Draft Initial Study
and
Mitigated Negative Declaration

KIMANA RESORT AND SPA

Conditional Use Permit CUP 24-6

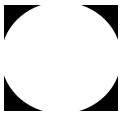
Applicant:

Shayda Ebrahim
13925 Hermano Way
Desert Hot Springs, CA 92240
Tel.: (310) 502-2311

Lead Agency:

City of Desert Hot Springs
11999 Palm Drive
Desert Hot Springs, California 92240





Prepared by:
Terra Nova Planning & Research, Inc.®
42635 Melanie Place, Suite 101
Palm Desert, CA 92211

November 2025

TABLE OF CONTENTS

Title ***Page No.***

CHAPTER ONE – INTRODUCTION 4

1.1 Purpose and Authority 4
1.2 Determination 4
1.3 Public Review Process 4

CHAPTER TWO – PROJECT DESCRIPTION 5

2.1 Project Vicinity 5
2.2 Project Description 5
2.3 Mitigation Monitoring Program 13

CHAPTER THREE - ENVIRONMENTAL CHECKLIST 16

I. AESTHETICS 18
II. AGRICULTURAL AND FORESTRY RESOURCES 21
III. AIR QUALITY 23
IV. BIOLOGICAL RESOURCES 27
V. CULTURAL RESOURCES 32
VI. ENERGY 35
VII. GEOLOGY AND SOILS 37
VIII. GREENHOUSE GAS EMMISSIONS 41
IX. HAZARDS AND HAZARDOUS MATERIALS 44
X. HYDROLOGY AND WATER QUALITY 46
XI. LAND USE AND PLANNING 50
XII. MINERAL RESOURCES 51
XIII. NOISE 52
XIV. POPULATION AND HOUSING 55
XV. PUBLIC SERVICES 56
XVI. RECREATION 58
XVII. TRANSPORTATION 59
XVIII. TRIBAL CULTURAL RESOURCES 63
XIX. UTILITIES AND SERVICE SYSTEMS 65
XX. WILDFIRE 69
XXI. MANDATORY FINDINGS OF SIGNIFICANCE 71

Tables

Table 1 Land Use Summary 5
Table 2 Mitigation Monitoring Program 13
Table 3 Maximum Daily Construction-Related Emissions Summary (pounds per day) 24
Table 4 Maximum Daily Operational-Related Emissions Summary (pounds per day) 25
Table 5 Localized Significance Thresholds Emissions (pounds per day) 26
Table 6 Project Energy Consumption 35
Table 7 Projected GHG Emissions Summary 42
Table 8 Water Demand at Project Buildout 48
Table 9 Desert Hot Springs – Prohibited Hours for Construction Activity 53
Table 10 Intersection Analysis for Existing (2023) Conditions 60
Table 11 Intersection Analysis for EAP (2025) Conditions 60
Table 12 Intersection Analysis for EAPC (2025) Conditions 61
Table 13 Water Demand at Project Buildout 67

Exhibits

Exhibit 1 Regional Location Map 7
Exhibit 2 Project Vicinity Map..... 8
Exhibit 3 Project Location Map 9
Exhibit 4 Site Plan..... 10
Exhibit 5 Typical Hotel Rooms..... 11
Exhibit 6 Reception Building 12

Appendices

APPENDIX A CalEEMOD Air Quality and Greenhouse Gas Modeling, prepared by Terra Nova Planning & Research, Inc. ..... A
APPENDIX B Biological Resources Assessment & Coachella Valley Multiple Species Habitat Conservation Plan Consistency Analysis Report, prepared by Wood Environment & Infrastructure Solutions, Inc. ..... B
APPENDIX C Historical/Archaeological Resources Survey Report, prepared by CRM Tech C
APPENDIX D Traffic Analysis & VMT, prepared by Urban Crossroads, Inc. ..... D

CHAPTER ONE – INTRODUCTION

1.1 Purpose and Authority

The main purpose of the IS/MND is to determine whether there are potentially significant impacts associated with development of the proposed Project in the City of Desert Hot Springs.

This Initial Study and Mitigated Negative Declaration (IS/MND) has been prepared for the development of the Kimana Resort and Spa (proposed Project).

This document conforms to the requirements of the California Environmental Quality Act (CEQA), Public Resources Code Section 21000 et. seq. The City of Desert Hot Springs has prepared this Mitigated Negative Declaration (MND) as the lead agency for the proposed Project. This IS/MND is in conformance with California Environmental Quality Act (CEQA) Section 15070, Subsection (a).

1.2 Determination

This Initial Study determined that development of the proposed Project would not have significant impacts on the environment, with the implementation of mitigation measures.

1.3 Public Review Process

This IS/MND will be circulated for public review to responsible and trustee agencies and interested parties for a period of 20 days. Following the public review and comment process, the City plans to issue a Mitigated Negative Declaration and prepare and file a Notice of Determination.

CHAPTER TWO – PROJECT DESCRIPTION

2.1 Project Vicinity

Total Project Area: 5.2 acres

Assessor's Parcel Numbers: 656-150-003 & 642-252-001

Project Location: The Project site is on vacant lands located in the southeastern portion of the city of Desert Hot Springs, in the north of the Coachella Valley (see Exhibits 2 and 3). The site is located southwest of the southern terminus of Hermano/Quinta Way, and west of Yerxa Road/Hildago Street.

Surrounding development includes primarily single-family residential neighborhoods to the east and north. The subject property is bounded by vacant lands to the south, residential developments to the east and north, and Yerxa Road/Hidalgo Street to the west. The property west of Yerxa Road/Hildago Street is occupied by the historic Bubbling Wells Oasis and Hot Spring Ranch, though most of the lands in proximity to the subject site are vacant.

The Project proposes to develop a low-impact resort including of glamping, amenities, and a small amphitheater, on an approximately 5.2-acre site.

2.2 Project Description

The proposed Kimana Resort project (referred to herein as the Project) proposes the development of the approximately 5.2-acre site with a resort/spa. Accommodations for 23 rooms will be provided on-site, in addition to a total of 20 "glamping" units consisting of a combination of airstream trailers and tent units. A reception building, including a coffee bar and hotel restaurant will be provided on site. Two buildings will provide spa therapy and treatment services.

Excluding the airstream trailers and glamping units, the ten proposed buildings will have a site coverage of 6.2 percent and a floor area ratio of 10 percent. Table 1 provides a summary of the proposed land uses.

Table 1
Land Use Summary

Proposed Use	Building/Structure	Quantity
Guest accommodations	Rooms and cabins	23 rooms
	Glamping units	15 units
	Airstream trailers	5 units
Spa / health club	Building A	4,497 SF
	Building B	
Reception (coffee bar)	Reception Building	12,325 SF
Landscaping	--	35,173 SF
Parking	--	47 spaces

The primary access drive for the site will come from the northwestern corner, providing access to the 47-space parking lot located at the northwestern corner of the property. Additionally, a meandering trail will provide pedestrian and golf-cart access throughout the site. It is expected that while vehicular access will be provided for visitors to travel to the site, most movement between buildings within the site will be via golf carts or on foot.

The Project is proposed to be developed in phases, as shown on Exhibit 4. A gym, spa, salon and greenhouse will be constructed in Phase 1. The gym, spa and salon will be located in the north end of the site, and will consist of temporary buildings immediately south of the parking lot, and immediately north of a grouping of hot pools. The greenhouse will be located at the south end of the Project site (Building E). Phase 2 will add a coffee shop on the south side of the group of hot pools. Phase 3 will add a retail building east of the two temporary buildings installed

in Phase 1. Subsequent phases will result in the construction of permanent structures as shown in Exhibit 4, and the removal of the temporary buildings included in phases 1 through 3 (at phase 10). For purposes of this analysis, and to assure the most conservative level of analysis, this Initial Study analyzes build out of the entire project, not a particular phase.

Existing Conditions

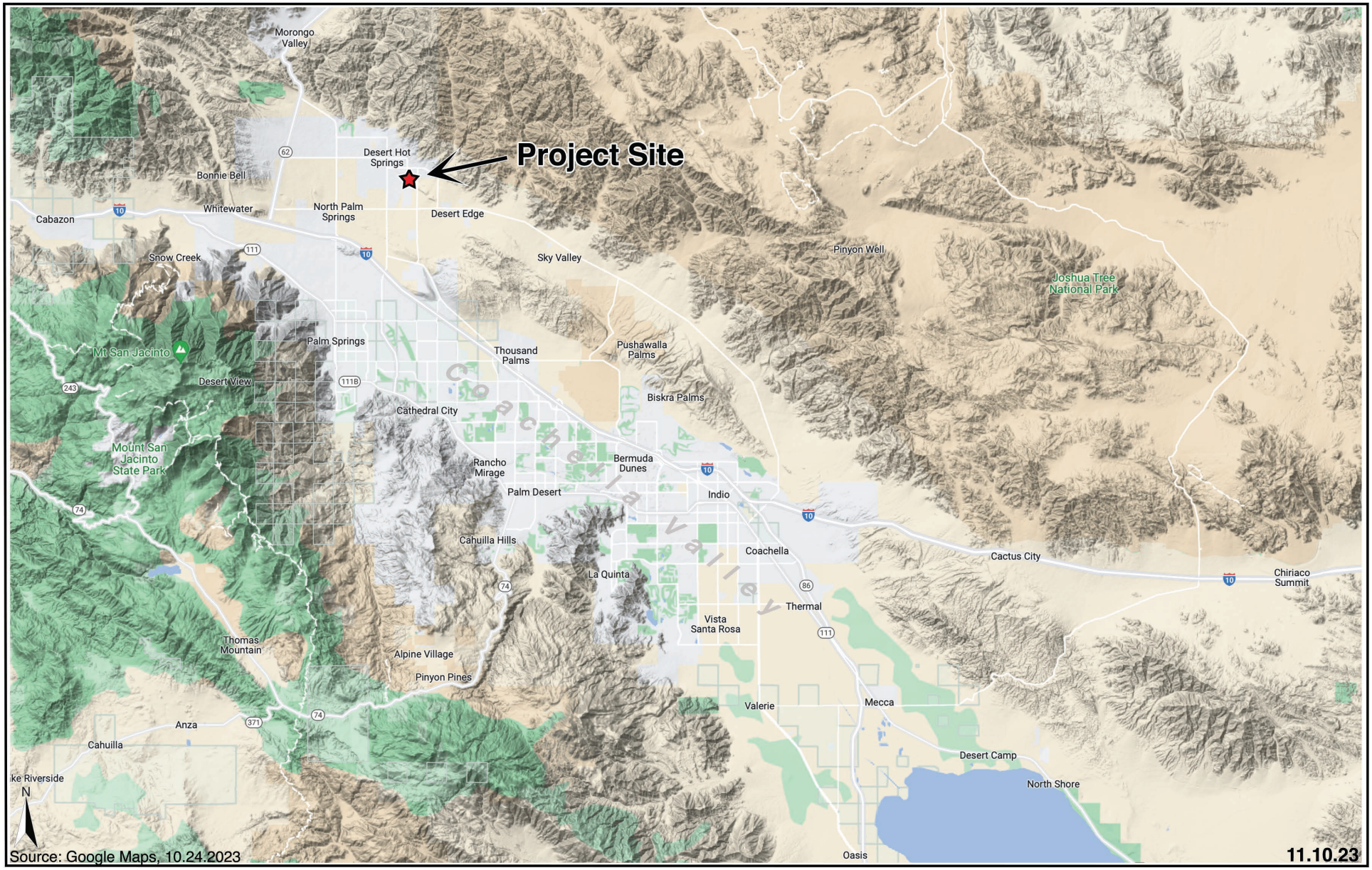
The subject property is designated on the City General Plan land use map as Visitor-Serving. According to the General Plan, the Visitor-Serving designation applies to areas that overlie the natural hot water aquifer that runs beneath Desert Hot Springs, and is intended for development with spa/report type uses. The City Zoning Ordinance assigns the Visitor-Serving Commercial (VS-C) zoning district to the subject property. The VS-C zone permits spa resort land uses by right.

The subject site is currently occupied by a mix of existing landscaped and modified areas with undeveloped areas occurring primarily along the western and southern portions of the property. Dirt roads, trails, irrigation, and graded areas are scattered throughout the site. A man-made boulder-lined drainage traverses the property from the northeastern corner to the south. A second rock-lined drainage traverses the site from northwest to southeast. Both drainages drain into an existing regional detentions basin located south of the site. Several man-made jacuzzi-style hot spring pools occur in the northern portion of the site, and two small man-made ponds occur along a landscaped area with a faux stream in the central portion of the property. A single pre-fabricated dwelling unit is located near the eastern boundary of the site and is unoccupied and unpermitted.

Utilities and Service Providers:

The following utilities will provide service to the Project:

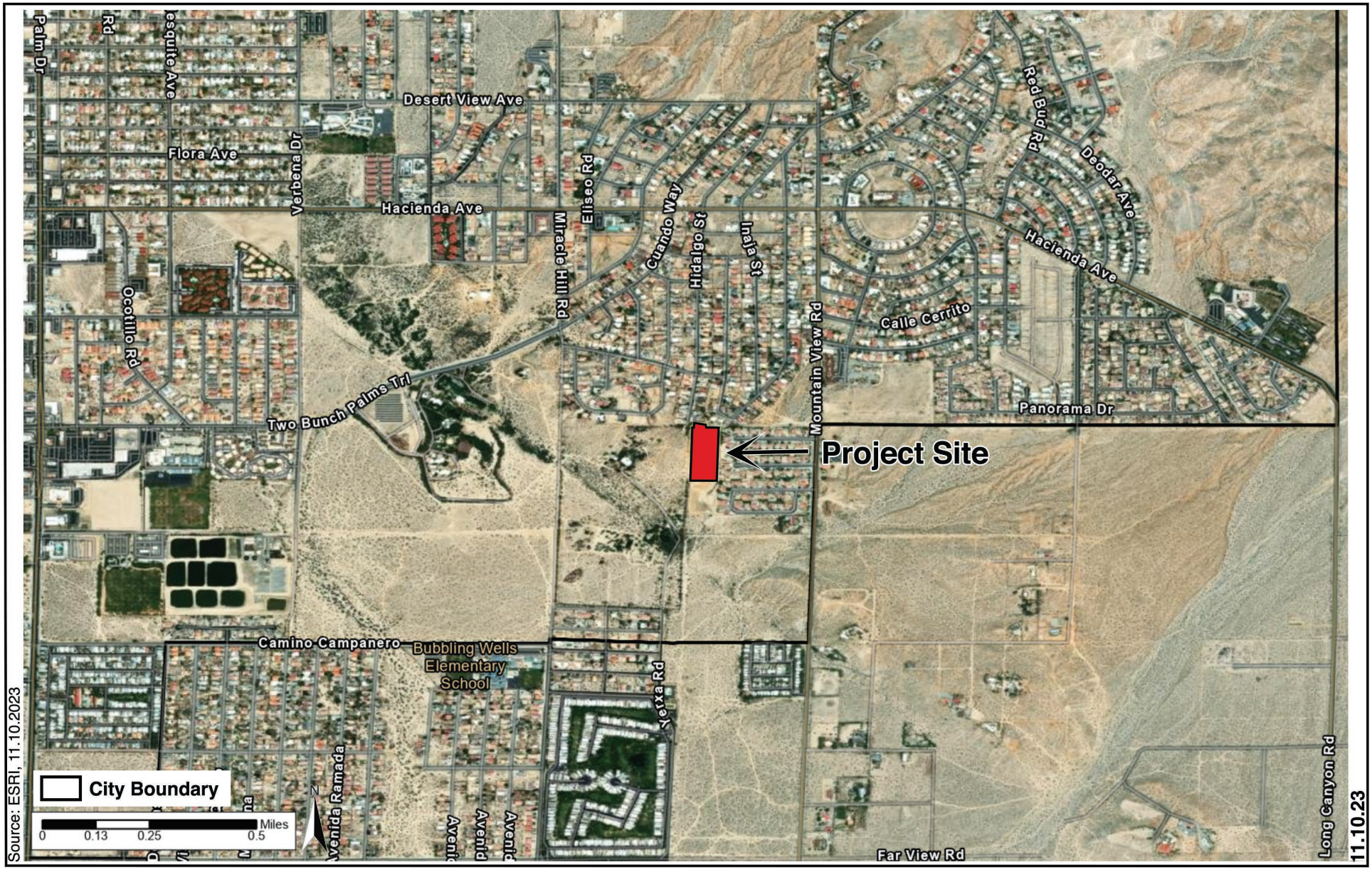
1. Sewer: Mission Springs Water District (MSWD)
2. Water: Mission Springs Water District (MSWD)
3. Electricity: Southern California Edison (SCE)
4. Gas: Southern California Gas Company
5. Telephone: Frontier Communications
6. Cable: Spectrum



TERRA NOVA®
PLANNING & RESEARCH, INC.

Kimana Resort Initial Study
Regional Location Map
Desert Hot Springs, California

Exhibit
1



TERRA NOVA®
PLANNING & RESEARCH, INC.

Kimana Resort Initial Study
Project Vicinity Map
Desert Hot Springs, California

Exhibit
2

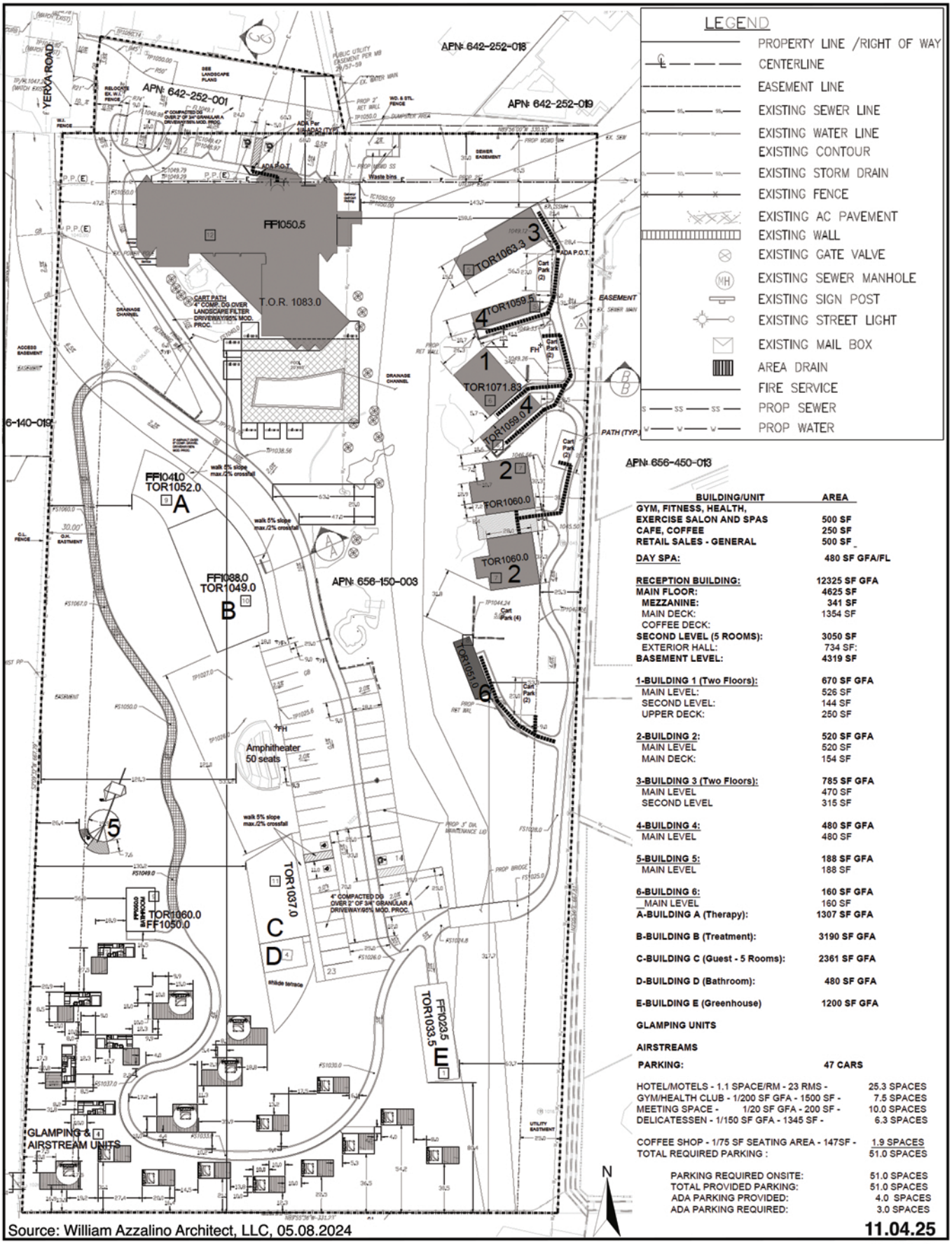


11.13.23

TERRA NOVA®
PLANNING & RESEARCH, INC.

Kimana Resort Initial Study
Project Location Map
Desert Hot Springs, California

Exhibit
3



BUILDING/UNIT	AREA
GYM, FITNESS, HEALTH,	
EXERCISE SALON AND SPAS	500 SF
CAFE, COFFEE	250 SF
RETAIL SALES - GENERAL	500 SF
DAY SPA:	480 SF GFA/FL
RECEPTION BUILDING:	12325 SF GFA
MAIN FLOOR:	4625 SF
MEZZANINE:	341 SF
MAIN DECK:	1354 SF
COFFEE DECK:	
SECOND LEVEL (5 ROOMS):	3050 SF
EXTERIOR HALL:	734 SF:
BASEMENT LEVEL:	4319 SF
1-BUILDING 1 (Two Floors):	670 SF GFA
MAIN LEVEL:	526 SF
SECOND LEVEL:	144 SF
UPPER DECK:	250 SF
2-BUILDING 2:	520 SF GFA
MAIN LEVEL	520 SF
MAIN DECK:	154 SF
3-BUILDING 3 (Two Floors):	785 SF GFA
MAIN LEVEL	470 SF
SECOND LEVEL	315 SF
4-BUILDING 4:	480 SF GFA
MAIN LEVEL	480 SF
5-BUILDING 5:	188 SF GFA
MAIN LEVEL	188 SF
6-BUILDING 6:	160 SF GFA
MAIN LEVEL	160 SF
A-BUILDING A (Therapy):	1307 SF GFA
B-BUILDING B (Treatment):	3190 SF GFA
C-BUILDING C (Guest - 5 Rooms):	2361 SF GFA
D-BUILDING D (Bathroom):	480 SF GFA
E-BUILDING E (Greenhouse)	1200 SF GFA
GLAMPING UNITS	
AIRSTREAMS	
PARKING:	47 CARS

HOTEL/MOTELS - 1.1 SPACE/RM - 23 RMS -	25.3 SPACES
GYM/HEALTH CLUB - 1/200 SF GFA - 1500 SF -	7.5 SPACES
MEETING SPACE - 1/20 SF GFA - 200 SF -	10.0 SPACES
DELICATESSEN - 1/150 SF GFA - 1345 SF -	6.3 SPACES
COFFEE SHOP - 1/75 SF SEATING AREA - 147SF -	1.9 SPACES
TOTAL REQUIRED PARKING :	51.0 SPACES
PARKING REQUIRED ONSITE:	51.0 SPACES
TOTAL PROVIDED PARKING:	51.0 SPACES
ADA PARKING PROVIDED:	4.0 SPACES
ADA PARKING REQUIRED:	3.0 SPACES

Source: William Azzalino Architect, LLC, 05.08.2024

11.04.25

TERRA NOVA®
PLANNING & RESEARCH, INC.

Kimana Resort Initial Study
Project Site Plan
Desert Hot Springs, California

Exhibit 4



Source: William Azzalino Architect, LLC, 05.08.2024

11.04.25

TERRA NOVA®
PLANNING & RESEARCH, INC.

Kimana Resort Initial Study
Hotel Rooms
Desert Hot Springs, California

Exhibit
5





Source: William Azzalino Architect, LLC, 05.08.2024

11.04.25

TERRA NOVA®
PLANNING & RESEARCH, INC.

Kimana Resort Initial Study
Reception Building
Desert Hot Springs, California

Exhibit

6

2.3 Mitigation Monitoring Program

Mitigation measures are included where applicable within each section of the Initial Study checklist and are summarized below. Table 1 Mitigation Monitoring Program outlines the potential impacts and mitigation measures of the proposed Project and assigns responsibility for the oversight of each mitigation measure. This table shall be included in all bid documents as a part of the Project development.

Table 2
Mitigation Monitoring Program

Section Number	Mitigation Measures	Responsible for Monitoring	Timing	Impact after Mitigation
IV.	**BIO-1** If desert tortoise is detected on-site during any phase of the Project, all construction activity shall stop, and the U.S. Fish and Wildlife Service, CDFW, and CVCC shall be consulted for further guidance for relocation. This consultation may result in the provision of additional impact avoidance, minimization, and/or mitigation measures.	Project biologist, Planning Department	During ground disturbing activities	Less than significant.
IV.	**BIO-2** Project-related disturbance (i.e., grading, vegetation removal or trimming, landscaping, operation of heavy equipment, etc.) either shall be conducted outside of the nesting season (from approximately January 15 through 31 August), or a pre-construction nesting bird clearance survey shall be conducted. The survey shall be conducted by a qualified ornithologist or biologist immediately prior to onsite disturbance during the nesting season. If nesting birds are found, all work shall be halted until young have fledged. CDFW-recommended avoidance buffers of about 100-300 feet for unlisted songbirds and 500 feet for listed songbirds and raptors shall be applied.	Project biologist, Planning Department	Prior to ground disturbing activities	Less than significant.
IV.	**BIO-3** Two pre-construction take avoidance surveys for burrowing owl shall be conducted immediately prior to Project construction. The surveys shall comply to CDFW's protocol, as contained in the Staff Report for Burrowing Owl (2012) published by the Department. If burrowing owl are detected on-site, a qualified biologist shall prepare a plan for relocation or avoidance and receive clearance from CDFW and the CVCC prior to implementation of the plan.	Project biologist, Planning Department	Prior to ground disturbing activities	Less than significant.

Table 2
Mitigation Monitoring Program

Section Number	Mitigation Measures	Responsible for Monitoring	Timing	Impact after Mitigation
IV.	**BIO-4** Prior to any ground-disturbing activities and prior to the issuance of grading permits, a jurisdictional delineation shall be conducted in order to determine the status of the existing drainages. If the drainages are determined to be jurisdictional waters, then the appropriate permits shall be obtained from the CDFW and/or the USFWS.	Project biologist, Planning Department	Prior to ground disturbing activities	Less than significant.
V.	**CUL-1:** A qualified archaeological and Tribal monitor from ACBCI shall be present during all ground-disturbing activities within the Project site. The archaeologist and Tribal monitor shall be empowered to stop or redirect ground disturbing activities if resources are identified. If the qualified archaeologist and ACBCI monitor determine that on-site reburial is the appropriate measure to be taken for the artifact(s) discovered on the Project site, they will recommend a location to the City and project proponent. That location will be described and recorded as an easement in favor of ACBCI on the property in perpetuity prior to the completion of the first structure on the property.	Project contractor, Project archaeologist, Planning Department	During ground disturbing activities	Less than significant.

CHAPTER THREE – ENVIRONMENTAL CHECKLIST

1. **Project Name:** Kimana Resort and Spa

2. **Lead Agency Name and Address:**
   City of Desert Hot Springs
   11999 Palm Drive
   Desert Hot Springs, California 92240

3. **Contact Person and Phone Number:**
   Patricia Villagomez
   760-329-6411 Ext. 243

4. **Project Location:** The Project site consists of two parcels (APN 642-252-001 and 656-150-003) located southwest of the terminus of Hermano Way/Quinta Way and east of Yerxa Road/Hidalgo Road. The subject property is approximately 960 feet west of Mountain View Road and 2,800 feet south of Hacienda Avenue.

5. **Project Applicants' Name and Address:**
   Shayda Ebrahimi
   13925 Hermano Way
   Desert Hot Springs, CA 92240

6. **General Plan Designation:** Visitor Serving (V-S)

7. **Zoning Designation:** Visitor Serving Commercial (VS-C)

8. **Description of Project:** The Project proposes development of an approximately 5.2-acre site in Desert Hot Springs, California. The proposed development would result in a resort/spa and glamping facility, with 23 hotel rooms, 5 air stream trailers, and 15 glamping units. Spa therapy and treatment services will be provided on-site, in addition to a coffee bar and hotel restaurant.

9. **Surrounding Land Uses and Setting**: Lands to the north and east of the site are occupied by existing single family residential development. The site to the west is occupied by the Bubbling Wells Oasis Hot Springs Ranch, however the hotel is approximately 540 feet west of the subject site, and the intervening area vacant undeveloped land with minimal disturbance. The site to the south is occupied by a drainage outlet and basin.

10. **Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement.):**

    Mission Springs Water District

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a “Potentially Significant Impact” or “Less Than Significant with Mitigation Incorporated” as indicated by the checklist on the following pages.

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

DETERMINATION

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been adequately analyzed in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Patricia M. Villagomez _____ 11/26/2025

Date

I. AESTHETICS Except as provided in Public Resources Code Section 21099, would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Sources: City of Desert Hot Springs General Plan (May 2020); Caltrans, California State Scenic Highways, https://dot.ca.gov/programs/design/lap-landscape-architecture-and-communitylivability/lap-liv-i-scenic-highways (accessed December 2023); Desert Hot Springs Municipal Code.

Setting

The Project site is located in the eastern portion of Desert Hot Springs, a city in the northwest of the Coachella Valley. The City is surrounded by the Little San Bernardino Mountain to the north and east, and the San Gorgonio Mountains to the northwest. The San Jacinto Mountains form the southern boundary of the Coachella Valley and are visible from Desert Hot Springs towards the south.

Desert Hot Springs is situated north of Interstate 10, and south of the Little San Bernardino Mountains. The land in this area slopes gradually upwards from Interstate 10, giving the City a high vantage points with views overlooking Palm Springs to the south and the rest of the Coachella Valley to the southeast.

Surrounding mountains reach elevations of up to 11,000 feet. Elevations on the subject site range from approximately 305 to 317 meters (1,000-1,040 feet) above mean sea level. On-site topography resembles a small canyon, with high points occurring along the north, west, and east boundaries, and a gradual slope down from the north to the south.

The Project site is located near the southeastern edge of the City. Lands to the north and southwest of the site are mostly developed with a mix of single family residential and resort land uses. Lands to the east and southeast are mostly development. The subject site is currently partially developed with a mix of existing landscaped and modified areas with undeveloped areas occurring primarily along the western and southern portions of the property. Existing landscaping and development on-site include dirt roads, trails, and graded two boulder-lined drainages, several man-made jacuzzi-style hot spring pools, two small man-made ponds, and a single pre-fabricated dwelling unit is located near the eastern boundary of the site. Existing structures and landscaping will be removed from the subject site prior to development. The proposed Project will result in resort/spa and glamping facility including ten buildings, eight airstream trailers, and sixteen glamping units.

Discussion of Impacts

a) Less Than Significant Impact. A scenic vista is a viewpoint that provides views of a highly valued landscape for the benefit of the general public. The Project site is surrounded by existing residential development to the north and east, and mostly vacant lands to the south and west.

Due to the topography of the subject site, views from the property vary depending on the location and elevation. From high points on-site, Mount San Gorgonio and the San Bernardino Mountains are visible to the west, the San Jacinto Mountains and Santa Rosa Mountains are visible to the southwest and south, and the Little San Bernardino Mountains are visible to the north and northeast.

Lands to the North
Lands immediately to the north of the subject site are occupied by existing residential development. Views to the south, of the San Jacinto and Santa Rosa Mountains, from these properties are currently partially blocked by an existing hill/berm on the northern portion of the Project site. Given that the views from these residential properties are already mostly obstructed, the proposed development would have less than significant impacts on any scenic vistas from the north.

Lands to the East
Lands immediately to the east of the Project site are occupied by existing single-family residences. Public views from this residential development include partial vistas of the uppermost elevations of the San Bernardino Mountains to the west, the mid- and upper-elevations of the San Jacinto Mountains to the west and southwest. Given that views directly to the west are already mostly obstructed, the Project is expected to have a less than significant impact on views from lands to the east of the subject site.

Lands to the West
The Bubbling Wells Hot Spring Ranch occurs approximately 550 feet west of the subject site. Intervening lands are currently vacant. Given the significant intervening open space, and that the proposed development will be configured with amble space between structures, the Project would have less than significant impacts on views from the west.

Lands to the South
Lands to the south of the subject site are occupied by a drainage culvert and basin. Therefore, no viewers from the south would be impacted by the Project.

For these reasons, the Project's overall impacts to scenic vistas would be less than significant.

b) No Impact. There are no eligible or officially designated State Scenic Highways in the Project area. Most of the subject site has been disturbed, including grading and clearing of native vegetation. No scenic resources, including trees, rock outcroppings, or historic buildings occur on the property. There will be no impact.

c) Less Than Significant Impact. The Project is in an urbanized area and will be consistent with applicable zoning and other regulations governing scenic quality. The proposed Project will result in resort/spa and glamping facility including ten buildings, eight airstream trailers, and sixteen glamping units. The site is designated for Visitor Serving uses and zoned for Visitor-Serving Commercial. According to the General Plan, using in the Visitor-Serving designation should predominantly be development with spa/resort and residential uses, and "Spa Resort" uses are permitted by right in Visitor-Serving Commercial zones according to Table 17.12.01 in the City's Zoning Ordinance.

The development standards for the VS-C zone require a maximum floor-area ratio of 0.30 and a maximum of three stories or 35 feet. All of the proposed buildings are one or two stories and do not exceed 35 feet in height. The VS-C development standards also require a front setback of 20 feet, as well as rear and side setbacks of 10 feet or 20 feet is adjacent to residential. The proposed site plan is consistent with these setbacks, including the provisions of 20-foot setbacks in the front and on the site adjacent to residential, and ten foot setbacks in the rear and on the side without adjacent residential. The Project will therefore be consistent with the scale and intensity of development intended for sites zoned as VS-C. All lighting, landscaping, and other features of the proposed development will be consistent with the City's development standards and other standards pertaining to scenic quality. Impacts will therefore be less than significant.

d) Less Than Significant Impact. The subject site is currently sparsely developed. The proposed development would be expected to increase the sources of light and glare on the property. Potential sources of light may include landscape lighting along pedestrian trails as well as lighting in the parking area and along driveways. All outdoor lighting will be required to comply with the City's outdoor lighting standards, including requirements for shielding and filtering, as provided in §17.40.170 of the Municipal Code.

The proposed development will include materials such as glass that may reflect light. However, all on-site buildings and structures will be required to comply with §17.40.140 of the Municipal Code, which prohibits incidental glare from extending beyond the property line. This will ensure that day and nighttime views in the area will not be adversely affected.

Overall, impacts related to light and glare will be less than significant.

Mitigation Measures:
None required.

Monitoring:
None required.

II. AGRICULTURAL AND FORESTRY RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to the information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

Would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resource Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104 (g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the exiting environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Sources: City of Desert Hot Springs General Plan, May 2020; California Department of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring Program, 2018.

Setting

The Project site is located in an area of the City designated as residential and visitor-serving on the City General Plan Land Use map. There are no agricultural lands in the City of Desert Hot Springs or in this area of the valley, nor is there a source of agricultural irrigation for crop cultivation. Located on the desert alluvial fans of the valley and in an area prone to very dry and strong winds, the area does not harbor any forestry resources and has never been suitable for agriculture.

Discussion of Impacts

a-e) No Impact. According to the Riverside County Assessor Map, the area is considered "Residential" and is not suitable for livestock grazing, confined livestock, or poultry. The site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide or Local Importance by the California Department of Conservation. The closest farmland areas are located approximately 40 miles southeast of the City.[1] Nor does the City's General Plan designate agricultural lands in the area. In addition, the site is surrounded by lands which are not in agricultural uses but rather are in various stages of urbanization. The proposed Project will not result in the conversion of Farmland or forestry lands to non-agricultural use.

In the City's General Plan, the proposed Project will be located on a parcel that is not on or adjacent to properties with agricultural or forestry uses. The subject property is designated for urban development in the General Plan.

The City of Desert Hot Springs does not contain forest land, timberland, or timberland zoned for Timberland production. Thus, the proposed Project will not result in the loss or conversion of forestland to non-forest use. Overall, no impact is anticipated.

Mitigation Measures:
None required.

Monitoring:
None required.

[1] City of Desert Hot Springs General Plan, Housing Element p.16.

III. AIR QUALITY

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations.	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

Sources: Southern California Association of Governments, Regional Transportation Plan/Sustainable Communities Strategy Demographics and Growth Forecast (September 2020); City of Desert Hot Springs General Plan (May 2020); South Coast Air Quality Management District, Final Localized Significance Threshold Methodology (revised July 2008); South Coast Air Quality Management District, Air Quality Guidance Document (May, 2005); County of Riverside Department of Environmental Health, Construction Plan Approval Procedures for Food Facilities (September 2013).

Setting

The City of Desert Hot Springs, including the Project site, is located within the Riverside County portion of the Salton Sea Air Basin (SSAB). SSAB is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The SCAQMD is one of the 35 air quality regulatory agencies in the State of California and all development within the SSAB is subject to SCAQMD's 2022 Air Quality Management Plan (2022 AQMP) and the 2003 Coachella Valley PM_{10} State Implementation Plan (2003 CV PM10 SIP). The SCAQMD operates and maintains regional air quality monitoring stations at numerous locations throughout its jurisdiction. The project site is located within Source Receptor Area (SRA) 30, (Coachella Valley) which includes monitoring stations in Palm Springs, Indio and Mecca.

Criteria air pollutants are contaminants for which state and federal air quality standards (California Ambient Air Quality Standards (CAAQS) and National Ambient Air Quality Standards (NAAQS)) have been established. The SSAB exceeds state and federal standards for fugitive dust (PM_{10}) and ozone (O_3). Health risks associated with PM and ozone pollution include respiratory issues such as coughing, wheezing, asthma and even high blood pressure. Ambient air quality in the SSAB, including the Proposed Project site, does not exceed state or federal standards for carbon monoxide, nitrogen dioxides, sulfur dioxide, lead, sulfates, hydrogen sulfide, or Vinyl Chloride.

The SSAB continues to exceed federal and state standards for ozone and PM_{10}. In order to achieve attainment in the region, the 2003 Coachella Valley PM_{10} Management Plan was adopted, which established strict standards for dust management for development proposals. The project will contribute to an incremental increase in regional ozone and PM_{10} emissions.

Discussion of Impacts

a) No Impact. The Project site is located within the jurisdiction of the SCAQMD and is subject to the 2022 South Coast Air Quality Management Plan (2022 AQMP) and the 2003 Coachella Valley PM_{10} State Implementation Plan (2003 CV PM_{10} SIP). The 2022 AQMP is a comprehensive plan establishing guidelines and strategies for reducing air pollutants in order to meet national air quality standards.

SCAQMD works with the Southern California Association of Governments (SCAG) as well as local governments such as the City of Desert Hot Springs. According to the City's 2020 General Plan, the Project site is designated for Visitor-Serving (V-S) uses, and according to the City's Zoning Ordinance, the site is zoned for Visitor-Serving Commercial (VS-C). The VS designation is intended for spa/resort type uses, and spa resorts are a permitted use in the VS-C zone. The proposed development will be consistent with the intended uses for the site and will comply with the applicable site development standards.

SCAG adopted the 2020-2045 Regional Transportation Plan / Sustainable Communities Strategy (2020 RTP/SCS) in compliance with the metropolitan planning organization (MPO) requirements under the Sustainable Communities and Climate Protection Act. The Demographics and Growth Forecast technical report prepared for the RTP/SCS forms the basis of the land use and transportation controls provided in the AQMP. The Jurisdiction-Level Growth Forecast provided in the RTP/SCS projects that the population of Desert Hot Spring will grow from 29,000 to 61,000 residents from 2016 to 2045. Given that the proposed Project is consistent with the City's General Plan, which is accounted for in the RTP/SCS projections, it can be assumed that the proposed development would conform to the RTP/SCS growth forecast for the City. Likewise, given that the Project conforms to the City's General Plan and SCAG's regional growth forecasts, it can be assumed that the development would not conflict with the AQMP.

The Project will be required to comply with all applicable regulations contained in the 2022 AQMP, the 2003 CV PM10 SIP, and other rules established by SCAQMD. The proposed development aligns with the land uses accounted for in local and regional plans and will comply with all applicable air quality regulations. It can therefore be concluded that the Project would not conflict with the implementation of applicable air quality plans, and no impacts would occur as a result.

b) Less Than Significant Impact. The California Emissions Estimator Model (CalEEMod) Version 2022.1.1.21 was used to project the criteria pollutant emissions resulting from the proposed development (Appendix A). The Project would generate emissions during the construction phase and during operations.

Construction Emissions:
Development of the Project would involve site preparation, grading, building construction, paving, and the application of architectural coatings. For analysis purposes, construction is expected to occur over a 1.5-year period. Construction-related pollutant emissions will be temporary and will end once construction is complete.

According to the Conceptual Grading Plan prepared for the Project, site grading would involve 2,858 cubic yards (CY) of cut and 2,890 CY of fill, resulting in 32 CY of net material imports. For the purpose of air quality modeling, construction is expected to result in 48 motel units, 2,500 square feet of spa/health club uses, 641 square feet of restaurant and coffee bar uses, and a 47-space parking lot. The Project is assumed to include 35,173 square feet of landscaped area, based on the minimum 15% requirement provided in Ordinance 785. Based on these assumptions, Table 3 provides the estimated emissions resulting from construction of the Project.

Table 3
Maximum Daily Construction-Related Emissions Summary (pounds per day)

Construction Emissions[1]	CO	NO_x	ROG	SO_2	PM_{10}	$PM_{2.5}$
Daily Maximum	34.7	36.1	3.74	0.05	9.49	5.47
SCAQMD Thresholds	**550.0**	**100.0**	**75.0**	**150.0**	**150.0**	**55.0**
Exceeds?	**No**	**No**	**No**	**No**	**No**	**No**

As shown in the table above, construction of the Project would result in criteria pollutant emissions below the SCAQMD daily mass rate thresholds for CO, NO_x, ROG, SO_x, PM_{10}, and $PM_{2.5}$.

Operational Emissions:
Operational emissions are the long term, ongoing emissions over the life of a project. They include area source emissions (e.g. off-gassing of architectural coatings), energy emissions (e.g. electricity), mobile source emissions (vehicle emissions), as well as emissions from waste and water use. Based on the traffic study prepared for the Project (Appendix D), mobile source emissions were calculated based on an assumed 389 average daily trips. Table 4 shows the total daily emissions expected to result from operation of the proposed Project.

Table 4
Maximum Daily Operational-Related Emissions Summary
(pounds per day)

	CO	NO_x	ROG	SO_2	PM_{10}	$PM_{2.5}$
Operational Emissions[1]	24.7	2.62	1.90	0.06	4.84	1.26
SCAQMD Thresholds	**550.0**	**55.0**	**55.0**	**150.0**	**150.0**	**55.0**
Exceeds?	**No**	**No**	**No**	**No**	**No**	**No**

As shown in the above table, Project operations would not exceed the SCAQMD daily maximum threshold for CO, NO_x, ROG, SO_x, PM_{10}, $PM_{2.5}$.

Cumulative Contribution: Non-Attainment Criteria Pollutants
A significant impact could occur if the Project would make a considerable cumulative contribution to federal or State non-attainment pollutants. The Coachella Valley portion of the SSAB is classified as a "non-attainment" area for PM_{10} and ozone. Given the dispersing nature of pollutant emissions and aggregate impacts from surrounding jurisdictions and air management districts, cumulative air quality analysis is evaluated on a regional scale. Any development project or activity resulting in emissions of PM_{10}, ozone, or ozone precursors will contribute, to some degree, to regional non-attainment designations of ozone and PM_{10}.

The SCAQMD does not currently recommend quantified analyses of construction and/or operational emissions from multiple development projects, nor does it provide methodologies or thresholds of significance to be used to assess the significance of cumulative emissions generated by multiple cumulative projects. However, it is recommended that a project's potential contribution to cumulative impacts should be assessed utilizing the same significance criteria as those for project-specific impacts. Furthermore, SCAQMD states that if an individual development project generates less than significant construction or operational emissions, then the development project would not generate a cumulatively considerable increase in emissions for those pollutants for which the Basin is in nonattainment.

As shown in the tables above, Project-related PM_{10}, CO, NO_x, and ROG emissions are projected to be below established SCAQMD thresholds. Emissions will be further reduced through required best management practices, which require implementation of a Dust Control Plan in accordance with SCAQMD Rule 403.1. Therefore, the Proposed Project will result in incremental, but not cumulatively considerable impacts on regional PM_{10} or ozone levels. Impacts will be less than significant.

c) Less Than Significant Impact. SCAQMD's Mass Rate Localized Significance Thresholds (LSTs) can be used to determine if the proposed Project would expose sensitive receptors to substantial pollutant concentrations. The subject site is surrounded by existing residential development to the north and east. Based on the size of the Project site (5.2 acres) and the proximity to existing residences, the LST Mass Rate Look-Up Tables for a 5-acre sites and receptor distance of 25-meters (the smallest available distance) were used.

As shown in Table 5, on-site emissions concentrations resulting from Project construction and operations will not exceed the LST thresholds. The proposed development would therefore not expose sensitive receptors to substantial pollutant concentrations.

Table 5 Localized Significance Thresholds Emissions (pounds per day)				
	CO	**NOx**	**PM_{10}**	**$PM_{2.5}$**
Construction				
Maximum Emissions	34.7	36.1	9.49	5.47
LST Threshold	**2,292**	**304**	**14**	**8**
Exceeds?	**No**	**No**	**No**	**No**
Operations				
Area Emissions[1]	0.14	<0.005	<0.005	<0.005
LST Thresholds	**2,292**	**304**	**4**	**2**
Exceeds?	**No**	**No**	**No**	**No**
Emissions source: CalEEMod Version 2022.1.1.21. LST threshold source: SCAQMD LST Mass Rate Look-up Table. [1] Operational emissions resulting in on-site pollutant concentrations are limited to area emissions. Energy and mobile emissions occur off-site.				

Health Impacts

As shown in Tables 3 and 4, construction and operation of the Project is projected to result in criteria emissions that are below the SCAQMD significance thresholds. Neither construction or operational emissions would violate any air quality standard or contribute substantially to an existing or projected air quality violation.

With the technology that is currently available, it is not scientifically possible to accurately quantify the degree to which exposure to various levels of criteria pollutant emissions would impact an individual's health. Several factors make this quantification difficult:

- Varying medical histories mean that the same conditions may impact differently.
- Due to the dispersing nature of pollutants, it is difficult to locate and identify which group of individuals will be impacted, either directly or indirectly.
- There are currently no approved methodologies or studies to base assumptions on, such as baseline health levels or emission level-to-health risk ratios.

Due to the limitations described above, the extent to which the Project poses a health risk is uncertain but unavoidable. It is anticipated that impacts associated with all criteria pollutants will be less than significant overall, and that health effects will also be less than significant.

d) Less Than Significant Impact. Some land uses can be sources of odors that, while not necessarily harmful, may be unpleasant to the public. During construction of the Project, unpleasant odors may be temporarily and intermittently generated from the use of heavy equipment, paving, and other construction activities. These odors would be short-term and would dissipate quickly with distance from the subject site.

During operations, the Project would not be expected to generate substantial odor emissions. SCAQMD lists the following land uses as being prone to odor generation: agriculture, chemical plants, composting operations, dairies, fiberglass molding, landfills, refineries, rendering plants, rail yards, and wastewater treatment plants. The proposed development proposes a resort/spa which would be similarly sensitive to unpleasant odors as the surrounding residential land uses. The proposed on-site restaurant would be subject to plan approval from the County of Riverside Department of Environmental Health demonstrating compliance with regulations for food facilities, including the provision of ventilation in cooking areas.

Overall, the proposed development is compatible with the surrounding residential properties and would not be expected to generate significant objectional odors. Impacts would be less than significant.

Mitigation Measures:
None required.

Monitoring:
None required.

IV. BIOLOGICAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☒	☐	☐
c) Have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☒	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Sources: Biological Resources Assessment and Coachella Valley Multiple Species Habitat Conservation Plan Consistency Analysis Report for Kimana Resort prepared by Wood Environmental & Infrastructure Solutions, Inc. (August 2022); City of Desert Hot Springs General Plan, February 2020.

Setting

Desert Hot Springs is in the northwestern portion of the Colorado Desert, a subsection of the Sonoran Desert. The Little San Bernardino Mountains that line the northwestern portion of the City separate the Colorado Desert from the Mojave Desert. The varied elevations in the area result in rich biodiversity. Lands in the Coachella Valley below elevations of 4,000 feet are mostly comprised of desert scrub habitat, which is characterized by hot summers and irregular precipitation.

The existing condition of the property is a mix of landscaped and modified areas in the northern and central portions of the site, and undeveloped areas in the western and southern portions of the site. A boulder-lined drainage, which receives run-off from Hermano Way/Quinta Road, traverses the property from the northeastern corner to the south. A second rock-lined drainage traverses the site from northwest to southeast, and flows through a culvert into the other drainage. Both drainages drain into an existing detention basin located south of the site. Several man-made jacuzzi-style hot spring pools occur in the northern portion of the site, and two small man-made ponds occur along a landscaped area with a faux steam in the central portion of the property.

The City of Desert Hot Springs is a signatory to the Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP). The CVMSHCP, a comprehensive regional plan addressing the conservation of 27 plant and wildlife species and 24 natural vegetation communities, was finalized in October 2008. The plan conserves areas of unfragmented habitat to permanently protect population of covered species. The assembly of this preserve system is funded through the collection of a land development/mitigation fee, collected from all new development projects occurring within the plan area. The subject site is not located within a CVMSHCP Conservation Area. The nearest conservation areas are the Upper Mission Creek/Big Morongo Canyon Conservation Area and the Long Canyon Conservation Area, both of which are more than 1,600 meters from the subject site.

Discussion of Impacts

a) Less Than Significant Impact with Mitigation. A Biological Resources Assessment & CVMSHCP Consistency Analysis Report (BRAR) was prepared for the Project (Appendix B). The field assessment found that the site is a mixture of man-made features and ornamental landscaping, with pockets of native areas, mostly in the west and south areas of the site. These areas consist of Sonoran creosote bush scrub whose dominant sparse species include creosote bush and brittle bush, typical of the vegetation community.

The research for the BRAR found that Coachella Valley milk-vetch, Little San Bernardino Mountains linanthus, Coachella Valley Jerusalem cricket, desert tortoise, flat-tailed horned lizard, Coachella Valley fringe-toed lizard, Palm Springs pocket mouse, and Palm Springs round-tailed ground squirrel all have the potential to occur on the subject site, but any impacts would be fully mitigated through payment of the requisite CVMSCHP development fee and participation in the requirements of the Plan because these species are covered under the Plan.

A summary of the findings pertaining to potential impacts to special status species not fully covered by the CVMSHCP, is provided below:

Special status plants
The BRAR identified three special status plant species that are known to occur in the Project area and have at least a low potential of occurring on the subject site: white-bracted spineflower, Arizona spurge, and slender cottonheads. None of these species were detected on the Project site during the field survey, however the survey was conducted outside of these species' respective blooming periods. None of the three special status plant species are protected under the CVMSHCP. However, due to the relatively small scale of the subject property, the highly disturbed nature of the site, and even smaller size of the remaining undisturbed on-site habitat, the BRAR concluded that potential impacts to a few individuals (if present), would be unlikely to cause the population to drop to a less than self-sustaining level, and therefore impacts would be less than significant.

Special status reptiles
The BRAR identifies two special status reptiles as potentially occurring on the subject site: Northern red-diamond rattlesnake and desert tortoise.

There is a moderate potential for Northern red-diamond rattlesnake to occur on the subject site, and the species has been reported approximately one-mile west of the site. While the species is declining, the BRAR determined that any impacts to the rattlesnake from the Project would be incremental and localized. Any resulting impacts would not be considered significant under CEQA because the proposed development would not result in (1) a substantial reduction in habitat, (2) a drop in self-sustaining population levels, (3) an elimination of population levels, or (4) a substantial reduction in numbers or geographic range.

Desert tortoise has been reported within three miles of the subject site, and limited suitable habitat occurs on the property. However, due to the presence of existing development to the north, east, and south, and because the landowner and maintenance personnel have not reported ever seeing a tortoise onsite, and the field survey did not detect any tortoise sign, the potential for the tortoise to occur on-site is considered to be extremely low/remote. A focused survey for desert tortoise is not required because the site is not within a Conservation Area, however, mitigation measure BIO-1 ensures that the appropriate actions will be taken if a tortoise is encountered on the Project site.

Implementation of BIO-1 will ensure that impacts to special status reptiles would be less than significant.

Special status birds

Loggerhead shrike is a special status bird species protected by the Migratory Bird Treaty Act (MBTA) with potential nesting habitat on the subject site. In accordance with the MBTA, the avoidance of impacts to nesting migratory and resident birds is required by the federal permit issued for the CVMSCHP. In order to prevent potential impacts to nesting birds, including Loggerhead shrike, mitigation measure BIO-2 shall be applied, requiring that Project-related disturbance either occurs outside of the nesting season, or that a nesting bird clearance survey be conducted immediately prior to on-site disturbance.

Burrowing owl is covered by the CVMSHCP, however take of the species is prohibited under the MBTA. Suitable habitat for the owl occurs on-site and, on the lands, immediately to the west and south of the Project property. In order to prevent potential impacts to burrowing owls should they locate on or adjacent to the Project site, mitigation measure BIO-3 shall be applied, requiring two preconstructions take avoidance surveys.

Implementation of BIO-2 and BIO-3 will ensure that potential impacts to loggerhead shrike, burrowing owl, and nesting birds are less than significant.

Special status mammals

The pallid San Diego pocket mouse, which is not covered by the CVMSHCP but is designated as a species of special concern by the CDFW, has a low potential of occurrence on the Project site. However, the BRAR determined that even if this species is present on-site, impacts under CEQA would be less than significant because the proposed development would not result in (1) a substantial reduction in habitat, (2) a drop in self-sustaining population levels, (3) an elimination of population levels, or (4) a substantial reduction in numbers or geographic range. Impacts to special status mammals resulting from the proposed Project would therefore be less than significant.

b-c) Less Then Significant Impact with Mitigation. As described in the Setting section, two man-made boulder-lined drainages occur on the subject site, in addition to a series of pools fed by the underground natural hot springs. A man-made creek with a small waterfall is also present on-site. The field survey conducted for the BRAR observed no natural creeks, rivers, dry washes, blueline streams, lakes, ponds, or vernal pools on the subject site, and no such bodies of water are mapped on the property. Nor were any natural wetlands, riparian or other special-status vegetation communities observed on the site.

It is unknown whether the two drainages were ever naturally occurring, or whether they are entirely man-made. The drainages are fed by runoff from the adjacent streets and neighborhoods. Aerial photography predating the on-site development indicates that vegetation once occurred on-site in the bottom of the canyon where flow may have once naturally occurred. To ensure that the proposed development does not have a substantial adverse effect on State or federally protected waters through direct removal, filling, hydrological interruption, or other means, mitigation measure BIO-4 requires a jurisdictional delineation to determine if permitting would be required. If it is determined that jurisdictional waters occur on the subject site, then the appropriate permitting shall be obtained to ensure that impacts would be less than significant.

d) Less Than Significant Impact with Mitigation. There are no CVMSHCP-designated wildlife corridors or biological linkages mapped on the Project site. The property is surrounding by existing residential development to the north and east, and partially developed or disturbed land to the west and south. Given this surrounding development, and that the subject site is relatively small and has mostly been modified and disturbed, it is unlikely

to serve as an established native resident or migratory wildlife corridor. The site does not contain any water bodies that would support the movement of any native resident or migratory fish. Consistent with the MBTA, mitigation measure BIO-2 requires a pre-construction survey if project-related ground disturbance is to occur during the nesting season. This will ensure that if that property is used as a native bird nursery site, then impacts would be less than significant.

e - f) Less Than Significant Impact. The Project site is within the limits of Desert Hot Springs. The City of Desert Hot Springs is a signatory to the Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP).

Consistent with Policy OS-1.5 in the City's General Plan Open Space and Natural Resources Element, a biological resources assessment was prepared for the Project. Based on the recommendations provided in the Biological Resources Assessment Report prepared for the proposed development, mitigation measures have been provided for any species that could potentially be impacted by the Project and which are not fully protected by the CVMSHCP. The Project will not conflict with any other local policies or ordinances protection biological resources.

The Project property does not share a common boundary with any parcel in a conservation area, and thus is not subject to the CVMSHCP Land Use Adjacency Guidelines. Payment of the required development fee and participation in the CVMSHCP, required by the City as part of its participation in the Plan, will mitigate the potential impacts of the proposed development on fully protected species, ensuring that the Project does not conflict with the plan. Overall, the Project will not conflict with any local policies or ordinances protecting biological resources or with the provisions of an adopted Habitat Conservation Plan. Impacts would be less than significant.

Mitigation Measures:

BIO-1 If desert tortoise is detected on-site during any phase of the Project, all construction activity shall stop, and the U.S. Fish and Wildlife Service, CDFW, and CVCC shall be consulted for further guidance for relocation. This consultation may result in the provision of additional impact avoidance, minimization, and/or mitigation measures.

BIO-2 Project-related disturbance (i.e., grading, vegetation removal or trimming, landscaping, operation of heavy equipment, etc.) either shall be conducted outside of the nesting season (from approximately January 15 through 31 August), or a pre-construction nesting bird clearance survey shall be conducted. The survey shall be conducted by a qualified ornithologist or biologist immediately prior to onsite disturbance during the nesting season. If nesting birds are found, all work shall be halted until young have fledged. CDFW-recommended avoidance buffers of about 100-300 feet for unlisted songbirds and 500 feet for listed songbirds and raptors shall be applied.

BIO-3 Two pre-construction take avoidance surveys for burrowing owl shall be conducted immediately prior to Project construction. The surveys shall comply to CDFW's protocol, as contained in the Staff Report for Burrowing Owl (2012) published by the Department. If burrowing owl are detected on-site, a qualified biologist shall prepare a plan for relocation or avoidance and receive clearance from CDFW and the CVCC prior to implementation of the plan.

BIO-4 Prior to any ground-disturbing activities and prior to the issuance of grading permits, a jurisdictional delineation shall be conducted in order to determine the status of the existing drainages. If the drainages are determined to be jurisdictional waters, then the appropriate permits shall be obtained from the CDFW and/or the USFWS.

Monitoring:

BIO-A Prior to the issuance of any permit to allow ground disturbance on the site, the Project Applicant shall provide the City with preconstruction surveys for burrowing owl and, if applicable, MBTA covered birds.
Responsible Parties: Project Applicant, Project Biologist, Planning Department, City Engineer.
Schedule: Within 30 days of the completion of the ground disturbing activities on the Project site.

BIO-B Prior to the issuance of any permit to allow ground disturbance on the site, the Project Applicant shall provide the City with the jurisdictional delineation for the on-site drainages and, if applicable, the required permits.
Responsible Parties: Project Applicant, Project Biologist, Planning Department, City Engineer.
Schedule: Prior to the issuance of any permit to allow ground disturbance.

V. CULTURAL RESOURCES Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☒	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	☒

Sources: Historical/Archaeological Resources Survey Report for Kimana Resort Expansion Project prepared by CRM TECH (September 2022).

Setting

Dating back to the Paleoindian period (ca. 8,000 to 10,000-12,000 years ago) when small, mobile groups of hunters and gatherers are thought to have occupied the area, the Coachella Valley has been a center to Native American settlement. The Valley is the traditional use area for the Cahuilla, a Takic-speaking people. Anthropologists generally divide the Cahuilla into three groups, based on 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 Cahuilla people continue to inhabit the area today, including the Agua Caliente Band of Cahuilla Indians who are located south of Desert Hot Springs and in the Palm Springs area. Other Native American of Pass or Desert Cahuilla heritage are mostly affiliated with the Morongo Band of Mission Indians, the Cabazon Band of Mission Indians, the Torres Martinez Desert Cahuilla Indians, and the Augustine Band of Cahuilla Mission Indians.

While early settlement occurred in the vicinity of Desert Hot Springs as early as 1908, the City's development as a resort community was instigated by subdivision of the area by L.W. Coffee in 1933. Much of the City's early growth was a result of health spas and convalescent homes attracted to the hot mineral water that naturally occurs along the San Andreas fault line. By the mid-20th century, the City of Desert Hot Springs saw significant growth, resulting in incorporation of the city in 1963.

Historic Resources

Section 15064.5 of the CEQA Guidelines generally defines a historic resource as a resource that is: (1) listed in, or determined to be eligible for listing in the California Register of Historical Resources (California Register); (2) included in a local register of historical resources (pursuant to Section 5020.1(k) of the Public Resources Code); or (3) identified as significant in an historical resources survey (meeting the criteria in Section 5024.1(g) of the Public Resources Code).

Archaeological Resources

Section 15064.5(a)(3)(D) of the CEQA Guidelines generally defines archaeological resources as any resource that "has yielded, or may be likely to yield, information important in prehistory or history." Archaeological resources are features, such as tools, utensils, carvings, fabric, building foundations, etc., that document evidence of past human endeavors and that may be historically or culturally important to a significant earlier community.

Discussion of Impacts

a,b) Less Than Significant Impact with Mitigation. A Historical/Archaeological Resources Survey Report was prepared for the Project by CRM TECH (September 2022), provided in Appendix C. The study included a records search at the Eastern Information Center (EIC), historical background research, Native American participation, and a field survey.

Records Search: The records search was conducted using the repository provided by the Eastern Information Center (EIC) at the University of California, Riverside. According to EIC records, the subject site has not been previously surveyed for cultural resources. More than 30 previous cultural records studies have been conducted within a one-mile radius of the Project site, including adjacent properties to the north and east. Within one mile of the Project area, two prehistoric sites and one historic site have been identified. The historic site is Cabot's Pueblo Museum, a Pueblo Revival building built by early settler Cabot Yerxa. None of these sites are located in the immediate vicinity of the subject property, and therefore would not be impacted by the proposed Project.

