11/12/2025
tblFireplaces	FireplaceDayYear	82.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	457.60	0.00
tblFireplaces	NumberGas	320.00	0.00
tblFireplaces	NumberNoFireplace	40.00	0.00
tblFireplaces	NumberWood	40.00	0.00
tblGrading	AcresOfGrading	135.00	32.50
tblGrading	AcresOfGrading	30.00	32.50

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblLandUse	LotAcreage	25.00	18.50
tblLandUse	LotAcreage	3.44	14.00
tblLandUse	Population	1,144.00	748.00
tblWoodstoves	NumberCatalytic	20.00	0.00
tblWoodstoves	NumberNoncatalytic	20.00	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	3.3845	34.5517	28.6229	0.0636	19.9402	1.4253	21.2069	10.1567	1.3113	11.3221	0.0000	6,163.0505	6,163.0505	1.9482	0.2117	6,212.8904
2024	2.5234	15.8794	26.0218	0.0603	3.1474	0.6412	3.7886	0.8425	0.6031	1.4456	0.0000	6,023.3061	6,023.3061	0.6760	0.2048	6,101.2384
2025	72.3800	14.8358	25.3285	0.0593	3.1474	0.5548	3.7023	0.8425	0.5219	1.3644	0.0000	5,945.8716	5,945.8716	0.7425	0.1981	6,021.5766
Maximum	72.3800	34.5517	28.6229	0.0636	19.9402	1.4253	21.2069	10.1567	1.3113	11.3221	0.0000	6,163.0505	6,163.0505	1.9482	0.2117	6,212.8904

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	3.3845	34.5517	28.6229	0.0636	5.5270	1.4253	6.7937	2.7954	1.3113	3.9608	0.0000	6,163.0505	6,163.0505	1.9482	0.2117	6,212.8904
2024	2.5234	15.8794	26.0218	0.0603	2.6110	0.6412	3.2522	0.7108	0.6031	1.3139	0.0000	6,023.3061	6,023.3061	0.6760	0.2048	6,101.2384
2025	72.3800	14.8358	25.3285	0.0593	2.6109	0.5548	3.1658	0.7108	0.5219	1.2327	0.0000	5,945.8716	5,945.8716	0.7425	0.1981	6,021.5766
Maximum	72.3800	34.5517	28.6229	0.0636	5.5270	1.4253	6.7937	2.7954	1.3113	3.9608	0.0000	6,163.0505	6,163.0505	1.9482	0.2117	6,212.8904

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	13.6375	0.3799	32.9845	1.7400e-003		0.1830	0.1830		0.1830	0.1830	0.0000	59.4538	59.4538	0.0570	0.0000	60.8784
Energy	0.2591	2.2196	0.9813	0.0141		0.1790	0.1790		0.1790	0.1790		2,826.7488	2,826.7488	0.0542	0.0518	2,843.5467
Mobile	22.6470	21.5584	158.6432	0.3279	34.7376	0.2598	34.9974	9.2660	0.2432	9.5091		34,446.8964	34,446.8964	1.9982	1.7736	35,025.3748
Total	36.5436	24.1579	192.6090	0.3438	34.7376	0.6218	35.3594	9.2660	0.6052	9.8712	0.0000	37,333.0989	37,333.0989	2.1094	1.8254	37,929.8000

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	12.7575	0.3799	32.9845	1.7400e-003		0.1830	0.1830		0.1830	0.1830	0.0000	59.4538	59.4538	0.0570	0.0000	60.8784
Energy	0.2591	2.2196	0.9813	0.0141		0.1790	0.1790		0.1790	0.1790		2,826.7488	2,826.7488	0.0542	0.0518	2,843.5467
Mobile	22.6470	21.5584	158.6432	0.3279	34.7376	0.2598	34.9974	9.2660	0.2432	9.5091		34,446.8964	34,446.8964	1.9982	1.7736	35,025.3748
Total	35.6636	24.1579	192.6090	0.3438	34.7376	0.6218	35.3594	9.2660	0.6052	9.8712	0.0000	37,333.0989	37,333.0989	2.1094	1.8254	37,929.8000

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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
Percent Reduction	2.41	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	Site Preparation	Site Preparation	7/13/2023	8/9/2023	5	20	
2	Grading	Grading	8/10/2023	10/11/2023	5	45	
3	Building Construction	Building Construction	10/12/2023	9/10/2025	5	500	
4	Paving	Paving	9/11/2025	11/12/2025	5	45	
5	Architectural Coating	Architectural Coating	10/30/2025	12/31/2025	5	45	

