COLLIER COMMERCIAL PROPERTIES
PLANNING APPLICATION NO. 2021-22

GENERAL PLAN AMENDMENT NO. 2021-02
ZONING CHANGE NO. 2021-02
INDUSTRIAL DESIGN REVIEW NO. 2021-03
CONDITIONAL USE PERMIT NO. 2022-25

ENVIRONMENTAL REVIEW NO. 2023-03

INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Prepared By:

CITY OF LAKE ELSINORE
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October 2025

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I. INTRODUCTION

A. PURPOSE

This document is an Initial Study for evaluation of environmental impacts resulting from implementation of the Collier Commercial Properties project. For purposes of this document, this application will be called the "project" or "proposed project."

B. CALIFORNIA ENVIRONMENTAL QUALITY ACT

As defined by Section 15063 of the California Environmental Quality Act (CEQA) Guidelines, an **Initial Study** is prepared primarily to provide the Lead Agency with information to use as the basis for determining whether an Environmental Impact Report (EIR), Negative Declaration, or Mitigated Negative Declaration would be appropriate for providing the necessary environmental documentation and clearance for any proposed project.

According to CEQA Guidelines Section 15065, an **EIR** is deemed appropriate for a particular proposal if the following conditions occur:

- The project has 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 an endangered, rare or threatened species; or eliminate important examples of the major periods of California history or prehistory.

- The project has the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals.

- The project has possible environmental effects that are individually limited but cumulatively considerable.

- The environmental effects of a project will cause substantial adverse effects on human beings, either directly or indirectly.

According to CEQA Section 21080(c)(1) and CEQA Guidelines Section 15070(a), a **Negative Declaration** can be adopted if it can be determined that the project will not have a significant effect on the environment.

According to CEQA Section 21080(c)(2) and CEQA Guidelines Section 15070(b), a **Mitigated Negative Declaration** can be adopted if it is determined that although the **Initial Study** identifies that the project may have potentially significant effects on the environment, revisions in the project plans and/or mitigation measures, which would avoid or mitigate the effects to below the level of significance, have been made or agreed to by the applicant.

This Initial Study has determined that the proposed project may result in potentially significant environmental effects but that said effects can be reduced to below the level of significance through the implementation of mitigation measures and therefore, a Mitigated Negative Declaration is deemed the appropriate document to provide the necessary environmental evaluations and clearance.

This Initial Study and Mitigated Negative Declaration are prepared in conformance with the California Environmental Quality Act of 1970 , as amended (Public Resources Code, Section 21000 *et seq.*); the State Guidelines for Implementation of the California Environmental Quality Act ("CEQA Guidelines"), as

amended (California Code of Regulations, Title 14, Division 6, Chapter 3, Section 15000, *et seq.*); applicable requirements of the City of Lake Elsinore; and the regulations, requirements, and procedures of other responsible public agencies or agencies with jurisdiction by law.

The City of Lake Elsinore is designated the Lead Agency, in accordance with Section 15050 of the CEQA Guidelines. The Lead Agency is the public agency which has the principal responsibility for carrying out or approving a project which may have significant effects upon the environment.

C. INTENDED USES OF INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION

This Initial Study and Mitigated Negative Declaration are informational documents which are intended to inform the City of Lake Elsinore decision-makers, other responsible or interested agencies, and the general public of the potential environmental effects of the proposed project. The environmental review process has been established to enable public agencies to evaluate environmental consequences and to examine and implement methods of eliminating or reducing any potentially adverse impacts. While CEQA requires that consideration be given to avoiding environmental damage, the Lead Agency and other responsible agencies must balance adverse environmental effects against other public objectives, including economic and social goals (CEQA Guidelines Section 15021).

The City of Lake Elsinore, as Lead Agency, has determined that environmental clearance for the proposed project can be provided with a Mitigated Negative Declaration. The Initial Study and Notice of Availability and Intent to Adopt prepared for the Mitigated (Negative Declaration will be circulated for a period of 30 days for public and agency review. Comments received on the document will be considered by the Lead Agency before it acts on the proposed project.

D. CONTENTS OF INITIAL STUDY

This Initial Study is organized to facilitate a basic understanding of the existing setting and environmental implications of the proposed project.

I. INTRODUCTION presents an introduction to the entire report. This section identifies City of Lake Elsinore contact persons involved in the process, scope of environmental review, environmental procedures, and incorporation by reference documents.

II. PROJECT DESCRIPTION describes the proposed project. A description of discretionary approvals and permits required for project implementation is also included.

III. ENVIRONMENTAL CHECKLIST contains the City's Environmental Checklist Form. The checklist form presents results of the environmental evaluation for the proposed project and those areas that would have either a potentially significant impact, a less than significant impact with mitigation incorporated, a less than significant impact, or no impact.

IV. ENVIRONMENTAL ANALYSIS provides the background analysis supporting each response provided in the environmental checklist form. Each response checked in the checklist form is discussed and supported with sufficient data and analysis. As appropriate, each response discussion describes and identifies specific impacts anticipated with project implementation. In this section, mitigation measures are also set forth, as appropriate, that would reduce potentially significant adverse impacts to levels of less than significance.

V. MANDATORY FINDINGS presents the background analysis supporting each response provided in the environmental checklist form for the Mandatory Findings of Significance set forth in Section 21083(b) of CEQA and Section 15065 of the CEQA Guidelines.

VI. PERSONS AND ORGANIZATIONS CONSULTED identifies those individuals consulted and involved in the preparation of this Initial Study and Mitigated Negative Declaration.

VII. REFERENCES lists bibliographical materials used in preparation of this document.

E. SCOPE OF ENVIRONMENTAL ANALYSIS

For evaluation of environmental impacts, each question from the Environmental Checklist Form is stated and responses are provided according to the analysis undertaken as part of the Initial Study. Responses will consider the whole action involved, including off site as well as on site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts. Project impacts and effects will be evaluated and quantified, when appropriate. To each question, there are four possible responses, including:

1. **No Impact:** A "No Impact" response is adequately supported if the referenced information sources show that the impact simply does not apply to the proposed project. A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2. **Less Than Significant Impact:** Development associated with project implementation will have the potential to impact the environment. These impacts, however, will be less than the levels of thresholds that are considered significant and no additional analysis is required.

3. **Less Than Significant With Mitigation Incorporated:** This applies where incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact". The Lead Agency must describe the mitigation measures and briefly explain how they reduce the effect to a less than significant level.

4. **Potentially Significant Impact:** There is substantial evidence that the proposed project may have impacts that are considered potentially significant and an EIR is required.

F. TIERED DOCUMENTS, INCORPORATION BY REFERENCE, AND TECHNICAL STUDIES

Information, findings, and conclusions contained in this document are based on the incorporation by reference of tiered documentation and technical studies that have been prepared for the proposed project which are discussed in the following section.

1. Tiered Documents

As permitted in CEQA Guidelines Section 15152(a), the analysis of general matters contained in a broader EIR (such as one prepared for a general plan or policy statement) with later EIRs and negative declarations on narrower projects; incorporating by reference the general discussions from the broader EIR; and concentrating the later EIR or negative declaration solely on the issues specific to the later project.

Tiering is defined in CEQA Guidelines Section 15385 as follows:

> "Tiering" refers to the coverage of general matters in broader EIRs (such as on general plans or policy statements) with subsequent narrower EIRs or ultimately site-specific EIRs incorporating by reference the general discussions and concentrating solely on the issues specific to the EIR subsequently prepared. Tiering is appropriate when the sequence of EIRs is:
>
> (a) From a general plan, policy, or program EIR to a program, plan, or policy EIR of lesser scope or to a site-specific EIR;
>
> (b) From an EIR on a specific action at an early stage to a subsequent EIR or a supplement to an EIR at a later stage. Tiering in such cases is appropriate when it helps the Lead Agency to focus on the issues which are ripe for decision and exclude from consideration issues already decided or not yet ripe.

Tiering also allows this document to comply with Section 15152(b) of the CEQA Guidelines, which discourages repetitive analyses, as follows:

> "Agencies are encouraged to tier the environmental analyses which they prepare for separate but related projects including general plans, zoning changes, and development projects. This approach can eliminate repetitive discussions of the same issues and focus the later EIR or negative declaration on the actual issues ripe for decision at each level of environmental review. Tiering is appropriate when the sequence of analysis is from an EIR prepared for a general plan, policy or program to an EIR or negative declaration for another plan, policy, or program of lesser scope, or to a site-specific EIR or negative declaration."

Further, Section 15152(d) of the CEQA Guidelines states:

> "Where an EIR has been prepared and certified for a program, plan, policy, or ordinance consistent with the requirements of this section, any lead agency for a later project pursuant to or consistent with the program, plan, policy, or ordinance should limit the EIR or negative declaration on the later project to effects which:
>
> (1) Were not examined as significant effects on the environment in the prior EIR; or
>
> (2) Are susceptible to substantial reduction or avoidance by the choice of specific revisions in the project, by the imposition of conditions or other means."

For this document, the "City of Lake Elsinore General Plan Update Final Recirculated Program Environmental Impact Report" certified December 13, 2011 (State Clearinghouse [SCH] #2005121019) serves as the broader document, since it analyzes the entire City area, which includes the proposed project site. However, as discussed, site-specific impacts, which the broader document (City of Lake Elsinore General Plan Update Final Recirculated Program Environmental Impact Report) cannot adequately address, may occur for certain issue areas. This document, therefore, evaluates each environmental issue alone and will rely upon the analysis contained within the Lake Elsinore General Plan Final EIR, as applicable. This document, therefore, evaluates site-specific impacts where possible and relies upon the analysis contained within the Lake Elsinore General Plan Final EIR for broader issue areas.

2. Incorporation by Reference

An EIR or Negative Declaration may incorporate by reference all or portions of another document which is a matter of public record or is generally available to the public. Where all or part of another document is incorporated by reference, the incorporated language shall be considered to be set forth in full as part of the text of the EIR or Negative Declaration. (CEQA Guidelines Section 15150[a])

Incorporation by reference is a procedure for reducing the size of EIRs/Negative Declaration and is most appropriate for including long, descriptive, or technical materials that provide general background information, but do not contribute directly to the specific analysis of the project itself. This procedure is particularly useful when an EIR or Negative Declaration relies on a broadly drafted EIR for its evaluation of cumulative impacts of related projects (*Las Virgenes Homeowners Federation v. County of Los Angeles* [1986, 177 Ca.3d 300]). If an EIR or Negative Declaration relies on information from a supporting study that is available to the public, the EIR or Negative Declaration cannot be deemed unsupported by evidence or analysis (*San Francisco Ecology Center v. City and County of San Francisco* [1975, 48 Ca.3d 584, 595]).

When an EIR or Negative Declaration incorporates a document by reference, the incorporation must comply with CEQA Guidelines Section 15150 as follows:

- Where part of another document is incorporated by reference, such other document shall be made available to the public for inspection at a public place or public building. The EIR or Negative Declaration shall state where the incorporated documents will be available for inspection. At a minimum, the incorporated document shall be made available to the public in an office of the Lead Agency. (CEQA Guidelines Section 15150[b])

- The incorporated part of the referenced document shall be briefly summarized where possible or briefly described if the data or information cannot be summarized. The relationship between the incorporated part of the referenced document and the EIR shall be described. (CEQA Guidelines Section 15150[c])

- This document must include the State identification number of the incorporated document (CEQA Guidelines Section 15150[d]).

3. Documents Incorporated by Reference/Technical Studies

a. The following document(s) is/are incorporated by reference:

   - City of Lake Elsinore General Plan Update Final Recirculated Program Environmental Impact Report ("General Plan EIR") (SCH #2005121019), certified December 13, 2011. The General Plan EIR, from which this document is tiered, addresses the entire City of Lake Elsinore and provides background and inventory information and data which apply to the project site. Incorporated information and/or data will be cited in the appropriate sections.

b. Various technical reports have been prepared to assess specific issues that may result from the construction and operation of the proposed project. As relevant, information from these technical reports has been incorporated into the Initial Study. The following technical reports are included as appendices to this Initial Study:

   - Appendix A: *Air Quality & Greenhouse Gas Emissions Assessment, Collier Commercial Properties Project,* Lake Elsinore, California. ECORP Consulting, Inc. Revised December 2024.

- Appendix B: *Biological Technical Report and Multiple Species Habitat Conservation Plan Consistency Analysis for the Collier Commercial Properties*, Riverside County, California. ECORP Consulting, Inc. Revised December 2024.

- Appendix C: *Cultural Resources Inventory for the Collier Commercial Properties Project*, City of Lake Elsinore, California. ECORP Consulting, Inc. Revised August 2024.

- Appendix D: *Preliminary Geotechnical Investigation, Proposed Commercial Development, Collier Avenue*, APN's 377-190-002, 377-190-003, 377-190-004, Lake Elsinore, California 92530. SoCal Professional Engineers. April 25, 2021.

- Appendix E: *Phase One Environmental Site Assessment, APNS 377-190-002, 377-190-003, 377-190-004 Collier Avenue,* Lake Elsinore, California 92530. S & S Commercial Environmental Services, Inc. October 28, 2024.

- Appendix F: *Hydrology and Hydraulic Calculations, Collier Commercial Properties,* City of Lake Elsinore, CA 92530. NM Civil Engineering, Inc., January 16, 2023.

- Appendix G: *Preliminary Project Specific Water Quality Management Plan, A Template for Projects located within the Santa Ana Watershed Region of Riverside County,* COLLIER COMMERCIAL PROPERTIES (Collier Ave. & Minthorn St.). NM Civil Engineering, Inc. January 16, 2023.

- Appendix H: *Noise Impact Assessment, Collier Commercial Properties*, Lake Elsinore, California, ECORP Consulting, Inc., Revised August 2024.

- Appendix I: *Trip Generation and VMT Screening Memo, Construction Equipment Rental Facility, 29400 Enterprise Way, Lake Elsinore*. K2 Traffic Engineering, Inc., March 25, 2022.

c. The above-listed documents and technical studies are available for review at:

City of Lake Elsinore
Planning Division
130 S. Main Street
Lake Elsinore, California 92530

Hours: Monday - Thursday: 8 a.m. - 5 p.m.
Friday: 8 a.m. - 4 p.m.
Closed Holidays

II. PROJECT DESCRIPTION

A. PROJECT LOCATION AND SETTING

The proposed Collier Commercial Properties Project (project) is located in the City of Lake Elsinore (City), in the western portion of Riverside County, California (see Figure 1, *Regional Location*). The approximately 2.64-acre project site consists of three parcels (APNs 373-190-002, -003, and -004) bound by Collier Avenue on the north and West Minthorn Street on the south (see Figure 2, *USGS Topography*, and Figure 3, *Aerial Photograph*). The project is within Section 6 within Township 6 South, Range 4 West, as shown on the Lake Elsinore U.S. Geologic Survey (USGS) 7.5' quadrangles. The project site is located within the Business District (City 2011a) with a General Plan land use designation of General Commercial and a corresponding zone classification of General Commercial (C2; City 2025).

The site is currently vacant and disturbed with a gravel construction storage lot and scattered weedy vegetation. Overhead utility lines and poles occur along the northern and southern site boundaries. The site is fenced around the perimeter. Surrounding uses include Collier Avenue and Interstate (I-) 15 to the north, a tow yard to the east, West Minthorn Street and an industrial storage yard to the south, and a stormwater detention basin to the west. I-15 is located approximately 220 feet to the northeast and State Route (SR) 74 is approximately 4,200 feet to the northwest. Lake Elsinore is located approximately one mile to the southwest.

Topographically, the project site is flat with an average elevation of 1,290 feet above mean sea level. The project site is primarily underlain by Holocene and late Pleistocene-aged young alluvial fan deposits and young alluvial-channel deposits. According to the Natural Resource Conservation Service soil mapping (Natural Resource Conservation Service 2025), on-site soils consist of Arbuckle gravelly loam (15 to 25 percent slopes); Cortina gravelly coarse sandy loam (2 to 8 percent slopes); and Waukena loamy fine sand, saline-alkali. The biological setting in the general area is largely disturbed, having been cleared and repeatedly treaded by vehicles. No vegetation communities are present on the site; the entire site is disturbed. Immediately west of the project, a Riverside County Flood Control and Water Conservation District drainage channel passes through a detention basin on a heavily disturbed lot as it drains south towards Lake Elsinore.

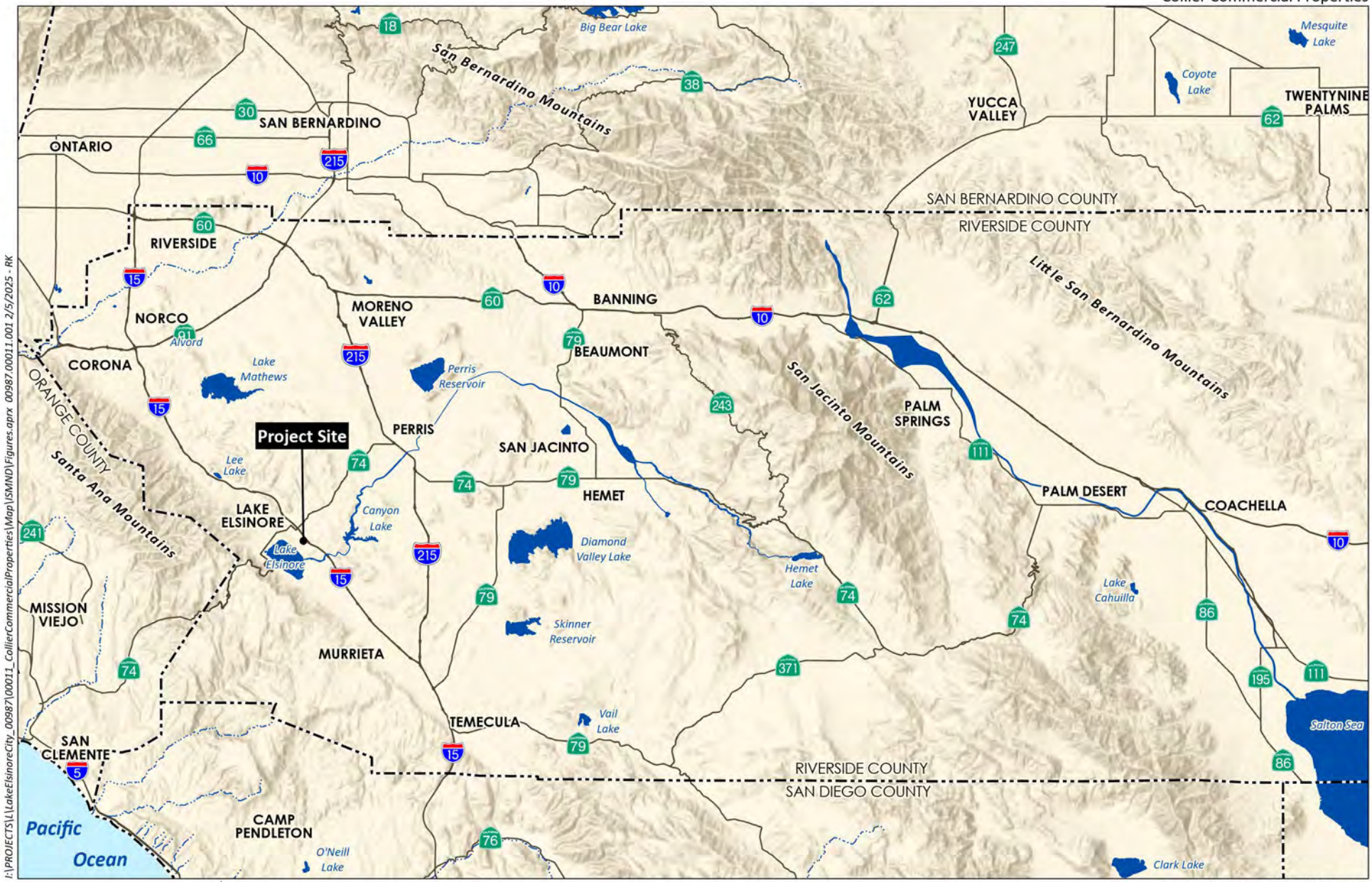
B. PROJECT DESCRIPTION

The project entails the construction of a new one-story office building, one-story warehouse building, outdoor storage yard, and associated improvements. See Figure 4, *Site Plan.* The project also proposes a General Plan Amendment and Zone Change to change the site's General Plan land use designation from General Commercial (GC) to Limited Industrial (LI) and zoning from C2 to Limited Manufacturing (M1).

Project Components

The project would involve a 3,000-square foot (sf) office building and an 8,975-sf warehouse building on approximately 0.3 acres of the site's 2.64 acres. The one-story office building and a surface parking lot would occupy the southern portion of the property, while the warehouse and an outdoor storage yard would occupy the northern portion of the property. The proposed office and warehouse buildings would have light gray stucco walls, dark grey metal roofs and canopies, and outdoor wall lights with charcoal-colored fixtures. The office building would also include grey stone veneer facing and glass windows and doors. The office building would reach a maximum height of 20 feet and the warehouse building would reach a maximum height of 30 feet (See Figures 5a and 5b, *Building Elevations*). The outdoor storage yard would encompass 17,896 sf.

Collier Commercial Properties



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0 10 Miles

Source: Base Map Layers (ESRI, 2013)

HELIX Environmental Planning

Regional Location

Figure 1



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0 2,000 Feet

Source: Lake Elsinore 7.5' Quad (USGS)

HELIX Environmental Planning

USGS Topography

Figure 2



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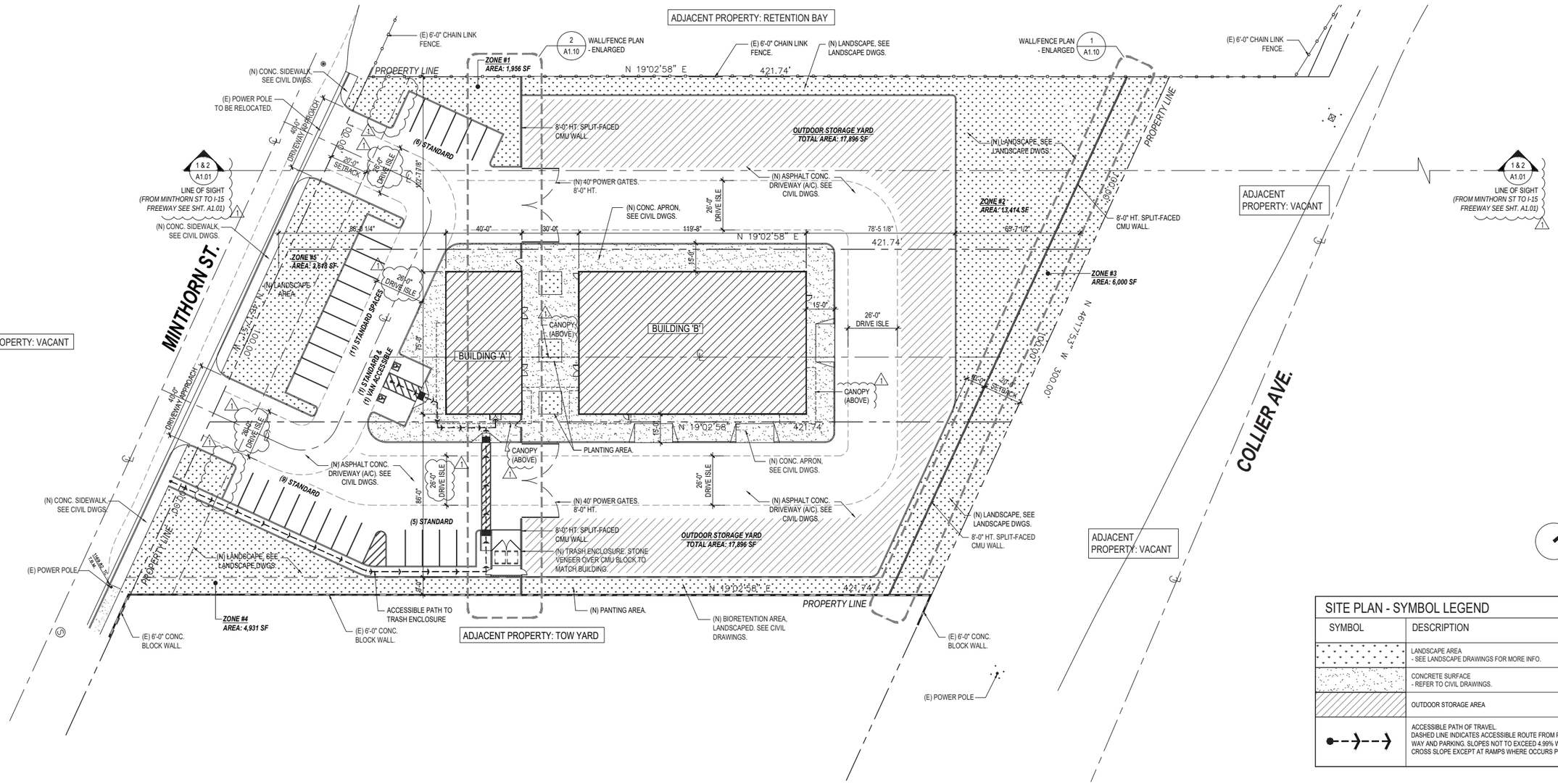
0 100 Feet

Source: Aerial (Esri 2024)

HELIX Environmental Planning

Aerial Photograph

Figure 3



SITE PLAN - SYMBOL LEGEND	
SYMBOL	DESCRIPTION
	LANDSCAPE AREA - SEE LANDSCAPE DRAWINGS FOR MORE INFO.
	CONCRETE SURFACE - REFER TO CIVIL DRAWINGS.
	OUTDOOR STORAGE AREA
	ACCESSIBLE PATH OF TRAVEL. DASHED LINE INDICATES ACCESSIBLE ROUTE FROM PUBLIC WAY AND PARKING. SLOPES NOT TO EXCEED 4.99% WITH 2% CROSS SLOPE EXCEPT AT RAMPS WHERE OCCURS PER PLANS.