Historical Research: Historical background research conducted for the Project included consultation of published literature, historical maps, and aerial/satellite photographs. These sources indicate that no human-made features have occurred within the Project site during the historic period. By the mid-20th century, some development occurred in the area north of the Project site, namely Cabot Yerxa's settlement, followed by later residential development. None of these developments occurred on the Project site, which has remained unsettled and undeveloped until recent years. All existing features on the subject site were developed since 2018, and thus are modern in origin.

Native American Participation: CRM TECH submitted a request to the State of California Native American Heritage Commission (NAHC) for a records search in the Sacred Lands File in June 2022. In July 2022 the NAHC responded that the Sacred Lands File identified unspecified Native American cultural resources in the Project vicinity. The NAHC directed further inquiry about these resources to the Agua Caliente Band of Cahuilla Indians.

CRM TECH contacted the nearby Agua Caliente Band of Cahuilla Indians and the Morongo Band of Mission Indians for additional information on potential cultural resources in the Project vicinity. At the time of writing of this report, the Morongo Band had not responded. The Agua Caliente Band requested copies of all cultural resources documentation generated for this project but did not identify any specific cultural resources in or near the Project area. CRM TECH also invited the Agua Caliente Band of Cahuilla Indians to participate in the field survey. Please also see the discussion of Tribal Cultural Resources below.

Field Survey: The field survey was conducted by CRM TECH in June 2022. The survey identified no cultural resources from either the prehistoric or the historic period, including buildings, structures, sites, features, or artifacts, within the boundaries of the Project site. All features currently present on the subject site were constructed or installed within the last few years.

Conclusion: The Historical/Archaeological Resources Survey did not identify any historical or archaeological resources on or adjacent to the subject site. However, to ensure that impacts are less than significant if any unanticipated resources are discovered during ground-disturbing activities associated with the Project, mitigation measure CUL-1 shall be implemented. Proper implementation of this mitigation will ensure that the Project does not result in a substantial adverse change in the significance of a historical resource pursuant to §15064.5 or an archaeological resource pursuant to §15064.5 of the CEQA Guidelines. Impacts will therefore be less than significant with mitigation.

c) No Impact. The Historical/Archaeological Resources Survey prepared for the Project found no evidence of human remains on the subject site, including those interred outside of formal cemeteries. However, in the event that unanticipated remains are revealed during grading, State law requires that construction activities must be halted, and the Riverside County Coroner shall be immediately contacted to determine the origin of the remains, prior to resuming construction. Due to the very low probability for discovery of any remains, and the requirements of State law, no impact is expected for the Project.

Mitigation Measures:

CUL-1: A qualified archaeological and Tribal monitor from ACBCI shall be present during all ground-disturbing activities within the Project site. The archaeologist and Tribal monitor shall be empowered to stop or redirect ground disturbing activities if resources are identified. If the qualified archaeologist and ACBCI monitor determine that on-site reburial is the appropriate measure to be taken for the artifact(s) discovered on the Project site, they will recommend a location to the City and project proponent. That location will be described and recorded as an easement in favor of ACBCI on the property in perpetuity prior to the completion of the first structure on the property.

Monitoring:

CUL-A: The Project archaeologist shall provide the City with a report of findings within 30 days of completion of ground-disturbing activities.
Responsible Parties: Project applicant, Project archaeologist, Planning Department.
Schedule: Within 30 days of completion of ground-disturbing activities.

VI. ENERGY

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

Sources: Draft City of Desert Hot Springs General Plan, February 2020.

Setting

Discussion of Impacts

a, b) Less Than Significant Impact. The Project will use energy resources on a short-term basis during construction and on a long-term basis during operations.

Construction Energy Use

Construction of the Project will consume energy for uses including to power heavy equipment, manufacture building materials, and the transport of workers and materials. Some electricity will be used during construction, such as to light the site, and to power and charge electronic equipment. However, most energy consumed during the construction phase will be petroleum and diesel fuels, which will be used in limited quantities given the small scale of the Project. This energy demand will be temporary and would not be wasteful or inefficient.

Operational Energy Use

The Project's operational energy use was projected using the California Emissions Estimator Model (CalEEMod). The inputs used to model the proposed development in CalEEMod are described in greater detail in Section III, Air Quality. Energy consumption during Project operations would primarily be used for indoor and outdoor lighting, building heating and cooling, and cooking. Table 6 shows the electricity and natural gas use projected to result from Project operations.

Table 6
Project Energy Consumption

Land Use	Electricity Use (kWh/yr)	Natural Gas Use (kBTU/yr)
Hotel and Glamping Units	177,312	328,899
Spa & Health Club	23,923	107,376
Restaurant & Coffee Bar	22,509	73,112
Parking Lot	17,171	0
TOTAL	**240,915**	**509,387**

As shown in the above table, the Project is expected to consume 240,915 kWh per year of electricity and 509,387 kBTU per year of natural gas. The proposed development will comply with all applicable requirements in the most recent edition of Title 24 of the California Code of Regulations, including the building code and energy code, which require the use of energy efficient fixtures and materials. The Project will also comply with applicable energy efficiency measures provided in the City's Climate Action Plan.

Transportation Energy Use

During operations, the Project would also generate demand for petroleum-based fuels as a result of associated vehicle trips, including visitors to the resort and spa facilities and employee commutes. The trips and vehicle miles traveled (VMT) generated by the Project are discussed in greater detail in Section XVII, Transportation.

The Project is consistent with the General Plan and does not propose any use not contemplated for visitor serving projects in the City. The Project will also be required to comply with the City's Climate Action Plan, and with the Building Code in place at the time that permits are issued, The Building Code includes requirements for alternative energy use and energy efficiency, and the Project will be required to meet those requirements. The Project will not obstruct or conflict with any plan for renewable energy or energy efficiency.

Mitigation Measures:
None required.

Monitoring:
None required.

VII. GEOLOGY AND SOILS

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic related ground failure, including liquefaction?	☐	☒	☐	☐
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☒	☐	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☐	☒
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒

Sources: Biological Resources Assessment and Coachella Valley Multiple Species Habitat Conservation Plan Consistency Analysis Report for Kimana Resort prepared by Wood Environmental & Infrastructure Solutions, Inc. (August 2022); City of Desert Hot Springs General Plan, May 2020; Desert Hot Springs General Plan Update and Zoning Amendment Draft EIR, February 2020.

Setting

Geology and Soils

The valley is bounded by the Little San Bernardino Mountains on the north, San Jacinto Mountains on the west and southwest, and the Santa Rosa Mountains on the south. The Coachella Valley is partially covered by alluvial and sand deposits some exceeding 20,000 feet in depth. The sources of sands found on the subject property are alluvial materials carried by fluvial action from the mountain canyons to the north with substantial deposits of aeolian transported sand and dust. These deposits are subject to northwest winds, including air movements flowing through the San Gorgonio Pass.

Regional geology and seismicity in the Coachella Valley are primarily influenced by the tectonics of the San Andreas and San Jacinto fault systems. The San Andreas Fault extends roughly 750 miles through California. It forms the tectonic boundary between the Pacific and the North American Plates. The San Jacinto Fault Zone (SJFZ) runs through San Bernardino, Riverside, San Diego, and Imperial Counties in Southern California. The SJFZ is a component of the larger San Andreas transform system, which is considered the most seismically active fault zone in the region.

The City of Desert Hot Springs is bisected by several splays of the San Andreas Fault. The City's Municipal Code (Chapter 15.04 Building Code) requires new construction in the City to at least meet the most current California Building Code (CBC).

Existing Conditions

The Project site's topography is like a small canyon, with high points in the north, west, and east boundaries, and a gradual slope from north to south. Underlying soils are predominantly Carsitas gravelly sand, 9-30% slopes with a small portion of Carsitas gravelly sand, 0-9% slopes in the southwestern corner of the property. Carsitas sands are excessively drained soils typically found in level to moderately sloping areas such as alluvial fans. In areas where previous landscaping activity has occurred on-site, soils and substrates are compacted. Areas that have been subject to less disturbance remain sandy, through the site does not appear to contain active sand dunes. On-site elevations range from approximately 305 to 217 meters above mean sea level.

Paleontological Resources

Paleontological resources (fossils) are the remains and/or traces of prehistoric plant and animal life exclusive of human remains or artifacts. Fossil remains such as bones, teeth, shells, and wood can be found in the geologic deposits (rock formations) in which they were originally buried. According to the EIR for the Desert Hot Springs General Plan, there are no known paleontological resources within the City and the area generally has a low potentially for containing significant paleontological resources.

Discussion of Impacts

a.i) No Impact. The San Andreas Fault runs across Desert Hot Springs on a diagonal from northwest to southeast. The purpose of the Alquist-Priolo Earthquake Fault Zoning Act is to mitigate the hazard of surface faulting by preventing the construction of buildings used for human occupancy over an area with known faults. According to the California Earthquake Hazards Zone Application (EQ Zapp), the Project parcels are not within an earthquake fault zone. However, the properties immediately south and west of the site are within a fault zone. While the Project's proximity to the fault zones means that it could be subject to strong ground shaking, fault rupture is not expected to occur on-site. Therefore, no impact is anticipated.

a.ii) Less Than Significant Impact. Most of southern California could be subject to moderate to strong ground shaking in the event of an earthquake on one of the many active Southern California faults. Desert Hot Springs is a seismically active region, including the Project site which is located in proximity to the Coachella Strand of the San Andreas Fault. The subject site, like most of the City, will be subject to strong seismic ground shaking. The Project will be required to adhere to the California Building Code (CBC), which includes requirements to design structures in accordance with the appropriate ground-shaking design parameters set forth in the code. Adherence to the CBC will ensure that the proposed development would have less than significant impacts related to strong seismic ground shaking.

a.iii) Less Than Significant Impact with Mitigation. Areas with loose sandy soil and high groundwater levels can be susceptible to liquefaction, particularly in the event of an earthquake. According to Exhibit 4.7-3 in the City's General Plan Update EIR, the Project site is in an area underlain by loose sandy soils susceptible to liquefaction. The County of Riverside's Map My County maps designate the Project area as being moderately susceptible to liquefaction. Policy SN-6.3 in the City's General Plan Safety and Noise Element requires geotechnical studies for development proposed located in areas with soils susceptible to liquefaction. It is therefore required, as stated in mitigation measure GEO-1, that a geotechnical study be prepared for the Project with the preparation of project-specific grading plans for construction permits. Preparation of a geotechnical report, and implementation of any resulting recommendations and potential further mitigation, will ensure that that the Project does not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death as a result of liquefaction or other seismic-related ground failure, ensuring that impacts would be less than significant.

a.iv) No Impact. According to the City's General Plan, steep slopes at risk of landslides are concentrated in the northern edge of the City along the foothills of the Little San Bernardino Mountains. The Project site is approximately 1 mile south of these foothills, and is therefore subject to a low risk of landslide. No impact is anticipated.

b) Less Than Significant Impact. Most of the Coachella Valley, including Desert Hot Springs, is prone to high winds which can contribute to erosion. Construction activities, such as grading and excavation, would disturb soils and potentially expose them to a greater risk of wind and water erosion. South Coast Air Quality Management District (SCAQMD) Rules 403 and 403.1 require dust control measures that also serve to control wind erosion. The Project will also be required to prepare a storm water pollution prevention plan (SWPPP), which would include best management practices (BMPs) to manage runoff and minimize associated erosion during storm events. These standard requirements will ensure that the Project does not result in substantial soil erosion or the loss of topsoil, and that impacts would be less than significant.

c) Less Than Significant Impact with Mitigation. As previously stated, due to its distance from slopes in the north of the City, the Project site is at low risk of landslide. However, on-site soils may be susceptible to liquefaction and subsidence. Mitigation measure GEO-1 requires the preparation of a geotechnical investigation of the Project site in order to determine whether the conditions for liquefaction or other ground failure are present, and if so to provide further recommendations specific to the site and building plans as needed. If the conditions are present, the geotechnical investigation would also provide further recommendations to prevent potential adverse effects due to lateral spreading, subsidence, and/or collapse. Impacts will therefore be less than significant with mitigation.

d) No Impact. Expansive soils are typically associated with fine-grained clayey soils that have the potential to shrink and swell with repeated cycles of wetting and drying. The Project site is predominantly underlain by Carsitas gravelly sand, 9-30% slopes with a small portion of Carsitas gravelly sand, 0-9% slopes in the southwestern corner of the site. Sandy soils have a low shrink-swell potential, and therefore the Project would not be expected to create substantial risk to life or property as a result of expansive soils. No Impact is anticipated.

e) No Impact. The Project will connect to the existing sewer line which runs along the eastern boundary of the subject site. No septic tanks or alternative wastewater disposal systems are proposed. There will be no impact.

f) No Impact. Desert Hot Springs, including the Project area, does not contain any known paleontological resources and has a low potential for containing any such resources. It is therefore not anticipated that the Project would have any impacts to a unique paleontological resource or site, or to a unique geologic feature. No Impact is anticipated.

Mitigation Measures:

GEO-1 Prior to the issuance of grading permits for the proposed Project, a geotechnical investigation shall be conducted in order to determine if the soils are prone to liquefaction, subsidence, or other ground failure. If these conditions are present, the recommendations of the soils engineer shall be implemented and incorporated into grading plans to ensure that stability of the site.

Monitoring:

GEO-A The geotechnical investigation report shall be provided to the City Engineer in conjunction with the submittal of the rough grading plan for the Project.
Responsible Parties: Project Applicant, Project engineer, Planning Department, City Engineer.
Schedule: Prior to the issuance of grading permits.

VIII. GREENHOUSE GAS EMMISSIONS Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Sources: "Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans," SCAQMD, December 5, 2008.

Setting

Greenhouse gases (GHGs) play an important role in determining the temperature at the earth's surface. While GHGs are emitted from both natural processes and human activities, increasing emissions associated with human activities are resulting in the gradual warming of the earth's climate. As stated in § 38505(g) of the Health and Safety Code, the California Air Resources Board is required to monitor and regulate seven greenhouse gases: carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), sulfur hexafluoride (SF_6), nitrogen trifluoride (NF_3), perfluorocarbons (PFCs), and hydrofluorocarbons (HFCs).

The California Global Warming Solutions Act of 2006 (Assembly Bill 32 or AB 32) required the state to adopt regulations to reduce its GHG emissions to 1990 levels by 2020. The subsequent California Global Warming Solutions Act of 2016 (Senate Bill 32 or SB 32) required California to adopted regulations to further reduce GHG emissions to 40% of 1990 levels by 2030.

The City of Desert Hot Springs adopted its Climate Action Plan (2013) to implement a plan to meet the AB 32 and SB 32 emission reduction targets for 2020 and 2030. According to the City's Climate Action Plan (CAP), the community-wide emissions baseline in Desert Hot Springs was an estimate 100,654 metric tons of carbon dioxide equivalent ($MTCO_2e$) in 2010. In order to comply with AB and SB 32, the CAP set forth a 2020 emissions goal of 62,047 $MTCO_2e$, requiring an approximately 48,769 $MTCO_2e$ decrease from the business-as-usual forecast for that year.

GHG Thresholds

On December 5, 2008, the SCAQMD formally adopted a greenhouse gas significance threshold of 10,000 MTCO2e/yr that only applies to industrial uses' stationary sources where SCAQMD is the lead agency (SCAQMD Resolution No. 08-35).[2] This threshold was adopted based upon an October 2008 staff report and draft interim guidance document that also recommended a threshold for all projects using a tiered approach.

It was recommended by SCAQMD staff that a project's greenhouse gas emissions would be considered significant if it could not comply with at least one of the following "tiered" tests:

- Tier 1: Is there an applicable exemption?
- Tier 2: Is the project compliant with a greenhouse gas reduction plan that is, at a minimum, consistent with the goals of AB 32?
- Tier 3: Is the project below an absolute threshold (10,000 $MTCO_2e$/year for industrial projects; 3,000 $MTCO_2e$/year for residential and commercial projects)?
- Tier 4: Is the project below a (yet to be set) performance threshold?
- Tier 5: Would the project achieve a screening level with off-site mitigation?

[2] "Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans," SCAQMD, December 5, 2008.

Discussion of Impacts

a) Less Than Significant Impact. As described in Section III, Air Quality, the California Emissions Estimator Model (CalEEMod) Version 2022.1.1.21 was used to project the pollutant emissions resulting from the Project, including GHG emissions. That proposed development would result in GHG emissions from construction and operations.

Construction
GHG emissions resulting from construction of the proposed Project would be short term, concluding with buildout of the development. Construction of the Project is expected to occur over 1.5 years. Greenhouse gases would be emitted during construction activities such as the operation of heavy equipment, construction employee commutes, material hauling, and other ground-disturbing activities. As shown in Table 7, construction of the Project is projected to result in the emission of 536 metric tons of CO_2e ($MTCO_2e$) over the course of 1.5 years.

SCAQMD does not currently have a specific GHG emissions threshold for the construction of development projects. Therefore, construction-related GHG emissions were amortized over a 30-year period, added to annual operational emissions, and compared to the applicable threshold. This method was used to determine if construction emissions, combined with annual operational emissions, would result in a cumulatively considerable impact.

Operation
During operations, the proposed development would result in GHG emissions from five categories of sources: area emissions (e.g., pavement and architectural coating off-gassing), energy use (i.e., electricity), mobile emissions (emissions from vehicle exhaust), as well as emissions from waste and water use. Table 7 shows that estimated annual emissions expected to result from construction and operation of the Project.

Table 7
Projected GHG Emissions Summary
(Metric Tons)

Phase	CO_2e (MT/YR)
Construction	
Year 1	226
Year 2	310
Construction Total	536
Operation	
Area	0.05
Energy	25.0
Mobile	892
Waste	15.0
Water	4.43
Refrigerants	0.17
Construction: 30-year amortized [1]	17.87
Total Operational	**954.87**
SCAQMD Threshold	3,000
Tier Compliance	**Tier 3**

1. Buildout construction GHG emissions were amortized over 30-years then added to buildout operational GHG emissions. 536/30 = 17.87

As shown in the above table, the Project is projected to emit approximately 955 $MTCO_2e$ per year from construction and operational emissions. According to Tier 3 of the SCAQMD "tiered" tests, a project's GHG emission impacts would have less than significant if they are below an absolute threshold of 10,000 $MTCO_2e$ per year for industrial projects or 3,000 $MTCO_2e$ per year for residential and commercial projects. The 955 $MTCO_2e$ per year of combined construction and operation emissions expected to result from the proposed Project would be less than the SCAQMD's absolute threshold of 3,000 $MTCO_2e$ per year. It can therefore be concluded that the GHG emissions resulting from the proposed Project would have less than significant impacts.

b) Less than Significant Impact. As previously stated, it was recommended by SCAQMD staff that a project's GHG emissions should be considered significant if it does not comply with at least one of the five tiered tests. The Project is estimated to result in approximately 955 $MTCO_2e$ per year from construction and operations, which meets the SCAQMD Tier 3 threshold for residential and commercial projects. The Project would therefore not be expected to conflict with the SCAQMD regulations adopted for the purpose of reducing greenhouse gas emissions.

The Project is also subject to the City's Climate Action Plan, which was adopted for the purpose of reducing GHG emissions consistent with AB 32 and SB 32. The CAP aims to reduce GHG emissions to 80% of 1990 levels by 2050. Given that the proposed development is consistent with the Visitor-Serving land use designation and Visitor-Serving Commercial zone, the Project would be expected to align with the long-range plans the City used when developing the CAP. The Project is also subject to the measures set forth in the CAP. Therefore, the proposed development would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases, and impacts would be less than significant.

Mitigation Measures:
None required.

Monitoring:
None required.

IX. HAZARDS AND HAZARDOUS MATERIALS **Would the project:**	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒

Sources: State Water Resources Control Board GeoTracker, https://geotracker.waterboards.ca.gov (accessed December 2023); California Department of Toxic Substances Control EnviroStor, https://www.envirostor.dtsc.ca.gov/public/ (accessed December 2023).

Setting

The California Health and Safety Code defines hazardous materials as any materials that posts a significant potential hazard to public health and safety or to the environment due to quantity, concentration, physical characteristics, or chemical characteristics. Government Code §65962.5 requires the California Department of Toxic Substances Control (DTSC) and the State Water Resources Control Board (SWRCB) to maintain lists of sites known to have hazardous substances present in the environment. According to the EnviroStor database compiled by the DTSC and the GeoTracker database compiled by the SWRCB, there are no hazardous materials sites within half a mile of the subject site. The City of Desert Hot Springs has an Emergency Operations Plan and also participates in the Riverside County Multi-Jurisdictional Local Hazard Mitigation Plan.

Discussion of Impacts

a-b) Less Than Significant Impact. The Project proposes the development of a spa/resort, including spa therapy/treatment facilities and guest cabins. During construction of the Project, hazardous materials such as oils, fuels, lubricants, and solvents could be used to refuel and conduct minor maintenance of heavy equipment. The potential handling of these materials on-site would be temporary, and the construction contractor would be required to identify a staging area for storing such materials during the construction phase, and implement best management practices for the storage and use of these materials, pursuant to State law.

During operation of the proposed spa/resort, limited quantities of chemicals may be stored and used for purposes such as cleaning and landscaping. Substances could include cleaning solvents and fertilizers/pesticides. These substances would occur in limited quantities and would not pose a threat to the public or cause a foreseeable release into the environment.

The storage and handling of hazardous materials during both construction and operations must occur in accordance with applicable local, State, and federal laws, including requirements of the California Occupational Health and Safety Administration (CalOSHA). Adherence to these laws will ensure that impacts would be less than significant.

c) No Impact. The nearest school to the subject site is Bubbling Wells Elementary, located approximately 2,970 feet southwest of the Project. The proposed development will not emit hazardous materials, and would therefore not emit hazardous emissions or handle hazardous materials, substances, or waste within one-quarter mile of a school. There will be no impact.

d) No Impact. Based on the EnviroStore and GeoTracker databases, the Project site is not listed as a hazardous materials site, nor does it propose the use of hazardous materials. Therefore no hazards will occur to the public or the environment as a result of the proposed development.

e) No Impact. The nearest airport to the Project site is the Palm Springs International Airport. The Airport Influence Area for this airport does not extend north of Interstate-10, and therefore does not impact the proposed development. The subject site is more than 4.7 miles north of the Palm Springs Airport Influence Area, will not result in a safety hazard or excessive noise for people residing or working in the Project area. There will be no impact.

f) Less Than Significant Impact. In Desert Hot Springs, Interstate-10 and major roads such a Palm Drive, Long Canyon Road, and Hacienda Avenue would serve as evacuation routes in the event of an emergency. The Project site is situated at the terminus of Hermano/Quinta Way as well as Yerxa Road, which are local streets. These streets would not function as major evacuation routes, and the proposed development would not impact the circulation on these streets or within the surrounding residential development. Primary access to the site will be provided via Yerxa Road on the western side of the site. Project site plans will be reviewed by the Riverside County Fire Department and the Desert Hot Springs Police Department to ensure that adequate emergency access is provided to the site. The proposed development would not impair or interfere with the City's Emergency Operations Plan or with the County's Multi-Jurisdictional Local Hazard Mitigation Plan. Impacts would be less than significant.

g) No Impact. In Riverside County, hilly areas in the wildland-urban interface on the edge of communities. In Desert Hot Springs, areas of high or very high wildlife hazard are primarily concentrated along the foothills of the Little San Bernardino Mountains, particularly areas with slopes 10 percent or greater. According to Figure SN-5 in the City's General Plan, the Project site is not located in a state responsibility area, including moderate, high, or very high fire hazard severity zones, nor is it located within a very high fire hazard zone within the local responsibility area. The subject site is more than 4,000 feet south of the foothills. As described in subsection f), above, Project plans will be reviewed to ensure that sufficient emergency access is provided to the site. Overall, the proposed development would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. No impact is anticipated.

Mitigation Measures
None required.

Monitoring:
None required.

X. HYDROLOGY AND WATER QUALITY

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☐	☒
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
(i) result in substantial erosion or siltation on- or off-site;	☐	☐	☒	☐
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	☐	☐	☒	☐
(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
(iv) impede or redirect flood flows?	☐	☐	☒	☐
(d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
(e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒

Sources: Project Specific Preliminary Water Quality Management Plan for Kimana Resort prepared by Fomotor Engineering (July 2023); 2020 Coachella Valley Regional Urban Water Management Plan (June 2021); AWWARF Commercial and Industrial End Uses of Water (2000); Missions Springs Water District Water Efficient Landscaping Guidelines (2009); Water Demand Assessment for Pacific Square Project, City of San Gabriel (May 2020) https://www.sangabrielcity.com/DocumentCenter/View/14041/Appendix-K---Water-Demand-Assessment (accessed December 2023).

Setting

Domestic Water

The Project site is in the Missions Springs Water service area for the provision of domestic water. MSWD receives its water supply from groundwater produced from subbasins within the Coachella Valley Groundwater Basin. The District primarily produces groundwater from eight active wells in the Mission Creek Subbasin. It also produces groundwater from three active wells in the Indio Subbasin and two active wells in the San Gorgonio Subbasin.

Wastewater Treatment

The Project site is located within the MSWD sanitary sewer district. MSWD operates two wastewater treatment plants. Horton Wastewater Treatment Plant (Horton WWTP) has a capacity of 2.3 million gallons per day, and the Desert Crest Wastewater Treatment Plant has a capacity of 0.18 million gallons/day. MSWD is also currently constructing a new Regional Water Reclamation Facility with a capacity of 1.5 million gallons per day. The Horton plant will serve the Project site. Current wastewater facilities are not adequate to serve the anticipated growth in the City. To provide for the type and scale of development planned in the City, substantial expansion of wastewater facilities is planned by MSWD.

Flood Control/Drainages

Most of the Project site is located in FEMA Flood Zone Shaded X, which is described as: "0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile." A small portion of the subject site is located in FEMA Flood Zone Unshaded X, which is described as: "Area of Minimal Flood Hazard". The Project area is subject to City requirements relating to flood control.

Surface Water Quality

The City implements standard requirements for the retention of storm flows, and participates in the National Pollution Discharge Elimination System (NPDES) to protect surface waters from pollution. Development projects must retain the incremental runoff from the 100-year storm flow on site.

Description of Impacts

a, e) No Impact. According to Policy OS-3.3 in the City's General Plan, development projects are subject to the National Pollutant Discharge Elimination system (NPDES) requirements implemented by the City as a co-permittee in the regional permit. Pursuant to this policy, a Preliminary Water Quality Management Plan (PWQMP) was prepared for the Project by Fomotor Engineering. The PWQMP includes best management practices (BMPs) that the Project will implement in order to minimize pollutants of concern and potential impacts to water quality. Compliance with these measures and the provision of adequate stormwater retention capacity on-site will ensure that the Project will not violate water quality standards or waste discharge requirements, and would not conflict with or obstruct implementation of a water quality control plan. As described in subsection b), below, the Project's projected water demand would not conflict with or obstruct implementation of a sustainable groundwater management plan. No impact is anticipated.

b) Less Than Significant Impact. The Project is in the service area for the Mission Springs Water District (MSWD), which has an existing domestic water line along the eastern boundary of the subject site. MSWD currently receives all of its water supply from groundwater produced from subbasins within the Coachella Valley Groundwater Basin.

The Project proposes a total of 48 hotel rooms airstream trailers and glamping units. While the airstream trailers and glamping units would be expected to have lower water demand than the guest rooms, for the purpose of calculating water demand it is assumed that all units will be hotel rooms.

The proposed resort will include commercial uses such as a coffee bar as well as spa therapy and treatment facilities. Given that the exact mix of uses is not yet known, the water demand factor for restaurant uses (which generally uses more water than other commercial uses), was applied to all proposed commercial uses.

Based on the minimum percent of site area required to be landscaped in Visitor-Serving Commercial zones according to Table 17.56.01 in the City's Municipal Code, the Project is assumed to have 35,172.82 square feet of landscaped area. These landscaped areas would be concentrated around buildings, and the majority of the property would be kept in its natural state.

Using these inputs, Table 8 shows the estimated water demand, in acre-feet per year, that the Project would generate at buildout.

Table 8 Water Demand at Project Buildout				
Proposed Land Use	**Quantity**	**Water Demand Factor[1]**	**Water Demand (gpd)**	**Water Demand (AFY)**
Hotel/Airstream Trail/Glamping Unit	48 units	115 gallons per room per day	5,520	6.18
Spa / Health Club	2,500 square feet	600 gallons per 1000 sf per day	1,500	1.68
Restaurant / Coffee Bar	641 square feet	331 gallons per sf per year	581.29	0.65
Landscape	35,173 square feet	ETo = 93.9 ETAF = 0.5 Conversion Factor = 0.62	2,805.07	3.14
		TOTAL:	10,406.36	11.66

[1] Water demand factor for hotel and restaurant uses per AWWARF Commercial and Industrial End Uses of Water (2000). Demand factor for spa uses per Water Demand Assessment for Pacific Square Project, City of San Gabriel (May 2020). Landscape ETo, ETAF, and conversion factor per Missions Springs Water District Water Efficient Landscaping Guidelines (2009).

As shown in the above table, the Project is projected to generate demand for approximately 10,406.36 gallons per day (gpd) or 11.66 acre-feet per year (AFY) of water.

According to the 2020 Coachella Valley Regional Urban Water Management Plan (RUWMP), total water use in the Mission Springs Water District (MSWD) was 8,269 AFY in 2020. The District projects that total water use will increase to 17,495 by 2045. The estimated water demand for the Project would represent 0.2% of the MSWD's actual water demand in 2020, or 0.2% of the District's planned supply increases of an additional 9,226 AFY by 2045.

Consistent with the requirements of the California Urban Water Management Planning Act, the 2020 RUWMP includes an assessment for MSWD's water service reliability for normal, single dry and multiple dry years. The Plan confirms MSWD's ability to meet demands during the three scenarios. Therefore, given that the Project's projected water demand represents a small fraction of the District's planned supply increases, it can be concluded that the Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. Impacts would be less than significant.

c, i-iv) Less Than Significant Impact. A Preliminary Hydrology Study was prepared for the Project by Fomotor Engineering, including calculation of on-site effects for the existing and proposed conditions resulting from the 100-year storm event. Under existing conditions, the subject site receives off-site runoff from the residential development and streets north of the site. This off-site runoff enters the site at the northwest and northeastern corners, where it is conveyed into the two existing channels. Runoff in the western channel is conveyed into the main channel by an existing storm drain. The combined flows are conveyed from the main on-site channel into the regional detention basin located immediately to the south of the subject site.

As described in the Hydrology Study, the Project proposes to generally maintain the existing drainage pattern. The study determined that the main channel is currently under capacity, and therefore proposes modifications to increase the capacity. Two sub-surface corrugated metal pipes (CMPs) will be provided on-site to retain the increased runoff generated by the additional permeable surfaces resulting from the Project. The proposed improvements will ensure that the Project does not result in substantial erosion or siltation on- or off-site or in a substantial increase in the rate or amount of surface runoff. Any additional runoff generated by the Project would be retained on-site, and therefore the proposed development would not create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff, or impede or redirect flood flows. Overall, impacts would be less than significant.

d) Less Than Significant Impact. The Project site is more than 70 miles from the Pacific Ocean and is therefore not at risk of tsunami. There are also no bodies of water at risk of seiche in the Project vicinity. Most of the Project site is located in FEMA Flood Zone Shaded X, which is described as: “0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile.” A small portion of the subject site is located in FEMA Flood Zone Unshaded X, which is described as: “Area of Minimal Flood Hazard”. The Project site is therefore not at risk of inundation, and implementation of the BMPs provided in the PWQMP will ensure that the Project would have less than significant impacts related to the potential release of pollutants.

Mitigation Measures:
None required.

Monitoring:
None required.

XI. LAND USE AND PLANNING Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

Source: City of Desert Hot Springs General Plan, May 2020; City of Desert Hot Springs Zoning Ordinance.

Setting

The Project site is designated for Visitor-Serving (V-S) in the General Plan and zoned for Visitor-Serving Commercial (VS-C). According to the General Plan, the Visitor-Serving designation applies to areas that overlie the natural hot springs and should predominantly be development with spa/resort and residential uses. Developments in these designated areas should provide tourist-oriented uses while respecting surrounding residential uses.

According to Table 17.12.01 in the City's Zoning Ordinance, "Spa Resort" uses are permitted in Visitor-Serving Commercial zones.

Discussion of Impacts

a) No Impact. The Project site is surrounded by existing residential developments to the north and east, a mostly vacant land associated with a spa resort to the west, and a drainage basin to the south. These surrounding uses operate independently of the subject site, and the proposed development will therefore not physically divide an established community. No impact will occur.

b) No Impact. Based on the intended use for the V-S designation and permitted uses in the VS-C zone, the proposed spa resort facility would be consistent with the uses intended for the subject site in the General Plan and Zoning Ordinance.

The development standards for the VS-C zone require a maximum floor-area ratio of 0.30 and a maximum of three stories or 35 feet. All of the proposed buildings are one or two stories and do not exceed 35 feet in height. The VS-C development standards also require a front setback of 20 feet, as well as rear and side setbacks of 10 feet or 20 feet is adjacent to residential. The proposed site plan is consistent with these setbacks, including the provision of 20 foot setbacks in the front and on the site adjacent to residential, and ten foot setbacks in the rear and on the side without adjacent residential.

The Project's landscape plan relies on drought tolerant plantings in a desertscape. This design is consistent with the City's and MSWD's requirements for low-water using landscaping.

Overall, the Project is consistent with applicable policies and regulations provided in the City's General Plan and Zoning Code. No impact will occur.

Mitigation Measures:
None required.

Monitoring:
None required.

XII. MINERAL RESOURCES Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

Source: City of Desert Hot Springs General Plan, May 2020; Mineral Land Classifications: Aggregate Materials in the Palm Springs Production-consumption Region, Riverside County, California. Special Report 159 (SR 159) by California Department of Conservation Division of Mines and Geology.

Setting

In the Coachella Valley, mineral resources are largely limited to aggregates, such as sand, gravel, and crushed stone. These are major components of concrete, plaster, stucco, road base and fill, which are essential to the construction industry. The Palm Springs Production-Consumption (P-C) Region is a 631 square mile area in the Coachella Valley that is heavily mined for aggregate. According to the California Geological Survey, the Palm Springs P-C Region has 30,072 acres classified as lands where significant mineral deposits are present, or where it is judged that a high likelihood for their presence exists. The Palm Springs region contains 3.2± billion tons of aggregate resources.

According to California Geological Survey Special Report 198, the average local annual per capita consumption rate for aggregate in the Palm Springs Production-Consumption Region is 9.6 tons. While the Coachella Valley has an abundant, high-quality local supply of PCC-grade aggregate, a desirable commodity for development markets, transportation costs are a major component affecting cost competitiveness. Given the widespread deposition of aggregate materials in southern California, demand for local resources is expected to remain largely local. The reserves are expected to meet local demand and provide adequate supply at current rates of consumption through the year 2038.

The sand and gravel deposits within the City are an important economic resource, used for road base and similar applications. Other mineral deposits occurring in the region include copper, limestone, specialty sands, and tungsten. These deposits are limited to rocky outcroppings occurring in the Little San Bernardino Mountains and have not been exploited.

The Project site is designated Visitor Serving in the General Plan Land Use Map. No existing sand or gravel operations occur in the vicinity of the Project site.

Discussion of Impacts

a, b) No Impact. The City of Desert Hot Springs occurs primarily on alluvial fans, which are sand and gravel deposits discharged by the surrounding canyons. Sand and gravel are often used as road bases and other foundation materials. Per the State of California Department of Conservation, Division of Mines classification, the Project site is located in MRZ-3, which indicates areas containing known or inferred mineral occurrences of undetermined mineral resource significance. There are no other state-designated Mineral Resource Zones (MRZ) or permitted mining operations in the vicinity of the Project site (General Plan Figure OS-4). The Project site is located in a developed area designated for residential and resort development, and is not zoned for mineral resource extraction. No impact is expected.

Mitigation Measures: None required. **Monitoring:** None required.

XIII. NOISE Would the project result in:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 groundborne vibration or groundborne 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?	☐	☐	☐	☒

Sources: Desert Hot Springs General Plan (2020); City of Desert Hot Springs Municipal Code; CA/T Equipment Noise Emissions and Acoustical Usage Factors Database, FHWA Roadway Construction Noise Model User's Guide (2006) by U.S. Department of Transportation (accessed December 2023); Caltrans Transportation and Construction Vibration Guidance Manual (September 2013); Federal Transit Administration, Transit Noise and Vibration Impact Assessment (May 2006).

Setting

According to the US Environmental Protection Agency (US EPA), the main sources of noise include road traffic, aircraft, railroads, construction, industry, noise in buildings, and consumer products (EPA Clean Air Act Title IV - Noise Pollution). The most prominent and consistent source of noise in Desert Hot Springs is traffic on major roadways. More localized and intermittent noise sources include construction activities and landscape maintenance. Chapter 8.12, Noise Control, in the City's Municipal Code defines "noise sensitive zones" those including the following uses: schools, public libraries, spas, hotels, churches, hospitals, and nursing homes. Residences are also typically considered a noise sensitive land use.

The City has established goals, policies, and programs to limit and reduce the effects of noise intrusion on sensitive land uses and to set acceptable noise levels for varying types of land uses. As part of the development of the Noise Element of the General Plan, noise level measurements were collected at various locations throughout the City to help characterize noise conditions and to set standards for normally acceptable, conditionally acceptable, and generally unacceptable noise levels (Table SN-2; General Plan). The standard maximum outdoor noise level for residential land uses in Desert Hot Springs is 65 dBA CNEL.

Discussion of Impacts

a) Less Than Significant Impact. Currently, the subject site is partially developed and generates minimal noise. The Project proposes the development of a resort and spa, which could result in the generation of a temporary and permanent increase in ambient noise levels in the vicinity of the property. The site is surrounded by existing residential development to the north and east.

Construction Noise

Construction of the Project will require the use of heavy equipment that would temporarily and intermittently increase noise levels in the vicinity of the subject site. Depending on the construction activity being conducted, the volume of noise would vary. Site preparation, grading, building construction, and paving for the proposed development may

involve the use of equipment such as utility and water trucks, graders, compactors, front end loaders, and portable generators. According to noise emission factors from the U.S. Department of transportation Federal Highway Administration, noise generated by construction equipment can reach levels of up to 85 dBA CNEL at a distance of 50 feet. Therefore, construction activities associated with the Project may exceed the City's noise limit of 65 dBA for residential land uses for short periods during construction work days, particularly for grading and paving operations. However, this noise would be temporary, ending when construction is complete, and high noise levels would be intermittent. For the purpose of analysis in this document, construction of the Project is expected to occur over the course of 18 months. Moreover, construction of the proposed development would be subject to §9.04.030 of the City's Municipal Code, which, as shown in Table 8, limits construction activities to less noise sensitive daytime hours.

Table 9
Desert Hot Springs – Prohibited Hours for Construction Activity

	Standard	**Daylight Savings**
Monday to Friday	5:00 pm to 7:00 am	6:00 pm to 6:00 am
Saturday	5:00 pm to 7:00 am	6:00 pm to 6:00 am
Sunday	Prohibited	Prohibited
Source: City of Desert Hot Springs Municipal Code §9.04.030		

Provided that all construction activities associated with the proposed Project adhere to the City's permitted hours, any temporary noise level increases in the vicinity of the subject site would not exceed the standards established in the General Plan and Noise Ordinance. Therefore, impacts associated with construction noise generated by the Project would be less than significant.

Operational Noise

Once operational, the primary sources of noise generated by the Project would include vehicular traffic accessing the site and parking lot vehicle movements. Given that the proposed development is consistent with the Visitor Serving land use designated for the site in the General Plan, the Project would be expected the generate traffic levels consistent with those forecasted for General Plan buildout. According to Table SN-2 in the General Plan, noise levels of up to 65 dBA CNEL are conditionally acceptable for residential land uses. With buildout of the General Plan, future noise levels from traffic are projected to remain insignificant on the local streets in the immediately vicinity of the subject site, including Yerxa Road, Loma Vista Road, and Hermano Way/Quinta Way. Future noise levels near arterial and collector roads in the Project area, such as Two Bunch Palms Trial and Hacienda Avenue are projected to reach up to 75 CNEL at the centerline, but reducing to 60 CNEL on surrounding properties. With standard setbacks from the roadway, traffic noise from the Project is expected to have less than significant impacts on nearby residential and other sensitive uses.

According to Chapter 8.12 of the City's Municipal Code, spas and hotels are considered to be noise sensitive land uses. It is therefore expected that on-site activities during operation of the proposed hotel and spa would generally generate low levels of noise. Given that both the Project and surrounding residential properties are noise sensitive land uses, ambient noise levels would be compatible. Overall, operation of the proposed Project is not anticipated to generate a permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the City's General Plan or Noise Ordinance. Impacts would be less than significant.

b) Less Than Significant Impact. Operation of the proposed Project would not be expected to generate groundborne vibration. However, during construction, temporary, intermittent, and localized groundborne vibration may result from the operation of heavy equipment.

The vibration levels associated with typical construction equipment at 25 feet ranges from 0.003 to 0.089 PPV (in/sec).[3] According to the Caltrans Transportation and Construction Vibration Guidance Manual, the threshold for building damage resulting from vibration is 0.3 in/sec peak particle velocity (PPV),[4] and the threshold for human annoyance is 0.01 in/sec PPV. Structures located more than 25 feet from the subject site would therefore not

[3] Federal Transit Administration, Transit Noise and Vibration Impact Assessment (May 2006).

[4] Vibration damage potential for older residential structures. Fragile and historic buildings may be damaged at lower vibration levels, but do not occur in the Project vicinity.

experience groundborne vibration above the Caltrans thresholds. While the Project is surrounded by existing residential development to the north and east, all houses on the east side of the Project are more than 25 feet from the property, while one house, located immediately north of the entry of the Project, is located within 25 feet. While vibration may be perceptible on properties adjacent to the subject site, any detected groundborne vibration associated with Project construction would be temporary and intermittent. The house to the north of the entry is adjacent to the planned parking lot, which generally occurs 20 feet south of the property line. This home may experience minor groundborne vibration during parking lot paving, but as stated above, construction of the Project will be limited to the hours provided in §9.04.030 of the Municipal Code. Impacts resulting from groundborne vibration would therefore be less than significant.

c) No Impact. The nearest airport to the Project site is the Palm Springs International Airport. The Airport Influence Area for this airport does not extend north of Interstate-10, and therefore does not impact the proposed development. The subject site is more than 4.7 miles north of the Palm Springs Airport Influence Area and therefore the airport would not result in excessive noise for people residing or working in the Project area. There are no private airstrips in the Project vicinity. There will be no impact.

Mitigation Measures:
None required.

Monitoring:
None required.

XIV. POPULATION AND HOUSING

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Source: City of Desert Hot Springs General Plan, May 2020; CA Department of Finance Demographic Research Unit, Report E-5: Population and Housing Estimates for Cities, Counties, and the State, January 1, 2011-2021; 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) Demographics and Growth Forecast Technical Report, Southern California Association of Governments, adopted September 3, 2020.

Setting

The City has a population of 32,654 in 2024, which is projected to grow to 61,000 by 2045. The City is composed of a mix of single- and multi-family residential units, but the majority of housing units are single-family units. Commercial activity is concentrated along Palm Drive in the City's core. There are 12,006 housing units in the City. The proposed project will not add any additional units to the City's housing stock.

Discussion of Impacts

a) Less Than Significant Impact. The proposed Project will not increase the City's housing stock. It will introduce new businesses to the City, which could modestly induce further development, although this effect is considered to be less than significant since the Project in and of itself is modest in scale and will have limited effect on employment. Existing roads – apart from on-site private lanes and fire routes – and utilities will serve the project site and no new utility extensions are needed to serve the Project. Therefore the Project's effects will be less than significant.

b) No Impact. No structures, housing or persons will be displaced as a result of the Project, and existing improvements will be integrated into the Project. No impact will occur.

Mitigation Measures:
None required.

Monitoring:
None required.

XV. PUBLIC SERVICES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☒	☐
Police protection?	☐	☐	☒	☐
Schools?	☐	☐	☒	☐
Parks?	☐	☐	☒	☐
Other public facilities?	☐	☐	☐	☒

Source: City of Desert Hot Springs General Plan, May 2020; Desert Hot Springs General Plan Update and Zoning Amendment Final EIR, May 2020; City's Parks and Recreation Master Plan (2013).

Setting

Fire Protection: Riverside County Fire Department is responsible for fire protection within the City. The Project site is not located within a state responsibility area. The City contracts for fire protection and prevention services with the Riverside County Fire Department (RCFD) under contract with the California Department of Forestry and Fire Protection. The Riverside County Fire Department operates two fire stations: Station 36 (11535 Karen Avenue) and Station 37 (65958 Pierson Boulevard) in Desert Hot Springs. The nearest fire station is Station #37, approximately 2.1 miles northwest of the Project site. The subject property is close to a five-minute response time from Station 3 but is located in an "area of need" for fire station service according to Figure SN-1 in the City's General Plan.

Police Protection: Police services are provided by the Desert Hot Spring Police Department. The City Police Station is located at 65950 Pierson Boulevard, approximately 2.16 miles northwest of the subject property, and is staffed full-time, 24 hours a day, seven days a week. All police emergency response calls are dispatched from this station. The Department also maintains mutual aid agreements with the California Highway Patrol, Riverside County Sheriff's Department, and all other law enforcement agencies in Riverside County.

Schools: The City and the Project site are located within the boundaries of the Palm Springs Unified School District (PSUSD). There are five elementary schools, two middle schools, and one high school, as well as the Wenzlaff Education Center, a continuation school, within the City. The nearest school is the Bubbling Wells Elementary School, approximately 3,000 feet southwest of the Project site.

Parks: According to the City of Desert Hot Springs General Plan (Table HW-1), a total of 71.31 acres are dedicated for parks. The City prepared its Parks and Recreation Master Plan in 2013 to guide the City's delivery of parks and recreation facilities and services for 10 years (2013 to 2023). The four types of parks serving the Desert Hot Springs

area are community, neighborhood, and mini parks, as well as special use parks. According to the City's 2019 Parks Inventory, there are 28.9 acres of park space in the City, distributed across seven mini, neighborhood, and community parks.

Other Public Facilities: The Desert Hot Springs Library, located at 14380 Palm Drive, is operated by the Riverside County Library System.

Discussion of Impacts

Fire Protection:

Less Than Significant Impact. The Project proposes development 48 hotel/glamping units, 641 square feet of restaurant and coffee bar uses, and 2,500 square feet of spa and health club facilities. Buildout of the proposed resort and spa development would marginally increase the number of structures requiring fire protection in the City. However, given the small scale and intensity of the proposed development, and the property's location outside of high fire hazard severity zones, the potential increase in demand for fire protection is expected to be less than significant. New of physically altered fire protection facilities would not be required as a result of the proposed Project.

Fire personnel would be able to access the site using the main driveway from Yerxa Street. The emergency access drive will be outfitted with a Knox box to ensure that it is used for emergency vehicles only. The provision of adequate access for first responders, and compliance with applicable building and fire codes, will ensure that the proposed development has less than significant impacts related to fire protection.

Police Protection:

Less Than Significant Impact. As stated above, first responders including police personnel would be able to access the Project site via the main driveway as well as the emergency access drive.

According to the Final EIR to the City's General Plan, the law enforcement standard is 1.5 sworn officers for every 1,000 residents, consistent with General Plan Policy SN-2.2 Staff Ratio. As of 2019, the Police Department provided 1.3 sworn officers for every 1,000 residents. The proposed development would not directly result in additional permanent population in Desert Hot Springs, and would accommodate a limited number of visitors. The Police Department staffing will need to expand over time to continue to meet the changing needs of the growing Desert Hot Springs community. However, the ultimate development of the site will result in a limited and less than significant increase in demand for police services. Less than significant impact is anticipated.

Schools:

Less Than Significant Impact. The proposed Project will not directly contribute to the existing student population. While the development could result in the generation of a limited number of jobs, these jobs would not induce substantial population growth. The Project will therefore have a less than significant impact on schools.

Parks/ Other Public Facilities:

No Impact. Buildout of the proposed Project is not expected to induce substantial population growth, and therefore is not expected to significant impact demand for parks, libraries, or other public services. The proposed development would not result in physical impacts to these facilities, and would not warrant the construction of new or expanded facilities, both because of the transient nature of hotel guests, and because of the recreational amenities offered on the Project site. No impacts will occur as a result.

Mitigation Measures:
None required.

Monitoring:
None required.

XVI. RECREATION

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	☐	☐	☐	☒

Source: City of Desert Hot Springs General Plan, May 2020; Project Plans and Draft TTM 38200.

Setting

The City of Desert Hot Springs is currently operating three mini parks (Veteran's Memorial Park, Hot Springs Park, and Constitution Park), three neighborhood parks (Guy J. Tedesco Park, Wardman Park, and Rotary Park), one community park (Mission Springs Park), and four special use centers (Carl May Community Center, Henry V. Lozano Community Center, Cabot's Pueblo Museum, and Community Health & Wellness Center) on 39.31 acres.

For future development within the City, park acreage standards are generally established through an acreage requirement per 1,000 residents. According to the City of Desert Hot Springs General Plan (Table HW-1), a total of 71.31 acres are dedicated for parks. The City prepared its Parks and Recreation Master Plan in 2013 to guide the City's delivery of parks and recreation facilities and services for 10 years (2013 to 2023). The four types of parks serving the Desert Hot Springs area are community, neighborhood, and mini parks, as well as special use parks. Currently, approximately 39.31 acres of land is developed as parks. The nearest parks to the Project site are Mission Springs Park and Desert Hot Springs Soccer Park, both located approximately 2.5 miles west of the subject property.

Discussion of Impacts

a, b) No Impact. Project buildout is expected to have no impact on local and/or regional parks or recreational facilities. The Project consists of a resort, including glamping units, amenities, and a day spa. The Project will also pay development impact fees that will help to fund existing and future parks. No additional parks and other recreational facilities are required to accommodate the employees. There will be no impact.

Mitigation Measures:
None required.

Monitoring:
None required.

XVII. TRANSPORTATION Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☒	☐
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
d) Result in inadequate emergency access?	☐	☐	☐	☒

Sources: City of Desert Hot Springs General Plan, May 2020; Desert Hot Springs General Plan Update and Zoning Amendment Final EIR, May 2020.

Setting

Roadways

The Project is located in the City of Desert Hot Springs where the roadway network is comprised of a hierarchy of streets that provide access to and through the City. All roadways in the City are classified into seven roadway types: Urban Arterial, Primary I, Primary II, Secondary I, Secondary II, Collector, and Local Collector streets. The City's acceptable Level of Service (LOS) for both roadway segments and intersection operations is LOS D or better during peak hour periods. Most area roadways and intersections currently operate at LOS D or better.

The Project site is southeast of the terminus of Yerxa Road and southwest of the terminus of Hermano Way/Quinta Way. Yerxa Road, Hermano Way, and Quinta Way are all local streets. The Project will involve roadway improvements that should be in place prior to occupancy. Yerxa Road shall be constructed on-site from the Project's northwestern boundary at its ultimate full section width to serve as the driveway for the proposed development. Street "A" shall be construction from the street's intersection with Yerxa Road to the Project's reception building at its ultimate full section width to serve as the driveway.

Access to the site will be provided via Yerxa Road, south of Loma Vista Road which connects to Two Bunch Palms Trail via Miracle Hill Road. Street "A" will also provide access to the site from Yerxa Road to the Project's reception building.

A traffic analysis report was prepared for the Project by Urban Crossroads (Appendix D). The Project study area for the traffic analysis included analysis of the following intersections: Miracle Hill Road and Two Bunch Palms Trail/Cuando Way; Hidalgo Street/Yerxa Road and Loma Vista Road; Yerxa Road and Street "A". In addition to the improvements to Yerxa Road and Street "A" described above, the traffic analysis report recommends intersection improvements to the Yerxa Road and Street "A" intersection.

Transit

SunLine Transit Agency provides bus service to Desert Hot Springs. The nearest SunLine route to the Project is Route 3 which runs along Hacienda Avenue approximately 2,600 feet north of the subject site.

Bicycle and Pedestrian Facilities

The City provides Pedestrian Priority Streets with improvements for safety and convenience along some routes to schools, parks, and commercial districts. The City's General Plan establishes planned bicycle facilities, including multiple classifications of on- and off-site bike paths and lanes. None of the streets immediately in the Project vicinity are designated as priority streets or are planned for bicycles facilities.

Discussion of Impact

a) Less Than Significant Impact. The Project's potential impacts on the circulation system were analyzed in the traffic analysis report prepared by Urban Crossroads. The following discussion is primarily based on this report.

As previously stated, the City's Level of Service (LOS) standard is D. The traffic analysis conducted for the Project included intersection capacity analysis for the existing intersections in the Project study area: Miracle Hill Road at Two Bunch Palms Trail/Cuando Way, and Hidalgo Street/Yerxa Road at Loma Vista Road. As shown in Table 9, both existing intersections currently operate at LOS A or B, well above the City's standard.

Table 10
Intersection Analysis for Existing (2023) Conditions

Intersection	Traffic Control[1]	Intersection Approach Lanes[2]												Delay[3] (secs)		LOS	
		Northbound			Southbound			Eastbound			Westbound						
		L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
Miracle Hill Rd. / Two Bunch Palms Tr. – Cuando Wy	CSS	0	1!	0	0.5	0.5	d	0.5	0.5	d	0.5	0.5	d	12.5	12.4	B	B
Hidalgo St. – Yerxa Rd. / Loma Vista Rd.	CSS	0	1!	0	0	1!	0	0	1!	0	0	1!	0	9.1	9.0	A	A
Yerxa Rd. / St. "A"		Future Intersection															

[1] CSS = Cross-Street Stop
[2] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.
L = Left; T = Through; R = Right; d = Defacto Right Turn Lane; 0.5 = Shared Lane; 1! = Shared Left/Through/Right lane
[3] Per the Highway Capacity Manual (6th Edition), the worst individual movement (or movements sharing a single lane) are shown for intersections with cross street stop control.

Buildout of the proposed Project would generate additional traffic. Trip generation for the proposed development was calculated using the Institute of Transportation Engineers (ITE) Trip Generation manual (11th Edition, 2021). The Project proposes a resort/spa including 48 units of hotel rooms, air stream trails, and glamping sites, as well as on-site spa and health club facility, a restaurant, and coffee bar. Based on this proposed development, the following ITE land use codes were used: 330 (resort hotel), 492 (health/fitness club) and 932 (high turnover sit-down restaurant. Accounting for internal capture between land uses, the traffic analysis determined that these land uses would generate a total of 389 trips per day.

Assuming that the Project would be operational by 2025, Table 10 shows the EAP (2025) traffic conditions.

Table 11
Intersection Analysis for EAP (2025) Conditions

Intersection	Traffic Control	Intersection Approach Lanes												Delay (secs)		LOS	
		Northbound			Southbound			Eastbound			Westbound						
		L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
Miracle Hill Rd. / Two Bunch Palms Tr. – Cuando Wy	CSS	0	1!	0	0.5	0.5	d	0.5	0.5	d	0.5	0.5	d	13.0	13.0	B	B
Hidalgo St. – Yerxa Rd. / Loma Vista Rd.	CSS	0	1!	0	0	1!	0	0	1!	0	0	1!	0	9.2	9.2	A	A
Yerxa Rd. / St. "A"	**CSS**	0	**1**	0	0.5	0.5	0	0	0	0	0	**1!**	0	8.5	8.5	A	A

[1] CSS = Cross-Street Stop
[2] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.
L = Left; T = Through; R = Right; d = Defacto Right Turn Lane; 0.5 = Shared Lane; 1! = Shared Left/Through/Right lane; **1** = Improvement
[3] Per the Highway Capacity Manual (6th Edition), the worst individual movement (or movements sharing a single lane) are shown for intersections with cross street stop control.

The traffic conditions in the above table account for the 2023 traffic volumes, traffic from ambient growth (4.04% over two years), and Project traffic. These conditions also assume buildout of Project improvements to Yerxa Road and Street "A" intersection. As shown in Table 10 above, no study area intersections are anticipated to operate at an unacceptable LOS of "E" or worse for opening year conditions.

Table 11, below, shows the same conditions as the opening year conditions shown in Table 10, but with the addition of traffic from cumulative development in the area. Table 4-2 in the traffic study (Appendix D) provides the cumulative development projects and associated trip generation. As shown in the Table 11, opening year conditions including traffic from the Project as well as ambient and cumulative growth will not result in a an impact to traffic below the City's standard at any of the study area intersections.

Table 12
Intersection Analysis for EAPC (2025) Conditions

Intersection	Traffic Control	Intersection Approach Lanes												Delay (secs)		LOS	
		Northbound			Southbound			Eastbound			Westbound						
		L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
Miracle Hill Rd. / Two Bunch Palms Tr. – Cuando Wy	CSS	0	1!	0	0.5	0.5	d	0.5	0.5	d	0.5	0.5	d	13.5	13.9	B	B
Hidalgo St. – Yerxa Rd. / Loma Vista Rd.	CSS	0	1!	0	0	1!	0	0	1!	0	0	1!	0	9.2	9.2	A	A
Yerxa Rd. / St. "A"	**CSS**	0	**1**	0	0.5	0.5	0	0	0	0	0	**1!**	0	8.5	8.5	A	A

[1] CSS = Cross-Street Stop
[2] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.
L = Left; T = Through; R = Right; d = Defacto Right Turn Lane; 0.5 = Shared Lane; 1! = Shared Left/Through/Right lane; **1** = Improvement
[3] Per the Highway Capacity Manual (6th Edition), the worst individual movement (or movements sharing a single lane) are shown for intersections with cross street stop control.

Overall, the intersection analysis indicates that the Project will not result in any nearby intersection having a level or service at or below the City's standard of LOS D. Therefore, the Project would not conflict with a program, plan, ordinance or policy addressing the circulation system, and impacts would be less than significant.

Roadways

None of the roadways in the immediate vicinity of the Project are designated in the City's General Plan. The proposed development will provide full width improvements to Yerxa Road and Street "A", which will serve as driveways into the Project site. Improvements will also be provided for the Yerxa Road and Street "A" intersection, including the following:

- Installation of a cross-street stop control on the westbound approach.
- Provision of one westbound share left-right turn lane.
- Provision of one southbound shared left-through lane.
- Provision of one northbound shared through-right lane.

The proposed roadway improvements will be constructed in accordance with City standards and will not conflict with programs, plans, ordinances or policies addressing roadways. No impact would occur.

Transit

The nearest transit route to the Project is SunLine Route 3 which runs along Hacienda Avenue approximately 2,600 feet north of the subject site. None of the streets in the immediate vicinity of the Project site are serviced by existing or planned transit routes. While SunLine may review and update its transit routes in the future, the proposed development would have no impact on programs, plans, ordinances or policies addressing transit. No impact would occur.

Bicycle and Pedestrian Facilities
There are no existing or planned bicycle or pedestrian facilities on the roadways in the immediate vicinity of the Project site. The proposed full width improvements to Yerxa Road and Street "A" would not include bicycle or pedestrian facilities. The Project would not conflict with programs, plans, ordinances, or policies addressing bicycle or pedestrian facilities. No impact would occur.

b) Less Than Significant Impact. Pursuant to Senate Bill 743, the CEQA Guidelines were amended to require all lead agencies to adopt vehicle miles traveled (VMT) as a replacement for automobile delay-based LOS for identifying transportation impacts. The City of Desert Hot Springs uses the County of Riverside's Transportation Analysis Guidelines for Vehicle Miles Traveled analysis (December 2020). In accordance with the County Guidelines, projects should evaluate available screening criteria based on the location and land use type to determine if a presumption of less than significant impacts can be made.

Small Projects Screening: For retail land uses, the County Guidelines identify buildings with floor areas less than or equal to 60,000 square feet as being presumed to have a less than significant impact. The Project includes approximately 641 square feet or retail land use, so the retail portion of the Project satisfies the Small Projects screening criteria.

Map Based Screening: According to the County Guidelines, residential, office and other employment uses in areas with low VMT will tend to exhibit similarly low VMT. The Project is located in TAZ 4566, which generates 8.01 VMT per capita. This is below the County's regional threshold of 14.2 VMT per capita. The hotel portion of the Project therefore satisfies the Map Based screening criteria.

Local Essential Service Screening: The provision of new local essential services can shorten non-discretionary trips, resulting in conditions that do no increase overall VMT. The spa and health club would provide a local service, which would otherwise attract travelers from more distant locations, adjacent to complementary land uses. The spa and health club would therefore be presumed to not increase overall VMT, and would satisfy the Local Essential Service screening criteria.

Based on the County Guidelines, the Project meets the Small Projects, Map Based, and Local Essential Service screening criteria. It can therefore be presumed that the proposed development would have less than significant impacts related to VMT.

c) No Impact. The Project will have access from Yerxa Road, and will provide full-width improvements to Yerxa Road and Street "A" on the subject site to serve as driveways. As described above, the development will also provide improvements to the intersection of Yerxa Road and Street "A". These roadways improvements will be constructed in accordance with City standards and will no result in any sharp curves, dangerous intersections, or hazardous geometric features. The proposed development is consistent with the Visitor Serving land use designation and Visitor-Serving Commercial zoning district, and therefore would not be expected to result in any incompatible uses. No impact will occur.

d) Less Than Significant Impact. The Fire Department will review plans and approve circulation through the site to assure emergency access is sufficient. The site will be accessible through Yerxa Road, and a system of driveways/trails through the property which will be built to sustain the weight of fire equipment. These standard requirements and conditions of approval will assure that impacts remain less than significant.

Mitigation Measures:
None required.