Acres of Grading (Site Preparation Phase): 32.5

Acres of Grading (Grading Phase): 32.5

Acres of Paving: 0

Residential Indoor: 810,000; Residential Outdoor: 270,000; Non-Residential Indoor: 225,000; Non-Residential Outdoor: 75,000; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	231	0.29
Grading	Excavators	2	8.00	158	0.38
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	336.00	67.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	67.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 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					19.7896	0.0000	19.7896	10.1168	0.0000	10.1168			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647		3,687.308 1	3,687.308 1	1.1926		3,717.121 9
Total	2.6595	27.5242	18.2443	0.0381	19.7896	1.2660	21.0556	10.1168	1.1647	11.2815		3,687.308 1	3,687.308 1	1.1926		3,717.121 9

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0565	0.0325	0.5146	1.3300e-003	0.1506	7.3000e-004	0.1513	0.0400	6.7000e-004	0.0406		136.4155	136.4155	3.5900e-003	3.4300e-003	137.5262
Total	0.0565	0.0325	0.5146	1.3300e-003	0.1506	7.3000e-004	0.1513	0.0400	6.7000e-004	0.0406		136.4155	136.4155	3.5900e-003	3.4300e-003	137.5262

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 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					5.4026	0.0000	5.4026	2.7619	0.0000	2.7619			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647	0.0000	3,687.308 1	3,687.308 1	1.1926		3,717.121 9
Total	2.6595	27.5242	18.2443	0.0381	5.4026	1.2660	6.6686	2.7619	1.1647	3.9266	0.0000	3,687.308 1	3,687.308 1	1.1926		3,717.121 9

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0565	0.0325	0.5146	1.3300e-003	0.1244	7.3000e-004	0.1252	0.0335	6.7000e-004	0.0342		136.4155	136.4155	3.5900e-003	3.4300e-003	137.5262
Total	0.0565	0.0325	0.5146	1.3300e-003	0.1244	7.3000e-004	0.1252	0.0335	6.7000e-004	0.0342		136.4155	136.4155	3.5900e-003	3.4300e-003	137.5262

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 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					6.7880	0.0000	6.7880	3.3929	0.0000	3.3929			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105		6,011.4777	6,011.4777	1.9442		6,060.0836
Total	3.3217	34.5156	28.0512	0.0621	6.7880	1.4245	8.2125	3.3929	1.3105	4.7035		6,011.4777	6,011.4777	1.9442		6,060.0836

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0628	0.0361	0.5718	1.4800e-003	0.1673	8.1000e-004	0.1681	0.0444	7.4000e-004	0.0451		151.5728	151.5728	3.9800e-003	3.8100e-003	152.8069
Total	0.0628	0.0361	0.5718	1.4800e-003	0.1673	8.1000e-004	0.1681	0.0444	7.4000e-004	0.0451		151.5728	151.5728	3.9800e-003	3.8100e-003	152.8069

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 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					1.8531	0.0000	1.8531	0.9263	0.0000	0.9263			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836
Total	3.3217	34.5156	28.0512	0.0621	1.8531	1.4245	3.2776	0.9263	1.3105	2.2368	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0628	0.0361	0.5718	1.4800e-003	0.1383	8.1000e-004	0.1391	0.0372	7.4000e-004	0.0380		151.5728	151.5728	3.9800e-003	3.8100e-003	152.8069
Total	0.0628	0.0361	0.5718	1.4800e-003	0.1383	8.1000e-004	0.1391	0.0372	7.4000e-004	0.0380		151.5728	151.5728	3.9800e-003	3.8100e-003	152.8069

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0702	1.8942	0.8588	9.4100e-003	0.3362	0.0150	0.3513	0.0969	0.0144	0.1112		998.0250	998.0250	0.0106	0.1478	1,042.3226
Worker	1.0551	0.6066	9.6058	0.0249	2.8112	0.0136	2.8248	0.7457	0.0125	0.7582		2,546.4223	2,546.4223	0.0669	0.0640	2,567.1552
Total	1.1253	2.5008	10.4646	0.0343	3.1474	0.0286	3.1760	0.8425	0.0269	0.8694		3,544.4472	3,544.4472	0.0775	0.2117	3,609.4778

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0702	1.8942	0.8588	9.4100e-003	0.2884	0.0150	0.3034	0.0851	0.0144	0.0995		998.0250	998.0250	0.0106	0.1478	1,042.3226
Worker	1.0551	0.6066	9.6058	0.0249	2.3226	0.0136	2.3361	0.6257	0.0125	0.6382		2,546.4223	2,546.4223	0.0669	0.0640	2,567.1552
Total	1.1253	2.5008	10.4646	0.0343	2.6110	0.0286	2.6396	0.7108	0.0269	0.7377		3,544.4472	3,544.4472	0.0775	0.2117	3,609.4778