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Source: ZANE ARCHITECTURE 2023

HELIX Environmental Planning

Site Plan

Figure 4



3 FRONT ELEVATION (SOUTH) - BLDG 'B'
SCALE: 1/8" = 1'-0"



2 FRONT ELEVATION (SOUTH) - BLDG 'A'
SCALE: 1/8" = 1'-0"



1 RIGHT ELEVATION (EAST)
SCALE: 1/8" = 1'-0"

COLOR AND MATERIAL LEGEND

NOTE: SEE SHEET A3.30 FOR MATERIAL SAMPLE BOARD

MARK	MATERIAL	COLOR/SPEC.	REMARKS
1	EIFS / STUCCO FINISH BY: DRYVIT	COLOR: DUNN-EDWARDS "DOLPHIN TALES" DET600	--
2	STANDING SEAM METAL ROOF BY: ASC BUILDING PRODUCTS	SLATE GREY/ DESIGN SPAN HP	FACTORY APPLIED COLOR
3	WINDOWS AND STOREFRONT BY: ARCADIA OR EQUAL	COLOR TO MATCH DUNN-EDWARDS - DE6322	FACTORY APPLIED COLOR
4	EXTERIOR DOORS AND OVERHEAD DOOR	COLOR TO MATCH DUNN-EDWARDS - DE6322	FACTORY APPLIED COLOR
5	METAL CANOPY	COLOR TO MATCH DUNN-EDWARDS - DE6322	--
6	METAL PLANTERS BY: TBD	FINISH: CHARCOAL	SIZE PER PLANS
7	OUTDOOR WALL LIGHT BY: TECH LIGHTING OR EQ.	FINISH: CHARCOAL	12" HIGH INTEGRATED LED WALL SCONCE
8	STONE VENEER - SPLIT FACE BY: EL DORADO	CANNONDE (GREY)/ CUT COARSE STONE	--

Source: ZANE ARCHITECTURE 2023

I:\PROJECTS\Lake Elsinore City_00987\00011_CollierCommercialProperties\Map\SMND\Fig5a_BuildingElevations.indd 00987.00010.001 02/05/25 -RK

Building Elevations

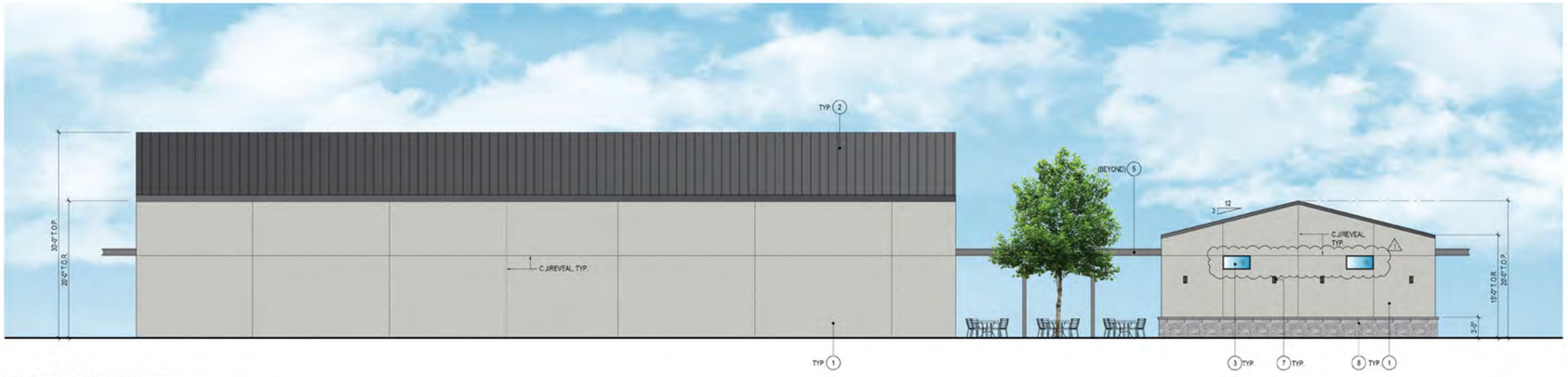
Figure 5a



3 REAR ELEVATION (NORTH) - BLDG 'B'
SCALE: 1/8" = 1'-0"



2 REAR ELEVATION (NORTH) - BLDG 'A'
SCALE: 1/8" = 1'-0"



1 LEFT ELEVATION (WEST)
SCALE: 1/8" = 1'-0"

COLOR AND MATERIAL LEGEND

NOTE: SEE SHEET A3.30 FOR MATERIAL SAMPLE BOARD

MARK	MATERIAL	COLOR/SPEC.	REMARKS
1	EIFS / STUCCO FINISH BY: DRYVIT	COLOR: DUNN-EDWARDS "DOLPHIN TALES" DET600	--
2	STANDING SEAM METAL ROOF BY: ASC BUILDING PRODUCTS	SLATE GREY/ DESIGN SPAN HP	FACTORY APPLIED COLOR
3	WINDOWS AND STOREFRONT BY: ARCADIA OR EQUAL	COLOR TO MATCH DUNN-EDWARDS - DE6322	FACTORY APPLIED COLOR
4	EXTERIOR DOORS AND OVERHEAD DOOR	COLOR TO MATCH DUNN-EDWARDS - DE6322	FACTORY APPLIED COLOR
5	METAL CANOPY	COLOR TO MATCH DUNN-EDWARDS - DE6322	--
6	METAL PLANTERS BY: TBD	FINISH: CHARCOAL	SIZE PER PLANS
7	OUTDOOR WALL LIGHT BY: TECH LIGHTING OR EQ.	FINISH: CHARCOAL	12" HIGH INTEGRATED LED WALL SCONCE
8	STONE VENEER - SPLIT FACE BY: EL DORADO	CANNONDE (GREY)/ CUT COARSE STONE	--

Source: ZANE ARCHITECTURE 2023

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Building Elevations

Figure 5b

Access, Circulation, and Parking

Access to the project site would be provided via two new full access driveways on West Minthorn Street. Internal circulation would be provided by 26-foot-wide drive aisles that would extend around the proposed buildings. Two power gates would be provided along the drive aisles that would limit access to the warehouse and outdoor storage yard.

Office and warehouse employee parking would be provided in a surface lot adjacent to the office building. A total of 33 parking spaces would be provided, including 31 standard spaces and 2 accessible spaces.

Landscaping/Hardscape

Landscaping would be provided along the project frontage on West Minthorn Street, project entries, proposed buildings, surface parking lot, and the project perimeter. White Crape Myrtle trees would be planted along the project frontage on West Minthorn Street, and additional trees (e.g., Pink Dawn Chitalpa, Carrotwood, Light Red Crape Myrtle, and Evergreen Pear), shrubs (African lily, lantana, Tuscan rosemary, blue gem rosemary), vines (cat's claw vine), and groundcovers (acacia, coyote brush, and gold and purple lantana) would be planted throughout the project site. Holly Oak domed screen trees would be planted along the project's northern property line. The project would include a total planting area of approximately 29,919 sf with approximately 40 trees. See Figure 6, *Proposed Landscape Plan*.

Proposed hardscape improvements would include outdoor seating and tables, overhead shade structures, and decorative lighting and planters. A trash enclosure would be provided in the eastern portion of the site. The project would install a new concrete sidewalk and curb/gutter and widen the roadway pavement along the project frontage on West Minthorn Street.

Walls, Fences, and Signage

Proposed walls and fencing would include a new eight-foot-high concrete masonry unit (CMU) wall along the northern property line, two eight-foot-high CMU walls at the on-site gates along the internal drive aisles, new eight-foot-high metal wall siding pedestrian gates, and eight-foot-high metal wall siding motorized gates throughout the site. The existing six-foot-high concrete block walls along the eastern property line and existing six-foot-high chain link fence along western property line would remain.

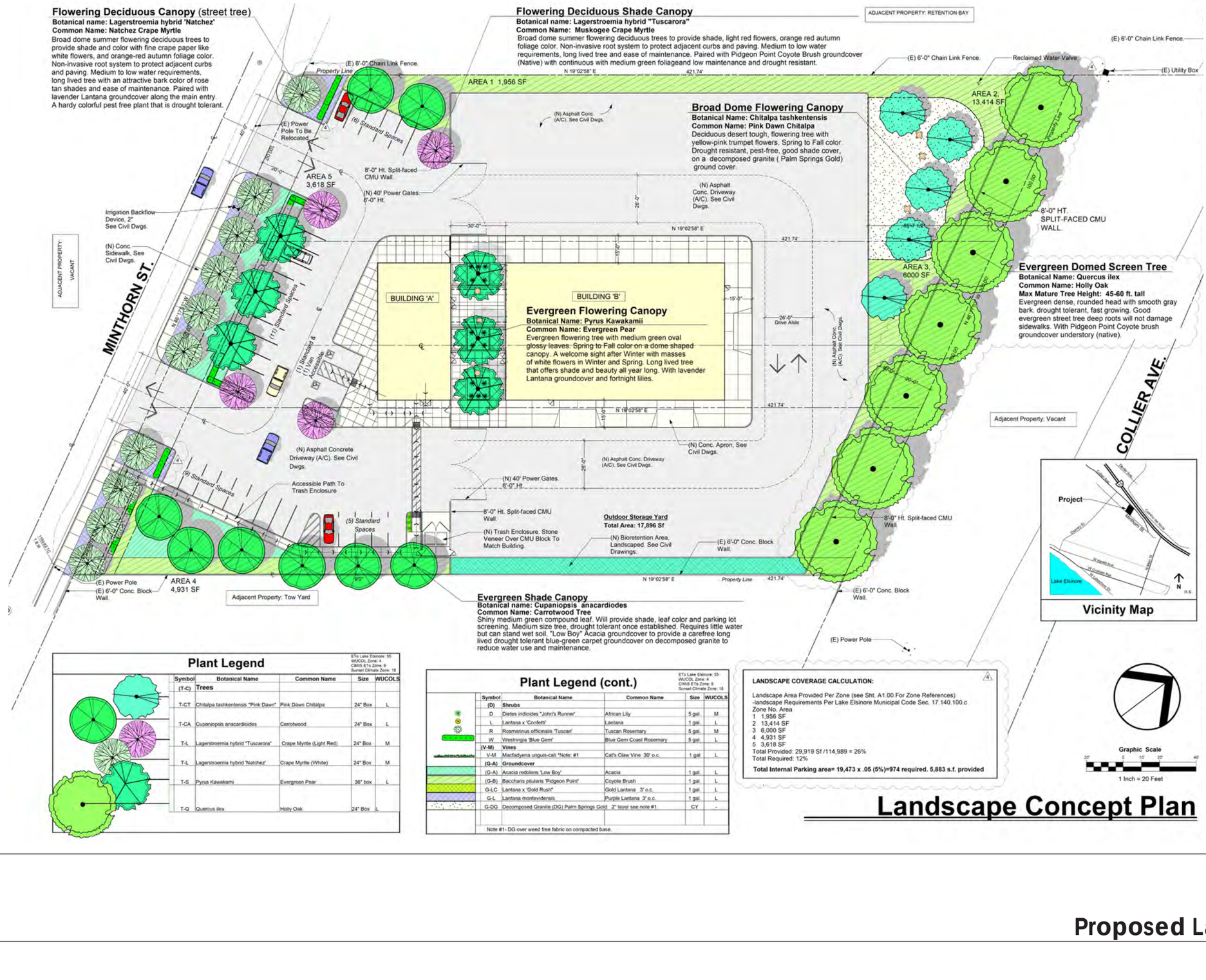
Utilities

Proposed utilities would include construction of water, sewer, and storm drain laterals and pipelines, as well as connections to existing electric, natural gas, and telecommunication lines. Water and sewer service would be provided by the Elsinore Valley Municipal Water District (EVMWD) through connections to existing pipelines in West Minthorn Street. In addition, an existing electrical power pole along the West Minthorn Street frontage would be relocated.

A proposed bioretention basin in the southeastern corner of the site would capture off-flows from site. Landscaped and graveled areas would catch additional site runoff and provide water quality treatment.

Project Phasing and Construction Schedule

The project would be constructed in one phase lasting approximately 10 months. Grading would require approximately 280 cubic yards of cut and 1,000 cubic yards of fill, resulting in 720 cubic yards of soil import.



Source: Pacific Landscape Design 2022

Proposed Landscape Plan

Figure 6

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III. ENVIRONMENTAL CHECKLIST

A. BACKGROUND

1. Project Title: Collier Commercial Properties

2. Lead Agency Name and Address: City of Lake Elsinore, 130 South Main Street, Lake Elsinore, CA 92530

3. Contact Person and Phone Number: Carlos Serna, Associate Planner (951) 824-7415

4. Project Location: North of West Minthorn Street; APNs 373-190-002, -003, -004.

5. Project Sponsor's Name and Address: Collier Commercial Properties, 29400 Enterprise Way, Lake Elsinore, CA 92530

6. General Plan Designation: Existing: General Commercial (GC); Proposed: Limited Industrial (LI)

7. Zoning: Existing: General Commercial (C2); Proposed: Limited Manufacturing (M1)

8. Description of Project: See project description in Section II.B, *Project Description*, above.

9. Surrounding Land Uses and Setting: See project location and setting in Section II.A, *Project Location and Setting*, above.

10. Other Public Agencies Whose Approval is Required: The project would be required to comply with the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction of Land Disturbance Activities (State Water Resources Control Board [SWRCB] Order No. 2009-0009-DWQ, NPDES No. CA2000002), in addition to related City requirements for storm water and erosion control.

11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

In accordance with the requirements of Assembly Bill (AB) 52, the City sent notification to the Agua Caliente Band of Cahuilla Indians, Morongo Band of Mission Indians, Rincon Band of Luiseño Indians, Pechanga Band of Indians, Soboba Band of Luiseño Indians and Torres-Martinez Desert Cahuilla Indians Tribes on January 26, 2023. The Pechanga, Rincon, and Soboba tribes requested to be consulted. Meetings were held with the Soboba Tribe on November 7, 2023, December 17, 2024, April 15, 2025, and July 2, 2025. Meetings were held with the Pechanga Tribe on November 30, 2023, December 19, 2024, April 22, 2025, and June 24, 2025. Meetings were held with the Rincon Tribe on April 3, 2025. The City concluded consultation with the Rincon Band of Luiseño Indians on June 25, 2025, the Soboba Band of Luiseño Indians on July 2, 2025, and with the Pechanga Band of Indians on July 28, 2025.

B. 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	☐ Agricultural 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

C. DETERMINATION

☐ 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 analyzed adequately 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.

Carlos Ivan Serna-Ortiz Digitally signed by Carlos Ivan Serna-Ortiz DN: C=US, E=cserna@lake-elsinore.org, O=City of Lake elsinore, OU=Community Development Department | Planning Division, CN=Carlos Ivan Serna-Ortiz Date: 2025.10.27 16:12:32-07'00' October 27, 2025

Carlos Serna, Associate Planner — Date

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
I.	**AESTHETICS. Except as provided in Public Resources Code Section 21099, would the project:**				
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 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?	☐	☐	☒	☐
II.	**AGRICULTURE 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 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 forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:**				
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?	☐	☐	☐	☒

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
c)	Conflict with existing zoning for, or cause rezoning of, forest land (as defined by Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code 4526), or timberland zoned Timberland Production (as defined by Government Code Section 452651104(g))?	☐	☐	☐	☒
d)	Result in the loss of forest land or conversion of forest land to non-forest uses?	☐	☐	☐	☒
e)	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest land use?	☐	☐	☐	☒
III.	**AIR QUALITY. Where available, significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. 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?	☐	☐	☒	☐
IV.	**BIOLOGICAL RESOURCES. Would the project:**				
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 Wildlife 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 Wildlife or U.S. 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?	☐	☐	☐	☒

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☒	☐	☐
V.	**CULTURAL RESOURCES. Would the project:**				
a)	Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5?	☐	☐	☐	☒
b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5?	☐	☒	☐	☐
c)	Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐
VI.	**ENERGY. Would the project:**				
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?	☐	☐	☒	☐
VII.	**GEOLOGY AND SOILS. Would the project:**				
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?	☐	☐	☒	☐

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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 wastewater?	☐	☐	☐	☒
f)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒
VIII.	**GREENHOUSE GAS EMISSIONS. Would the project:**				
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?	☐	☒	☐	☐
IX.	**HAZARDS AND HAZARDOUS MATERIALS. Would the project:**				
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 materials 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 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?	☐	☐	☒	☐

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
g)	Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☒	☐
X.	**HYDROLOGY AND WATER QUALITY. Would the project:**				
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?	☐	☐	☒	☐
XI.	**LAND USE AND PLANNING. Would the project:**				
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?	☐	☒	☐	☐
XII.	**MINERAL RESOURCES. Would the project:**				
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?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. NOISE. Would the project result in:				
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 other 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?	☐	☐	☐	☒
XIV. POPULATION AND HOUSING. Would the project:				
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?	☐	☐	☐	☒
XV. PUBLIC SERVICES. 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:				
a) Fire protection?	☐	☐	☒	☐
b) Police protection?	☐	☐	☒	☐
c) Schools?	☐	☐	☒	☐
d) Parks?	☐	☐	☒	☐
e) Other public services/facilities?	☐	☐	☒	☐
XVI. RECREATION.				
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?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒
XVII. TRANSPORTATION. Would the project:				
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?	☐	☐	☒	☐
XVIII. TRIBAL CULTURAL RESOURCES. 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:				
a) 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).	☐	☒	☐	☐
b) 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.	☐	☒	☐	☐
XIX. UTILITIES AND SERVICE SYSTEMS. Would the project:				
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?	☐	☐	☒	☐

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☒	☐
XX.	**WILDFIRE. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:**				
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?	☐	☐	☒	☐
XXI.	**MANDATORY FINDINGS OF SIGNIFICANCE**				
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?	☐	☒	☐	☐

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☒	☐

IV. ENVIRONMENTAL ANALYSIS

This section provides an evaluation of the impact categories and questions contained in the Environmental Checklist. A complete list of the reference sources applicable to the following source abbreviations is contained in Section VII, *References*, of this document.

I. AESTHETICS

a) Have a substantial adverse effect on a scenic vista? (Less Than Significant Impact)

The City's aesthetic setting is characterized by urbanized development of various densities occurring within varied topographical features and interspersed with undeveloped natural areas. Scenic resources within and surrounding the City include Lake Elsinore, portions of the Cleveland National Forest, rugged hillside land, distant mountains and ridgelines, rocky outcroppings, streams, vacant land with native vegetation, parkland, and buildings of historical and cultural significance.

The City of Lake Elsinore General Plan (General Plan) Resource Protection & Preservation Element identifies landscaped viewshed units of scenic vistas that include Lake Elsinore, urban areas around the lake, and the rugged vacant hills in the northern and eastern portion of the City. Specifically, the City comprises 15 landscape viewshed units as indicated on General Plan Figure 4.9 (City 2011b). Each of these units have distinct viewsheds defined by man-made structures and physiographical features such as landform, water, or cultural features, tourism, commercial and recreation, and related uses and an open space buffer. The project site is within the southeastern portion of viewshed unit 13. The General Plan describes this area as mainly developed with manufacturing land uses and the Lake Elsinore Outlet Mall on flat topography.

Due to the importance of Lake Elsinore as the largest natural lake in southern California, scenic resources were addressed in the General Plan by identifying public vantage points of the lake throughout the City. Vantage points identified in Figure 4.10 of the General Plan include portions of northbound I-15, Ortega Highway, the Lake Elsinore Recreation Area and Campground, the baseball stadium, the boat launch on the eastern edge of the lake, and the Aloha Yacht Club Pier lookout. No vantage points occur within or near the project site. The closest vantage point, Aloha Yacht Club Pier lookout, is approximately 1.1 miles to the southeast. While the project site is identified in the General Plan as partially within the Lake Elsinore viewshed, Lake Elsinore is not visible from the project site due to the hills and intervening structures to the south. The project's proposed development would not obstruct views of Lake Elsinore from any of the vantage points identified in the General Plan. As such, the project would not have a substantial adverse effect on a scenic vista. Impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

(Sources: General Plan Resource Protection & Preservation Element, General Plan EIR)

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? (Less Than Significant Impact)

California's Scenic Highway Program was created by the legislature in 1963 to protect and enhance the natural scenic beauty of California highways and adjacent corridors. The State Scenic Highway System includes a list of highways that are either officially designated or eligible for designation as scenic highways. There are no officially designated scenic highways near the project site. The California Department of Transportation (Caltrans) currently identifies both I-15 and SR 74 as eligible for listing as state scenic highways, but they are not yet officially designated (Caltrans 2025). The project site is located

approximately 220 feet southwest of I-15 and is visible from portions of I-15. SR 74 is approximately 0.80 mile to the northwest of the project site and views of the project site from SR 74 are obstructed by intervening development. Although the site is located near both of these highways, the project would not involve the removal of existing trees during construction. New trees would be planted on site as part of the project that would result in a net increase in trees compared to the existing condition. The project would not substantially modify views along I-15 or SR 74 such that they would detract from the visual attributes that contribute to their eligible designation as potentially protected resources. There are no notable rock outcroppings or historic buildings within or adjacent to the project site. As such, impacts to scenic resources would be less than significant.

Mitigation Measures: No mitigation measures are required.

(Sources: California State Scenic Highway System Map [Caltrans 2025])

c) In non-urbanized areas, substantially degrade the existing visual character or quality 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? (Less Than Significant Impact)

CEQA defines the term "urbanized area" to mean an incorporated city that has a population of at least 100,000 persons or has a population of less than 100,000 persons if the population of that city and not more than two contiguous incorporated cities combined equals at least 100,000 persons. U.S. Department of Commerce Bureau of the Census (U.S. Census Bureau) data from 2023 indicates that the City has a population of 73,028 and the adjacent City of Wildomar has a population of 37,087 (U.S. Census Bureau 2023). Thus, the project site is considered to be located within an urbanized area within the context of CEQA and is evaluated relative to applicable zoning and other regulations governing scenic quality.

The project site is currently designated/zoned as General Commercial and proposes changing the site's land use designation to Limited Industrial and its zoning to Limited Manufacturing (M1). The project site is located within the southeast area of the Business District of the City, which is intended to become a commercial and industrial hub for the community (City 2011a). Limited Industrial land uses straddle the Temescal Wash floodway south of I-15, while the area surrounding the project site is primarily designated General Commercial and Commercial Mixed Use. Development applications are reviewed by the City for consistency with the goals, policies, and development standards of the General Plan and Lake Elsinore Municipal Code (LEMC). According to the General Plan, the Floor Area Ratio (FAR) for the Limited Industrial designation is 0.45. The project has a proposed FAR of 0.10 and is therefore consistent with this requirement. Chapter 17.136 of the LEMC establishes development standards for the M1 zone. According to the LEMC, the front and rear yard setbacks should average 20 feet but not be less than 15 feet. The project has 20-foot front and rear setbacks and would comply with this requirement. The project would have a maximum height of 30 feet, which would not exceed the LEMC's building height limitation of 40 feet. The project would also comply with the LEMC's landscape improvement requirements, which require an average of 20 feet of landscaping between parking areas and the public right of way, and landscape coverage equivalent to 12 percent of the total lot area. The project would provide a 20-foot landscaped setback and approximately 26 percent of the site would be landscaped. Additionally, as part of the project landscaping, tree spacing, distance from curbs and sidewalks, and other aesthetic guidelines shall be followed in accordance with LEMC Ordinance 1256, as discussed in LEMC Chapter 5.120. Therefore, the project would not conflict with applicable development standards related to aesthetics.

Section 4.8.3 of the General Plan addresses aesthetics goals, including: maintaining a natural and built environment that is visually pleasing to City residents and visitors; preserving valued public views

throughout the City; and minimizing activities, development, and landform modification that could distract viewers from the City's visual character. The following policies from Section 4.8.3 apply to the project:

- Policy 11.1: For new developments and redevelopment, encourage the maintenance and incorporation of existing mature trees and other substantial vegetation on the site, whether naturally-occurring or planted, into the landscape design.

- Policy 11.3: Where appropriate, encourage new planting of native and/or non-invasive ornamental plants to enhance the scenic setting of public and private lands.

- Policy 12.1: Encourage development designs and concepts that provide public views of Lake Elsinore and local ridgelines through proper siting, building design, and landscape design.

- Policy 12.3: Encourage new development and redevelopment to incorporate views of Lake Elsinore from roadways and other public spaces that provide residents and tourists with scenic vistas to the water, marinas, and lakeshore activities.

The project site is disturbed and does not contain trees and native vegetation. During project construction, approximately 40 new trees would be planted, including native and non-invasive species, as well as various shrubs, vines, and groundcovers. Because the project site is relatively flat and views of Lake Elsinore are obstructed by structures and hills, the project would not provide public views of the lake. The project therefore would be consistent with these applicable General Plan policies related to scenic quality.

The project is consistent with the applicable zoning or other regulations governing scenic quality. Impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

(Sources: General Plan Resource Protection & Preservation Element; General Plan Business District)

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? (Less Than Significant Impact)

According to the City's General Plan, light and glare impacts to the Mount Palomar Observatory are of concern to the City. Areas of light pollution impacts have been identified through a "ring analysis," where primary impacts to the Observatory are within a 30-mile radius, and secondary impacts are within a radius of up to 45 miles. According to General Plan Figure 4.12, the project site is located within the 45-mile secondary impact radius. The project site is currently vacant, with no existing on-site sources of light or glare. Existing off-site sources of night lighting attributed to nearby industrial and commercial development include streetlamps, accent and security lighting, parking lot lighting, and vehicle headlights. Nighttime project lighting would be similar to the existing nighttime lighting of surrounding uses. In addition, the project would be required to comply with applicable sections of the LEMC with regard to lighting, including but not limited to:

- Section 17.112.040 (Nonresidential Development Standards) requires outdoor lighting fixtures in excess of 60 watts to be oriented and shielded to prevent direct illumination above the horizontal plane passing through the luminaire and prevent glare or illumination on adjacent properties or streets.

- Section 17.148.110 (Parking Requirements) requires that adequate parking lot lighting for security purposes be required and maintained to effectively illuminate the parking area of all developments.

Lighting shall be located and designed so to preclude the direct glare of light shining onto adjacent property, streets, or into the sky above a horizontal plane passing through the luminaire.

Sources of glare result primarily during the day from parked cars located in large parking lots and from sunlight reflected from window glazing on buildings. The project would introduce new sources of daytime glare due to the new building windows and vehicles traveling to and from the site. Proposed building materials and design elements would comply with applicable development standards and would undergo design review to ensure that no adverse glare effects would occur. The trees and landscaping planted along the perimeter of the project site would also minimize potential glare effects.

Based on the above considerations, the project would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area, and potential impacts associated with light or glare would be less than significant.

Mitigation Measures: No mitigation measures are required.

(Sources: General Plan, LEMC)

II. AGRICULTURE AND FORESTRY RESOURCES

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? (No Impact)

Agricultural land is rated according to soil quality and irrigation status; the best quality land is called Prime Farmland. Unique farmland is land, other than prime farmland, that has combined conditions to produce sustained high quality and high yields of specialty crops. Farmland of Statewide Importance may include tracts of land that have been designated for agriculture by State law. In some areas that are not identified as having national or statewide importance, land is considered Farmland of Local Importance. The Farmland Mapping and Monitoring Program (FMMP) maintained by the California Department of Conservation (DOC) is the responsible state agency for overseeing the farmland classification.

According to the City's General Plan EIR (City 2011c), agricultural uses constitute approximately 0.8 percent of the City's total acreage. Some of this existing agricultural land, as well as vacant land used for purposes other than agriculture, are designated by the DOC FMMP as Farmland of Local Importance (554 acres within the City), Grazing Land (827 acres within the City), and Unique Farmland (25 acres within the City) (City 2011c). Remaining land is considered Urban/Built-Up Land or Other Land, reflecting its developed uses or other characteristics making it unsuitable for agriculture. The project site is a vacant property that is designated by the FMMP as Other Land (DOC 2025). The DOC defines Other Land as land that cannot fit into any other category but is not suitable for agriculture, such as low-density urban development, brush areas not appropriate for livestock grazing, or strip mines. The site is currently not used for agriculture nor is it planned to be used for agriculture based on its existing land use and zoning designation of General Commercial. Therefore, the project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use. No impact would occur.

Mitigation Measures: No mitigation measures are required.

(Sources: General Plan EIR, FMMP [DOC 2025])

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? (No Impact)

The Williamson Act, also known as the California Land Conservation Act of 1965, enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use; in return, landowners receive property tax assessments which are much lower than normal because they are based upon farming and open space uses as opposed to full market value. The Williamson Act is only applicable to parcels within an established agricultural preserve consisting of at least 20 acres of Prime Farmland, or at least 40 acres of land not designated as Prime Farmland. The Williamson Act is designed to prevent the premature and unnecessary conversion of open space lands and agricultural areas to urban uses.

As stated in Item II(a), the project site is in an area classified by the DOC as Other Land. No farmland or agricultural resources are present. The project site is zoned as C2 and does not allow for agricultural land uses. Further, the City's General Plan EIR indicates that there are no Williamson Act agricultural preserves within the City boundaries. Therefore, the project would not conflict with existing zoning for agricultural use or a Williamson Act contract. No impact would occur.

Mitigation Measures: No mitigation measures are required.

(Sources: General Plan EIR, Zoning Map)

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined by Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g)? (No Impact)

Public Resources Code Section 12220(g) defines "forest land" as land that can support ten percent native cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits. Public Resources Code Section 4526 defies "timberland" as other than land owned by the federal government and land designated by the board as experimental forest land, which is available for, and capable of, growing a crop of trees of a commercial species used to produce lumber and other forest products, including Christmas trees. Based on these definitions, no forest land or timberland occurs within or adjacent to the project site. There are no trees on the project site. Moreover, there is no land zoned as forest land or timberland that exists within the project site or within its vicinity. Therefore, the project would not conflict with existing zoning for or cause a rezoning of forest land, timberland, or timberland zoned Timberland Production. No impact would occur.

(Sources: Zoning Map; Public Resources Code Sections 12220(g) and 4526)

d) Result in the loss of forest land or conversion of forest land to non-forest uses? (No Impact)

As stated in Item II(c) above, implementation of the project would not result in the loss or conversion of forest land to non-forest use because no forest land exists on the project site or in the surrounding area. Therefore, no impact would occur.

Mitigation Measures: No mitigation measures are required.

(Sources: General Plan, Zoning Map, Public Resources Code Section 12220[g])

e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest land use? (No Impact)

There are no agricultural operations or timberland production operations within the project site or vicinity. As stated in Items II(a) and II(c) above, implementation of the project would not result in conversion of farmland to non-agricultural use or conversion of forest land to non-forest use. No impact would occur.

Mitigation Measures: No mitigation measures are required.