Monitoring:
None required.

XVIII. TRIBAL CULTURAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☒	☐	☐
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

Sources: Historical/Archaeological Resources Survey Report prepared for Kimana Resort Expansion Project by CRM TECH (September 2022).

Setting

As discussed in the Section V, Cultural Resources, the City of Desert Hot Springs is located in the Coachella Valley, an area which has historically been a center to Native American settlement. The Valley is the traditional use area for the Cahuilla, a Takic-speaking people. Anthropologists generally divide the Cahuilla into three groups, based on 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 oldest cultural resources reported in the city are from the Paleoindian Period which dates back to at least 11,000 B.C. According to the City's General Plan, prehistoric resources may occur in the vicinity of fault-related mesquite and palms, as well as resources associated with mountain washes, streams and canyons. The Mission Creek and Banning fault zones should be considered sensitive potential resources areas. Mesquite thickets that generally occur in dune areas are also sensitive areas since mesquite and screwbean pods were staples in the diet of the region's Cahuilla Indians. These resources are sparsely distributed within the City boundaries.

The Cahuilla people continue to inhabit the area today, including the Agua Caliente Band of Cahuilla Indians who are located south of Desert Hot Springs and in the Palm Springs area. Other Native American of Pass or Desert Cahuilla heritage are mostly affiliated with the Morongo Band of Mission Indians, the Cabazon Band of Mission Indians, the Torres Martinez Desert Cahuilla Indians, and the Augustine Band of Cahuilla Mission Indians.

Discussion of Impacts

a i, ii) Less Than Significant with Mitigation Incorporated. A Historical/Archaeological Resources Survey Report was prepared for the Project by CRM TECH (September 2022), as provided in Appendix C. The study included a records search at the Eastern Information Center (EIC), historical background research, Native American participation, and a field survey. CRM TECH also submitted a request to the State of California Native American Heritage Commission (NAHC) for a records search in the Sacred Lands File in June 2022. In July 2022 the NAHC responded that the Sacred Lands File identified unspecified Native American cultural resources in the Project vicinity. The NAHC directed further inquiry about these resources to the Agua Caliente Band of Cahuilla Indians.

CRM TECH contacted the nearby Agua Caliente Band of Cahuilla Indians and the Morongo Band of Mission Indians for additional information on potential cultural resources in the Project vicinity. The Agua Caliente Band requested copies of all cultural resources documentation generated for this project, but did not identify any specific cultural resources in or near the Project area. CRM TECH also invited the Agua Caliente Band of Cahuilla Indians to participate in the field survey.

The field survey was conducted by CRM TECH in June 2022 and identified no cultural resources, including buildings, structures, sites, features, or artifacts, within the boundaries of the Project site.

Pursuant to AB 52, the City conducted Tribal consultation for the Project. Three letters were received in response to the City's consultation request: letters from the Morongo and San Manuel bands declined consultation, while the Agua Caliente Band of Cahuilla Indians (ACBCI) requested the presence of a Tribal monitor and archaeologist during all earth moving activities. With implementation of the mitigation measure and monitoring provided in Section V, Cultural Resources, the Project is not anticipated to cause a substantial adverse change in the significance of a tribal cultural resource, and impacts would be less than significant.

Mitigation Measures:
See Section V. V-1.

Monitoring:
See Section V. V-A.

XIX. UTILITIES AND SERVICE SYSTEMS Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

Source: City of Desert Hot Springs General Plan, May 2020, Desert Hot Springs General Plan Update and Zoning Amendment Final EIR, May 2020; CalRecycle, SWIS Facility/Site Activity Details for Lamb Canyon Sanitary Landfill, https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/2246?siteID=2368 (accessed December 2023); Desert Valley Disposal Inc. (DVD), http://www.desertvalleydisposal.com; Accessed September 2021.

Setting

Domestic Water

The Mission Springs Water District (CMSWD) provides domestic water to the majority of Desert Hot Springs, including the Project area. MSWD receives its water supply from groundwater produced within the Coachella Valley Groundwater Basin. The District primarily produces groundwater from the Mission Creek Subbasin via eight wells, and also produces groundwater from the Indio and San Gorgonio Subbasins.

Wastewater Treatment

The Project site is located within the MSWD sanitary sewer district. MSWD operates two wastewater treatment plans. Horton Wastewater Treatment Plant (Horton WWTP) has a capacity of 2.3 million gallons per day, and the Desert Crest Wastewater Treatment Plant has a capacity of 0.18 million gallons/day. MSWD is also currently constructing a new Regional Water Reclamation Facility with a capacity of 1.5 million gallons per day. The Horton plant will serve the Project site. Current wastewater facilities are not adequate to serve the anticipated growth in the City. To provide for the type and scale of development planned in the City, substantial expansion of wastewater facilities is planned.

Storm Water Management
Storm water drainage infrastructure within the City consists of a network of natural and improved streams, storm drains, storm channels, and catch basins intended to manage stormwater that flows into the Whitewater River.

Most of the Project site is located in FEMA Flood Zone Shaded X, which is described as: "0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile." A small portion of the subject site is located in FEMA Flood Zone Unshaded X, which is described as: "Area of Minimal Flood Hazard". The Project area is subject to City requirements relating to flood control. The City implements standard requirements for the retention of storm flows, and participates in the National Pollution Discharge Elimination System (NPDES) to protect surface waters from pollution. As discussed in Section X, Hydrology and Water Quality, development projects must retain the incremental runoff from the 100-year storm flow on site.

Solid Waste
Desert Valley Disposal, Inc. (DVD) provides solid waste collection and disposal through a franchise agreement with the City. Garbage and recycling are collected from customers in Desert Hot Springs and transported to the Edom Hill Transfer Station then eventually to Lamb Canyon Landfill, located at 16411 Lamb Canyon Road, Beaumont. Lamb Canyon Landfill is operated by the County of Riverside.

Utility Providers
The Project site is provided with electricity from Southern California Edison, and natural gas from Southern California Gas Company. Telecommunications services are provided by Frontier and Spectrum.

Discussion of Impacts

a-c) Less Than Significant Impact. The Project site is surrounded by residential developments to the north and east. As a result, the subject property is well served by existing water, sewer, electricity, natural gas, and telecommunication services. The proposed development will include extensions of these existing utilities into the site, but all construction will occur within the property and therefore no environmental impacts beyond those already addressed in this document would be anticipated.

Water
Project domestic water will be provided by the MSWD, which has an existing domestic water line along the eastern boundary of the subject site. MSWD currently receives all of its water supply from groundwater produced from subbasins within the Coachella Valley Groundwater Basin.

The inputs and assumptions used to calculate the Project's water demand are described in Section X, Hydrology and Water Quality, subsection (b). Based on these inputs, Table 8 in Section X shows the estimated water demand, in acre-feet per year, that the Project would generate at buildout. As shown in the table, the Project is projected to generate approximately 11.66 AFY of water demand. According to the 2020 Coachella Valley Regional Urban Water Management Plan (RUWMP), total water use in the Mission Springs Water District (MSWD) was 8,269 AFY in 2020. The District projects that total water use will increase to 17,495 by 2045. The estimated water demand for the Project would represent 0.2% of the MSWD's actual water demand in 2020, or 0.2% of the District's planned supply increases of an additional 9,226 AFY by 2045.

Consistent with the requirements of the California Urban Water Management Planning Act, the 2020 RUWMP includes an assessment for MSWD's water service reliability for normal, single dry and multiple dry years. The Plan confirms MSWD's ability to meet demands during the three scenarios. Therefore, given that the Project's projected water demand represents a small fraction of the District's planned supply increases, it is demonstrated that MSWD has sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry and multiple dry years. Impacts would be less than significant.

Wastewater Treatment
Wastewater services are provided to the Project area by MSWD. The Project will connect to the sewer system via the existing sewer line that runs along to eastern boundary of the site. MSWD currently operates two wastewater treatment plants, Horton WWTP and Desert Crest WWTP, and an additional Regional Water Reclamation Facility

with a capacity of 1.5 millions gallons per day is currently under construction. Given that the District's wastewater treatment capacity will soon be increased, and that the Project would not be expected to generate significant quantities of wastewater, it is anticipated that the wastewater treatment provider will have adequate capacity to serve the Project in addition to the provider's existing commitments, and the construction of new or relocated wastewater facilities would not be required.

Drainage
A Preliminary Hydrology Study was prepared for the Project by Fomotor Engineering, including calculation of on-site effects for the existing and proposed conditions resulting from the 100-year storm event. As described in Section X, Hydrology and Water Quality, subsection c), the Project proposes to generally maintain the existing drainage pattern. The Project proposes to increase the capacity of the main channel that exists on site, and proposes the installation of two sub-surface corrugated metal pipes (CMPs) to retain the increased runoff generated by the additional permeable surfaces resulting from the Project. The proposed improvements ensure that additional runoff generated by the Project would be retained on-site, and therefore the construction of new or relocated drainage facilities will not be required.

Electricity
Existing power poles occur along the western boundary of the subject site. The proposed development will connect to this existing Southern California Edison infrastructure, and additional or expanded electric power facilities will not be required.

Natural Gas
Southern California Gas provides natural gas to Desert Hot Springs. The proposed development will connect to the existing natural gas infrastructure, and will not require the addition or expansion of natural gas facilities.

Telecommunications
Telecommunications are provided to the Project area by Frontier and Spectrum. The proposed Project will connect to existing infrastructure, and will not require the addition or expansion of telecommunications facilities.

d & e) Less Than Significant Impact. Desert Valley Disposal, Inc. provides solid waste services to the City of Desert Hot Springs. Currently, the City utilizes the Edom Hill Transfer Station, which serves as a local collection point to the final disposal site and does not have a limit of daily transfer amount. Lamb Canyon Landfill is permitted to receive 5,000 tons per day and has a total capacity of 38.9 million cubic yards. As of 2015, the landfill is estimated to have a remaining capacity of 19.2 million cubic yards (49% of total capacity). Lamb Canyon Landfill is estimated to operate until 2032.

During operations, the Project would be expected to generate typical volumes and sources of solid waste associated with hotel and commercial land uses. Using solid waste generation rates provided by CalRecycle, Table 13 shows the Project's estimated solid was generation by day and by year.

Table 13
Water Demand at Project Buildout

Land Use	Disposal Rate	Quantity	Solid Waste Disposal	
			Pounds per Day	Tons per Year
Hotel	2 lbs per room per day	48 units	96	17.5
Commercial	0.006 lbs per sq ft per day	9,602 square feet	57.6	10.48
Total (with 50% diversion):			**76.8**	**13.99**

[1] CalRecycle Estimated Solid Waste Generation Rates https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates.

As shown in the above table, the Project is estimated to generate approximately 14 tons of solid waste per year. Assuming that one cubic yard is equivalent to 95 pounds, according to the USEPA Office of Resource Conversion and Recovery, the Project would generate approximately 291 cubic yards of solid waste per year. Given that the Lamb Canyon Landfill has a remaining capacity of 19.2 million cubic yards, solid waste generated by the Project

would contribute approximately 0.0015% per year to the remaining capacity of the landfill. Therefore, Project operations would not generate solid waste in excess of the capacity of local infrastructure.

Construction of the proposed Project would generate solid waste in the form of construction waste and debris. Project construction must comply with the diversion requirements of Municipal Code Section 8.08.040 are met, including diversion of at least 50 percent of all construction waste for new construction.

Desert Valley Disposal is responsible for maintaining standards that assure that all waste is handled in a manner that meets local, state and federal standards. These requirements will assure that impacts associated with solid waste disposal remain less than significant.

Mitigation Measures:
None required.

Monitoring:
None required.

XX. WILDFIRE If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☒
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☒
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒

Sources: City of Desert Hot Springs General Plan, May 2020; Desert Hot Springs General Plan Update and Zoning Amendment Final EIR, May 2020.

Setting

The California Department of Forestry and Fire Protection (CalFire) prepares maps that identify state responsibility areas (SRA) and Very High Fire Hazard Severity Zones (VHFHSZ). These maps show that the majority of Desert Hot Springs is located in local responsibility areas and outside fire hazard zones. According to Figure SN-5: Wildfire Hazards in the City's General Plan, the Project area is not located within or near any locally or state designated fire hazard zones or SRAs. In addition to the City's implementation of the California Fire Code, development standards from the Riverside County Fire Department also apply. These standards are implemented through the review of development proposals by the RCFD in coordination with the City staff's review.

Discussion of Impacts

a) No Impact. The Project site is not located in or near a state responsibility area or lands classified as very high fire hazard severity zones. The primary emergency evacuation routes in the City include I-10, Indian Canyon Avenue, Dillon Road, Pierson Boulevard, and Palm Drive. The Project site has good access to emergency evacuation routes of Pierson Boulevard and Palm Drive via Hacienda Avenue.

Currently, the site is undeveloped and surrounded by single-family residential neighborhoods and visitor-serving commercial uses. Project primary access will be on Yerxa Road. This access point will be subject to review and approval by the City of Desert Hot Springs Fire Marshall. No impact is anticipated because no change in emergency response or evacuation plans is expected for the proposed Project.

b, c) No Impact. The Project site is not located within a wildfire hazard severity zone or a wildland-urban interface (WUI). The urban area in which the Project is located has a very low threat from wildland fires because of lack of vegetation, distance from mountain slopes, and intervening urban development. Development of the site would not expose people or structures to significant wildfire risks. The proposed Project will include road easement and have paved access to urban arterial roadways in the Project area. No new wildfire risk infrastructure will be required. No impacts would occur.

d) No Impact. The Project site is located on the lower alluvial fan of the Little San Bernardino Mountains where there is very low potential for flooding (see Section X), landslide, or post-fire slope instability. Therefore, the proposed Project would not expose people or structures to significant risks such as downslope or downstream flooding or landslides, post-fire slope instability, or drainage changes. No impact is anticipated.

Mitigation Measures:
None required.

Monitoring:
None required.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE **Does the project:**	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the Project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a Project are considerable when viewed in connection with the effects of past Projects, the effects of other current Projects, and the effects of probable future Projects)?	☐	☒	☐	☐
c) Does the Project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

Discussion of Impacts

a) Less Than Significant Impact with Mitigation.

Biological Resources: The Project has the potential to impact migratory birds and burrowing owls, but mitigation measures included in this Initial Study will reduce those impacts to less than significant levels. There is a remote potential for desert tortoise to move onto the site, although they do not currently occur. Mitigation is this document will assure that impacts to desert tortoise will be less than significant should they wander onto the site. Overall the Project will have less than significant impacts on the habitat of a fish or wildlife species, would not cause a fish or wildlife population to drop below self-sustaining levels, would not eliminate a plant or animal community, would not substantially reduce the number or restrict the range of a rare or endangered plant or animal with implementation of mitigation measures.

Cultural Resources: Since the potential for buried resources to be uncovered during grading activities exists, mitigation requiring monitoring by a qualified archeologist and Tribal monitor is included in this document to reduce those impacts to less than significant levels.

b) Less Than Significant Impact. The Project consists of a small-scale resort and spa on 5± acres. The Project is located in a developed area of the City, and is designated Visitor Serving commercial in the General Plan. Its impacts, as well as the impacts of other projects in this land use designation, have been considered in the General Plan EIR, and the Project will not increase the cumulative impacts at build out. This document identifies no cumulative impacts associated with the Project, and impacts are expected to be less than significant.

c) Less Than Significant Impact. The Project will result in a small-scale resort and spa, in an area designated for such uses and residential land uses. The Project will not generate excessive noise, and will have no significant impact on traffic. Air emissions are also shown to be less than significant. Therefore, the Project will not cause direct or indirect negative effects on human beings, and impacts will be less than significant.

APPENDIX A

CalEEMOD Air Quality and Greenhouse Gas Modeling

Prepared by

Terra Nova Planning & Research, Inc.
42635 Melanie Place, Suite 101
Palm Desert, CA 92211

Kimana Resort Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

1.2. Land Use Types

1.3. User-Selected Emission Reduction Measures by Emissions Sector

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

2.2. Construction Emissions by Year, Unmitigated

2.4. Operations Emissions Compared Against Thresholds

2.5. Operations Emissions by Sector, Unmitigated

3. Construction Emissions Details

3.1. Site Preparation (2024) - Unmitigated

3.3. Grading (2024) - Unmitigated

3.5. Building Construction (2024) - Unmitigated

3.7. Building Construction (2025) - Unmitigated

3.9. Paving (2025) - Unmitigated

3.11. Architectural Coating (2025) - Unmitigated

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

4.3. Area Emissions by Source

4.3.1. Unmitigated

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

5. Activity Data

5.1. Construction Schedule

5.2. Off-Road Equipment

5.2.1. Unmitigated

5.3. Construction Vehicles

5.3.1. Unmitigated

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

5.6.2. Construction Earthmoving Control Strategies

5.7. Construction Paving

5.8. Construction Electricity Consumption and Emissions Factors

5.9. Operational Mobile Sources

5.9.1. Unmitigated

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

5.10.3. Landscape Equipment

5.11. Operational Energy Consumption

5.11.1. Unmitigated

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

5.13. Operational Waste Generation

5.13.1. Unmitigated

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

7.6. Health & Equity Custom Measures

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Kimana Resort
Construction Start Date	6/3/2024
Operational Year	2025
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.30
Precipitation (days)	11.2
Location	33.9464427243128, -116.47890012289704
County	Riverside-Salton Sea
City	Desert Hot Springs
Air District	South Coast AQMD
Air Basin	Salton Sea
TAZ	5640
EDFZ	11
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description

Motel	48.0	Room	4.05	11,006	35,173	—	—	—
Health Club	2.50	1000sqft	0.37	2,500	0.00	—	—	—
High Turnover (Sit Down Restaurant)	0.64	1000sqft	0.36	641	0.00	—	—	—
Parking Lot	49.0	Space	0.45	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.44	3.80	36.1	34.7	0.05	1.60	7.89	9.49	1.47	3.99	5.47	—	5,561	5,561	0.23	0.05	1.34	5,583
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.56	3.77	19.0	25.4	0.04	0.84	2.96	3.80	0.77	1.38	2.15	—	4,396	4,396	0.18	0.05	0.03	4,416
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.09	1.29	8.18	10.7	0.02	0.35	1.17	1.52	0.32	0.56	0.89	—	1,940	1,940	0.08	0.02	0.21	1,949
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.20	0.24	1.49	1.96	< 0.005	0.06	0.21	0.28	0.06	0.10	0.16	—	321	321	0.01	< 0.005	0.03	323

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	4.44	3.74	36.1	34.7	0.05	1.60	7.89	9.49	1.47	3.99	5.47	—	5,561	5,561	0.23	0.05	0.99	5,583
2025	2.58	3.80	19.0	26.3	0.04	0.81	0.31	1.12	0.74	0.07	0.82	—	4,445	4,445	0.18	0.05	1.34	4,466
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	2.33	1.96	18.3	19.7	0.03	0.84	2.96	3.80	0.77	1.38	2.15	—	3,155	3,155	0.13	0.03	0.02	3,168
2025	2.56	3.77	19.0	25.4	0.04	0.81	0.31	1.12	0.74	0.07	0.82	—	4,396	4,396	0.18	0.05	0.03	4,416
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.99	0.83	7.78	8.33	0.01	0.35	1.17	1.52	0.32	0.56	0.89	—	1,375	1,375	0.06	0.01	0.14	1,380
2025	1.09	1.29	8.18	10.7	0.02	0.34	0.10	0.44	0.31	0.02	0.34	—	1,940	1,940	0.08	0.02	0.21	1,949
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.18	0.15	1.42	1.52	< 0.005	0.06	0.21	0.28	0.06	0.10	0.16	—	228	228	0.01	< 0.005	0.02	229
2025	0.20	0.24	1.49	1.96	< 0.005	0.06	0.02	0.08	0.06	< 0.005	0.06	—	321	321	0.01	< 0.005	0.03	323

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.13	2.24	2.50	25.3	0.06	0.05	4.80	4.85	0.05	1.22	1.27	28.9	6,574	6,603	3.13	0.26	38.7	6,798

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.68	1.80	2.71	16.0	0.05	0.05	4.80	4.85	0.05	1.22	1.27	28.9	5,888	5,917	3.13	0.27	18.7	6,095
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.79	1.92	2.49	18.1	0.05	0.05	4.48	4.53	0.05	1.14	1.18	28.9	5,832	5,861	3.12	0.25	26.5	6,040
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.33	0.35	0.45	3.30	0.01	0.01	0.82	0.83	0.01	0.21	0.22	4.79	966	970	0.52	0.04	4.39	1,000

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.01	1.79	2.36	24.6	0.06	0.04	4.80	4.84	0.04	1.22	1.26	—	6,043	6,043	0.19	0.25	20.4	6,143
Area	0.11	0.44	0.01	0.62	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.53	2.53	< 0.005	< 0.005	—	2.54
Energy	0.02	0.01	0.14	0.11	< 0.005	0.01	—	0.01	0.01	—	0.01	—	514	514	0.04	< 0.005	—	516
Water	—	—	—	—	—	—	—	—	—	—	—	2.99	13.9	16.9	0.31	0.01	—	26.7
Waste	—	—	—	—	—	—	—	—	—	—	—	26.0	0.00	26.0	2.59	0.00	—	90.8
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	18.2	18.2
Total	2.13	2.24	2.50	25.3	0.06	0.05	4.80	4.85	0.05	1.22	1.27	28.9	6,574	6,603	3.13	0.26	38.7	6,798
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.66	1.45	2.57	15.9	0.05	0.04	4.80	4.84	0.04	1.22	1.26	—	5,360	5,360	0.19	0.26	0.53	5,443
Area	—	0.34	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Energy	0.02	0.01	0.14	0.11	< 0.005	0.01	—	0.01	0.01	—	0.01	—	514	514	0.04	< 0.005	—	516
Water	—	—	—	—	—	—	—	—	—	—	—	2.99	13.9	16.9	0.31	0.01	—	26.7
Waste	—	—	—	—	—	—	—	—	—	—	—	26.0	0.00	26.0	2.59	0.00	—	90.8
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	18.2	18.2
Total	1.68	1.80	2.71	16.0	0.05	0.05	4.80	4.85	0.05	1.22	1.27	28.9	5,888	5,917	3.13	0.27	18.7	6,095
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.72	1.52	2.35	17.7	0.05	0.04	4.48	4.52	0.04	1.14	1.17	—	5,303	5,303	0.18	0.24	8.31	5,387
Area	0.05	0.39	< 0.005	0.30	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.25	1.25	< 0.005	< 0.005	—	1.25
Energy	0.02	0.01	0.14	0.11	< 0.005	0.01	—	0.01	0.01	—	0.01	—	514	514	0.04	< 0.005	—	516
Water	—	—	—	—	—	—	—	—	—	—	—	2.99	13.9	16.9	0.31	0.01	—	26.7
Waste	—	—	—	—	—	—	—	—	—	—	—	26.0	0.00	26.0	2.59	0.00	—	90.8
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	18.2	18.2
Total	1.79	1.92	2.49	18.1	0.05	0.05	4.48	4.53	0.05	1.14	1.18	28.9	5,832	5,861	3.12	0.25	26.5	6,040
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.31	0.28	0.43	3.23	0.01	0.01	0.82	0.83	0.01	0.21	0.21	—	878	878	0.03	0.04	1.38	892
Area	0.01	0.07	< 0.005	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.21	0.21	< 0.005	< 0.005	—	0.21
Energy	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	85.2	85.2	0.01	< 0.005	—	85.5
Water	—	—	—	—	—	—	—	—	—	—	—	0.49	2.30	2.79	0.05	< 0.005	—	4.43
Waste	—	—	—	—	—	—	—	—	—	—	—	4.30	0.00	4.30	0.43	0.00	—	15.0
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.02	3.02
Total	0.33	0.35	0.45	3.30	0.01	0.01	0.82	0.83	0.01	0.21	0.22	4.79	966	970	0.52	0.04	4.39	1,000

3. Construction Emissions Details

3.1. Site Preparation (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.34	3.65	36.0	32.9	0.05	1.60	—	1.60	1.47	—	1.47	—	5,296	5,296	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.24	0.20	1.97	1.80	< 0.005	0.09	—	0.09	0.08	—	0.08	—	290	290	0.01	< 0.005	—	291
Dust From Material Movement	—	—	—	—	—	—	0.42	0.42	—	0.22	0.22	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.36	0.33	< 0.005	0.02	—	0.02	0.01	—	0.01	—	48.0	48.0	< 0.005	< 0.005	—	48.2
Dust From Material Movement	—	—	—	—	—	—	0.08	0.08	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.10	0.10	1.81	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	266	266	0.01	0.01	0.99	269
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.01	0.07	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	13.2	13.2	< 0.005	< 0.005	0.02	13.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.19	2.19	< 0.005	< 0.005	< 0.005	2.22
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Grading (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.26	1.90	18.2	18.8	0.03	0.84	—	0.84	0.77	—	0.77	—	2,958	2,958	0.12	0.02	—	2,969

Dust From Material Movement	—	—	—	—	—	—	2.76	2.76	—	1.34	1.34	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.26	1.90	18.2	18.8	0.03	0.84	—	0.84	0.77	—	0.77	—	2,958	2,958	0.12	0.02	—	2,969
Dust From Material Movement	—	—	—	—	—	—	2.76	2.76	—	1.34	1.34	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.56	0.47	4.50	4.64	0.01	0.21	—	0.21	0.19	—	0.19	—	729	729	0.03	0.01	—	732
Dust From Material Movement	—	—	—	—	—	—	0.68	0.68	—	0.33	0.33	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.09	0.82	0.85	< 0.005	0.04	—	0.04	0.03	—	0.03	—	121	121	< 0.005	< 0.005	—	121
Dust From Material Movement	—	—	—	—	—	—	0.12	0.12	—	0.06	0.06	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.09	1.55	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	228	228	0.01	0.01	0.85	231
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.09	3.09	< 0.005	< 0.005	0.01	3.24
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.06	0.09	0.88	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	194	194	0.01	0.01	0.02	196
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.09	3.09	< 0.005	< 0.005	< 0.005	3.24
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.27	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	51.0	51.0	< 0.005	< 0.005	0.09	51.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.76	0.76	< 0.005	< 0.005	< 0.005	0.80
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.45	8.45	< 0.005	< 0.005	0.01	8.57
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.13	0.13	< 0.005	< 0.005	< 0.005	0.13

3.5. Building Construction (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.14	1.27	1.49	< 0.005	0.06	—	0.06	0.05	—	0.05	—	272	272	0.01	< 0.005	—	273
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.23	0.27	< 0.005	0.01	—	0.01	0.01	—	0.01	—	45.1	45.1	< 0.005	< 0.005	—	45.2
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.04	0.35	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	76.7	76.7	< 0.005	< 0.005	0.01	77.7
Vendor	< 0.005	< 0.005	0.09	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	74.7	74.7	< 0.005	0.01	0.01	77.8
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.31	9.31	< 0.005	< 0.005	0.02	9.43
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	8.47	8.47	< 0.005	< 0.005	0.01	8.84
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.54	1.54	< 0.005	< 0.005	< 0.005	1.56
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.40	1.40	< 0.005	< 0.005	< 0.005	1.46
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Building Construction (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.82	0.69	6.36	7.94	0.01	0.26	—	0.26	0.24	—	0.24	—	1,459	1,459	0.06	0.01	—	1,464
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	1.16	1.45	< 0.005	0.05	—	0.05	0.04	—	0.04	—	242	242	0.01	< 0.005	—	242

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.57	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	88.2	88.2	< 0.005	< 0.005	0.31	89.5
Vendor	< 0.005	< 0.005	0.08	0.03	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	73.4	73.4	< 0.005	0.01	0.20	76.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.03	0.32	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	75.1	75.1	< 0.005	< 0.005	0.01	76.1
Vendor	< 0.005	< 0.005	0.08	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	73.5	73.5	< 0.005	0.01	0.01	76.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.25	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	48.8	48.8	< 0.005	< 0.005	0.08	49.5
Vendor	< 0.005	< 0.005	0.05	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	44.7	44.7	< 0.005	0.01	0.05	46.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.09	8.09	< 0.005	< 0.005	0.01	8.19
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.40	7.40	< 0.005	< 0.005	0.01	7.70
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Paving (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.95	0.80	7.45	9.98	0.01	0.35	—	0.35	0.32	—	0.32	—	1,511	1,511	0.06	0.01	—	1,517
Paving	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.95	0.80	7.45	9.98	0.01	0.35	—	0.35	0.32	—	0.32	—	1,511	1,511	0.06	0.01	—	1,517
Paving	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.20	0.16	1.53	2.05	< 0.005	0.07	—	0.07	0.07	—	0.07	—	311	311	0.01	< 0.005	—	312
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.28	0.37	< 0.005	0.01	—	0.01	0.01	—	0.01	—	51.4	51.4	< 0.005	< 0.005	—	51.6
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.09	0.08	0.08	1.43	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	223	223	0.01	0.01	0.77	226
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.08	0.81	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	190	190	0.01	0.01	0.02	192
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.02	0.21	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	41.6	41.6	< 0.005	< 0.005	0.07	42.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.89	6.89	< 0.005	< 0.005	0.01	6.98
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Architectural Coating (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	0.88	1.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134

Architectural Coatings	—	1.61	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	0.88	1.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	1.61	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.21	0.27	< 0.005	0.01	—	0.01	0.01	—	0.01	—	31.1	31.1	< 0.005	< 0.005	—	31.2
Architectural Coatings	—	0.37	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.04	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.15	5.15	< 0.005	< 0.005	—	5.17
Architectural Coatings	—	0.07	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.11	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	17.6	17.6	< 0.005	< 0.005	0.06	17.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.01	0.06	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	15.0	15.0	< 0.005	< 0.005	< 0.005	15.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.74	3.74	< 0.005	< 0.005	0.01	3.79
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.62	0.62	< 0.005	< 0.005	< 0.005	0.63
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Motel	1.42	1.27	1.67	17.4	0.04	0.03	3.40	3.43	0.03	0.86	0.89	—	4,286	4,286	0.13	0.18	14.5	4,357
Health Club	0.32	0.29	0.38	3.96	0.01	0.01	0.77	0.78	0.01	0.20	0.20	—	975	975	0.03	0.04	3.30	991
High Turnover (Sit Down Restaurant)	0.26	0.23	0.31	3.18	0.01	0.01	0.62	0.63	0.01	0.16	0.16	—	782	782	0.02	0.03	2.65	795
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	2.01	1.79	2.36	24.6	0.06	0.04	4.80	4.84	0.04	1.22	1.26	—	6,043	6,043	0.19	0.25	20.4	6,143
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Motel	1.18	1.03	1.83	11.3	0.04	0.03	3.40	3.43	0.03	0.86	0.89	—	3,801	3,801	0.14	0.18	0.38	3,860
Health Club	0.27	0.23	0.42	2.57	0.01	0.01	0.77	0.78	0.01	0.20	0.20	—	865	865	0.03	0.04	0.09	878
High Turnover (Sit Down Restaurant)	0.22	0.19	0.33	2.06	0.01	0.01	0.62	0.63	0.01	0.16	0.16	—	694	694	0.03	0.03	0.07	705
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.66	1.45	2.57	15.9	0.05	0.04	4.80	4.84	0.04	1.22	1.26	—	5,360	5,360	0.19	0.26	0.53	5,443
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Motel	0.23	0.20	0.32	2.41	0.01	0.01	0.62	0.62	0.01	0.16	0.16	—	661	661	0.02	0.03	1.04	671
Health Club	0.05	0.05	0.07	0.55	< 0.005	< 0.005	0.14	0.14	< 0.005	0.04	0.04	—	150	150	0.01	0.01	0.24	153
High Turnover (Sit Down Restaurant)	0.03	0.03	0.04	0.27	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	66.6	66.6	< 0.005	< 0.005	0.10	67.7

Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.31	0.28	0.43	3.23	0.01	0.01	0.82	0.83	0.01	0.21	0.21	—	878	878	0.03	0.04	1.38	892

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Motel	—	—	—	—	—	—	—	—	—	—	—	—	258	258	0.02	< 0.005	—	259
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	34.9	34.9	< 0.005	< 0.005	—	35.0
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	32.8	32.8	< 0.005	< 0.005	—	32.9
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	25.0	25.0	< 0.005	< 0.005	—	25.1
Total	—	—	—	—	—	—	—	—	—	—	—	—	351	351	0.02	< 0.005	—	352
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Motel	—	—	—	—	—	—	—	—	—	—	—	—	258	258	0.02	< 0.005	—	259
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	34.9	34.9	< 0.005	< 0.005	—	35.0
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	32.8	32.8	< 0.005	< 0.005	—	32.9

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	25.0	25.0	< 0.005	< 0.005	—	25.1
Total	—	—	—	—	—	—	—	—	—	—	—	—	351	351	0.02	< 0.005	—	352
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Motel	—	—	—	—	—	—	—	—	—	—	—	—	42.8	42.8	< 0.005	< 0.005	—	42.9
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	5.77	5.77	< 0.005	< 0.005	—	5.79
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	5.43	5.43	< 0.005	< 0.005	—	5.45
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	4.14	4.14	< 0.005	< 0.005	—	4.16
Total	—	—	—	—	—	—	—	—	—	—	—	—	58.1	58.1	< 0.005	< 0.005	—	58.4

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Motel	0.01	< 0.005	0.09	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	105	105	0.01	< 0.005	—	106
Health Club	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	34.4	34.4	< 0.005	< 0.005	—	34.5
High Turnover (Sit Down Restaurant)	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	23.4	23.4	< 0.005	< 0.005	—	23.5
Parking Lot	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
Total	0.02	0.01	0.14	0.11	< 0.005	0.01	—	0.01	0.01	—	0.01	—	163	163	0.01	< 0.005	—	164

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Motel	0.01	< 0.005	0.09	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	105	105	0.01	< 0.005	—	106
Health Club	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	34.4	34.4	< 0.005	< 0.005	—	34.5
High Turnover (Sit Down Restaurant)	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	23.4	23.4	< 0.005	< 0.005	—	23.5
Parking Lot	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
Total	0.02	0.01	0.14	0.11	< 0.005	0.01	—	0.01	0.01	—	0.01	—	163	163	0.01	< 0.005	—	164
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Motel	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	17.5	17.5	< 0.005	< 0.005	—	17.5
Health Club	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.70	5.70	< 0.005	< 0.005	—	5.71
High Turnover (Sit Down Restaurant)	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.88	3.88	< 0.005	< 0.005	—	3.89
Parking Lot	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
Total	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	27.0	27.0	< 0.005	< 0.005	—	27.1

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Consum Products	—	0.30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.11	0.10	0.01	0.62	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.53	2.53	< 0.005	< 0.005	—	2.54
Total	0.11	0.44	0.01	0.62	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.53	2.53	< 0.005	< 0.005	—	2.54
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	0.34	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.01	0.01	< 0.005	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.21	0.21	< 0.005	< 0.005	—	0.21
Total	0.01	0.07	< 0.005	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.21	0.21	< 0.005	< 0.005	—	0.21

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Motel	—	—	—	—	—	—	—	—	—	—	—	2.33	11.5	13.8	0.24	0.01	—	21.6
Health Club	—	—	—	—	—	—	—	—	—	—	—	0.28	1.02	1.30	0.03	< 0.005	—	2.24
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	0.37	1.34	1.72	0.04	< 0.005	—	2.95
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	2.99	13.9	16.9	0.31	0.01	—	26.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Motel	—	—	—	—	—	—	—	—	—	—	—	2.33	11.5	13.8	0.24	0.01	—	21.6
Health Club	—	—	—	—	—	—	—	—	—	—	—	0.28	1.02	1.30	0.03	< 0.005	—	2.24
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	0.37	1.34	1.72	0.04	< 0.005	—	2.95
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	2.99	13.9	16.9	0.31	0.01	—	26.7
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Motel	—	—	—	—	—	—	—	—	—	—	—	0.39	1.90	2.29	0.04	< 0.005	—	3.57

Health Club	—	—	—	—	—	—	—	—	—	—	—	0.05	0.17	0.22	< 0.005	< 0.005	—	0.37
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	0.06	0.22	0.28	0.01	< 0.005	—	0.49
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.49	2.30	2.79	0.05	< 0.005	—	4.43

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Motel	—	—	—	—	—	—	—	—	—	—	—	14.2	0.00	14.2	1.42	0.00	—	49.6
Health Club	—	—	—	—	—	—	—	—	—	—	—	7.68	0.00	7.68	0.77	0.00	—	26.9
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	4.11	0.00	4.11	0.41	0.00	—	14.4
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	26.0	0.00	26.0	2.59	0.00	—	90.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Motel	—	—	—	—	—	—	—	—	—	—	—	14.2	0.00	14.2	1.42	0.00	—	49.6

Health Club	—	—	—	—	—	—	—	—	—	—	—	7.68	0.00	7.68	0.77	0.00	—	26.9
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	4.11	0.00	4.11	0.41	0.00	—	14.4
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	26.0	0.00	26.0	2.59	0.00	—	90.8
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Motel	—	—	—	—	—	—	—	—	—	—	—	2.34	0.00	2.34	0.23	0.00	—	8.20
Health Club	—	—	—	—	—	—	—	—	—	—	—	1.27	0.00	1.27	0.13	0.00	—	4.45
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	0.68	0.00	0.68	0.07	0.00	—	2.38
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	4.30	0.00	4.30	0.43	0.00	—	15.0

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Motel	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	17.2	17.2
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01

High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.00	1.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	18.2	18.2
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Motel	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	17.2	17.2
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.00	1.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	18.2	18.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Motel	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.85	2.85
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.17	0.17
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.02	3.02

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description

Site Preparation	Site Preparation	6/3/2024	6/28/2024	5.00	20.0	—
Grading	Grading	7/1/2024	11/1/2024	5.00	90.0	—
Building Construction	Building Construction	11/4/2024	11/7/2025	5.00	265	—
Paving	Paving	9/1/2025	12/12/2025	5.00	75.0	—
Architectural Coating	Architectural Coating	9/1/2025	12/26/2025	5.00	85.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	0.04	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	5.94	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	2.32	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	1.19	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT

Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	21,221	7,074	1,176

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	—	30.0	0.00	—
Grading	32.0	—	90.0	0.00	—
Paving	0.00	0.00	0.00	0.00	0.45

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt

Motel	0.00	0%
Health Club	0.00	0%
High Turnover (Sit Down Restaurant)	0.00	0%
Parking Lot	0.45	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2024	0.00	532	0.03	< 0.005
2025	0.00	532	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Motel	276	276	276	100,740	4,815	4,815	4,815	1,757,577
Health Club	62.8	62.8	62.8	22,913	1,095	1,095	1,095	399,753
High Turnover (Sit Down Restaurant)	50.4	50.4	50.4	18,390	319	879	879	174,874
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	21,221	7,074	1,176

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Motel	177,312	532	0.0330	0.0040	328,899
Health Club	23,923	532	0.0330	0.0040	107,376
High Turnover (Sit Down Restaurant)	22,509	532	0.0330	0.0040	73,112
Parking Lot	17,171	532	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Motel	1,217,605	660,043
Health Club	147,858	0.00
High Turnover (Sit Down Restaurant)	194,565	0.00
Parking Lot	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Motel	26.3	—
Health Club	14.2	—
High Turnover (Sit Down Restaurant)	7.63	—
Parking Lot	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Motel	Household refrigerators and/or freezers	R-134a	1,430	0.00	0.60	0.00	1.00
Motel	Other commercial A/C and heat pumps	R-410A	2,088	1.80	4.00	4.00	18.0
Motel	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Health Club	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Health Club	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
High Turnover (Sit Down Restaurant)	Household refrigerators and/or freezers	R-134a	1,430	0.00	0.60	0.00	1.00
High Turnover (Sit Down Restaurant)	Other commercial A/C and heat pumps	R-410A	2,088	1.80	4.00	4.00	18.0
High Turnover (Sit Down Restaurant)	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	26.6	annual days of extreme heat
Extreme Precipitation	0.85	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	3.15	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score

Temperature and Extreme Heat	1	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	0	0	0	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	1	1	2
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	1	1	1	2
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	93.6
AQ-PM	4.75
AQ-DPM	13.0
Drinking Water	40.3
Lead Risk Housing	28.4
Pesticides	0.00
Toxic Releases	1.83
Traffic	11.9
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	0.00
Haz Waste Facilities/Generators	19.2
Impaired Water Bodies	0.00
Solid Waste	24.8
Sensitive Population	—
Asthma	79.3
Cardio-vascular	92.0
Low Birth Weights	64.5
Socioeconomic Factor Indicators	—

Education	78.5
Housing	60.6
Linguistic	71.7
Poverty	79.1
Unemployment	2.29

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	15.28294623
Employed	30.46323624
Median HI	14.97497754
Education	—
Bachelor's or higher	19.11972283
High school enrollment	100
Preschool enrollment	29.19286539
Transportation	—
Auto Access	50.17323239
Active commuting	12.04927499
Social	—
2-parent households	47.56833055
Voting	13.71743873
Neighborhood	—
Alcohol availability	75.46516104
Park access	12.65238034
Retail density	16.27101245

Supermarket access	18.54228153
Tree canopy	1.93763634
Housing	—
Homeownership	39.81778519
Housing habitability	39.31733607
Low-inc homeowner severe housing cost burden	64.37828821
Low-inc renter severe housing cost burden	29.35968177
Uncrowded housing	36.78942641
Health Outcomes	—
Insured adults	21.00603105
Arthritis	0.0
Asthma ER Admissions	19.5
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	45.8
Cognitively Disabled	52.2
Physically Disabled	26.6
Heart Attack ER Admissions	31.9
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	19.6
Physical Health Not Good	0.0

Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	25.4
Elderly	75.4
English Speaking	26.3
Foreign-born	51.7
Outdoor Workers	17.3
Climate Change Adaptive Capacity	—
Impervious Surface Cover	83.6
Traffic Density	19.3
Traffic Access	23.0
Other Indices	—
Hardship	68.7
Other Decision Support	—
2016 Voting	22.3

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	29.0
Healthy Places Index Score for Project Location (b)	20.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No

Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Characteristics: Project Details	The Project is located in Desert Hot Springs, in a suburban area.
Land Use	Assumes development of 48-room resort/spa on 5.23-acre site. Project proposes 24 rooms, 8 airstream trails, 16 clamping units, plus spa/health club facilities and on-site restaurant and cafe. 49 parking spaces will be provided. Per City Ordinance 785, minimum 15% landscaped area assumed.
Construction: Construction Phases	Existing on-site structures will not require demolition. Assumes 18-month construction period, beginning in June 2024. Grading is expected to occur over 90 days, and will involve 2,858 CY of cut and 2,890 CY of fill, resulting in net 32 CY of import needed. Paving and architectural coating phases are expected to occur in overlapping phases with building construction.
Operations: Vehicle Data	Per Project-specific traffic analysis, proposed development is estimated to generate 389 ADT accounting for internal capture.

APPENDIX B

Biological Resources Assessment
&
Coachella Valley Multiple Species Habitat Conservation Plan Consistency Analysis Report

Prepared by

Wood Environment & Infrastructure Solutions, Inc.
1845 Chicago Avenue, Suite D
Riverside, CA 92507

DRAFT

BIOLOGICAL RESOURCES ASSESSMENT & COACHELLA VALLEY MULTIPLE SPECIES HABITAT CONSERVATION PLAN CONSISTENCY ANALYSIS REPORT

KIMANA RESORT

Assessor's Parcel Numbers: 642-252-001 & 656-150-003



Desert Hot Springs
Riverside County
California

Submitted to:
Terra Nova Planning and Research
42635 Melanie Place, Suite 101
Palm Springs, CA 92211

Contact: Nicole Criste, Principal
(760) 341-4800,
E-mail: ncriste@terranovaplanning.com

Submitted by:
Wood Environment & Infrastructure Solutions, Inc.
1845 Chicago Avenue, Suite D
Riverside, CA 92507

Contact: Michael Wilcox, Senior Biologist
(951) 634-9765 – mobile, E-mail michael.wilcox@woodplc.com
22 August 2022

TABLE OF CONTENTS

PAGE

1.0 INTRODUCTION 1
2.0 SITE / PROJECT DESCRIPTION 1
3.0 REGULATORY FRAMEWORK 1
3.1 Federal Endangered Species Act 1
3.2 Federal Migratory Bird Treaty Act 2
3.3 Clean Water Act 2
3.3.2 California Environmental Quality Act 5
3.3.3 Section 2081 of the State Fish and Game Code 6
3.3.4 Section 3505.5 of the State Fish and Game Code 6
3.3.5 Sections 3503, 3505.5, & 3513 of the State Fish and Game Code 6
3.4 Regional 7
3.4.1 Coachella Valley Multiple Species Habitat Conservation Plan 7
3.4.2 City of Desert Hot Springs General Plan 7
4.0 METHODS 7
4.1 Literature Review 7
4.2 Field Assessment 8
5.0 RESULTS 8
5.1 Coachella Valley Multiple Species Habitat Conservation Plan 9
5.2 Weather Conditions 10
5.3 Topography, Soils and Waters 10
5.4 Vegetation 10
5.5 Wildlife 11
5.6 Special Status Species 12
6.0 DISCUSSION 20
6.1 Discussion of the Special-status Species Tables 20
6.1.1 Potentially Occurring Plant Species Not Fully Covered Under the CVMSHCP 21
6.1.2 Potentially Occurring Reptile Species Not Fully Covered Under the CVMSHCP 22
6.1.3 Potentially Occurring Bird Species Not Covered by the CVMSHCP 23
6.1.4 Burrowing Owl 24
6.1.5 Additional Bird Species Protected by the Migratory Bird Treaty Act 24
6.1.6 Potentially Occurring Mammal Species Not Covered by the CVMSHCP 24
6.1.7 Jurisdictional Areas 25
7.0 CONCLUSION 25
8.0 LITERATURE CITED AND REFERENCES 27

LIST OF TABLES

Table 1. Special Status Plants 13
Table 2. Special Status Vegetation Communities 14
Table 3. Special Status Invertebrates 15

Table 4. Special Status Reptiles 15
Table 5. Special Status Birds 16
Table 6. Special Status Mammals.....17

LIST OF APPENDICES

Appendix A. Species List: Vascular Plants
Appendix B. Species List: Vertebrate Animals
Appendix C. Figures
Appendix D. Photographic Exhibits

1.0 INTRODUCTION

At the request of Terra Nova Planning & Research, this biological resources assessment report (BRAR) and Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP) consistency analysis was prepared by Wood Environment & Infrastructure Solutions, Inc. (Wood) for the proposed development of a 5.23-acre recreational "glamping" facility (project) in the City of Desert Hot Springs, Riverside County, California (Figure 1). Information contained herein is intended to be used for compliance with the Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP) and other relevant environmental regulations.

2.0 SITE / PROJECT DESCRIPTION

The approximately 5.23-acre project site is located to the south and west of existing residential dwellings/tract neighborhoods and east of the largely undeveloped grounds of an existing commercial hot springs resort (the historic Bubbling Wells Oasis). It is east of Yerxa Road and southwest of the junction of Hermano Way and Quinta Road. The street address is 13925 Hermano Way, Desert Hot Springs, CA 92240 but there is currently no dwelling structure at that address. It is the location of the existing graded parking lot and the entrance to the grounds of the proposed facility. The project includes APN 642-252-001 (0.17 acre) and APN 656-150-003 (5.06 acres). Both parcels are zoned as "Desert Land – Residential Division" by the Riverside County Assessor, County Clerk and Recorders website. The *City of Desert Hot Springs General Plan* refers to APN 642-252-001 as "Homesite/<1 acre" (City of Desert Hot Springs General Plan 2022). The project site is located within Section 5, Township 3 South, Range 5 East, United States Geological Survey (USGS) 7.5′ Seven Palms Valley, Calif. Quadrangle. Elevations range between approximately 305-317 meters (m) (1,000-1,040 feet [ft]) above mean sea level (Figure 2).

The proposed project includes the ongoing landscaping, development, operation and maintenance of a commercial, recreational "glamping" facility. The project proposes the installation of a 37-space parking area, 10 one-bedroom glamping units, 3 one-bedroom small "alpod" permanent dwelling units, 3 one-bedroom large alpod units, a reception building/deli, a picnic area, a swimming pool, a connecting trail system, an amphitheater and a greenhouse.

3.0 REGULATORY FRAMEWORK

3.1 Federal Endangered Species Act

The United States Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service are the designated federal agencies accountable for administering the federal Endangered Species Act (FESA). The FESA defines species as "endangered" or "threatened" and provides regulatory protection at the federal level.

- Section 9 of the FESA prohibits the "take" of listed (i.e., endangered or threatened) species. The FESA definition of take is "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct." Recognizing that take cannot always be avoided, Section 10(a) includes provisions for take that is incidental to, but not the purpose of, otherwise lawful activities. Specifically, Section 10(a)(1)(A) permits (authorized take permits) are issued for scientific purposes Section 10(a)(1)(B) permits (incidental take permits) are issued for the incidental take of listed species that does not jeopardize the species.
- Section 7 (a)(2) requires federal agencies to evaluate the proposed project with respect to listed or proposed listed, species and their respective critical habitat (if applicable). Federal agencies must employ programs for the conservation of listed species and are prohibited from authorizing, funding, or carrying out any action that would jeopardize a listed species or destroy or modify its "critical habitat." As defined by the FESA, "individuals, organizations, states, local governments, and other nonfederal entities are affected by the designation of critical habitat only if their actions occur on federal lands, require a federal permit, license, or other authorization, or involve federal funding.
- Section 10(a) of the FESA authorizes the issuance of incidental take permits and establishes standards for the content of habitat conservation plans (HCP). The CVMSHCP is an HCP, see discussion below.

3.2 Federal Migratory Bird Treaty Act

Treaties signed by the United States, Great Britain, Mexico, Japan and the countries of the former Soviet Union make it unlawful to pursue, capture, kill, and/or possess, or attempt to engage in any such conduct to any migratory bird, nest, egg or parts thereof listed in this document. The Secretary of the Interior can issue permits for incidental take of migratory bird species. The Migratory Bird Treaty Act (MBTA) also allows the Secretary of the Interior to grant permits for specific actions for the incidental take of these protected migratory bird species, but this rarely occurs.

3.3 Clean Water Act

The USACE regulates the discharge of dredged or fill material in waters of the United States (WUS) pursuant to Section 404 of the Clean Water Act (CWA). The CWA regulations (33 CFR 328.3[a]) define WUS as follows:

- All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide.

- All interstate waters including interstate wetlands.

- All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters: (i) Which are or could be used by interstate or foreign travelers for recreational or other purposes; or (ii) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or (iii) Which are used or could be used for industrial purpose by industries in interstate commerce;

- All impoundments of waters otherwise defined as WUS under the definition.

- Tributaries of WUS.

- The territorial seas.

- Wetlands adjacent to WUS (other than waters that are themselves wetlands).

The USACE delineates non-wetland waters in the Arid West Region by identifying the ordinary high water mark (OHWM) in ephemeral and intermittent channels (USACE 2008a). The OHWM is defined in 33 CFR 328.3(e) as:

> "…that line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impresses on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas."

Identification of the OHWM involves assessments of stream geomorphology and vegetation response to the dominant stream discharge. Determining whether any non-wetland water is a jurisdictional WUS involves further assessment in accordance with the regulations, case law, and clarifying guidance as discussed below.

Wetlands are defined at 33 CFR 328.3(b) as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas."

Special aquatic sites are geographic areas, large or small, possessing special ecological characteristics of productivity, habitat, wildlife protection, or other important and easily disrupted ecological values. These areas are generally recognized as significantly influencing or positively contributing to the general overall environmental health or vitality of the entire ecosystem of a

region. Special aquatic sites include sanctuaries and refuges, wetlands, mud flats, vegetated shallows, coral reefs, and riffle and pool complexes. They are defined in 40 CFR 230 Subpart E.

On January 9, 2001, the Supreme Court of the United States issued a decision on Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers, et al. with respect to whether the USACE could assert jurisdiction over isolated waters. The Solid Waste Agency of North Cook County ruling stated that the USACE does not have jurisdiction over "non-navigable, isolated, intrastate" waters.

In the Supreme Court cases of Rapanos v. United States and Carabell v. United States (herein referred to as Rapanos), the court attempted to clarify the extent of the USACE jurisdiction under the CWA. The nine Supreme Court justices issued five separate opinions (one plurality opinion, two concurring opinions, and two dissenting opinions) with no single opinion commanding most of the Court. Considering the Rapanos decision, the USACE will assert jurisdiction over a traditional navigable waterway (TNW), wetlands adjacent to TNWs, non-navigable tributaries of TNWs that are a relatively permanent waterway (RPW) where the tributaries typically flow year-round or have continuous flow at least seasonally (e.g., typically three months) and wetlands that directly abut such tributaries. The USACE will decide jurisdiction over the following waters based on a fact-specific analysis to determine whether they have a significant nexus with a TNW: non-navigable tributaries that are not relatively permanent, wetlands adjacent to non-navigable tributaries that are not RPWs, and wetlands adjacent to but that do not directly abut a non-navigable RPW.

Flow characteristics and functions of the tributary itself and the functions performed by all wetlands adjacent to the tributary indicate whether they significantly affect the chemical, physical and biological integrity of downstream TNWs. Analysis of potentially jurisdictional streams includes consideration of hydrologic and ecologic factors. The consideration of hydrological factors includes volume, duration, and frequency of flow, proximity to traditional navigable waters, size of watershed, average annual rainfall, and average annual winter snowpack. The consideration of ecological factors also includes the ability for tributaries to carry pollutants and flood waters to a TNW, the ability of a tributary to provide aquatic habitat that supports a TNW, the ability of wetlands to trap and filter pollutants or store flood waters, and maintenance of water quality.

3.3.1 Regional Water Quality Control Board

The Regional Water Quality Control Board (RWQCB) regulates activities pursuant to Section 401(a)(1) of the CWA. Section 401 of the CWA specifies that certification from the State is required for any applicant requesting a federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities that may result in any discharge into navigable waters. Through the Porter Cologne Water Quality Control Act, the RWQCB asserts jurisdiction over Waters of the State of California (WSC) which is generally the same as WUS but may also

include isolated waterbodies. The Porter Cologne Act defines WSC as "surface water or ground water, including saline waters, within the boundaries of the state."

3.3.2 California Environmental Quality Act

The basic goal of the CEQA is to maintain a high-quality environment now and in the future and the specific goals are for California's public agencies to:

1) Identify the significant environmental effects of their actions; and, either

2) Avoid those significant environmental effects, where feasible; or

3) Mitigate those significant environmental effects, where feasible.

The CEQA applies to "projects" proposed to be undertaken or requiring approval by State and local government agencies. Projects are activities which have the potential to have a physical impact on the environment and may include the enactment of zoning ordinances, the issuance of conditional use permits and the approval of tentative subdivision maps. Where a project requires approvals from more than one public agency, the CEQA requires one of these public agencies to serve as the "lead agency."

A "lead agency" must complete the environmental review process required by the CEQA. The most basic steps of the environmental review process are:

1) Determine if the activity is a "project" subject to the CEQA;

2) Determine if the "project" is exempt from the CEQA;

3) Perform an Initial Study to identify the environmental impacts of the project and determine whether the identified impacts are "significant". Based on its findings of "significance", the lead agency prepares one of the following environmental review documents:

   a) Negative Declaration if it finds no "significant" impacts;

   b) Mitigated Negative Declaration if it finds "significant" impacts but revises the project to avoid or mitigate those significant impacts;

   c) Environmental Impact Report (EIR) if it finds "significant" impacts.

While there is no ironclad definition of "significance", Article 5 of the CEQA Guidelines provides criteria to lead agencies in determining whether a project may have significant effects.

The purpose of an EIR is to provide State and local agencies and the general public with detailed information on the potentially significant environmental effects which a proposed project is likely to have and to list ways in which the significant environmental effects may be minimized and indicate alternatives to the project.

Project-related impacts to special status species covered under the CVMSHCP would be fully mitigated through payment of the requisite development fee and participation in the plan. Impacts to species not covered under the CVMSHCP must not exceed the significance thresholds as defined by the CEQA. Project design can incorporate avoidance, minimization and/or mitigation measures can be developed and implemented to reduce significant impacts to levels less than significant (where applicable).

3.3.3 Section 2081 of the State Fish and Game Code

Under Section 2081 of the California Fish and Game Code (FGC), the California Department of Fish and Wildlife (CDFW) authorizes individuals or public agencies to import, export, take, or possess state endangered, threatened, or candidate species in California through permits or memoranda of understanding. These acts, which are otherwise prohibited, may be authorized through permits or "memoranda of understanding" if (1) the take is incidental to otherwise lawful activities, (2) impacts of the take are minimized and fully mitigated, (3) the permit is consistent with regulations adopted in accordance with any recovery plan for the species in question, and (4) the applicant ensures suitable funding to implement the measures required by the CDFW. The CDFW shall make this determination based on the best scientific information reasonably available and shall include consideration of the species' capability to survive and reproduce.

3.3.4 Section 3505.5 of the State Fish and Game Code

Under Section 2081 of the FGC, the CDFW authorizes individuals or public agencies to import, export, take, or possess state endangered, threatened, or candidate species in California through permits or memoranda of understanding. These acts, which are otherwise prohibited, may be authorized through permits or "memoranda of understanding" if (1) the take is incidental to otherwise lawful activities, (2) impacts of the take are minimized and fully mitigated, (3) the permit is consistent with regulations adopted in accordance with any recovery plan for the species in question, and (4) the applicant ensures suitable funding to implement the measures required by the CDFW. The CDFW shall make this determination based on the best scientific information reasonably available and shall include consideration of the species' capability to survive and reproduce.

3.3.5 Sections 3503, 3505.5, & 3513 of the State Fish and Game Code

Section 3503 of the FGC makes it unlawful to take, possess, or needlessly destroy the nest or eggs of any bird. Section 3505.5 makes it unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds-of-prey, i.e.: owls, hawks, eagles, etc.) or to take, possess, or destroy the nest or eggs of any bird-of-prey. Section 3513 makes it unlawful to take or possess any migratory nongame bird as designated in the MBTA.

3.4 Regional

3.4.1 Coachella Valley Multiple Species Habitat Conservation Plan

Finalized in October 2008, the CVMSHCP is a comprehensive, relatively new regional plan that addresses the conservation needs of 27 species of native flora and fauna and 24 natural vegetation communities occurring throughout the Coachella Valley region of western Riverside County, California. Permits for the CVMSHCP were issued by the CDFW on September 9, 2008 and the United States Fish and Wildlife Service (USFWS) on October 1, 2008 (TE104604-0). The CVMSHCP serves two primary purposes: Balancing environmental protection and economic development objectives in the CVMSHCP area and simplifying compliance with endangered species related laws. The CVMSHCP accomplishes this by conserving unfragmented habitat to permanently protect and secure viable populations of the covered species. The covered species include those plants and animals that are either currently listed as threatened or endangered, are proposed for listing, or are believed by an appointed Scientific Advisory Committee, USFWS and CDFW, to have a high probability of being proposed for listing in the future if not provided protection by the CVMSHCP. The goal of the CVMSHCP is to meet the requirements of the state and federal endangered species acts, while at the same time allowing for the economic growth (land development) within the plan area without significant delay or hidden costs. Under the CVMSHCP, land development/mitigation fees are collected from all new development projects occurring in the plan area. The purpose of this fee is to support the assembly of a preserve system for the covered species and natural vegetation communities within areas identified as having high conservation value.

3.4.2 City of Desert Hot Springs General Plan

The City of Desert Hot Springs' (City) General Plan outlines policy, goals, standards and guidelines for the physical development of the lands; residential, commercial and industrial structures; circulation; recreation; open space and conservation; safety; air quality; noise; and community design which are set forth in the City's General Plan and Zoning Ordinance. More specifically, the City's Planning Division is responsible for the physical planning which includes development review, analysis and compliance, environmental review, long-range planning and development policies.

4.0 METHODS

4.1 Literature Review

In preparation for the field surveys, a literature search was conducted to identify special status biological resources known from the vicinity of the project site. In the context of this report, and

for the purpose of this assessment, vicinity is defined as areas within a 5-mile radius of the project site.

The literature search included a review of the following documents:

- California Natural Diversity Data Base (CNDDB) RareFind 5 (CDFW 2022a)
- Special Animals List (CDFW 2022b)
- California Native Plant Society's (CNPS) Inventory of Rare, Threatened, and Endangered Plants of California (CNPS 2022)
- CVMSHCP (Coachella Valley Conservation Commission "CVCC" 2022)
- United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS). 2019. Web Soil Survey
- USGS 7.5' *Seven Palms Valley* and *Desert Hot Springs, Calif.* quadrangles (USGS 2015)
- City of Desert Hot Springs General Plan (City of Desert Hot Springs 2020)

Scientific nomenclature for this document follows standard reference sources: For plant communities, CVMSHCP (CVCC 2022); for flora, Jepson eFlora (2022) and the USDA NRCS PLANTS Database (2022); for amphibians, reptiles, and mammals, CDFW (2016); and for birds, California Bird Records Committee (2022).

4.2 Field Assessment

The field assessment was conducted between the hours of 1715 and 1830 on 21 July 2022 by Wood senior biologist Michael D. Wilcox. On-site suitable habitat was assessed based on the presence of constituent habitat elements (e.g., soils, vegetation and topography) characteristic of the potentially occurring special status biological resources determined by the literature review. The entire site and adjacent properties (where accessible) were assessed on foot to record pertinent field data and current site conditions. Adjacent undeveloped areas within an approximate 150-meter (~500-foot) buffer zone were also assessed visually, from the project site, for burrowing owl (*Athene cunicularia*). All on-site flora and fauna observed or otherwise detected (e.g., vocalizations, presence of scat, tracks, and/or bones) during the assessment were recorded in field notes and are included in Appendices A and B. General weather and site conditions were also recorded at the beginning and end of the survey. Temperatures and wind speeds were recorded with a handheld Kestrel 2000 anemometer. Percent cloud cover was visually estimated.