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0692	1.8937	0.8497	9.2600e-003	0.3362	0.0149	0.3511	0.0969	0.0143	0.1111		982.6337	982.6337	0.0109	0.1453	1,026.1977
Worker	0.9826	0.5419	9.0053	0.0241	2.8112	0.0130	2.8242	0.7457	0.0119	0.7576		2,484.9735	2,484.9735	0.0608	0.0595	2,504.2331
Total	1.0518	2.4356	9.8550	0.0334	3.1474	0.0279	3.1753	0.8425	0.0262	0.8687		3,467.6072	3,467.6072	0.0717	0.2048	3,530.4308

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0692	1.8937	0.8497	9.2600e-003	0.2884	0.0149	0.3033	0.0851	0.0143	0.0994		982.6337	982.6337	0.0109	0.1453	1,026.1977
Worker	0.9826	0.5419	9.0053	0.0241	2.3226	0.0130	2.3355	0.6257	0.0119	0.6377		2,484.9735	2,484.9735	0.0608	0.0595	2,504.2331
Total	1.0518	2.4356	9.8550	0.0334	2.6110	0.0279	2.6389	0.7108	0.0262	0.7370		3,467.6072	3,467.6072	0.0717	0.2048	3,530.4308

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0684	1.8790	0.8408	9.1000e-003	0.3362	0.0149	0.3512	0.0969	0.0143	0.1111		965.2994	965.2994	0.0113	0.1424	1,008.026 9
Worker	0.9177	0.4871	8.4030	0.0233	2.8112	0.0123	2.8236	0.7457	0.0114	0.7570		2,424.097 8	2,424.097 8	0.0549	0.0556	2,442.051 6
Total	0.9860	2.3661	9.2439	0.0324	3.1474	0.0273	3.1747	0.8425	0.0256	0.8682		3,389.397 2	3,389.397 2	0.0662	0.1981	3,450.078 5

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.474 4	2,556.474 4	0.6010		2,571.498 1

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0684	1.8790	0.8408	9.1000e-003	0.2884	0.0149	0.3033	0.0851	0.0143	0.0994		965.2994	965.2994	0.0113	0.1424	1,008.026 9
Worker	0.9177	0.4871	8.4030	0.0233	2.3226	0.0123	2.3349	0.6257	0.0114	0.6371		2,424.097 8	2,424.097 8	0.0549	0.0556	2,442.051 6
Total	0.9860	2.3661	9.2439	0.0324	2.6109	0.0273	2.6382	0.7108	0.0256	0.7365		3,389.397 2	3,389.397 2	0.0662	0.1981	3,450.078 5

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.745 2	2,206.745 2	0.7137		2,224.587 8
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.745 2	2,206.745 2	0.7137		2,224.587 8

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0410	0.0218	0.3751	1.0400e-003	0.1255	5.5000e-004	0.1261	0.0333	5.1000e-004	0.0338		108.2187	108.2187	2.4500e-003	2.4800e-003	109.0202
Total	0.0410	0.0218	0.3751	1.0400e-003	0.1255	5.5000e-004	0.1261	0.0333	5.1000e-004	0.0338		108.2187	108.2187	2.4500e-003	2.4800e-003	109.0202

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850	0.0000	2,206.745 2	2,206.745 2	0.7137		2,224.587 8
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850	0.0000	2,206.745 2	2,206.745 2	0.7137		2,224.587 8

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0410	0.0218	0.3751	1.0400e-003	0.1037	5.5000e-004	0.1042	0.0279	5.1000e-004	0.0284		108.2187	108.2187	2.4500e-003	2.4800e-003	109.0202
Total	0.0410	0.0218	0.3751	1.0400e-003	0.1037	5.5000e-004	0.1042	0.0279	5.1000e-004	0.0284		108.2187	108.2187	2.4500e-003	2.4800e-003	109.0202

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	71.0700					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	71.2409	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1830	0.0971	1.6756	4.6400e-003	0.5606	2.4600e-003	0.5630	0.1487	2.2700e-003	0.1510		483.3766	483.3766	0.0110	0.0111	486.9567
Total	0.1830	0.0971	1.6756	4.6400e-003	0.5606	2.4600e-003	0.5630	0.1487	2.2700e-003	0.1510		483.3766	483.3766	0.0110	0.0111	486.9567

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	71.0700					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	71.2409	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1830	0.0971	1.6756	4.6400e-003	0.4631	2.4600e-003	0.4656	0.1248	2.2700e-003	0.1270		483.3766	483.3766	0.0110	0.0111	486.9567
Total	0.1830	0.0971	1.6756	4.6400e-003	0.4631	2.4600e-003	0.4656	0.1248	2.2700e-003	0.1270		483.3766	483.3766	0.0110	0.0111	486.9567