(Sources: Zoning Map)

III. AIR QUALITY

This section is based on the Air Quality and Greenhouse Gas Emissions Assessment prepared for the project by ECORP Consulting, Inc. (2024a; Appendix A) prepared for the project.

a) Conflict with or obstruct implementation of the applicable air quality plan? (Less Than Significant Impact)

The City is located within the South Coast Air Basin (SoCAB) under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). SCAQMD and the Southern California Association of Governments (SCAG) are responsible for formulating and implementing the Air Quality Management Plan (AQMP) for the SoCAB (SCAQMD 2022). The AQMP is a series of plans adopted for the purpose of reaching short- and long-term goals for those pollutants. The SoCAB is designated as a 'nonattainment' area because the SCAQMD does not meet federal and/or State Ambient Air Quality Standards (AAQS). The SoCAB is designated as in attainment or unclassifiable attainment (expected to be meeting the standard despite a lack of monitoring data) for all federal air quality standards except for the 8-hour ozone (O_3) and fine particulate matter ($PM_{2.5}$) standards. The SoCAB is also designated as in nonattainment for state air quality standards for 8-hour O_3 and $PM_{2.5}$, and additionally is in nonattainment of state coarse particulate matter (PM_{10}) standards. The regional air quality plan, the 2022 AQMP, outlines measures to reduce emissions of O_3 and $PM_{2.5}$. Whereas reducing PM concentrations is achieved by reducing emissions of $PM_{2.5}$ to the atmosphere, reducing O_3 concentrations is achieved by reducing the precursors of photochemical formation of O_3, volatile organic compounds, and nitric oxides (NO_X).

The land use and transportation control portions of the AQMP are based on the regional growth forecasts included in SCAG's Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS), which is a long-range transportation plan that uses growth forecasts to project trends over a 20-year period to identify regional transportation strategies to address mobility needs. Both the RTP/SCS and AQMP are based, in part, on projections originating with County and City General Plans. The two principal criteria for conformance to the AQMP are (1) whether a project would exceed the growth assumptions in the AQMP, and (2) whether a project would result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timely attainment of air quality standards.

The growth forecast for the 2022 AQMP is based in part on the land uses established by local general plans. Thus, if a project is consistent with land use as designated in the local general plan, it can normally be considered consistent with the 2022 AQMP. Projects that propose a different land use than is identified in the local general plan may also be considered consistent with the 2022 AQMP if the proposed land use is less intensive than buildout under the current designation. For projects that propose a land use that is more intensive than the current designation, analysis that is more detailed is required to assess conformance with the 2022 AQMP. The project site is designated and zoned as General Commercial and the project proposes

changing the site's land use and zoning to Limited Industrial and M1, respectively. The Limited Industrial designation is a more intense use (higher average emissions) than the General Commercial designation and a more detailed analysis of project emissions is therefore required. According to the SCAQMD, in order to determine consistency with SCAQMD's air quality planning, two main criteria must be addressed:

Criterion 1:

a) Would the project result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new air quality violations?

As shown in Item III(b) below in Table 2, *Maximum Daily Construction Emissions,* Table 3, *Summary of Project Operational Emissions,* and Table 4, *Maximum Localized Daily Emissions*, the project would not result in emissions that would exceed the SCAQMD regional and localized thresholds outlined in Table 1, *Maximum Daily Emissions Thresholds*, during construction or operations. Therefore, the project would not result in an increase in the frequency or severity of existing air quality violations and would not have the potential to cause or affect a violation of the ambient air quality standards.

b) Would the project delay timely attainment of air quality standards or the interim emissions reduction specified in the AQMP?

As shown in Tables 2 and 3 in Item III(b) below, the project would be below the SCAQMD regional thresholds for construction and operation. Because the project would result in less than significant regional emission impacts, it would not delay the timely attainment of air quality standards or AQMP emissions reductions.

Criterion 2:

a) Would the project be consistent with the population, housing, and employment growth projections utilized in the preparation of the 2022 AQMP?

The project site has a current land use designation and zoning of General Commercial and proposes to change the land use and zoning to Limited Industrial and M1, respectively. While the project does propose to change the site's anticipated land use, the project would not induce population growth. The project does not include any residential development that would increase the number of residents, and the employees would likely be pulled from the local population. According to the Institute of Transportation Engineers, the project's office and warehouse uses are anticipated to require a total of 21 employees, while a neighborhood retail center (pursuant to the current General Commercial land use designation and zoning) of the same size would require 20 employees (Institute of Transportation Engineers 2008). Therefore, the project would not result in a substantial increase in employment growth on the project site and would be consistent with the population, housing, and employment growth projections utilized in preparation of the 2022 AQMP. Additionally, the project is considered infill development as it proposes to develop a property in a rapidly urbanizing area with developed sites adjacent to the project site.

b) Would the project implement all feasible air quality mitigation measures?

In order to further reduce emissions, the project would be required to comply with emission reduction measures promulgated by the SCAQMD, such as SCAQMD Rules 201, 402, 403, and 1113. SCAQMD Rule 402 prohibits the discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health, or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. SCAQMD Rule

403 requires fugitive dust sources to implement Best Available Control Measures for all sources, and all forms of visible particulate matter are prohibited from crossing any property line. SCAQMD Rule 403 is intended to reduce PM_{10} emissions from any transportation, handling, construction, or storage activity that has the potential to generate fugitive dust. SCAQMD 1113 requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce reactive organic gas (ROG) emissions from the use of these coatings, primarily by placing limits on the ROG content of various coating categories. As such, the project meets this consistency criterion.

c) Would the project be consistent with the land use planning strategies set forth by SCAQMD air quality planning efforts?

As described in Criterion 2(a) above, the project would be consistent with the population, housing, and employment growth projections utilized in preparation of the 2022 AQMP. The project would not induce population growth or a substantial increase in employment at the project site. As a result, the project would be consistent with the land use planning strategies set forth by SCAQMD air quality planning efforts.

In conclusion, the project would meet all parts of the two criterion discussed above. Therefore, the project would not conflict with or obstruct the implementation of the 2022 AQMP or applicable portions of the State Implementation Plan. Impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

(Sources: 2022 Air Quality Management Plan [SCAQMD 2022]; Air Quality and Greenhouse Gas Emissions Assessment [ECORP Consulting, Inc. 2024a; Appendix A])

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? (Less Than Significant Impact)

The project's construction and operational emissions were calculated using the California Emissions Estimator Model (CalEEMod), Version 2020.4. CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and greenhouse gas (GHG) emissions associated with construction and operations from a variety of land use projects.

As discussed in Item III(a) above, the SoCAB is classified as in attainment for all criterion pollutants except for O_3, PM_{10}, and $PM_{2.5}$. The SoCAB is designated as a nonattainment area for federal AAQS for the 8-hour O_3 and $PM_{2.5}$ standards and is in nonattainment area under state PM_{10} standards. O_3 is not emitted directly but is a result of atmospheric activity on precursors. NO_X and ROG are known as the chief "precursors" of O_3. These compounds react in the presence of sunlight to produce O_3.

The project would result in criteria pollutant emissions during construction and operation. Construction activities that would generate emissions are anticipated to include site preparation, grading, building construction, paving, and architectural coating. Operational sources of emissions would include mobile sources (vehicle travel), energy sources (natural gas use), and area sources (landscape equipment use, consumer products, and architectural coatings). Both construction and operation would result in emissions of carbon monoxide (CO), ROGs, NO_X, sulfur oxides (SO_X), and particulate matter (PM_{10} and $PM_{2.5}$). The SCAQMD has adopted significance thresholds, referred to as mass emissions thresholds, to assess the regional impact of air pollutant emissions in the SoCAB, as identified below in Table 1. If the project's criteria pollutant and precursor emissions during construction and operation are below the SCAQMD daily

regional thresholds, the project would not result in a cumulatively considerable net increase of a criteria pollutant.

Table 1
Maximum Daily Emissions Thresholds
(pounds per day)

Pollutant	Construction	Operations
Reactive Organic Gases (ROG)	75	55
Nitrogen Oxides (NO_X)	100	55
Carbon Monoxide (CO)	550	550
Particulate Matter 10 microns in diameter (PM_{10})	150	150
Particulate Matter 2.5 microns in diameter ($PM_{2.5}$)	55	55
Sulfur Oxides (SO_X)	150	150

Source: ECORP Consulting, Inc. 2024a; Appendix A

Construction Emissions

The project would result in criteria pollutant emissions during its various construction activities, including site preparation, grading, building construction, paving, and architectural coating. Dust is typically the primary concern during construction of new buildings and infrastructure. Because such emissions are not amenable to collection and discharge through a controlled source, they are called "fugitive emissions." Fugitive dust emissions include PM_{10} and $PM_{2.5}$. The SCAQMD requires the use of best available control measures for fugitive dust from construction activities, per SCAQMD Rule 403. The estimated construction emissions calculated for the project are presented below in Table 2. The complete CalEEMod output is provided in Appendix A to this document.

Table 2
Maximum Daily Construction Emissions
(pounds per day)

Year	ROG	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Construction Year One	3.59	25.48	28.73	<1	3.62	2.05
Construction Year Two	3.37	23.65	28.50	<1	1.37	1.13
Maximum Daily Emissions[1]	**3.59**	**25.48**	**28.73**	**<1**	**3.62**	**2.05**
SCAQMD Thresholds	*75*	*100*	*550*	*150*	*150*	*55*
Exceeds Threshold?	***No***	***No***	***No***	***No***	***No***	***No***

Source: ECORP Consulting, Inc. 2024a; Appendix A

[1] Emissions were rounded to the nearest whole number. Emissions reported as <1 indicate that emissions were calculated to be less than 0.5 pound per day.

ROG = reactive organic gas; NO_X = nitrogen oxides; CO = carbon monoxide; PM_{10} = particulate matter 10 microns or less in diameter; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter

As shown in Table 2, maximum daily construction emissions are estimated to be below SCAQMD significance thresholds. Therefore, project construction would not result in a cumulatively considerable net increase of criteria pollutant emissions and impacts would be less than significant.

Operational Emissions

Operational emissions associated with the project are shown below in Table 3. The complete CalEEMod output is provided in Appendix A to this document.

Table 3
Summary of Project Operational Emissions
(pounds per day)

Source	ROG	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Mobile Sources	0.41	0.63	4.55	0.01	1.12	0.30
Area Sources	0.26	0.00	0.00	0.00	0.00	0.00
Energy Sources	0.01	0.10	0.08	0.00	0.07	0.07
Maximum Daily Emissions	**0.69[1]**	**0.73**	**4.64**	**0.01**	**1.13**	**0.31**
SCAQMD Thresholds	*55*	*55*	*550*	*150*	*150*	*55*
Exceeds Threshold?	***No***	***No***	***No***	***No***	***No***	***No***

Source: ECORP Consulting, Inc. 2024a; Appendix A

[1]Totals may not add due to rounding.

ROG = reactive organic gas; NO_X = nitrogen oxides; CO = carbon monoxide; PM_{10} = particulate matter 10 microns or less in diameter; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter

As shown in Table 3, operational emissions would be below the SCAQMD significance thresholds. Therefore, project operation would not result in a cumulatively considerable net increase of criteria pollutant emissions and impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

(Sources: Air Quality and Greenhouse Gas Emissions Assessment [ECORP Consulting, Inc. 2024a; Appendix A])

c) Expose sensitive receptors to substantial pollutant concentrations? (Less Than Significant Impact)

Air quality impacts are analyzed relative to those persons with the greatest sensitivity to air pollution exposure. Such persons are called "sensitive receptors." Sensitive population groups include young children, the elderly, and the acutely and chronically ill (especially those with cardio-respiratory disease). Residential areas are considered to be sensitive to air pollution exposure because they may be occupied for extended periods, and residents may be outdoors when exposure is highest. Schools are similarly considered to be sensitive receptors. The closest existing sensitive receptor to the project site is a single family-residence located approximately 700 feet northwest of the project, fronting Collier Avenue.

The following analysis addresses potential impacts to sensitive receptors associated with localized criteria pollutant emissions, toxic air contaminants (TACs), and CO hot spots.

Localized Criteria Pollutant Emissions

The SCAQMD has developed analysis parameters to evaluate ambient air quality on a local level, called Localized Significance Thresholds (LSTs; SCAQMD 2009). LSTs represent the maximum emissions from a project that could occur, beyond which the project would cause or contribute measurably to an exceedance of the most stringent applicable federal or state ambient air quality standard. LSTs are only applicable to the following criteria pollutants: NO_x, CO, PM_{10}, and $PM_{2.5}$. LSTs are developed based on the ambient pollutant concentrations for each source receptor area (SRA), distance to the nearest sensitive receptor, and size of the project site, and are applicable for a sensitive receptor where it is possible that an individual could remain for 24 hours such as a residence, hospital, or convalescent facility.

The LST methodology translates the concentration standards into emissions thresholds that are a function of project site area, source to receptor distance (specifically, within 25, 50, 100, 200, or 500 meters), and

the location within the SoCAB. The LST methodology limits the emissions of consideration to those generated from on-site activities and is recommended to be limited to projects of five acres or less and to avoid the need for complex dispersion modeling. If a project exceeds the LST look up values, then the SCAQMD recommends that project-specific localized air quality modeling be performed.

The project is within SRA 25, Lake Elsinore. The closest sensitive receptors are located approximately 700 feet (213 meters) to the northwest. Using the LST methodology, the project would have a maximum disturbance footprint of 2.0 acres during site preparation and grading, and 1.0 acre during building construction, paving, and architectural coating. Therefore, the LSTs in the SRA 25 for receptors located within 200 meters are used for project sites of five acres or less.

According to the SCAQMD localized significance threshold methodology (SCAQMD 2008), LSTs would apply to the operational phase of a project only if the project includes stationary sources (e.g., smokestacks) or attracts heavy-duty trucks that may spend long periods queuing and idling at the site (e.g., large warehouse or transfer facilities). The project does not include such uses. Therefore, the operational LST protocol is not applied.

The maximum daily localized emissions from project construction and LSTs are presented in Table 4.

Table 4
Maximum Localized Daily Emissions
(pounds per day)

Pollutant	Construction Phase		
	Site Preparation	**Grading**	**Building Construction, Paving, and Architectural Coating**
NO_X Analysis			
NOx Threshold	*521*	*521*	*460*
Project NOx Emissions	**15.67**	**16.98**	**25.34**
Significant?	***No***	***No***	***No***
CO Analysis			
CO Threshold	*5,641*	*5,641*	*4,850*
Project CO Emissions	**10.06**	**9.22**	**27.86**
Significant?	***No***	***No***	***No***
PM_{10} Analysis			
PM_{10} Threshold	*75*	*75*	*67*
Project PM_{10} Emissions	**1.22**	**3.50**	**1.27**
Significant?	***No***	***No***	***No***
$PM_{2.5}$ Analysis			
$PM_{2.5}$ Threshold	*23*	*23*	*20*
Project $PM_{2.5}$ Emissions	**0.61**	**2.02**	**0.80**
Significant?	***No***	***No***	***No***

Source: ECORP Consulting, Inc. 2024a; Appendix A; SCAQMD 2008.
Emissions are assessed against the threshold for 1-acre project sites with sensitive receptors within 25 meters of the project site boundary.
NO_X = nitrogen oxides; CO = carbon monoxide; PM_{10} = particulate matter 10 microns or less in diameter; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter

As indicated in Table 4, project emissions would be below the applicable LSTs for construction, and LST impacts would be less than significant.

Toxic Air Contaminants (TACs)

The Health and Safety Code (Section 39655, subd. (a).) defines a TAC as "an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health." A substance that is listed as a hazardous air pollutant pursuant to subsection (b) of Section 112 of the Federal Clean Air Act (42 United States Code Section 7412[b]) is a TAC. Under State law, the California Environmental Protection Agency, acting through the California Air Resources Board (CARB), is authorized to identify a substance as a TAC if it determines the substance is an air pollutant that may cause or contribute to an increase in mortality or an increase in serious illness, or that may pose a present or potential hazard to human health. Of particular concern statewide are diesel-exhaust particulate matter (DPM) emissions. DPM was established as a TAC in 1998 and is estimated to represent a majority of the cancer risk from TACs statewide (based on the statewide average). Diesel exhaust is a complex mixture of gases, vapors, and fine particles.

Construction

Construction-related activities would result in temporary, short-term project-generated emissions of DPM, ROG, NO_x, CO, and PM_{10} from the exhaust of off-road, heavy-duty diesel equipment for site preparation (e.g., clearing, grading); soil hauling truck traffic; paving; and other miscellaneous activities. The portion of the SoCAB which encompasses the project area is designated as a nonattainment area for federal O_3 and PM2.5 standards and is also a nonattainment area for the state standards for O_3, $PM_{2.5}$, and PM_{10} standards (CARB 2019). Thus, existing O_3, PM_{10}, and $PM_{2.5}$ levels in the SoCAB are at unhealthy levels during certain periods. However, as shown in Table 4 above, the project would not exceed the SCAQMD regional or localized significance thresholds for emissions.

The health effects associated with O_3 are generally associated with reduced lung function. Because the project would not involve construction activities that would result in O_3 precursor emissions (ROG or NO_x) in excess of the SCAQMD thresholds, the project is not anticipated to substantially contribute to regional O_3 concentrations and the associated health impacts.

CO tends to be a localized impact associated with congested intersections. In terms of adverse health effects, CO competes with oxygen, often replacing it in the blood, reducing the blood's ability to transport oxygen to vital organs. The results of excess CO exposure can include dizziness, fatigue, and impairment of central nervous system functions. The project would not involve construction activities that would result in CO emissions in excess of the SCAQMD thresholds. Thus, the project's CO emissions would not contribute to the health effects associated with this pollutant.

Particulate matter (PM_{10} and $PM_{2.5}$) contains microscopic solids or liquid droplets that are so small that they can get deep into the lungs and cause serious health problems. Particulate matter exposure has been linked to a variety of problems, including premature death in people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms such as irritation of the airways, coughing, or difficulty breathing. For construction activity, DPM is the primary TAC of concern. PM_{10} exhaust is considered a surrogate for DPM as all diesel exhaust is considered to be DPM. As with O_3 and NO_x, the project would not generate emissions of PM_{10} or $PM_{2.5}$ that would exceed the SCAQMD's thresholds. Accordingly, the project's PM_{10} and $PM_{2.5}$ emissions are not expected to cause any increase in related regional health effects for these pollutants.

In summary, project construction would not result in a potentially significant contribution to regional concentrations of nonattainment pollutants and would not result in a significant contribution to the adverse health impacts associated with those pollutants.

Operations

Operation of the project would not result in the development of any substantial sources of air toxics. There are no stationary sources associated with the operations of the project; nor would the project attract additional mobile sources that spend long periods queuing and idling at the site. On-site project emissions would not result in significant concentrations of pollutants at nearby sensitive receptors. The project would not have a high carcinogenic or non-carcinogenic risk during operation.

Carbon Monoxide Hotspots

A CO hotspot is an area of localized CO pollution caused by severe vehicle congestion on major roadways, typically near intersections. The air quality analysis conservatively assesses potential CO hot spots using the Bay Area Air Quality Management District's (BAAQMD's) conclusion that a given project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour or 24,000 vehicles per hour where vertical and/or horizontal air does not mix—in order to generate a significant CO impact.

According to the Trip Generation and VMT Screening Memo (K2 Traffic Engineering, Inc. 2022; Appendix I), the project would generate 24 trips in the AM peak hour, 12 trips in the PM peak hour, and 119 average daily trips (ADT). Thus, the project would not generate traffic volumes of more than 44,000 vehicles per day. Therefore, the project would not expose sensitive receptors to substantial pollutant concentrations associated with a CO hot spot, and impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

(Sources: Air Quality and Greenhouse Gas Emissions Assessment [ECORP Consulting, Inc. 2024a; Appendix A], Trip Generation and VMT Screening Memo [K2 Traffic Engineering, Inc. 2022; Appendix I])

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people? (Less Than Significant Impact)

The State of California Health and Safety Code Sections 41700 and 41705 prohibit emissions from any source whatsoever in such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to the public health or damage to property. The project could produce odors during proposed construction activities resulting from construction equipment exhaust, application of asphalt, and/or the application of architectural coatings. However, standard construction practices and regulatory requirements (e.g., CARB's Airborne Toxic Control Measures 13 [California Code of Regulations Chapter 10 Section 2485], idling time is not to exceed five minutes unless more time is required per engine manufacturers' specifications or for safety reasons) would minimize the odor emissions and their associated impacts. Furthermore, odors emitted during construction would be temporary, short-term, and intermittent in nature, and would cease upon the completion of the respective phase of construction.

According to CARB, land uses commonly considered to be potential sources of obnoxious odorous emissions include sewage treatment plants, landfills, recycling facilities, petroleum refineries, biomass operations, fiberglass manufacturing, and rendering plants (CARB 2005). The project does not include any uses identified by CARB as being associated with odors. Therefore, the project would not result in emissions leading to odors that would adversely affect a substantial number of people and impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

(Sources: Air Quality and Greenhouse Gas Emissions Assessment [ECORP Consulting, Inc. 2024a; Appendix A], Air Quality and Land Use Handbook: A Community Health Perspective [CARB 2005])

IV. BIOLOGICAL RESOURCES

This section is based on the Biological Technical Report and Multiple Species Habitat Conservation Plan (MSHCP) Consistency Analysis prepared for the project by ECORP Consulting, Inc. (2024b; Appendix B) to identify on-site biological resources and assess the project's consistency with the goals and objectives of the Western Riverside County MSHCP.

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 Wildlife or U.S. Fish and Wildlife Service? (Less Than Significant With Mitigation Incorporated)

The MSHCP Consistency Analysis evaluated potential impacts to special status plant and wildlife species in the vicinity of the project site. A summary of the status of sensitive species within the project site and vicinity, as well as potential impacts to these species, are presented below.

Sensitive Plant Species

Sensitive plant species are those listed as federally threatened or endangered by the U.S. Fish and Wildlife Service (USFWS); state listed as threatened or endangered or considered sensitive by the California Department of Fish and Wildlife (CDFW); included in the MSHCP as Covered Species, Non-Covered Species, Criteria Area Species, and/or Narrow Endemic Plant Species; and/or are California Native Plant Society (CNPS) List 1A, 1B, or 2 species, as recognized in the CNPS' Inventory of Rare and Endangered Vascular Plants of California and consistent with the CEQA Guidelines. The project site does not occur within a predetermined Survey Area for MSHCP criteria area or narrow endemic plant species and no sensitive plant species were observed during biological surveys. Thus, the project would not result in impacts to sensitive plant species.

Sensitive Animal Species

Sensitive animal species are those listed as threatened or endangered, proposed for listing, or candidates for listing by the USFWS; considered sensitive animals by the CDFW; and/or included in the MSHCP as Covered Species, Non-Covered Species, and/or Criteria Area Species. The project site does not occur within a predetermined Survey Area for amphibians or mammals and no sensitive wildlife species were observed or detected during biological surveys, so impacts to sensitive amphibian and mammalian species would be considered less than significant. No suitable habitat for sensitive riparian birds is present on or adjacent to the project site and none were observed during biological surveys.

Of the 44 special-status wildlife species identified in the literature search, two were found to have a low potential for occurrence on the project site: Crotch's bumble bee (*Bombus crotchii*) and burrowing owl (*Athene cunicularia*).

Marginally suitable foraging habitat for the Crotch's bumble bee is present on the project site where non-native flowering weeds occur. Marginally suitable nesting and overwintering habitat is present in the gopher burrows and tufts of grass located on the western half of the project site. However, the flowering resources are limited to a small patch and the potential nesting habitat is in an area that is regularly disturbed by large mechanical equipment. Although it is unlikely, if Crotch's bumble bee is found to be using or nesting on the project site prior to the start of construction, impacts to Crotch's bumble bee could occur in the form of

direct mortality of individuals, direct mortality to an active nesting colony, direct mortality to an overwintering individual, conversion of foraging habitat, or permanent loss of foraging resources. Implementation of Mitigation Measure **(MM) BIO-1**, which requires preconstruction surveys and avoidance measures for Crotch's bumble bee, would ensure that significant impacts to Crotch's bumble bee would not occur.

The project site is not located within a predetermined Survey Area for the burrowing owl, but a habitat assessment for burrowing owl was performed in accordance with Section 6.3.2 of the MSHCP. Although no burrowing owls or burrowing owl sign (such as white-wash, feathers, tracks, or pellets) were observed during the survey, marginal amounts of low-quality foraging habitat is present on the project site and two potential burrows were observed adjacent to the site. In accordance with the burrowing owl protection measures in the MSHCP, a measure requiring a pre-construction survey and avoidance of active nests and/or relocation of burrowing owls is included as **MM BIO-2** below. With the implementation of MM BIO-2, significant impacts to burrowing owl would not occur.

Nesting Migratory Birds

Given the location of Lake Elsinore within the City, there are a variety of birds that migrate seasonally through the City on the Pacific Flyway, as well as certain birds that permanently reside locally. The stored heavy construction equipment, construction materials, and semi-trailers present on the project site could provide nesting habitat for nesting birds and raptors protected by the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code. In addition, the trees adjacent to the project site as well as the power and telephone poles immediately adjacent to the site could provide nesting habitat. Furthermore, the project site could provide nesting habitat for ground-nesting bird species. Pursuant to the MBTA, development of the project could disturb or destroy active migratory bird nests if ground disturbance occurs during the identified breeding season (between February 1 and August 31). Implementation of **MM BIO-3** would ensure that potential impacts to birds protected under the MBTA and California Fish and Game Code are avoided during construction.

Mitigation Measures:

MM BIO-1 ***Preconstruction Survey for Crotch's Bumble Bee***. If the Crotch bumble bee is no longer a Candidate or formally listed species under the California Endangered Species Act (ESA) at the time ground disturbing activities occur, then no additional protection measures are proposed for the species.

If Crotch's bumble bee is legally protected under the California ESA as a Candidate or Listed species at the time ground-disturbing activities are scheduled to begin, a preconstruction survey shall be conducted in accordance with CDFW's Survey Considerations for California ESA Candidate Bumble Bee Species (CDFW 2023) during the Crotch's bumble bee flight season (February – October) no more than 48 hours prior to project-related ground disturbing activities (including but not limited to vegetation clearing, fence installation, and grading) by a qualified Crotch's bumble bee biologist. The 48-hour preconstruction survey shall be repeated as necessary if the project does not begin with 48 hours of completion of the preconstruction survey. If Crotch's bumble bees are detected (alive or dead), CDFW shall be notified within 24 hours as further coordination may be required to avoid or mitigate certain impacts, and an incidental take permit may be required. If no Crotch's bumble bees are detected, then the project activities may commence.

MM BIO-2 ***Preconstruction Surveys for Burrowing Owl.*** Due to the presence of marginal amounts of low-quality foraging habitat on the project site and potential burrows adjacent to the site in the surrounding area, preconstruction surveys for burrowing owl shall take place no more than 30 days prior to the start of ground-disturbing activities, regardless of whether project activities are scheduled to occur during the burrowing owl breeding season (March 1 through August 31) or not. The surveys shall be performed in accordance with the Western Riverside MSHCP Burrowing Owl Survey Instructions (County of Riverside 2006) and the California Department of Fish and Game (CDFG) Staff Report on Burrowing Owl Mitigation (CDFG 2012). If preconstruction survey results are negative, no further action is required for protection of burrowing owls. If preconstruction survey results are positive and impacts to burrowing owls are unavoidable, then additional mitigation measures will need to be implemented to offset impacts to burrowing owl. Further, a burrowing owl avoidance and mitigation plan will be prepared for review and approval by the wildlife agencies (CDFW and USFWS) if owls are present. The plan will include measures developed in accordance with the CDFG Staff Report on Burrowing Owl Mitigation (2012) and may include seasonal work restriction, establishing a non-disturbance buffer around each burrow location, biological monitoring, or passive relocation. If passive relocation is found to be necessary, then coordination with CDFW will need to occur.

MM BIO-3 ***Preconstruction Surveys for Nesting Birds.*** Wherever feasible, ground-disturbing activities (including vegetation removal) shall be conducted during the non-breeding season for birds (approximately September 1 through January 31) in order to avoid violations of the MBTA and California Fish and Game Code Sections 3503, 3503.5 and 3513. If activities with the potential to disrupt nesting birds are scheduled to occur during the bird breeding season (February 1 through August 31), a preconstruction nesting bird survey shall be conducted by a qualified biologist who is experienced in surveying for and identification of avian species no more than three days prior to the start of ground-disturbing activities. The nesting bird survey shall include the project site and adjacent areas where project activities have the potential to cause nest failure. If no nesting birds are observed during the survey, site preparation and construction activities may begin. If nesting birds (including nesting raptors) are found to be present, avoidance or minimization measures shall be implemented to avoid potential project-related impacts. Avoidance and minimization measures shall be developed by the qualified biologist and may include non-disturbance buffers established around active nests until the biologist has determined that the nesting cycle is completed, seasonal work restrictions, or additional survey and monitoring requirements. The width of non-disturbance buffers established around active nests will be determined by the qualified biologist (300 feet is typically recommended for songbirds and 500 feet is typically recommended for raptors). Once nesting is deemed complete by the qualified biologist as determined through periodic nest monitoring, the nondisturbance buffer will be removed by the qualified biologist and project work may resume in the area.