5.0 RESULTS

The fenced project site currently consists of a mixture of undeveloped, natural open space and existing landscaped areas. The landscaped areas generally consist of planted California fan palms (*Washingtonia filifera*), Mexican paloverde (*Parkinsonia aculata*), European olive (*Oleya europaea*), various fruit (citrus and pomegranate) and other trees, agaves (*Agave* spp.), cacti (multiple genera and species) and other ornamental species. The landscaped areas also consist of two, boulder-

lined drainages that converge in the southeastern portion of the site and flow into an existing detention basin located just south of the site. Several man-made jacuzzi-style hot spring pools are located in a cascading, landscaped area near the northern portion of the site. Two small man-made ponds occur along a flowing, faux stream located in a landscaped palm oasis in the central area of the site. Dirt roads, footpaths, irrigation and existing graded, largely barren areas are also intermittently present. A single, one-bedroom large alpod unit was present along the eastern site boundary at one location. A review of historic aerial photos indicates that much of the existing site development and landscaping occurred sometime between 18 February 2018 and present day.

The project site is currently best described as a mixture of existing landscaped and modified areas, mostly in the northern and in the centrally low-lying areas, with remnant, undeveloped areas occurring primarily along the western and southern-most areas of the site. A created drainage, partially rock-lined, enters the site from the northeast and traverses the site from north to south. It is fed by run-off from the existing, adjacent residential tracts and paved roads (Hermano Way and Quinta Road). Another man-made rock-lined drainage enters from the northwest corner of the site (Yerxa Road) and traverses the site from northwest to southeast. It then enters an underground corrugated culvert that empties into the previously described drainage. The combined flow from these two drainages flow into an existing offsite detention basin located to the south. Adjacent land uses include existing residential (single-family tract homes) to the north and east; the previously described detention basin; and undeveloped, natural open space occurs to the west on the grounds of Bubbling Wells Oasis. This open space is similar to the remnant, undeveloped, relatively natural open space onsite.

Residential development (single-family homes, associated landscaping, paved roads, driveways, etc.) is immediately adjacent to the site, occurring to the north and east. Undeveloped, vacant, open space, similar to the undisturbed areas of the site, are located mostly to the west. An existing detention basin is adjacent to the southern boundary of the site. The project site is in an area that is designated as "Desert Land – Residential Division" by the Riverside County Assessor, County - Clerk and Recorders website.

5.1 Coachella Valley Multiple Species Habitat Conservation Plan

The project site is located within the city limits of Desert Hot Springs, which is a signatory to the CVMSHCP. The site is not within any CVMSHCP-designated conservation areas. The closest are the Upper Mission Creek/Big Morongo Canyon Conservation Area, located approximately 1,609 m (1 mile) to the northwest and the Long Canyon Conservation Area approximately 2,414 m (1.5 miles) to the south of the project site (Figure 3). No CVMSHCP-designated wildlife corridors or biological linkages are mapped on the project site.

5.2 Weather Conditions

Weather conditions during the assessment included mostly cloudy skies with approximately 80% cover. Temperatures ranged from 103 to 105 degrees Fahrenheit. It was breezy with winds from 3 miles per hour (mph) and with gusts to 15 mph.

5.3 Topography, Soils and Waters

The topography of the site is like a small canyon with the high points occurring along the north, east and west boundaries. The site slopes gradually from the north to the south. Soils (USDA NRCS 2019) are predominantly Carsitas gravelly sand, 9-30% slopes with a very small area of Carsitas gravelly sand, 0-9 % slopes in the extreme southwestern corner of the site (Figure 4). Carsitas sands are excessively drained soils found in nearly level to moderately sloping areas of alluvial fans, fan aprons, valley fills, dissected remnants of alluvial fans, and in drainageways. They formed in alluvium from granitic and/or gneissic rocks.

Onsite, soils and substrates are compacted where previous landscaping activities have been conducted and sandy in the areas that have remained relatively natural. Although sandy, the site does not appear to contain active sand dunes. In the southeastern section of the property, what is best described as a stabilized sandy hill is present. No active drifts, hummocks, rock outcrops, significant rocky areas (other than the landscaped drainages), or clay lenses were observed.

Two, boulder-lined, landscaped drainages occur onsite, as previously described. A series of Jacuzzis are present in the northwestern portion of the site, fed by an underground natural hot spring. Otherwise, no natural creeks, rivers, dry washes, blueline streams, lakes, ponds or vernal pools are mapped or were observed on the project site. A flowing, man-made creek with a small waterfall, intermittent cascades and several small pools or ponds is present in one location adjacent to one of the landscaped drainages. According to the property owner, a natural hot spring was utilized to supply the water for the Jacuzzis. Historic aerial photographs indicate that dark vegetation (mesquite) was once present below the current location of the Jacuzzis and continued south a short distance in the lower points of this small canyon.

5.4 Vegetation

As previously noted, much of the site has been cleared of native vegetation. The remaining natural vegetation most closely aligns with Sonoran creosote bush scrub as described by CVCC (2022). Sawyer et. al. (2009) refers to this community as "*Larrea tridentata-Encelia farinosa* shrubland alliance (creosote bush-brittle bush scrub)" (Figure 5). Dominant native perennial plant species observed in this vegetation community were relatively sparse but included creosote bush (*Larrea tridentata*) and brittle bush (*Encelia farinosa*). Nevada jointfir (*Ephedra nevadensis*) and Mojave indigo bush (*Psorothamnus arborescens*), smoke tree (*Psorothamnus spinosus*) was also sparsely

present. Dominant native annual species observed included California croton (*Croton californicus*), desert dicoria (*Dicoria canescens*) and Spanish needles (*Palafoxia arida*). Non-native Mediterranean grass (*Schismus barbatus*) was also present. Sonoran creosote bush scrub is the predominant vegetation community occurring below 762 m (2500 ft) in the Colorado Desert from the Little San Bernardino Mountains south and eastward into Arizona and Mexico (Holland 1986).

No natural wetland, riparian or otherwise special-status vegetation communities were observed on the project site. Two landscaped drainages, complete with boulders, California fan palms, other ornamental and decorative plants and a man-made flowing section with surface water and intermittent pools, or ponds, is centrally present. Fruit trees, ornamental trees, cacti, agave and other decorative plant species have also been planted at various locations throughout the site. A list of the plant species observed during the surveys, including common and scientific names, is appended to this report (Appendix A).

5.5 Wildlife

Vertebrate wildlife directly observed and/or detected otherwise (e.g., scat, bones, tracks, feathers, burrows, etc.) during the surveys was not notably diverse or abundant, limited to only eight species common to the region. This included one reptile, six birds and one mammal (Appendix B).

The single reptile observed onsite included the long-tailed brush lizard (*Urosaurus graciosus*). Other common reptile species are expected to also occur. Representative species that may occur include, but are not limited to, side-blotched lizard (*Uta stansburiana*), zebra-tailed lizard (*Callisaurus draconoides*), western whiptail (*Aspidoscelis tigris*), western banded gecko (*Coleonyx variegatus*), shovel-nosed snake (*Chionactis occipitalis*), glossy snake (*Arizona elegans*), long-nosed snake (*Rhinocheilus lecontei*) and coachwhip (*Coluber flagellum*). Both are common in the Coachella Valley.

The six bird species observed onsite included: common raven (*Corvus corax*), Eurasian collared dove (*Streptopelia decaocto*), mourning dove (*Zenaida macroura*), northern mockingbird (*Mimus polyglottos*), cactus wren (*Campylorhynchus brunneicapillus*) and greater roadrunner (*Geococcyx californianus*). Other common avian species expected to occur include but are not limited to, Gambel's quail (*Callipepla gambelii*), red-tailed hawk (*Buteo jamaicensis*), American kestrel (*Falco sparverius*), verdin (*Auriparus flaviceps*) and house finch (*Haemorhous mexicanus*).

The only mammal detected onsite included California ground squirrel (*Otospermophilus beecheyi*). Other common mammals expected to occur onsite include, but are not limited to, white-tailed antelope squirrel (*Ammospermophilus leucurus*), desert cottontail (*Sylvilagus audubonii*), black-tailed jackrabbit (*Lepus californicus*) and coyote (*Canis latrans*).

It should be noted that relatively short-term biological studies of this nature are often limited by the seasonality of annual plants, the migratory habits of many birds, the fossorial and nocturnal habits of many mammals and reptiles, and the timing of field surveys. A complete inventory of the wildlife on the site would require extensive year-round surveys for birds, amphibians, and reptiles, and additional surveys, such as placement of scent stations or tracking stations, for the detection of nocturnal mammals. Knowledge of habitat associations, natural history, seasonality, and distribution is essential in the assessment of the potential for occurrence of the various special status plants and animals known to occur throughout the Coachella Valley. For these reasons, other common and special status species that were not observed onsite may also have the potential to occur based on their geographic distribution, habitat preferences, and the regional location of the site. Tables 1-5 below summarize information on sensitive species known to occur in the vicinity of the project site, including the status of each species on the project site based on the best available information and the collective expertise of Wood biologists.

5.6 Special Status Species

Plant or animal taxa may be considered "sensitive" or as having “special status” due to declining populations, vulnerability to habitat change, or because they have restricted ranges. Some are listed as threatened or endangered by the USFWS or by the CDFW and are protected by the federal and state Endangered Species acts and the California Native Plant Protection Act. Others have been identified as sensitive or as special-status species by the USFWS, the BLM, the CDFW, or by private conservation organizations, including the CNPS. Unlisted sensitive species do not have formal state or federal status but may nevertheless be considered significant under the CEQA.

No special status species, flora or fauna, were detected onsite. The review of the CNDDB, CNPS Online Inventory of Rare Plants, other biological reports from the vicinity, and consultation with other experienced biologists/naturalists resulted in the identification of 25 special status biological resources known to occur in the vicinity (within an approximate 5-mile radius) of the project site. These included seven plants, two vegetation communities, one invertebrate, four reptiles, six birds and five mammals. Tables 1 through 6 provide a complete list of the special status biological resources, their associated legal status, and their respective onsite occurrence potentials.

The CVMSHCP provides conservation for twenty-seven (27) imperiled plant and animal species (5 plants, 2 insects, 1 amphibian, 3 reptiles, 11 birds, and 5 mammals). These include federal and state-listed species, federal and California Species of Concern, and species on the CNPS sensitive species lists. CVMSHCP covered species are designated on the tables below.

The site is not within modeled habitat for any of the special status species addressed by the CVMSHCP. The site is not within designated critical habitat for any special status plants or wildlife.

No special status flora was detected onsite during the field assessment. The site does, however, contain some limited, potentially suitable habitat for several of the special status plant species that have been reported from the area. These include Coachella Valley milk-vetch (*Astragalus lentiginosus* var. *coachellae*), white-bracted spineflower (*Chorizanthe xanti* var. *leucotheca*), Arizona spurge (*Euphorbia arizonica*), Little San Bernardino Mountains linanthus (*Linanthus maculatus maculatus*) and slender cottonheads (*Nemacaulis denudata* var. *gracilis*).

No special status wildlife species were observed or detected onsite during the assessment. Limited potentially suitable habitat remains present for a variety of special status wildlife species known from the vicinity. These include Coachella Valley Jerusalem cricket (*Stenopelmatus cahuilaensis*), northern red-diamond rattlesnake (*Crotalus ruber ruber*), desert tortoise (*Gopherus agassizi*), flat-tailed horned lizard (*Phrynosoma mcallii*), Coachella Valley fringe-toed lizard (*Uma inornata*), burrowing owl (*Athene cunicularia*), loggerhead shrike (*Lanius ludovicianus*), pallid San Diego pocket mouse (*Chaetodipus fallax pallidus*), Palm Springs pocket mouse (*Perognathus longimembris bangsii*) and Coachella Valley (Palm Springs) round-tailed ground squirrel (*Xerospermophilus tereticaudus chlorus*).

Tables 1 through 6 summarize information on all special-status species that have been reported within the vicinity (5-mile radius) or are considered to have some potential to occur onsite based on geographic distribution and presence of potentially suitable habitat. These tables provide the names, legal or conservation status, general habitat associations, and the probability of occurrence for each of these species.

Table 1. Special Status Plants

Species	Status	Habitat	Probability
Astragalus lentiginosus var. *coachellae* **Coachella Valley milk-vetch**	CVMSHCP: **Yes** F = **END** C = S1 CNPS: 1B.2	Sonoran Desert scrub; sandy flats, washes, outwash fans, sometimes on dunes; 40-665 m (131-2,182 ft). B: Jan–Sept.	**Moderate-High** Suitable habitat present, species known from immediate vicinity, 0.25 mi. S (1997) and 0.36 mi. SW (2020). Site not within designated critical habitat. Closest designated critical habitat 1.75 mi. W.
Astragalus tricarinatus **triple-ribbed milk-vetch**	CVMSHCP: **Yes** F = **END** C = S2 CNPS: 1B.2	Joshua tree woodland & Sonoran Desert scrub on hot, rocky slopes in canyons & along edge of boulder-strewn desert washes with *Larrea* and *Encelia*; 455-1525 m (1,492-5,000 feet). B: Feb–May.	**Absent** Suitable habitat lacking, site below known elevational range. Historic CNDDB record from 6 mi. NW.

Table 1. Special Status Plants

Species	Status	Habitat	Probability
Chorizanthe xanti var. *leucotheca* **white-bracted spineflower**	CVMSCHP: No F = None C = S3 CNPS List: 1B.2	Mojavean desert scrub, pinyon & juniper woodland, sandy or gravelly; 300-1200 m (980-3,940 ft). B: Apr-Jun.	**Low** Suitable habitat present, nearest CNDDB record 7 mi. W (1949).
Euphorbia arizonica **Arizona spurge**	CVMSHCP: No F = None C = S3 CNPS: 2B.3	Sandy soils in Sonoran Desert scrub; 50-300 m (200-1000 ft). B: Mar-Apr.	**Low - Moderate** Suitable habitat present but limited, nearest CNDDB record ~ 4.7 mi. SE (2001).
Linanthus maculatus maculatus **Little San Bernardino Mountains linanthus (gilia)**	CVMSHCP: **Yes** F = None C = S2 CNPS: 1B.2	Desert dunes, Sonoran & Mojavean Desert scrub, Joshua tree woodland; most often on low benches along washes or bajadas where substrate shows evidence of water flow; 195-2075 m (635-6,800 ft). B: Mar–May.	**Low - Moderate** Suitable habitat present but limited, nearest CNDDB record ~1.3 mi E (2001).
Nemacaulis denudata var. *gracilis* **slender cottonheads**	CVMSHCP: No F = None C = S2 CNPS: 2B.2	Sandy places in coastal dunes, desert dunes & Sonoran Desert scrub; 50-400 m (164-1315 ft). B: Mar–May.	**Low** Marginally suitable habitat present but limited, nearest CNDDB record ~8 mi. SW.
Selaginella eremophila **desert spike-moss**	CVMSHCP: No F = None C = S2S3 CNPS: 2B.2	Chaparral, Sonoran Desert scrub; shaded sites, gravelly soils, crevices or among rocks; 200-900 m (656-2953 ft). B: May–Jul.	**Absent** Suitable habitat lacking. CNDDB record from 1.57 mi. N (2009)

Table 2. Special Status Vegetation Communities

Community	Status	Habitat	Probability
desert fan palm oasis woodland	CVMSHCP = **Yes** F=None C= S3.2	Natural California fan palm (*Washingtonia filifera*) stands	**Absent** All palms onsite are landscaped ornamentals. Nearest record at Willow Hole, approx.. 4 mi. SE
mesquite bosque	CVMSHCP: **Yes** F=None C= 2.1	Stands of honey mesquite (*Prosopis glandulosa*)	**Absent** No mesquite stands present. Observed nearby (within 1 mi.)

Table 3. Special Status Invertebrates

Community	Status	Habitat	Probability
Stenopelmatus cahuilaensis **Coachella Valley Jerusalem cricket**	CVMSHCP = **Yes** F = None C = S1S2	Sandy, moist soils in Coachella Valley	**Low** Suitable habitat present but site outside of known distribution.

Table 4. Special Status Reptiles

Species	Status	Habitat	Probability
Crotalus ruber ruber **northern red-diamond rattlesnake**	CVMSHCP = No F = None C = SSC	Chaparral, woodland, grassland, desert in rocky areas & dense vegetation, Needs burrows, rock cracks, or surface cover objects.	**Moderate** Suitable habitat present, Nearest record 1 mi. W (1991).
Gopherus agassizi **desert tortoise**	CVMSHCP = **Yes** F: **THR** C: **THR**, S2	Creosote bush scrub, Joshua tree woodland, saltbush scrub); washes, arroyos, bajadas, rocky hillsides, open flat desert.	**Remote/Very Low** Sign not observed, marginally suitable habitat at best, much of site and surrounding area developed, nearest CNDDB records approximately 3 mi. NE (2004)
Phrynosoma mcallii **flat-tailed horned lizard**	CVMSHCP = **Yes** F = None C = SSC, S2	Sandy and gravelly areas in desert washes, edges of dunes and desert flats; requires vegetative cover, ants & fine sand.	**Very Low** Habitat suitable, but site is at northern edge of species historic range. Nearest CNDDB record approximately 5 mi. SW (1994)
Uma inornata **Coachella Valley fringe-toed lizard**	CVMSHCP = **Yes** F = **THR** C = **END**, S1	Requires fine, loose, windblown sand (dunes) interspersed with hardpan & widely spaced desert shrubs. Known only from the Coachella Valley.	**Low** Suitable habitat present but limited. Author observed species ~ 3 mi. S (2010). CNDDB records 0.4 mi. E, 0.8 mi. W and 1.6 mi. S (1975).

Table 5. Special Status Birds

Species	Status	Habitat	Probability
Accipiter cooperi **Cooper's hawk**	CVMSHCP: No F = **MBTA**, BCC C = S4, FGC	Forages in a wide range of habitats, natural areas as well as human-created habitats such as ornamental trees in urban landscapes. Nests mainly in riparian growths of deciduous trees, as in canyon bottoms on river floodplains; and in live oaks.	**Breeding: Absent** Suitable habitat lacking. **Foraging: Low** May nest or winter nearby & forage on site. CNDDB records from within 5 miles in Morongo Valley.
Athene cunicularia **burrowing owl**	CVMSHCP: **Yes*** F = **MBTA**, BCC C = SSC (burrows), S2, FGC	Open, dry annual or perennial grassland, deserts & scrublands characterized by low-growing vegetation. Burrow sites essential.	**Breeding: Low** Limited suitable habitat and ground squirrel burrows present. No sign detected. **Foraging: Low – Moderate** May nest on adjacent lands to south and west and, of so, forage onsite. CNDDB records within 0.95 mi. E (2007), 1 mi. NE & 1 mi. N (2007)
Falco mexicanus **prairie falcon**	CVMSHCP = No F = **MBTA**, BCC C = SSC (nesting), S3, FGC	Inhabits dry, open terrain, either level or hilly. Breeding sites located on cliffs, but forages far afield.	Breeding: **Absent** Suitable habitat lacking. Foraging: **Low-Moderate** May nest or winter nearby & forage over site. CNDDB records from project quadrangle.
Lanius ludovicianus **loggerhead shrike**	CVMSHCP = No F = **MBTA**, BCC C = SSC (nesting), S4, FGC	Open fields with scattered trees or shrubs, open country with short vegetation, pastures, old orchards, cemeteries, golf courses, riparian areas & open woodlands.	Breeding: **Moderate** Suitable habitat present. Foraging: **High** May nest or winter nearby & forage over site. Known to nest in vicinity (pers. obs.)
Toxostoma lecontei **Le Conte's thrasher**	CVMSHCP = **Yes*** F = **MBTA**, BCC C = SSC (nesting), S3, FGC	Desert resident; primarily of open desert wash, desert scrub, alkali desert scrub, and desert succulent scrub habitats. Nest in dense, spiny shrub or densely branched cactus in desert wash habitat, usually 2-8 feet above ground.	Breeding: **Absent** Suitable habitat lacking. Foraging: **Low - Moderate** May nest or winter nearby and/or forage over site. Author observed species ~ 3 mi. S.

Table 5. Special Status Birds

Species	Status	Habitat	Probability
Vireo bellii pusillus ***least Bell's vireo***	CVMSHCP: **Yes*** F: END C: END, S2	Summer resident in southern California in low willow riparian near water or dry river bottoms.	Breeding: **Absent** Suitable habitat lacking. Foraging: **Very Low** During migration only. CNDDB record 4 mi. S (1980)

* Species is to be conserved under the CVMSHCP, but is still protected by the MBTA and FGC

Table 6. Special Status Mammals

Species	Status	Habitat	Probability
Chaetodipus fallax pallidus **pallid San Diego pocket mouse**	CVMSHCP = No F = None C = SSC, S3S4	Desert border areas in desert wash, desert scrub, desert succulent scrub, pinon-juniper, etc. Sandy herbaceous areas usually in association with rocks or coarse gravel.	**Low** On-site habitat limited, CNDDB records 4 mi NW (1951), 6.5 mi. WNW (1995)
Neotoma lepida intermedia **San Diego desert woodrat**	CVMSHCP = No F = None C = SSC, S3S4	Coastal scrub of southern California. Moderate to dense canopies preferred. Particularly abundant in rock outcrops & rocky cliffs & slopes.	**Absent** Suitable habitat lacking. Nearest record 3.8 mi. S (1995)
Ovis canadensis nelsoni **desert bighorn sheep**	CVMSHCP = No F = None C = FP, S3	Open, rocky, steep areas with available water and herbaceous forage.	**Absent** Suitable habitat lacking on and adj. to site. Known from nearby Little San Bernardino Mountains to N and E.
Perognathus longimembris bangsii **Palm Springs pocket mouse**	CVMSHCP = **Yes** F = None C = FP, S2S3	Desert riparian, desert scrub, desert wash & sagebrush habitats. Most common in creosote-dominated desert scrub.	**Low – Moderate** Habitat suitable but disturbed. Nearest CNDDB record 6 mi. NW (1999).
Xerospermophilus tereticaudus chlorus **Coachella Valley (Palm Springs) round-tailed ground squirrel**	CVMSHCP = **Yes** F = None C = SSC, S1S2	Prefers open, flat, grassy areas in fine-textured, sandy soil in desert succulent scrub, desert wash, desert scrub, alkali scrub, & levees.	**Low - Moderate** Habitat suitable. Author observed species 3 mi. S (2010).

Definitions of status designations and occurrence probabilities for Tables 1-6

Definitions for Species

Italics – Scientific name (*i.e., Genus species subspecies*)

Bold – Standard common name (if any)

[*Genus*] – Previous genus, relatively recent taxonomic revision

var. – variety (plants only)

DPS – Distinct Population Segment (i.e., Peninsular bighorn sheep)

Definitions of occurrence probability:

Occurs*:* Observed or detected on-site by Wood or recently reported by another reliable source.

High*:* Observed in similar habitat in region by qualified biologists, or habitat on-site is a type often utilized by the species and the site is within the known range of the species.

Moderate*:* Reported sightings in surrounding region, or site is within the known range of the species and habitat on-site is a type occasionally used by the species.

Low*:* Site is within the known range of the species but habitat on-site is rarely used by the species

Very Low: Habitat is of marginal suitability and/or site is at the edge of species known range or distribution.

Absent*:*A focused study failed to detect the species, suitable habitat not present, or site is outside the geographic distribution of the species.

Unknown*:* No focused surveys have been performed in the region, & the species' distribution & habitat are poorly known.

CVMSHCP designations

Yes: Conserved by the CVMSHCP

No: Not Specifically Conserved by the CVMSHCP

Federal designations: (F = federal Endangered Species Act or USFWS designations)

END: Federally listed, Endangered

THR: Federally listed, Threatened

CAN: Candidate for Federal listing

MBTA: Migratory Bird Treaty Act

BEPA: Bald Eagle Protection Act (also protects Golden Eagles)

BCC: Birds of Conservation Concern

None: No designation

State designations: (C = California Endangered Species Act or CDFG designations)

END: State listed, Endangered

THR: State listed, Threatened

CAN: Candidate for State listing

RARE: State listed, Rare

FP: Fully Protected Species

SSC: Species of Special Concern

FGC: Fish and Game Code

WL: Watch List Species

CDFW state rankings are a reflection of the overall condition of an element throughout its California range. The number after the decimal point represents a threat designation attached to the rank:

S1 = Critically Imperiled. Less than (<) 6 Element Occurrences (EOs) OR < 1,000 individuals OR < 2,000 acres
- **S1.1** = very threatened
- **S1.2** = threatened
- **S1.3** = no current threats known

S2 = Imperiled. 6-20 EOs OR 1,000-3,000 individuals OR 2,000-10,000 acres
- **S2.1** = very threatened
- **S2.2** = threatened
- **S2.3** = no current threats known

S3 = Vulnerable. 21-80 EOs OR 3,000-10,000 individuals OR 10,000-50,000 acres
- **S3.1** = very threatened
- **S3.2** = threatened
- **S3.3** = no current threats known

S4 = Apparently Secure. Uncommon but not rare in the state; some cause for long-term concern.

S5 = Secure. Common, widespread, and abundant in the state.

SH = All known California sites are historical, not extant

California Native Plant Society (CNPS) designations:

Primary Categories

LIST 1A: Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere

LIST 1B: Plants Rare, Threatened, or Endangered in California and Elsewhere

LIST 2A: Plants Presumed Extirpated in California, But Common Elsewhere

LIST 2B: Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere

LIST 3: Plants About Which More Information is Needed - A Review List

LIST 4: Plants of Limited Distribution - A Watch List

Subdivisions within Categories

0.1: Seriously threatened in California

0.2: Moderately threatened in California

0.3: Not very threatened in California

6.0 DISCUSSION

Implementation of the development and landscaping of the 5.23-acre project has resulted and would continue to result in the incremental loss and conversion of undeveloped Sonoran creosote bush scrub and the biological resources, sensitive and otherwise, that may have occurred, may continue to occur, or potentially occur, onsite. The likelihood of occurrence for many of the special status species known from the vicinity has likely been significantly reduced as a result of recent past development and conversion/landscaping onsite, as well as due to the existing offsite developments immediately adjacent to the property, especially to the north and east. The only adjacent, undeveloped, relatively natural, open space is located to the west. The presence of surface water in the man-made stream and ponds onsite is likely to attract some common species, particularly birds and mammals (i.e., bats, raccoon, coyote, bobcat, etc.).

The CVMSHCP was designed to streamline the permitting process and to mitigate potential impacts resulting from covered projects and the lawful activities of permittees through payment of the requisite development fee and participation in plan's requirements. A few species, which are not covered by the CVMSHCP and/or are not yet adequately conserved by the CVMSHCP (e.g., burrowing owl, nesting birds) require additional consideration and/or action, which are detailed below.

6.1 Discussion of the Special-status Species Tables

A review of the CNDDB, CNPS, in-house Wood library and the collective knowledge of Wood senior biologists resulted in a total of 25 special status biological resources that are known from the vicinity of the project site (Tables 1-6). These include: seven plants, two vegetation communities, one invertebrate, four reptiles, six birds and five mammals. Of these, nine are considered to be absent from the site due to a lack of suitable habitat and/or the site being outside of elevational parameters. These include: triple-ribbed milk-vetch (*Astragalus tricarinatus*), desert spike-moss (*Selaginella eremophila*), desert fan palm oasis woodland, mesquite bosque, nesting Cooper's hawk (*Accipiter cooperi*), nesting prairie falcon (*Falco mexicanus*), nesting Le Conte's thrasher (*Toxostoma lecontei*), nesting least Bell's vireo (*Vireo bellii pusillus*) and San Diego desert woodrat (*Neotoma lepida intermedia*). These special status biological resources will not be discussed further.

Ten of the remaining 16 species are fully covered and conserved under the CVMSHCP. Participation in the CVMSHPS and payment of the requisite CVMSHCP development fee and participation in the plan is expected to fully mitigate project related impacts (if any) to these species. These include: Coachella Valley milk-vetch (*Astragalus lentiginosus* var. *coachellae*), Little San Bernardino Mountains linanthus (*Linanthus maculatus maculatus*), Coachella Valley Jerusalem cricket (*Stenopelmatus cahuilaensis*), desert tortoise (*Gopherus agassizi*), flat-tailed horned lizard

(*Phrynosoma mcallii*), Coachella Valley fringe-toed lizard (*Uma inornata*), burrowing owl (*Athene* cunicularia), Palm Springs pocket mouse (*Perognathus longimembris bangsii*) and Palm Springs round-tailed ground squirrel (*Xerospermophilus tereticaudus chlorus*). Regardless of whether these species occur on the project site or not, participation in the CVMSHCP and payment of the development fee is designed and intended to provide full coverage of any and all potential project-related impacts. Two of these species, desert tortoise and burrowing owl, require additional considerations and/or actions for CVMSHCP compliance, which will be discussed below. The remaining species will not be discussed further.

The remaining six species, which are not covered, or not fully covered, under the CVMSHCP are discussed separately below.

6.1.1 Potentially Occurring Plant Species Not Fully Covered Under the CVMSHCP

There is a low potential of white-bracted spineflower occurring on the project site as it is associated with sandy or gravelly Mojavean desert scrub between the elavations of 300-1200 meters (980-3940 feet) and is historically known from approximately seven miles west of the site. This species was not detected during the field assessment as the assessment was conducted outside of this species blooming period (April-June). White-bracted spineflower is not listed as threatened or endangered but is designated as S3 by the CDFW and List 1B.3 by the CNPS meaning that it is considered to be "vulnerable" by the CDFW and "rare, threated or endangered in California and elsewhere" but "not very threatened in California". Relative to the project site, the nearest known record of white-bracted spineflower is from 1949 and roughly estimated to be 7 miles to the west. This species is not covered under the CVMSHCP so development fees and participation in the plan offer no mitigation for impacts to this species. If a significant population were to be present onsite, unmitigated impacts may be considered significant under the CEQA. The likelihood of a significant population of white-bracted spineflower occurring on the project site, however, is considered very low based on the limited amount of suitable habitat remaining onsite. As a result of the relatively small size of the site and remaining habitat, potential impacts to a few individuals (if present) are unlikely to cause the population to drop to a less than self-sustaining level. Therefore, impacts would not be considered significant under the CEQA. At this time, no focused plant surveys are recommended.

Arizona spurge is considered to have a low potential of occurrence as it is associated with sandy soils in Sonoran Desert scrub and is known from approximately 4.7 miles southeast of the project site. This species was not detected during the field assessment as the assessment was conducted outside of this species blooming period (March-April). Arizona spurge is not listed as threatened or endangered but is designated as S3 by the CDFW and List 2B.3 by the CNPS meaning that it is considered to be "vulnerable" by the CDFW and "rare, threated or endangered in California but more common elsewhere" and "not very threatened in California". The nearest known location of

this species relative to the project site is approximately 4.7 miles southeast from 2001. Like white-bracted spineflower above, Arizona spurge is not covered under the CVMSHCP, thus development fees and participation offer no mitigation for impacts. If a significant population were to be present, unmitigated impacts may be considered significant under the CEQA. The likelihood of a significant population of Arizona spurge occurring on the project site, however, is remote based on the limited amount of suitable habitat remaining onsite. Due to the relatively small size of the site and remaining habitat, potential impacts to a few individuals (if present) are unlikely to cause the population to drop to a less than self-sustaining level. For these reasons, impacts would not be considered significant under the CEQA. At this time, no focused plant surveys are recommended.

There is a low potential for slender cottonheads to occur onsite as suitable habitat (sandy soils in Sonoran Desert scrub) is present. This species was not detected during the field assessment; however, the assessment was conducted outside of this species blooming period (Mar-May). Slender cottonheads is not listed as threatened or endangered; this species is, however, designated as S2 by the CDFW meaning that it is designated as "imperiled" by the CDFW and List 2B.2 meaning that it is considered to be "rare, threatened or endangered in California, but more common elsewhere" and "moderately threatened in California" by the CNPS. Like the other species above, slender cottonheads is not a MSHCP-covered species, therefore development fees offer no mitigation and impacts could be considered significant under the CEQA if a significant population were to be present. The likelihood of a significant population occurring on the limited amount of remnant habitat available on the project site is extremely low. As a result of the relatively small site of the site and remaining habitat, potential impacts to a few individuals (if present) are unlikely to cause the population to drop to a less than self-sustaining level. Therefore, impacts would not be considered significant under the CEQA. At this time, no focused plant surveys are recommended.

6.1.2 Potentially Occurring Reptile Species Not Fully Covered Under the CVMSHCP

Northern red-diamond rattlesnake is not listed as threatened or endangered by the CDFW or USFWS but is designated as a California "Species of Special Concern" (SSC) by the CDFW. This species is associated with a variety of habitats, mostly in cismontane Southern California. Northern red-diamond rattlesnake is not a CVMSHCP-covered species. In the Coachella Valley, San Gorgonia Pass, Morongo Valley and Yucca Valley areas, it is also known to occur in Mojavean and Sonoran Desert scrubs. This species has been reported from approximately one mile west of the project site. For these reasons, Wood considers there to be a moderate potential for northern red-diamond rattlesnake to occur on the project site. Although this species is declining, project-related impacts to this species (if any) would be incremental and localized. Project-related impacts (if any) would be not likely be considered significant under the CEQA as implementation of the proposed

project would not likely result in: 1) a substantial reduction of habitat for this species, 2) a drop in self-sustaining population levels, 3) an elimination of this species population levels, or 4) substantially reduce this species numbers or reduce its geographic range. Therefore, additional presence/absence survey(s) for this species are not considered to be warranted and are thus not recommended.

Although the desert tortoise is a CVMSHCP-covered species, if present, additional actions would likely be required to relocate any onsite wild tortoise(s) prior to any proposed site disturbance. The desert tortoise is federally, and state listed as threatened. This species occurs in Sonoran creosote bush scrub and is known from the vicinity. The onsite remnant habitat is at least marginally suitable, however, is limited as a result of past and ongoing landscaping and conversion. A standard chain link fence is present between the site and the other potentially suitable habitat to the west and between the site and the detention basin to the south. This fence does not provide an impervious barrier to tortoises, as there are existing gaps and hatchling-sized tortoises could potentially fit through the fence mesh at ground level. The existing development to the north, east and south (to a lesser extent) act as barriers to tortoises that might otherwise enter the site from adjacent areas. If an adult desert tortoise currently occurred onsite, the landowner and maintenance personnel would very likely be aware of it. Both were interviewed onsite during the assessment and neither reported having ever seen a tortoise onsite. No desert tortoise sign (i.e., burrows, scat, tracks, carcasses, etc.) was detected during the assessment. The closest CNDDB record for desert tortoise is from 2004, approximately 3 miles to the northeast of the site. Although a limited suitable habitat is present, the potential for desert tortoise to occur onsite is considered to be extremely low/remote. Because the site is not located within a Conservation Area, a focused, protocol-level presence/absence survey is not anticipated to be required. If a tortoise were to be discovered onsite at any time the USFWS, CDFW and CVCC would need to be consulted for further guidance on relocation.

6.1.3 Potentially Occurring Bird Species Not Covered by the CVMSHCP

Loggerhead shrike is special status bird species that is not a covered species under the CVMSHCP and is known from the vicinity. It is not listed as threatened or endangered by the USFWS or CDFW but is designated as an SSC and protected by the MBTA and FGC while nesting. Loggerhead shrike nest in thorny trees and dense shrubs. Onsite landscaped mesquite, palo verde and other vegetation provide potentially suitable nesting habitat for this species. Although not detected onsite during the assessment loggerhead shrike is considered to have a moderate potential of nesting and a high potential of foraging onsite. Construction, landscaping and vegetation trimming has the potential to affect nesting loggerhead shrike, if present. The nesting season is generally 1 February through 31 August.

6.1.4 Burrowing Owl

Although burrowing owl, nor sign thereof, was observed or detected onsite during the assessment, suitable habitat and ground squirrel burrows suitable for burrowing owl were present at several locations onsite site (Appendix D, Photo 6). Suitable habitat is also located immediately adjacent to the site in the undeveloped, open space to the west and within the detention basin to the south. This species nests and roosts underground and is particularly sensitive to ground disturbing activities, loud noise created by operation of heavy equipment up to 500 feet away and may abandon nests or burrows if/when such activities occur. Therefore, in addition to on-site impacts, impacts to burrowing owls potentially occurring nearby offsite must also be considered. The burrowing owl is not listed as threatened or endangered by the USFWS or CDFW. It is, however, managed as a Bird of Conservation Concern (BCC) by the USFWS and designated as a SSC by the CDFW. It is also protected from take by the MBTA and FGC. The burrowing owl is a covered species under the CVMSHCP, however the federal permit for the CVMSHCP does not allow take of this species under the MBTA. For these reasons, because the site is not within a conservation area, two preconstruction (take avoidance) surveys (the first within 14-30 days prior to proposed ground disturbance and the second within 24 hours of ground disturbance) would be required to ensure that no direct take of burrowing owls occur.

6.1.5 Additional Bird Species Protected by the Migratory Bird Treaty Act

Excluded from coverage under the CVMSHCP are a variety of common bird species that are protected by the MBTA and FGC. This includes virtually all native migratory and resident bird species, including birds observed onsite and/or known to occur in the vicinity. Avoidance of impacts to these nesting migratory and resident birds is a requirement of the federal permit issued for the CVMSHCP. In order to avoid potentially impacting nesting birds, either avoidance of any project-related disturbance (i.e., grading, vegetation removal or trimming, landscaping, operation of heavy equipment, etc.) during the nesting season (from approximately 1 February through 31 August), or such activities cannot be avoided during the nesting season, a nesting bird clearance survey conducted by a qualified ornithologist or biologist immediately prior to onsite disturbance during the nesting season is recommended. If nesting birds are found, no work would be permitted until young have fledged. While there is no established protocol for nest avoidance, when consulted the CDFW generally recommends avoidance buffers of about 100–300 feet for unlisted songbirds and 500 feet for listed songbirds and raptors.

6.1.6 Potentially Occurring Mammal Species Not Covered by the CVMSHCP

The pallid San Diego pocket mouse is not listed as threatened or endangered by the USFWS or CDFW. This species is designated as an SSC by the CDFW but not covered under the CVMSHCP. Although the state has designated it an SSC, it is ranked S3S4 which means that it is "vulnerable

to apparently secure". It is known to occur in desert border areas in washes, desert scrub with sandy/gravelly soils, often in rocky areas. Onsite habitat is marginally suitable and limited. For these reasons, this species is considered to have a low potential of occurrence. Although small mammal trapping would be the only way to determine the status of pallid San Diego pocket mouse onsite, project-related impacts (if any), even if this species were present, would be not likely be considered significant under the CEQA as implementation of the proposed project would not likely result in: 1) a substantial reduction of habitat for this species, 2) a drop in self-sustaining population levels, 3) an elimination of this species population levels, or 4) substantially reduce this species numbers or reduce its geographic range. Therefore, focused surveys for this species are not recommended.

6.1.7 Jurisdictional Areas

The project site is located within what is best described as the mouth of a small natural canyon. Two landscaped drainages converge into one which flows out of the southeastern corner of the site and into a man-made detention basin located immediately south of the site. These drainages are fed by runoff coming from the adjacent existing streets and residential neighborhoods to the north. Additionally, according to the property owner and natural hot spring is present onsite and has been utilized for the existing jacuzzi-style tubs. It is unknown if these features would have been classified as jurisdictional or not. Past aerial photography indicates that dark-colored vegetation (mesquite?) once occurred onsite, just below the location of the hot tubs and continued in the bottom of the canyon where flow (if any) may have once naturally occurred. For these reasons, a determination of potential jurisdictional status of these drainages is recommended.

7.0 CONCLUSION

In 2016 the City of Desert Hot Springs was accepted as a signatory to the CVMSHCP (CVCC 2022). Since then, payment of the required development fees for approved projects are designed to mitigate the impacts and/or potential impacts to covered species resulting from the loss/conversion of the natural open space onsite. Covered species that are considered to have at least some potential of onsite occurrence and/or could have been affected by past site conversion and/or the continued conversion of the project site include: Coachella Valley milk-vetch, Little San Bernardino Mountains linanthus, Coachella Valley Jerusalem cricket, desert tortoise, flat-tailed horned lizard, Coachella Valley fringe-toed lizard, burrowing owl, Palm Springs pocket mouse, and Palm Springs round-tailed ground squirrel. Impacts to these species (if present) and their respective habitat, with the exception of burrowing owl, would be fully covered and mitigated under the CVMSHCP with the payment of the requisite development fee and participation in the requirements of the plan.

For burrowing owl, because suitable habitat and ground squirrel burrows are present onsite and because the project site is not within a conservation area, only two pre-construction (take avoidance) surveys would be required immediately prior to the commencement of proposed construction within their habitat to ensure that impacts to burrowing owl do not result from project implementation. If burrowing owls are detected onsite, the CDFW would need to be contacted for guidance. If burrowing owls are detected onsite, relocation may be required, in coordination with the CVCC and CDFW.

Although desert tortoise is generally not anticipated to occur onsite, remnant suitable habitat is present on- and immediately adjacent to the site, and thus there remains a very low/remote potential for this species to occur. For these reasons, if desert tortoise(s) are found onsite during any phase of the project, additional impact avoidance, minimization and mitigation measures may be required. Both inside and outside of conservation areas, these measures require relocation of individual tortoises where found. If desert tortoises are detected, the USFWS, CDFW and CVCC would need to be consulted for further guidance on relocation.

Impacts to other bird species protected by the MBTA and FGC require avoidance. If project activities (i.e., site grading, vegetation removal/trimming, earthwork in undisturbed areas, etc.) are conducted during the nesting season (i.e., generally between 1 February and 31 August), a nesting bird clearance survey may be required to ensure impacts to nesting birds are avoided. If project activities are conducted outside of the nesting season, a nesting bird clearance survey could likely be avoided. If active bird nests are found, at any time, proposed project activities would need to be halted and postponed until young have fledged the nest and impacts to nesting birds are entirely avoided.

A determination of the jurisdictional status of the onsite drainages is recommended to determine if permitting would be required.

With participation in and compliance with the requirements of the CVMSHC and implementation of the recommendations above, impacts to special status species and their habitats are anticipated to be mitigated to a less than significant level.

8.0 LITERATURE CITED AND REFERENCES

Association of Environmental Professionals. 2022. 2022 CEQA California Environmental Quality Act Statute and Guidelines. Accessed online at: https://www.califaep.org/docs/2022_CEQA_Statue_and_Guidelines.pdf

California Bird Records Committee. 2022. Official California Checklist. Accessed online at: http://californiabirds.org/ca_list.asp.

California Department of Fish and Wildlife (CDFW). 2022a. California Natural Diversity Data Base, Rarefind 5. Report for the *Desert Hot Springs* and *Seven Palms Valley, Calif.* quadrangles. Accessed at: dfg.ca.gov/biogeodata/cnddb/mapsanddata.asp

CDFW. 2022b. Special Animals List. January. Periodic publication. Sacramento, CA. Accessed online at: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109406&inline=1

CDFW. 2016. Complete List of Amphibian, Reptile, Bird and Mammal Species in California. Accessed online at: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=87155&inline

California Legislative Information. 2022. Fish and Game Code of California. https://leginfo.legislature.ca.gov/faces/codesTOCSelected.xhtml?tocCode=FGC&tocTitle=+Fish+and+Game+Code+-+FGC

California Native Plant Society (CNPS). 2022a. CNPS Rare Plant Inventory. Report for the *Desert Hot Springs* and *Seven Palms Valley, Calif.* quadrangles. Accessed online at: http://www.rareplants.cnps.org

CNPS. 2022b. California Rare Plant Ranks. Accessed online at: https://www.cnps.org/rare-plants/california-rare-plant-ranks

City of Desert Hot Springs. 2022. City of Desert Hot Springs Land Use Policy Plan. Accessed online at: https://f.hubspotusercontent30.net/hubfs/4435988/General%20Plan%20Land%20Use%20Map.pdf

Coachella Valley Conservation Commission (CVCC). 2022. Coachella Valley Multiple Species Habitat Conservation Plan. Accessed plan documents online at: cvmshcp.org

Holland, R.F. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. Prepared for the California Department of Fish and Game.

Jepson Flora Project (2nd ed.). 2022. Jepson eFlora**.** Accessed online at: http://ucjeps.berkeley.edu/IJM.html

Riverside County Information Technology. 2022. Map My County. Accessed online at: http://mmc.rivcoit.org/MMC_Public/Custom/disclaimer/Default.htm

Sawyer, J.O., T. Keeler-Wolf, and J.M. Evens. 2009. A manual of California vegetation (2nd ed.). California Native Plant Society, Sacramento, CA.

USDA, NRCS. 2019. Web Soil Survey. Accessed online at: http://websoilsurvey.nrcs.usda.gov/app/

USDA, NRCS. 2022. The PLANTS Database. National Plant Data Team. Accessed online at: plants.usda.gov

USFWS. 2022. Migratory Bird Treaty Act of 1918. Accessed online at: https://www.fws.gov/law/migratory-bird-treaty-act-1918

USGS. 2016. US Topo and Historical Topographic Map Collection. Accessed online at: http://geonames.usgs.gov/apex/f?p=262:1:0::NO:RP:

USGS. 2015a. *Desert Hot Springs, CA* 7.5-Minute Topographic Quadrangle. Accessed online at: file:///C:/Users/herpe/Downloads/CA_Desert_Hot_Springs_20150305_TM_geo.pdf

USGS. 2015b. *Seven Palms Valley, CA* 7.5-Minute Topographic Quadrangle. Accessed online at:file:///C:/Users/herpe/Downloads/CA_Seven_Palms_Valley_20150305_TM_geo%20(1).pdf

APPENDIX A

SPECIES LIST: VASCULAR PLANTS

APPENDIX A
Species List: Vascular Plants

This list reports only plants observed on the site by this study. Other species may have been overlooked or undetectable due to their growing season. Unless noted otherwise, nomenclature and systematics follows Jepson Flora Project (2014) = non-native species, sp. = identified only to genus, *cf*= compares favorably with]. Common names not provided by Jepson Flora Project follows those provided by USDA, NRCS (2015b). [†= *special status species,* * = non-native species, sp. = identified only to genus, *cf*= compares favorably with]

Asteraceae	**Sunflower family**
Ambrosia acanthicarpa	annual bursage
Dicoria canescens	desert dicoria
Encelia farinosa	brittlebush
Palafoxia arida	Spanish needles
Bigoniaceae	**Trumpet Creeper family**
*Tecoma stans** (landscaped)	yellow bells*
Boraginaceae	**Borage family**
Cryptantha sp.	unidentified cryptantha
Brassicaceae	**Mustard family**
*Brassica tournefortii**	Saraha mustard*
Cactaceae	**Cactus family**
Cylindropuntia sp. (landscaped)	unidentified cholla
*Echinocactus grusonii** (landscaped)	golden barrel cactus*
Opuntia basilaris (landscaped)	beavertail cactus
Opuntia littoralis (landscaped)	prickly pear cactus
Ephedraceae	**Jointfir family**
Ephedra nevadensis	Nevada jointfir
Euphorbiaceae	**Spurge family**
Croton californicus	California croton
Fabaceae	**Pea family**
*Parkinsonia aculeata** (landscaped)	Mexican palo verde*
Prosopis sp.* (landscaped)	unidentified mesquite*
Psorothamnus cf. arborescens	Mojave indigo bush
Psorothamnus cf. emoryi	Emory's indigo bush
Psorothamnus spinosus	smoketree
Lythraceae	**Loosestrife family**
*Punica granatum** (landscaped)	pomegranate*
Oleaceae	**Olive family**
*Olea europaea** (landscaped)	European olive*
Rutaceae	**Citrus family**

Citrus spp.*	citrus (orange, lemon, etc.)
Solanaceae	**Nightshade family**
Datura wrightii	jimsonweed
Zygophyllaceace	**Caltrop family**
Larrea tridentata	creosote bush
Agavaceae	**Agave family**
Agave spp. (landscaped)*	Unidentified agaves
Arecaceae	**Palm family**
Washingtonia filifera (landscaped)	California fan palm
Poaceae	**Grass family**
*Pennisetum setaceum**	crimson fountain grass
Schismus sp.*	unidentified schismus

APPENDIX B

SPECIES LIST: VERTEBRATE ANIMALS

APPENDIX B

Species List: Vertebrate Animals

This list reports only the vertebrate animals observed or detected by Wood during the field assessment. Other species may have been overlooked or undetectable due to their activity patterns or weather conditions. [† = *special status species,* * = non-native species, sp. = identified only to genus, *cf* = compares favorably with]

VERTEBRATES	
REPTILIA	**REPTILES**
Phrynosomatidae	**Spiny Lizards**
Urosaurus graciosus	long-tailed brush lizard
AVES	**BIRDS**
Columbidae	**Pigeons and Doves**
*Streptopelia decaocto**	Eurasian collared dove*
Zenaida macroura	mourning dove
Cuculidae	**Cuckoos, Roadrunners, and Anis**
Geococcyx californianus	Greater roadrunner
Corvidae	**Crows and Ravens**
Corvus corax	common raven
Troglodytidae	**Wrens**
Campylorhynchus brunneicapillus	cactus wren
MAMMALIA	**MAMMALS**
Sciuridae	**Squirrels, ground squirrels, etc.**
Otospermophilus beecheyi	California ground squirrel (burrows)

APPENDIX C

FIGURES

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c)



Path: \\sdg1-fs1\GIS\3554_NaturalResources\TerraNova_KimanaResort_322520128\MXD\ReportFigures\Fig1_ProjectLocation.mxd, amanda.schwab 8/16/2022

1 inch = 1 miles

0 0.5 1 Miles

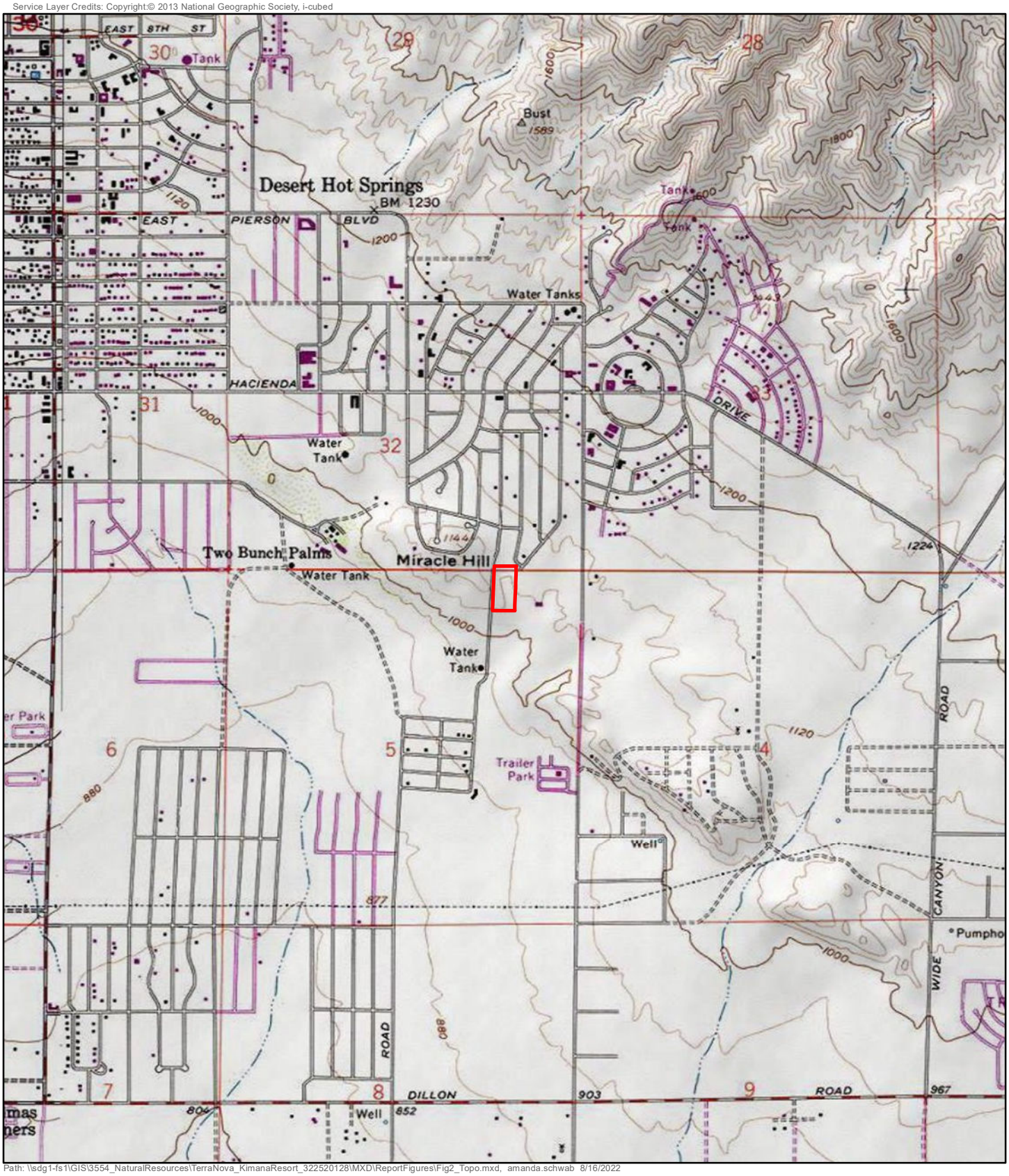
wood.

Project Boundary

FIGURE 1

Project Location
Kimana Resort
Desert Hot Springs, Riverside County, CA

Service Layer Credits: Copyright:© 2013 National Geographic Society, i-cubed



Path: \\sdg1-fs1\GIS\3554_NaturalResources\TerraNova_KimanaResort_322520128\MXD\ReportFigures\Fig2_Topo.mxd, amanda.schwab 8/16/2022

1 inch = 2,000 feet
0 1,000 2,000 Feet

wood.

Project Boundary

FIGURE 2

USGS 7.5' Quad: Seven Palms Valley
Kimana Resort
Desert Hot Springs, Riverside County, CA

Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



Path: \\sdg1-fs1\GIS\3554_NaturalResources\TerraNova_KimanaResort_322520128\MXD\ReportFigures\Fig3_CVMSHCP.mxd, amanda.schwab 8/16/2022

1 inch = 2,000 feet

0 1,000 2,000 Feet

wood.

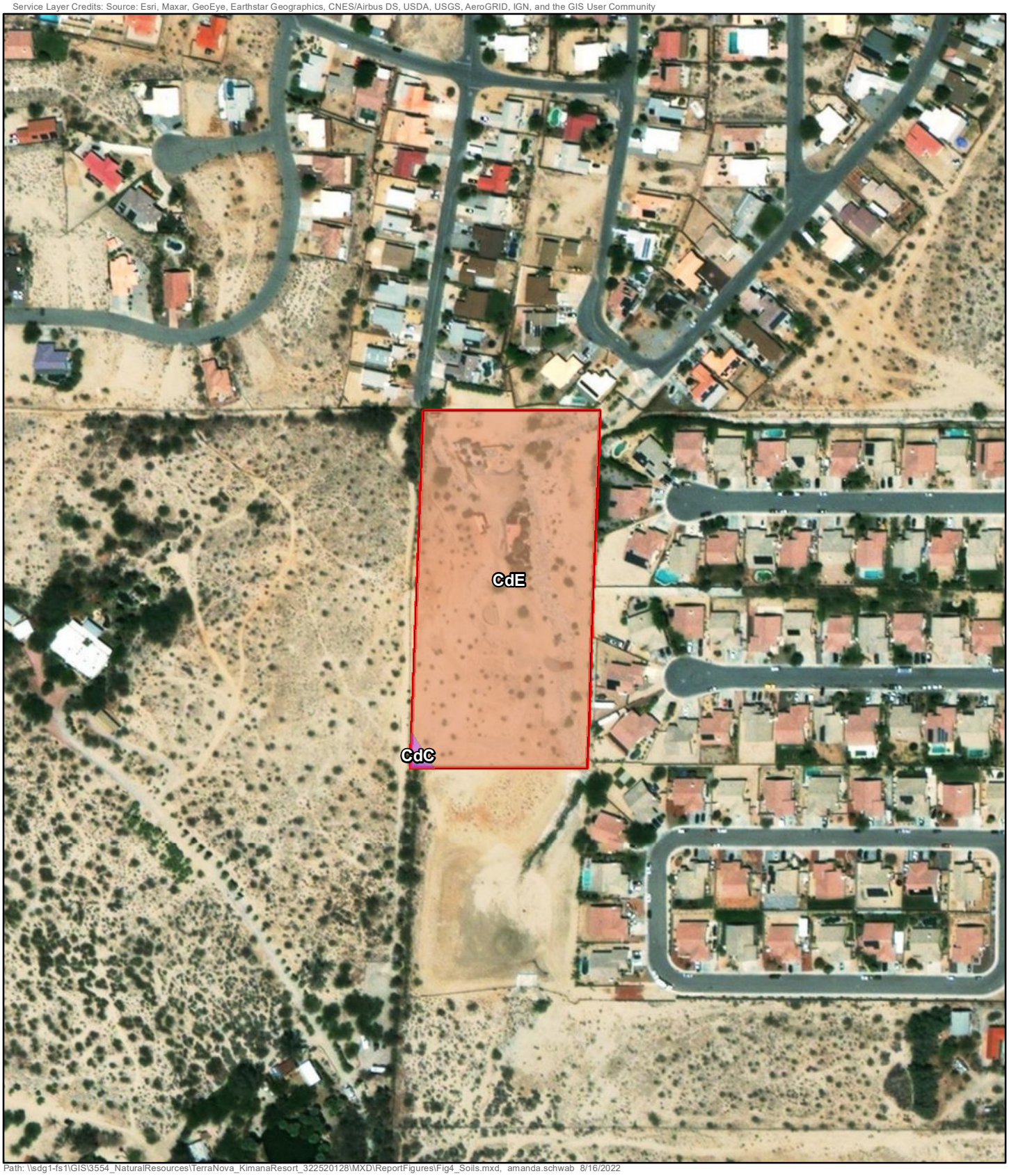
Project Boundary

CVMSHCP Conservation Boundaries

FIGURE 3

CVMSHCP
Kimana Resort
Desert Hot Springs, Riverside County, CA

Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



Path: \\sdg1-fs1\GIS\3554_NaturalResources\TerraNova_KimanaResort_322520128\MXD\ReportFigures\Fig4_Soils.mxd, amanda.schwab 8/16/2022

1 inch = 250 feet
0 125 250 Feet

Project Boundary
CdC - Carsitas gravelly sand, 0 to 9 percent slopes
CdE - Carsitas gravelly sand, 9 to 30 percent slopes

wood.

FIGURE 4

Soils
Kimana Resort
Desert Hot Springs, Riverside County, CA

Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



Path: \\sdg1-fs1\GIS\3554_NaturalResources\TerraNova_KimanaResort_322520128\MXD\ReportFigures\Fig5_Veg.mxd, amanda.schwab 8/16/2022

1 inch = 250 feet

0 125 250 Feet

Project Boundary

Creosote Bush-Brittle Bush Scrub

Landscaped

wood.

FIGURE 5

Vegetation
Kimana Resort
Desert Hot Springs, Riverside County, CA

Kimana Resort

PHOTOGRAPHIC LOG



Photo 1: Onsite drainage, landscaping and development. Undeveloped, natural habitat and foot path visible on hill in right background.



Photo 2: Onsite drainage and landscaping. Alpod unit visible at upper left background.

APPENDIX D

PHOTOGRAPHIC EXHIBITS

Kimana Resort

PHOTOGRAPHIC LOG



Photo 3: Onsite man-made pond and turf.



Photo 4: Onsite undeveloped area with creosote bush-brittle bush scrub and sandy soils in foreground. Landscaping, one alpod unit and other development visible in middle ground.

Kimana Resort

PHOTOGRAPHIC LOG



Photo 5: Onsite undeveloped area with creosote bush-brittle bush scrub in southwestern-most area of site. Adjacent, offsite habitats in background.

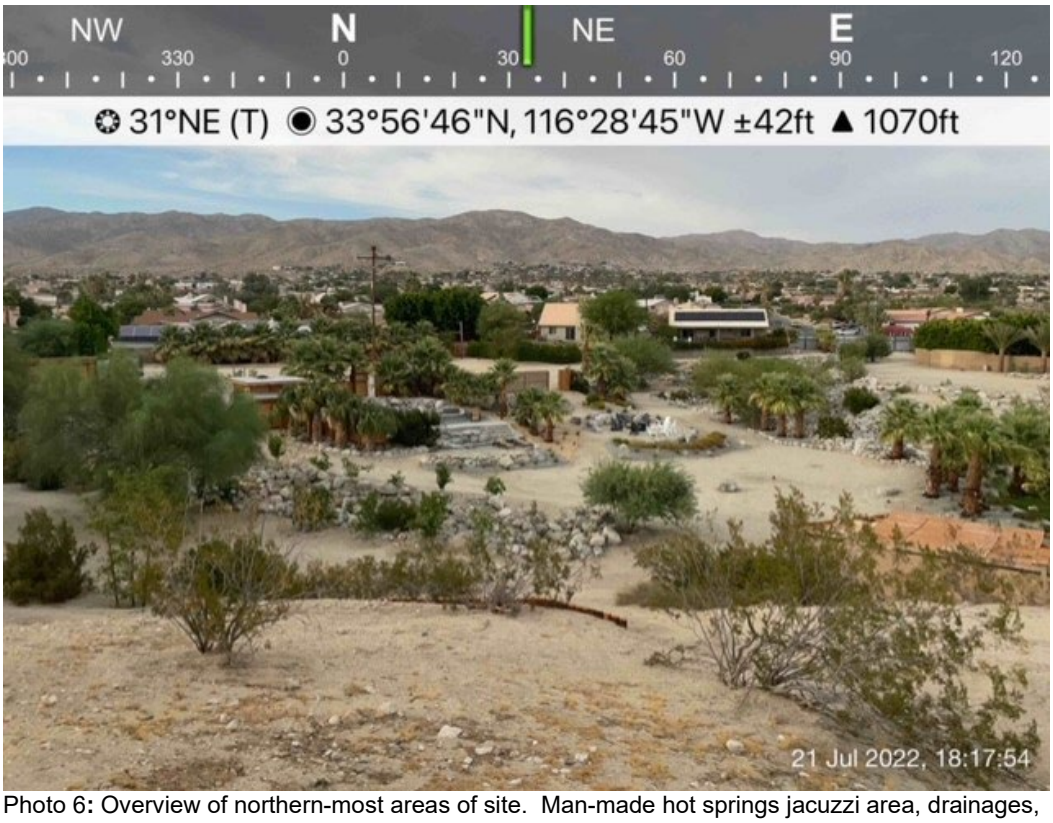


Photo 6**:** Overview of northern-most areas of site. Man-made hot springs jacuzzi area, drainages, parking and cleared areas visible throughout.