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

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	22.6470	21.5584	158.6432	0.3279	34.7376	0.2598	34.9974	9.2660	0.2432	9.5091		34,446.89 64	34,446.89 64	1.9982	1.7736	35,025.37 48
Unmitigated	22.6470	21.5584	158.6432	0.3279	34.7376	0.2598	34.9974	9.2660	0.2432	9.5091		34,446.89 64	34,446.89 64	1.9982	1.7736	35,025.37 48

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	2,928.00	3,256.00	2512.00	6,521,584	6,521,584
Regional Shopping Center	5,662.50	6,918.00	3165.00	7,264,535	7,264,535
Total	8,590.50	10,174.00	5,677.00	13,786,118	13,786,118

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
Condo/Townhouse	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.542916	0.056689	0.174450	0.134041	0.024680	0.006960	0.011589	0.018600	0.000608	0.000298	0.023389	0.001091	0.004689
Regional Shopping Center	0.542916	0.056689	0.174450	0.134041	0.024680	0.006960	0.011589	0.018600	0.000608	0.000298	0.023389	0.001091	0.004689

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.2591	2.2196	0.9813	0.0141		0.1790	0.1790		0.1790	0.1790		2,826.748 8	2,826.748 8	0.0542	0.0518	2,843.546 7
NaturalGas Unmitigated	0.2591	2.2196	0.9813	0.0141		0.1790	0.1790		0.1790	0.1790		2,826.748 8	2,826.748 8	0.0542	0.0518	2,843.546 7

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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					
Condo/Townhouse	23123.3	0.2494	2.1310	0.9068	0.0136		0.1723	0.1723		0.1723	0.1723		2,720.3829	2,720.3829	0.0521	0.0499	2,736.5488
Regional Shopping Center	904.11	9.7500e-003	0.0886	0.0745	5.3000e-004		6.7400e-003	6.7400e-003		6.7400e-003	6.7400e-003		106.3658	106.3658	2.0400e-003	1.9500e-003	106.9979
Total		0.2591	2.2196	0.9813	0.0141		0.1790	0.1790		0.1790	0.1790		2,826.7488	2,826.7488	0.0542	0.0518	2,843.5467

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	23.1233	0.2494	2.1310	0.9068	0.0136		0.1723	0.1723		0.1723	0.1723		2,720.3829	2,720.3829	0.0521	0.0499	2,736.5488
Regional Shopping Center	0.90411	9.7500e-003	0.0886	0.0745	5.3000e-004		6.7400e-003	6.7400e-003		6.7400e-003	6.7400e-003		106.3658	106.3658	2.0400e-003	1.9500e-003	106.9979
Total		0.2591	2.2196	0.9813	0.0141		0.1790	0.1790		0.1790	0.1790		2,826.7488	2,826.7488	0.0542	0.0518	2,843.5467

6.0 Area Detail

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.1 Mitigation Measures Area

- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- No Hearths Installed
- Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	12.7575	0.3799	32.9845	1.7400e-003		0.1830	0.1830		0.1830	0.1830	0.0000	59.4538	59.4538	0.0570	0.0000	60.8784
Unmitigated	13.6375	0.3799	32.9845	1.7400e-003		0.1830	0.1830		0.1830	0.1830	0.0000	59.4538	59.4538	0.0570	0.0000	60.8784

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.8762					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	11.7700					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.9913	0.3799	32.9845	1.7400e-003		0.1830	0.1830		0.1830	0.1830		59.4538	59.4538	0.0570		60.8784
Total	13.6375	0.3799	32.9845	1.7400e-003		0.1830	0.1830		0.1830	0.1830	0.0000	59.4538	59.4538	0.0570	0.0000	60.8784

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.8762					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	10.8900					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.9913	0.3799	32.9845	1.7400e-003		0.1830	0.1830		0.1830	0.1830		59.4538	59.4538	0.0570		60.8784
Total	12.7575	0.3799	32.9845	1.7400e-003		0.1830	0.1830		0.1830	0.1830	0.0000	59.4538	59.4538	0.0570	0.0000	60.8784

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

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

10.0 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

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2615 Model 6 Rancho Monterey SP Amendment

Riverside-Salton Sea County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	400.00	Dwelling Unit	18.50	400,000.00	748
Regional Shopping Center	150.00	1000sqft	14.00	150,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	15			Operational Year	2026
Utility Company	Imperial Irrigation District				
CO2 Intensity (lb/MWhr)	189.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Model 6: 400 DUs + 150,000 SF of Commercial

Land Use - Average Household Size: 1.87 PPH per CADF. Lot areas are based on the respective planning areas in the SPA. Building areas are based on combined unit count or max retail space as applicable to the model.

Construction Phase - Assumes no demolition due to undeveloped condition.

Grading - Assumes balanced earthwork.

Architectural Coating - Factors SCAMQD Rule 1113 compliance.

Woodstoves - Assumes no fire places or wood stoves per SCAQMD Rule 445.