(Sources: MSHCP Consistency Analysis [ECORP Consulting, Inc. 2024b; Appendix B])

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 Wildlife or U.S. Fish and Wildlife Service? (No Impact)

Sensitive natural communities include land that supports unique vegetation communities or the habitats of rare or endangered species or subspecies of animals or plants as defined by Section 15380 of the CEQA Guidelines. The MSHCP Consistency Analysis conducted for the project involved a general habitat

assessment that included vegetation mapping and an MSHCP Riparian/Riverine and Vernal Pool Resource assessment. The results of the field surveys indicated that the entire project site is disturbed; there are no riparian/riverine habitats or other sensitive natural communities on or immediately adjacent to the property. As such, the project would not result in direct or indirect impacts to riparian habitat or sensitive natural communities. No substantial adverse effects to riparian habitat or other sensitive natural communities would occur, and impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

(Sources: MSHCP Consistency Analysis [ECORP Consulting, Inc. 2024b; Appendix B])

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? (No Impact)

The MSHCP Consistency Analysis concluded that the project site is completely disturbed and does not contain jurisdictional features. Potentially jurisdictional resources occur in the project vicinity. An intermittent riverine flows southwest through the Riverside County Flood Control and Water Conservation District drainage and detention basin west of the project. Additionally, a seasonally flooded freshwater forested shrub/wetland and intermittent riverine occur south of the project site. The detention basin to the west of the project and the seasonally flooded area south of the project are outside of the project boundaries and would not be directly impacted by the project. Project runoff would be directed to a bioretention basin in the southeastern corner of the property before discharging into the City's storm drain system. The adjacent detention basin and seasonally flooded area would not be indirectly impacted by the project. Therefore, no impacts to wetlands or MSHCP riparian/riverine resources would occur.

Mitigation Measures: No mitigation measures are required.

(Sources: MSHCP Consistency Analysis [ECORP Consulting, Inc. 2024b; Appendix B])

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? (Less Than Significant With Mitigation Incorporated)

Wildlife Movement

No known linkages or other potential wildlife movement corridors or travel routes occur within the project area, which is characterized by existing disturbances such as pavement and industrial development. The project site contains little to no vegetative cover that would facilitate wildlife movement. The site is not located within an MSHCP designated core, extension of existing core, non-contiguous habitat block, constrained linkage, or linkage area. Therefore, the project would not significantly impact wildlife movement or impede the use of native wildlife nursery sites.

Migratory Species

Development of the project could disturb or destroy active migratory bird nests, including eggs and young. Disturbance to or destruction of migratory bird eggs, young, or adults is in violation of the MBTA and is considered a potentially significant impact. Although suitable habitat for nesting birds on the study area is limited, the stored heavy construction equipment, construction materials, and semi-trailers present on the project site could provide nesting habitat for nesting birds and raptors protected by the MBTA and California Fish and Game Code. In addition, the trees adjacent to the project site as well as the power and

utility poles adjacent to the site could provide nesting habitat. Furthermore, the project site could provide nesting habitat for ground-nesting bird species. In order to address the potential loss or disturbance of nesting habitat for migratory birds, the project would implement MM BIO-3 during construction. With implementation of MM BIO-3, impacts to migratory bird species would be reduced to less than significant.

Mitigation Measures: MM BIO-3

(Sources: MSHCP Consistency Analysis [ECORP Consulting, Inc. 2024b; Appendix B])

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? (No Impact)

The project would be consistent with local policies and ordinances related to biological resources. The LEMC includes a City Tree Preservation Ordinance (Ordinance 1256) that protects the City's streetscape and trees. No trees exist on the project site. There are ornamental trees growing across Collier Avenue and West Minthorn Street from the project, but these trees would not be removed as part of the project. As part of the project landscaping, tree spacing, distance from curbs and sidewalks, and other aesthetic guidelines shall be followed in accordance with LEMC Ordinance 1256, as discussed in LEMC Chapter 5.120. The City has also determined that certain species of palm trees in the family Palmaceae are locally significant resources through the City Significant Palm Tree Ordinance (LEMC Ordinance 1160); however, no palm trees covered under the ordinance occur on or adjacent to the site. As such, the project would not conflict with local policies or ordinances protecting biological resources and no impact would occur.

Mitigation Measures: No mitigation measures are required.

(Sources: MSHCP Consistency Analysis [ECORP Consulting, Inc. 2024b; Appendix B])

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? (Less Than Significant With Mitigation Incorporated)

The Western Riverside County MSHCP is a comprehensive, multi-jurisdictional effort that includes unincorporated County of Riverside lands and multiple cities in the western portion of the County, including the City. Rather than address sensitive species on an individual basis, the MSHCP focuses on the conservation of 146 species, proposing a reserve system of approximately 500,000 acres and a mechanism to fund and implement the reserve system. The MSHCP allows participating entities to issue take permits for listed species so that individual applicants need not seek their own permits from the USFWS and/or CDFW. The MSHCP was adopted on June 17, 2003 by the County Board of Supervisors. The Incidental Take Permit was issued by both the USFWS and CDFW on June 22, 2004.

The project site is located in the Elsinore Area Plan of the MSHCP, but not within a criteria cell; therefore, while the project is required to show MSHCP compliance through specific habitat assessments, applicable biological surveys, and provision of an MSHCP consistency analysis, no on-site conservation is required.

An MSHCP Consistency Analysis was prepared for the project (ECORP Consulting, Inc. 2024b) that addressed project consistency with applicable goals, objectives, and requirements of the MSCHP. The project site is not within or adjacent to any Conservation Areas, Criteria Cells, or Subunit designations; therefore, the project is not subject to cell criteria identified in the MSHCP. The project site is not located within an MSHCP survey area for criteria area plant species, narrow endemic plant species, amphibian species, or mammal species. Therefore, the project would not be subject to survey requirements of corresponding MSHCP Sections 6.1.3 and 6.3.2. The project site is not located within the MSHCP survey

area for burrowing owl. Regardless, as discussed in Item IV(a), burrowing owl surveys were conducted on the project site and no burrowing owl or signs of burrowing owl were detected during the focused surveys. However, consistent with the requirements of the MSCHP, a pre-construction burrowing owl survey would be required and is included as MM BIO-2 and as such, the project would be in compliance with MSHCP Section 6.3.2.

The project would not result in impacts to MSHCP riparian/riverine resources, vernal pools, or riparian birds. Thus, the project would be in compliance with MSHCP Section 6.1.2.

The MSHCP Urban/Wildlands Interface guidelines contained in Section 6.1.4 are intended to address indirect effects associated with locating commercial, mixed uses, and residential developments in proximity to a MSHCP Conservation Area. The project site is not located adjacent to an existing or proposed MSHCP Conservation Area. Thus, the MSHCP Urban/Wildlands Interface guidelines are not applicable to the project.

The Fuels Management guidelines contained in MSHCP Section 6.4 are intended to address brush management activities around new development within or adjacent to MSHCP Conservation Areas. As the project site is not located adjacent to an existing or proposed MSHCP Conservation Area, the Fuels Management guidelines are not applicable to the project.

The project is subject to MSHCP Local Development Mitigation fees, as established by the Western Riverside County Regional Conservation Authority and administered by the City, as a condition of approval for occupancy. The development fee supports habitat conservation planning that mitigates for development that the City permits. The project would be in compliance with the development fee requirement.

Based on the above analysis, the project would not conflict with the applicable provisions of the MSHCP with implementation of the MM BIO-2.

Mitigation Measures: MM BIO-2

(Sources: MSHCP Consistency Analysis [ECORP Consulting, Inc. 2024b; Appendix B])

V. CULTURAL RESOURCES

This section is based on the Cultural Resources Inventory prepared for the project by ECORP Consulting, Inc. (2024c; Appendix C) to identify potentially significant cultural resources within the project study area. The investigation included a records search, literature review, examination of historic maps, and an archaeological field survey of the project area.

a) Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5? (No Impact)

A records search was conducted at the Eastern Information Center at the University of California, Riverside on January 31, 2022. The search identified 197 resources located within a one-mile radius of the project, none of which are in the subject property. Of the 197 resources, 191 are historic cultural resources and consist of residential properties, commercial buildings, religious buildings, community centers, hotels, ranches, glass fragments, a government building, a community park, a courtyard, a railroad, a theater, a school, a refuse scatter, a historic district, and a cemetery. Six resources are prehistoric resources consisting of lithic scatters, flakes and tools, and granitic manos. One multi-component resource, the natural feature of Lake Elsinore, was also identified. None of the resources were recorded within the project site. A review of historic maps indicates that the property was historically undeveloped and has remained vacant until the

present day. No structures appear on the site on aerial imagery. Therefore, the project would not cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5. No impact would occur.

Mitigation Measures: No mitigation measures are required.

(Sources: Cultural Resources Inventory [ECORP Consulting, Inc. 2024c; Appendix C])

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5? (Less Than Significant With Mitigation Incorporated)

As discussed above in Item V(a), no known archaeological resources are present at the project site and none were observed during the archaeological field survey. A Sacred Lands File search from the Native American Heritage Commission (NAHC) was negative for recorded sacred sites or locations of religious or ceremonial importance. However, due to the cultural significance of Lake Elsinore associated with past human occupation and use of the area, there is potential for encountering buried archaeological resources during project construction. As such, **MM CUL-1** through **MM CUL-7** would be implemented and would reduce potential impacts to a less-than-significant level.

Mitigation Measures:

MM CUL-1 ***Unanticipated Resources***. The developer/permit holder or any successor in interest shall comply with the following for the life of this permit. If during ground disturbance activities, unanticipated cultural resources are discovered, the following procedures shall be followed:

1. All ground disturbance activities within 100 feet of the discovered cultural resource shall be halted until a meeting is convened between the developer, the Project Archaeologist, the Native American tribal representative(s) from consulting tribes (or other appropriate ethnic/cultural group representative), and the Community Development Director or their designee to discuss the significance of the find.

2. The developer shall call the Community Development Director or their designee immediately upon discovery of the cultural resource to convene the meeting.

3. At the meeting with the aforementioned parties, the significance of the discoveries shall be discussed and a decision is to be made, with the concurrence of the Community Development Director or their designee, as to the appropriate mitigation (documentation, recovery, avoidance, etc.) for the cultural resource.

4. Further ground disturbance shall not resume within the area of the discovery until a meeting has been convened with the aforementioned parties and a decision is made, with the concurrence of the Community Development Director or their designee, as to the appropriate mitigation measures.

5. Treatment and avoidance of the newly discovered resources shall be consistent with the Cultural Resources Treatment and Monitoring Agreements entered into with the appropriate tribes. This may include avoidance of cultural resources through project design, in-place preservation of cultural resources located in native soils, and/or re-burial on the Project property so they are not subject to further disturbance in perpetuity as identified in Non-Disclosure of Reburial Location measure.

6. If the find is determined to be significant and avoidance of the site has not been achieved, a Phase III data recovery plan shall be prepared by the Project Archeologist, in consultation with the Tribe(s), and shall be submitted to the City for their review and approval prior to implementation of the said plan.

7. Pursuant to Calif. Pub. Res. Code § 21083.2(b) avoidance is the preferred method of preservation for archaeological resources and cultural resources. If the Project Applicant and the Tribe(s) cannot agree on the significance or the mitigation for the archaeological or cultural resources, these issues will be presented to the Community Development Director for decision. The Community Development Director shall make the determination based on the provisions of the California Environmental Quality Act with respect to archaeological resources, recommendations of the project archeologist and shall take into account the cultural and religious principles and practices of the Tribe(s). Notwithstanding any other rights available under the law, the decision of the City Community Development Director shall be appealable to the City Planning Commission and/or City Council." Evidence of compliance with this mitigation measure, if a significant archaeological resource is found, shall be provided to City of Lake Elsinore upon the completion of a treatment plan and final report detailing the significance and treatment finding.

MM CUL-2 ***Archaeologist/CRMP***. Prior to issuance of grading permits, the applicant/developer shall provide evidence to the Community Development Department that a Secretary of Interior Standards qualified and certified Registered Professional Archaeologist (RPA) has been contracted to implement a Cultural Resource Monitoring Program (CRMP) that addresses the details of all activities that must be completed and procedures that must be followed regarding cultural resources associated with this project. The CRMP document shall be provided to the Community Development Director or their designee for review and approval prior to issuance of the grading permit. The CRMP provides procedures to be followed and are to ensure that impacts on cultural resources will not occur without procedures that would reduce the impacts to less than significant. These measures shall include, but shall not be limited to, the following:

Archaeological Monitor - An adequate number of qualified monitors shall be present to ensure that all earth-moving activities are observed and shall be on-site during all grading activities for areas to be monitored including off-site improvements. Inspections will vary based on the rate of excavation, the materials excavated, and the presence and abundance of artifacts and features. The frequency and location of inspections will be determined by the Project Archaeologist, in consultation with the Tribal monitor.

Cultural Sensitivity Training - The Project Archaeologist and a representative designated by the consulting Tribe(s) shall attend the pre-grading meeting with the contractors to provide Cultural Sensitivity Training for all Construction Personnel. Training will include a brief review of the cultural sensitivity of the Project and the surrounding area; what resources could potentially be identified during earthmoving activities; the requirements of the monitoring program; the protocols that apply in the event unanticipated cultural resources are identified, including who to contact and appropriate avoidance measures until the find(s) can be properly evaluated; and any other appropriate protocols. This is a mandatory training and all construction personnel must attend prior to beginning work on the project site. A sign-in sheet for attendees of this training shall be included in the Phase IV Monitoring Report.

Unanticipated Resources - In the event that previously unidentified potentially significant cultural resources are discovered, the Archaeological and/or Tribal Monitor(s) shall have the authority to divert or temporarily halt ground disturbance operations in the area of discovery to allow evaluation of potentially significant cultural resources. The Project Archaeologist, in consultation with the Tribal monitor(s) shall determine the significance of the discovered resources. The Community Development Director or their designee must concur with the evaluation before construction activities will be allowed to resume in the affected area. Before construction activities are allowed to resume in the affected area, the artifacts shall be recovered and features recorded using professional archaeological methods

Phase IV Report - A final archaeological report shall be prepared by the Project archaeologist and submitted to the Community Development Director or their designee prior to grading final. The report shall follow County of Riverside requirements and shall include at a minimum: a discussion of the monitoring methods and techniques used; the results of the monitoring program including any artifacts recovered; an inventory of any resources recovered; updated DPR forms for all sites affected by the development; final disposition of the resources including GPS data; artifact catalog and any additional recommendations. A final copy shall be submitted to the City, Project Applicant, the Eastern Information Center (EIC), and the Tribe.

MM CUL-3 ***Cultural Resources Disposition*****.** In the event that Native American cultural resources are discovered during the course of grading (inadvertent discoveries), the following procedures shall be carried out for final disposition of the discoveries:

One or more of the following treatments, in order of preference, shall be employed with the tribes. Evidence of such shall be provided to the Community Development Department:

1. Preservation-In-Place of the cultural resources, if feasible. Preservation in place means avoiding the resources, leaving them in the place where they were found with no development affecting the integrity of the resources.

2. Relocation of the resources on the Project property. The measures for relocation shall include, at least, the following: Measures and provisions to protect the future reburial area from any future impacts by means of a deed restriction or other form of protection (e.g., conservation easement) in order to demonstrate avoidance in perpetuity.

3. Relocation shall not occur until all legally required cataloging and basic recordation have been completed, with an exception that sacred items, burial goods and Native American human remains are excluded. Any reburial process shall be culturally appropriate. Listing of contents and location of the reburial shall be included in the confidential Phase IV report. The Phase IV Report shall be filed with the City under a confidential cover and not subject to Public Records Request.

4. If preservation in place or reburial is not feasible then the resources shall be curated in the culturally sensitive matter at a Riverside County curation facility that meets State Resources Department of Office of Historic Preservation Guidelines for the Curation of Archaeological Resources ensuring access and use pursuant to the Guidelines. The collection and associated records shall be transferred, including title, and are to be accompanied by payment of the fees necessary for permanent curation. Evidence of curation in the form of a letter from the curation facility stating that subject

archaeological materials have been received and that all fees have been paid, shall be provided by the landowner to the City. There shall be no destructive or invasive testing on sacred items, burial goods and Native American human remains. Results concerning finds of any inadvertent discoveries shall be included in the Phase IV monitoring report. Evidence of compliance with this mitigation measure, if a significant archaeological resource is found, shall be provided to the City of Lake Elsinore upon completion of a treatment plan and final report detailing the significance and treatment of finding.

MM CUL-4 ***Tribal Monitoring.*** Prior to the issuance of a grading permit, at least 30 days prior to the issuance, the applicant shall contact the consulting Native American Tribe(s) that have requested monitoring through consultation with the City during the AB 52 and/or the SB 18 process ("Monitoring Tribes"). The applicant shall coordinate with the Tribe(s) to develop individual Tribal Monitoring Agreement(s). A copy of the signed agreement(s) shall be provided to the City of Lake Elsinore Community Development Department, Planning Division prior to the issuance of a grading permit. The Agreement shall address the treatment of any known tribal cultural resources (TCRs) including the project's approved mitigation measures and conditions of approval; the designation, responsibilities, and participation of professional Tribal Monitors during grading, excavation and ground disturbing activities; project grading and development scheduling; terms of compensation for the monitors; and treatment and final disposition of any cultural resources, sacred sites, and human remains/burial goods discovered on the site per the Tribe(s) customs and traditions and the City's mitigation measures/conditions of approval. The Tribal Monitor will have the authority to stop and redirect grading in the immediate area of a find in order to evaluate the find and determine the appropriate next steps, in consultation with the Project archaeologist.

MM CUL-5 ***Phase IV Report.*** Upon completion of the implementation phase, a Phase IV Cultural Resources Monitoring Report shall be submitted that complies with the Riverside County Planning Department's requirements for such reports for all ground disturbing activities associated with this grading permit. The report shall follow the County of Riverside Planning Department Cultural Resources (Archaeological) Investigations Standard Scopes of Work posted on the County website. The report shall include results of any feature relocation as well as evidence of the required cultural sensitivity training for the construction staff held during the required pre-grade meeting. Once the report is determined to be adequate, two (2) copies shall be submitted to Eastern Information Center (EIC) at the University of California Riverside (UCR) and one (1) copy shall be submitted to the Monitoring Tribes.

MM CUL-6 ***Discovery of Human Remains.*** In the event that human remains (or remains that may be human) are discovered at the project site during grading or earthmoving, the construction contractors, project archaeologist and/or designated Native American Monitor shall immediately stop all activities within 100 feet of the find. The project applicant shall then inform the Riverside County Coroner and the City of Lake Elsinore Community Development Department immediately, and the coroner shall be permitted to examine the remains as required by California Health and Safety Code Section 7050.5(b). Section 7050.5 requires that excavation be stopped in the vicinity of discovered human remains and that no further disturbance shall occur until the Riverside County Coroner has made the necessary findings as to origin. If human remains are determined to be Native American, the applicant shall comply with the state law relating to the disposition of Native American burials that fall within the jurisdiction of the NAHC (PRC Section 5097). The

coroner shall contact the NAHC within 24 hours and the NAHC will make the determination of most likely descendant. The most likely descendant shall then make recommendations and engage in consultation concerning the treatment of the remains as provided in Public Resource Code Section 5097.98. In the event that the applicant and the MLD are in disagreement regarding the disposition of the remains. State law will apply and the mediation process will occur with the NAHC, if requested (see PRC Section 5097.98(e) and 5097.94(k)).

According to the California Health and Safety Code, six or more human burial at one location constitutes a cemetery (Section 81 00), and disturbance of Native American cemeteries is a felony (Section 7052).

MM CUL-7 ***Non-Disclosure of Reburial Location*.** It is understood by all parties that unless otherwise required by law, the site of any reburial of Native American human remains or associated grave goods shall not be disclosed and shall not be governed by public disclosure requirements of the California Public Records Act. The Coroner, pursuant to the specific exemption set forth in California Government Code 6254 (r), parties, and Lead Agencies, will be asked to withhold public disclosure information related to such reburial, pursuant to the specific exemption set forth in California Government Code 6254 (r).

(Sources: Cultural Resources Inventory [ECORP Consulting, Inc. 2024c; Appendix C])

c) Disturb any human remains, including those interred outside of formal cemeteries? (Less Than Significant With Mitigation Incorporated)

The project site is not located on or adjacent to a known formal or informal cemetery. The archaeological records search identified one historical cemetery within a one-mile radius of the project. However, because disturbance is only anticipated on the project site, no impacts to human remains, including those interred outside of formal cemeteries, are expected. Furthermore, the NAHC Sacred Lands File search was negative for recorded sacred sites or locations of religious or ceremonial importance. In the unlikely event that unknown human remains are uncovered during project construction, MM CUL-6 described above would be implemented in accordance with Public Resources Code Section 5097.98 to ensure that the project's impacts would be less than significant.

Mitigation Measures: MM CUL-6

(Sources: Cultural Resources Inventory [ECORP Consulting, Inc. 2024c; Appendix C]; Public Resources Code Section 5097.98)

VI. ENERGY

This section is partially based on the Air Quality and Greenhouse Gas Emissions Assessment prepared for the project by ECORP Consulting, Inc. (2024a; Appendix A).

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation? (Less Than Significant Impact)

Energy use associated with a project typically includes fuel (gasoline and diesel), electricity, and natural gas during construction activities and operations. It typically includes the following sources: (1) construction-related vehicle and equipment energy use, (2) transportation energy use from people traveling

to and from the project area during operation, and (3) building and facility energy use of the project during operation.

Construction-related Energy Use

Energy use during construction would occur within two general categories: fuel use from vehicles used by workers commuting to and from the construction site, and fuel use by vehicles and other equipment to conduct construction activities. The maximum number of construction workers traveling to and from the project site at one time would not be expected to exceed 23 trips in total (21 construction worker trips and 2 vendor trips). Fuel consumption associated with construction worker and vendor commute would be similar to any other typical commute in Riverside County and would not result in a wasteful, inefficient, or unnecessary consumption of gasoline or diesel fuel.

Consistent with state requirements, construction equipment would meet CARB Tier 3 In-Use Off-Road Diesel Engine Standards. Engines are required to meet certain emission standards, and groups of standards are referred to as Tiers. A Tier 0 engine is unregulated with no emission controls, and each progression of standard level (i.e., Tier 1, Tier 2, Tier 3, etc.) generates lower emissions, uses less energy, and is more advanced technologically than the previous tier. CARB's Tier 3 In-Use Off-Road Diesel Engine Standards require that construction equipment fleets become cleaner and use less energy over time. There are no known conditions within the project site that would require non-standard equipment or construction practices that would increase fuel-energy consumption above typical equipment fuel consumption rates. Additionally, construction activities would be temporary and short-term and would adhere to applicable construction best management practices (BMPs). Therefore, project construction would not result in the wasteful, inefficient, or unnecessary consumption of energy resources, and impacts would be less than significant.

Operation-related Energy Use

During operation, energy use would be associated with transportation-related fuel use (gasoline, diesel fuel, and electric vehicles) and building-related energy use (electricity and natural gas).

Transportation-related Energy Use

Buildout of the project and vehicle trips associated with the project would result in transportation energy use. Trips by individuals traveling to and from the project site would result from use of passenger vehicles. Vehicles would be mostly powered by gasoline, with some fueled by diesel or electricity. The project would generate 119 daily trips. Project fuel consumption would decline over time beyond the initial operational year of the project as a result of continued implementation of increased federal and state vehicle efficiency standards. There is no component of the project that would result in unusually high vehicle fuel use during operation. Therefore, operation of the project would not create a land use pattern that would result in wasteful, inefficient, or unnecessary use of energy, and impacts would be less than significant.

Non-transportation-related Energy Use

Non-transportation energy use would be associated with electricity and natural gas. Electricity service to the project site is provided by Southern California Edison (SCE). Once operational, the project would use electricity to run various appliances and equipment, including space and water heaters, air conditioners, ventilation equipment, lights, and numerous other devices. CalEEMod was used to estimate the total operational electricity and natural gas consumption associated with the project and includes 118,792 kilowatt hours per year for electricity and 387,152 kilo-British thermal units per year for natural gas.

The project would be constructed in accordance with the current Title 24 energy efficiency standards and the California Green Building Standards Code (CALGreen). The 2022 Energy Code increases on-site renewable energy generation from solar, increases electric load flexibility to support grid reliability, reduces emissions from newly constructed buildings, reduces air pollution for improved public health, and encourages adoption of environmentally beneficial efficient electric technologies. CALGreen institutes mandatory minimum environmental performance standards for all ground-up new construction of non-residential and residential structures. The project would, at a minimum, be required to comply with the mandatory measures included in the current Energy Code and the CALGreen standards at the time of building construction. Therefore, there are no project features that would support the use of excessive amounts of energy or would create unnecessary energy waste or conflict with any adopted plan for renewable energy efficiency, and impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

(Sources: Air Quality and Greenhouse Gas Emissions Assessment [ECORP Consulting, Inc. 2024a; Appendix A])

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency? (Less Than Significant Impact)

The applicable state plans that address renewable energy and energy efficiency include the California Green Building Standards Code, the California Energy Code, and the Renewables Portfolio Standard (RPS), while the applicable local plan is the City's Climate Action Plan (CAP). CALGreen and the California Energy Code institute mandatory minimum environmental performance and energy standards for new construction throughout California. RPS promotes diversification of the state's electricity supply and decreased reliance on fossil fuel energy sources. As discussed in Item VI(a), the project would be required to meet the mandatory energy requirements of the current CALGreen and the Energy Code at the time of building construction. Similarly, the project would not conflict with or obstruct implementation of CALGreen and the California Energy Code or with SCE's implementation of RPS. Additionally, the project would not conflict with implementation of the City's CAP, as discussed in detail in Item VIII(a). Consistent with state requirements, construction equipment would meet CARB Tier 3 In-Use Off-Road Diesel Engine Standards. Therefore, the project would not conflict with or obstruct plans for renewable energy or energy efficiency, and impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

(Sources: Air Quality and Greenhouse Gas Emissions Assessment [ECORP Consulting, Inc. 2024a; Appendix A])

VII. GEOLOGY AND SOILS

This section is based on the Preliminary Geotechnical Investigation prepared for the project by SoCal Professional Engineers (SoCal-PE 2021; Appendix D) to document geologic conditions for the project site and develop design specifications for hazards such as seismic shaking and related effects.

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. (Less Than Significant Impact)

The project site is located within the Peninsular Ranges Geomorphic Province of California, a seismically active region where several known earthquake faults occur. The geologic structure of the entire region is dominated mainly by northwest-trending faults associated with the San Andreas system, including the San Andreas Fault, San Jacinto Fault, and Whittier-Elsinore Fault. However, the project site is not located within a State of California designated "Alquist-Priolo" Earthquake Fault Zone. The nearest known active fault is the Whittier-Elsinore fault located about two miles to the southeast. While the potential for ground rupture due to faulting at the site is considered low, lurching or cracking of the ground surface as a result of a nearby seismic event is possible. Design and construction of proposed development within the project site would be required to comply with seismic-safety development requirements, including the Title 24 standards of the International Building Code (IBC) and the California Building Code (CBC). Conformance with applicable seismic-safety development requirements would minimize seismic fault rupture effects in the event of a major earthquake and ensure that the potential seismic or geologic hazard impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

(Sources: Preliminary Geotechnical Investigation [SoCal-PE 2021; Appendix D])

ii) Strong seismic ground shaking? (Less Than Significant Impact)

As noted in Section VII(a)(i) although no faults are located within the project site, the Whittier-Elsinore fault is located approximately two miles to the southeast. A seismic event could cause significant ground shaking on the project site. The project would be required to conform to applicable seismic-safety development requirements to minimize seismic ground shaking effects in the event of a major earthquake. Mandatory compliance with the Title 24 standards of the current IBC and CBC during the design and construction of the project would minimize seismic ground shaking effects in the event of a major earthquake. Therefore, impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

(Sources: Preliminary Geotechnical Investigation [SoCal-PE 2021; Appendix D])

iii) Seismic-related ground failure, including liquefaction? (Less Than Significant Impact)

Liquefaction is the phenomenon that occurs during severe ground shaking whereby soils reduce greatly in strength and temporarily behave similarly to a fluid rather than a solid. Severe or extended liquefaction can result in significant effects to surface and subsurface facilities through the loss of support and/or foundation integrity. Liquefaction is restricted to certain geologic and hydrologic environments, primarily recently deposited sand and silt in areas with high groundwater levels. According to the Preliminary Geotechnical Investigation, the site is within an area mapped by the State of California for liquefaction potential and the County of Riverside has designated the site as having a "very high" potential for liquefaction. However, due to the absence of shallow groundwater, the medium dense to dense nature of the underlying alluvial materials, the shallow depth to bedrock, and the very moist to wet condition of the alluvial soils, the liquefaction risk is considered low. Moreover, the project would comply with applicable building and seismic design standards, including excavation and recompaction of the upper 10 feet of the building pad. Therefore, impacts related to liquefaction would be less than significant.