Kimana Resort

PHOTOGRAPHIC LOG



Photo 6**:** Hot spring jacuzzi area in foreground. Landscaping and other development in background.


Photo 6**:** One of the ground squirrel burrows suitable for burrowing owls present onsite.

APPENDIX C

Historical/Archaeological Resources Survey Report

Prepared by

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

HISTORICAL/ARCHAEOLOGICAL RESOURCES SURVEY REPORT

KIMANA RESORT EXPANSION PROJECT

Assessor's Parcel Number 656-150-003
City of Desert Hot Springs, Riverside County, California

For Submittal to:

Community Development Department, Planning Division
City of Desert Hot Springs
65-950 Pierson Boulevard
Desert Hot Springs, CA 92240

Prepared for:

Terra Nova Planning and Research, Inc.
42635 Melanie Place, Suite 101
Palm Desert, CA 92211

Prepared by:

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

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

September 26, 2022
CRM TECH Contract No. 3909

Title: Historical/Archaeological Resources Survey Report: Kimana Resort Expansion Project, Assessor's Parcel Number 656-150-003, City of Desert Hot Springs, Riverside County, California

Author(s): Bai "Tom" Tang, Principal Investigator/Historian
Breidy Q. Vilcahuaman, 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: September 26, 2022

For Submittal to: Community Development Department, Planning Division
City of Desert Hot Springs
65-950 Pierson Boulevard
Desert Hot Springs, CA 92240
(760) 329-6411

Prepared for: Nicole Sauviat Criste, Principal
Terra Nova Planning and Research, Inc.
42635 Melanie Place, Suite 101
Palm Desert, CA 92211
(760) 341-4800

USGS Quadrangle: Seven Palms Valley, Calif., 7.5' quadrangle; Section 5, T3S R5E, San Bernardino Baseline and Meridian

Project Size: Approximately five acres

Keywords: Northwestern Coachella Valley, Colorado Desert region; Phase I cultural resources survey; no "historical resources" under CEQA

MANAGEMENT SUMMARY

Between June and September 2022, at the request of Terra Nova Planning and Research, Inc., CRM TECH performed a cultural resources study on an approximately five-acre parcel in the City of Desert Hot Springs, Riverside County, California. The subject property of the study, Assessor's Parcel Number 656-150-003, is the site of the Kimana Resort, located to the southwest of the intersections of Hermano Way and Quinta Way and along the east side of the extension of Hidalgo Street/Yerxa Road, in the northeast quarter of Section 5, Township 3 South, Range 5 East, San Bernardino Baseline and Meridian.

The study is a part of the environmental review process for the proposed construction of additional facilities at the resort, including ALPOD units, glamping units, a pool, a picnic area, a reception building, and a parking lot. The City of Desert Hot Springs, as the lead agency for the project, required the study pursuant to the California Environmental Quality Act (CEQA). The purpose of this study is to provide the City with the necessary information and analysis to determine whether the project would cause a substantial adverse change to any "historical resources," as defined by CEQA, that may exist in the project area.

In order to identify such resources, CRM TECH reviewed recent historical/ archaeological resources records search results pertaining to the project location, contacted pertinent Native American representatives, pursued historical background research, and carried out an intensive-level field survey. Through the various avenues of research, this study did not encounter any "historical resources" within or adjacent to the project area. Therefore, CRM TECH recommends to the City of Desert Hot Springs a finding of *No Impact* regarding "historical resources."

No further cultural resources investigation is recommended for the project unless construction plans undergo such changes as to include areas not covered by this study. However, if buried cultural materials are discovered during earth-moving operations associated with the project, all work in that area 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
Natural Setting 4
Cultural Setting 5
Prehistoric Context 5
Ethnohistoric Context 5
Historic Context 7
RESEARCH METHODS 8
Records Search 8
Historical Research 8
Native American Participation 8
Field Survey 8
RESULTS AND FINDINGS 9
Records Search 9
Historical Research 9
Native American Participation 11
Field Survey 12
DISCUSSION 12
CONCLUSION AND RECOMMENDATIONS 13
REFERENCES 13
APPENDIX 1: Personnel Qualifications 15
APPENDIX 2: Native American Responses 18

LIST OF FIGURES

Figure 1. Project vicinity 1
Figure 2. Project location 2
Figure 2. Recent satellite image of the project area 3
Figure 4. Typical landscapes in the project area 4
Figure 5. Previous cultural resources studies within the scope of the records search 10
Figure 6. The project area and vicinity in 1855-1856 11
Figure 7. The project area and vicinity in 1940-1941 11
Figure 8. The project area and vicinity in 1956-1958 11

INTRODUCTION

Between June and September 2022, at the request of Terra Nova Planning and Research, Inc., CRM TECH performed a cultural resources study on an approximately five-acre parcel in the City of Desert Hot Springs, Riverside County, California (Fig. 1). The subject property of the study, Assessor's Parcel Number 656-150-003, is the site of the Kimana Resort, located to the southwest of the intersections of Hermano Way and Quinta Way and along the east side of the extension of Hidalgo Street/Yerxa Road, in the northeast quarter of Section 5, Township 3 South, Range 5 East, San Bernardino Baseline and Meridian (Figs. 2, 3).

The study is a part of the environmental review process for the proposed construction of additional facilities at the resort, including ALPOD units, glamping units, a pool, a picnic area, a reception building, and a parking lot. The City of Desert Hot Springs, as the lead agency for the project, required the study pursuant to the California Environmental Quality Act (CEQA; PRC §21000, et seq.). The purpose of this study is to provide the City with the necessary information and analysis to determine whether the project would cause a substantial adverse change to any "historical resources," as defined by CEQA, that may exist in the project area.

In order to identify such resources, CRM TECH reviewed recent historical/ archaeological resources records search results pertaining to the project location, contacted pertinent Native American representatives, pursued historical background research, 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.

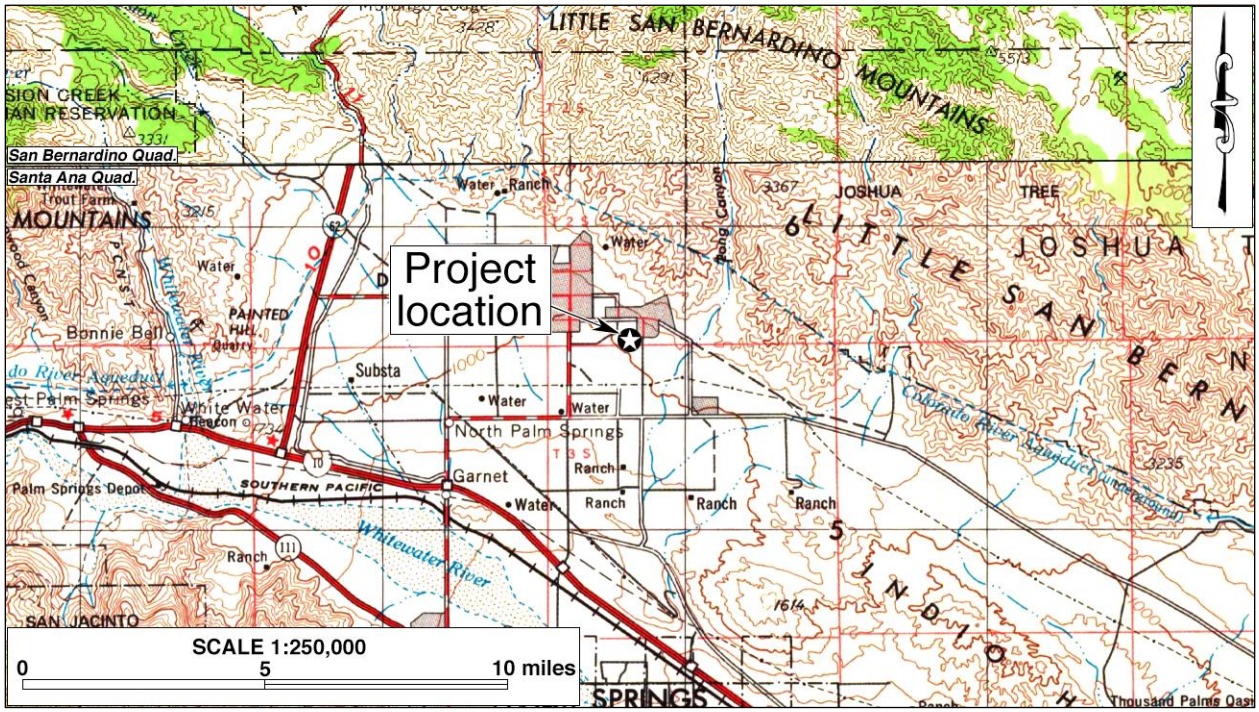


Figure 1. Project vicinity. (Based on USGS San Bernardino and Santa Ana, Calif., 120'x60' quadrangles [USGS 1969; 1979])

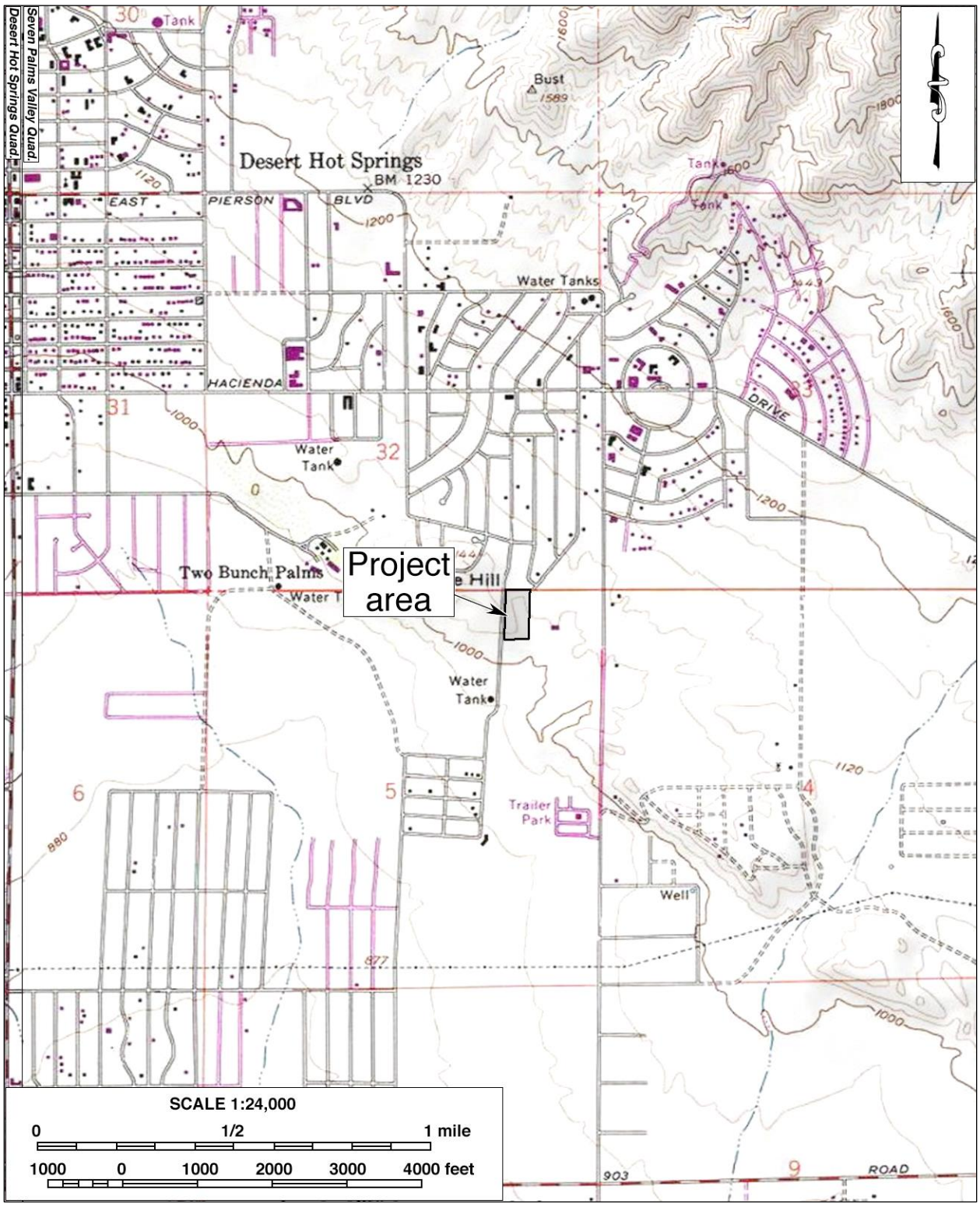


Figure 2. Project location. (Based on USGS Desert Hot Springs and Seven Palms Valley, Calif., 7.5' quadrangles [USGS 1978a; 1978b])

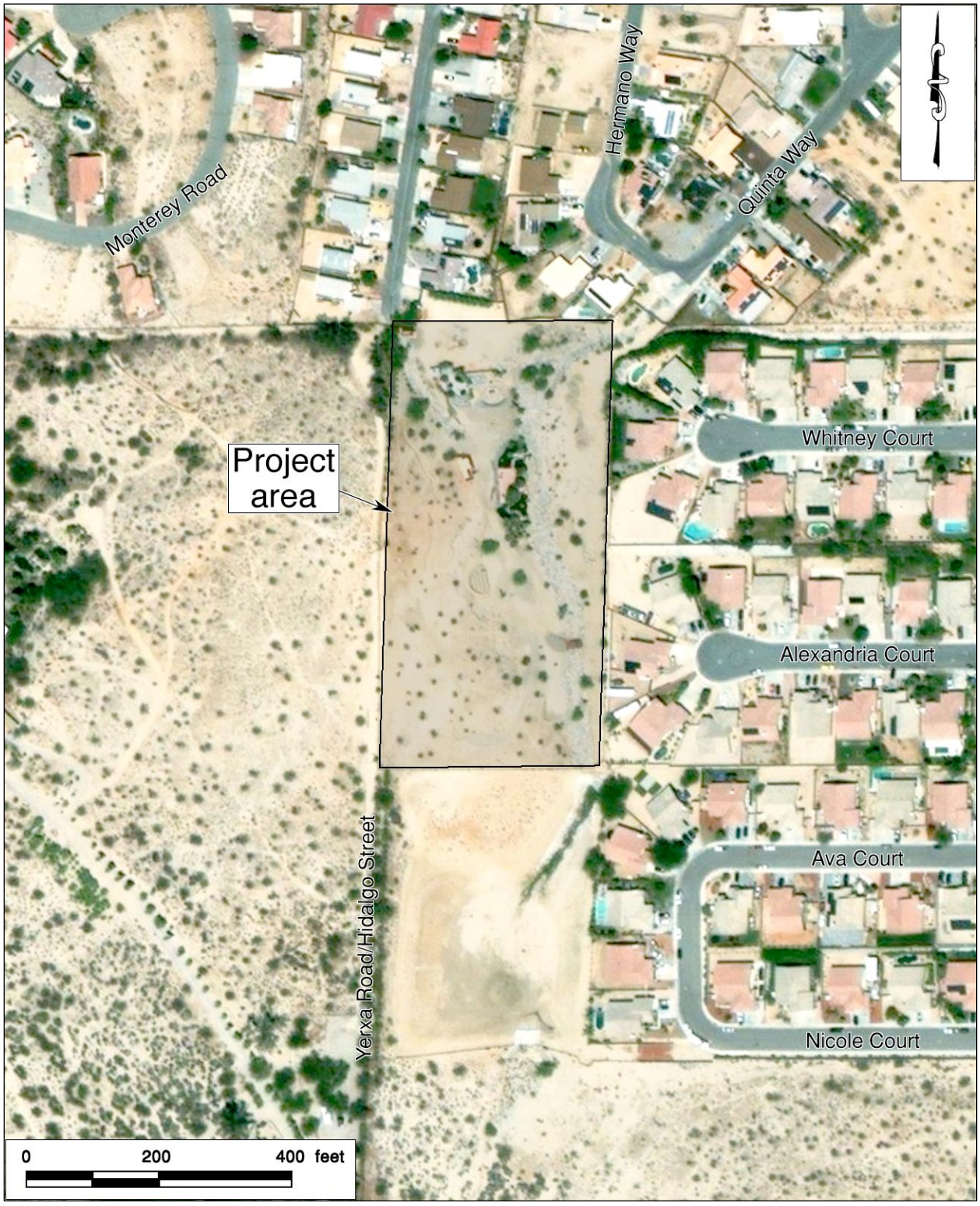


Figure 2. Recent satellite image of the project area.

SETTING

NATURAL SETTING

The City of Desert Hot Springs is situated near the northwestern end of 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 southern California's desert country, marked by extremes in temperature and aridity. Temperatures in the region reach over 120 degrees in summer, and dip to freezing in winter. Average annual precipitation is less than five inches, and the average annual evaporation rate exceeds three feet.

The project area lies on the southeastern outskirts of the city, surrounded by suburban residential neighborhoods on the north and the east and by undeveloped land on the south and the west (Fig. 3). Elevations on the property range approximately between 1,015 and 1,050 feet above mean sea level, and the terrain is relatively level with a moderate slope towards the southwest. Surface soils are composed of light brown, coarse-grained alluvial sand mixed with silt and igneous rocks, including diorite, gabbro, and granite, that range in size from pebble to boulder. Portions of the property, mainly on the northern and eastern sides, have been disturbed by construction and landscaping activities associated with the development of the existing Kimana Resort facilities in recent years, and an intermittent drainage running roughly north-south across the project area has been lined with boulders (Fig. 4). Meanwhile, the southwestern portion of the property retains much more of the natural character of the land (Fig. 4).

Vegetation observed in the project area included palo verde, California fan palm, Indian rosewood, creosote bush, and the typical amalgamation of small desert scrub brushes, weeds, and intrusive grasses (Fig. 4). In its native state, the project area belongs to the Creosote Bush Scrub Plant Community. Native plant species common to this community include creosote bush, prickly pear cactus, cholla, brittlebush, and globemallow. Animals commonly found in this area include reptiles (e.g., lizards, snakes, and tortoises), small to medium mammals (e.g., coyotes, jackrabbits, desert cottontails, rats, and mice), native birds (e.g., doves, vultures, raptors, and quails), and arthropods (e.g., beetles, desert tarantulas, and scorpions).



Figure 4. Typical landscapes in the project area. *Left*: overview to the north; *right*: existing landscaping features and rock-lined drainage, view to the south. (Photographs taken on June 28, 2022)

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). Typical artifacts and features from that period include 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 brown and buff ware ceramics were introduced into the region.

The shores of Holocene Lake Cahuilla, during times of its presence, attracted much settlement and resource procurement; but in times of the lake's desiccation around 1700, according to Schaefer (1994:66), the Native people moved away from its receding shores towards rivers, streams, and mountains. Numerous archaeological sites dating to this time period have been identified along the shoreline of Holocene Lake Cahuilla. Testing and mitigative excavations at these sites have recovered brown and buff ware ceramics, a variety of groundstone and projectile point types, ornaments, and cremations.

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 of palms from a paleo-tropical environment, but instead a relatively recent addition brought to the area and cultivated by native populations (Anderson 2005). Cahuilla oral tradition tells of a time before there were palms in the area, and how the people, birds, and animals enjoyed the palm fruit once it had arrived (Bean and Saubel 1972).

The planting of palms by the Cahuilla is well-documented, as is their enhancement of palm stands through the practice of controlled burning (Bean and Saubel 1972; Anderson 2005). 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). Firing palm stands 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 (Bean and Saubel 1972; 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 Highway 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.

The present-day City of Desert Hot Springs is among the communities that were largely created by the Coachella Valley's resort industry. Although sporadic settlement took place in the vicinity as early as 1908, the city owes much of its early growth to the abundance of hot mineral water along the San Andreas fault line. L.W. Coffee, who subdivided the Desert Hot Springs townsite in 1933, is also credited with the first successful development of the hot springs for commercial use (Gunther 1984:151). Advertised in the early and mid-20th century primarily for its potential for health spas and convalescent homes, Desert Hot Springs saw sufficient growth by 1944 to warrant the establishment of a post office. After a further growth spurt during the post-WWII boom, Desert Hot Springs incorporated as a city in 1963.

RESEARCH METHODS

RECORDS SEARCH

The historical/archaeological resources records search for this study was based on the results of recent records searches on nearby properties that were provided by the Eastern Information Center (EIC), University of California, Riverside, which is the State of California's official repository of cultural resources records for the County of Riverside. The purpose of the records search was to compile a complete inventory of previously identified cultural resources and existing cultural resources reports within a one-mile radius of the project area. Previously identified cultural resources include properties designated as California Historical Landmarks, Points of Historical Interest, or Riverside County 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.

HISTORICAL RESEARCH

Historical background research for this study was conducted by CRM TECH principal investigator/ historian Bai "Tom" Tang. Sources consulted during the research included published literature in local and regional history, historical maps of the Desert Hot Springs area, and aerial/satellite photographs of the project vicinity. Among the maps consulted were U.S. General Land Office (GLO) land survey plat maps dated 1856 and U.S. Geological Survey (USGS) topographic maps dated 1940-1979, which are accessible at the websites of the U.S. Bureau of Land Management and the USGS. The aerial and satellite photographs, taken in 1972-2021, are available at the Nationwide Environmental Title Research (NETR) Online website and through the Google Earth software.

NATIVE AMERICAN PARTICIPATION

On June 16, 2022, 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. In the meantime, CRM TECH contacted the nearby Agua Caliente Band of Cahuilla Indians and the Morongo Band of Mission Indians in writing for additional information on potential Native American cultural resources in the project vicinity. Furthermore, the Agua Caliente Band of Cahuilla Indians were invited to participate in the upcoming archaeological field survey. Responses from the Native American representatives are attached to this report in Appendix 2 and summarized in the section below.

FIELD SURVEY

On June 28, 2022, CRM TECH archaeologist Daniel Ballester carried out the field survey of the project area. The survey was completed at an intensive level by walking a series of parallel north-south and east-west transects spaced approximately 10 meters (33 feet) apart. In this way, the ground surface in the entire project area was systematically and closely examined for any evidence of human activities dating to the prehistoric or historic period (i.e., 50 years or older). Except where the native ground surface is obscured by existing structures or landscaping, ground visibility was excellent (90%) throughout the project area (Fig. 4).

RESULTS AND FINDINGS

RECORDS SEARCH

According to EIC records, the project area had not been surveyed systematically for cultural resources prior to this study, and no archaeological/historical resources had been recorded within or adjacent to the project boundaries. Within the one-mile scope of the records search, EIC records show more than 30 previous cultural resources studies on various tracts of land and linear features, including the adjacent properties to the north and the east of the project location (Fig. 5). As a result of these and other similar studies in the vicinity, two prehistoric (i.e., Native American) sites and one historic-period site had been identified within the one-mile radius and recorded into the California Historical Resource Inventory, as listed below in Table 1.

Table 1. Previously Recorded Cultural Resources within the Scope of the Records Search

Primary No.	Trinomial	Age	Description
33-001246	CA-RIV-1246	Prehistoric	Lithic debitage, ceramic sherds, groundstone, fire-affected rock, burned faunal fragments, and possible hearths/roasting pits
33-006842	N/A	Historical	Cabot's Pueblo Museum
33-016938	CA-RIV-8105	Prehistoric	Lithic debitage, ceramic sherds, groundstone fragments, fire-affected rock, and faunal remains

As Table 1 shows, both of the prehistoric sites consisted of scattered ceramic, lithic, and faunal artifacts, and both were found to the northwest of the project location, in the general vicinity of the Two Bunch Palms oasis. The historic-period site represents Cabot's Pueblo Museum on Desert View Avenue, a Pueblo Revival building that early settler Cabot Yerxa built in the 1940s to house and display his collection of Native American artifacts. None of these three sites were located in the immediate vicinity of the project area. Therefore, none of them require further consideration during this study.

HISTORICAL RESEARCH

Sources consulted for this study suggest that the project area is relatively low in sensitivity for cultural resources of historical origin. Throughout the historic period, no notable human-made features were found within the project boundaries (Figs. 6-8; NETR Online 1972). In the mid-19th century, the only evidence of human activities observed nearby was an "Indian trail" running in a generally northwest-southeast direction across the project vicinity (Fig. 6). By the 1940s, the area around Miracle Hill to the north of the project location had become the center of Cabot Yerxa's settlement, most notably his homestead, known as "Yerxa's Trading Post," and his Two Bunch Palms ranch (Fig. 7).

In the post-WWII era, the area of Yerxa's original homestead was turned into a residential neighborhood, although few homes were built on the tract until the 1980s-1990s (Fig. 8; NETR Online 1972-1996). Despite these developments nearby, the project area remained unsettled and undeveloped until the most recent years (Figs. 6-8; NETR Online 1972-2020; Google Earth 1995-2021). The development of Kimana Resort, starting with rock-lining the drainage across the property, commenced only in 2019 (Google Earth 2019; 2021). All of the existing features at the resort, therefore, are entirely modern in origin.

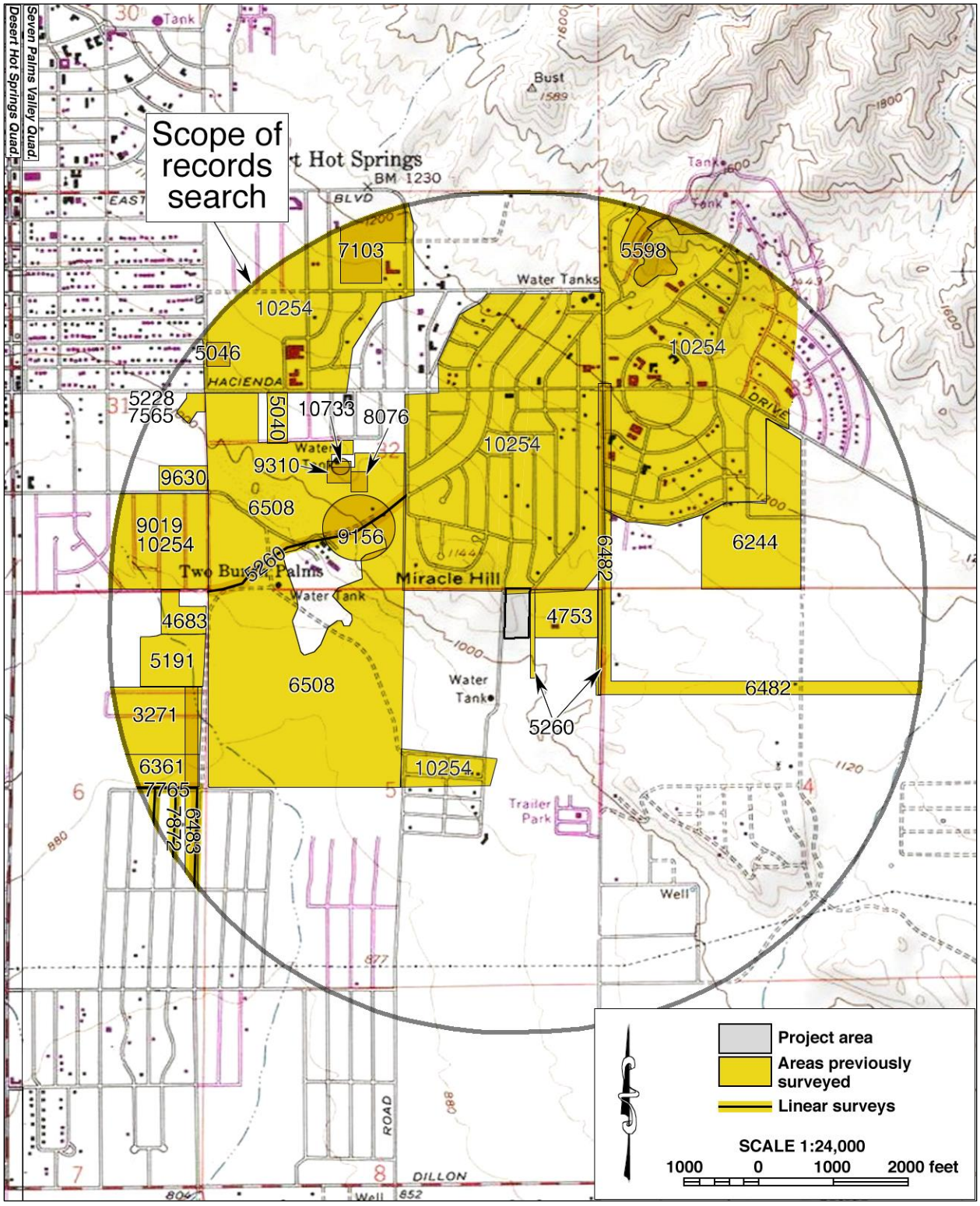


Figure 5. Previous cultural resources studies within the scope of the records search, listed by EIC file number. Location of historical/archaeological resources are not shown as a protective measure.

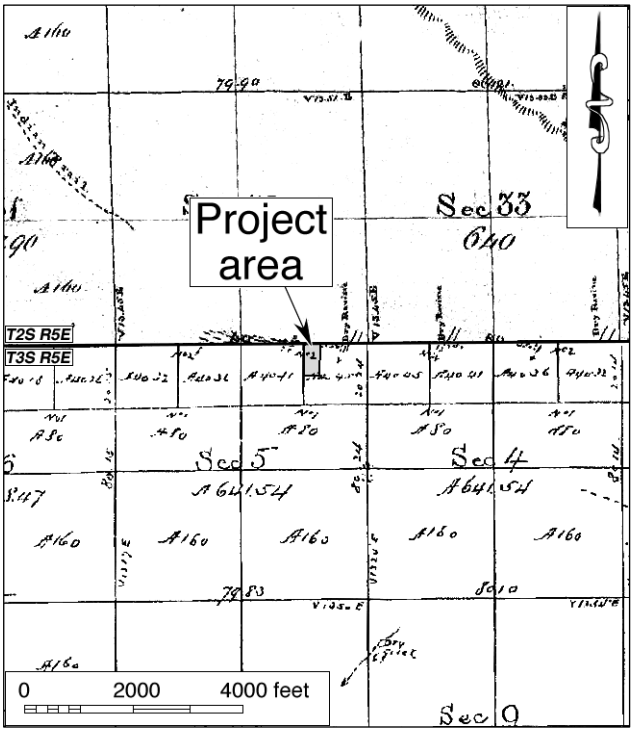


Figure 6. The project area and vicinity in 1855-1856. (Source: GLO 1856a; 1856b)

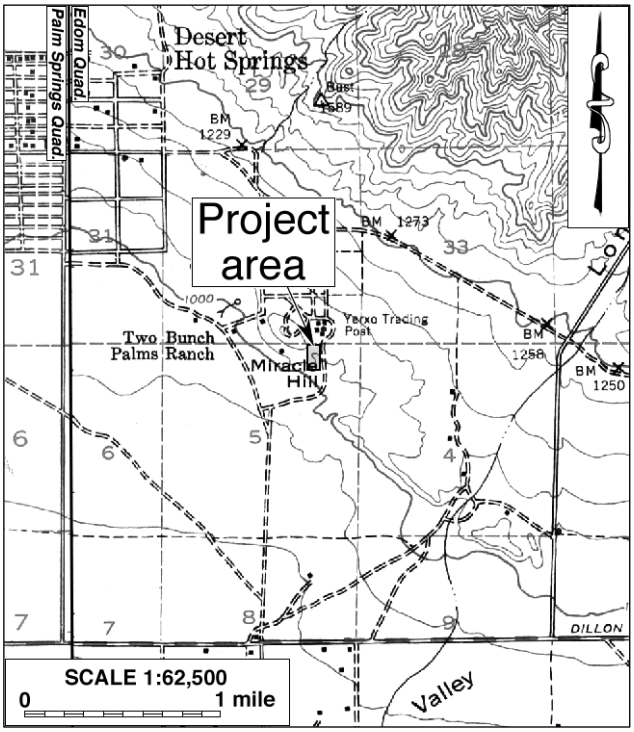


Figure 7. The project area and vicinity in 1940-1941. (Source: USGS 1940; 1941)

NATIVE AMERICAN PARTICIPATION

In response to CRM TECH's inquiry, the NAHC states in a letter dated July 25, 2022, that the Sacred Lands File identified unspecified Native American cultural resources in the general vicinity of the project area and refers further inquiry on such resources to the Agua Caliente Band of Cahuilla Indians. In addition, the NAHC recommends that other local Native American tribes be contacted as well for pertinent information. The NAHC's reply is attached in Appendix 2 for reference by the City of Desert Hot Springs in future government-to-government consultations with the pertinent tribal groups, if necessary.

As mentioned above, the Agua Caliente Band of Cahuilla Indians and the Morongo Band of Mission Indians were contacted at the commencement of this study for information on potential Native American cultural resources in

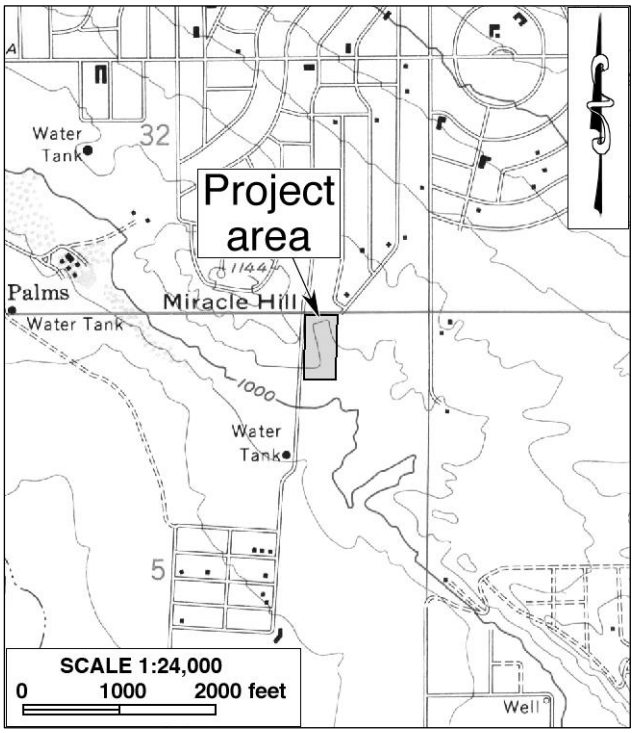


Figure 8. The project area and vicinity in 1956-1958. (Source: USGS 1958)

the project vicinity. To date, the Morongo Band has not responded. In a letter dated June 30, 2022, Arysa Gonzalez Romero, Cultural Resources Analyst with the Agua Caliente Tribal Historic Preservation Office (THPO), requests copies of all cultural resources documentation generated for this project for THPO review. However, the letter identifies no specific Native American cultural resources in or near the project area.

FIELD SURVEY

The intensive-level field survey produced completely negative results for cultural resources from either the prehistoric or the historic period, and no buildings, structures, sites, features, or artifacts more than 50 years of age were encountered within or adjacent to the project boundaries. As noted above, the ground surface in the northern and eastern portions of the project area has been disturbed previously in conjunction with the development of the Kimana Resort since 2019, and all features now present on the property were constructed or installed during the last few years, such as an existing ALPOD unit.

DISCUSSION

The purpose of this study is to identify any cultural resources within the project area and to assist the City of Desert Hot Springs 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))

As discussed above, no potential "historical resources" were previously identified within or adjacent to the project area, and none were encountered during the present survey. While the NAHC reported the presence of unspecified Native American cultural resource(s) in the vicinity, the local Native

American tribal groups contacted during this study identified no such resources in or near the project area. Based on these findings, and in light of the criteria listed above, the present report concludes that no "historical resources" exist within or adjacent to the project area.

CONCLUSION 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 summary of the research results discussed in this report, no "historical resources," as defined by CEQA and associated regulations, were found within or adjacent to the project area throughout the course of this study. Therefore, CRM TECH presents the following recommendations to the City of Desert Hot Springs:

- 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 construction 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 in that area should be halted or diverted until a qualified archaeologist can evaluate the nature and significance of the finds.

REFERENCES

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.

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. II South Range No. V East, San Bernardino Meridian; surveyed in 1855-1856.
1856b Plat map: Township No. III South Range No. V East of the San Bernardino Meridian; surveyed in 1855-1856

Google Earth
1995-2021 Aerial photographs of the project vicinity; taken in 1995, 1996, 2002-2006, 2009, 2011-2019, and 2021. Available through the Google Earth software.
Gunther, Jane Davies
1984 *Riverside County, California, Place Names: Their Origins and Their Stories*. J.D. Gunther, Riverside.
Kroeber, Alfred L.
1925 *Handbook of the Indians of California*. Bureau of American Ethnology Bulletin 78. Government Printing Office, Washington, D.C.
Johnston, Francis J.
1987 *The Bradshaw Trail*; revised edition. Historical Commission Press, Riverside.
Laflin, Patricia
1998 *Coachella Valley California: A Pictorial History*. The Donning Company, Virginia Beach, Virginia.
NETR (Nationwide Environmental Title Research) Online
1972-2020 Aerial photographs of the project vicinity; taken in 1972, 1983, 1995, 1996, 2002, 2005, 2009, 2010, 2012, 2014, 2016, 2018, and 2020. 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)
1940 Map: Palm Springs, Calif. (15', 1:62,500); aerial photographs taken in 1940.
1941 Map: Edom, Calif. (15', 1:62,500); aerial photographs taken in 1941.
1958 Map: Seven Palms Valley, Calif. (7.5', 1:24,000); aerial photographs taken in 1956, field-checked in 1958.
1969 Map: San Bernardino, Calif. (120'x60'; 1:250,000); 1958 edition revised.
1978a Map: Desert Hot Springs, Calif. (7.5', 1:24,000); 1955 edition photorevised in 1972, photoinspected 1978.
1978b Map: Seven Palms Valley, 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.

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
Breidy Q. Vilcahuaman, M.A., RPA (Registered Professional Archaeologist)

Education

2018	M.A., Anthropology, Georgia State University, Atlanta, Georgia.
2005	B.A., Anthropology, University Nacional del Centro del Peru.

Professional Experience

2022-	Project Archaeologist, CRM TECH, Colton, California.
2021-2022	Archaeological Technician, Applied Earthwork, Inc., Hemet, California.
2021	Archaeologist/Crew Chief, Historical Research Associates, Inc., Portland, Oregon.
2020-2021	Archaeological Technician, Cogstone Resource Management, Orange, California.
2020	Archaeological Technician, McKenna et al., Whittier, California.

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.

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

NATIVE AMERICAN RESPONSES

AGUA CALIENTE BAND OF CAHUILLA INDIANS

TRIBAL HISTORIC PRESERVATION

03-012-2022-007

June 30, 2022

[VIA EMAIL TO:ngallardo@crmtech.us]
CRM TECH
Ms. Nina Gallardo
1016 E. Cooley Drive, Suite A/B
Colton, CA 92324

Re: Kimana Resort, City of Desert Hot Springs

Dear Ms. Nina Gallardo,

The Agua Caliente Band of Cahuilla Indians (ACBCI) appreciates your efforts to include the Tribal Historic Preservation Office (THPO) in the Kimana Resort project. The project area is not located within the boundaries of the ACBCI Reservation. However, it is within the Tribe's Traditional Use Area. For this reason, the ACBCI THPO requests the following:

*A copy of the records search with associated survey reports and site records from the information center.

*Copies of any cultural resource documentation (report and site records) generated in connection with this project.

Again, the Agua Caliente appreciates your interest in our cultural heritage. If you have questions or require additional information, please call me at (760)883-1327. You may also email me at ACBCI-THPO@aguacaliente.net.

Cordially,

Arysa Gonzalez Romero
Cultural Resources Analyst
Tribal Historic Preservation Office
AGUA CALIENTE BAND
OF CAHUILLA INDIANS

NATIVE AMERICAN HERITAGE COMMISSION

CHAIRPERSON
Laura Miranda
Luiseño

VICE CHAIRPERSON
Reginald Pagaling
Chumash

PARLIAMENTARIAN
Russell Attebery
Karuk

SECRETARY
Sara Dutschke
Miwok

COMMISSIONER
William Mungary
Paiute/White Mountain Apache

COMMISSIONER
Isaac Bojorquez
Ohlone-Costanoan

COMMISSIONER
Buffy McQuillen
Yokayo Pomo, Yuki, Nomlaki

COMMISSIONER
Wayne Nelson
Luiseño

COMMISSIONER
Stanley Rodriguez
Kumeyaay

EXECUTIVE SECRETARY
Raymond C. Hitchcock
Miwok/Nisenan

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

July 25, 2022

Nina Gallardo
CRM TECH

Via Email to: ngallardo@crmtech.us

Re: Proposed Kimana Resort 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 submitted for the above referenced project. The results were positive. Please contact the Agua Caliente Band of Cahuilla Indians on the attached list for information. Please note that tribes do not always record their sacred sites in the SLF, nor are they required to do so. A SLF search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with a project's geographic area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites, such as the appropriate regional California Historical Research Information System (CHRIS) archaeological Information Center for the presence of recorded archaeological 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. Please contact all of those listed; if they cannot supply information, they may 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 the NAHC. 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

Andrew Green
Cultural Resources Analyst

Attachment

Native American Heritage Commission
Native American Contact List
Riverside County
7/25/2022

Agua Caliente Band of Cahuilla Indians
Reid Milanovich, Chairperson
5401 Dinah Shore Drive — Cahuilla
Palm Springs, CA, 92264
Phone: (760) 699 - 6800
Fax: (760) 699-6919
laviles@aguacaliente.net

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

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

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

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

Los Coyotes Band of Cahuilla and Cupeño Indians
Ray Chapparosa, Chairperson
P.O. Box 189 — Cahuilla
Warner Springs, CA, 92086-0189
Phone: (760) 782 - 0711
Fax: (760) 782-0712

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

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

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

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

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 Kimana Resort Project, Riverside County.

Native American Heritage Commission
Native American Contact List
Riverside County
7/25/2022

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

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

San Manuel Band of Mission Indians
Jessica Mauck, Director of Cultural Resources
26569 Community Center Drive — Serrano
Highland, CA, 92346
Phone: (909) 864 - 8933
Jessica.Mauck@sanmanuel-nsn.gov

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

Serrano Nation of Mission Indians
Mark Cochrane, Co-Chairperson
P. O. Box 343 — Serrano
Patton, CA, 92369
Phone: (909) 528 - 9032
serranonation1@gmail.com

Serrano Nation of Mission Indians
Wayne Walker, Co-Chairperson
P. O. Box 343 — Serrano
Patton, CA, 92369
Phone: (253) 370 - 0167
serranonation1@gmail.com

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

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

Torres-Martinez Desert Cahuilla Indians
Cultural Committee,
P.O. Box 1160 — Cahuilla
Thermal, CA, 92274
Phone: (760) 397 - 0300
Fax: (760) 397-8146
Cultural-Committee@torresmartinez-nsn.gov

Twenty-Nine Palms Band of Mission Indians
Anthony Madrigal, Tribal Historic Preservation Officer
46-200 Harrison Place — Chemehuevi
Coachella, CA, 92236
Phone: (760) 775 - 3259
amadrigal@29palmsbomi-nsn.gov

Twenty-Nine Palms Band of Mission Indians
Darrell Mike, Chairperson
46-200 Harrison Place — Chemehuevi
Coachella, CA, 92236
Phone: (760) 863 - 2444
Fax: (760) 863-2449
29chairman@29palmsbomi-nsn.gov

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 Kimana Resort Project, Riverside County.

APPENDIX D

Traffic Analysis & VMT

Prepared by

Urban Crossroads, Inc.
1133 Camelback Street, #8329
Newport Beach, CA 92658

URBAN | CROSSROADS

KIMANA RESORT

ACCESS ANALYSIS

PREPARED BY: Janette Cachola | jcachola@urbanxroads.com
Marlie Whiteman, P.E. | mwhiteman@urbanxroads.com
John Kain, AICP | jkain@urbanxroads.com

Reference Number	Agency	Date
14748-03 TA Report.docx	City of Desert Hot Springs	November 3, 2023

TABLE OF CONTENTS

Table of Contents ii

Appendices iv

List of Exhibits v

List of Tables vi

List of Abbreviated Terms vii

1 Introduction 1

1.1 Summary of Findings 1
1.2 Project Overview 1
1.3 Analysis Scenarios 1
1.4 Study Area 3
1.5 Analysis Findings 5
1.6 On-SIte Roadway and Site Access Improvements 5

2 Methodologies 7

2.1 Level of Service 7
2.2 Intersection Capacity Analysis 7
2.3 Traffic Signal Warrant Analysis Methodology 8
2.4 Minimum Acceptable Levels of Service (LOS) 9

3 Area Conditions 11

3.1 Existing Circulation Network 11
3.2 City of Desert Hot Springs General Plan Circulation Element 11
3.3 Transit Service 11
3.4 Pedestrian and Bicycle Facilities 11
3.5 Existing (2023) Traffic Counts 18
3.6 Intersection Operations Analysis 18

4 Projected Future Traffic 21

4.1 Project Trip Generation 21
4.2 Project Trip Distribution 21
4.3 Modal Split 21
4.4 Project Trip Assignment 24
4.5 Background Traffic 24
4.6 Cumulative Development Traffic 24

5 EAP (2025) Traffic Conditions 29

5.1 EAP Traffic Volume Forecasts 29
5.2 Intersection Operations Analysis 29
5.3 Traffic Signal Warrants Analysis 29
6 EAPC (2025) Traffic Conditions 31
6.1 Roadway Improvements 31
6.2 EAPC (2025) Traffic Volume Forecasts 31
6.3 Intersection Operations Analysis 31
6.4 Traffic Signal Warrants Analysis 31
7 Site Access and Off-Site Roadway Improvements 35
8 VMT Screening 37
9 References 1

APPENDICES

Appendix 1.1: Approved Traffic Study Scoping Agreement

Appendix 3.1: Traffic Counts – October 2023

Appendix 3.2: Existing (2023) Conditions Intersection Operations Analysis Worksheets

Appendix 3.3: Traffic Signal Warrant Analysis Worksheets

Appendix 5.1: EAP (2025) Conditions Intersection Operations Analysis Worksheets

Appendix 6.1: EAPC (2025) Conditions Intersection Operations Analysis Worksheets

LIST OF EXHIBITS

Exhibit 1-1: Preliminary Site Plan 2
Exhibit 1-2: Study Area 4
Exhibit 3-1: Existing Number of Through Lanes and Intersection Controls 12
Exhibit 3-2: City of Desert Hot Springs General Plan Circulation Element 13
Exhibit 3-3: City of Desert Hot Springs General Plan Roadway Cross-Sections 14
Exhibit 3-4: City of Desert Hot Springs General Plan Trails Plan 15
Exhibit 3-5: City of Desert Hot Springs General Plan Bicycle Plan 16
Exhibit 3-6: Existing Pedestrian Facilities 17
Exhibit 3-7: Existing (2023) Traffic Volumes 19
Exhibit 4-1: Project Trip Distribution 23
Exhibit 4-2: Project Only Traffic Volumes 25
Exhibit 4-3: Cumulative Development Location Map 26
Exhibit 5-1: EAP (2025) Traffic Volumes 30
Exhibit 6-1: EAPC (2025) Traffic Volumes 32
Exhibit 7-1: Site Access Recommendations 36

LIST OF TABLES

Table 1-1: Intersection Analysis Locations 3
Table 2-1: Unsignalized Intersection LOS Thresholds 7
Table 2-2: Traffic Signal Warrant Analysis Locations 8
Table 3-1: Intersection Analysis for Existing (2023) Conditions 20
Table 4-1: Project Trip Generation Summary 22
Table 4-2: Cumulative Development Land Use Summary 27
Table 5-1: Intersection Analysis for EAP (2025) Conditions 29
Table 6-1: Intersection Analysis for EAPC (2025) Conditions 33

LIST OF ABBREVIATED TERMS

(1)	Reference
ADT	Average Daily Traffic
CAMUTCD	California Manual on Uniform Traffic Control Devices
Caltrans	California Department of Transportation
DU	Dwelling Unit
EAP	Existing Plus Ambient Plus Project
EAPC	Existing Plus Ambient Plus Project Plus Cumulative
HCM	Highway Capacity Manual
ITE	Institute of Transportation Engineers
LOS	Level of Service
LU	Land Use
OCC	Occupied
PHF	Peak Hour Factor
Project	Kimana Resort
RM	Room
sf	Square Feet
TA	Traffic Analysis
TSF	Thousand Square Feet

This page intentionally left blank

1 INTRODUCTION

This report presents the results of the traffic analysis (TA) for Kimana Resort ("Project"), located southeast of the existing terminus of Yerxa Road in the City of Desert Hot Springs, as shown on Exhibit 1-1.

The purpose of this TA is to evaluate the potential circulation system deficiencies that may result from the development of the proposed Project, and recommend improvements to achieve acceptable circulation system operational conditions. This TA has been prepared based in accordance with the County of Riverside's Transportation Analysis Guidelines for Level of Service & Vehicle Miles Traveled (December 2020). (1) To ensure that this TA satisfies the City of Desert Hot Springs's traffic study requirements, Urban Crossroads, Inc. prepared a traffic study scoping package for review by City staff prior to the preparation of this report. The Agreement provides an outline of the Project study area, trip generation, trip distribution, and analysis methodology. The Agreement approved by the City is included in Appendix 1.1.

1.1 SUMMARY OF FINDINGS

For Existing and Opening Year Cumulative (2025) traffic conditions, off-site study area intersections experience acceptable intersection operations. No unsignalized study area intersections are anticipated to satisfy traffic signal warrants for Existing, EAP (2025) or EAPC (2025) conditions.

The Project applicant shall participate in relevant City and subregional (CVAG's TUMF program) fees.

1.2 PROJECT OVERVIEW

The Project encompasses a 6-acre resort complex with a total of 48 units that include hotel rooms, air stream trailers and glamping sites. Additional amenities include spa & health club facilities, restaurant, and coffee bar. The on-site facilities are connected via a pedestrian / golf cart trail network. It is anticipated that the Project would be opening by year 2025. A preliminary site plan of the proposed Project is shown in Exhibit 1-1. Access to the site is provided by Yerxa Road south of Loma Vista Road. Loma Vista Road connects to Two Bunch Palms Trail via Miracle Hill Road in the City of Desert Hot Springs.

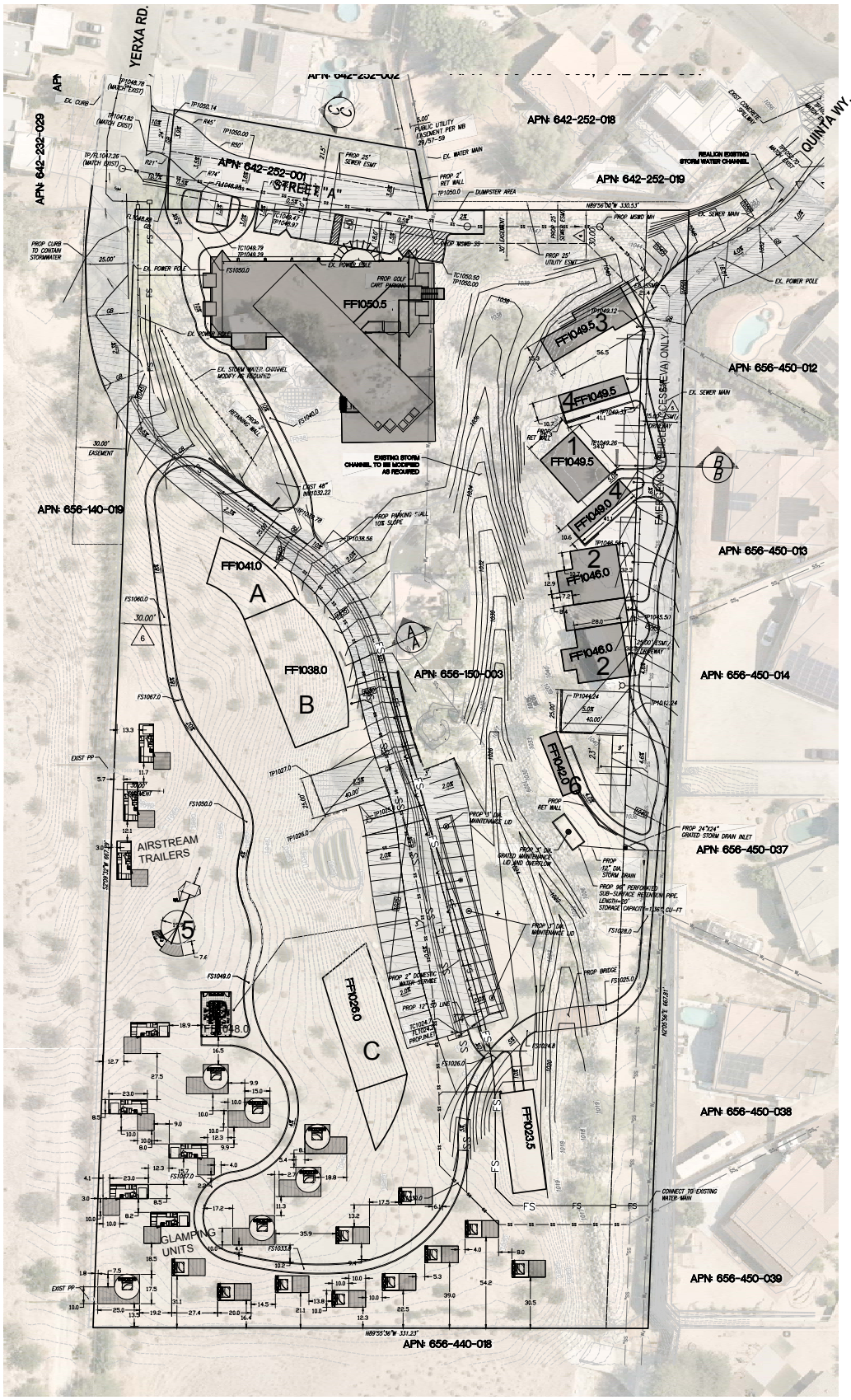
The Project is anticipated to generate a total of 389 trip-ends per day with 22 AM peak hour trips and 30 PM peak hour trips. The assumptions and methods used to estimate the Project's trip generation characteristics are discussed in greater detail in Section 4.1 *Project Trip Generation* of this report.

1.3 ANALYSIS SCENARIOS

For the purposes of this traffic study, potential deficiencies to traffic and circulation have been assessed for each of the following conditions:

- Existing (2023) Conditions
- Existing plus Ambient Growth plus Project (EAP) (2025) Conditions
- Existing plus Ambient Growth plus Project plus Cumulative (EAPC) (2025) Conditions

EXHIBIT 1-1: PRELIMINARY SITE PLAN



1.3.1 EXISTING (2022) CONDITIONS

Information for Existing (2023) conditions is disclosed to represent the baseline traffic conditions as they existed at the time this report was prepared. For a detailed discussion on the existing traffic counts, see Section 3.5 *Existing Traffic Counts*.

1.3.2 EAP (2025) CONDITIONS

The Existing plus Ambient Growth plus Project (EAP) conditions analysis determines traffic deficiencies that would occur on the existing roadway system with the addition of Project traffic. To account for background traffic growth, traffic associated with other known cumulative development projects in conjunction with an ambient growth factor from Existing conditions of 4.04% (2% per year, compounded annually over 2 years) is included for EAP (2025) traffic conditions. The ambient growth is consistent with the growth used by other projects in the area within the City of Desert Hot Springs.

1.3.3 EAPC (2025) CONDITIONS

The Existing plus Project plus Ambient Growth plus Cumulative (EAPC) (2025) traffic conditions analysis determines the potential near-term cumulative circulation system deficiencies. To account for background traffic growth, traffic associated with other known cumulative development projects in conjunction with an ambient growth factor from Existing conditions of 4.04% is included for EAPC (2025) traffic conditions. The ambient growth is consistent with the growth used by other projects in the area. This comprehensive list was compiled from information provided by the City of Desert Hot Springs.

1.4 STUDY AREA

The Project study area was defined in coordination with the City of Desert Hot Springs. The Project generates fewer than 50 peak hour trips, which is the threshold at which study area intersections are selected for analysis. Therefore, the study area includes intersections located near to the Project, providing access to the Circulation Element roadway system. Exhibit 1-2 presents the study area and intersection analysis locations.

The following study area intersections shown on Exhibit 1-2 and listed in Table 1-1 were selected for this TA based on consultation with City of Desert Hot Springs.

TABLE 1-1: INTERSECTION ANALYSIS LOCATIONS

#	Intersection
1	Miracle Hill Rd. / Two Bunch Palms Tr. - Cuando Wy.
2	Hidalgo St. - Yerxa Rd. / Loma Vista Rd.
3	Yerxa Rd. / St. "A"

EXHIBIT 1-2: STUDY AREA



1.5 ANALYSIS FINDINGS

This section provides a summary of the analysis results for Existing (2023), EAP (2025), and EAPC (2025) conditions.

1.5.1 EXISTING (2023) CONDITIONS

For Existing (2023) traffic conditions, off-site study area intersections experience acceptable intersection operations.

No unsignalized study area intersections are anticipated to satisfy traffic signal warrants for Existing conditions.

1.5.2 OPENING YEAR (2025) CONDITIONS

For EAP (2025) and EAPC (2025) traffic conditions, there are no off-site study area intersections anticipated to experience unacceptable intersection operations.

No unsignalized study area intersections are anticipated to satisfy traffic signal warrants for Existing, EAP (2025) or EAPC (2025) conditions.

1.6 ON-SITE ROADWAY AND SITE ACCESS IMPROVEMENTS

Access to the site is provided by Yerxa Road south of Loma Vista Road. Loma Vista Road connects to Two Bunch Palms Trail via Miracle Hill Road in the City of Desert Hot Springs. Roadway improvements necessary to provide site access and on-site circulation are assumed to be constructed in conjunction with site development and are described below. These improvements should be in place prior to occupancy.

- Construct Yerxa Road from the Project's northwestern boundary onsite at its ultimate full section width to serve as the Project driveway.
- Construct Street "A" from the Project's main building to the intersection of Yerxa Road at Street A at its ultimate full section width to serve as the Project driveway.

Wherever necessary, roadways adjacent to the Project, site access points and site-adjacent intersections will be constructed to be consistent with the recommended roadway classifications and respective cross-sections in the City of Desert Hot Springs General Plan Circulation Element.

Yerxa Road / Street "A" (#3) – Cross-street stop control on the westbound approach with one shared left-right turn lane provides acceptable peak hour service levels. Northbound and southbound legs each have a shared through-turn lane.

This page intentionally left blank

2 METHODOLOGIES

This section of the report presents the methodologies used to perform the traffic analyses summarized in this report. The methodologies described are consistent with the County of Riverside Traffic Study Guidelines. (1)

2.1 LEVEL OF SERVICE

Traffic operations of roadway facilities are described using the term "Level of Service" (LOS). LOS is a qualitative description of traffic flow based on several factors, such as speed, travel time, delay, and freedom to maneuver. Six levels are typically defined ranging from LOS A, representing completely free-flow conditions, to LOS F, representing breakdown in flow resulting in stop-and-go conditions. LOS E represents operations at or near Capacity, an unstable level where vehicles are operating with the minimum spacing for maintaining uniform flow.

2.2 INTERSECTION CAPACITY ANALYSIS

The definitions of LOS for interrupted traffic flow (flow restrained by the existence of traffic signals and other traffic control devices) differ slightly depending on the type of traffic control. The LOS is typically dependent on the quality of traffic flow at the intersections along a roadway. The 6th Edition Highway Capacity Manual (HCM) methodology expresses the LOS at an intersection in terms of delay time for the various intersection approaches. (2)The HCM uses different procedures depending on the type of intersection control.

The City of Desert Hot Springs requires the operations of unsignalized intersections be evaluated using the methodology described in the HCM. (2) The LOS rating is based on the weighted average control delay expressed in seconds per vehicle (see Table 2-1). At two-way or side-street stop-controlled intersections, LOS is calculated for each controlled movement and for the left turn movement from the major street, as well as for the intersection as a whole. For approaches composed of a single lane, the delay is computed as the average of all movements in that lane. Delay for the intersection is reported for the worst individual movement at a two-way stop-controlled intersection. For all-way stop controlled intersections, LOS is computed for the intersection as a whole (average delay).

TABLE 2-1: UNSIGNALIZED INTERSECTION LOS THRESHOLDS

Description	Average Control Delay (Seconds), V/C ≤ 1.0	Level of Service, V/C ≤ 1.0[1]
Little or no delays.	0 to 10.00	A
Short traffic delays.	10.01 to 15.00	B
Average traffic delays.	15.01 to 25.00	C
Long traffic delays.	25.01 to 35.00	D
Very long traffic delays.	35.01 to 50.00	E
Extreme traffic delays with intersection capacity exceeded.	> 50.00	F

Source: HCM, 6th Edition

[1] If V/C is greater than 1.0 then LOS is F per HCM.