Area Coating - Factors SCAMQD Rule 1113 compliance.

Construction Off-road Equipment Mitigation - SCAQMD Rule 403/403.1 and RMMC are applied as a requirement.

Area Mitigation - Factors SCAMQD Rule 1113 compliance.

Energy Mitigation -

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Parking	250	100
tblAreaCoating	Area_EF_Residential_Exterior	250	50
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	20
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	50
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	35.00	45.00
tblConstructionPhase	NumDays	35.00	45.00
tblConstructionPhase	PhaseEndDate	12/17/2025	12/31/2025
tblConstructionPhase	PhaseEndDate	10/29/2025	11/12/2025
tblFireplaces	FireplaceDayYear	82.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	457.60	0.00
tblFireplaces	NumberGas	320.00	0.00
tblFireplaces	NumberNoFireplace	40.00	0.00
tblFireplaces	NumberWood	40.00	0.00
tblGrading	AcresOfGrading	135.00	32.50
tblGrading	AcresOfGrading	30.00	32.50

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblLandUse	LotAcreage	25.00	18.50
tblLandUse	LotAcreage	3.44	14.00
tblLandUse	Population	1,144.00	748.00
tblWoodstoves	NumberCatalytic	20.00	0.00
tblWoodstoves	NumberNoncatalytic	20.00	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	3.3792	34.5531	28.5229	0.0634	19.9402	1.4253	21.2069	10.1567	1.3113	11.3221	0.0000	6,148.883 4	6,148.883 4	1.9483	0.2138	6,198.752 5
2024	2.4365	16.0166	24.4826	0.0581	3.1474	0.6413	3.7887	0.8425	0.6032	1.4457	0.0000	5,794.512 4	5,794.512 4	0.6771	0.2068	5,873.063 0
2025	72.3619	14.9700	23.9058	0.0572	3.1474	0.5549	3.7023	0.8425	0.5220	1.3645	0.0000	5,723.288 5	5,723.288 5	0.7428	0.1999	5,799.578 5
Maximum	72.3619	34.5531	28.5229	0.0634	19.9402	1.4253	21.2069	10.1567	1.3113	11.3221	0.0000	6,148.883 4	6,148.883 4	1.9483	0.2138	6,198.752 5

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	3.3792	34.5531	28.5229	0.0634	5.5270	1.4253	6.7937	2.7954	1.3113	3.9608	0.0000	6,148.883 4	6,148.883 4	1.9483	0.2138	6,198.752 5
2024	2.4365	16.0166	24.4826	0.0581	2.6110	0.6413	3.2522	0.7108	0.6032	1.3140	0.0000	5,794.512 4	5,794.512 4	0.6771	0.2068	5,873.063 0
2025	72.3619	14.9700	23.9058	0.0572	2.6109	0.5549	3.1658	0.7108	0.5220	1.2328	0.0000	5,723.288 5	5,723.288 5	0.7428	0.1999	5,799.578 5
Maximum	72.3619	34.5531	28.5229	0.0634	5.5270	1.4253	6.7937	2.7954	1.3113	3.9608	0.0000	6,148.883 4	6,148.883 4	1.9483	0.2138	6,198.752 5

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	13.6375	0.3799	32.9845	1.7400e-003		0.1830	0.1830		0.1830	0.1830	0.0000	59.4538	59.4538	0.0570	0.0000	60.8784
Energy	0.2591	2.2196	0.9813	0.0141		0.1790	0.1790		0.1790	0.1790		2,826.7488	2,826.7488	0.0542	0.0518	2,843.5467
Mobile	18.3875	22.8921	146.5409	0.3053	34.7376	0.2601	34.9977	9.2660	0.2435	9.5095		32,068.2719	32,068.2719	2.1031	1.8132	32,661.1674
Total	32.2841	25.4916	180.5066	0.3211	34.7376	0.6222	35.3597	9.2660	0.6055	9.8715	0.0000	34,954.4744	34,954.4744	2.2143	1.8650	35,565.5925

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	12.7575	0.3799	32.9845	1.7400e-003		0.1830	0.1830		0.1830	0.1830	0.0000	59.4538	59.4538	0.0570	0.0000	60.8784
Energy	0.2591	2.2196	0.9813	0.0141		0.1790	0.1790		0.1790	0.1790		2,826.7488	2,826.7488	0.0542	0.0518	2,843.5467
Mobile	18.3875	22.8921	146.5409	0.3053	34.7376	0.2601	34.9977	9.2660	0.2435	9.5095		32,068.2719	32,068.2719	2.1031	1.8132	32,661.1674
Total	31.4041	25.4916	180.5066	0.3211	34.7376	0.6222	35.3597	9.2660	0.6055	9.8715	0.0000	34,954.4744	34,954.4744	2.2143	1.8650	35,565.5925