Mitigation Measures: No mitigation measures are required.

(Sources: Preliminary Geotechnical Investigation [SoCal-PE 2021; Appendix D])

iv) Landslides? (Less Than Significant Impact)

According to the Preliminary Geotechnical Investigation, the project site is generally flat and the potential for landslides or lateral spreading is considered very low. No landslides have been mapped in the project area. Development of the project site would require conformance with applicable regulations and standards for construction safety and landslide stability. Therefore, impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

(Sources: Preliminary Geotechnical Investigation [SoCal-PE 2021; Appendix D])

b) Result in substantial soil erosion or the loss of topsoil? (Less Than Significant Impact)

The project has the potential to result in soil erosion during grading and construction. However, potential short-term erosion impacts from construction activities would be addressed through the implementation of BMPs in accordance with the California Stormwater Quality Association's Stormwater Best Management Practices Handbook to control erosion and protect the quality of surface water runoff (California Stormwater Quality Association 2003). Additionally, potential sedimentation and erosion impacts would be minimized or avoided with the implementation of erosion and sedimentation control measures in compliance with NPDES permit requirements. Post construction, the project site would mostly be covered with impervious surfaces. Pervious areas, including the bioretention basin and landscaped areas, would be designed to minimize areas of exposed soils and treated with groundcover/vegetation such that substantial soil erosion or loss of topsoil would not occur over the long term. Therefore, impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

(Sources: Preliminary Geotechnical Investigation [SoCal-PE 2021; Appendix D])

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? (Less Than Significant Impact)

As discussed above in VII(a)(iii) and VII(a)(iv), the project would not be subject to landslide-related risks and liquefaction-related risks are considered low according to the liquefaction analysis in the Preliminary Geotechnical Investigation. However, the project would comply with the CBC to minimize risks associated with geologic hazards. Based on the incorporation of applicable design guidelines, potential impacts associated with a geologic unit or soil that is unstable would be less than significant.

Mitigation Measures: No mitigation measures are required.

(Sources: Preliminary Geotechnical Investigation [SoCal-PE 2021; Appendix D])

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? (No Impact)

Expansive soils are attributable to the water holding capacity of clay materials. Such behavior can adversely affect structural integrity (including underground facilities) through shifting of support materials during the shrink-swell process. The Preliminary Geotechnical Investigation performed an index test on a sample of

the on-site soils and concluded that on-site soils have a very low potential for expansion (SoCal-PE 2021). Therefore, no impact would occur.

Mitigation Measures: No mitigation measures are required.

(Sources: Preliminary Geotechnical Investigation [SoCal-PE 2021; Appendix D])

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 wastewater? (No Impact)

No septic tanks or alternative wastewater disposal systems would be installed as part of the project. The project would use the existing sewer system for the disposal of wastewater and would not use septic tanks or alternative wastewater disposal systems. Therefore, no impact would occur.

Mitigation Measures: No mitigation measures are required.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? (No Impact)

The project site is vacant and does not include known unique geologic features. Underlying geologic formations on the project site include late Holocene-age young alluvial channel deposits and bedrock composed of Mesozoic-age Phyllite. According to Figure 3.2-3 of the General Plan EIR, the project site is in an area of Low paleontological sensitivity. As a result, no impact to paleontological resources would occur.

Mitigation Measures: No mitigation measures are required.

(Sources: Preliminary Geotechnical Investigation [SoCal-PE 2021; Appendix D]; General Plan EIR)

VIII. GREENHOUSE GAS EMISSIONS

This section is based on the Air Quality and Greenhouse Gas Emissions Assessment prepared for the project by ECORP Consulting, Inc. (2024a; Appendix A).

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? (Less Than Significant With Mitigation Incorporated)

Global climate change refers to changes in average climatic conditions on Earth including temperature, wind patterns, precipitation, and storms. Global temperatures are moderated by atmospheric gases. These gases are commonly referred to as GHGs because they function like a greenhouse by letting sunlight in but preventing heat from escaping, thus warming the Earth's atmosphere. GHGs are emitted by natural processes and human (anthropogenic) activities. Anthropogenic GHG emissions are primarily associated with burning of fossil fuels during motorized transport; electricity generation; natural gas consumption; industrial activity; manufacturing; and other activities such as deforestation, agricultural activity, and solid waste decomposition.

The GHGs defined under California's AB 32 include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Each GHG differs in its ability to absorb heat in the atmosphere based on the lifetime, or persistence, of the gas molecule in the atmosphere. Estimates of GHG emissions are commonly presented in carbon dioxide equivalents (CO_2e), which weigh each gas by its global warming potential. Expressing GHG emissions in CO_2e takes the contribution of all

GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO_2 were being emitted. GHG emissions quantities in this analysis are presented in metric tons (MT) of CO_2e.

CEQA Guidelines Section 15064.4 states that "the determination of the significance of greenhouse gas emissions calls for careful judgment by the lead agency, consistent with the provisions in Section 15064. A lead agency should make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate, or estimate the amount of greenhouse gas emissions resulting from a project." Section 15064.4(b) further states that a lead agency should consider the following nonexclusive factors when assessing the significance of GHG emissions:

1. The extent to which the project may increase or reduce GHG emissions as compared to the existing environmental setting;

2. Whether the project emissions exceed a threshold of significance that the lead agency applies to the project; and

3. The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.

The local air quality agency regulating the SoCAB is the SCAQMD, the regional air pollution control officer for the basin. To provide guidance to local lead agencies on determining significance for GHG emissions in CEQA documents, SCAQMD staff convened a GHG CEQA Significance Threshold Working Group. The Working Group was formed to assist the SCAQMD's efforts to develop a GHG significance threshold and is composed of a wide variety of stakeholders including the State Office of Land Use and Climate Innovation, CARB, the Attorney General's Office, a variety of city and county planning departments in the SoCAB, various utilities such as sanitation and power companies throughout the SoCAB, industry groups, and environmental and professional organizations.

The City may set a project-specific threshold based on the context of each particular project, including using the SCAQMD Working Group expert recommendation. This standard is appropriate for this project because it is in the same air quality basin that the experts analyzed. For the project, the SCAQMD's 3,000 MT of CO_2e per year threshold is used as the significance threshold. The 3,000 MT of CO_2e per year threshold represents a 90 percent capture rate (i.e., this threshold captures projects that represent approximately 90 percent of GHG emissions from new sources). The 3,000 MT of CO_2e per year value is typically used in defining small projects within the SoCAB that are considered less than significant because it represents less than one percent of future 2050 statewide GHG emissions target and the lead agency can provide more efficient implementation of CEQA by focusing its scarce resources on the top 90 percent.

Additionally, the project is assessed for consistency with the City's CAP (City 2011). The CAP is the City's long-range plan to reduce local GHG emissions in accordance with State law. The CAP is intended to be a reference document, and its implementation mitigates the City's GHG emissions resulting from new development and redevelopment. The CAP establishes a quantitative target of 4.3 MT CO_2e per service population by 2030. Therefore, project compliance with the CAP adequately establishes project compliance with statewide GHG reduction goals for the year 2030 associated with AB 32. The CAP is a strategy for the City to continue to grow in a sustainable way that meets GHG reduction targets while continuing to allow for public and private development and redevelopment that will uphold the City as a vibrant and livable community.

CEQA Guidelines Section 15064.4(a) states that a lead agency shall make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate, or estimate the amount of GHG

emissions resulting from a project. Therefore, GHG emissions as estimated by CalEEMod are provided for informational purposes. The project would generate GHG emissions during construction and operation of the project, as discussed below.

Construction Emissions

GHG emissions would be released by equipment used for the project's various construction activities. GHG emissions also would result from worker and vendor trips to and from the project site. Smaller amounts of GHGs would also be emitted through the energy use embodied in water use for fugitive dust control. Emissions of GHGs related to the construction of the project would be temporary. The estimated construction GHG emissions for the project are shown in Table 5, *Estimated Construction Greenhouse Gas Emissions*. For construction emissions, SCAQMD recommends that the emissions be amortized (i.e., averaged) over 30 years and added to operational emissions since they may remain in the atmosphere for years after construction is complete. To account for the construction emissions, amortization of the total emissions generated during construction were based on the life of the development (residential—30 years) and added to the operational emissions.

Table 5
Estimated Construction Greenhouse Gas Emissions

Year	Total Emissions (MT CO_2e)
Construction Year One	307
Construction Year Two	93
TOTAL	**400**
Amortized Emissions	***13***

Source: ECORP Consulting, Inc. 2024a
[1] Construction emissions amortized over 30 years.
MT = metric tons; CO_2e = carbon dioxide equivalents

Operational Emissions

Once the project is constructed, GHG emissions would result from mobile, area, and other operational sources. Area sources, such as landscape maintenance equipment, would result primarily in emissions of CO_2. Energy utilization (i.e., electricity and natural gas) and water consumption also would result primarily in emissions of CO_2. In addition to the indirect GHG emissions associated with energy use, wastewater treatment can directly emit both CH_4 and N_2O. Mobile sources, including vehicle trips to and from the project site, would result primarily in emissions of CO_2, with minor emissions of CH_4 and N_2O. Disposal of solid waste would result in emissions of CH_4 from the decomposition of waste at landfills, coupled with CO_2 emission from the handling and transport of solid waste. These sources combine to define the long-term GHG emissions for the project. The total operational and amortized construction emissions for the project are identified in Table 6, *Estimated Annual Operational Greenhouse Gas Emissions*.

Table 6
Estimated Annual Operational Greenhouse Gas Emissions

Emission Source	Project GHG Emissions (MT CO2e)
Mobile	175
Energy	42
Area	0
Water/Wastewater	10
Solid Waste	7
Construction (Amortized over 30 Years)	13
Total	**247**
SCAQMD Significance Threshold	3,000
Exceed SCAQMD Threshold?	**No**

Source: ECORP Consulting, Inc. 2024a
CO2e = carbon dioxide equivalents; MT = metric tons; SCAQMD = South Coast Air Quality Management District

As shown in Table 6, operational emissions would not exceed the SCAQMD's threshold of 3,000 MT CO2e per year.

CAP Consistency

The CAP includes a CAP Consistency Checklist to demonstrate if new developments are consistent with reduction strategies from the City's CAP. The purpose of the checklist is to streamline project-level CEQA requirements by identifying clear GHG reduction strategies that all new developments would need to implement for compliance with the GHG reduction strategies. The checklist considers consistency with the General Plan and CAP Measures. If a project meets the checklist criteria, then it would be considered to have a less than significant impact related to GHG emissions. Table 7, *Project Consistency with the City's CAP*, includes a project consistency analysis with the CAP Consistency Checklist criteria.

Table 7
Project Consistency with the City's CAP

Goals, Targets, Policies	Project Consistency
General Plan Consistency	
Is the project consistent with the General Plan land use designation?	***Inconsistent.*** The project proposes a General Plan Amendment to change the site's land use designation from General Commercial to Limited Industrial. The project would be inconsistent with this measure.
Is the project consistent with the General Plan population and employment projections for the site, upon which the CAP modeling is based?	***Consistent.*** The project does not involve residential development that would induce population growth. Additionally, the project would pull employees from the local population at a similar rate as any potential commercial development under the site's existing General Plan designation. The project would be consistent with this measure.

Does the project incorporate CAP measures as binding and enforceable components of the project? Until these measures have been formally adopted by the City and incorporated into applicable codes, the requirements must be incorporated as mitigation measures applicable to the project (CEQA Guidelines, Section 15183.5(b)(2))?	***Consistent.*** The project would incorporate applicable CAP measures as detailed below. The project would be consistent with this measure.
CAP Measures Consistency	
T-1.2 Pedestrian Infrastructure • Does the project provide sidewalks along new and reconstructed streets? • Does the project provide sidewalks or paths to internally link uses in a project where applicable? • Does the project provide connections to neighborhood activity centers, major destinations, and transit contiguous to site?	***Consistent.*** The project would install a new concrete sidewalk along the project frontage on West Minthorn Street. Additionally, the project would include an accessible pedestrian path connecting the West Minthorn Street sidewalk to the project entrance. The project would be consistent with this measure.
T-1.4 Bicycle Infrastructure • Where applicable, does the project implement the network of Class I, II and II bikeways, trails and safety features identified in the General Plan, Bike Lane Master Plan, Trails Master Plan and Western Riverside County Non-Motorized Transportation plan? • Does the project, where applicable, provide connections to the network identified in those plans?	***Inapplicable.*** The project is a low-VMT development in a low-VMT area of the City that lacks bike lane infrastructure. As a result, the addition of bike lanes is inapplicable to the project.
T-1.5: Bicycle Parking • Does new, non-residential development that is anticipated to generate visitor traffic provide permanently anchored bicycle racks within 200 feet of the visitor entrance, readily visible to passers-by, for 5 percent of visitor motorized vehicle parking capacity, with a minimum of one two-bike capacity rack? • Does the development propose a building with over 10 tenant spaces? If so, does it provide secure bicycle parking for 5 percent of tenant-occupied motorized vehicle parking capacity, with a minimum of one space?	***Inconsistent.*** Due to a lack of nearby bicycle infrastructure, the project would not provide bike racks. The project would be inconsistent with this measure.
T-2.1 Designated Parking for Fuel-Efficient Vehicles • Does a non-residential development designate 10 percent of its total parking spaces for "Clean Air Vehicles?"	***Inconsistent.*** The project would not include Clean Air Vehicle parking spaces. The project would be inconsistent with this measure.
E-1.1: Tree Planting • Does the developer provide a 15-gallon non-deciduous, umbrella-form tree per 30 linear feet of boundary length, near buildings, or to shade pavement in parking lots and streets?	***Inconsistent***. The project has a perimeter of approximately 1,443 linear feet and 48 trees would be required to meet this measure. The project proposes 40 trees and would therefore be inconsistent with this measure.
E-1.2: Cool Roof Requirements • Does the new non-residential development use roofing materials having solar reflectance, thermal emittance or Solar Reflectance Index 3 per CALGreen Tier 1 values?	***Inconsistent.*** The project proposes standing seam metal roofs that would not explicitly meet the cool roof requirements. The project is inconsistent with this measure.
E-1.3: Energy Efficient Building Standards • Does new construction achieve CALGreen Tier 1 energy efficiency standards?	***Consistent.*** The project would achieve CALGreen Tier 1 energy efficiency standards.

E-1.2: Energy Efficient Street and Traffic Signal Lights • Does the project involve the installation of street or traffic signal lights? If so, are they Low Emitting Diode (LED) lights?	***Inapplicable.*** The project does not involve the installation of street or traffic signal lights, and this measure does not apply.
E-4.1: Landscaping • Does the development comply with the City's AB 1881 Landscaping Ordinance?	***Consistent.*** The project's landscape plan would be reviewed and approved by the City's Planning and Public Works Department for compliance with AB 1881 and the City's Landscaping Ordinance.
E-4.2: Indoor Water Conservation Requirements • Does the development reduce indoor water consumption by 30%, consistent with CALGreen Tier 1, Section A5.303.2.3.1?	***Consistent.*** The project would be consistent with indoor water requirements specified by CALGreen.
S-1.4: Construction and Demolition Waste Diversion • Is the project accompanied by a waste management plan that demonstrates how 65% of the nonhazardous construction and demolition debris generated at the site will be recycled or salvaged?	***Consistent.*** A waste management plan demonstrating at least 65 percent diversion of construction materials will be prepared for the project.

Source: City 2011d
AB = Assembly Bill; CALGreen = California Green Building Standards Code; CAP = Climate Action Plan; CEQA = California Environmental Quality Act; VMT = vehicle miles traveled

Conclusion

Based on the consistency analysis performed in Table 7 above, the project would not be entirely consistent with the City's CAP Checklist, and impacts would be potentially significant. Additional features must be incorporated into the project to bring the project into compliance with the City's CAP. **MM GHG-1** would be implemented to require GHG-reducing features to bring potential impacts to a less-than-significant level.

Mitigation Measures:

MM GHG-1 ***Climate Action Plan Consistency***

Prior to the issuance of a building permit or certificate of occupancy (whichever occurs first), the following measures shall be included in the project design:

- Consistent with CAP Reduction Measure D-2 T-1.5, the project shall provide permanently anchored bicycle racks within 200 feet of the visitor entrance, readily visible to passers-by, for 5% of visitor motorized vehicle parking capacity, with a minimum of one two-bike capacity rack.

- Consistent with CAP Reduction Measure T-2.1, the project shall designate 10% of its total parking spaces for "Clean Air Vehicles".

- Consistent with CAP Reduction Measure E-1.1, the project shall provide a 15-gallon non-deciduous, umbrella-form tree per 30 linear feet of boundary length, near buildings, or to shade pavement in parking lots and streets.

- Consistent with CAP Reduction Measure E-1.2, the project shall use roofing materials having solar reflectance, thermal emittance or Solar Reflectance Index 3 per CALGreen Tier 1 values.

(Sources: Air Quality and Greenhouse Gas Emissions Assessment [ECORP Consulting, Inc. 2024a; Appendix A], CAP [City 2011d])

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? (Less Than Significant With Mitigation Incorporated)

There are numerous state, regional, and local plans, policies, and regulations adopted for the purpose of reducing GHG emissions. Applicable plans and an evaluation of the project's consistency with them are discussed below.

State Plans

Executive Order (EO) S-3-05 established GHG emission reduction targets for the state, and AB 32 launched the CARB Climate Change Scoping Plan that outlined the reduction measures needed to reach the 2020 target. As discussed in Item VIII(a) above, the project would incorporate MM GHG-1 to be consistent with the City's CAP, which is a qualified GHG reduction plan that is consistent with the Scoping Plan and emission reduction targets per Senate Bill (SB) 32. Because the project would be consistent with the CAP, it would not conflict with the Scoping Plan or SB 32.

Furthermore, project emissions would decline beyond the project buildout as a result of continued implementation of federal, state, and local reduction measures, such as increased federal and state vehicle efficiency standards and SCE's increased renewable sources of energy in accordance with RPS goals. Based on currently available models and regulatory forecasting, project emissions would continue to decline through at least 2050. Given the reasonably anticipated decline in project emissions, once fully constructed and operational, the project is in line with the GHG reductions needed to achieve the 2050 GHG emission reduction targets identified by EO S-3-05. Therefore, the project would not conflict with an applicable state plan, policy, or regulation adopted for the purpose of reducing GHG emissions, and impacts would be less than significant with mitigation.

Regional Plans

In addition to being consistent with the CAP, the project was evaluated for consistency with the Sustainable Communities Strategy strategies contained in Connect SoCal (SCAG 2024). As discussed in Table 8, *Project Consistency with Applicable Connect SoCal Strategies*, the project would be consistent with applicable Connect SoCal strategies. Therefore, the project would not conflict with an applicable regional plan, policy, or regulation adopted for the purpose of reducing GHG emissions, and impacts would be less than significant.

Local Plans

As discussed in Item VIII(a) above, the project would be consistent with the City's CAP with implementation of MM GHG-1. Therefore, the project would not conflict with an applicable local plan, policy, or regulation adopted for the purpose of reducing GHG emissions, and impacts would be less than significant with mitigation.

Table 8
Project Consistency with Applicable Connect SoCal Strategies

Goals, Targets, Policies	Project Consistency
Mobility: Build and maintain an integrated multimodal transportation network	
• Support investments that are well-maintained and operated, coordinated, resilient and result in improved safety, improved air quality and minimized greenhouse gas emissions. • Ensure that reliable, accessible, affordable and appealing travel options are readily available, while striving to enhance equity in the offerings in high-need communities. • Support planning for people of all ages, abilities and backgrounds.	***Consistent.*** The project would be consistent with Connect SoCal's strategies to focus growth near destinations and mobility options. The project site is currently vacant. The project would construct an office and warehouse near an existing transit route. Riverside Transit Agency Route 8 is located along Chaney Street approximately ¼ mile northwest of the project site. The project site is also 1 mile from large regional shopping centers located adjacent to Central Avenue along the I-15 corridor. The project would therefore be consistent with these strategies by accommodating new employment growth near a transit route that provides access to retail centers.
Communities: Develop, connect and sustain livable and thriving communities	
• Create human-centered communities in urban, suburban and rural settings to increase mobility options and reduce travel distances. • Produce and preserve diverse housing types in an effort to improve affordability, accessibility and opportunities for all households.	***Consistent.*** The project would install sidewalks along the project frontage and a pedestrian access path to the office building entrance.
Environment: Create a healthy region for the people of today and tomorrow	
• Develop communities that are resilient and can mitigate, adapt to and respond to chronic and acute stresses and disruptions, such as climate change. • Integrate the region's development pattern and transportation network to improve air quality, reduce greenhouse gas emissions and enable more sustainable use of energy and water. • Conserve the region's resources.	***Consistent.*** The project would be constructed in accordance with Title 24 energy efficiency standards and CALGreen standards.
Economy: Support a sustainable, efficient and productive regional economic environment that provides opportunities for all people in the region	
• Improve access to jobs and educational resources. • Advance a resilient and efficient goods movement system that supports the economic vitality of the region, attainment of clean air and quality of life for our communities.	***Consistent.*** The project would construct new office and warehouse buildings on a vacant lot, expanding employment opportunities on the project site.

Source: SCAG 2024
CALGreen = California Green Building Standards Code; I- = Interstate

Mitigation Measures: MM GHG-1

(Sources: Air Quality and Greenhouse Gas Emissions Assessment [ECORP Consulting, Inc. 2024a; Appendix A], CAP [City 2011d])

IX. HAZARDS AND HAZARDOUS MATERIALS

This section is based in part on the Phase I Environmental Site Assessment prepared for the project by S & S Commercial Environmental Services, Inc. (S & S 2024; Appendix E) to identify and evaluate actual and potential environmental conditions within the project site and vicinity. The assessment included site

reconnaissance, review of geologic and hydrogeologic settings, an environmental database search to identify documented "hazardous waste" facilities within one mile of the project site, and a review of historical records to assess historical land use and indications of potential contamination or sources of contamination within the project site.

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? (Less Than Significant Impact)

Materials and waste are generally considered hazardous if they are poisonous (toxicity); can be ignited by open flame (ignitability); corrode other materials (corrosivity); or react violently, explode, or generate vapors when mixed with water (reactivity). The term "hazardous material" is defined in the State Health and Safety Code (Chapter 6.95, Section 25501[o]) as any material that, because of quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment. Hazardous waste is defined as any hazardous material that is abandoned, discarded, or recycled, as defined in the State Health and Safety Code (Chapter 6.95, Section 25125). The transportation, use, and disposal of hazardous materials, as well as the potential releases of hazardous materials to the environment, are closely regulated through many state and federal laws.

The project entails an office building, warehouse, and vehicle storage yard. During construction, the project would involve the use and/or generation of materials including fuels (gasoline and diesel), equipment fluids (oils and antifreeze), concrete, cleaning solutions, paints, solvents, and adhesives. Applicable regulatory requirements associated with hazardous materials during construction-related activities would be met through implementation of a Stormwater Pollution Prevention Plan (SWPPP) and related BMPs. As a result, hazardous material impacts related to construction activities would be less than significant.

Operation of the project would involve the use of materials common to all urban development that are labeled hazardous (e.g., solvents and commercial cleansers; petroleum products; and pesticides, fertilizers, and other landscape maintenance materials). It is possible that vendors may transport hazardous materials to and from the project; however, the drivers of the transport vehicles must comply with the Hazardous Materials Transportation Act. Hazardous materials or wastes stored on-site are subject to requirements associated with accumulation time limits, amounts, and proper storage locations and containers, and proper labeling. The amount of materials that would be anticipated to be handled at any one time for the proposed warehouse operations would be relatively small. Additionally, for removal of hazardous waste from the site, hazardous waste generators are required to use a certified hazardous waste transportation company which must ship hazardous waste to a permitted facility for treatment, storage, recycling, or disposal. Precise materials are not known, as the tenants of the proposed buildings are not yet defined. In the event that hazardous materials, other than those common materials described above, are associated with future warehouse operations, the hazardous materials would be transported, used, and disposed of in accordance with applicable regulatory requirements. With compliance with applicable regulations, operation of the project would not generate a significant risk to the public or the environment through the potential routine transport, use, or disposal of hazardous materials. Impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

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? (Less Than Significant Impact)

Potential release of hazardous materials and/or wastes during project construction is discussed above in Item IX(a). As noted therein, potential impacts associated with construction-related hazardous materials would be less than significant based on compliance with regulatory requirements and standard construction

measures. Post-construction, the project may transport, use, or dispose of hazardous materials, but would do so in compliance with hazardous waste regulations. Therefore, the project would not 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. The impact would be less than significant.

Mitigation Measures: No mitigation measures are required.

(Sources: Phase I Environmental Site Assessment [S & S 2024; Appendix E])

c) Emit hazardous emissions or handle hazardous materials or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? (Less Than Significant Impact)

The project site is approximately 0.16 mile northeast of Ortega High School and Keith McCarthy Academy. However, as previously discussed, future development within the project site would be required to comply with federal, state, and local regulations pertaining to the transport, use, disposal, handling, and storage of hazardous wastes during construction and operations. Impacts related to handling or emissions of hazardous materials near a school would be less than significant.

Mitigation Measures: No mitigation measures are required.

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? (No Impact)

Government Code 65962.5 stipulates that the Department of Toxic Substances Control (DTSC), the Department of Health Services (DHS), the SWRCB, and any local enforcement agency, as designated by Section 18051, Title 14 of the California Code of Regulations (CCR), identify and update annually a list of sites that have been reported to have certain types of contamination. To determine if the project site is listed on any such site, an environmental information database search was performed for the Phase I Environmental Site Assessment. The database review did not identify the project site on an environmental database maintained in accordance with Government Code 65962.5. In addition, there are no open hazardous waste sites within 1,000 feet of the project site per the DTSC's EnviroStor database or the SWRCB's GeoTracker database (DTSC 2025; SWRCB 2025).

No listed sites that would result in significant hazard to the public or the environment are located on the project site or immediate vicinity. No evidence was observed that the project site has been adversely impacted by contamination and no evidence of recognized environmental conditions exist on the project site. Therefore, no impact would occur.

Mitigation Measures: No mitigation measures are required.

(Sources: Phase I Environmental Site Assessment [S & S 2024; Appendix E])

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 for people residing or working in the project area? (No Impact)

The project is not located within an airport land use plan or within two miles of a public airport. The nearest public airports are Perris Valley Airport located approximately 8 miles to the northeast, Hemet-Ryan

Airport located approximately 18 miles to the east, and French Valley Airport located approximately 14 miles to the southeast. No impacts related to airport safety hazards would occur.

Mitigation Measures: No mitigation measures are required.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? (Less Than Significant Impact)

Emergency management services are overseen by the Riverside County Fire Department (RCFD) and California Department of Forestry and Fire Protection (CAL FIRE). Construction activities that would be reasonably foreseeable with implementation of the project would have the potential to temporarily restrict access for emergency vehicles; however, it is anticipated that construction would not result in the full closure of roadways or other means of emergency access. Compliance with the County of Riverside's Emergency Operations Plan would be required during construction to ensure adequate emergency access. Operations associated with the project would not impair or interfere with implementation of adopted emergency response plans or evacuation plans. As such, implementation of the project would not impair an emergency response or evacuation plan, and impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

(Sources: General Plan, County of Riverside's Emergency Operations Plan [County of Riverside 2024])

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires? (Less Than Significant Impact)

Pursuant to Figure 3.10-2 of the General Plan EIR (City of Lake Elsinore 2011c), the project site is within a High Fire Hazard Severity Zone according to CAL FIRE's fire hazard severity zone mapping. Areas surrounding the project site support vegetation that serves as a prime fuel source for wildfire, and the wildfire susceptibility northeast of the project site is defined as very high. The project would be required to comply with CBC requirements for fire protection in areas prone to wildfires, in particular Section 701A that requires construction with fire resistant materials and methods to minimize property damage. In addition, the project would undergo a fire, life, and safety review by the City Fire Department to determine the specific fire requirements applicable to ensure compliance with these requirements. Compliance with existing building code requirements and provision of adequate fire protection services would ensure that impacts related to a significant risk of loss, injury, or death involving wildland fires would be less than significant.