2.3 TRAFFIC SIGNAL WARRANT ANALYSIS METHODOLOGY

The term "signal warrants" refers to the list of established criteria used by Caltrans and other public agencies to quantitatively justify or determine the potential need for installation of a traffic signal at an otherwise unsignalized intersection. This TA uses the signal warrant criteria presented in the latest edition of the Caltrans California Manual on Uniform Traffic Control Devices (CA MUTCD). (3)

The signal warrant criteria for Existing study area intersections are based upon several factors, including volume of vehicular and pedestrian traffic, frequency of accidents, and location of school areas. The CA MUTCD indicates that the installation of a traffic signal should be considered if one or more of the signal warrants are met. (3) Specifically, this TA utilizes the Peak Hour Volume-based Warrant 3 as the appropriate representative traffic signal warrant analysis for existing traffic conditions and for all future analysis scenarios for existing unsignalized intersections. Warrant 3 is appropriate to use for this TA because it provides specialized warrant criteria for intersections with rural characteristics. For the purposes of this study, the speed limit was the basis for determining whether Urban or Rural warrants were used for a given intersection. Urban warrants have been used as posted speed limits on the major roadways with unsignalized intersections are 40 miles per hour or below and rural warrants have been used on roadways with speeds greater than 40 miles per hour.

Future intersections that do not currently exist have been assessed regarding the potential need for new traffic signals based on future average daily traffic (ADT) volumes, using the Caltrans planning level ADT-based signal warrant analysis worksheets. Similarly, the speed limit has been used as the basis for determining the use of Urban and Rural warrants. Traffic signal warrant analyses were performed for the following unsignalized study area intersection shown in Table 2-2:

TABLE 2-2: TRAFFIC SIGNAL WARRANT ANALYSIS LOCATIONS

#	Intersection
1	Miracle Hill Rd. / Two Bunch Palms Tr. - Cuando Wy.
2	Hidalgo St. - Yerxa Rd. / Loma Vista Rd.
3	Yerxa Rd. / St. "A"

The Existing conditions traffic signal warrant analysis is presented in the subsequent section, Section 3 *Area Conditions* of this report. The traffic signal warrant analyses for future conditions are presented in Section 5 *EAP (2025) Traffic Conditions* and Section 6 *EAPC (2025) Traffic Conditions* of this report.

It is important to note that a signal warrant defines the minimum condition under which the installation of a traffic signal might be warranted. Meeting this threshold condition does not require that a traffic control signal be installed at a particular location, but rather, that other traffic factors and conditions be evaluated in order to determine whether the signal is truly justified. It should also be noted that signal warrants do not necessarily correlate with LOS. An intersection may satisfy a signal warrant condition and operate at or above acceptable LOS or operate below acceptable LOS and not meet a signal warrant.

2.4 MINIMUM ACCEPTABLE LEVELS OF SERVICE (LOS)

The City of Desert Hot Springs' General Plan recommends a minimum LOS standard of LOS D or better. If during the LOS evaluations an intersect City of Desert Hot Springs ion or roadway segment is found to not meet the requisite LOS standard as established by the General Plan, improvement modifications will be evaluated to bring the forecasted deficiency to within acceptable LOS thresholds.

The following deficiency criteria has been utilized for the City of Desert Hot Springs to determine whether the addition of project-related traffic at a study intersection would result in a deficiency:

- A deficiency occurs at study area intersections if the pre-Project condition is at or better than LOS D (i.e., acceptable LOS), and the addition of project trips causes the peak hour LOS of the study area intersection to operate at unacceptable LOS (i.e., LOS E or F). Per the County of Riverside traffic study guidelines, for intersections currently operating at unacceptable LOS (LOS E or F), a deficiency will occur if the Project contributes 50 or more peak hour trips to pre-project traffic conditions.

This page intentionally left blank

3 AREA CONDITIONS

This section provides a summary of the existing circulation network, the City of Desert Hot Springs General Plan Circulation Network, and a review of existing peak hour intersection operations and traffic signal warrant analyses.

3.1 EXISTING CIRCULATION NETWORK

Pursuant to the agreement with City of Desert Hot Springs staff (Appendix 1.1), the study area includes 3 existing and future intersections as shown previously on Exhibit 1-2. Exhibit 3-1 illustrates the study area intersections located near the proposed Project and identifies the number of through traffic lanes for existing roadways and intersection traffic controls.

3.2 CITY OF DESERT HOT SPRINGS GENERAL PLAN CIRCULATION ELEMENT

As noted previously, the Project site is located within the City of Desert Hot Springs. The roadway classifications and planned (ultimate) roadway cross-sections of the major roadways within the study area, as identified on the City of Desert Hot Springs General Plan Circulation Element, are described subsequently. Exhibit 3-2 shows the City of Desert Hot Springs General Plan Circulation Element and Exhibit 3-3 illustrates the City of Desert Hot Springs General Plan roadway cross-sections.

Two Bunch Palms Trail / Cuando Way is classified as a Secondary II within the study area which can accommodate four travel lanes. Secondary II streets are undivided (no median) with parking and with or without bike lanes.

3.3 TRANSIT SERVICE

The City of Desert Hot Springs is currently served by the SunLine Transit Agency, but current bus services are not located within the Project study area. The nearest Sunline transit route (3) is located along Hacienda Avenue to the north whereas routes 2 and 5 are located along Palm Drive to the east. Transit service is reviewed and updated by Sunline periodically to address ridership, budget and community demand needs. Changes in land use can affect these periodic adjustments which may lead to either enhanced or reduced service where appropriate.

3.4 PEDESTRIAN AND BICYCLE FACILITIES

Exhibits 3-4 and 3-5 illustrates the City of Desert Hot Springs trails plan and bikeway system, respectively. Future hiking/multi-purpose trails and protected bicycle lanes are proposed along Two Bunch Palms Trail.

The existing pedestrian facilities within the study area are shown on Exhibit 3-6. As shown on Exhibit 3-6, existing on-street bike lanes are located along Two Bunch Palms Trail. Sidewalks also exist on some portions Two Bunch Palms Trail and Loma Vista Road.

EXHIBIT 3-1: EXISTING NUMBER OF THROUGH LANES AND INTERSECTION CONTROLS

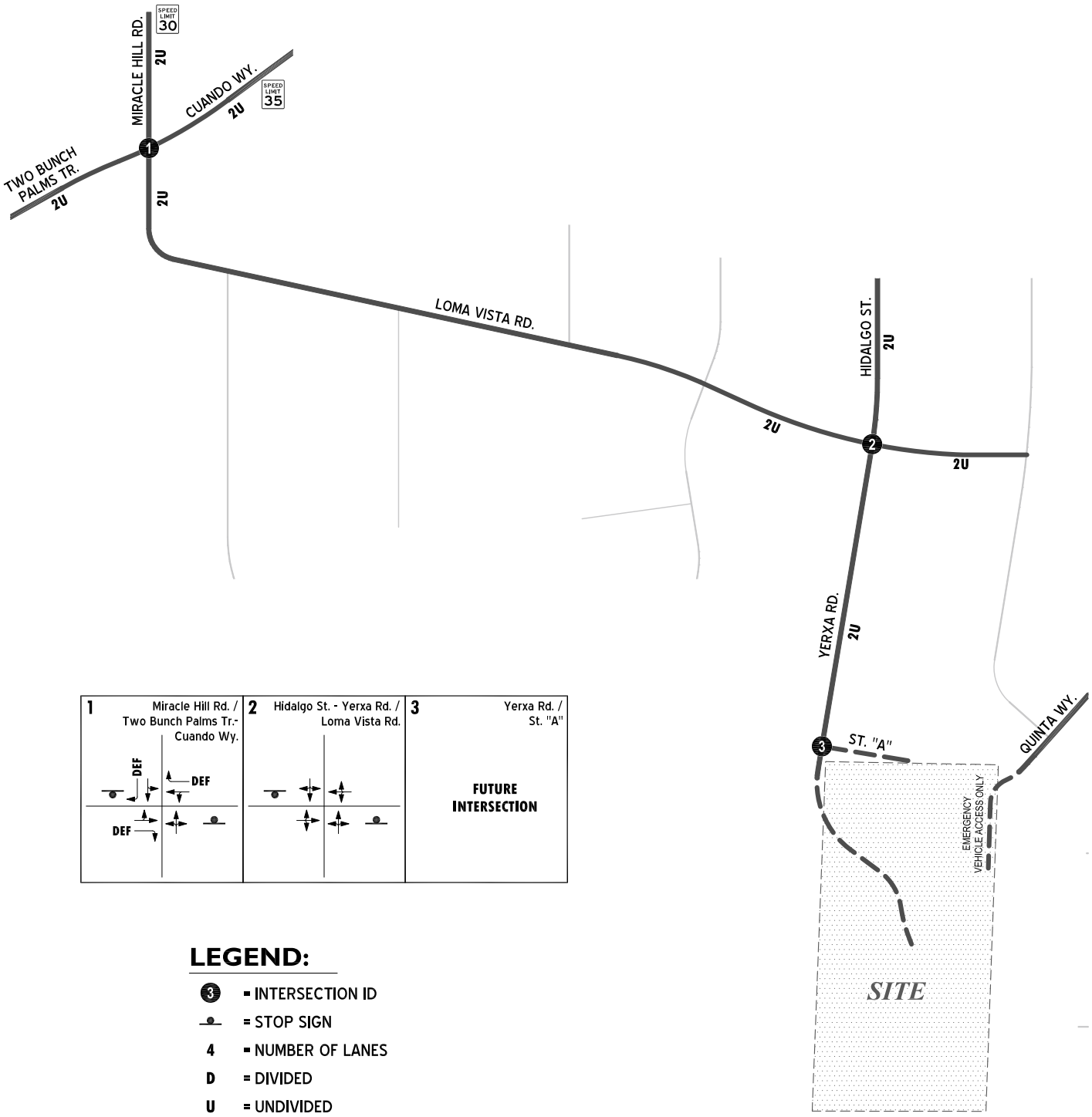
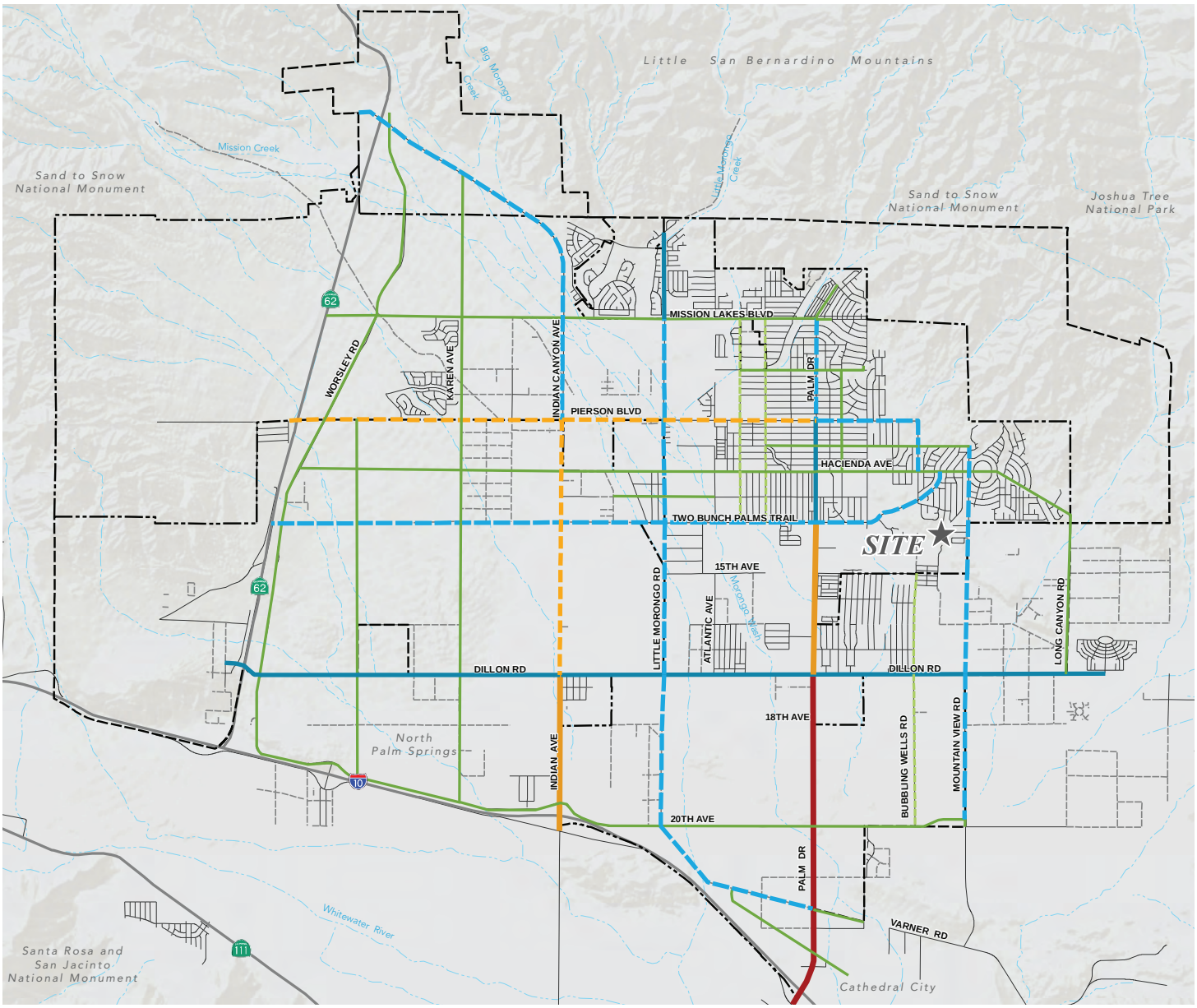


EXHIBIT 3-2: CITY OF DESERT HOT SPRINGS ROADWAYS PLAN



SOURCE: CITY OF DESERT HOT SPRINGS GENERAL PLAN (MAY 2020)

Road Classifications

- Urban Arterial
- Primary I
- Primary II
- Secondary I
- Secondary II
- Collector
- Local Collector

Base Map Features

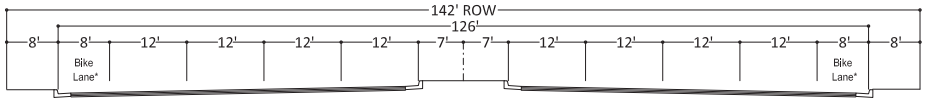
- City Boundary
- Sphere of Influence
- Water Courses

N

14385 - 01 - Study Area.dwg

EXHIBIT 3-3: CITY OF DESERT HOT SPRINGS GENERAL PLAN ROADWAY CROSS-SECTIONS

Urban Arterial
8-Lanes Divided
No Parking
With Protected Bike Lane



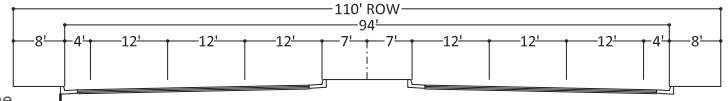
*See Enhanced Bike Lane Detail

ENHANCED BIKE LANE DETAIL:

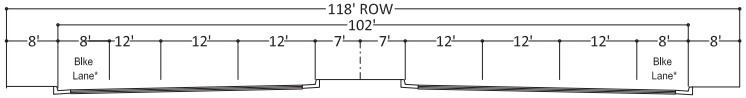


* Buffered bike lanes include painted buffer.
Protected bike lanes may include safety bollards or a landscaped median.

Primary I
6-Lanes Divided
No Parking
With or Without Protected Bike Lane

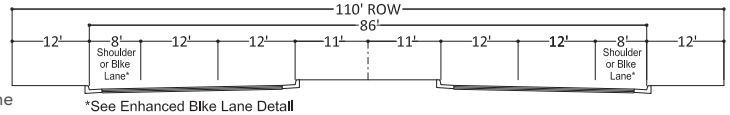


Note: Without Protected Bike Lane (Indian Canyon Drive between I-10 and Dillon Road)



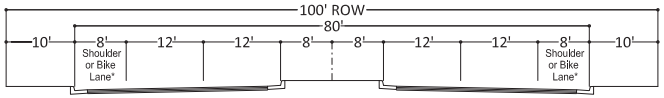
Note: With Protected Bike Lane (Palm Drive between Dillon Road and Two Bunch Palms Trail)
*See Enhanced Bike Lane Detail

Primary II
4-Lanes Divided
No Parking
With or Without Protected Bike Lane



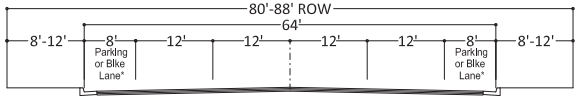
*See Enhanced Bike Lane Detail

Secondary I
4-Lanes Divided
No Parking
With Protected Bike Lane

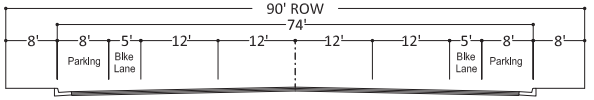


*See Enhanced Bike Lane Detail

Secondary II
4-Lanes Undivided
On-Street Parking
With or Without Dedicated Bike Lane

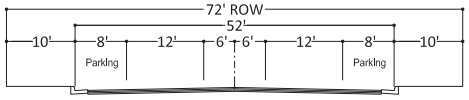


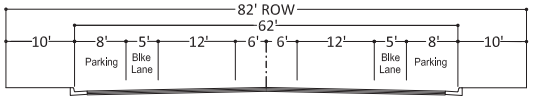
Note: With Parking or Bike Lane
*See Enhanced Bike Lane Detail



Note: With Parking and Bike Lane

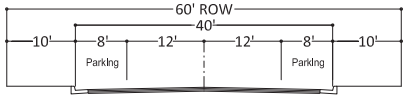
Collector
2-Lanes Undivided
On-Street Parking
With or Without Dedicated Bike Lane

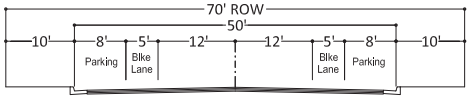




Note: With Parking and Bike Lane

Local Collector
2-Lanes Undivided
On-Street Parking
With or Without Dedicated Bike Lane

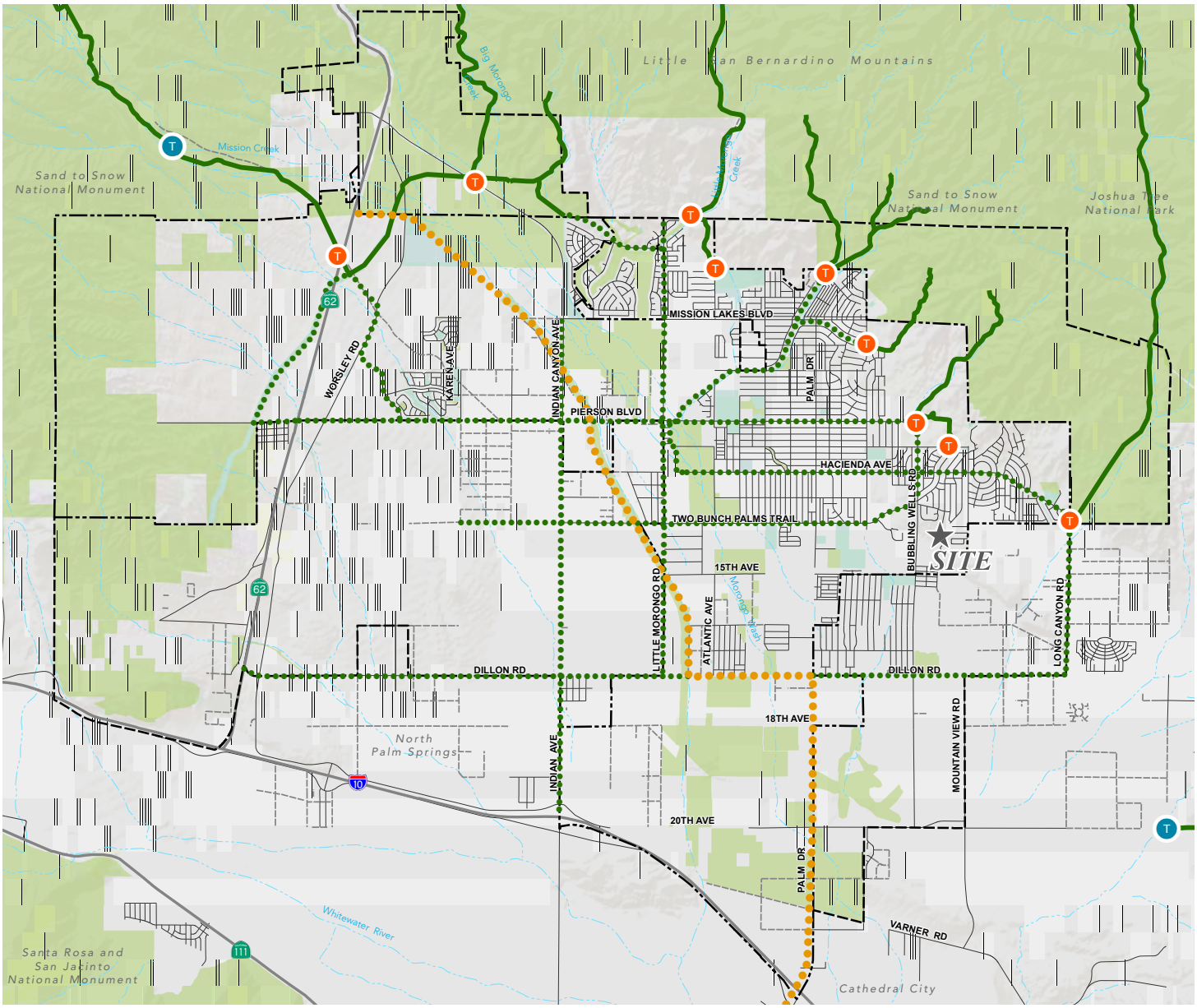




Note: With Parking and Bike Lane

SOURCE: CITY OF DESERT HOT SPRINGS GENERAL PLAN (MAY 2020)

EXHIBIT 3-4: CITY OF DESERT HOT SPRINGS TRAILS PLAN



SOURCE: CITY OF DESERT HOT SPRINGS GENERAL PLAN (MAY 2020)

Trails

- Existing Hiking Trails
- Future Hiking/Multi-Purpose Trails
- Future CV Link

Trailheads

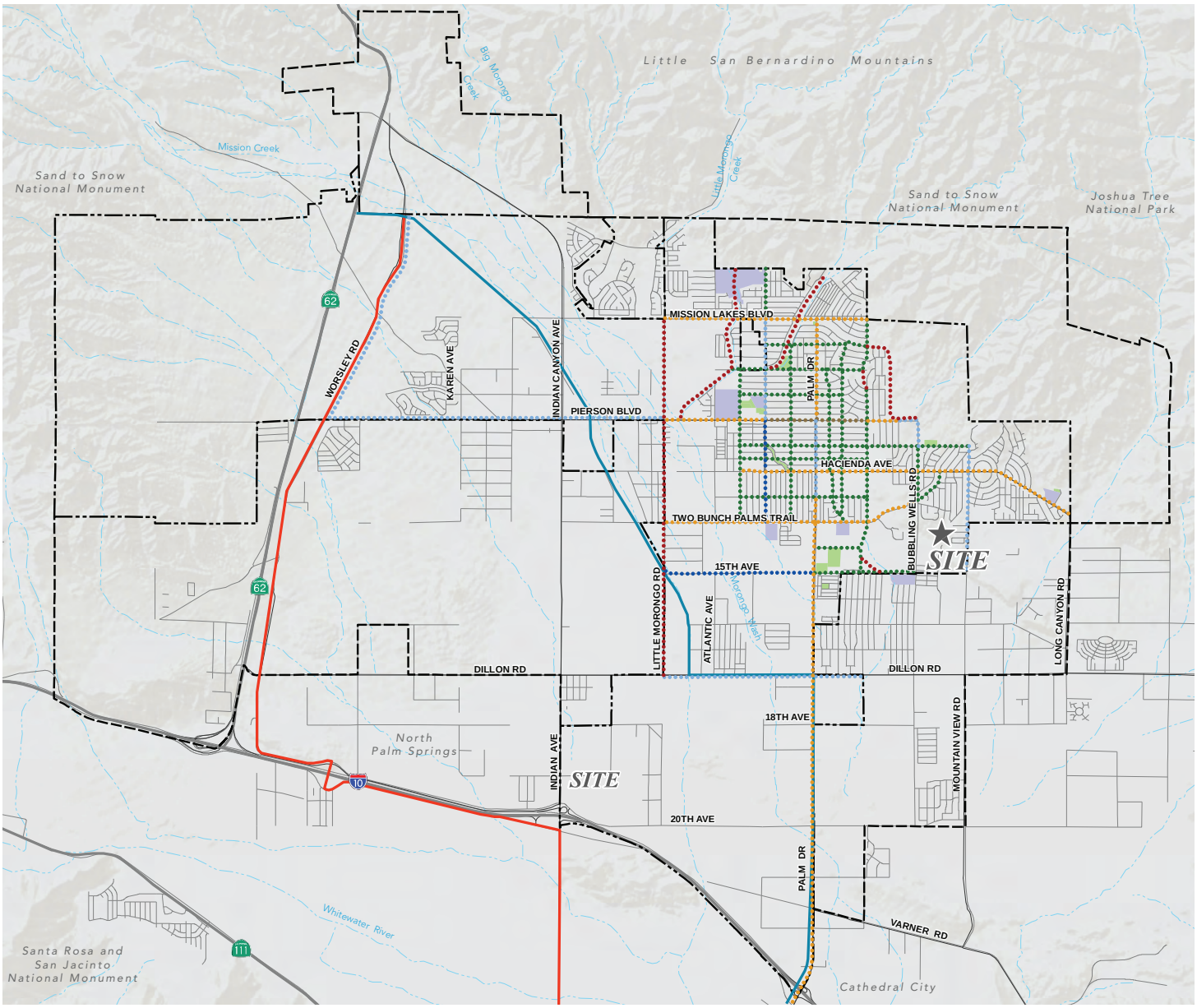
- Existing Trailheads
- Future Trailheads (Conceptual Locations)

Base Map Features

- City Boundary
- Sphere of Influence
- Water Courses
- Open Space
- Public/Institutional

N

EXHIBIT 3-5: CITY OF DESERT HOT SPRINGS BICYCLE PLAN



SOURCE: CITY OF DESERT HOT SPRINGS GENERAL PLAN (MAY 2020)

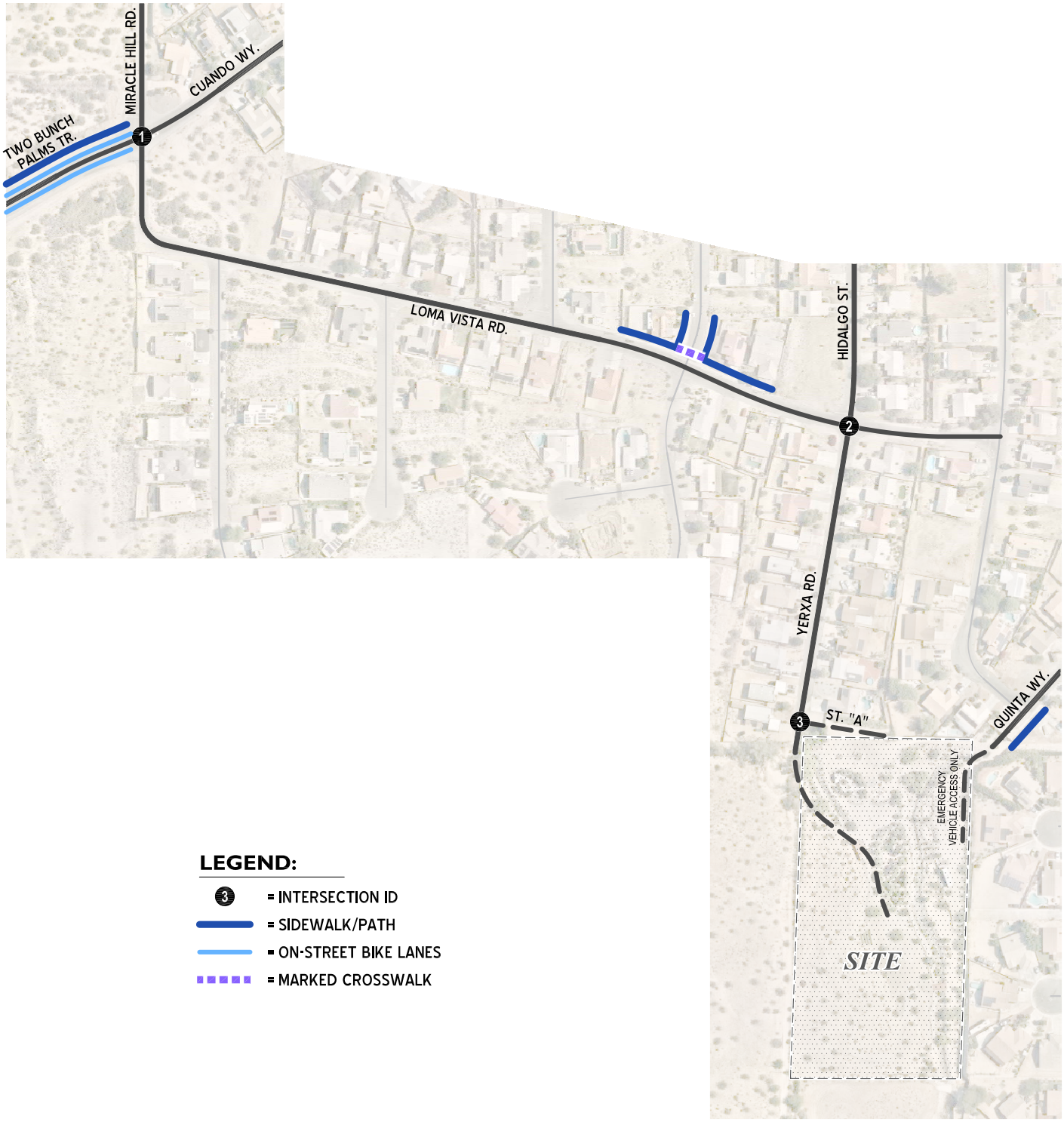
Bicycle Facilities
- Shared-Street Facilities
- Off-Street Bike Path
- Striped Bike Lanes
- Buffered Bike Lanes
- Protected Bike Lanes
- Bike Route

CV Link Route
- CV Link Alignment
- Worsley Road Connector

Base Map Features
- Parks
- Schools
- City Boundary
- Sphere of Influence
- Water Courses

N

EXHIBIT 3-6: EXISTING PEDESTRIAN AND BIKE FACILITIES



3.5 EXISTING (2023) TRAFFIC COUNTS

The intersection LOS analysis is based on the traffic volumes observed during the peak hour conditions using traffic count data collected in October 2023. The City of Desert Hot Springs experiences seasonal population variations over the course of the year, with relatively higher populations during the winter months from January to the end of March. To compensate for the discrepancy, counts not taken during this peak winter period (January 2 to March 31) require seasonal adjustments. A 10% increase is applied to counts taken in October to estimate peak season. This factor is consistent with other nearby jurisdictions within the Coachella Valley area.

The following peak hours were selected for analysis:

- Weekday AM Peak Hour (peak hour between 7:00 AM and 9:00 AM)
- Weekday PM Peak Hour (peak hour between 4:00 PM and 6:00 PM)

The raw manual peak hour turning movement traffic count data sheets are included in Appendix 3.1.

The weekday AM and PM peak hour count data are representative of typical peak hour traffic conditions in the study area. There were no observations made in the field that would indicate atypical traffic conditions on the count dates, such as construction activity that would prevent or limit roadway access and detour routes. These raw turning volumes have been flow conserved between intersections with limited access, no access and where there are currently no uses generating traffic.

Existing weekday ADT volumes are shown on Exhibit 3-7. Where actual 24-hour tube count data was not available, Existing ADT volumes were based upon factored intersection peak hour counts collected by Urban Crossroads, Inc. using the following formula for each intersection leg:

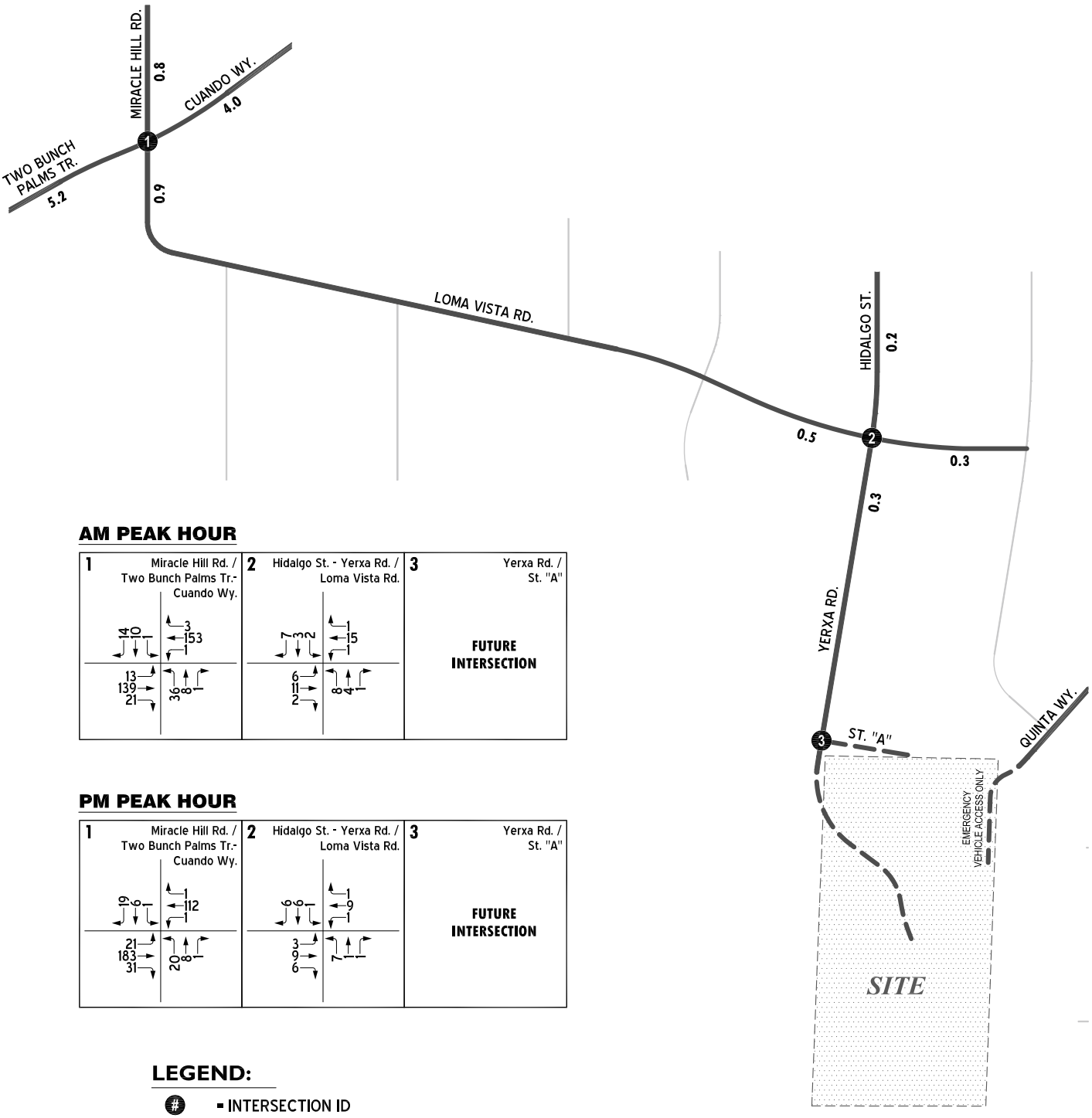
Weekday PM Peak Hour (Approach Volume + Exit Volume) x 13.514 = Leg Volume

A comparison of the PM peak hour and daily traffic volumes of various roadway segments within the study area indicated that the peak-to-daily relationship is approximately 7.40 percent. As such, the above equation utilizing a factor of 13.514 estimates the ADT volumes on the study area roadway segments assuming a peak-to-daily relationship of approximately 7.40 percent (i.e., 1/0.0740 = 13.514) and was assumed to sufficiently estimate average daily traffic (ADT) volumes for planning-level analyses. Existing weekday peak hour intersection volumes are also shown on Exhibit 3-7.

3.6 INTERSECTION OPERATIONS ANALYSIS

Existing peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2.2 *Intersection Capacity Analysis* of this report. The intersection operations analysis results are summarized on Table 3-1, which indicates that all existing study area intersections are currently operating at acceptable LOS during the peak hours. The intersection operations analysis worksheets are included in Appendix 3.2 of this TA.

EXHIBIT 3-7: EXISTING (2023) TRAFFIC VOLUMES



AM PEAK HOUR

1 Miracle Hill Rd. / Two Bunch Palms Tr.-Cuando Wy.	2 Hidalgo St. - Yerxa Rd. / Loma Vista Rd.	3 Yerxa Rd. / St. "A"
14 10 1 — 3 153 1 13 139 21 — 36 8 1	7 3 2 — 1 15 1 6 11 2 — 8 4 1	FUTURE INTERSECTION

PM PEAK HOUR

1 Miracle Hill Rd. / Two Bunch Palms Tr.-Cuando Wy.	2 Hidalgo St. - Yerxa Rd. / Loma Vista Rd.	3 Yerxa Rd. / St. "A"
19 6 1 — 1 112 1 21 183 31 — 20 8 1	6 6 1 — 1 9 1 3 9 6 — 7 1 1	FUTURE INTERSECTION

LEGEND:

(#) = INTERSECTION ID
= FUTURE PROJECT ACCESS
10.0 = VEHICLES PER DAY (1000'S)

N

Traffic signal warrants for Existing traffic conditions are based on 2023 peak hour intersection turning volumes (see Appendix 3.3). For Existing (2023) traffic conditions, no unsignalized study area intersection currently meets volume warrants for installation of a traffic signal.

TABLE 3-1: INTERSECTION ANALYSIS FOR EXISTING (2023) CONDITIONS

#	Intersection	Traffic Control[1]	Intersection Approach Lanes[2] Northbound L	T	R	Southbound L	T	R	Eastbound L	T	R	Westbound L	T	R	Delay[3] (secs.) AM	PM	Level of Service AM	PM
1	Miracle Hill Rd. / Two Bunch Palms Tr.-Cuando Wy.	CSS	0	1!	0	0.5	0.5	d	0.5	0.5	d	0.5	0.5	d	12.5	12.4	B	B
2	Hidalgo St. - Yerxa Rd. / Loma Vista Rd.	CSS	0	1!	0	0	1!	0	0	1!	0	0	1!	0	9.1	9.0	A	A
3	Yerxa Rd. / St. "A"		Future Intersection															

1 CSS = Cross-Street Stop

2 When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.
L = Left; T = Through; R = Right; d = Defacto Right Turn Lane; 0.5 = Shared Lane; 1! = Shared Left/Through/Right lane

3 Per the Highway Capacity Manual (6th Edition), the worst individual movement (or movements sharing a single lane) are shown for intersections with cross street stop control.

4 PROJECTED FUTURE TRAFFIC

This section presents the traffic volumes estimated to be generated by the Project, as well as the Project's trip assignment onto the study area roadway network. The Project is proposed to consist of a 6-acre resort complex with a total of 48 units that include hotel rooms, air stream trailers and glamping sites. Additional amenities include spa & health club facilities, restaurant, and coffee bar.

It is anticipated that the Project would be opening by year 2025. Access to the site is provided by Yerxa Road south of Loma Vista Road. Loma Vista Road connects to Two Bunch Palms Trail via Miracle Hill Road in the City of Desert Hot Springs.

4.1 PROJECT TRIP GENERATION

Trip generation represents the amount of traffic which is both attracted to and produced by a development. Determining traffic generation for a specific project is therefore based upon forecasting the amount of traffic that is expected to be both attracted to and produced by the specific land uses being proposed for a given development.

In order to develop the traffic characteristics of the proposed project, the trip-generation statistics published in the Institute of Transportation Engineers (ITE) Trip Generation (11th Edition, 2021) manual (4) for the proposed land uses: 330 (resort hotel), 492 (health/fitness club) and 932 – (high turnover sit-down restaurant) are utilized.

Table 4-1 shows the vehicle trip generation rates for the Project, as well as the vehicle trip generation summary with daily and peak hour trip generation estimates.

As shown on Table 4-1, the Project is anticipated to generate a total of 389 trip-ends per day with 22 AM peak hour trips and 30 PM peak hour trips.

4.2 PROJECT TRIP DISTRIBUTION

The Project trip distribution and assignment process represents the directional orientation of traffic to and from the Project site. The trip distribution pattern is heavily influenced by the geographical location of the site, the location of surrounding uses, and proximity to the highway network.

Trip distribution patterns for the Project are illustrated on Exhibit 4-1.

4.3 MODAL SPLIT

The potential for Project trips to be reduced by the use of public transit, walking or bicycling have not been included as part of the Project's estimated trip generation. Essentially, the Project's traffic projections are "conservative" in that these alternative travel modes would reduce the forecasted traffic volumes.

TABLE 4-1: PROJECT TRIP GENERATION SUMMARY

Trip Generation Rates[1]

Land Use	ITE LU Code	Quantity[2]	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
Hotel & Glamping Units	330	48 OCC RM	0.27	0.10	0.37	0.20	0.27	0.47	7.87
Spa & Health Club [3]	492	2.5 TSF	0.67	0.64	1.31	1.97	1.48	3.45	34.50
Restaurant & Coffee Bar [4]	932	0.641 TSF	5.26	4.31	9.57	5.52	3.53	9.05	107.20

Trip Generation Results

Land Use	ITE LU Code	Quantity[2]	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
Hotel & Glamping Units	330	48 OCC RM	13	5	18	10	13	23	378
Internal to Spa & Health Club			*(1)*	*0*	*(1)*	*(1)*	*(1)*	*(2)*	*(37)*
Internal to Restaurant & Coffee Bar			*(1)*	*(1)*	*(2)*	*(1)*	*(1)*	*(2)*	*(35)*
Hotel & Glamping Units External Trips			11	4	15	8	11	19	306
Spa & Health Club	492	2.5 TSF	2	2	4	5	4	9	86
Internal to Hotel & Glamping Units			*0*	*(1)*	*(1)*	*(1)*	*(1)*	*(2)*	*(37)*
Spa & Health Club External Trips			2	1	3	4	3	7	49
Restaurant & Coffee Bar	932	0.641 TSF	3	3	6	4	2	6	69
Internal to Hotel & Glamping Units			*(1)*	*(1)*	*(2)*	*(1)*	*(1)*	*(2)*	*(35)*
Restaurant & Coffee Bar Club External Trips			2	2	4	3	1	4	34
Project Subtotal			18	10	28	19	19	38	533
Internal Capture Subtotal			*(3)*	*(3)*	*(6)*	*(4)*	*(4)*	*(8)*	*(144)*
PROJECT TOTAL EXTERNAL TRIPS			**15**	**7**	**22**	**15**	**15**	**30**	**389**

[1] Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 11th Edition (2021).
[2] OCC RM = Occupied Room; TSF = Thousand Square Feet
[3] Daily rate has been estimated based on the peak to daily relationship of ITE LU Code 310 (Hotel).
[4] Since the daily rate for ITE LU Code 492 (Sit-Down Restaurant) is not provided, daily rate has been estimated (PM x 10).

F:\UXRjobs_14100-14500\14385\Excel\[14385 - Report.xlsx]14385 - TG

EXHIBIT 4-1: PROJECT TRIP DISTRIBUTION



4.4 PROJECT TRIP ASSIGNMENT

The assignment of traffic from the Project area to the adjoining roadway system is based upon the Project trip generation, trip distribution, and the arterial highway and local street system improvements that would be in place by the time of initial occupancy of the Project. Based on the identified Project traffic generation and trip distribution patterns, Project weekday ADT and weekday peak hour intersection turning movement volumes are shown on Exhibit 4-2.

4.5 BACKGROUND TRAFFIC

Future year traffic forecasts have been based upon background (ambient) growth at 2% per year for 2024 traffic conditions. The total ambient growth is 4.04% for 2025 traffic conditions. The ambient growth factor is intended to approximate regional traffic growth. This ambient growth rate is added to existing traffic volumes to account for area-wide growth not reflected by cumulative development projects. Ambient growth has been added to daily and peak hour traffic volumes on surrounding roadways, in conjunction with traffic generated by the development of future projects that have been approved but not yet built and/or for which development applications have been filed and are under consideration by governing agencies. Opening Year Cumulative (2025) traffic volumes are provided in Section 4.6 of this report. The traffic generated by the proposed Project was then manually added to the base volume to determine EAP/EAPC forecasts.

The near-term traffic analysis includes the following traffic conditions, with the various traffic components:

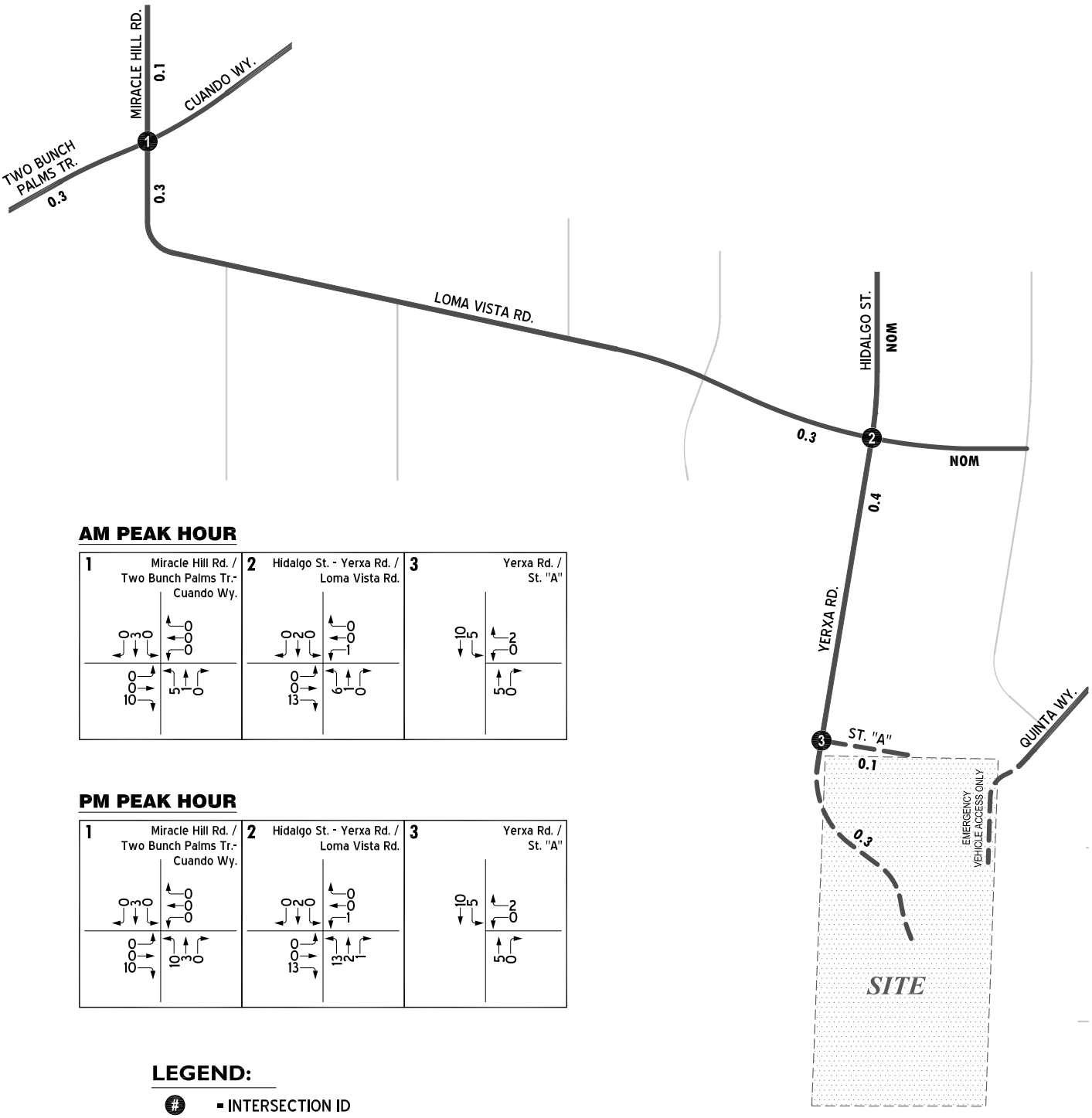
- EAP (2025)
  - Existing (2023) volumes
  - Ambient growth traffic (4.04% over 2 years)
  - Project Traffic
- EAPC (2025)
  - Existing (2023) volumes
  - Ambient growth traffic (4.04% over 2 years)
  - Project Traffic
  - Cumulative Development traffic

4.6 CUMULATIVE DEVELOPMENT TRAFFIC

The cumulative projects listed are those that would generate traffic and would contribute traffic to study area intersections.

Exhibit 4-3 illustrates the cumulative development location map. A summary of cumulative development projects and their proposed land uses are shown on Table 4-2. If applicable, the traffic generated by individual cumulative projects was manually added to the Opening Year Cumulative forecasts to ensure that traffic generated by the listed cumulative development projects on Table 4-2 are reflected as part of the background traffic. In an effort to conduct a conservative analysis, the cumulative projects are added in conjunction with the ambient growth identified in Section 4.5 *Background Traffic*.

EXHIBIT 4-2: PROJECT ONLY TRAFFIC VOLUMES



AM PEAK HOUR

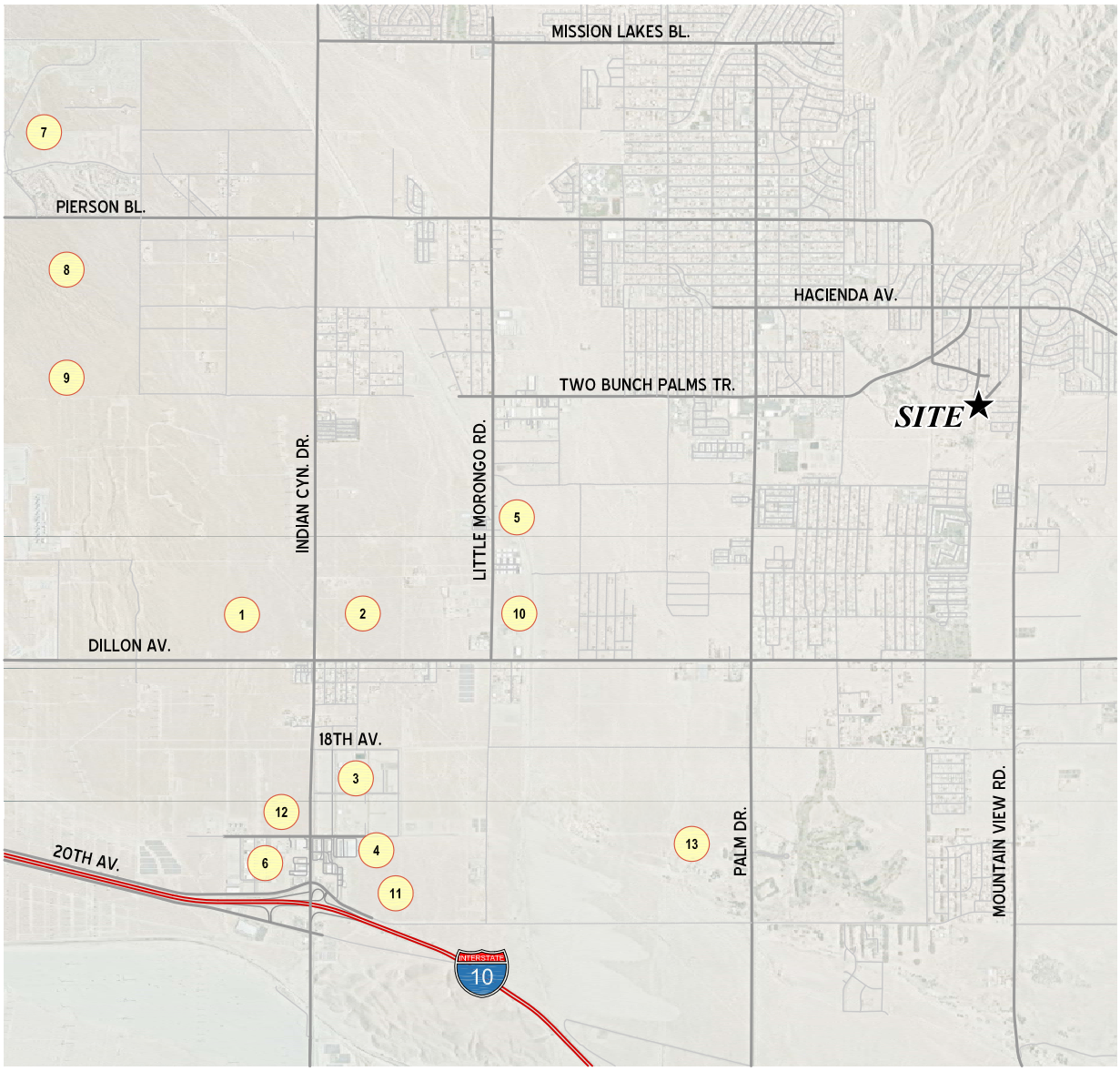
PM PEAK HOUR

LEGEND:

- (#) = INTERSECTION ID
- = FUTURE PROJECT ACCESS
- 10.0 = VEHICLES PER DAY (1000'S)
- NOM = NOMINAL, LESS THAN 50 VEHICLES PER DAY

N

EXHIBIT 4-3: CUMULATIVE DEVELOPMENT LOCATION MAP



LEGEND:

(#) = CUMULATIVE DEVELOPMENT ID

N

14385 - 01 - Study Area.dwg

TABLE 4-2: CUMULATIVE DEVELOPMENT LAND USE SUMMARY

ID	Project Name	Land Use[1]	Quantity	Units[2]
1	Angel View Salvage & Recycling Facility	Gen. Light Industrial	13.650	TSF
		Factory Outlet Center	9.000	TSF
		General Office	3.600	TSF
2	Cultivation Center	Nursery (Wholesale)	38.00	AC
3	Coachillin	Marijuana Cultivation and Processing Facility	2,772.487	TSF
		Commercial/Dispensary/Restaurant	27.513	TSF
		Coachillin Subtotal	2,800.000	TSF
4	Blackstar Industrial Properties	Business Park	621.920	TSF
5	DHS Light Industrial w/ Cannabis Overlay	Marijuana Cultivation and Processing Facility	116.00	TSF
6	Palm Springs Business Park	Business Park	37.874	TSF
7	Skyborne Active Adult Community at Stoneridge	Senior Adult Housing - Detached	1,141	DU
		SFDR	801	DU
		Clubhouse	5.000	TSF
8	Vista Rosa Residential (Phase 1)	Senior Adult Housing - Detached	702	DU
		Passive Parks	21.78	AC
9	PM32692	SFDR	3	DU
10	Oxford Properties Cultivation Center	Nursery (Wholesale)	70.26	AC
11	Desert Gateway	High-Cube Warehouse	1059.240	TSF
		Hotel	150	OCC RM
		Commercial Retail	42.00	TSF
12	N Indian Cyn./19th Av. High-Cube Warehouse	High-Cube Warehouse	739.36	TSF
13	Greenday Village	Multi-Family Residential	608	DU
		Commercial	77.971	TSF

[1] SFDR = Single Family Detached Residential

[2] DU = Dwelling Unit; RM = Room; TSF = Thousand Square Feet; AC = Acre; OCC RM = Occupied Room

F:\UXRjobs_14100-14500\14385\Excel\[14385 - Report.xlsx]14385-CM

This page intentionally left blank

5 EAP (2025) TRAFFIC CONDITIONS

This section discusses the traffic forecasts for Existing plus Ambient Growth plus Project (EAP) conditions and the resulting intersection operations and traffic signal warrant analyses.

5.1 EAP TRAFFIC VOLUME FORECASTS

The lane configurations and traffic controls assumed to be in place for EAP (2025) conditions are consistent with those shown previously on Exhibit 3-1, with the exception of Project driveways and those facilities assumed to be constructed by the Project to provide site access.

This scenario includes Existing traffic volumes plus an ambient growth factor of 4.04% and the addition of Project traffic. The weekday ADT and weekday peak hour intersection turning movement volumes which can be expected for EAP (2025) traffic conditions are shown on Exhibit 5-1.

5.2 INTERSECTION OPERATIONS ANALYSIS

EAP peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2 Methodologies of this TA. The intersection analysis results are summarized in Table 5-1, which indicate that no study area intersections are anticipated to operate at an unacceptable LOS (LOS "E" or worse) for opening year (2025) conditions, with or without the addition of Project traffic. The intersection operations analysis worksheets for EAP traffic conditions is included in Appendix 5.1 of this TA.

5.3 TRAFFIC SIGNAL WARRANTS ANALYSIS

The traffic signal warrant analysis for EAP (2025) traffic conditions provided in Appendix 3.3. The unsignalized intersections are not anticipated to meet peak hour volume-based warrants and daily volume-based warrants with the addition of Project traffic (see Appendix 3.3).

TABLE 5-1: INTERSECTION ANALYSIS FOR EAP (2025) CONDITIONS

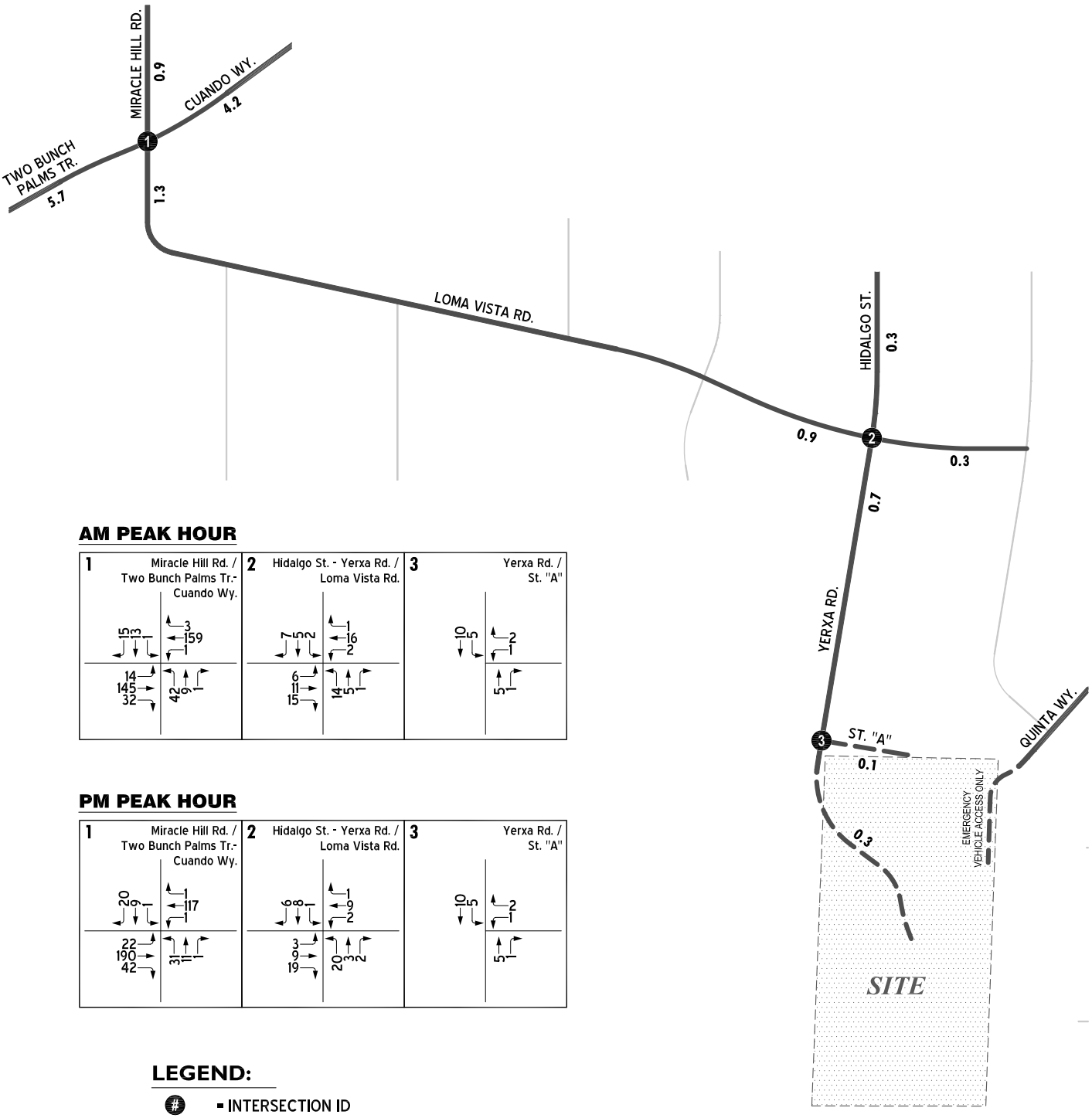
			Intersection Approach Lanes[2]												Delay[3] (secs.)		Level of Service	
		Traffic	Northbound			Southbound			Eastbound			Westbound						
#	Intersection	Control[1]	L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
1	Miracle Hill Rd. / Two Bunch Palms Tr. - Cuando Wy.	CSS	0	1!	0	0.5	0.5	d	0.5	0.5	d	0.5	0.5	d	13.0	13.0	B	B
2	Hidalgo St. - Yerxa Rd. / Loma Vista Rd.	CSS	0	1!	0	0	1!	0	0	1!	0	0	1!	0	9.2	9.2	A	A
3	Yerxa Rd. / St. "A"	**CSS**	0	**1**	0	0.5	0.5	0	0	0	0	0	**1!**	0	8.5	8.5	A	A

[1] CSS = Cross-Street Stop

[2] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.
L = Left; T = Through; R = Right; d = Defacto Right Turn Lane; 0.5 = Shared Lane; 1! = Shared Left/Through/Right lane; **1** = Improvement

[3] Per the Highway Capacity Manual (6th Edition), the worst individual movement (or movements sharing a single lane) are shown for intersections with cross street stop control.