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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
Percent Reduction	2.73	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	Site Preparation	Site Preparation	7/13/2023	8/9/2023	5	20	
2	Grading	Grading	8/10/2023	10/11/2023	5	45	
3	Building Construction	Building Construction	10/12/2023	9/10/2025	5	500	
4	Paving	Paving	9/11/2025	11/12/2025	5	45	
5	Architectural Coating	Architectural Coating	10/30/2025	12/31/2025	5	45	

Acres of Grading (Site Preparation Phase): 32.5

Acres of Grading (Grading Phase): 32.5

Acres of Paving: 0

Residential Indoor: 810,000; Residential Outdoor: 270,000; Non-Residential Indoor: 225,000; Non-Residential Outdoor: 75,000; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	231	0.29
Grading	Excavators	2	8.00	158	0.38
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	336.00	67.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	67.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 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					19.7896	0.0000	19.7896	10.1168	0.0000	10.1168			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647		3,687.308 1	3,687.308 1	1.1926		3,717.121 9
Total	2.6595	27.5242	18.2443	0.0381	19.7896	1.2660	21.0556	10.1168	1.1647	11.2815		3,687.308 1	3,687.308 1	1.1926		3,717.121 9

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0517	0.0337	0.4245	1.2100e-003	0.1506	7.3000e-004	0.1513	0.0400	6.7000e-004	0.0406		123.6651	123.6651	3.6600e-003	3.5100e-003	124.8020
Total	0.0517	0.0337	0.4245	1.2100e-003	0.1506	7.3000e-004	0.1513	0.0400	6.7000e-004	0.0406		123.6651	123.6651	3.6600e-003	3.5100e-003	124.8020

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 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					5.4026	0.0000	5.4026	2.7619	0.0000	2.7619			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647	0.0000	3,687.308 1	3,687.308 1	1.1926		3,717.121 9
Total	2.6595	27.5242	18.2443	0.0381	5.4026	1.2660	6.6686	2.7619	1.1647	3.9266	0.0000	3,687.308 1	3,687.308 1	1.1926		3,717.121 9

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0517	0.0337	0.4245	1.2100e-003	0.1244	7.3000e-004	0.1252	0.0335	6.7000e-004	0.0342		123.6651	123.6651	3.6600e-003	3.5100e-003	124.8020
Total	0.0517	0.0337	0.4245	1.2100e-003	0.1244	7.3000e-004	0.1252	0.0335	6.7000e-004	0.0342		123.6651	123.6651	3.6600e-003	3.5100e-003	124.8020

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 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					6.7880	0.0000	6.7880	3.3929	0.0000	3.3929			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105		6,011.4777	6,011.4777	1.9442		6,060.0836
Total	3.3217	34.5156	28.0512	0.0621	6.7880	1.4245	8.2125	3.3929	1.3105	4.7035		6,011.4777	6,011.4777	1.9442		6,060.0836

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0575	0.0375	0.4717	1.3400e-003	0.1673	8.1000e-004	0.1681	0.0444	7.4000e-004	0.0451		137.4057	137.4057	4.0600e-003	3.9000e-003	138.6689
Total	0.0575	0.0375	0.4717	1.3400e-003	0.1673	8.1000e-004	0.1681	0.0444	7.4000e-004	0.0451		137.4057	137.4057	4.0600e-003	3.9000e-003	138.6689

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 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					1.8531	0.0000	1.8531	0.9263	0.0000	0.9263			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836
Total	3.3217	34.5156	28.0512	0.0621	1.8531	1.4245	3.2776	0.9263	1.3105	2.2368	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0575	0.0375	0.4717	1.3400e-003	0.1383	8.1000e-004	0.1391	0.0372	7.4000e-004	0.0380		137.4057	137.4057	4.0600e-003	3.9000e-003	138.6689
Total	0.0575	0.0375	0.4717	1.3400e-003	0.1383	8.1000e-004	0.1391	0.0372	7.4000e-004	0.0380		137.4057	137.4057	4.0600e-003	3.9000e-003	138.6689

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0645	2.0111	0.8896	9.4400e-003	0.3362	0.0151	0.3513	0.0969	0.0144	0.1113		1,001.1064	1,001.1064	0.0103	0.1484	1,045.5727
Worker	0.9655	0.6295	7.9242	0.0226	2.8112	0.0136	2.8248	0.7457	0.0125	0.7582		2,308.4152	2,308.4152	0.0682	0.0655	2,329.6373
Total	1.0300	2.6406	8.8138	0.0320	3.1474	0.0287	3.1761	0.8425	0.0269	0.8695		3,309.5217	3,309.5217	0.0786	0.2138	3,375.2100