Mitigation Measures: No mitigation measures are required.

(Sources: General Plan EIR)

X. HYDROLOGY AND WATER QUALITY

This section is based on a Hydrology and Hydraulic Study and a Project Specific WQMP prepared for the project by NM Civil Engineering, Inc. (2023a and 2023b; Appendix F and Appendix G).

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality? (Less Than Significant Impact)

The project site is located within the Lake Elsinore Sub-watershed of the Santa Ana Watershed region of Riverside County. The Santa Ana Regional Water Quality Control Board (SARWQCB) sets water quality

standards for ground and surface waters within the region. Water quality standards are defined under the Clean Water Act to include both the beneficial uses of specific water bodies and the levels of water quality that must be met and maintained to protect those uses (water quality objectives).

Construction of the project would include grading, excavation, installation of subsurface infrastructure, and other earth-moving activities that have the potential to cause erosion that could degrade surface or ground water quality and/or violate water quality standards. The use of heavy construction equipment could result in the accidental release of hazardous materials (e.g., oils, fuels, and other water quality pollutants) that also could potentially affect surface and/or ground water quality. As required by the Clean Water Act, the project would comply with the Santa Ana Municipal Separate Storm Sewer (MS4) NPDES Permit. The NPDES MS4 Permit Program, which is administered in the project area by Riverside County and is issued by the SARWQCB, regulates stormwater and urban runoff discharges from developments to natural and constructed storm drain systems in the City. Since the project would disturb one or more acres of soil, construction activities would be subject to the Construction General Permit (NPDES General Permit No. CAS000002, Waste Discharge Requirements, Order No. 2009-0009-DWQ, adopted September 2, 2009 and effective as of July 2, 2010) issued by the SWRCB. The Construction General Permit requires implementation of a SWPPP for site clearing, grading, and disturbances such as stockpiling or excavation. The SWPPP would generally contain a site map showing the construction perimeter, proposed buildings, storm water collection and discharge points, general pre- and post-construction topography, drainage patterns across the site, and adjacent roadways.

Development of the currently vacant project site would result in an increase in impervious surfaces associated with roadways, parking lots, sidewalks, buildings, and other hardscape features. This increase in on-site impervious surfaces would allow less water to percolate into the ground and would therefore generate more surface water during rainfall events. Impervious surfaces would collect sediments, oil and grease, trash and debris, and other impurities that would then be assimilated into surface runoff. A WQMP (NM Engineering, Inc. 2023b) has been prepared for the project to address the increase in polluted runoff that would occur from the project. The project would incorporate a bioretention basin in the southeastern corner of the property. The bioretention basin would be a shallow, vegetated basin with a ponding area underlain by an engineered soil media that would be incorporated into the site landscaping. The bioretention basin would collect runoff where it would be temporarily retained in the soil media. The plants and biological activity in the root zone would then function to take up pollutants and runoff, thus filtering the water before it is released into the storm drain system that eventually leads to Lake Elsinore. The project would not substantially degrade surface or ground water quality. Impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

(Sources: Hydrology and Hydraulic Study [NM Civil Engineering, Inc. 2023a; Appendix F], WQMP [NM Civil Engineering, Inc. 2023b; Appendix G])

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge, such that the project may impede sustainable groundwater management of the basin? (Less Than Significant Impact)

Since the City has a large amount of vacant land, substantial changes to recharge systems could occur from development of the vacant parcels. The increase in impervious surfaces that would occur for the project, as discussed above in Item X(a), would result in decreased on-site percolation capabilities; however, the project proposes pervious surfaces, including on-site landscaping and a bioretention basin that would collect stormwater runoff from the project site. Water collected in the bioretention basin would be treated and then released into the storm drain system for output into Lake Elsinore, where infiltration and groundwater recharge occur. This would be consistent with the City's requirement that treated stormwater be directed to

Lake Elsinore and not infiltrated on site. Therefore, implementation of the project would not substantially decrease groundwater supplies or interfere with groundwater recharge or impede sustainable groundwater management of the basin. Impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

(Sources: General Plan EIR, WQMP [NM Civil Engineering, Inc. 2023b; Appendix G])

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? (Less Than Significant Impact)

The existing on-site drainage pattern is generally overland from north to south toward West Minthorn Street. No existing drainage structures occur within the project site. While the project would maintain this same general drainage pattern, impervious surfaces would be constructed on currently vacant land, which would increase the amount and change the drainage flow of on-site runoff. A proposed bioretention in the southeast corner of the site would collect and convey off-site sheet flow from the north to prevent inundation of the project site and surrounding areas. The project would also incorporate landscaping and gravel areas to catch runoff from the project's roof gutters, access road, and paved parking lot. With these features, stormwater runoff generated during project operation would be adequately captured on site and would not result in substantial erosion or siltation on or off site. There is a potential for erosion and siltation to occur during project construction, specifically during site clearing, grading, and other earth-moving activities. Grading activities would be conducted in accordance with the City of Lake Elsinore Grading Ordinance Nos. 636, 801, and 882, and the standards outlined in the City's Plan Preparation and Design Manual (City 2024). Implementation of the NPDES permit requirements and an erosion control plan would reduce potential erosion, siltation, and water quality impacts to receiving water bodies and adjacent property. Therefore, potential impacts associated with erosion or siltation would be less than significant.

Mitigation Measures: No mitigation measures are required.

(Sources: Hydrology and Hydraulic Study [NM Civil Engineering, Inc. 2023a; Appendix F], WQMP [NM Civil Engineering, Inc. 2023b; Appendix G])

ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site? (Less Than Significant Impact)

As discussed above in Item X(c)(i), implementation of the project would alter the drainage pattern of the site through an increase in impervious surfaces, which would result in an increase in surface runoff. However, a proposed bioretention basin in the southeastern corner of the property and the on-site landscaping and gravel areas would be designed to adequately accommodate runoff and prevent flooding on- and off-site. Therefore, the project would not result in on- or off-site flooding and impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

(Sources: Hydrology and Hydraulic Study [NM Civil Engineering, Inc. 2023a; Appendix F], WQMP [NM Civil Engineering, Inc. 2023b; Appendix G])

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; (Less Than Significant Impact)

As discussed above in Item X(c)(i), implementation of the project would alter the drainage pattern of the site through an increase in impervious surfaces, which would result in an increase in surface runoff; however, proposed drainage infrastructure would be designed to adequately accommodate runoff and result in the slow release of stormwater to the storm drain system. Therefore, the project 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. Impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

(Sources: Hydrology and Hydraulic Study [NM Civil Engineering, Inc. 2023a; Appendix F], WQMP [NM Civil Engineering, Inc. 2023b; Appendix G]).

iv. Impede or redirect flood flows? (Less Than Significant Impact)

The southeastern corner of the project site is located within Federal Emergency Management Agency (FEMA) flood "Zone X" defined as areas of 0.2 percent annual chance flood hazard, areas of 1 percent annual chance flood with average depth of less than 1 foot or with drainage areas of less than one square mile (FEMA 2025). No portion of the site is mapped within a special flood hazard area subject to inundation by the 1 percent annual chance flood. As such, the risk of flooding at the site is low and the project is not anticipated to substantially impede or redirect flood flows. Impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

(Sources: FEMA Flood Map Service Center [FEMA 2025])

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation? (No Impact)

As discussed above in Item X(c)(iv), the project site is not within a special flood hazard area and risk of flood at the project site is considered low (FEMA 2025). A seiche is a standing wave in an enclosed or partly enclosed body of water. Seiches are normally caused by earthquake activity, and can affect harbors, bays, lakes, rivers, and canals. The nearest enclosed body of water is Lake Elsinore, approximately one mile southwest of the project site, which is too far to result in inundation at the project site during a seiche event. Additionally, because the project site is located more than twenty miles inland, the project site would not be inundated by a tsunami. As such, no impacts would occur.

Mitigation Measures: No mitigation measures are required.

(Sources: FEMA Flood Map Service Center [FEMA 2025])

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan? (Less Than Significant Impact)

The project site is located within the Santa Ana River watershed, which is regulated by the SARWQCB. The SARWQCB has developed a "Water Quality Control Plan" for the Santa Ana River Basin (herein, "Basin Plan") (SARWQCB 2019). The Basin Plan establishes water quality standards for the ground and surface waters of the region. The Basin Plan includes an implementation plan describing the actions by the

SARWQCB and others that are necessary to achieve and maintain water quality standards. The SARWQCB regulates waste discharges to minimize and control their effects on the quality of the region's ground and surface water. Permits are issued under several programs and authorities. The terms and conditions of these discharge permits are enforced through a variety of technical, administrative, and legal means. The SARWQCB ensures compliance with the Basin Plan through its issuance of NPDES Permits, issuance of Waste Discharge Requirements (WDR), and Water Quality Certifications pursuant to Section 401 of the Clean Water Act. In conformance with these requirements, the project prepared a WQMP (NM Engineering, Inc. 2023b; Appendix G) to meet applicable requirements of the Basin Plan, including requirements and conditions of approval associated with NPDES permits, issuance of WDRs, and Water Quality Certifications. Therefore, the project would not conflict with the Basin Plan, and potential impacts associated with implementation of a water quality control plan would be less than significant.

As discussed above in Item X(b), substantial changes to recharge systems could occur from development of the vacant parcels. In order to reduce pollutants, the City has implemented policies to minimize pollutants in the local and regional waterways, which includes water that percolates into the groundwater through Water Resources Policies 4.1, 4.2, and 4.3. Water Resources Policies 4.1 and 4.2 require development projects to acquire a NPDES permit and implement BMPs to reduce pollutants. Water Resources Policy 4.3 requires the City to review future development project's beneficial uses during the environmental review stage. Therefore, the project would not conflict with sustainable groundwater management plans, and potential impacts associated with implementation of a groundwater management plan would be less than significant.

Mitigation Measures: No mitigation measures are required.

(Sources: Basin Plan [SARWQCB 2019]; General Plan EIR)

XI. LAND USE AND PLANNING

a) Physically divide an established community? (No Impact)

The physical division of an established community typically refers to the construction of a linear feature, such as an interstate highway or railroad tracks, or the removal of a means of access, such as a local road or bridge that would impact mobility within an existing community or between a community and outlying area. A significant impact would occur if the project were sufficiently large or configured in such a way so as to create a physical barrier within an established community. The project is surrounded by I-15 to the north, a tow yard to the east, an industrial storage yard to the south, and a stormwater detention basin to the west. The project site is not currently used for access between existing uses and implementation of the project would not create a physical barrier that would divide an established community. Moreover, project implementation would not provide for infrastructure systems such as new roadways that would divide or disrupt neighborhoods or other established community elements in a previously developed and urbanized area. No impact would occur.

Mitigation Measures: No mitigation measures are required.

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? (Less Than Significant With Mitigation Incorporated)

The project site is zoned and has a General Plan Land Use designation of General Commercial. The project proposes to change the site's General Plan Land Use designation and zoning to Limited Industrial and M1, respectively. The General Plan Amendment and Zone Change would bring the project into compliance with

the General Plan. The project has been designed to meet the industrial development standards as identified in the LEMC, including but not limited to setbacks, building heights, parking spaces, drive aisles, and FAR, and to be consistent with the applicable land use policies and regulations of the General Plan. Review of the project for consistency with applicable zoning regulations as part of the approval process would ensure that the project would not conflict with applicable land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental impact.

As discussed in the project's Noise Impact Assessment (ECORP Consulting, Inc. 2024d; Appendix H), the project would not exceed the City's General Plan standards for construction or operational noise at nearby land uses, and construction would be limited to the hours of 7:00am to 7:00pm from Monday through Saturday.

As discussed in Item IV(f), with MM BIO-2, the project would not conflict with the MSHCP or other approved local, regional, or state habitat conservation plans. Thus, with the implementation of MM BIO-2, land-use related impacts would be less than significant.

As discussed in Item VIII(a), with MM GHG-1, the project would not conflict with the City's CAP.

Mitigation Measures: MM BIO-2 and **MM GHG-1**

(Sources: Zoning Map, General Plan)

XII. MINERAL RESOURCES

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? (No Impact)

Substantial mineral resources have been identified within the City and are noted within the City's General Plan, in particular aggregate type mineral resources. These resource areas are primarily designated within Mineral Resource Zone (MRZ) 2 pursuant to the Surface Mining and Reclamation Act and California Mineral Land Classification System Diagram based on available geological information. The designation of MRZ 2 indicates the area is underlain by mineral deposits where geologic data shows that significant measured or indicated resources are present. According to Figure 3.12-1 of the General Plan EIR (City of Lake Elsinore 2011c), the project site is located within MRZ 3, or areas containing mineral deposits, the significance of which cannot be evaluated from available data. The project site is not located within an area that has been classified or designated as a mineral resource area by the State Board of Mining and Geology, nor has mineral extraction been documented to occur on site. Further, the project involves office and warehouses uses, and the site is not planned or zoned for mineral extraction use. Implementation of the project therefore would not 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. No impact would occur.

Mitigation Measures: No mitigation measures are required.

(Sources: General Plan EIR)

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? (No Impact)

As discussed in Item XII(a), the General Plan does not identify the project site to be a significant mineral resource area as it is not located within one of the designated locally important mineral resource areas within

the City. Additionally, the project site is not used for mineral extraction and is not delineated on any plan for mineral resource recovery uses. No impact would occur.

Mitigation Measures: No mitigation measures are required.

(Sources: General Plan EIR)

XIII. NOISE

This section is based on the Noise Impact Assessment prepared for the project by ECORP Consulting, Inc. (2024d; Appendix H).

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 other applicable standards of other agencies? (Less Than Significant Impact)

Noise-sensitive land uses are associated with indoor and/or outdoor activities that may be subject to stress and/or substantial interference from noise, and often include residential dwellings, mobile homes, hotels, motels, hospitals, nursing homes, educational facilities, libraries, parks, and nature/wildlife preserves. Surrounding land uses are comprised I-15 to the north; a tow yard to the east, and industrial storage yard to the south, and a stormwater detention basin to the west. The nearest residential use area is located approximately 700 feet to the northeast across Collier Avenue. An evaluation of potential construction and operational noise impacts is provided below.

Construction Noise

Equipment Noise

Section 17.176.080F of the LEMC specifies noise level limits for mobile and stationary construction equipment. Noise generated would primarily be associated with the operation of off-road equipment for onsite construction activities as well as construction vehicle traffic on area roadways. Construction noise typically occurs intermittently and varies depending on the nature or phase of construction (e.g., land clearing, grading, excavation, building construction, paving). Noise generated by construction equipment, including earth movers, material handlers, and portable generators, can reach high levels. Typical operating cycles for these types of construction equipment may involve one or two minutes of full power operation followed by three to four minutes at lower power settings. Other primary sources of acoustic disturbance would be random incidents, which would last less than one minute (such as dropping large pieces of equipment or the hydraulic movement of machinery lifts). During construction, exterior noise levels could negatively affect sensitive land uses in the vicinity of the construction site.

LEMC Section 17.176.080 has mobile and stationary construction noise standards for residential and commercial land uses. It is noted that in the case of the project, all phases of construction would employ stationary equipment only, as the City defines mobile equipment standards as non-scheduled, intermittent, short-term operations (less than 10 days) while defining stationary equipment as repetitively scheduled and relatively long-term operation (period of 10 days or more). The project would require use of stationary equipment through all phases. The nearest residential land use is located to the northwest of the project Site boundary, fronting Collier Avenue. The nearest commercial land use is Steve's Towing located directly east of the project site. It is acknowledged that the majority of construction equipment is not situated at any one location during construction activities but rather spread throughout the project site and at various distances from sensitive receptors. Therefore, this analysis employs the Federal Transit Administration (FTA) guidance for calculating construction noise, which recommends measuring construction noise

produced by all construction equipment operating simultaneously from the center of the project site. The anticipated short term construction noise levels generated for the necessary equipment during each phase for the nearest residential and commercial land uses are summarized in Table 9, *Construction Noise Levels at Off-site Receivers.*

Table 9
Construction Noise Levels at Off-Site Receivers

Receiver	Construction Phase	Estimated Exterior Construction Noise Level (dBA)	Daytime Construction Noise Standard (dBA L_{eq})	Exceed Standards ?
Residential Land Use	Site Preparation	59.5	60	No
	Grading	59.3	60	No
	Building Construction, Paving, and Painting	59.6	60	No
Commercial Land Use	Site Preparation	72.9	75	No
	Grading	72.8	75	No
	Building Construction, Paving, and Painting	73.1	75	No

Source: ECORP Consulting, Inc. 2024d; Appendix H
dBA = A-weighted decibel; L_{eq} = equivalent continuous sound pressure level

Construction activities would be limited to 7:00 a.m. to 7:00 p.m. from Monday through Saturday, excluding holidays. No nighttime, weekend, or holiday construction activities are anticipated. Construction activities would only occur during the hours permitted under LEMC Section 17.176. Therefore, on-site construction activities would not generate a substantial temporary increase in ambient noise levels, and impacts would be less than significant.

Traffic Noise

Project construction would result in additional traffic on adjacent roadways over the period that construction occurs. According to CalEEMod, which is used to predict the number of worker commute trips, the maximum number of construction workers traveling to and from the project site at one time would not be expected to exceed 23 trips in total (21 construction worker trips and 2 vendor trips). According to the Caltrans *Technical Noise Supplement to the Traffic Noise Analysis Protocol* (Caltrans 2013), doubling of traffic on a roadway is required to result in an increase of 3 A-weighted decibels (dBA) (outside of the laboratory, a 3-dBA change is considered a just-perceivable difference). The project site is mainly accessible from Collier Avenue. According to the City of Lake Elsinore General Plan Draft Environmental Impact Report (City 2011b), Collier Avenue is a Major Roadway within the City and has a traffic volume capacity of 34,100 ADT. Thus, the project construction would not result in a doubling of traffic, and therefore its contribution to existing traffic noise would not be perceptible. Additionally, it is noted that construction is temporary, and these trips would cease upon completion of the project. Impacts would be less than significant.

Operational Noise

Noise generated by project operations would include mobile sources (i.e., traffic noise) and on-site noise sources such as people talking, car doors opening and closing, equipment loading, etc.

Traffic Noise

The project would increase traffic volumes on local roadways but would not substantially alter the vehicle classifications mix on local or regional roadways, nor would the project alter the speed on an existing roadway or create a new roadway. Thus, the primary factor affecting off-site noise levels would be increased traffic volumes. While changes in noise levels would occur along any roadway where project-related traffic occurs, for noise assessment purposes, noise level increases are assumed to be greatest nearest the project site, as this location would represent the greatest concentration of project-related traffic. As described above, substantial noise increase is defined as an increase of 3 dBA above existing conditions.

The project site is mainly accessible from Collier Avenue. According to the General Plan Environmental Impact Report (City 2011b), Collier Avenue is a Major Roadway within the City and has a traffic volume capacity of 34,100 ADT. According to the Caltrans *Technical Noise Supplement to the Traffic Noise Analysis Protocol* (Caltrans 2013), doubling of traffic on a roadway would result in an increase of 3 dB (a barely perceptible increase). Per the Trip Generation and VMT Screening Memo (K2 Traffic Engineering, Inc. 2022), the project is anticipated to generate 119 ADT. The project would not result in a doubling of traffic, thus its contribution to existing traffic noise would not be perceptible.

On-site Sources

The primary on-site operational noise sources for the project would be activities occurring on the project site, such as the moving of vehicles, people talking, etc. On-site project operations have been calculated using the SoundPLAN 3D noise model. Table 10, *Operational Noise Levels at Off-site Receivers*, shows the predicted project noise levels at four locations in the project vicinity. These four locations represent the three nearest commercial/industrial land uses and nearest residence to the project site.

Table 10
Operational Noise Levels at Off-Site Receivers

Location	Land Use	Modeled Operational Project Noise (dBA L_{eq})	City Noise Standard Day/Night (dBA L_{eq})	Exceed Standards?
Residential property north of the project site.	Residential	39.4	50/40	No
Steve's Towing south of the project site.	Commercial	54.4	65/60	No
RightWay Temporary Power north of the project site	Commercial	41.0	65/60	No
DC Pantry across West Minthorn Street	Commercial	51.3	65/60	No

Source: ECORP Consulting, Inc. 2024d; Appendix H
dBA = A-weighted decibel; L_{eq} = equivalent continuous sound pressure level

As shown in Table 10, operational noise levels would not exceed the applicable limits as specified in Section 17.176.060 of the City's Municipal Code. Therefore, operational noise would not generate a substantial permanent increase in ambient noise levels in excess of limits established in the LEMC, and impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

(Sources: Noise Impact Assessment [ECORP Consulting, Inc. 2024d; Appendix H])

b) Generation of excessive groundborne vibration or groundborne noise levels? (Less Than Significant Impact)

Construction would have the potential to result in varying degrees of temporary ground vibration, depending on the specific construction equipment used and operations involved. Ground vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance. The effects of ground vibration may be imperceptible at the lowest levels, low rumbling sounds and detectable vibrations at moderate levels, and damage to nearby structures at the highest levels. Vibration perception would occur at structures, as people do not perceive vibrations without vibrating structures.

Human reaction to vibration is dependent on the environment the receiver is in, as well as individual sensitivity. For example, vibration outdoors is rarely noticeable and generally not considered annoying. Typically, humans must be inside a structure for vibrations to become noticeable and/or annoying. Based on several federal studies, the threshold of perception is 0.035 inches per second (in/sec) peak particle velocity (PPV), with 0.24 in/sec PPV being distinctly perceptible (Caltrans 2020). Neither cosmetic nor structural damage of buildings occurs at levels below 0.1 in/sec PPV.

The nearest structure is Steve's Towing located approximately 150 feet south of the project site center. Construction equipment could include equipment such as bulldozers, loaded trucks, jackhammers, and vibratory rollers. Vibration levels from these pieces of equipment would generate vibration levels with a PPV ranging from 0.0002 to 0.0142 in/sec PPV at 150 feet. Vibration levels would not exceed 0.035 PPV at the nearest structure. Therefore, vibration due to construction would not be perceptible or cause structural damage. Once operational, the project would not be a source of groundborne vibration. Therefore, the project would not expose persons to or generate excessive groundborne vibration or groundborne noise, and impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

(Sources: Noise Impact Assessment [ECORP Consulting, Inc. 2024d; Appendix H])

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? (No Impact)

The project site is located approximately 8 miles northeast of the Perris Valley Airport. According to the City of Perris General Plan Noise Element (2016), the airport is a center for skydiving. Aircraft traffic at the airport typically consist of Twin Otter Turbo Prop, 20-passenger planes equipped with jet engines and propellers. Due to the limited activities occurring at the airport, the lack of commercial flights and distance of more than three miles from the airport to the project site, it can be assumed that those working at the project would not be negatively impacted by airport operations. No impact would occur.

Mitigation Measures: No mitigation measures are required.

XIV. POPULATION AND HOUSING

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)? (Less Than Significant Impact)

The project would not directly or indirectly induce population growth. Population growth is a complex interaction between immigration, emigration, birth, deaths, and economic factors. The project involves an office building, warehouse, and outdoor vehicle storage yard; no residences would be added to the project area. Although the project would result in an increase in temporary construction jobs and permanent commercial/industrial jobs, these jobs are expected to be filled by members of the existing population of the area. Therefore, implementation of the project would result in less than significant impacts related to inducing substantial unplanned population growth.

Mitigation Measures: No mitigation measures are required.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere? (No Impact)

The project site is currently vacant. No existing housing or businesses would be displaced upon implementation of the project. No impact would occur.

Mitigation Measures: No mitigation measures are required.

XV. PUBLIC SERVICES

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:

a) Fire protection? (Less Than Significant Impact)

The City Fire Department is comprised of contracted fire services with RCFD and CAL FIRE. The RCFD operates 106 fire stations in 15 battalions, providing fire suppression, emergency medical, rescue, and fire prevention services throughout Riverside County (RCFD 2025). Equipment used by RCFD has the ability to respond to both urban and wildland emergency conditions. Specifically, Battalion 2 of RCFD services the City. The nearest fire station is Station No. 10, located approximately 0.8 mile southeast of the project site.

Development of the project would be subject to the City's policies and ordinances for hazard mitigation and fire prevention. The project would be required to comply with applicable fire code requirements for construction and access to the site and as such, will be reviewed by the City Fire Department to determine the specific fire requirements applicable to ensure compliance with these requirements. Chapter 16.74 of the LEMC establishes a program for the adoption and administration of development impact fees by the City for the benefit of the citizens whereby as a condition to the issuance of a building permit or certificate of occupancy by the City, the property owner or land developer is required to pay development impact fees or provide other consideration to the City for the purpose of defraying the costs of public expenditures for capital improvements (and operational services to the extent allowed by law) which will benefit such new development. LEMC Section 16.74.049 includes a "fire facilities fee" to mitigate the additional burdens

created by new development for City fire facilities. Since the project includes new development, impacts must be offset through the payment of the appropriate development impact fees. As described above in Item XIV(a), the addition of an office building and warehouse on a vacant lot would result in an increase in the number of employees in the project vicinity. However, the increase in demand for fire protection services from this slight increase in daytime population is not anticipated to require the construction of new facilities or infrastructure. Therefore, the project would not result in substantial adverse physical impacts related to fire protection, and impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

(Sources: General Plan, LEMC; Riverside County Fire Stations [RCFD 2025])

b) Police protection? (Less Than Significant Impact)

As a contract service to the City provided by the Riverside County Sheriff's Department, the Lake Elsinore Police Department is responsible for police protection within the City, including enforcement of local, state, and federal statutes; public safety; traffic enforcement; and maintaining public order. The California Highway Patrol provides traffic enforcement to the County with additional support from the local County Sheriff's Department. The Lake Elsinore Police Department/Sheriff's Station is located at 333 Limited Avenue, approximately 0.9 mile southeast of the project site.

Chapter 16.74 of the LEMC establishes a program for the adoption and administration of development impact fees by the City for the purpose of defraying the costs of public expenditures for capital improvements (and operational services to the extent allowed by law) which would benefit such new development. The project would participate in this development impact fee program to mitigate potential impacts to police protection resources. Additionally, the project would be required to comply with applicable law enforcement requirements and standards to ensure adequate law enforcement protection is available to serve the project site. Potential impacts would be considered incremental and can be offset through the payment of the development impact fee and compliance with regulatory requirements. The project would not result in substantial adverse physical impacts related to police protection. Therefore, potential impacts associated with police projection would be less than significant.

Mitigation Measures: No mitigation measures are required.

(Sources: General Plan, LEMC)

c) Schools? (Less Than Significant Impact)

The Lake Elsinore Unified School District (LEUSD) covers a 144-square mile area within the City of Lake Elsinore, City of Canyon Lake, City of Wildomar, and a portion of the unincorporated County of Riverside. LEUSD is composed of 25 schools including 13 elementary schools, 2 K-8 schools, 4 middle schools, 3 comprehensive high schools, a continuation school, and 2 alternative education centers. The project would not generate new housing that would directly increase the number of school-age children on the project site; however, the project would slightly increase the number of employees on the project site, some of whom may have school-age children. As a result, the project would be required to pay school development fees to offset potential impacts resulting from the increase in demand on school facilities and services. Therefore, impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

(Sources: LEMC)

d) Parks? (Less Than Significant Impact)

The City has 19 public parks with hundreds of acres of active and passive recreation opportunities. The project includes the development of an office building, warehouse, and vehicle storage yard, which are not uses that typically result in additional usage of the existing parks in the City. However, Section 16.34.060 in Chapter 16.34 (Required Improvements) of the LEMC requires that prior to the issuance of a building permit, the property owner or developer must pay fees for the purposes set forth in that section. Paragraph D of LEMC Section 16.34.060 describes the City's Park Capital Improvement Fund and describes that the City Council has the option to request dedication for park purposes or in lieu thereof, request that the property owner or developer pay a fee for the purpose of purchasing the land and developing and maintaining the City park system. The project would be required to pay park fees to the City for the purpose of establishing, improving, and maintaining park land within the City. Potential impacts would be offset through the payment of the appropriate park fees. Therefore, the project would not result in substantial adverse physical effects related to parks, and impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

(Sources: LEMC)

e) Other public services/facilities? (Less Than Significant Impact)

The City is part of the Riverside County Library System. The closest library to the project site is the Lake Elsinore Library at 600 W Graham Drive, approximately 0.8 miles southwest of the project site. Section 16.34.060 in Chapter 16.34 (Required Improvements) of the LEMC requires that prior to the issuance of a building permit, the property owner or developer must pay fees for the purposes set forth in that section. Paragraph B of LEMC Section 16.34.060 describes the City's Library Mitigation Fee and states that an in-lieu fee for future construction of library improvements shall be paid to the City to assure the necessary library facilities are provided to the community. While the project would not involve new housing that would substantially increase library demand, potential impacts must be offset through the payment of the appropriate library mitigation fees. Therefore, potential impacts associated with libraries would be less than significant.