EXHIBIT 5-1: EXISTING PLUS AMBIENT PLUS PROJECT (2025)
TRAFFIC VOLUMES



6 EAPC (2025) TRAFFIC CONDITIONS

This section discusses the methods used to develop Existing plus Ambient Growth plus Project plus Cumulative (EAPC) (2025) traffic forecasts, and the resulting intersection operations and traffic signal warrant analyses.

6.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for EAPC (2025) conditions are consistent with those shown previously on Exhibit 3-1, with the exception of the following:

- Project driveways and those facilities assumed to be constructed by the Project to provide site access are also assumed to be in place for EAPC conditions only (e.g., intersection and roadway improvements along the Project's frontage and driveways).
- If applicable, driveways and those facilities assumed to be constructed by cumulative developments to provide site access are also assumed to be in place for EAPC conditions only (e.g., intersection and roadway improvements along the cumulative development's frontages and driveways).

6.2 EAPC (2025) TRAFFIC VOLUME FORECASTS

This scenario includes Existing traffic volumes plus an ambient growth factor of 4.04% plus traffic from pending and approved but not yet constructed known development projects in the area. The weekday ADT and weekday peak hour volumes which can be expected for EAPC (2025) traffic conditions are shown on Exhibit 6-1.

6.3 INTERSECTION OPERATIONS ANALYSIS

LOS calculations were conducted for the study intersections to evaluate their operations under EAPC (2024) traffic conditions with roadway and intersection geometrics consistent with Section 6.1 *Roadway Improvements*. The intersection analysis results are summarized in Table 6-1, which indicate that no study area intersections are anticipated to operate at an unacceptable LOS (LOS "E" or worse) under EAPC conditions. The intersection operations analysis worksheets for EAPC traffic conditions are included in Appendix 6.1 of this TA.

6.4 TRAFFIC SIGNAL WARRANTS ANALYSIS

The traffic signal warrant analysis for EAPC (2025) traffic conditions are provided in Appendix 3.3. The study area unsignalized intersections are not anticipated to meet volume-based warrants for EAPC (2025) traffic conditions.

EXHIBIT 6-1: EXISTING PLUS AMBIENT PLUS PROJECT PLUS CUMULATIVE (2025) TRAFFIC VOLUMES

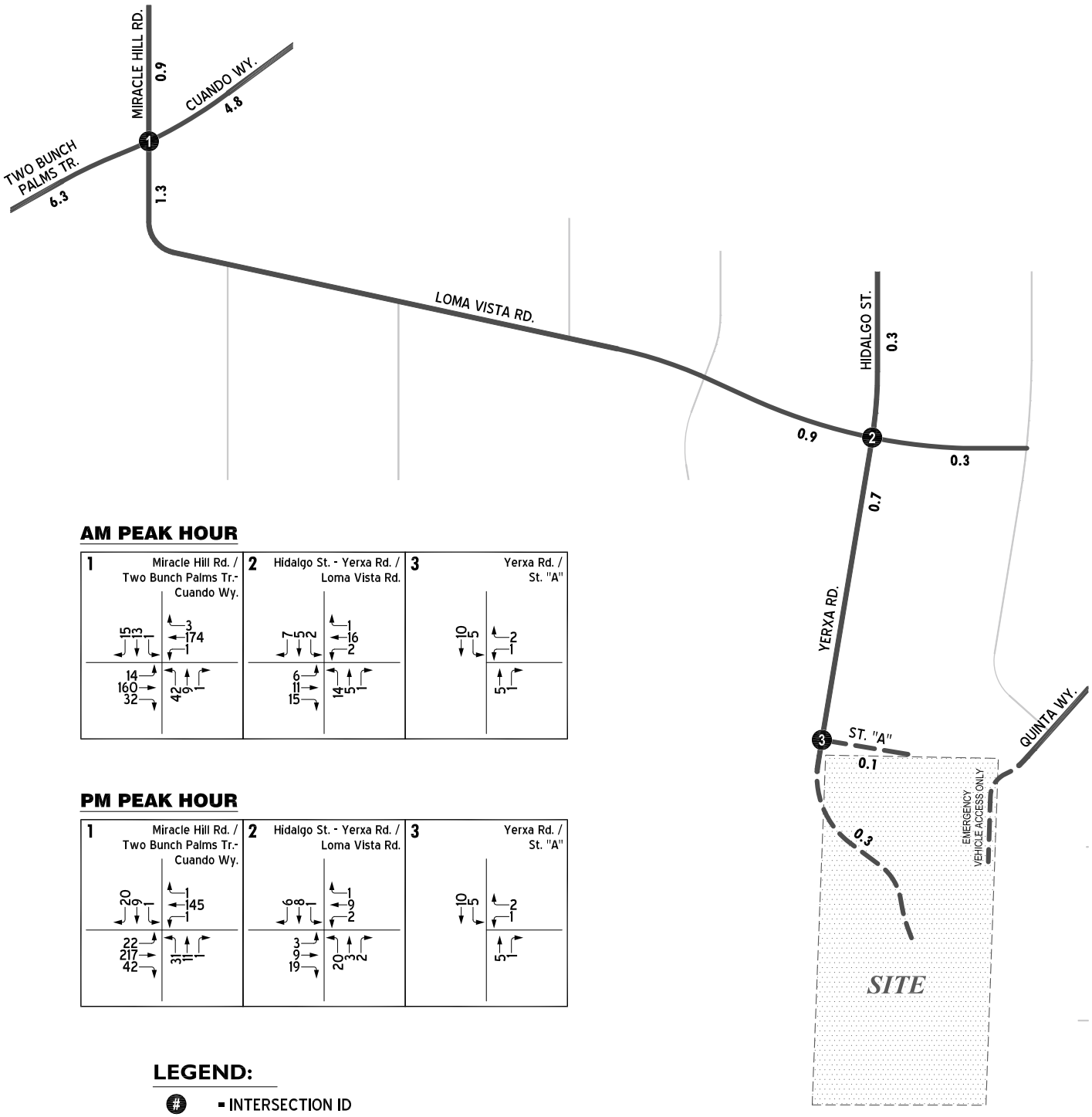


TABLE 6-1: INTERSECTION ANALYSIS FOR EAPC (2025) CONDITIONS

#	Intersection	Traffic Control[1]	Intersection Approach Lanes[2] Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Delay[3] (secs.) AM	Delay[3] (secs.) PM	Level of Service AM	Level of Service PM
1	Miracle Hill Rd. / Two Bunch Palms Tr. - Cuando Wy.	CSS	0	1!	0	0.5	0.5	d	0.5	0.5	d	0.5	0.5	d	13.5	13.9	B	B
2	Hidalgo St. - Yerxa Rd. / Loma Vista Rd.	CSS	0	1!	0	0	1!	0	0	1!	0	0	1!	0	9.2	9.2	A	A
3	Yerxa Rd. / St. "A"	**CSS**	0	**1**	0	0.5	0.5	0	0	0	0	0	**1!**	0	8.5	8.5	A	A

[1] CSS = Cross-Street Stop

[2] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.
L = Left; T = Through; R = Right; d = Defacto Right Turn Lane; 0.5 = Shared Lane; 1! = Shared Left/Through/Right lane; **1** = Improvement

[3] Per the Highway Capacity Manual (6th Edition), the worst individual movement (or movements sharing a single lane) are shown for intersections with cross street stop control.

This page intentionally left blank

7 SITE ACCESS AND OFF-SITE ROADWAY IMPROVEMENTS

The Project is proposed to be served by Yerxa Road southerly extension and Street "A" which connects to Yerxa Road. A gated emergency vehicle access to Quinta Way is also planned. The following improvements are assumed to be constructed in conjunction with site development. The following improvements should be in place prior to occupancy, as shown on Exhibit 7-1.

Yerxa Road – Yerxa Road is the north-south oriented roadway that accesses the Project at its northwest corner, providing the main driveway into the site. Construct Yerxa Road from the Project's northwestern boundary onsite at its ultimate full section width to serve as the Project driveway.

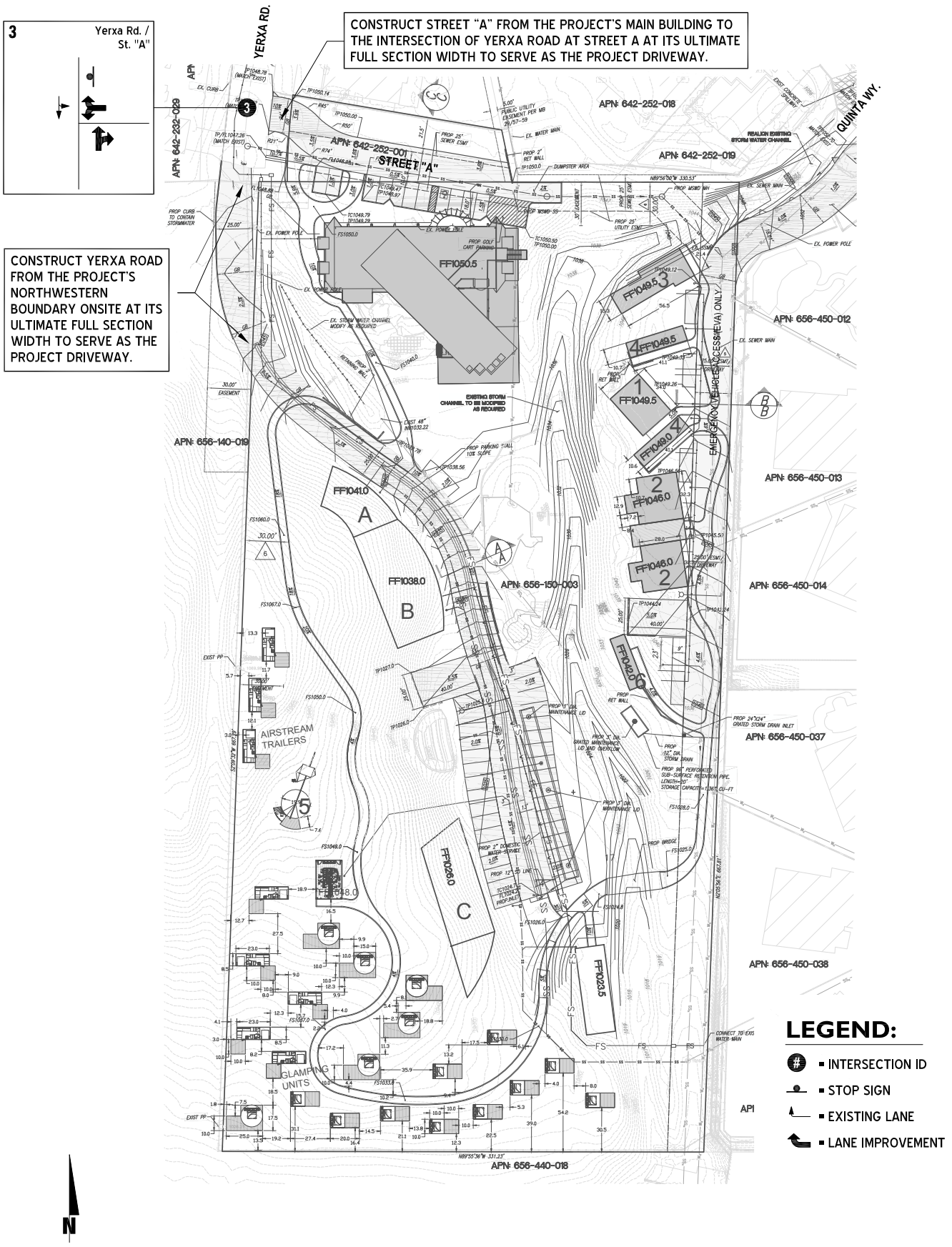
Street "A" – Street "A" is the east-west Project roadway that provides a connection between Yerxa Road and the main building with spa & health club facilities, restaurant, and coffee bar. Construct Street "A" from the Project's main building to the intersection of Yerxa Road at Street A at its ultimate full section width to serve as the Project driveway.

Exhibit 7-1 also depicts the lane geometrics recommended at the Project access points.

Yerxa Road / Street "A" (#3)

- Install a cross-street stop control on the westbound approach.
- Provide one westbound shared left-right turn lane.
- Provide one southbound shared left-through lane
- Provide one northbound shared through-right lane

EXHIBIT 7-1: SITE ACCESS RECOMMENDATIONS



8 VMT SCREENING

Changes to California Environmental Quality Act (CEQA) Guidelines were adopted in December 2018, which requires all lead agencies to adopt VMT as a replacement for automobile delay-based level of service (LOS) as the new measure for identifying transportation impacts for land use projects. This statewide mandate went into effect July 1, 2020. To aid in this transition, the Governor's Office of Planning and Research (OPR) released a Technical Advisory on Evaluating Transportation Impacts in CEQA (December of 2018) (**Technical Advisory**) (5). Based on OPR's Technical Advisory, the County of Riverside has recently adopted their Transportation Analysis Guidelines for Level of Service Vehicle Miles Traveled (December of 2020) (**County Guidelines**) (1). The adopted County Guidelines have been utilized to prepare this VMT analysis.

Consistent with County Guidelines, projects should evaluate available screening criteria based on their location and project type to determine if a presumption of a less than significant transportation impact can be made. The following project screening thresholds were selected for review based on their applicability to the proposed Project:

- Small Projects Screening
- High Quality Transit Areas (HQTA) Screening
- Map-Based Screening
- Local Essential Service

SMALL PROJECTS SCREENING

The County Guidelines identify projects that generate fewer than 110 daily vehicle trips are presumed to have a less than significant impact absent substantial evidence to the contrary.

County Guidelines also identify those projects forecasted to generate greenhouse gas (GHG) emissions below 3,000 Metric Tons of Carbon Dioxide Equivalent ($MTCO_2e$) per year are also assumed to cause a less than significant VMT impact.[1] The County Guidelines provides a list of land use types based on quantity (i.e., dwelling units or square footage) and provides a typical development potential to be below the 3,000 $MTCO_2e$ per year.

For retail land uses, buildings with area less than or equal to 60,000 square feet are presumed to cause a less-than-significant impact. The Project includes approximately 641 square feet of retail land use, so the retail portion of the Project satisfies the Small Projects screening criteria.

Small Projects screening criteria is met for retail (restaurant & coffee bar) land uses.

[1] County Guidelines; Page 19.

HIGH QUALITY TRANSIT AREAS (HQTA) SCREENING

Projects located within a Transit Priority Area (TPA) (i.e., within ½ mile of an existing "major transit stop"[2] or an existing stop along a "high-quality transit corridor"[3]) may be presumed to have a less than significant impact absent substantial evidence to the contrary. However, the presumption may not be appropriate if a project:

- Has a Floor Area Ratio (FAR) of less than 0.75;
- Includes more parking for use by residents, customers, or employees of the project than required by the jurisdiction (if the jurisdiction requires the project to supply parking);
- Is inconsistent with the applicable Sustainable Communities Strategy (as determined by the lead agency, with input from the Metropolitan Planning Organization); or
- Replaces affordable residential units with a smaller number of moderate- or high-income residential units.

The Project is not located within ½ mile of an existing major transit stop, or along a high-quality transit corridor.

HQTA screening criteria is not met.

MAP-BASED SCREENING

The County Guidelines note that "residential and office projects that locate in areas with low VMT, and that incorporate similar features (i.e., density, mix of uses, transit accessibility), will tend to exhibit similarly low VMT."[4] County Guidelines also state that the use of map-based screening for low VMT generating areas is also applicable for other employment uses. Other employment refers to all other service and goods providers that are not included in the basic office/retail categories. Urban Crossroads has obtained a VMT data table from County Staff for all TAZs within Riverside County that identifies VMT per capita and VMT per employee for the purposes of identifying of low VMT areas. The data utilizes the sub-regional Riverside Transportation Analysis Model (RIVTAM) to measure baseline VMT performance for individual TAZ's and a comparison was made to the applicable impact threshold (e.g., VMT per employee for office or industrial land uses and VMT per capita for residential land uses). The Project's TAZ was identified in the Riverside County Transportation Analysis Model (RIVTAM) as TAZ 4566. The County's data table identifies the Project's TAZ 4566 to generate 8.01 VMT per capita. Whereas the County regional threshold is 14.2 VMT per capita[5]. The Project is located in a low VMT area for office and other employment uses.

[2] Pub. Resources Code, § 21064.3 ("'Major transit stop' means a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.").
[3] Pub. Resources Code, § 21155 ("For purposes of this section, a high-quality transit corridor means a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.").
[4] Technical Advisory; Page 12
[5] County Guidelines; Page 22

Map-Based screening criteria is met for the hotel land uses.

LOCAL ESSENTIAL SERVICE

The introduction of new local essential services shortens non-discretionary trips by putting those goods and services closer to complimentary land uses, resulting in conditions which do not increase overall VMT. Similar to a medical office, local park, or daycare use being located close to residences, a spa and health club can provide a local service to adjacent land uses that otherwise attract travelers from more distant locations. Therefore, the spa and health club is presumed to not increase overall VMT.

Local Essential Service screening criteria is met for the spa and health club land uses.

This page intentionally left blank

9 REFERENCES

1. **Riverside County Transportation Department.** *Transportation Analysis Guideines for Level of Service & Vehicle Miles Traveled.* County of Riverside : s.n., December 2020.
2. **Transportation Research Board.** *Highway Capacity Manual (HCM), 6th Edition.* s.l. : National Academy of Sciences, 2016.
3. **California Department of Transportation.** California Manual on Uniform Traffic Control Devices (CA MUTCD). [book auth.] California Department of Transportation. *California Manual on Uniform Traffic Control Devices (CA MUTCD).* 2014, Updated March 30, 2021 (Revision 6).
4. **Institute of Transportation Engineers.** Trip Generation Manual. 11th Edition, 2021.
5. **Governor's Office of Planning and Research (OPR).** *Technical Advisory on Evaluating Transportation Impacts in CEQA.* December 2018.

This page intentionally left blank

APPENDIX 1.1: APPROVED TRAFFIC STUDY SCOPING AGREEMENT

This Page Intentionally Left Blank

URBAN | CROSSROADS

September 19, 2023

Ms. Jilleen Ferris
City of Desert Hot Springs
65-950 Pierson Blvd.
Desert Hot Springs, CA 92240

KIMANA RESORT ACCESS ANALYSIS AND VMT SCOPE

Dear Ms. Jilleen Ferris:

Urban Crossroads, Inc. is pleased to submit this scope for a level of service (LOS) access analysis and vehicle miles traveled (VMT) screening to the City of Desert Hot Springs regarding the proposed Kimana Resort development ("Project"). The Project is located southeast of the existing terminus of Yerxa Road. Access to the site is provided by Yerxa Road south of Loma Vista Road. Loma Vista Road connects to Two Bunch Palms Trail via Miracle Hill Road in the City of Desert Hot Springs.

The project consists of a 6-acre resort complex with a total of 48 units that include hotel rooms, air stream trailers and glamping sites. Additional amenities include spa & health club facilities, restaurant, and coffee bar. The on-site facilities are connected via a pedestrian / golf cart trail network.

The remainder of this letter describes the proposed analysis methodology, Project trip generation, trip distribution, and analysis scenarios. The following scoping assumptions for the LOS access analysis and VMT screening assessment have been prepared in accordance with the County of Riverside's Transportation Analysis Guidelines for Level of Service & Vehicle Miles Traveled (December 2020).

A preliminary site plan for the proposed Project is shown on Exhibit 1. Exhibit 2 depicts the location of the proposed project in relation to the existing roadway network. It is anticipated that the Project would be fully developed by year 2025. In addition to the Yerxa Road access to the site, an additional emergency only access is accommodated at Quinta Way.

TRIP GENERATION

In order to develop the traffic characteristics of the Project, trip-generation statistics published in the *Institute of Transportation Engineers (ITE) Trip Generation* (11th Edition, 2021) are used. Table 1 shows the vehicle trip generation rates for the Project, as well as the vehicle trip generation summary with daily and peak hour trip generation estimates.

As shown on Table 1, the Project is anticipated to generate a total of 389 external vehicle trip-ends per day with 22 external AM peak vehicle hour trips and 30 external PM peak hour vehicle trips.

EXHIBIT 1: PRELIMINARY SITE PLAN

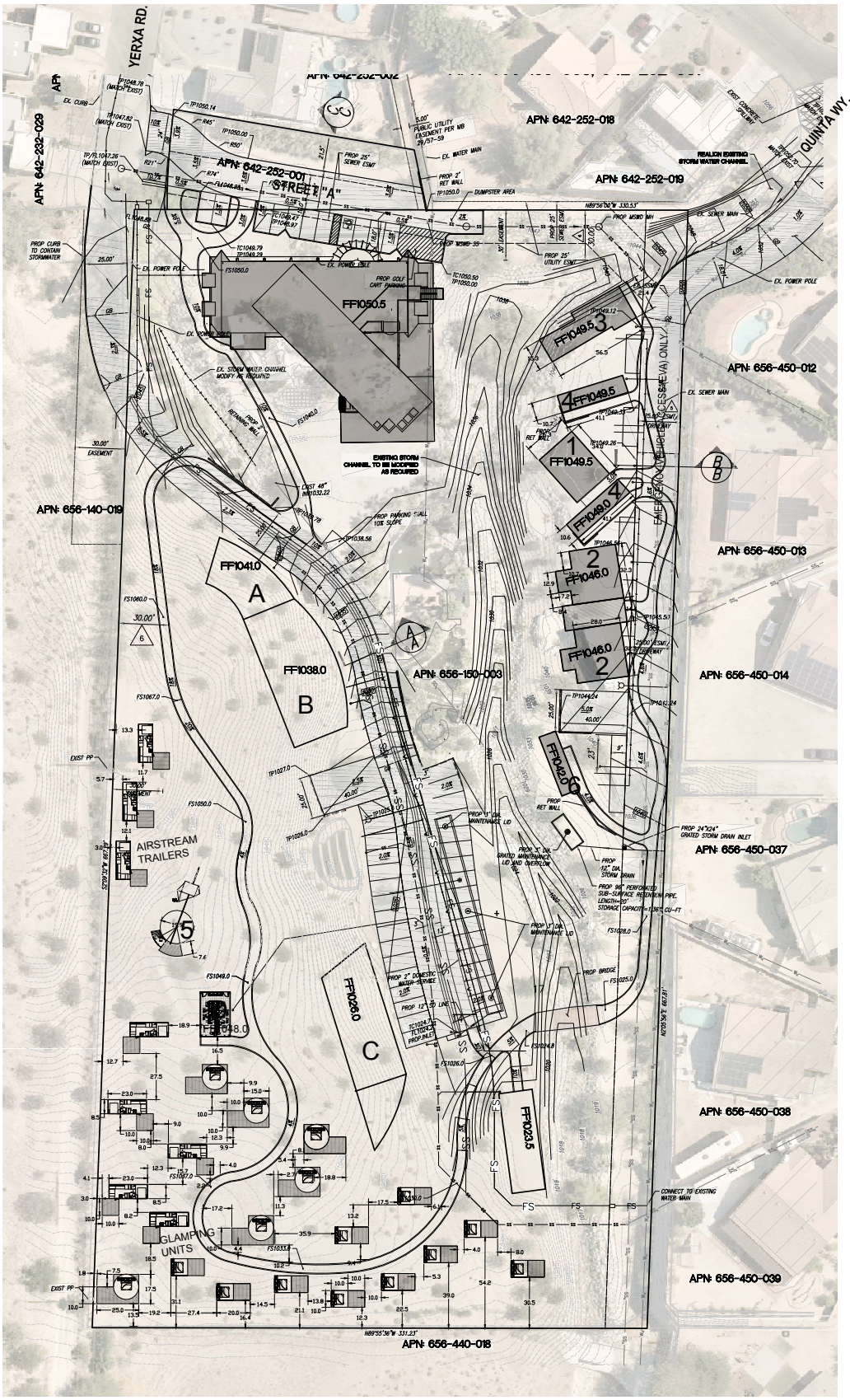


EXHIBIT 2: TRAFFIC ANALYSIS STUDY AREA



TABLE 1: PROJECT TRIP GENERATION SUMMARY

Trip Generation Rates[1]

Land Use	ITE LU Code	Quantity[2]	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
Hotel & Glamping Units	330	48 OCC RM	0.27	0.10	0.37	0.20	0.27	0.47	7.87
Spa & Health Club [3]	492	2.5 TSF	0.67	0.64	1.31	1.97	1.48	3.45	34.50
Restaurant & Coffee Bar [4]	932	0.641 TSF	5.26	4.31	9.57	5.52	3.53	9.05	107.20

Trip Generation Results

Land Use	ITE LU Code	Quantity[2]	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
Hotel & Glamping Units	330	48 OCC RM	13	5	18	10	13	23	378
Internal to Spa & Health Club			*(1)*	*0*	*(1)*	*(1)*	*(1)*	*(2)*	*(37)*
Internal to Restaurant & Coffee Bar			*(1)*	*(1)*	*(2)*	*(1)*	*(1)*	*(2)*	*(35)*
Hotel & Glamping Units External Trips			11	4	15	8	11	19	306
Spa & Health Club	492	2.5 TSF	2	2	4	5	4	9	86
Internal to Hotel & Glamping Units			*0*	*(1)*	*(1)*	*(1)*	*(1)*	*(2)*	*(37)*
Spa & Health Club External Trips			2	1	3	4	3	7	49
Restaurant & Coffee Bar	932	0.641 TSF	3	3	6	4	2	6	69
Internal to Hotel & Glamping Units			*(1)*	*(1)*	*(2)*	*(1)*	*(1)*	*(2)*	*(35)*
Restaurant & Coffee Bar Club External Trips			2	2	4	3	1	4	34
Project Subtotal			18	10	28	19	19	38	533
Internal Capture Subtotal			*(3)*	*(3)*	*(6)*	*(4)*	*(4)*	*(8)*	*(144)*
PROJECT TOTAL EXTERNAL TRIPS			**15**	**7**	**22**	**15**	**15**	**30**	**389**

[1] Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 11th Edition (2021).
[2] OCC RM = Occupied Room; TSF = Thousand Square Feet
[3] Daily rate has been estimated based on the peak to daily relationship of ITE LU Code 310 (Hotel).
[4] Since the daily rate for ITE LU Code 492 (Sit-Down Restaurant) is not provided, daily rate has been estimated (PM x 10).

F:\UXRjobs_14100-14500\14385\Excel\[14385 - Scope.xlsx]14385 - TG

TRIP DISTRIBUTION AND TRIP ASSIGNMENT

The trip distribution pattern is heavily influenced by the geographical location of the site, the location of surrounding commercial and residential uses, and proximity to regional access routes. Exhibit 3 shows the Project trip distribution patterns.

GENERAL PLAN CIRCULATION ELEMENT

The City of Desert Hot Springs General Plan Circulation Element is depicted on Exhibit 4.

ANALYSIS SCENARIOS

Consistent with the City's TA guidelines, intersection analysis will be provided for the following analysis scenarios:

- Existing (2023) Conditions
- Existing plus Ambient plus Project (EAP) (2025)
- Existing plus Ambient plus Project plus Cumulative (EAPC) (2025)

STUDY AREA

The County Guidelines exempt Projects from LOS analysis if there is trip generation of less than 100 vehicles during the peak hours. Because the Project trip generation is less than requires a full LOS study, an access study is proposed. For the access analysis study area, the following intersections will be evaluated:

#	Intersection
1	Miracle Hill Rd. / Two Bunch Palms Tr. - Cuando Wy.
2	Yerxa Rd. – Hidalgo St./ Loma Vista Rd.
3	Street A / Yerxa Rd.

Exhibit 2 identifies the proposed study area intersection analysis locations.

ANALYSIS METHODOLOGY

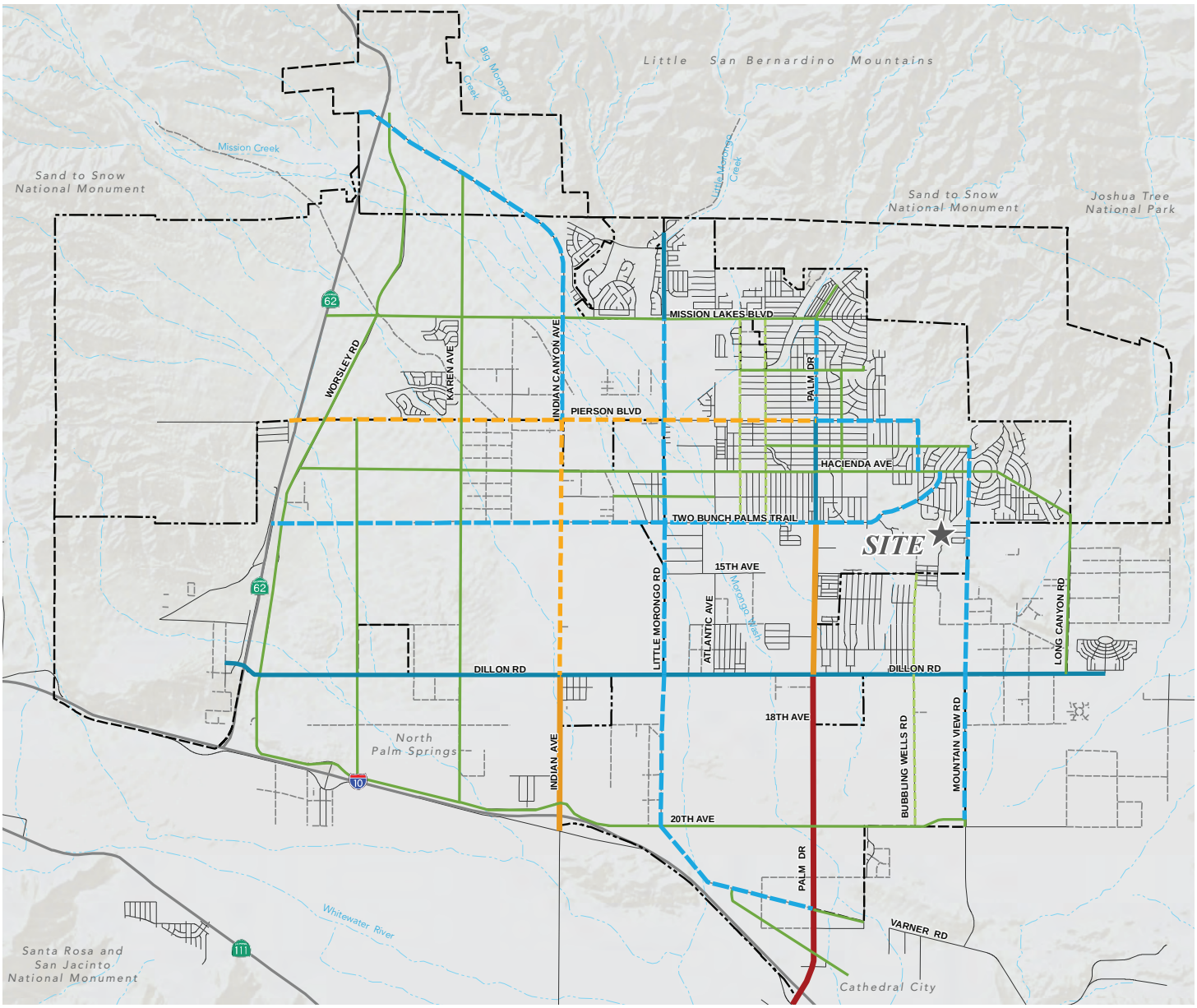
Per the City of Desert Hot Springs's General Plan, LOS D as the threshold for acceptable traffic conditions on the circulation network.

For the purposes of this analysis, signalized intersection operations analysis will be based on the methodology described in the Highway Capacity Manual (6th Edition). Intersection LOS operations are based on an intersection's average control delay. Unsignalized intersections will be evaluated using the methodology described in the HCM 6th Edition. At two-way or side-street stop-controlled intersections, LOS is calculated for each controlled movement and for the left turn movement from the major street, as well as for the intersection as a whole. For approaches composed of a single lane, the delay is computed as the average of all movements in that lane.

EXHIBIT 3: PROJECT TRIP DISTRIBUTION



EXHIBIT 4: CITY OF DESERT HOT SPRINGS ROADWAYS PLAN



SOURCE: CITY OF DESERT HOT SPRINGS GENERAL PLAN (MAY 2020)

Road Classifications

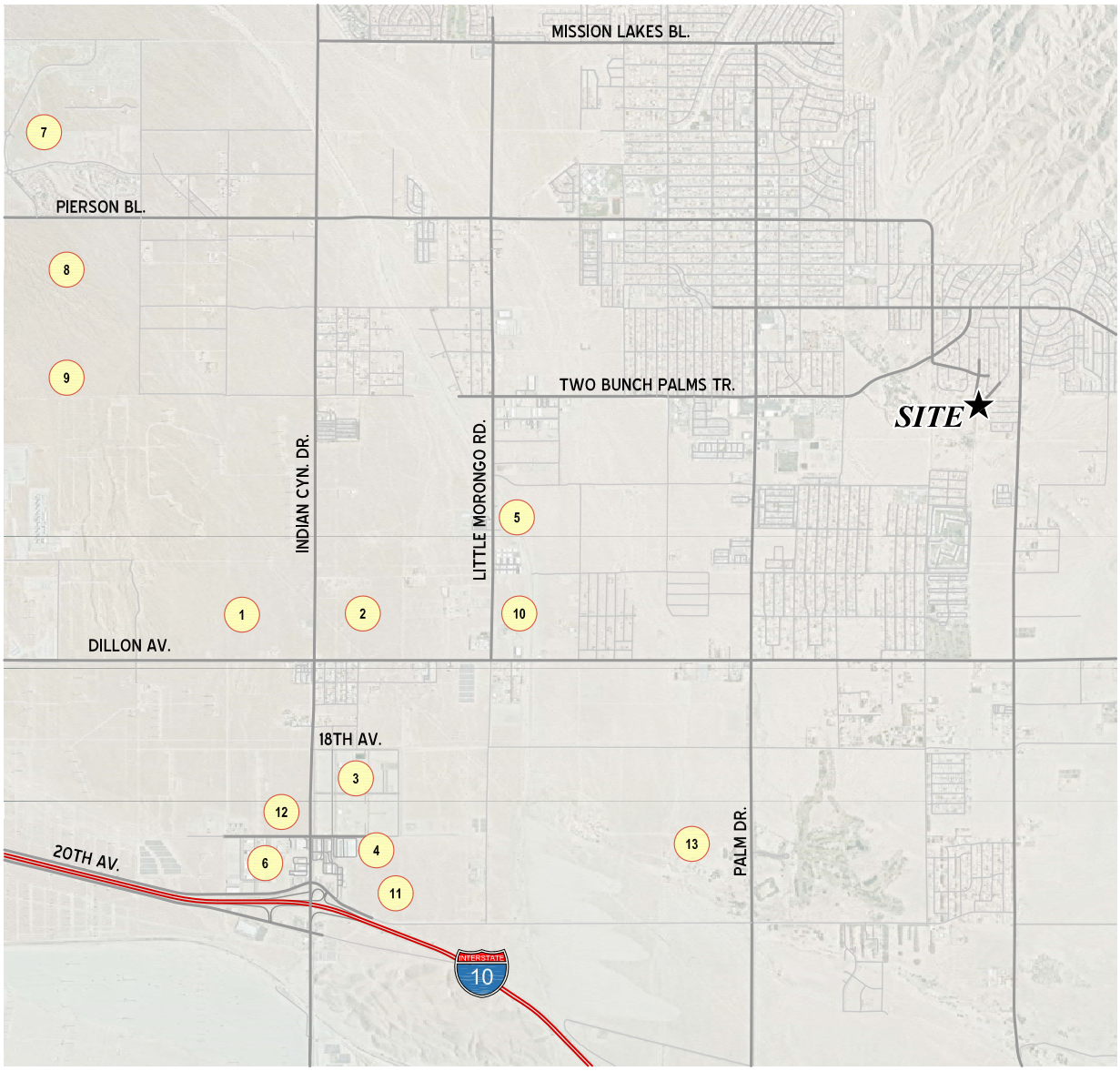
- Urban Arterial
- Primary I
- Primary II
- Secondary I
- Secondary II
- Collector
- Local Collector

Base Map Features

- City Boundary
- Sphere of Influence
- Water Courses

N

EXHIBIT 5: CUMULATIVE DEVELOPMENT LOCATION MAP



LEGEND:

(#) = CUMULATIVE DEVELOPMENT ID

N

TRAFFIC COUNTS

Traffic count data will be collected in September/October 2023 during the AM peak period of 7:00 AM to 9:00 AM and PM peak period of 4:00 PM to 6:00 PM.

The City of Desert Hot Springs experiences seasonal population variations over the course of the year, with relatively higher populations during the winter months from January to the end of March. To compensate for the discrepancy, counts not taken during this peak winter period (January 2 to March 31) require seasonal adjustments. Counts taken in September / October will be adjusted to estimate peak season conditions.

CUMULATIVE DEVELOPMENT TRAFFIC

It is requested that City staff review the list of cumulative development projects (shown on Exhibit 5 and listed on Table 2) for inclusion in the traffic study. Consistent with other studies performed in the area, an ambient growth rate of 2% per year will be utilized as a minimum if necessary. The rate will be compounded over a 2-year period (i.e., 1.022years = 1.0404 or 4.04%) for Interim Year (2025) conditions.

VMT SCREENING

Consistent with County Guidelines, the project will be evaluated based on available screening criteria based on the location and project type to determine if a presumption of a less than significant transportation impact can be made. If the Project does not satisfy screening criteria, VMT analysis consistent with the County guidelines will be prepared.

Please review this scope for LOS access analysis and VMT screening, and provide any comments or your concurrence. If you have any questions, please contact John Kain at (949) 375-2435 or Marlie Whiteman at (714) 585-0574.

Respectfully submitted,

URBAN CROSSROADS, INC.



John Kain, AICP
Principal



Marlie Whiteman, PE
Senior Associate

TABLE 2: CUMULATIVE DEVELOPMENT LAND USE SUMMARY

ID	Project Name	Land Use[1]	Quantity	Units[2]
1	Angel View Salvage & Recycling Facility	Gen. Light Industrial	13.650	TSF
		Factory Outlet Center	9.000	TSF
		General Office	3.600	TSF
2	Cultivation Center	Nursery (Wholesale)	38.00	AC
3	Coachillin	Marijuana Cultivation and Processing Facility	2,772.487	TSF
		Commercial/Dispensary/Restaurant	27.513	TSF
		Coachillin Subtotal	2,800.000	TSF
4	Blackstar Industrial Properties	Business Park	621.920	TSF
5	DHS Light Industrial w/ Cannabis Overlay	Marijuana Cultivation and Processing Facility	116.00	TSF
6	Palm Springs Business Park	Business Park	37.874	TSF
7	Skyborne Active Adult Community at Stoneridge	Senior Adult Housing - Detached	1,141	DU
		SFDR	801	DU
		Clubhouse	5.000	TSF
8	Vista Rosa Residential (Phase 1)	Senior Adult Housing - Detached	702	DU
		Passive Parks	21.78	AC
9	PM32692	SFDR	3	DU
10	Oxford Properties Cultivation Center	Nursery (Wholesale)	70.26	AC
11	Desert Gateway	High-Cube Warehouse	1059.240	TSF
		Hotel	150	OCC RM
		Commercial Retail	42.00	TSF
12	N Indian Cyn./19th Av. High-Cube Warehouse	High-Cube Warehouse	739.36	TSF
13	Greenday Village	Multi-Family Residential	608	DU
		Commercial	77.971	TSF

[1] SFDR = Single Family Detached Residential

[2] DU = Dwelling Unit; RM = Room; TSF = Thousand Square Feet; AC = Acre; OCC RM = Occupied Room

F:\UXRjobs_14100-14500\14385\Excel\[14385 - Scope.xlsx]14385-CM

APPENDIX 3.1: TRAFFIC COUNTS – OCTOBER 2023

This Page Intentionally Left Blank

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Desert Hot Springs
N/S: Miracle Hill Road
E/W: Two Bunch Palms Trail/Cuando Way
Weather: Clear

File Name : 01_DHS_Mir_2BPT AM
Site Code : 05123903
Start Date : 10/4/2023
Page No : 1

Groups Printed- Total Volume

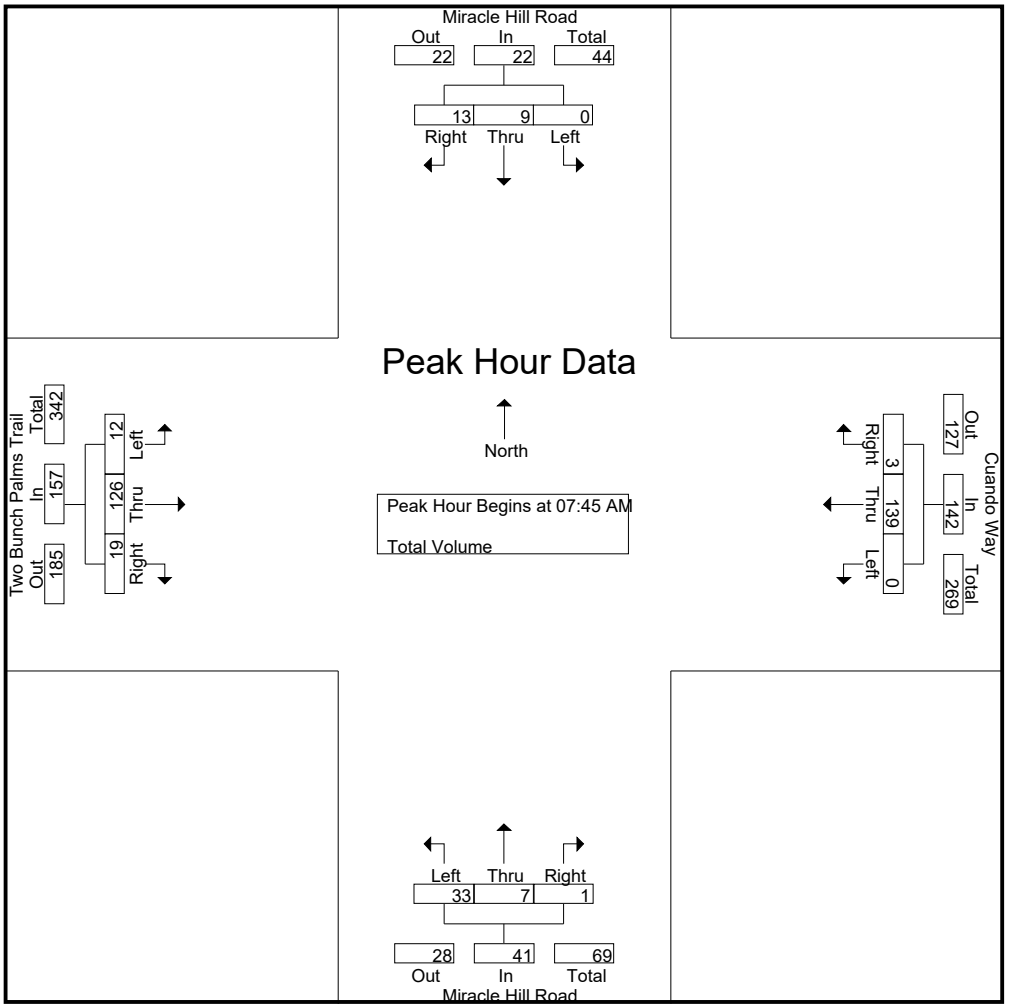
	Miracle Hill Road Southbound				Cuando Way Westbound				Miracle Hill Road Northbound				Two Bunch Palms Trail Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	5	5	0	35	0	35	6	1	0	7	2	16	1	19	66
07:15 AM	0	0	0	0	0	31	0	31	10	2	0	12	5	26	3	34	77
07:30 AM	0	1	8	9	1	36	1	38	11	2	0	13	5	27	3	35	95
07:45 AM	0	6	1	7	0	33	0	33	7	3	1	11	2	29	4	35	86
Total	0	7	14	21	1	135	1	137	34	8	1	43	14	98	11	123	324
08:00 AM	0	2	2	4	0	31	1	32	4	1	0	5	0	20	3	23	64
08:15 AM	0	0	5	5	0	44	1	45	10	2	0	12	6	29	7	42	104
08:30 AM	0	1	5	6	0	31	1	32	12	1	0	13	4	48	5	57	108
08:45 AM	0	0	6	6	0	30	1	31	5	2	0	7	4	23	6	33	77
Total	0	3	18	21	0	136	4	140	31	6	0	37	14	120	21	155	353
Grand Total	0	10	32	42	1	271	5	277	65	14	1	80	28	218	32	278	677
Apprch %	0	23.8	76.2		0.4	97.8	1.8		81.2	17.5	1.2		10.1	78.4	11.5		
Total %	0	1.5	4.7	6.2	0.1	40	0.7	40.9	9.6	2.1	0.1	11.8	4.1	32.2	4.7	41.1	

	Miracle Hill Road Southbound				Cuando Way Westbound				Miracle Hill Road Northbound				Two Bunch Palms Trail Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	**6**	1	**7**	0	33	0	33	7	**3**	**1**	11	2	29	4	35	86
08:00 AM	0	2	2	4	0	31	**1**	32	4	1	0	5	0	20	3	23	64
08:15 AM	0	0	**5**	5	0	**44**	1	**45**	10	2	0	12	**6**	29	**7**	42	104
08:30 AM	0	1	5	6	0	31	1	32	**12**	1	0	**13**	4	**48**	5	**57**	**108**
Total Volume	0	9	13	22	0	139	3	142	33	7	1	41	12	126	19	157	362
% App. Total	0	40.9	59.1		0	97.9	2.1		80.5	17.1	2.4		7.6	80.3	12.1		
PHF	.000	.375	.650	.786	.000	.790	.750	.789	.688	.583	.250	.788	.500	.656	.679	.689	.838

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Desert Hot Springs
N/S: Miracle Hill Road
E/W: Two Bunch Palms Trail/Cuando Way
Weather: Clear

File Name : 01_DHS_Mir_2BPT AM
Site Code : 05123903
Start Date : 10/4/2023



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:00 AM				07:45 AM			
+0 mins.	0	1	**8**	**9**	**1**	36	**1**	38	6	1	0	7	2	29	4	35
+15 mins.	0	**6**	1	7	0	33	0	33	10	2	0	12	0	20	3	23
+30 mins.	0	2	2	4	0	31	1	32	**11**	2	0	**13**	**6**	29	**7**	42
+45 mins.	0	0	5	5	0	**44**	1	**45**	7	**3**	**1**	11	4	**48**	5	**57**
Total Volume	0	9	16	25	1	144	3	148	34	8	1	43	12	126	19	157
% App. Total	0	36	64		0.7	97.3	2		79.1	18.6	2.3		7.6	80.3	12.1	
PHF	.000	.375	.500	.694	.250	.818	.750	.822	.773	.667	.250	.827	.500	.656	.679	.689

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Desert Hot Springs
N/S: Miracle Hill Road
E/W: Two Bunch Palms Trail/Cuando Way
Weather: Clear

File Name : 01_DHS_Mir_2BPT PM
Site Code : 05123903
Start Date : 10/4/2023
Page No : 1

Groups Printed- Total Volume

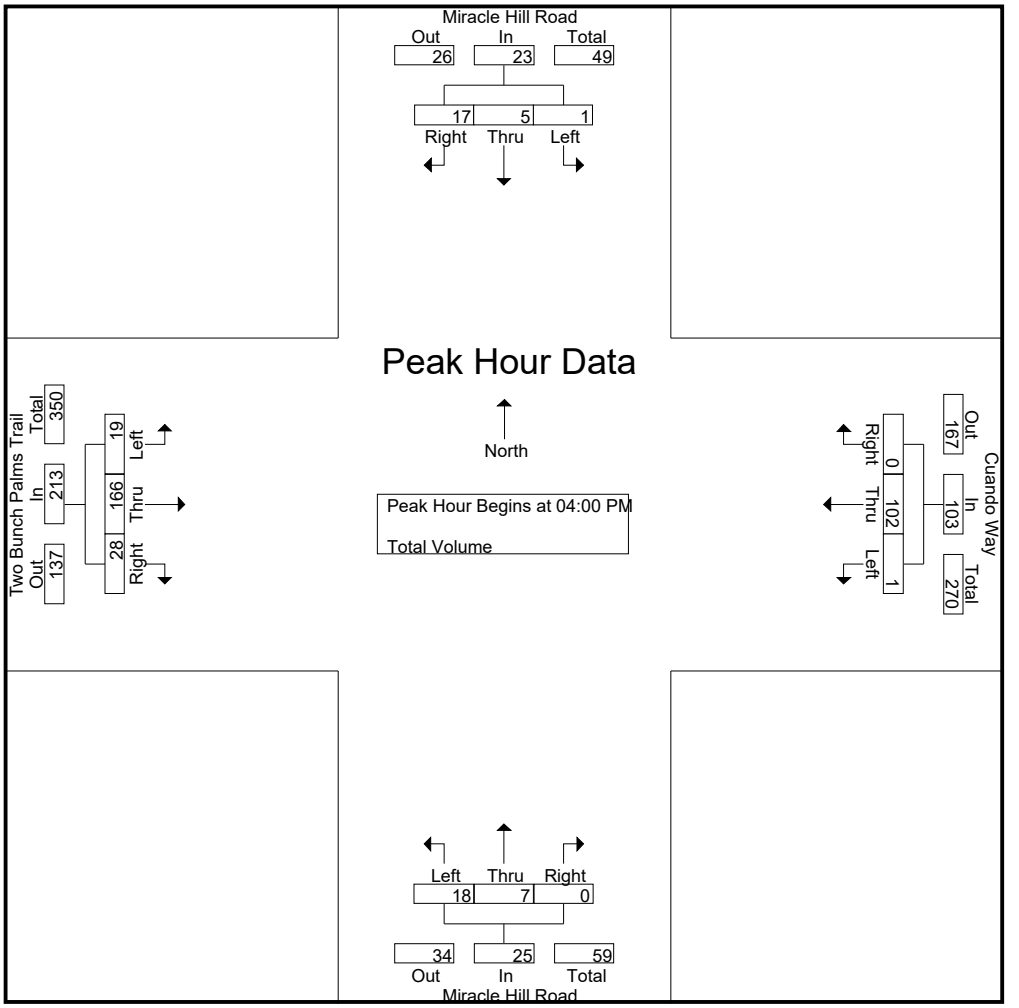
	Miracle Hill Road Southbound				Cuando Way Westbound				Miracle Hill Road Northbound				Two Bunch Palms Trail Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	1	3	5	9	0	29	0	29	5	0	0	5	6	54	4	64	107
04:15 PM	0	0	6	6	1	17	0	18	3	1	0	4	4	44	8	56	84
04:30 PM	0	1	2	3	0	24	0	24	7	2	0	9	5	36	6	47	83
04:45 PM	0	1	4	5	0	32	0	32	3	4	0	7	4	32	10	46	90
Total	1	5	17	23	1	102	0	103	18	7	0	25	19	166	28	213	364
05:00 PM	0	0	8	8	0	23	1	24	5	1	0	6	1	33	6	40	78
05:15 PM	1	0	3	4	0	35	1	36	5	0	1	6	3	31	6	40	86
05:30 PM	0	2	3	5	0	27	0	27	3	2	0	5	7	42	6	55	92
05:45 PM	1	0	1	2	1	28	1	30	5	2	0	7	6	26	10	42	81
Total	2	2	15	19	1	113	3	117	18	5	1	24	17	132	28	177	337
Grand Total	3	7	32	42	2	215	3	220	36	12	1	49	36	298	56	390	701
Apprch %	7.1	16.7	76.2		0.9	97.7	1.4		73.5	24.5	2		9.2	76.4	14.4		
Total %	0.4	1	4.6	6	0.3	30.7	0.4	31.4	5.1	1.7	0.1	7	5.1	42.5	8	55.6	

	Miracle Hill Road Southbound				Cuando Way Westbound				Miracle Hill Road Northbound				Two Bunch Palms Trail Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	**1**	**3**	5	**9**	0	29	0	29	5	0	0	5	**6**	**54**	4	**64**	**107**
04:15 PM	0	0	**6**	6	**1**	17	0	18	3	1	0	4	4	44	8	56	84
04:30 PM	0	1	2	3	0	24	0	24	**7**	2	0	**9**	5	36	6	47	83
04:45 PM	0	1	4	5	0	**32**	0	**32**	3	**4**	0	7	4	32	**10**	46	90
Total Volume	1	5	17	23	1	102	0	103	18	7	0	25	19	166	28	213	364
% App. Total	4.3	21.7	73.9		1	99	0		72	28	0		8.9	77.9	13.1		
PHF	.250	.417	.708	.639	.250	.797	.000	.805	.643	.438	.000	.694	.792	.769	.700	.832	.850

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Desert Hot Springs
N/S: Miracle Hill Road
E/W: Two Bunch Palms Trail/Cuando Way
Weather: Clear

File Name : 01_DHS_Mir_2BPT PM
Site Code : 05123903
Start Date : 10/4/2023
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:45 PM				04:30 PM				04:00 PM			
+0 mins.	**1**	**3**	5	**9**	0	32	0	32	**7**	2	0	**9**	**6**	**54**	4	**64**
+15 mins.	0	0	**6**	6	0	23	**1**	24	3	**4**	0	7	4	44	8	56
+30 mins.	0	1	2	3	0	**35**	1	**36**	5	1	0	6	5	36	6	47
+45 mins.	0	1	4	5	0	27	0	27	5	0	**1**	6	4	32	**10**	46
Total Volume	1	5	17	23	0	117	2	119	20	7	1	28	19	166	28	213
% App. Total	4.3	21.7	73.9		0	98.3	1.7		71.4	25	3.6		8.9	77.9	13.1	
PHF	.250	.417	.708	.639	.000	.836	.500	.826	.714	.438	.250	.778	.792	.769	.700	.832

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Desert Hot Springs
N/S: Hidalgo Street/Yerxa Road
E/W: Loma Vista Road
Weather: Clear

File Name : 02_DHS_Hid_LV AM
Site Code : 05123903
Start Date : 10/4/2023
Page No : 1

Groups Printed- Total Volume

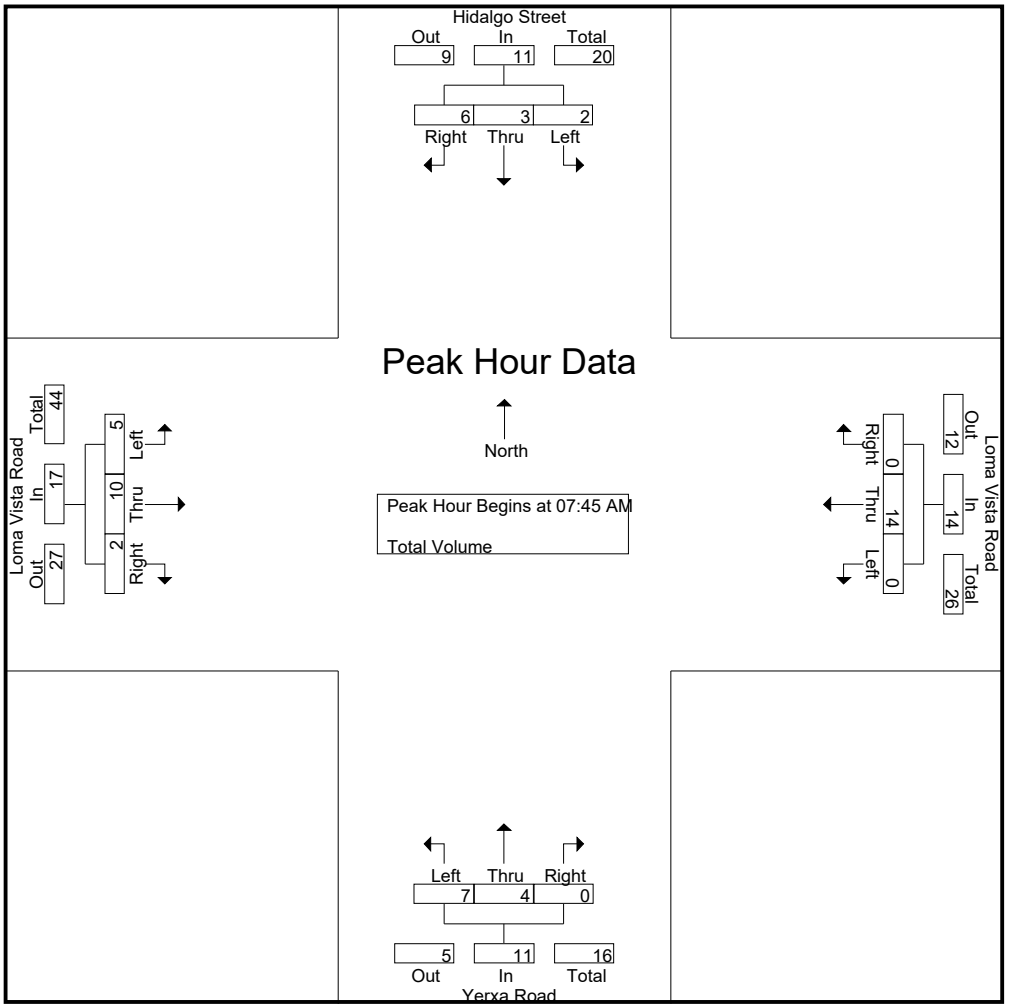
	Hidalgo Street Southbound				Loma Vista Road Westbound				Yerxa Road Northbound				Loma Vista Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	1	2	3	0	2	0	2	0	0	1	1	1	0	1	2	8
07:15 AM	0	0	0	0	0	3	0	3	1	0	0	1	0	0	0	0	4
07:30 AM	0	0	2	2	0	4	0	4	0	3	0	3	0	1	0	1	10
07:45 AM	1	3	1	5	0	3	0	3	1	0	0	1	1	1	0	2	11
Total	1	4	5	10	0	12	0	12	2	3	1	6	2	2	1	5	33
08:00 AM	1	0	1	2	0	1	0	1	2	3	0	5	2	3	1	6	14
08:15 AM	0	0	1	1	0	6	0	6	2	0	0	2	1	5	0	6	15
08:30 AM	0	0	3	3	0	4	0	4	2	1	0	3	1	1	1	3	13
08:45 AM	0	0	2	2	0	2	0	2	0	0	0	0	1	2	1	4	8
Total	1	0	7	8	0	13	0	13	6	4	0	10	5	11	3	19	50
Grand Total	2	4	12	18	0	25	0	25	8	7	1	16	7	13	4	24	83
Apprch %	11.1	22.2	66.7		0	100	0		50	43.8	6.2		29.2	54.2	16.7		
Total %	2.4	4.8	14.5	21.7	0	30.1	0	30.1	9.6	8.4	1.2	19.3	8.4	15.7	4.8	28.9	

	Hidalgo Street Southbound				Loma Vista Road Westbound				Yerxa Road Northbound				Loma Vista Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	**1**	**3**	1	**5**	0	3	0	3	1	0	0	1	1	1	0	2	11
08:00 AM	1	0	1	2	0	1	0	1	**2**	**3**	0	**5**	**2**	3	**1**	**6**	14
08:15 AM	0	0	1	1	0	**6**	0	**6**	2	0	0	2	1	**5**	0	6	**15**
08:30 AM	0	0	**3**	3	0	4	0	4	2	1	0	3	1	1	1	3	13
Total Volume	2	3	6	11	0	14	0	14	7	4	0	11	5	10	2	17	53
% App. Total	18.2	27.3	54.5		0	100	0		63.6	36.4	0		29.4	58.8	11.8		
PHF	.500	.250	.500	.550	.000	.583	.000	.583	.875	.333	.000	.550	.625	.500	.500	.708	.883

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Desert Hot Springs
N/S: Hidalgo Street/Yerxa Road
E/W: Loma Vista Road
Weather: Clear

File Name : 02_DHS_Hid_LV AM
Site Code : 05123903
Start Date : 10/4/2023



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:30 AM				07:30 AM				08:00 AM			
+0 mins.	**1**	**3**	1	**5**	0	4	0	4	0	**3**	0	3	**2**	3	**1**	**6**
+15 mins.	1	0	1	2	0	3	0	3	1	0	0	1	1	**5**	0	6
+30 mins.	0	0	1	1	0	1	0	1	**2**	3	0	**5**	1	1	1	3
+45 mins.	0	0	**3**	3	0	**6**	0	**6**	2	0	0	2	1	2	1	4
Total Volume	2	3	6	11	0	14	0	14	5	6	0	11	5	11	3	19
% App. Total	18.2	27.3	54.5		0	100	0		45.5	54.5	0		26.3	57.9	15.8	
PHF	.500	.250	.500	.550	.000	.583	.000	.583	.625	.500	.000	.550	.625	.550	.750	.792

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Desert Hot Springs
N/S: Hidalgo Street/Yerxa Road
E/W: Loma Vista Road
Weather: Clear

File Name : 02_DHS_Hid_LV PM
Site Code : 05123903
Start Date : 10/4/2023
Page No : 1

Groups Printed- Total Volume

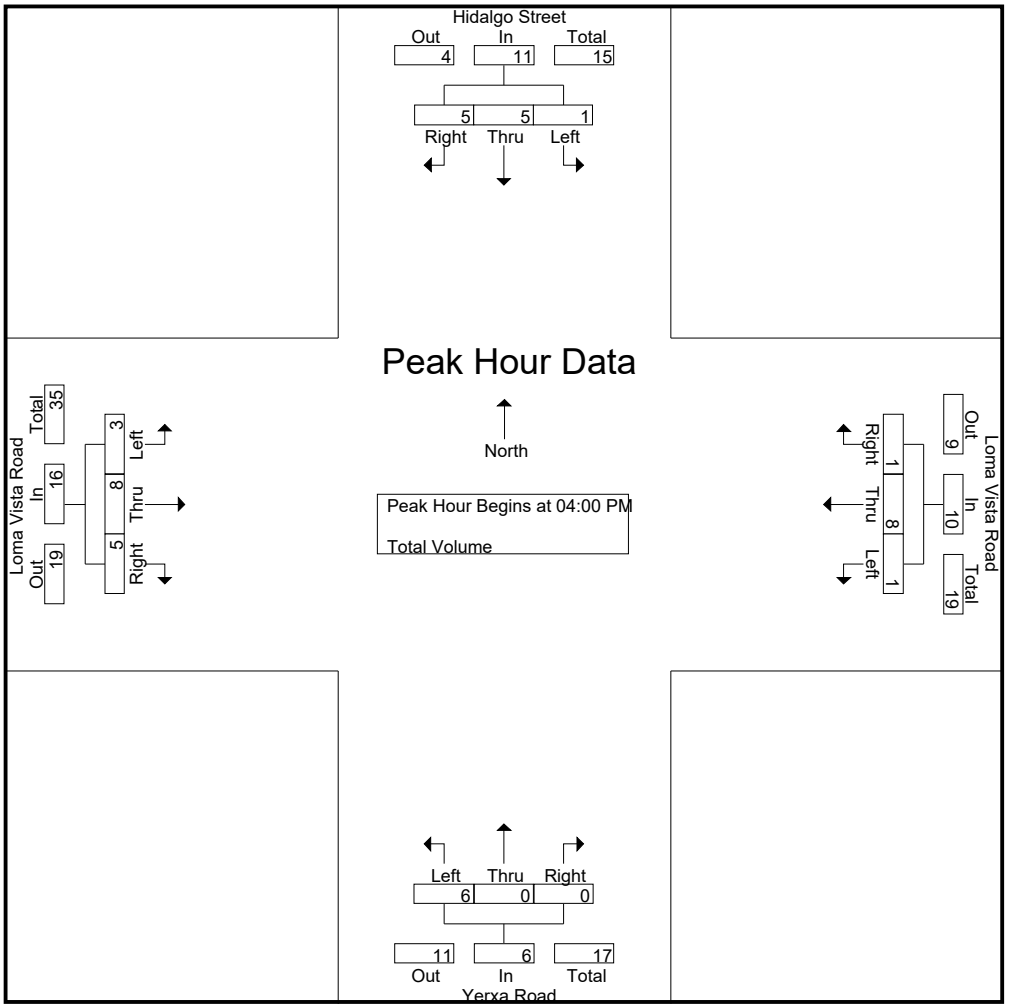
	Hidalgo Street Southbound				Loma Vista Road Westbound				Yerxa Road Northbound				Loma Vista Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	1	1	2	0	1	0	1	2	0	0	2	1	3	1	5	10
04:15 PM	0	1	2	3	0	0	0	0	0	0	0	0	2	2	1	5	8
04:30 PM	1	2	0	3	0	5	0	5	1	0	0	1	0	1	0	1	10
04:45 PM	0	1	2	3	1	2	1	4	3	0	0	3	0	2	3	5	15
Total	1	5	5	11	1	8	1	10	6	0	0	6	3	8	5	16	43
05:00 PM	0	1	0	1	0	1	0	1	1	0	0	1	2	2	1	5	8
05:15 PM	0	1	0	1	0	4	0	4	0	0	0	0	0	2	2	4	9
05:30 PM	0	0	2	2	0	3	0	3	0	2	0	2	2	2	0	4	11
05:45 PM	0	1	2	3	0	2	0	2	1	0	0	1	2	3	1	6	12
Total	0	3	4	7	0	10	0	10	2	2	0	4	6	9	4	19	40
Grand Total	1	8	9	18	1	18	1	20	8	2	0	10	9	17	9	35	83
Apprch %	5.6	44.4	50		5	90	5		80	20	0		25.7	48.6	25.7		
Total %	1.2	9.6	10.8	21.7	1.2	21.7	1.2	24.1	9.6	2.4	0	12	10.8	20.5	10.8	42.2	

	Hidalgo Street Southbound				Loma Vista Road Westbound				Yerxa Road Northbound				Loma Vista Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	1	1	2	0	1	0	1	2	0	0	2	1	**3**	1	**5**	10
04:15 PM	0	1	**2**	**3**	0	0	0	0	0	0	0	0	**2**	2	1	5	8
04:30 PM	**1**	**2**	0	3	0	**5**	0	**5**	1	0	0	1	0	1	0	1	10
04:45 PM	0	1	2	3	**1**	2	**1**	4	**3**	0	0	**3**	0	2	**3**	5	**15**
Total Volume	1	5	5	11	1	8	1	10	6	0	0	6	3	8	5	16	43
% App. Total	9.1	45.5	45.5		10	80	10		100	0	0		18.8	50	31.2		
PHF	.250	.625	.625	.917	.250	.400	.250	.500	.500	.000	.000	.500	.375	.667	.417	.800	.717

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Desert Hot Springs
N/S: Hidalgo Street/Yerxa Road
E/W: Loma Vista Road
Weather: Clear

File Name : 02_DHS_Hid_LV PM
Site Code : 05123903
Start Date : 10/4/2023
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:30 PM				04:00 PM				05:00 PM			
+0 mins.	0	1	1	2	0	**5**	0	**5**	2	0	0	2	**2**	2	1	5
+15 mins.	0	1	**2**	**3**	**1**	2	**1**	4	0	0	0	0	0	2	**2**	4
+30 mins.	**1**	**2**	0	3	0	1	0	1	1	0	0	1	2	2	0	4
+45 mins.	0	1	2	3	0	4	0	4	**3**	0	0	**3**	2	**3**	1	**6**
Total Volume	1	5	5	11	1	12	1	14	6	0	0	6	6	9	4	19
% App. Total	9.1	45.5	45.5		7.1	85.7	7.1		100	0	0		31.6	47.4	21.1	
PHF	.250	.625	.625	.917	.250	.600	.250	.700	.500	.000	.000	.500	.750	.750	.500	.792

Counts Unlimited, Inc.