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0645	2.0111	0.8896	9.4400e-003	0.2884	0.0151	0.3035	0.0851	0.0144	0.0996		1,001.1064	1,001.1064	0.0103	0.1484	1,045.5727
Worker	0.9655	0.6295	7.9242	0.0226	2.3226	0.0136	2.3361	0.6257	0.0125	0.6382		2,308.4152	2,308.4152	0.0682	0.0655	2,329.6373
Total	1.0300	2.6406	8.8138	0.0320	2.6110	0.0287	2.6396	0.7108	0.0269	0.7378		3,309.5217	3,309.5217	0.0786	0.2138	3,375.2100

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0635	2.0107	0.8803	9.2900e-003	0.3362	0.0150	0.3512	0.0969	0.0143	0.1112		985.6888	985.6888	0.0107	0.1459	1,029.4178
Worker	0.9014	0.5621	7.4355	0.0218	2.8112	0.0130	2.8242	0.7457	0.0119	0.7576		2,253.1247	2,253.1247	0.0621	0.0610	2,272.8375
Total	0.9649	2.5729	8.3158	0.0311	3.1474	0.0280	3.1754	0.8425	0.0263	0.8688		3,238.8135	3,238.8135	0.0727	0.2068	3,302.2553

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0635	2.0107	0.8803	9.2900e-003	0.2884	0.0150	0.3034	0.0851	0.0143	0.0994		985.6888	985.6888	0.0107	0.1459	1,029.4178
Worker	0.9014	0.5621	7.4355	0.0218	2.3226	0.0130	2.3355	0.6257	0.0119	0.6377		2,253.1247	2,253.1247	0.0621	0.0610	2,272.8375
Total	0.9649	2.5729	8.3158	0.0311	2.6110	0.0280	2.6389	0.7108	0.0263	0.7371		3,238.8135	3,238.8135	0.0727	0.2068	3,302.2553

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0627	1.9952	0.8714	9.1300e-003	0.3362	0.0150	0.3512	0.0969	0.0143	0.1112		968.3179	968.3179	0.0111	0.1430	1,011.206 9
Worker	0.8437	0.5052	6.9498	0.0211	2.8112	0.0123	2.8236	0.7457	0.0114	0.7570		2,198.496 3	2,198.496 3	0.0563	0.0570	2,216.873 5
Total	0.9064	2.5004	7.8212	0.0302	3.1474	0.0273	3.1748	0.8425	0.0257	0.8682		3,166.814 2	3,166.814 2	0.0673	0.1999	3,228.080 4

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.474 4	2,556.474 4	0.6010		2,571.498 1

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0627	1.9952	0.8714	9.1300e-003	0.2884	0.0150	0.3034	0.0851	0.0143	0.0995		968.3179	968.3179	0.0111	0.1430	1,011.206 9
Worker	0.8437	0.5052	6.9498	0.0211	2.3226	0.0123	2.3349	0.6257	0.0114	0.6371		2,198.496 3	2,198.496 3	0.0563	0.0570	2,216.873 5
Total	0.9064	2.5004	7.8212	0.0302	2.6109	0.0273	2.6383	0.7108	0.0257	0.7365		3,166.814 2	3,166.814 2	0.0673	0.1999	3,228.080 4

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.745 2	2,206.745 2	0.7137		2,224.587 8
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.745 2	2,206.745 2	0.7137		2,224.587 8

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0377	0.0226	0.3103	9.4000e-004	0.1255	5.5000e-004	0.1261	0.0333	5.1000e-004	0.0338		98.1472	98.1472	2.5100e-003	2.5400e-003	98.9676
Total	0.0377	0.0226	0.3103	9.4000e-004	0.1255	5.5000e-004	0.1261	0.0333	5.1000e-004	0.0338		98.1472	98.1472	2.5100e-003	2.5400e-003	98.9676

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850	0.0000	2,206.745 2	2,206.745 2	0.7137		2,224.587 8
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850	0.0000	2,206.745 2	2,206.745 2	0.7137		2,224.587 8

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0377	0.0226	0.3103	9.4000e-004	0.1037	5.5000e-004	0.1042	0.0279	5.1000e-004	0.0284		98.1472	98.1472	2.5100e-003	2.5400e-003	98.9676
Total	0.0377	0.0226	0.3103	9.4000e-004	0.1037	5.5000e-004	0.1042	0.0279	5.1000e-004	0.0284		98.1472	98.1472	2.5100e-003	2.5400e-003	98.9676

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	71.0700					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	71.2409	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1682	0.1007	1.3858	4.2100e-003	0.5606	2.4600e-003	0.5630	0.1487	2.2700e-003	0.1510		438.3906	438.3906	0.0112	0.0114	442.0551
Total	0.1682	0.1007	1.3858	4.2100e-003	0.5606	2.4600e-003	0.5630	0.1487	2.2700e-003	0.1510		438.3906	438.3906	0.0112	0.0114	442.0551