Chapter 16.74 of the LEMC establishes a program for the adoption and administration of development impact fees by the City for the purpose of defraying the costs of public expenditures for capital improvements (and operational services to the extent allowed by law) which would benefit such new development. LEMC Section 16.74.048 includes an "Animal shelter facilities fee" to mitigate the additional burdens created by new development for animal facilities. In addition, the property owner would be required to pay City Hall & Public Works fees, Community Center Fees, and Marina Facilities Fees prior to the issuance of building permits. Therefore, potential impacts associated with other public services and facilities would be less than significant.

Mitigation Measures: No mitigation measures are required.

(Sources: LEMC)

XVI. RECREATION

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? (Less Than Significant Impact)

The City's Parks and Recreation Master Plan 2008 – 2030 (adopted July 14, 2009) establishes a goal of providing five acres of park space per 1,000 residents. The project involves an office park, warehouse, and vehicle storage yard, which would not result in substantially increased demand for neighborhood and regional parks or other recreational facilities. Regardless, as described in Item XIV(d), the project applicant would be required to pay park fees to the City for the purpose of establishing, improving, and maintaining parkland within the City. Potential project-related impacts would be offset through the payment of the appropriate park fees. Therefore, potential impacts associated with parks or recreational facilities would be less than significant.

Mitigation Measures: No mitigation measures are required.

(Sources: Parks and Recreation Master Plan [City of Lake Elsinore 2009]; LEMC)

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? (No Impact)

The project involves an office building, warehouse, and vehicle storage yard; it would not include new recreational facilities or require the construction of expansion of recreational facilities elsewhere. Therefore, no impact would occur.

Mitigation Measures: No mitigation measures are required.

XVII. TRANSPORTATION

A Trip Generation and VMT Screening Memo (K2 Traffic Engineering, Inc. 2022; Appendix I) was prepared for the project to assess the project's potential to affect the circulation system and to generate VMT. Portions of the following analysis are based on the report.

a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities? (Less Than Significant Impact)

Section 2.4 of the Community Form Element of the City's General Plan addresses circulation in Lake Elsinore. The following policies in Section 2.4.4, *Circulation Goal, Policies, and Implementation Program*, apply to the project:

- Policy 6.1: The interconnection and coordination of traffic signals shall be achieved through two processes, namely the requirements in the conditions of approval on development projects and/or through the implementation of Capital Improvement Program projects.

- Policy 6.3: Maximize the use of shared driveways and on-site circulation to minimize conflicts at access points to the roadway network.

- Policy 6.4: Maintain the system of bike lanes and multi-use trails throughout the City. Encourage the implementation of the network of Class I, II, and III bike lanes on all

development projects through construction of the facility as described in the Bike Lane Master Plan and/or the Trails Master Plan.

The project would include two full access driveways to facilitate adequate circulation throughout the project site. The project is a low-VMT development in a low-VMT area of the City that lacks bike lane infrastructure. As a result, the project is not required to install traffic signals, and the addition of bike lanes is infeasible. Accordingly, the project does not conflict with applicable General Plan policies regarding circulation.

In 2020, SCAG adopted the Connect SoCal Plan to increase mobility options in the region and achieve a more sustainable growth pattern (SCAG 2020). A major goal of the Connect SoCal Plan is to provide more diverse transportation options, including pedestrian infrastructure. The project would add new sidewalks along West Minthorn Street to improve pedestrian mobility in the area. As a result, the project would be consistent with the Connect SoCal Plan. Impacts related to circulation plan compliance would be less than significant.

Mitigation Measures: No mitigation measures are required.

(Sources: Trip Generation and VMT Screening Memo [K2 Traffic Engineering, Inc. 2022; Appendix I])

b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)? (Less Than Significant Impact)

CEQA Guidelines Section 15064.3 subdivision (b) sets forth specific criteria for determining the significance of transportation impacts as related to VMT. In accordance with CEQA Guidelines Section 15064.3 subdivision (b) and SB 743, the City recently updated their Traffic Impact Analysis Preparation Guide to include VMT analysis methodology. Land use projects that have the potential to increase the average VMT per service population (compared to the City's baseline threshold) are evaluated for potential impacts.

Per the City's *Traffic Impact Analysis Preparation Guide,* adopted June 23, 2020 (City 2020), there are three types of Western Riverside Council of Governments screening criteria. If a project satisfies one or more of the three screening criteria, it can be presumed to not have a significant impact related to VMT and can be effectively screened from having to do additional project-level VMT analysis. The three types include the following:

1. Transit Priority Area (TPA) Screening: projects located within a TPA may be presumed to have a less than significant impact.
2. Low VMT Area Screening: projects in a low VMT traffic analysis zone (TAZ) may be presumed to have a less than significant impact.
3. Project Type Screening: local serving retail projects less than 50,000 sf may be presumed to have a less than significant impact.

The project is located in a low VMT-generating TAZ and would be consistent with screening criteria 2. As such, no additional VMT analysis is required. Impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

(Sources: Trip Generation and VMT Screening Memo [K2 Traffic Engineering, Inc. 2022; Appendix I])

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? (No Impact)

The project is compatible with surrounding land uses and would not increase hazards due to design features or incompatible uses. The project does not propose a dangerous design feature, nor would the proposed access driveways connect to existing roadways in such a way that would pose a danger to increased traffic. Sight distance and project access would be reviewed by the City Engineer prior to issuance of building permits to ensure that project circulation and access has been designed per City regulations. Therefore, no impact associated with hazardous geometric design features would occur.

Mitigation Measures: No mitigation measures are required.

d) Result in inadequate emergency access? (Less Than Significant Impact)

The project would be constructed on a vacant site along West Minthorn Street. The site would be accessed via two driveways along West Minthorn Street that would be 40 feet wide to allow adequate circulation for emergency vehicles and evacuation. Similarly, internal drive aisles would be 26 feet wide to allow adequate circulation for emergency vehicles and evacuation. In conjunction with the review and approval of building permits, the City's Fire and Police Departments would review plans to ensure compliance with applicable emergency access and safety requirements. With application of project review procedures, impacts involving emergency access would be less than significant.

Mitigation Measures: No mitigation measures are required.

XVIII. TRIBAL CULTURAL RESOURCES

a) 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). (Less Than Significant With Mitigation Incorporated)

b) 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. (Less Than Significant With Mitigation Incorporated)

As previously discussed in Item V(a), no recorded historical or archaeological resources are located within the project site, and no new resources were identified during the field survey conducted at the project site.

To identify potential Tribal Cultural Resources (TCRs) at the project site, a Sacred Lands File Search was conducted with the NAHC. The results of Sacred Lands File Search were negative, and no resources have been previously identified in the immediate project area.

AB 52, signed into law in 2014, amended CEQA and established new requirements for tribal notification and consultation. AB 52 applies to projects for which a notice of preparation or notice of intent to adopt a negative declaration/mitigated negative declaration is issued after July 1, 2015. AB 52 also broadly defines a new resource category of tribal cultural resources and establishes a more robust process for meaningful consultation that includes:

- Prescribed notification and response timelines;

- Consultation on alternatives, resource identification, significance determinations, impact evaluation, and mitigation measures; and

- Documentation of consultation efforts to support CEQA findings.

A tribe must submit a written request to the relevant lead agency if it wishes to be notified of projects within its traditionally and culturally affiliated area. The lead agency must provide written, formal notification to the tribes that have requested it within 14 days of determining that a project application is complete or deciding to undertake a project. The tribe must respond to the lead agency within 30 days of receipt of the notification if it wishes to engage in consultation on the project, and the lead agency must begin the consultation process within 30 days of receiving the request for consultation. Consultation concludes when either (1) the parties agree to mitigation measures to avoid a significant effect, if one exists, on a tribal cultural resource, or (2) a party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. AB 52 also addresses confidentiality during tribal consultation per Public Resources Code Section 21082.3(c).

In accordance with the requirements of AB 52, the City sent notification to the Agua Caliente Band of Cahuilla Indians, Morongo Band of Mission Indians, Rincon Band of Luiseño Indians, Pechanga Band of Indians, Soboba Band of Luiseño Indians and Torres-Martinez Desert Cahuilla Indians Tribes on January 26, 2023. The Pechanga, Rincon, and Soboba tribes requested to be consulted. Meetings were held with the Soboba Tribe on November 7, 2023, December 17, 2024, April 17, 2025, and July 2, 2025. Meetings were held with the Pechanga Tribe on November 30, 2023, December 19, 2024, April 22, 2025, and June 24, 2025. Meetings were held with the Rincon Tribe on April 3, 2025. The City concluded consultation with the Rincon Band of Luiseño Indians on June 25, 2025, the Soboba Band of Luiseño Indians on July 2, 2025, and with the Pechanga Band of Indians on July 28, 2025. The tribes indicated that incorporation of the City's standard cultural mitigation measures, included in this document as MM CUL-1 through MM CUL-7, would sufficiently mitigate potential impacts to tribal cultural resources.

Based on the absence of recorded resources within or adjacent to the project site, no adverse changes in the significance of TCRs are anticipated; however, it is possible that unknown TCRs may be discovered during grading and other ground-disturbing activities. Therefore, MM CUL-1 through MM CUL-7, identified in Item V, *Cultural Resources*, would be implemented to ensure that potential impacts to TCRs pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1 would be less than significant.

Mitigation Measures: MM CUL-1 through **MM CUL-7**

(Sources: Cultural Resources Inventory [ECORP Consulting, Inc. 2024c; Appendix C])

XIX. UTILITIES AND SERVICE SYSTEMS

a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects? (Less Than Significant Impact)

Proposed utilities would include construction of water, sewer, and storm drain laterals and pipelines, as well as connections to existing electric, natural gas, and telecommunication lines. The project site is within the service boundary for EVMWD. The project would be served by existing water and wastewater treatment facilities and would not require the construction of new or expanded facilities. Water service would be provided by the EVMWD through a lateral to an existing line in West Minthorn Street. Sewer service would be provided by connections to an existing 8-inch sewer line in West Minthorn Street.

In addition, the project would provide on-site storm water drainage facilities that would connect to the existing municipal storm drain system. The project would incorporate a bioretention basin in the southeastern corner of the property to filter stormwater runoff before it is released into the storm drain system that eventually leads to Lake Elsinore. Natural gas, electricity, and telecommunications services would be provided by utility service providers (Southern California Gas Company, SCE, and Frontier) via connections to existing lines. Therefore, the project would not require the construction of new or expanded facilities. Impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

(Sources: Preliminary Grading Plan)

b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years? (Less Than Significant Impact)

Construction activities associated with the project would require the use of water for dust control during grading activities. The amount of water used during construction would, however, be minimal. During operation, the anticipated water use for the project would generate increased demand for water supplies. EVMWD, which obtains its potable water supplies from imported water from The Metropolitan Water District of Southern California, local surface water from Canyon Lake, and local groundwater from the Elsinore Basin, would provide water service to the project site.

According to EVMWD's 2020 Urban Water Management Plan (UWMP), EVMWD has determined that current and anticipated future supplies are sufficient to meet the projected dry-year and multiple dry-year demand. However, the UWMP uses existing and planned land uses to estimate water demand. The project proposes a General Plan Amendment and Zone Change, and its water usage is therefore unaccounted for in the UWMP. According to CalEEMod defaults for industrial and commercial water usage, the project is anticipated to require 8.5 acre-feet of water per year (afy; ECORP 2024a; Appendix A), while a retail project of the same size under the site's existing land use designation and zoning would require 2.1 afy (Pacific Institute 2003). Thus, the project has a demand of 6.4 afy that is unaccounted for in the UWMP. The 2020 UWMP includes a comparison of water supply and demand under normal and dry conditions for the years 2025 through 2045. EVMWD is anticipated to have its smallest normal and dry condition water surpluses – 4,361 afy and 2,039 afy, respectively – in 2045. The project's unaccounted-for demand of 6.4 afy is approximately 0.15% and 0.31% of EVMWD's normal and dry year surpluses, respectively. The project's unaccounted-for demand would be a negligible percentage of EVMWD's surplus, even under dry conditions. Thus, there are sufficient water supplies as well as water shortage contingency plans to protect existing and future water needs within the EVMWD service area. Therefore, impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

(Sources: EVMWD Urban Water Management Plan)

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? (Less Than Significant Impact)

EVMWD would provide wastewater service to the project site. The project would result in increased demand for wastewater treatment, given the project would be constructed on a vacant site. Wastewater would be treated at EVMWD's Regional Reclamation Facility, which has a current treatment capacity of 8 million gallons of wastewater per day (EVMWD 2023). By 2026, the Regional Reclamation Facility

expansion project is expected to be completed, which would increase the facility's treatment capacity to 12 million gallons per day. As a result, EVMWD has sufficient capacity to service the project site. Required improvements include the construction of additional water and sewer mains and utility easements. Therefore, impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

(Sources: EVMWD Website; EVMWD 2023)

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? (Less Than Significant Impact)

Riverside County Waste Management facilitates solid waste disposal services for Riverside County, and the City contracts with CR&R, Inc. Environmental Services for trash pickup. Lake Elsinore is served by a number of landfills, including El Sobrante Landfill, Badlands Landfill, and Lamb Canyon Landfill. El Sobrante Landfill is expected to reach capacity by 2051. Badlands Landfill is expected to reach capacity by 2059 and Lamb Canyon Landfill by 2032 (California Department of Resources Recycling and Recovery [CalRecycle] 2025).

Solid waste disposal is managed at the regional level; therefore, generation of solid waste within the City, including by the project, is one part of a regional issue. The project would be required to comply with applicable state and local regulations, including Section 40050 et seq. of the California Public Resources Code, to reduce the volume of solid waste entering landfills. Chapter 14.12 of the LEMC requires that project construction divert a minimum of 50 percent of construction and demolition debris. The project is anticipated to meet or exceed this requirement during construction. The amount of solid waste generated by the project is anticipated to be accommodated by the existing landfills, and recycling and green waste collection would reduce the overall solid waste generated. Therefore, potential impacts associated with solid waste disposal would be less than significant.

Mitigation Measures: No mitigation measures are required.

(Sources: General Plan EIR, CalRecycle 2025, LEMC)

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste? (Less Than Significant Impact)

The California Integrated Waste Management Act of 1989 (AB 939, Sher, Chapter 1095, Statutes of 1989 as amended) under the Public Resource Code requires that local jurisdictions divert at least 50 percent of solid waste generated by January 1, 2000, and 50 percent diversion each year following. As of 2006, the City achieved a 50 percent waste diversion rate. In addition, Chapter 14.12 of the LEMC requires that project applicants divert a minimum of 50 percent of construction and demolition debris; the project would meet or exceed this requirement. The project would comply with federal, state, and local statutes and regulations related to solid waste. Therefore, impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

(Sources: General Plan EIR, LEMC, Public Resources Code)

XX. WILDFIRE

a) Substantially impair an adopted emergency response plan or emergency evacuation plan? (Less Than Significant Impact)

Refer to Item IX(f). Potential impacts to emergency response or evacuation plans would be less than significant.

Mitigation Measures: No mitigation measures are required.

(Sources: General Plan; County of Riverside's Emergency Operations Plan [County of Riverside Emergency Management Department 2024])

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? (Less Than Significant Impact)

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? (Less Than Significant Impact)

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? (Less Than Significant Impact)

According to the CAL FIRE Fire Hazard Severity Zone mapping for Riverside County and Figure 3.10-2 of the General Plan EIR (City of Lake Elsinore 2011c), the project site is within a High Fire Hazard Severity Zone.

Emergency management services are overseen by the RCFD and CAL FIRE. The project site is flat and is not located within an area that would be subject to downslope or downstream flooding or landslides as a result of runoff, slope instability, or drainage changes in post-fire conditions. Additionally, the project would comply with CBC requirements for fire protection in areas prone to wildfires, in particular Section 701A that requires construction with fire resistant materials and methods to minimize property damage. The project would utilize existing roadways and utilities and would not require the installation of additional infrastructure that could exacerbate fire risk. With the implementation of existing building code requirements and adequate fire protection services, impacts from wildfire on the proposed development would be less than significant.

Mitigation Measures: No mitigation measures are required.

(Sources: General Plan EIR)

V. MANDATORY FINDINGS OF SIGNIFICANCE

The following are Mandatory Findings of Significance in accordance with Section 21083 of CEQA and Section 15065 of the CEQA Guidelines.

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? (Less Than Significant With Mitigation Incorporated)

Potentially significant impacts to the environment resulting from the project have been identified for biological resources, cultural resources, GHG emissions, land use and planning, and tribal cultural resources. Potentially significant impacts to biological resources related to sensitive wildlife species, burrowing owl, nesting birds, and wildlife corridors would be reduced to a less-than-significant level with implementation of MM BIO-1 through MM BIO-3. The project is not expected to impact resources related to major periods of California history or prehistory. Based on the presence of cultural resources in the vicinity of the project site and the cultural sensitivity of the area, however, the project would have the potential to impact unknown subsurface cultural resources and/or TCRs. With implementation of MM CUL-1 through MM CUL-7, however, impacts to unknown subsurface cultural and tribal cultural resources would be reduced to a less-than-significant level. Therefore, the project would not 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.

Mitigation Measures: MM BIO-1 through **MM BIO-3** and **MM CUL-1** through **MM CUL-7**.

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)? (Less Than Significant With Mitigation Incorporated)

Cumulative impacts are defined as two or more individual project effects that, when considered together or in concert with other projects, combine to result in a significant impact (CEQA Guidelines Section 15355). As demonstrated in this Initial Study, the project would result in potentially significant project-specific impacts to biological resources, cultural resources, GHG emissions, land use and planning, and tribal cultural resources; however, project-related effects either would be avoided by incorporation of project design measures or mitigated to levels below significance.

As discussed in Item III, *Air Quality*, the project would not result in air pollutant emissions during construction or operation that would exceed the applicable SCAQMD thresholds; the project would therefore not result in a cumulatively considerable net increase of criteria pollutant emissions for which the region in non-attainment (O_3, PM_{10}, and $PM_{2.5}$).

As described in Item IV, *Biological Resources*, project construction could result in potentially significant direct and/or indirect impacts to sensitive wildlife species, burrowing owl, nesting birds and raptors, and migratory birds and their habitat. Potentially significant impacts would be reduced to a level of less than significant through compliance with applicable permits (pursuant to the federal Clean Water Act, MBTA, federal ESA, and California ESA) and implementation of MM BIO-1 through MM BIO-3. Other development in the project area also would be required to comply with applicable environmental laws and mitigation requirements. The Western Riverside County MSHCP, which has been adopted by local jurisdictions and approved by the wildlife agencies, is largely designed to address potential cumulative impacts to sensitive biological resources resulting from development in the western portion of the County through assembly of a comprehensive reserve system. Based on the project-specific mitigation measures that would be implemented and on the existence of an approved region-wide conservation plan, the project would not incrementally contribute to a significant cumulative biological resources impact.

As discussed in Items V, *Cultural Resources*, and XVIII, *Tribal Cultural Resources*, the project would not adversely affect known cultural resources. Potentially significant impacts could occur if archaeological resources, TCRs, and/or human remains are disturbed during ground-disturbing activities associated with project construction. While it is possible that unknown cultural resources may be encountered during construction, mitigation measures MM CUL-1 through MM CUL-7 have been included that would reduce impacts to these resources to below a level of significance. Accordingly, the project would not incrementally contribute to a significant cumulative cultural resources impact.

As discussed in Item VIII, *Greenhouse Gas Emissions*, mitigation measure MM GHG-1 would be required to bring the project into compliance with the City's CAP. With implementation of MM GHG-1, the project would not contribute to a significant cumulative GHG impact.

The project would sufficiently mitigate potentially significant impacts through mitigation measures MM BIO-1 through MM BIO-3, MM CUL-1 through MM CUL-7, and MM GHG-1. When considering potential environmental impacts of the project, including impacts identified as less than significant in the Initial Study, together with the impacts of other present, past, and reasonably foreseeable future projects, there would not be a cumulatively considerable impact on the environment.

Mitigation Measures: MM BIO-1 through **MM BIO-3, MM CUL-1** through **MM CUL-7,** and **MM GHG-1.**

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? (Less Than Significant Impact)

The project would not result in substantial fugitive dust emissions or expose individuals to excessive noise, nor would it expose individuals to hazardous materials or hazardous sites. There would be no other potentially significant impacts that could cause substantial adverse effects on human beings. The project would also adhere to regulatory codes, ordinances, regulations, standards, and guidelines applicable to each of the environmental issue areas analyzed herein. As evidenced by the Initial Study, no other substantial adverse effects on human beings, either indirectly or directly, would occur as a result of project implementation.

Mitigation Measures: No mitigation measures are required.

VI. PERSONS AND ORGANIZATIONS CONSULTED

This section identifies those persons who prepared or contributed to the preparation of this document. This section is prepared in accordance with Section 15129 of the CEQA Guidelines.

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City of Lake Elsinore
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VII. REFERENCES

The following documents were used as information sources during preparation of this document. Except as noted, they are available for public review at the City of Lake Elsinore, Community Development Department, 130 South Main Street, Lake Elsinore, CA 92530, ph. (951) 674-3124.

California Air Resources Board (CARB)

2005 Air Quality and Land Use Handbook: A Community Health Perspective. April. Available at: https://www.aqmd.gov/docs/default-source/ceqa/handbook/california-air-resources-board-air-quality-and-land-use-handbook-a-community-health-perspective.pdf?sfvrsn=e5c21761_0.

California Department of Conservation (DOC)

2025 California Important Farmland Finder. Available at: https://maps.conservation.ca.gov/DLRP/CIFF/. Accessed January 29.

California Department of Fish and Game (CDFG)

2012 Staff Report on Burrowing Owl Mitigation. March. Available at: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=83843&inline=true.

California Department of Fish and Wildlife (CDFW)

2023 Survey and Considerations for California Endangered Species Act (California ESA) Candidate Bumble Bee Species. June. Available at: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=213150&inline.

California Department of Resources Recycling and Recovery (CalRecycle)

2025 SWIS Facility/Site Search. Available at: https://www2.calrecycle.ca.gov/SolidWaste/Site/Search. Accessed January 29.

California Department of Transportation (Caltrans)

2025 California State Scenic Highway System Map. Available at: https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa. Accessed January 29.

2020 Transportation and Construction Vibration Guidance Manual. April. Available at: https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tcvgm-apr2020-a11y.pdf.

2013 Technical Noise Supplement to the Traffic Noise Analysis Protocol. September. Available at: https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tens-sep2013-a11y.pdf.

California Stormwater Quality Association

2003 Stormwater Best Management Practice Handbook. January. Available at: https://www.casqa.org/wp-content/uploads/2022/12/BMP_Municipal_Complete.pdf.

City of Lake Elsinore (City)

2025 City of Lake Elsinore GIS Zoning Map. Available at http://davis.lake-elsinore.org/portal/apps/webappviewer/index.html?id=d78b8d4d4fd24df1b864fd0538e83019. Accessed January 29.

2024 Design Manual & Plan Preparation. September. Available at: https://www.lake-elsinore.org/DocumentCenter/View/4216/Engineering-Design-Manual?bidId=.

2020 Traffic Impact Analysis Preparation Guide. June 23. Available at: https://www.lake-elsinore.org/DocumentCenter/View/2373/Traffic-Impact-Analysis-Preparation-Guide-PDF?bidId=.

2011a City of Lake Elsinore Business District Plan. Available at: https://www.lake-elsinore.org/DocumentCenter/View/2227/30-Business-District-PDF.

2011b City of Lake Elsinore General Plan. Available at: https://www.lake-elsinore.org/465/Lake-Elsinore-General-Plan. Accessed January 29, 2025.

2011c City of Lake Elsinore General Plan Update Final Recirculated Program Environmental Impact Report. Available at: https://www.lake-elsinore.org/467/General-Plan---Certified-EIR. Accessed January 29, 2025.

2011d City of Lake Elsinore Climate Action Plan. Available at: https://www.lake-elsinore.org/469/Lake-Elsinore-Climate-Action-Plan. Accessed January 29, 2025.

2009 Parks and Recreation Master Plan. Available at: https://www.lake-elsinore.org/DocumentCenter/View/3149/2009ParksandRecreationMast?bidId=.

County of Riverside

2006 Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area. March. Available at: https://www.wrc-rca.org/species/survey_protocols/burrowing_owl_survey_instructions.pdf.

County of Riverside Emergency Management Department

2024 Emergency Operations Plan. Available at: https://rivcoready.org/about-emd/plans. Accessed January 29.

Department of Toxic Substances Control (DTSC)

2025 EnviroStor. Available at: https://www.envirostor.dtsc.ca.gov/public/. Accessed January 29, 2025.

ECORP Consulting, Inc.

2024a Air Quality & Greenhouse Gas Emissions Assessment, Collier Commercial Properties Project, Lake Elsinore, California, ECORP Consulting, Inc., revised December 2024.

2024b Biological Technical Report and Multiple Species Habitat Conservation Plan Consistency Analysis for the Collier Commercial Properties. revised December 2024.

2024c Cultural Resources Inventory for the Collier Commercial Properties Project, City of Lake Elsinore, California, ECORP Consulting, Inc., revised August 2024.

2024d Noise Impact Assessment, Collier Commercial Properties, Lake Elsinore, California, ECORP Consulting, Inc., revised August 2024.

Elsinore Valley Municipal Water District
2023 EVMWD Undergoes Regional Water Reclamation Facility Expansion. June 30. Available at: https://evmwd.com/evmwd-undergoes-regional-water-reclamation-facility-expansion/. Accessed January 29, 2025.

2020 2020 Urban Water Management Plan. Available at: https://evmwd.com/who-we-are/water-resources/. Accessed January 29, 2025.

Federal Emergency Management Agency
2025 National Flood Hazard Layer Viewer. Available at: https://hazards-fema.maps.arcgis.com/apps/webappviewer/index.html?id=8b0adb51996444d4879338b5529aa9cd. Accessed January 29.

Institute of Transportation Engineers
2008. Building Area per Employee by Business Type. Available at: https://s3.amazonaws.com/legacy.usgbc.org/usgbc/docs/Archive/General/Docs4111.pdf.

K2 Traffic Engineering, Inc.
2022 Trip Generation and VMT Screening Memo, Construction Equipment Rental Facility, 29400 Enterprise Way, Lake Elsinore. March.

Natural Resource Conservation Service
2025 Web Soil Survey. Available at: https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx. Accessed January 29.

NM Civil Engineering
2023a Hydrology and Hydraulic Calculations, Collier Commercial Properties, City of Lake Elsinore, CA 92530, NM Civil Engineering, Inc., January 16, 2023.

2023b Preliminary Project Specific Water Quality Management Plan, Collier Commercial Properties (Collier Ave. & West Minthorn St.), NM Civil Engineering, Inc. January 16, 2023.

Pacific Institute
2003 Appendix E: Details of Commercial and Industrial Assumptions, by End Use. November. Available at: https://pacinst.org/wp-content/uploads/2013/02/appendix_e3.pdf.

Riverside County Fire Department (RCFD)
2025 Riverside County Fire Stations. Available at: https://www.rvcfire.org/resources/fire-stations. Accessed January 29.

Santa Ana Regional Water Quality Control Board
2019 Water Quality Control Plan for the Santa Ana River Basin. June. Available at: https://www.waterboards.ca.gov/santaana/water_issues/programs/basin_plan/. Accessed January 29.

S & S Commercial Environmental Services, Inc. (S & S)
2024 Phase One Environmental Site Assessment, APNS 377-190-002, 377-190-003, 377-190-004 Collier Avenue, Lake Elsinore, California 92530, S & S Commercial Environmental Services, Inc., October 28, 2024.

SoCal Professional Engineers (SoCal-PE)
2021 Preliminary Geotechnical Investigation, Proposed Commercial Development, Collier Avenue, APN's 377-190-002, 377-190-003, 377-190-004, Lake Elsinore, California 92530, April 25, 2021.

Southern California Association of Governments (SCAG)
2024 Connect SoCal 2024. April. Available at: https://scag.ca.gov/connect-socal. Accessed January 29.

2020 2020-2045 RTP/SCS. Available at: https://scag.ca.gov/post/2020-2045-rtpscs-connect-socal-transportation-conformity-determination. Accessed January 29, 2025.