PO Box 1178
Corona, CA 92878
Phone: (951) 268-6268
email: counts@countsunlimited.com

City of Desert Hot Springs
Loma Vista Road
W/ Yerxa Road
24 Hour Directional Volume Count

DHS002
Site Code: 051-23903

Start Time	10/4/23 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		1	**4**			2	5				
12:15		0	**6**			0	8				
12:30		0	**6**			0	2				
12:45		2	**6**	3	22	0	1	2	16	5	38
01:00		1	3			0	3				
01:15		1	3			1	5				
01:30		1	5			0	5				
01:45		0	3	3	14	0	5	1	18	4	32
02:00		0	3			0	3				
02:15		0	3			0	4				
02:30		0	2			0	1				
02:45		1	5	1	13	0	4	0	12	1	25
03:00		0	0			0	5				
03:15		0	2			1	4				
03:30		0	2			0	0				
03:45		0	3	0	7	0	2	1	11	1	18
04:00		0	5			1	4				
04:15		0	5			0	2				
04:30		0	1			2	6				
04:45		1	5	1	16	1	7	4	19	5	35
05:00		0	5			3	2				
05:15		0	4			4	4				
05:30		3	4			3	5				
05:45		0	6	3	19	1	5	11	16	14	35
06:00		0	5			0	2				
06:15		1	4			8	**6**				
06:30		2	6			4	**4**				
06:45		0	7	3	22	4	**6**	16	18	19	40
07:00		2	5			4	**4**				
07:15		0	3			4	3				
07:30		1	3			6	3				
07:45		2	6	5	17	**5**	1	19	11	24	28
08:00		**6**	4			**4**	0				
08:15		**6**	6			**9**	5				
08:30		**3**	1			**9**	2				
08:45		**4**	5	19	16	4	4	26	11	45	27
09:00		1	2			2	4				
09:15		7	2			3	1				
09:30		1	2			4	0				
09:45		0	3	9	9	5	2	14	7	23	16
10:00		2	2			3	1				
10:15		0	1			3	3				
10:30		6	1			1	0				
10:45		1	0	9	4	1	1	8	5	17	9
11:00		0	2			6	1				
11:15		1	2			7	0				
11:30		1	2			3	1				
11:45		1	0	3	6	3	1	19	3	22	9
Total		59	165	59	165	121	147	121	147	180	312
Combined Total		224		224		268		268		492	
AM Peak	-	08:00	-	-	-	07:45	-	-	-	-	-
Vol.	-	19	-	-	-	27	-	-	-	-	-
P.H.F.		0.792				0.750					
PM Peak	-	-	12:00	-	-	-	06:15	-	-	-	-
Vol.	-	-	22	-	-	-	20	-	-	-	-
P.H.F.			0.917				0.714				
Percentage		26.3%	73.7%			45.1%	54.9%				
ADT/AADT		ADT 492		AADT 492							

Counts Unlimited, Inc.

PO Box 1178
Corona, CA 92878
Phone: (951) 268-6268
email: counts@countsunlimited.com

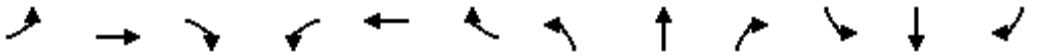
City of Desert Hot Springs
Two Bunch Palms Trail
W/ Miracle Hill Road
24 Hour Directional Volume Count

DHS001
Site Code: 051-23903

Start Time	10/4/23 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		10	**38**			7	**41**				
12:15		7	**65**			1	**57**				
12:30		9	**58**			3	**45**				
12:45		4	**68**	30	229	3	**39**	14	182	44	411
01:00		1	36			3	25				
01:15		3	39			3	24				
01:30		3	39			0	31				
01:45		2	32	9	146	2	33	8	113	17	259
02:00		3	38			0	33				
02:15		0	30			2	30				
02:30		1	43			3	34				
02:45		3	39	7	150	0	32	5	129	12	279
03:00		2	42			2	30				
03:15		2	46			3	25				
03:30		1	19			4	33				
03:45		2	32	7	139	2	35	11	123	18	262
04:00		0	64			9	39				
04:15		2	56			6	26				
04:30		3	47			3	33				
04:45		2	46	7	213	9	39	27	137	34	350
05:00		4	40			17	36				
05:15		5	40			12	43				
05:30		6	55			20	33				
05:45		6	42	21	177	20	34	69	146	90	323
06:00		7	48			20	35				
06:15		15	59			26	43				
06:30		12	47			33	37				
06:45		30	47	64	201	33	43	112	158	176	359
07:00		19	47			46	33				
07:15		34	25			41	27				
07:30		35	28			**55**	25				
07:45		35	27	123	127	**41**	14	183	99	306	226
08:00		23	32			**37**	16				
08:15		42	32			**59**	24				
08:30		57	22			48	15				
08:45		33	23	155	109	41	15	185	70	340	179
09:00		25	35			23	27				
09:15		24	38			35	14				
09:30		27	29			33	8				
09:45		35	12	111	114	33	18	124	67	235	181
10:00		**31**	21			27	16				
10:15		**30**	20			21	7				
10:30		**63**	10			27	7				
10:45		**38**	16	162	67	21	6	96	36	258	103
11:00		13	15			34	9				
11:15		20	15			27	6				
11:30		27	15			21	5				
11:45		31	10	91	55	26	3	108	23	199	78
Total		787	1727	787	1727	942	1283	942	1283	1729	3010
Combined Total		2514		2514		2225		2225		4739	
AM Peak	-	10:00	-	-	-	07:30	-	-	-	-	-
Vol.	-	162	-	-	-	192	-	-	-	-	-
P.H.F.		0.643				0.814					
PM Peak	-	-	12:00	-	-	-	12:00	-	-	-	-
Vol.	-	-	229	-	-	-	182	-	-	-	-
P.H.F.			0.842				0.798				
Percentage		31.3%	68.7%			42.3%	57.7%				
ADT/AADT		ADT 4,739		AADT 4,739							

APPENDIX 3.2: EXISTING (2023) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

This Page Intentionally Left Blank



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	139	21	1	153	3	36	8	1	1	10	14
Future Volume (vph)	13	139	21	1	153	3	36	8	1	1	10	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	0		50	0		0	0		50
Storage Lanes	0		1	0		1	0		0	0		1
Taper Length (ft)	60			60			60			60		
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		563			569			217			534	
Travel Time (s)		11.0			11.1			4.2			10.4	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

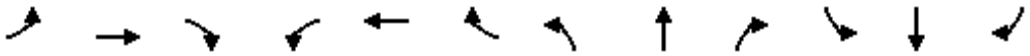
Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	139	21	1	153	3	36	8	1	1	10	14
Future Vol, veh/h	13	139	21	1	153	3	36	8	1	1	10	14
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	-	50	-	-	-	-	-	50
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	15	165	25	1	182	4	43	10	1	1	12	17

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	191	0	0	195	0	0	406	393	175	407	414	192
Stage 1	-	-	-	-	-	-	200	200	-	189	189	-
Stage 2	-	-	-	-	-	-	206	193	-	218	225	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1395	-	-	1390	-	-	559	546	874	558	532	855
Stage 1	-	-	-	-	-	-	806	739	-	817	748	-
Stage 2	-	-	-	-	-	-	801	745	-	789	721	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1388	-	-	1383	-	-	528	533	866	539	520	847
Mov Cap-2 Maneuver	-	-	-	-	-	-	528	533	-	539	520	-
Stage 1	-	-	-	-	-	-	792	726	-	803	744	-
Stage 2	-	-	-	-	-	-	768	741	-	765	709	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	0	12.5	10.5
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	534	1388	-	-	1383	-	-	522	847
HCM Lane V/C Ratio	0.1	0.011	-	-	0.001	-	-	0.025	0.02
HCM Control Delay (s)	12.5	7.6	0	-	7.6	0	-	12.1	9.3
HCM Lane LOS	B	A	A	-	A	A	-	B	A
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0.1	0.1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	11	2	1	15	1	8	4	1	2	3	7
Future Volume (vph)	6	11	2	1	15	1	8	4	1	2	3	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1435			327			604			606	
Travel Time (s)		28.0			6.4			11.8			11.8	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
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
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

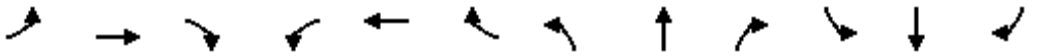
Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	11	2	1	15	1	8	4	1	2	3	7
Future Vol, veh/h	6	11	2	1	15	1	8	4	1	2	3	7
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	7	13	2	1	17	1	9	5	1	2	3	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	23	0	0	20	0	0	63	58	24	61	59	28
Stage 1	-	-	-	-	-	-	33	33	-	25	25	-
Stage 2	-	-	-	-	-	-	30	25	-	36	34	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1605	-	-	1609	-	-	936	837	1058	939	836	1053
Stage 1	-	-	-	-	-	-	988	872	-	998	878	-
Stage 2	-	-	-	-	-	-	992	878	-	985	871	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1597	-	-	1601	-	-	914	824	1048	922	823	1043
Mov Cap-2 Maneuver	-	-	-	-	-	-	914	824	-	922	823	-
Stage 1	-	-	-	-	-	-	979	864	-	989	873	-
Stage 2	-	-	-	-	-	-	975	873	-	970	863	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.3	0.4	9.1	8.8
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	893	1597	-	-	1601	-	-	958
HCM Lane V/C Ratio	0.017	0.004	-	-	0.001	-	-	0.014
HCM Control Delay (s)	9.1	7.3	0	-	7.2	0	-	8.8
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	183	31	1	112	1	20	8	1	1	6	19
Future Volume (vph)	21	183	31	1	112	1	20	8	1	1	6	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	0		50	0		0	0		50
Storage Lanes	0		1	0		1	0		0	0		1
Taper Length (ft)	60			60			60			60		
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		563			569			217			534	
Travel Time (s)		11.0			11.1			4.2			10.4	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

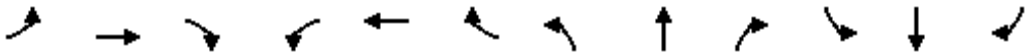
Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	21	183	31	1	112	1	20	8	1	1	6	19
Future Vol, veh/h	21	183	31	1	112	1	20	8	1	1	6	19
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	-	50	-	-	-	-	-	50
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	25	215	36	1	132	1	24	9	1	1	7	22

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	138	0	0	256	0	0	424	410	225	432	445	142
Stage 1	-	-	-	-	-	-	270	270	-	139	139	-
Stage 2	-	-	-	-	-	-	154	140	-	293	306	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1458	-	-	1321	-	-	544	534	819	537	511	911
Stage 1	-	-	-	-	-	-	740	690	-	869	785	-
Stage 2	-	-	-	-	-	-	853	785	-	719	665	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1451	-	-	1315	-	-	511	517	811	516	495	902
Mov Cap-2 Maneuver	-	-	-	-	-	-	511	517	-	516	495	-
Stage 1	-	-	-	-	-	-	722	673	-	847	780	-
Stage 2	-	-	-	-	-	-	820	780	-	690	648	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	0.1	12.4	10
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	519	1451	-	-	1315	-	-	498	902
HCM Lane V/C Ratio	0.066	0.017	-	-	0.001	-	-	0.017	0.025
HCM Control Delay (s)	12.4	7.5	0	-	7.7	0	-	12.4	9.1
HCM Lane LOS	B	A	A	-	A	A	-	B	A
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0	-	-	0.1	0.1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	9	6	1	9	1	7	1	1	1	6	6
Future Volume (vph)	3	9	6	1	9	1	7	1	1	1	6	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1435			327			604			606	
Travel Time (s)		28.0			6.4			11.8			11.8	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	9	6	1	9	1	7	1	1	1	6	6
Future Vol, veh/h	3	9	6	1	9	1	7	1	1	1	6	6
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	72	72	72	72	72	72	72	72	72	72	72	72
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	4	13	8	1	13	1	10	1	1	1	8	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	19	0	0	26	0	0	59	51	27	52	55	24
Stage 1	-	-	-	-	-	-	30	30	-	21	21	-
Stage 2	-	-	-	-	-	-	29	21	-	31	34	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1611	-	-	1601	-	-	942	844	1054	952	840	1058
Stage 1	-	-	-	-	-	-	992	874	-	1003	882	-
Stage 2	-	-	-	-	-	-	993	882	-	991	871	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1603	-	-	1593	-	-	916	832	1044	938	828	1048
Mov Cap-2 Maneuver	-	-	-	-	-	-	916	832	-	938	828	-
Stage 1	-	-	-	-	-	-	984	867	-	995	877	-
Stage 2	-	-	-	-	-	-	970	877	-	980	864	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.2	0.7	9	9
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	918	1603	-	-	1593	-	-	926
HCM Lane V/C Ratio	0.014	0.003	-	-	0.001	-	-	0.019
HCM Control Delay (s)	9	7.3	0	-	7.3	0	-	9
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1

APPENDIX 3.3: TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

This Page Intentionally Left Blank

California MUTCD 2014 Edition
(FHWA's MUTCD 2009, as amended for use in California)

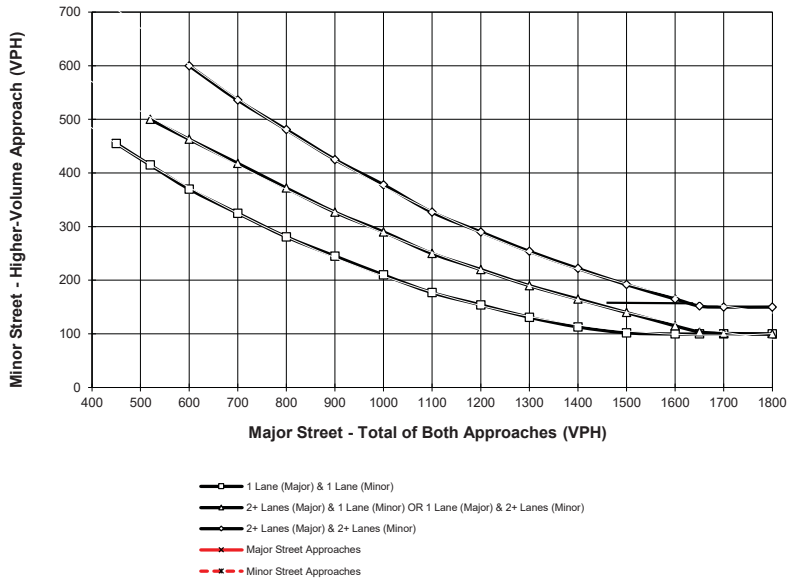
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **Existing (2023) AM Peak Hour Warrants**

Major Street Name = **Two Bunch Palms Tr. - Cuando Wy.**
Total of Both Approaches (VPH) = **330**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Miracle Hill Rd. - Loma Vista Rd.**
High Volume Approach (VPH) = **45**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #1

F:\UXRjobs_14100-14500\14385\Warrants\01 - Existing\01U_AM\Fig 4C-3 (Urban Peak)

California MUTCD 2014 Edition
(FHWA's MUTCD 2009, as amended for use in California)

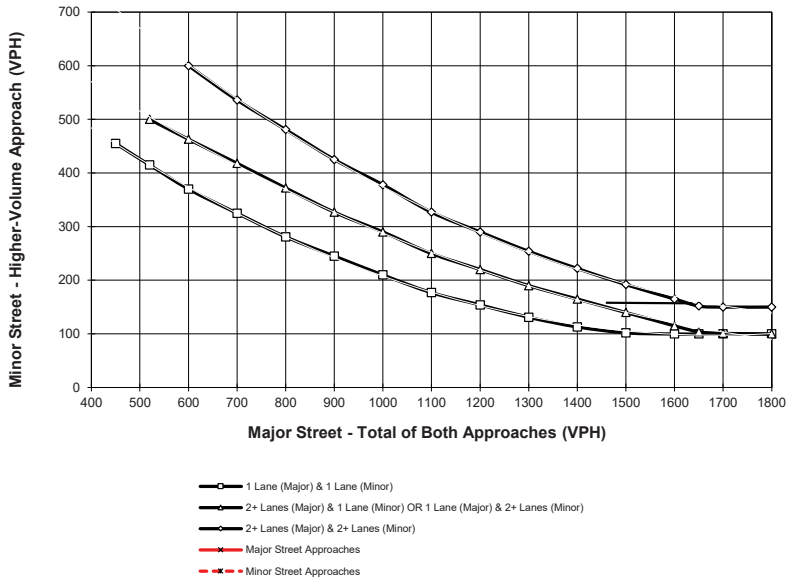
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **Existing (2023) PM Peak Hour Warrants**

Major Street Name = **Two Bunch Palms Tr. - Cuando Wy.**
Total of Both Approaches (VPH) = **349**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Miracle Hill Rd. - Loma Vista Rd.**
High Volume Approach (VPH) = **29**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #1

F:\UXRjobs_14100-14500\14385\Warrants\01 - Existing\01U_PM\Fig 4C-3 (Urban Peak)

California MUTCD 2014 Edition
(FHWA's MUTCD 2009, as amended for use in California)

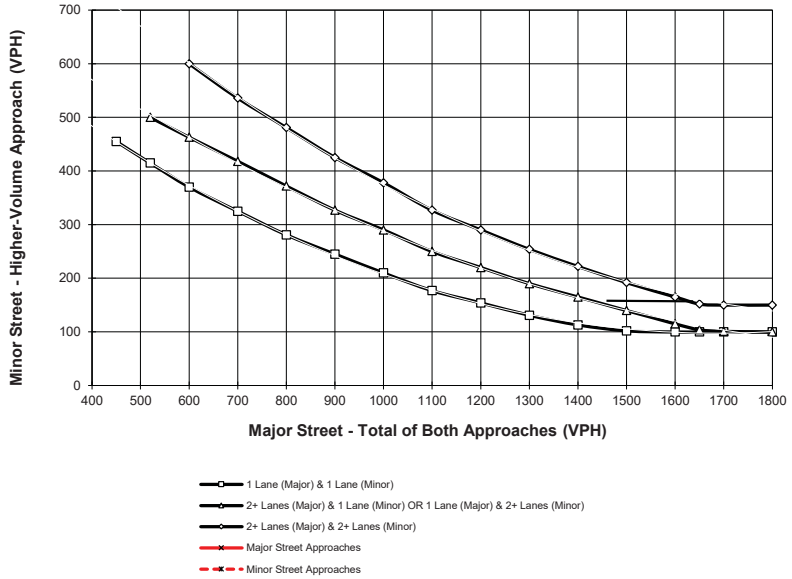
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **Existing (2023) AM Peak Hour Warrants**

Major Street Name = **Loma Vista Rd.** Total of Both Approaches (VPH) = **36**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Hidalgo St. - Yerxa Rd.** High Volume Approach (VPH) = **13**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #2

F:\UXRjobs_14100-14500\14385\Warrants\01 - Existing\02U_AM\Fig 4C-3 (Urban Peak)

California MUTCD 2014 Edition
(FHWA's MUTCD 2009, as amended for use in California)

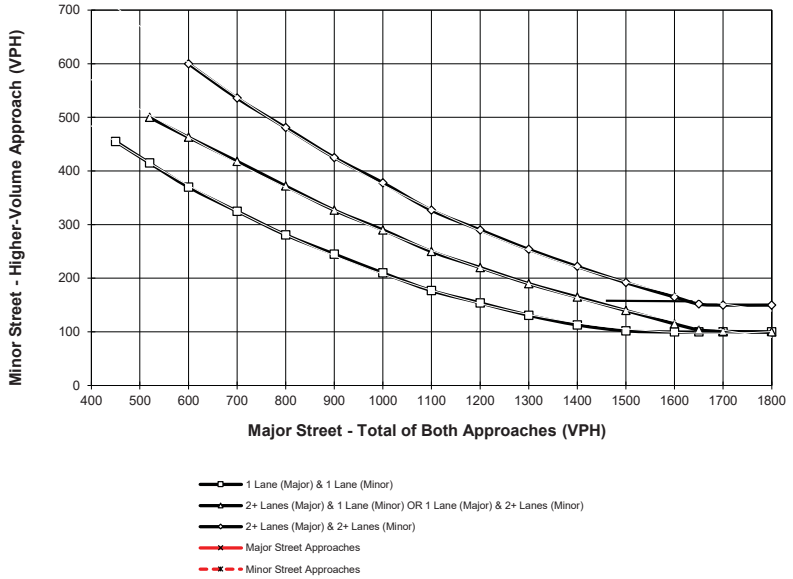
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **Existing (2023) PM Peak Hour Warrants**

Major Street Name = **Loma Vista Rd.** Total of Both Approaches (VPH) = **29**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Hidalgo St. - Yerxa Rd.** High Volume Approach (VPH) = **13**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #2

F:\UXRjobs_14100-14500\14385\Warrants\01 - Existing\02U_PM\Fig 4C-3 (Urban Peak)

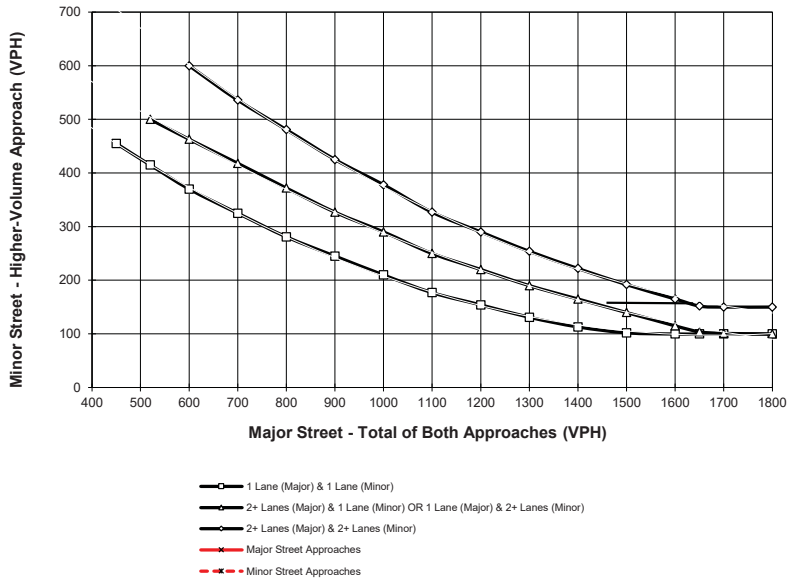
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EAP (2025) AM Peak Hour Warrants**

Major Street Name = **Two Bunch Palms Tr. - Cuando Wy.**
Total of Both Approaches (VPH) = **354**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Miracle Hill Rd. - Loma Vista Rd.**
High Volume Approach (VPH) = **52**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #1

F:\UXRjobs_14100-14500\14385\Warrants\02 - EAP\01U_AM\Fig 4C-3 (Urban Peak)

California MUTCD 2014 Edition
(FHWA's MUTCD 2009, as amended for use in California)

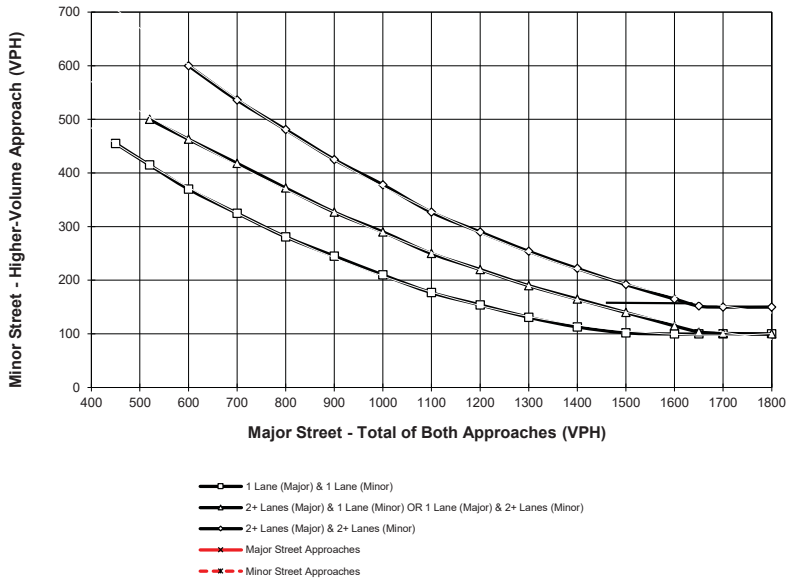
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EAP (2025) PM Peak Hour Warrants**

Major Street Name = **Two Bunch Palms Tr. - Cuando Wy.**
Total of Both Approaches (VPH) = **373**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Miracle Hill Rd. - Loma Vista Rd.**
High Volume Approach (VPH) = **43**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #1

F:\UXRjobs_14100-14500\14385\Warrants\02 - EAP\01U_PM\Fig 4C-3 (Urban Peak)

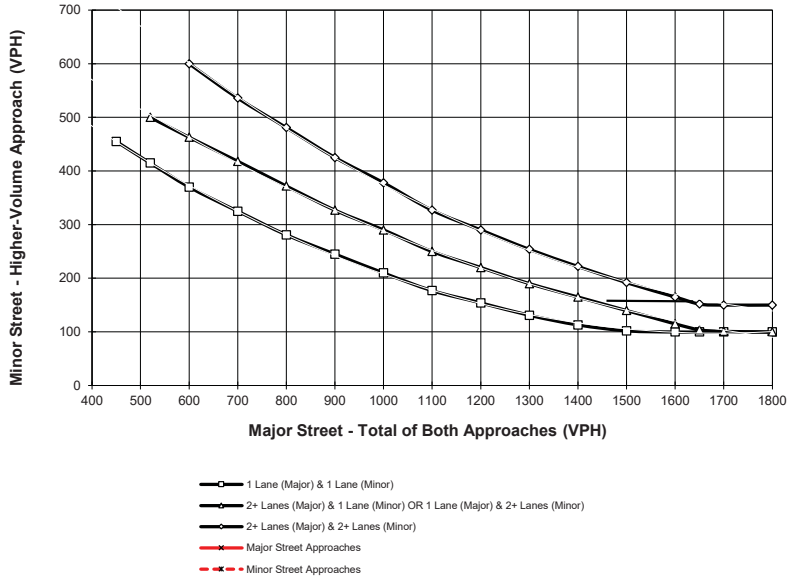
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EAP (2025) AM Peak Hour Warrants**

Major Street Name = **Loma Vista Rd.** Total of Both Approaches (VPH) = **51**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Hidalgo St. - Yerxa Rd.** High Volume Approach (VPH) = **20**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #2

F:\UXRjobs_14100-14500\14385\Warrants\02 - EAP\02U_AM\Fig 4C-3 (Urban Peak)

California MUTCD 2014 Edition
(FHWA's MUTCD 2009, as amended for use in California)

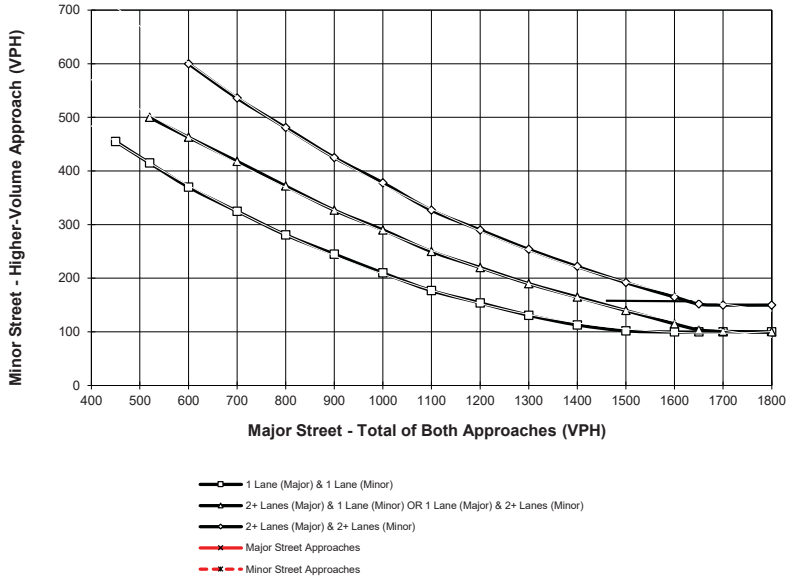
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EAP (2025) PM Peak Hour Warrants**

Major Street Name = **Loma Vista Rd.** Total of Both Approaches (VPH) = **43**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Hidalgo St. - Yerxa Rd.** High Volume Approach (VPH) = **25**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #2

F:\UXRjobs_14100-14500\14385\Warrants\02 - EAP\02U_PM\Fig 4C-3 (Urban Peak)

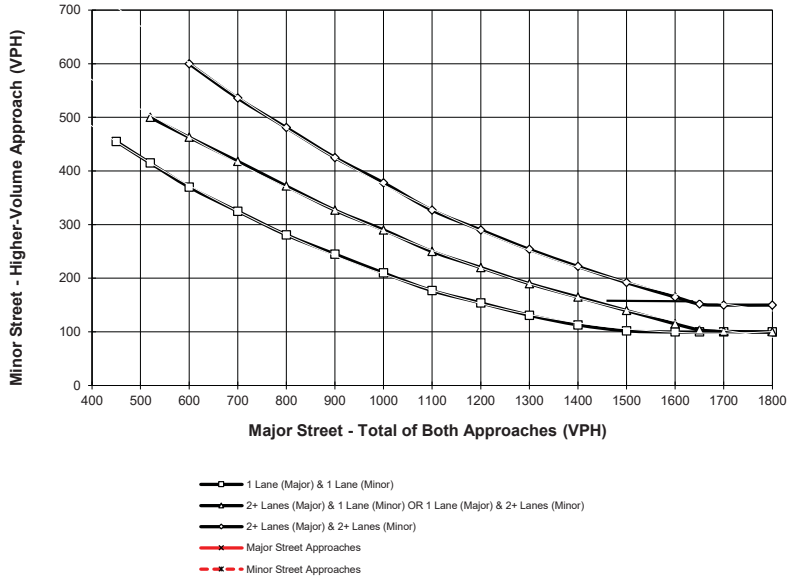
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EAPC (2025) AM Peak Hour Warrants**

Major Street Name = **Two Bunch Palms Tr. - Cuando Wy.**
Total of Both Approaches (VPH) = **384**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Miracle Hill Rd. - Loma Vista Rd.**
High Volume Approach (VPH) = **52**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #1

F:\UXRjobs_14100-14500\14385\Warrants\03 - EAPC\01U_AM\Fig 4C-3 (Urban Peak)

California MUTCD 2014 Edition
(FHWA's MUTCD 2009, as amended for use in California)

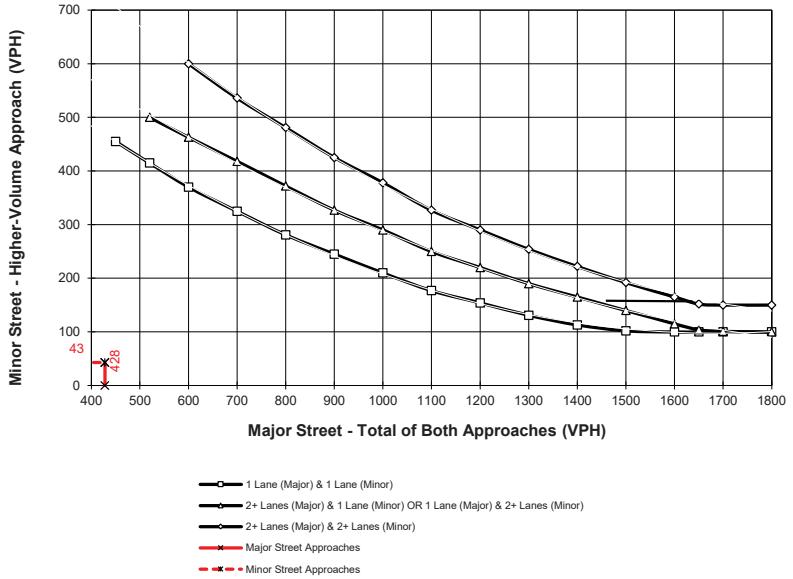
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EAPC (2025) PM Peak Hour Warrants**

Major Street Name = **Two Bunch Palms Tr. - Cuando Wy.**
Total of Both Approaches (VPH) = **428**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Miracle Hill Rd. - Loma Vista Rd.**
High Volume Approach (VPH) = **43**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #1

F:\UXRjobs_14100-14500\14385\Warrants\03 - EAPC\01U_PM\Fig 4C-3 (Urban Peak)

California MUTCD 2014 Edition
(FHWA's MUTCD 2009, as amended for use in California)

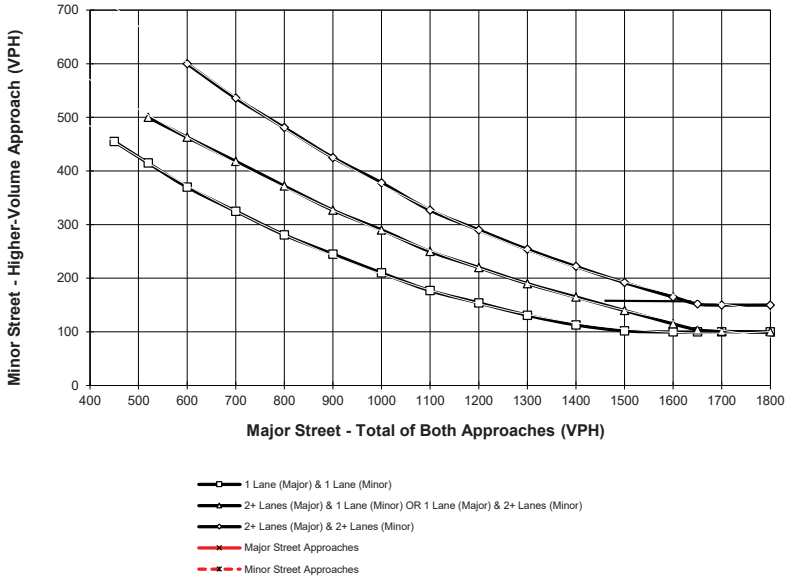
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EAPC (2025) AM Peak Hour Warrants**

Major Street Name = **Loma Vista Rd.** Total of Both Approaches (VPH) = **51**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Hidalgo St. - Yerxa Rd.** High Volume Approach (VPH) = **20**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #2

F:\UXRjobs_14100-14500\14385\Warrants\03 - EAPC\02U_AM\Fig 4C-3 (Urban Peak)

California MUTCD 2014 Edition
(FHWA's MUTCD 2009, as amended for use in California)

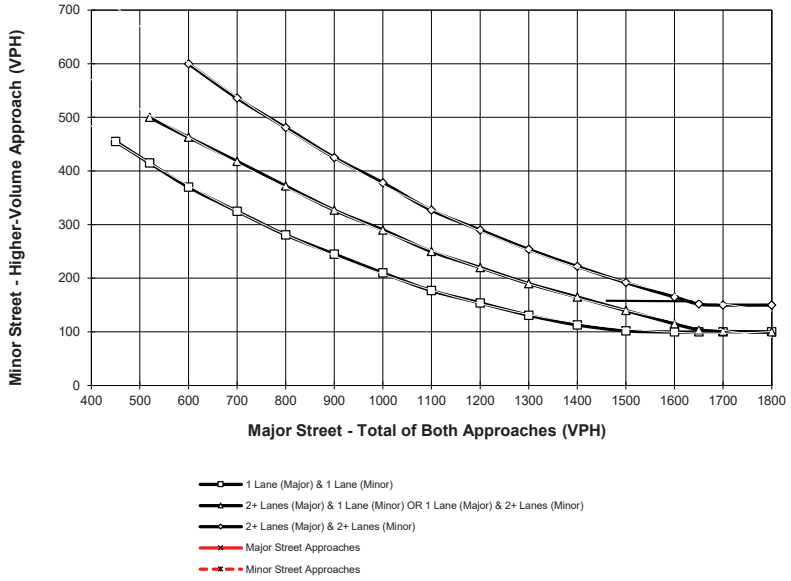
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EAPC (2025) PM Peak Hour Warrants**

Major Street Name = **Loma Vista Rd.** Total of Both Approaches (VPH) = **43**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Hidalgo St. - Yerxa Rd.** High Volume Approach (VPH) = **25**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #2

F:\UXRjobs_14100-14500\14385\Warrants\03 - EAPC\02U_PM\Fig 4C-3 (Urban Peak)

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	EAP
				CALC JC	DATE 11/01/23
				CHK	DATE

Jurisdiction: **City of Desert Hot Springs Rd.**
Major Street: **Yerxa Rd.**
Minor Street: **St. "A"**

Critical Approach Speed (Major) 35 mph
Critical Approach Speed (Minor) 30 mph

Major Street Approach Lanes = **1** lane
Minor Street Approach Lanes **1** lane

Major Street Future ADT = **322** vpd
Minor Street Future ADT = **68** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……..
or
In built up area of isolated community of < 10,000 population ……..

URBAN (U)

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Number of lanes for moving traffic on each approach		Minimum Requirements ADT			
			Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
	Major Street	Minor Street	Urban	Rural	Urban	Rural
CONDITION A - Minimum Vehicular Volume						
Satisfied: Not Satisfied XX						
	1 **322**	*1* **68**	8,000	5,600	2,400	1,680
	2 +	*1*	9,600	6,720	2,400	1,680
	2 +	*2* +	9,600	6,720	3,200	2,240
	1	*2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic						
Satisfied: Not Satisfied XX						
	1 **322**	*1* **68**	12,000	8,400	1,200	850
	2 +	*1*	14,400	10,080	1,200	850
	2 +	*2* +	14,400	10,080	1,600	1,120
	1	*2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B						
Satisfied: Not Satisfied XX			2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more …..	A 3%	B 3%				

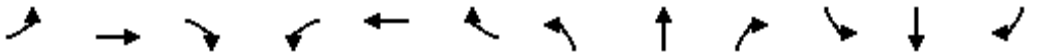
Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

This Page Intentionally Left Blank

APPENDIX 5.1: EAP (2025) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

This Page Intentionally Left Blank



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	145	32	1	159	3	42	9	1	1	13	15
Future Volume (vph)	14	145	32	1	159	3	42	9	1	1	13	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	0		50	0		0	0		50
Storage Lanes	0		1	0		1	0		0	0		1
Taper Length (ft)	60			60			60			60		
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		563			569			217			534	
Travel Time (s)		11.0			11.1			4.2			10.4	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

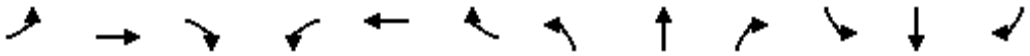
Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	145	32	1	159	3	42	9	1	1	13	15
Future Vol, veh/h	14	145	32	1	159	3	42	9	1	1	13	15
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	-	50	-	-	-	-	-	50
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	17	173	38	1	189	4	50	11	1	1	15	18

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	198	0	0	216	0	0	427	412	183	433	446	199
Stage 1	-	-	-	-	-	-	212	212	-	196	196	-
Stage 2	-	-	-	-	-	-	215	200	-	237	250	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1387	-	-	1366	-	-	541	533	865	537	510	847
Stage 1	-	-	-	-	-	-	795	731	-	810	742	-
Stage 2	-	-	-	-	-	-	792	739	-	771	704	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1380	-	-	1359	-	-	506	520	857	517	497	839
Mov Cap-2 Maneuver	-	-	-	-	-	-	506	520	-	517	497	-
Stage 1	-	-	-	-	-	-	780	717	-	795	738	-
Stage 2	-	-	-	-	-	-	755	735	-	744	691	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	0	13	10.9
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	512	1380	-	-	1359	-	-	498	839
HCM Lane V/C Ratio	0.121	0.012	-	-	0.001	-	-	0.033	0.021
HCM Control Delay (s)	13	7.6	0	-	7.7	0	-	12.5	9.4
HCM Lane LOS	B	A	A	-	A	A	-	B	A
HCM 95th %tile Q(veh)	0.4	0	-	-	0	-	-	0.1	0.1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	11	15	2	16	1	14	5	1	2	5	7
Future Volume (vph)	6	11	15	2	16	1	14	5	1	2	5	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1435			327			604			606	
Travel Time (s)		28.0			6.4			11.8			11.8	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
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
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	6	11	15	2	16	1	14	5	1	2	5	7
Future Vol, veh/h	6	11	15	2	16	1	14	5	1	2	5	7
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	7	13	17	2	18	1	16	6	1	2	6	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	24	0	0	35	0	0	76	69	32	72	77	29
Stage 1	-	-	-	-	-	-	41	41	-	28	28	-
Stage 2	-	-	-	-	-	-	35	28	-	44	49	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1604	-	-	1589	-	-	919	825	1048	924	817	1052
Stage 1	-	-	-	-	-	-	979	865	-	994	876	-
Stage 2	-	-	-	-	-	-	986	876	-	975	858	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1596	-	-	1581	-	-	895	813	1038	906	805	1042
Mov Cap-2 Maneuver	-	-	-	-	-	-	895	813	-	906	805	-
Stage 1	-	-	-	-	-	-	970	857	-	985	871	-
Stage 2	-	-	-	-	-	-	966	871	-	959	850	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.4	0.8	9.2	9
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	879	1596	-	-	1581	-	-	925
HCM Lane V/C Ratio	0.026	0.004	-	-	0.001	-	-	0.017
HCM Control Delay (s)	9.2	7.3	0	-	7.3	0	-	9
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	1	2	5	1	5	10
Future Volume (vph)	1	2	5	1	5	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Link Speed (mph)	35		35			35
Link Distance (ft)	175		582			604
Travel Time (s)	3.4		11.3			11.8
Confl. Peds. (#/hr)	5	5		5	5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

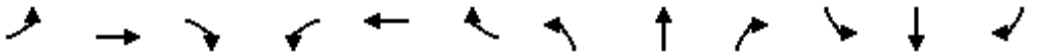
Intersection	
Int Delay, s/veh	2.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	2	5	1	5	10
Future Vol, veh/h	1	2	5	1	5	10
Conflicting Peds, #/hr	5	5	0	5	5	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, %	0	0	0	0	0	0
Mvmt Flow	1	2	5	1	5	11

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	37	16	0	0	11	0
Stage 1	11	-	-	-	-	-
Stage 2	26	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	981	1069	-	-	1621	-
Stage 1	1017	-	-	-	-	-
Stage 2	1002	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	968	1059	-	-	1613	-
Mov Cap-2 Maneuver	968	-	-	-	-	-
Stage 1	1012	-	-	-	-	-
Stage 2	994	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.5	0	2.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1027	1613	-
HCM Lane V/C Ratio	-	-	0.003	0.003	-
HCM Control Delay (s)	-	-	8.5	7.2	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	22	190	42	1	117	1	31	11	1	1	9	20
Future Volume (vph)	22	190	42	1	117	1	31	11	1	1	9	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	0		50	0		0	0		50
Storage Lanes	0		1	0		1	0		0	0		1
Taper Length (ft)	60			60			60			60		
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		563			569			217			534	
Travel Time (s)		11.0			11.1			4.2			10.4	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

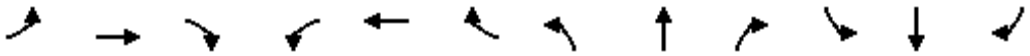
Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	22	190	42	1	117	1	31	11	1	1	9	20
Future Vol, veh/h	22	190	42	1	117	1	31	11	1	1	9	20
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	-	50	-	-	-	-	-	50
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	26	224	49	1	138	1	36	13	1	1	11	24

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	144	0	0	278	0	0	444	427	234	458	475	148
Stage 1	-	-	-	-	-	-	281	281	-	145	145	-
Stage 2	-	-	-	-	-	-	163	146	-	313	330	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1451	-	-	1296	-	-	528	523	810	516	491	904
Stage 1	-	-	-	-	-	-	730	682	-	863	781	-
Stage 2	-	-	-	-	-	-	844	780	-	702	649	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1444	-	-	1290	-	-	492	506	802	492	475	895
Mov Cap-2 Maneuver	-	-	-	-	-	-	492	506	-	492	475	-
Stage 1	-	-	-	-	-	-	711	664	-	841	776	-
Stage 2	-	-	-	-	-	-	806	775	-	670	632	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	0.1	13	10.3
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	500	1444	-	-	1290	-	-	477	895
HCM Lane V/C Ratio	0.101	0.018	-	-	0.001	-	-	0.025	0.026
HCM Control Delay (s)	13	7.5	0	-	7.8	0	-	12.7	9.1
HCM Lane LOS	B	A	A	-	A	A	-	B	A
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0	-	-	0.1	0.1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	9	19	2	9	1	20	3	2	1	8	6
Future Volume (vph)	3	9	19	2	9	1	20	3	2	1	8	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1435			327			604			606	
Travel Time (s)		28.0			6.4			11.8			11.8	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	4.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	9	19	2	9	1	20	3	2	1	8	6
Future Vol, veh/h	3	9	19	2	9	1	20	3	2	1	8	6
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	72	72	72	72	72	72	72	72	72	72	72	72
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	4	13	26	3	13	1	28	4	3	1	11	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	19	0	0	44	0	0	73	64	36	68	77	24
Stage 1	-	-	-	-	-	-	39	39	-	25	25	-
Stage 2	-	-	-	-	-	-	34	25	-	43	52	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1611	-	-	1577	-	-	923	831	1042	930	817	1058
Stage 1	-	-	-	-	-	-	981	866	-	998	878	-
Stage 2	-	-	-	-	-	-	987	878	-	976	856	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1603	-	-	1569	-	-	894	819	1032	911	805	1048
Mov Cap-2 Maneuver	-	-	-	-	-	-	894	819	-	911	805	-
Stage 1	-	-	-	-	-	-	973	859	-	990	872	-
Stage 2	-	-	-	-	-	-	960	872	-	961	849	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	1.2	9.2	9.1
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	894	1603	-	-	1569	-	-	895
HCM Lane V/C Ratio	0.039	0.003	-	-	0.002	-	-	0.023
HCM Control Delay (s)	9.2	7.3	0	-	7.3	0	-	9.1
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	1	5	10	1	5	10
Future Volume (vph)	1	5	10	1	5	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Link Speed (mph)	35		35			35
Link Distance (ft)	175		582			604
Travel Time (s)	3.4		11.3			11.8
Confl. Peds. (#/hr)	5	5		5	5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	5	10	1	5	10
Future Vol, veh/h	1	5	10	1	5	10
Conflicting Peds, #/hr	5	5	0	5	5	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, %	0	0	0	0	0	0
Mvmt Flow	1	5	11	1	5	11

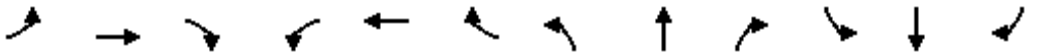
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	43	22	0	0	17	0
Stage 1	17	-	-	-	-	-
Stage 2	26	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	973	1061	-	-	1613	-
Stage 1	1011	-	-	-	-	-
Stage 2	1002	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	960	1051	-	-	1605	-
Mov Cap-2 Maneuver	960	-	-	-	-	-
Stage 1	1006	-	-	-	-	-
Stage 2	994	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.5	0	2.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1035	1605	-
HCM Lane V/C Ratio	-	-	0.006	0.003	-
HCM Control Delay (s)	-	-	8.5	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

APPENDIX 6.1: EAPC (2025) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

This Page Intentionally Left Blank



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	160	32	1	174	3	42	9	1	1	13	15
Future Volume (vph)	14	160	32	1	174	3	42	9	1	1	13	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	0		50	0		0	0		50
Storage Lanes	0		1	0		1	0		0	0		1
Taper Length (ft)	60			60			60			60		
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		563			569			217			534	
Travel Time (s)		11.0			11.1			4.2			10.4	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

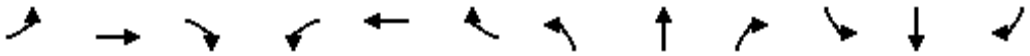
Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	160	32	1	174	3	42	9	1	1	13	15
Future Vol, veh/h	14	160	32	1	174	3	42	9	1	1	13	15
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	-	50	-	-	-	-	-	50
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	17	190	38	1	207	4	50	11	1	1	15	18

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	216	0	0	233	0	0	462	447	200	468	481	217
Stage 1	-	-	-	-	-	-	229	229	-	214	214	-
Stage 2	-	-	-	-	-	-	233	218	-	254	267	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1366	-	-	1346	-	-	513	509	846	509	487	828
Stage 1	-	-	-	-	-	-	778	718	-	793	729	-
Stage 2	-	-	-	-	-	-	775	726	-	755	692	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1359	-	-	1340	-	-	479	496	838	490	475	820
Mov Cap-2 Maneuver	-	-	-	-	-	-	479	496	-	490	475	-
Stage 1	-	-	-	-	-	-	763	704	-	778	725	-
Stage 2	-	-	-	-	-	-	738	722	-	729	679	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0	13.5	11.1
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	486	1359	-	-	1340	-	-	476	820
HCM Lane V/C Ratio	0.127	0.012	-	-	0.001	-	-	0.035	0.022
HCM Control Delay (s)	13.5	7.7	0	-	7.7	0	-	12.8	9.5
HCM Lane LOS	B	A	A	-	A	A	-	B	A
HCM 95th %tile Q(veh)	0.4	0	-	-	0	-	-	0.1	0.1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	11	15	2	16	1	14	5	1	2	5	7
Future Volume (vph)	6	11	15	2	16	1	14	5	1	2	5	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1435			327			604			606	
Travel Time (s)		28.0			6.4			11.8			11.8	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
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
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	6	11	15	2	16	1	14	5	1	2	5	7
Future Vol, veh/h	6	11	15	2	16	1	14	5	1	2	5	7
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	7	13	17	2	18	1	16	6	1	2	6	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	24	0	0	35	0	0	76	69	32	72	77	29
Stage 1	-	-	-	-	-	-	41	41	-	28	28	-
Stage 2	-	-	-	-	-	-	35	28	-	44	49	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1604	-	-	1589	-	-	919	825	1048	924	817	1052
Stage 1	-	-	-	-	-	-	979	865	-	994	876	-
Stage 2	-	-	-	-	-	-	986	876	-	975	858	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1596	-	-	1581	-	-	895	813	1038	906	805	1042
Mov Cap-2 Maneuver	-	-	-	-	-	-	895	813	-	906	805	-
Stage 1	-	-	-	-	-	-	970	857	-	985	871	-
Stage 2	-	-	-	-	-	-	966	871	-	959	850	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.4	0.8	9.2	9
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	879	1596	-	-	1581	-	-	925
HCM Lane V/C Ratio	0.026	0.004	-	-	0.001	-	-	0.017
HCM Control Delay (s)	9.2	7.3	0	-	7.3	0	-	9
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	1	2	5	1	5	10
Future Volume (vph)	1	2	5	1	5	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Link Speed (mph)	35		35			35
Link Distance (ft)	175		582			604
Travel Time (s)	3.4		11.3			11.8
Confl. Peds. (#/hr)	5	5		5	5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

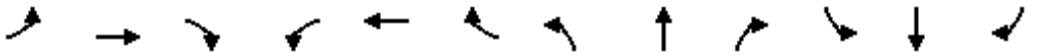
Intersection	
Int Delay, s/veh	2.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	2	5	1	5	10
Future Vol, veh/h	1	2	5	1	5	10
Conflicting Peds, #/hr	5	5	0	5	5	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, %	0	0	0	0	0	0
Mvmt Flow	1	2	5	1	5	11

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	37	16	0	0	11	0
Stage 1	11	-	-	-	-	-
Stage 2	26	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	981	1069	-	-	1621	-
Stage 1	1017	-	-	-	-	-
Stage 2	1002	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	968	1059	-	-	1613	-
Mov Cap-2 Maneuver	968	-	-	-	-	-
Stage 1	1012	-	-	-	-	-
Stage 2	994	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.5	0	2.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1027	1613	-
HCM Lane V/C Ratio	-	-	0.003	0.003	-
HCM Control Delay (s)	-	-	8.5	7.2	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	22	217	42	1	145	1	31	11	1	1	9	20
Future Volume (vph)	22	217	42	1	145	1	31	11	1	1	9	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	0		50	0		0	0		50
Storage Lanes	0		1	0		1	0		0	0		1
Taper Length (ft)	60			60			60			60		
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		563			569			217			534	
Travel Time (s)		11.0			11.1			4.2			10.4	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

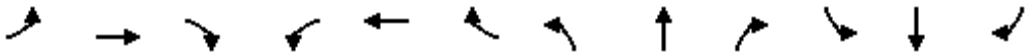
Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	22	217	42	1	145	1	31	11	1	1	9	20
Future Vol, veh/h	22	217	42	1	145	1	31	11	1	1	9	20
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	-	50	-	-	-	-	-	50
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	26	255	49	1	171	1	36	13	1	1	11	24

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	177	0	0	309	0	0	508	491	265	522	539	181
Stage 1	-	-	-	-	-	-	312	312	-	178	178	-
Stage 2	-	-	-	-	-	-	196	179	-	344	361	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1411	-	-	1263	-	-	479	481	779	468	452	867
Stage 1	-	-	-	-	-	-	703	661	-	828	756	-
Stage 2	-	-	-	-	-	-	810	755	-	676	629	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1404	-	-	1257	-	-	445	465	772	445	437	859
Mov Cap-2 Maneuver	-	-	-	-	-	-	445	465	-	445	437	-
Stage 1	-	-	-	-	-	-	684	643	-	806	751	-
Stage 2	-	-	-	-	-	-	772	750	-	644	612	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	0.1	13.9	10.7
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	454	1404	-	-	1257	-	-	438	859
HCM Lane V/C Ratio	0.111	0.018	-	-	0.001	-	-	0.027	0.027
HCM Control Delay (s)	13.9	7.6	0	-	7.9	0	-	13.4	9.3
HCM Lane LOS	B	A	A	-	A	A	-	B	A
HCM 95th %tile Q(veh)	0.4	0.1	-	-	0	-	-	0.1	0.1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	9	19	2	9	1	20	3	2	1	8	6
Future Volume (vph)	3	9	19	2	9	1	20	3	2	1	8	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1435			327			604			606	
Travel Time (s)		28.0			6.4			11.8			11.8	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	4.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	9	19	2	9	1	20	3	2	1	8	6
Future Vol, veh/h	3	9	19	2	9	1	20	3	2	1	8	6
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	72	72	72	72	72	72	72	72	72	72	72	72
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	4	13	26	3	13	1	28	4	3	1	11	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	19	0	0	44	0	0	73	64	36	68	77	24
Stage 1	-	-	-	-	-	-	39	39	-	25	25	-
Stage 2	-	-	-	-	-	-	34	25	-	43	52	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1611	-	-	1577	-	-	923	831	1042	930	817	1058
Stage 1	-	-	-	-	-	-	981	866	-	998	878	-
Stage 2	-	-	-	-	-	-	987	878	-	976	856	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1603	-	-	1569	-	-	894	819	1032	911	805	1048
Mov Cap-2 Maneuver	-	-	-	-	-	-	894	819	-	911	805	-
Stage 1	-	-	-	-	-	-	973	859	-	990	872	-
Stage 2	-	-	-	-	-	-	960	872	-	961	849	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	1.2	9.2	9.1
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	894	1603	-	-	1569	-	-	895
HCM Lane V/C Ratio	0.039	0.003	-	-	0.002	-	-	0.023
HCM Control Delay (s)	9.2	7.3	0	-	7.3	0	-	9.1
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	1	5	10	1	5	10
Future Volume (vph)	1	5	10	1	5	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Link Speed (mph)	35		35			35
Link Distance (ft)	175		582			604
Travel Time (s)	3.4		11.3			11.8
Confl. Peds. (#/hr)	5	5		5	5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	5	10	1	5	10
Future Vol, veh/h	1	5	10	1	5	10
Conflicting Peds, #/hr	5	5	0	5	5	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, %	0	0	0	0	0	0
Mvmt Flow	1	5	11	1	5	11

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	43	22	0	0	17	0
Stage 1	17	-	-	-	-	-
Stage 2	26	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	973	1061	-	-	1613	-
Stage 1	1011	-	-	-	-	-
Stage 2	1002	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	960	1051	-	-	1605	-
Mov Cap-2 Maneuver	960	-	-	-	-	-
Stage 1	1006	-	-	-	-	-
Stage 2	994	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.5	0	2.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1035	1605	-
HCM Lane V/C Ratio	-	-	0.006	0.003	-
HCM Control Delay (s)	-	-	8.5	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-