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	71.0700					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	71.2409	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1682	0.1007	1.3858	4.2100e-003	0.4631	2.4600e-003	0.4656	0.1248	2.2700e-003	0.1270		438.3906	438.3906	0.0112	0.0114	442.0551
Total	0.1682	0.1007	1.3858	4.2100e-003	0.4631	2.4600e-003	0.4656	0.1248	2.2700e-003	0.1270		438.3906	438.3906	0.0112	0.0114	442.0551

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

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	18.3875	22.8921	146.5409	0.3053	34.7376	0.2601	34.9977	9.2660	0.2435	9.5095		32,068.27 19	32,068.27 19	2.1031	1.8132	32,661.16 74
Unmitigated	18.3875	22.8921	146.5409	0.3053	34.7376	0.2601	34.9977	9.2660	0.2435	9.5095		32,068.27 19	32,068.27 19	2.1031	1.8132	32,661.16 74

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	2,928.00	3,256.00	2512.00	6,521,584	6,521,584
Regional Shopping Center	5,662.50	6,918.00	3165.00	7,264,535	7,264,535
Total	8,590.50	10,174.00	5,677.00	13,786,118	13,786,118

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
Condo/Townhouse	11.00	3.50	4.50	40.20	19.20	40.60	86	11	3
Regional Shopping Center	12.50	4.20	5.40	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.542916	0.056689	0.174450	0.134041	0.024680	0.006960	0.011589	0.018600	0.000608	0.000298	0.023389	0.001091	0.004689
Regional Shopping Center	0.542916	0.056689	0.174450	0.134041	0.024680	0.006960	0.011589	0.018600	0.000608	0.000298	0.023389	0.001091	0.004689

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.2591	2.2196	0.9813	0.0141		0.1790	0.1790		0.1790	0.1790		2,826.7488	2,826.7488	0.0542	0.0518	2,843.5467
NaturalGas Unmitigated	0.2591	2.2196	0.9813	0.0141		0.1790	0.1790		0.1790	0.1790		2,826.7488	2,826.7488	0.0542	0.0518	2,843.5467

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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					
Condo/Townhouse	23123.3	0.2494	2.1310	0.9068	0.0136		0.1723	0.1723		0.1723	0.1723		2,720.3829	2,720.3829	0.0521	0.0499	2,736.5488
Regional Shopping Center	904.11	9.7500e-003	0.0886	0.0745	5.3000e-004		6.7400e-003	6.7400e-003		6.7400e-003	6.7400e-003		106.3658	106.3658	2.0400e-003	1.9500e-003	106.9979
Total		0.2591	2.2196	0.9813	0.0141		0.1790	0.1790		0.1790	0.1790		2,826.7488	2,826.7488	0.0542	0.0518	2,843.5467

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	23.1233	0.2494	2.1310	0.9068	0.0136		0.1723	0.1723		0.1723	0.1723		2,720.3829	2,720.3829	0.0521	0.0499	2,736.5488
Regional Shopping Center	0.90411	9.7500e-003	0.0886	0.0745	5.3000e-004		6.7400e-003	6.7400e-003		6.7400e-003	6.7400e-003		106.3658	106.3658	2.0400e-003	1.9500e-003	106.9979
Total		0.2591	2.2196	0.9813	0.0141		0.1790	0.1790		0.1790	0.1790		2,826.7488	2,826.7488	0.0542	0.0518	2,843.5467

6.0 Area Detail

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.1 Mitigation Measures Area

- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- No Hearths Installed
- Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	12.7575	0.3799	32.9845	1.7400e-003		0.1830	0.1830		0.1830	0.1830	0.0000	59.4538	59.4538	0.0570	0.0000	60.8784
Unmitigated	13.6375	0.3799	32.9845	1.7400e-003		0.1830	0.1830		0.1830	0.1830	0.0000	59.4538	59.4538	0.0570	0.0000	60.8784

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.8762					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	11.7700					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.9913	0.3799	32.9845	1.7400e-003		0.1830	0.1830		0.1830	0.1830		59.4538	59.4538	0.0570		60.8784
Total	13.6375	0.3799	32.9845	1.7400e-003		0.1830	0.1830		0.1830	0.1830	0.0000	59.4538	59.4538	0.0570	0.0000	60.8784

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.8762					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	10.8900					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.9913	0.3799	32.9845	1.7400e-003		0.1830	0.1830		0.1830	0.1830		59.4538	59.4538	0.0570		60.8784
Total	12.7575	0.3799	32.9845	1.7400e-003		0.1830	0.1830		0.1830	0.1830	0.0000	59.4538	59.4538	0.0570	0.0000	60.8784

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

2615 Model 6 Rancho Monterey SP Amendment - Riverside-Salton Sea County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

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

10.0 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