South Coast Air Quality Management District (SCAQMD)
2022 2022 Air Quality Management Plan. December. Available at: http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2022-air-quality-management-plan/final-2022-aqmp/final-2022-aqmp.pdf?sfvrsn=16.

2009 Localized Significance Thresholds Mass Rate Lookup Tables. Revised October 21. Available from: http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/appendix-c-mass-rate-lst-look-up-tables.pdf?sfvrsn=2.

2008 Final Localized Significance Methodology. July. Available at: http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf?sfvrsn=2.

State Water Resources Control Board (SWRCB)
2025 GeoTracker. Available at: https://geotracker.waterboards.ca.gov/. Accessed January 29.

U.S. Department of Commerce Bureau of the Census
2023 QuickFacts, Lake Elsinore city, California; Wildomar city, California. Available at: https://www.census.gov/quickfacts/fact/table/lakeelsinorecitycalifornia,wildomarcitycalifornia/PST045219. Accessed January 29, 2025.

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Appendix A

Air Quality & Greenhouse Gas Emissions Assessment, Collier Commercial Properties Project

Air Quality & Greenhouse Gas Emissions Assessment
Collier Commercial Properties Project

Lake Elsinore, California

Prepared For:

City of Lake Elsinore
130 South Main Street
Lake Elsinore, CA 92530

Prepared By:

ECORP Consulting, Inc.
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April 2022
(Revised December 2024)

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LIST OF ACRONYMS AND ABBREVIATIONS

°F	Degrees Fahrenheit
µg/m^3	Micrograms per cubic meter; ppm = parts per million
1992 CO Plan	1992 Federal Attainment Plan for Carbon Monoxide
AB	Assembly Bill
AQMD	Air Quality Management District
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCAA	California Clean Air Act
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CH_4	Methane
City	City of Lake Elsinore
CO_2	Carbon dioxide
CO_2e	Carbon dioxide equivalent
County	Riverside County
DPM	Diesel particulate matter
EO	Executive Order
GHG	Greenhouse gas
GWP	Global warming potential
IPCC	Intergovernmental Panel on Climate Change

LIST OF ACRONYMS AND ABBREVIATIONS

LOS	Level of service
LSTs	Localized significance threshold
MT	Metric Ton
N_2O	Nitrous oxide
NAAQS	National Ambient Air Quality Standards
NO_2	Nitrogen dioxide
NO_x	Nitric oxides
O_3	Ozone
PM	Particulate matter
PM_{10}	Coarse particulate matter
$PM_{2.5}$	Fine particulate matter
ppb	Parts per billion
Project	Collier Commercial Properties Project
RCPG	Regional Comprehensive Plan and Guide
ROGs	Reactive organic gases
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
SB	Senate Bill
SCAG	Southern California Association of Governments
SCE	Southern California Edison
SCAQMD	South Coast Air Quality Management District
SIP	State Implementation Plan
SO_2	Sulfur dioxide
SO_x	Sulfur oxides
SR	State Route
SRA	Source receptor area
SoCAB	South Coast Air Basin
TACs	Toxic air contaminants
USEPA	U.S. Environmental Protection Agency
VOCs	Volatile organic compounds
VMT	Vehicle Miles Traveled

1.0 INTRODUCTION

This report documents the results of an Air Quality and Greenhouse Gas (GHG) Emissions Assessment completed for the Collier Commercial Properties Project (Project), which proposes the construction of two new buildings to accommodate a construction equipment rental facility in Lake Elsinore, California. This assessment was prepared using methodologies and assumptions recommended in the rules and regulations of the South Coast Air Quality Management District (SCAQMD). Regional and local existing conditions are presented, along with pertinent emissions standards and regulations. The purpose of this assessment is to estimate Project-generated criteria air pollutants and GHG emissions attributable to the Project and to determine the level of impact the Project would have on the environment.

1.1 Project Location and Description

The Project Site is located in the City of Lake Elsinore (City), located in western Riverside County. The irregular shaped site positioned between Collier Avenue and Minthorn Street spans three parcels and totals 2.8 acres. It is currently vacant, undeveloped land and is generally bound by undeveloped land to the north with Collier Avenue and Interstate 15 beyond, Steve's Towing Services to the east with Collier Avenue beyond, West Minthorn Street to the south with a corporation yard beyond, and West Minthorn Street to the west with the City Department of Public Social Services beyond.

The Project is proposing the construction and operation of two new buildings totaling 11,975 square feet to accommodate a construction rental facility with associated features. "Building A" is proposed to span 3,000 square feet and "Building B" would span 8,975 square feet. The Project also proposes to construct 24 parking spaces and a block wall along the southern and western Project Site boundary.

The Proposed Project Site has a General Plan land use designation of Limited Industrial and a zoning classification of Limited Manufacturing. The intent of the Limited Industrial designation is to reserve appropriate locations for certain categories of light industrial uses that are relatively free of nuisance or hazardous characteristics (Lake Elsinore 2021). Land uses such as heavy equipment sales and rental are subject to a conditional use permit.

The rental facility would be able to be accessed from both Collier Avenue and West Minthorn Street via 50-foot powered gates. Main access would be achieved from West Minthorn Street.

2.0 AIR QUALITY

2.1 Air Quality Setting

Air quality in a region is determined by its topography, meteorology, and existing air pollutant sources. These factors are discussed below, along with the current regulatory structure that applies to the South Coast Air Basin (SoCAB), which encompasses the Project Site, pursuant to the regulatory authority of the SCAQMD.

Ambient air quality is commonly characterized by climate conditions, the meteorological influences on air quality, and the quantity and type of pollutants released. The air basin is subject to a combination of topographical and climatic factors that reduce the potential for high levels of regional and local air pollutants. The following section describes the pertinent characteristics of the air basin and provides an overview of the physical conditions affecting pollutant dispersion in the Project Area.

2.1.1 South Coast Air Basin

The California Air Resources Board (CARB) divides the State into air basins that share similar meteorological and topographical features. The Project Site lies in the SoCAB, which includes the non-desert portions of Los Angeles, Riverside, and San Bernardino counties and all of Orange County. The air basin is on a coastal plain with connecting broad valleys and low hills and is bounded by the Pacific Ocean on the southwest, with high mountains forming the remainder of the perimeter (SCAQMD 1993).

Temperature and Precipitation

The air basin is part of a semi-permanent high-pressure zone in the eastern Pacific. As a result, the climate is mild, tempered by cool sea breezes. This usually mild weather pattern is interrupted infrequently by periods of extremely hot weather, winter storms, and Santa Ana winds. The annual average temperature varies little throughout the 6,645-square-mile SoCAB, ranging from the low 60s to the high 80s, measured in degrees Fahrenheit (°F). With a more pronounced oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas (SCAQMD 1993).

In contrast to a very steady pattern of temperature, rainfall is seasonally and annually highly variable. Almost all annual rains fall between November and April. Summer rainfall is normally restricted to widely scattered thundershowers near the coast, with slightly heavier shower activity in the east and over the mountains.

Humidity

Although the SoCAB has a semiarid climate, the air near the earth's surface is typically moist because of the presence of a shallow marine layer. Except for infrequent periods when dry, continental air is brought into the SoCAB by offshore winds, the "ocean effect" is dominant. Periods of heavy fog, especially along the coast, are frequent, and low clouds, often referred to as high fog, are a characteristic climatic feature. Annual average humidity is 70 percent at the coast and 57 percent in the eastern portions of the SoCAB (SCAQMD 1993).

Wind

Wind patterns across the south coastal region are characterized by westerly or southwesterly onshore winds during the day and by easterly or northeasterly breezes at night. Wind speed is higher during the dry summer months than during the rainy winter.

Between periods of wind, air stagnation may occur in both the morning and evening hours. Air stagnation is one of the critical determinants of air quality conditions on any given day. During the winter and fall, surface high-pressure systems over the SoCAB, combined with other meteorological conditions, can result in very strong, downslope Santa Ana winds. These winds normally continue a few days before predominant meteorological conditions are reestablished.

The mountain ranges to the east affect the diffusion of pollutants by inhibiting the eastward transport of pollutants. Air quality in the SoCAB generally ranges from fair to poor and is similar to air quality in most of coastal Southern California. The entire region experiences heavy concentrations of air pollutants during prolonged periods of stable atmospheric conditions (SCAQMD 1993).

Inversion

In conjunction with the two characteristic wind patterns that affect the rate and orientation of horizontal pollutant transport, two similarly distinct types of temperature inversions control the vertical depth through which pollutants are mixed. These inversions are the marine/subsidence inversion and the radiation inversion. The height of the base of the inversion at any given time is known as the "mixing height." The combination of winds and inversions is a critical determinant leading to highly degraded air quality in the summer and generally good air quality in the winter in Lake Elsinore (SCAQMD 1993).

2.1.2 Criteria Air Pollutants

Criteria air pollutants are defined as those pollutants for which the federal and state governments have established air quality standards for outdoor or ambient concentrations to protect public health with a determined margin of safety. Ozone (O_3), coarse particulate matter (PM_{10}), and fine particulate matter ($PM_{2.5}$) are generally considered to be regional pollutants because they or their precursors affect air quality on a regional scale. Pollutants such as carbon monoxide (CO), nitrogen dioxide (NO_2), and sulfur dioxide (SO_2) are considered to be local pollutants because they tend to accumulate in the air locally. PM is also considered a local pollutant. Health effects commonly associated with criteria pollutants are summarized in Table 2-1.

Table 2-1. Criteria Air Pollutants- Summary of Common Sources and Effects

Pollutant	Major Manmade Sources	Human Health & Welfare Effects
CO	An odorless, colorless gas formed when carbon in fuel is not burned completely; a component of motor vehicle exhaust.	Reduces the ability of blood to deliver oxygen to vital tissues, effecting the cardiovascular and nervous system. Impairs vision, causes dizziness, and can lead to unconsciousness or death.
NO_2	A reddish-brown gas formed during fuel combustion for motor vehicles, energy utilities and industrial sources.	Respiratory irritant; aggravates lung and heart problems. Precursor to ozone and acid rain. Causes brown discoloration of the atmosphere.
O_3	Formed by a chemical reaction between reactive organic gases (ROGs) and nitrogen oxides (NOX) in the presence of sunlight. Common sources of these precursor pollutants include motor vehicle exhaust, industrial emissions, solvents, paints and landfills.	Irritates and causes inflammation of the mucous membranes and lung airways; causes wheezing, coughing and pain when inhaling deeply; decreases lung capacity; aggravates lung and heart problems. Damages plants; reduces crop yield.
PM_{10} & $PM_{2.5}$	Power plants, steel mills, chemical plants, unpaved roads and parking lots, wood-burning stoves and fireplaces, automobiles and others.	Increased respiratory symptoms, such as irritation of the airways, coughing, or difficulty breathing; aggravated asthma; development of chronic bronchitis; irregular heartbeat; nonfatal heart attacks; and premature death in people with heart or lung disease. Impairs visibility (haze).
SO_2	A colorless, nonflammable gas formed when fuel containing sulfur is burned. Examples are refineries, cement manufacturing, and locomotives.	Respiratory irritant. Aggravates lung and heart problems. Can damage crops and natural vegetation. Impairs visibility.

Source: California Air Pollution Control Officers Association (CAPCOA 2013)

Carbon Monoxide

CO in the urban environment is associated primarily with the incomplete combustion of fossil fuels in motor vehicles. CO combines with hemoglobin in the bloodstream and reduces the amount of oxygen that can be circulated through the body. High CO concentrations can cause headaches, aggravate cardiovascular disease and impair central nervous system functions. CO concentrations can vary greatly over comparatively short distances. Relatively high concentrations of CO are typically found near crowded intersections and along heavy roadways with slow moving traffic. Even under the most severe meteorological and traffic conditions, high concentrations of CO are limited to locations within relatively short distances of the source. Overall CO emissions are decreasing as a result of the Federal Motor Vehicle Control Program, which has mandated increasingly lower emission levels for vehicles manufactured since 1973. CO levels in the SoCAB are in compliance with the state and federal one- and eight-hour standards.

Nitrogen Oxides

Nitrogen gas comprises about 80 percent of the air and is naturally occurring. At high temperatures and under certain conditions, nitrogen can combine with oxygen to form several different gaseous compounds

collectively called nitric oxides (NO_x). Motor vehicle emissions are the main source of NO_x in urban areas. NO_x is very toxic to animals and humans because of its ability to form nitric acid with water in the eyes, lungs, mucus membrane, and skin. In animals, long-term exposure to NO_x increases susceptibility to respiratory infections, and lowering resistance to such diseases as pneumonia and influenza. Laboratory studies show that susceptible humans, such as asthmatics, who are exposed to high concentrations can suffer from lung irritation or possible lung damage. Precursors of NO_x, such as NO and NO_2, attribute to the formation of O_3 and $PM_{2.5}$. Epidemiological studies have also shown associations between NO_2 concentrations and daily mortality from respiratory and cardiovascular causes and with hospital admissions for respiratory conditions.

Ozone

O_3 is a secondary pollutant, meaning it is not directly emitted. It is formed when volatile organic compounds (VOCs) or ROGs and NO_x undergo photochemical reactions that occur only in the presence of sunlight. The primary source of ROG emissions is unburned hydrocarbons in motor vehicle and other internal combustion engine exhaust. NO_x forms as a result of the combustion process, most notably due to the operation of motor vehicles. Sunlight and hot weather cause ground-level O_3 to form. Ground-level O_3 is the primary constituent of smog. Because O_3 formation occurs over extended periods of time, both O_3 and its precursors are transported by wind and high O_3 concentrations can occur in areas well away from sources of its constituent pollutants.

People with lung disease, children, older adults, and people who are active can be affected when O_3 levels exceed ambient air quality standards. Numerous scientific studies have linked ground-level O_3 exposure to a variety of problems including lung irritation, difficult breathing, permanent lung damage to those with repeated exposure, and respiratory illnesses.

Particulate Matter

PM includes both aerosols and solid particulates of a wide range of sizes and composition. Of concern are those particles smaller than or equal to 10 microns in diameter size (PM_{10}) and smaller than or equal to 2.5 microns in diameter ($PM_{2.5}$). Smaller particulates are of greater concern because they can penetrate deeper into the lungs than larger particles. PM_{10} is generally emitted directly as a result of mechanical processes that crush or grind larger particles or form the resuspension of dust, typically through construction activities and vehicular travel. PM_{10} generally settles out of the atmosphere rapidly and is not readily transported over large distances. $PM_{2.5}$ is directly emitted in combustion exhaust and is formed in atmospheric reactions between various gaseous pollutants, including NO_x, sulfur oxides (SO_x) and VOCs. $PM_{2.5}$ can remain suspended in the atmosphere for days and/or weeks and can be transported long distances.

The principal health effects of airborne PM are on the respiratory system. Short-term exposure of high $PM_{2.5}$ and PM_{10} levels are associated with premature mortality and increased hospital admissions and emergency room visits. Long-term exposure is associated with premature mortality and chronic respiratory disease. According to the U.S. Environmental Protection Agency (USEPA), some people are much more sensitive than others to breathing PM_{10} and $PM_{2.5}$. People with influenza, chronic respiratory and cardiovascular diseases, and the elderly may suffer worse illnesses; people with bronchitis can expect aggravated symptoms; and

children may experience decline in lung function due to breathing in PM_{10} and $PM_{2.5}$. Other groups considered sensitive include smokers and people who cannot breathe well through their noses. Exercising athletes are also considered sensitive because many breathe through their mouths.

2.1.3 Toxic Air Contaminants

In addition to the criteria pollutants discussed above, toxic air contaminants (TACs) are another group of pollutants of concern. TACs are considered either carcinogenic or noncarcinogenic based on the nature of the health effects associated with exposure to the pollutant. For regulatory purposes, carcinogenic TACs are assumed to have no safe threshold below which health impacts would not occur, and cancer risk is expressed as excess cancer cases per one million exposed individuals. Noncarcinogenic TACs differ in that there is generally assumed to be a safe level of exposure below which no negative health impact is believed to occur. These levels are determined on a pollutant-by-pollutant basis.

There are many different types of TACs, with varying degrees of toxicity. Sources of TACs include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust. Public exposure to TACs can result from emissions from normal operations, as well as from accidental releases of hazardous materials during upset conditions. The health effects of TACs include cancer, birth defects, neurological damage, and death.

Most recently, CARB identified diesel particulate matter (DPM) as a TAC. DPM differs from other TACs in that it is not a single substance but rather a complex mixture of hundreds of substances. Diesel exhaust is a complex mixture of particles and gases produced when an engine burns diesel fuel. DPM is a concern because it causes lung cancer; many compounds found in diesel exhaust are carcinogenic. DPM includes the particle-phase constituents in diesel exhaust. The chemical composition and particle sizes of DPM vary between different engine types (heavy-duty, light-duty), engine operating conditions (idle, accelerate, decelerate), fuel formulations (high/low sulfur fuel), and the year of the engine (USEPA 2002). Some short-term (acute) effects of diesel exhaust include eye, nose, throat, and lung irritation, and diesel exhaust can cause coughs, headaches, light-headedness, and nausea. DPM poses the greatest health risk among the TACs; due to their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lung.

2.1.4 Ambient Air Quality

Ambient air quality at the Project Site can be inferred from ambient air quality measurements conducted at nearby air quality monitoring stations. CARB maintains more than 60 monitoring stations throughout California. O_3, PM_{10} and $PM_{2.5}$ are the pollutant species most potently affecting the Project region. As described in detail below, the region is designated as a nonattainment area for the federal O_3 and $PM_{2.5}$ standards and is also a nonattainment area for the state standards for O_3, $PM_{2.5}$ and PM_{10} (CARB 2019). The Lake Elsinore air quality monitoring station (506 W Flint St, Lake Elsinore), located approximately 2.5 miles south of the Project Site, monitors ambient concentrations of O_3, PM_{10}, and $PM_{2.5}$. Ambient emission concentrations will vary due to localized variations in emission sources and climate and should be considered "generally" representative of ambient concentrations in the Project Area.

Table 2-2 summarizes the published data concerning O_3, $PM_{2.5}$ and PM_{10} from the Lake Elsinore monitoring station. O_3, PM_{10} and $PM_{2.5}$ are the pollutant species most potently affecting the Project region.

Table 2-2. Summary of Ambient Air Quality Data

Pollutant Standards	2021	2022	2023
O_3 – Lake Elsinore Monitoring Station			
Max 1-hour concentration (ppm)	0.118	0.121	0.120
Max 8-hour concentration (ppm) (State/federal)	0.098 / 0.097	0.092 / 0.091	0.103 / 0.103
Number of days above 1-hour standard (State/federal)	18 / 0	17 / 0	10 / 1
Number of days above 8-hour standard (State/federal)	46 / 44	37 / 37	35 / 31
PM_{10} – Lake Elsinore Monitoring Station			
Max 24-hour concentration (µg/m3) (State/federal)	* / 90.0	* / 91.8	* / 187.0
Number of days above 24-hour standard (State/federal)	* / 0	* / 0	* / 1.0
$PM_{2.5}$ – Lake Elsinore Monitoring Station			
Max 24-hour concentration (µg/m3) (State/federal)	28.8 / *	16.2 / *	19.9 / *
Number of days above federal 24-hour standard	*	*	*

Source: CARB 2024
$\mu g/m^3$ = micrograms per cubic meter; ppm = parts per million
* = Insufficient (or no) data available

The USEPA and CARB designate air basins or portions of air basins and counties as being in "attainment" or "nonattainment" for each of the criteria pollutants. Areas that do not meet the standards are classified as nonattainment areas. The National Ambient Air Quality Standards (NAAQS) (other than O_3, PM_{10} and $PM_{2.5}$ and those based on annual averages or arithmetic mean) are not to be exceeded more than once per year. The NAAQS for O_3, PM_{10}, and $PM_{2.5}$ are based on statistical calculations over one- to three-year periods, depending on the pollutant. The California Ambient Air Quality Standards (CAAQS) are not to be exceeded during a three-year period. The attainment status for the Riverside County portion of the SoCAB, which encompasses the Project Site, is included in Table 2-3.

Table 2-3. Attainment Status of Criteria Pollutants in the Riverside County Portion of the SoCAB		
Pollutant	**State Designation**	**Federal Designation**
O_3	Nonattainment	Nonattainment
PM_{10}	Nonattainment	Attainment
$PM_{2.5}$	Nonattainment	Nonattainment
CO	Attainment	Unclassified/Attainment
NO_2	Attainment	Unclassified/Attainment
SO_2	Attainment	Unclassified/Attainment

Source: CARB 2022

The determination of whether an area meets the state and federal standards is based on air quality monitoring data. Some areas are unclassified, which means there is insufficient monitoring data for determining attainment or nonattainment. Unclassified areas are typically treated as being in attainment. Because the attainment/nonattainment designation is pollutant-specific, an area may be classified as nonattainment for one pollutant and attainment for another. Similarly, because the state and federal standards differ, an area could be classified as attainment for the federal standards of a pollutant and as nonattainment for the state standards of the same pollutant. The region is designated as a nonattainment area for the federal O_3 and $PM_{2.5}$ standards and is also a nonattainment area for the state standards for O_3, $PM_{2.5}$ and PM_{10} (CARB 2019).

2.1.5 Sensitive Receptors

Sensitive receptors are defined as facilities or land uses that include members of the population who are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. CARB has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis. The nearest sensitive receptor to the Project Site is a residence located approximately 700 feet (approximately 213 meters) distant from the northeastern Project Site boundary, fronting Collier Avenue.

2.2 Regulatory Framework

2.2.1 Federal

Clean Air Act

The Clean Air Act (CAA) of 1970 and the CAA Amendments of 1971 required the USEPA to establish the NAAQS, with states retaining the option to adopt more stringent standards or to include other specific pollutants.

These standards are the levels of air quality considered safe, with an adequate margin of safety, to protect the public health and welfare. They are designed to protect those "sensitive receptors" most susceptible to further respiratory distress such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed.

The USEPA has classified air basins (or portions thereof) as being in attainment, nonattainment, or unclassified for each criteria air pollutant, based on whether or not the NAAQS have been achieved. If an area is designated unclassified, it is because inadequate air quality data were available as a basis for a nonattainment or attainment designation. Table 2-3 lists the federal attainment status of the SoCAB for the criteria pollutants.

2.2.2 State

California Clean Air Act

The California Clean Air Act (CCAA) allows the State to adopt ambient air quality standards and other regulations provided that they are at least as stringent as federal standards. CARB, a part of the California Environmental Protection Agency, is responsible for the coordination and administration of both federal and state air pollution control programs within California, including setting the CAAQS. CARB also conducts research, compiles emission inventories, develops suggested control measures, and provides oversight of local programs. CARB establishes emissions standards for motor vehicles sold in California, consumer products (such as hairspray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions. CARB also has primary responsibility for the development of California's State Implementation Plan (SIP), for which it works closely with the federal government and the local air districts.

California State Implementation Plan

The federal CAA (and its subsequent amendments) requires each state to prepare an air quality control plan referred to as the SIP. The SIP is a living document that is periodically modified to reflect the latest emissions inventories, plans, and rules and regulations of air basins as reported by the agencies with jurisdiction over them. The CAA Amendments dictate that states containing areas violating the NAAQS revise their SIPs to include extra control measures to reduce air pollution. The SIP includes strategies and control measures to attain the NAAQS by deadlines established by the CAA. The USEPA has the responsibility to review all SIPs to determine if they conform to the requirements of the CAA.

- State law makes CARB the lead agency for all purposes related to the SIP. Local air districts and other agencies prepare SIP elements and submit them to CARB for review and approval. CARB then forwards SIP revisions to the USEPA for approval and publication in the Federal Register. The *2022 Air Quality Management Plan* (2022 AQMP) is the SIP for the SoCAB. The 2022 AQMP is a regional blueprint for achieving air quality standards and healthful air in the SoCAB and those portions of the Salton Sea Air Basin that are under SCAQMD's jurisdiction. The 2022 AQMP includes aggressive new

regulations and the development of incentive programs to support early deployment of advanced technologies. The two key areas for incentive programs are (1) promoting widespread deployment of available zero emission and low NOx technologies and (2) developing new zero emission and ultra-low NOx technologies for use in cases where the technology is not currently available. The 2022 AQMP prioritizes distribution of incentive funding in "environmental justice" areas and seek opportunities to focus benefits on the most disadvantaged communities. The 2022 AQMP focuses on available, proven, and cost-effective alternatives to traditional strategies, while seeking to achieve multiple goals in partnership with other entities promoting reductions in GHGs and toxic risk, as well as efficiencies in energy use, transportation, and goods movement. The AQMP relies on a regional and multi-level partnership of governmental agencies at the federal, state, regional, and local level. These agencies (USEPA, CARB, local governments, Southern California Association of Governments [SCAG] and the SCAQMD) are the primary agencies that implement the AQMP programs. The 2022 AQMP incorporates the latest scientific and technical information and planning assumptions, including SCAG's latest Regional Transportation Plan/Sustainable Communities Strategy, updated emission inventory methodologies for various source categories, and SCAG's latest growth forecasts. The 2022 AQMP includes integrated strategies and measures to meet the NAAQS. The current status of the SIPs for the SoCAB's nonattainment pollutants are shown below:

- On November 28, 2007, CARB submitted a SIP revision to the USEPA for O_3, $PM_{2.5}$ (1997 Standard), CO, and NO_2 in the SoCAB. This revision is identified as the "2007 South Coast SIP". The 2007 South Coast SIP demonstrates attainment of the federal $PM_{2.5}$ standard in the SoCAB by 2014 and attainment of the federal eight-hour O_3 standard by 2023. This SIP also includes a request to reclassify the O_3 attainment designation from "severe" to "extreme". The USEPA approved the redesignation effective June 4, 2010. The "extreme" designation requires the attainment of the eight-hour O_3 standard in the SoCAB by June 2024. CARB approved $PM_{2.5}$ SIP revisions in April 2011 and the O_3 SIP revisions in July 2011. The USEPA approved the $PM_{2.5}$ SIP in 2013 and has approved 46 of the 61, 1997 eight-hour O_3 SIP requirements. In 2014, the USEPA proposed a finding that the SoCAB has attained the 1997 $PM_{2.5}$ standards. In 2016, the USEPA determined that the SoCAB had attained the 1997 $PM_{2.5}$ standards; however, the SoCAB was not redesignated as an attainment area because the USEPA had not approved a maintenance plan and additional requirements under the CAA had not been met.

- In 2012, the SCAQMD adopted the 2012 AQMP, which was a regional and multiagency effort (the SCAQMD, CARB, SCAG, and the USEPA). The primary purposes of the 2012 AQMP were to demonstrate attainment of the federal 24-hour $PM_{2.5}$ standard by 2014 and to update the USEPA-approved eight-hour Ozone Control Plan. In 2012, the 2012 AQMP was submitted to CARB and the USEPA for concurrent review and approval for inclusion in the SIP. The 2012 AQMP was approved by CARB on January 25, 2013.

- In 2017, the SCAQMD adopted the 2016 AQMP. The 2016 AQMP includes strategies and measures to meet the following NAAQS:

    - 2008 eight-hour O_3 (75 parts per billion [ppb]) by 2013

- 2012 Annual $PM_{2.5}$ (12 µg/m^3) by 2025
- 1997 eight-hour O_3 (80 ppb) by 2023
- 1979 one-hour O_3 (120 ppb) by 2022
- 2006 24-hour $PM_{2.5}$ (35 µg/m^3) by 2019

- In 2022, the SCAQMD adopted the 2022 AQMP. In response to the USEPA lowering the primary and secondary O_3 standard levels to 70 ppb, the 2022 AQMP was developed to address the requirements for meeting this standard. The 2022 AQMP explores new and innovative ways to accomplish these goals through incentive programs, efficiency improvements, recognition of co-benefits from other programs, regulatory measures, and other voluntary actions.

Tanner Air Toxics Act & Air Toxics "Hot Spots" Information and Assessment Act

CARB's statewide comprehensive air toxics program was established in 1983 with Assembly Bill (AB) 1807, the Toxic Air Contaminant Identification and Control Act (Tanner Air Toxics Act of 1983). AB 1807 created California's program to reduce exposure to air toxics and sets forth a formal procedure for CARB to designate substances as TACs. Once a TAC is identified, CARB adopts an airborne toxics control measure (ATCM) for sources that emit designated TACs. If there is a safe threshold for a substance at which there is no toxic effect, the control measure must reduce exposure to below that threshold. If there is no safe threshold, the measure must incorporate toxics best available control technology to minimize emissions.

CARB also administers the State's mobile source emissions control program and oversees air quality programs established by state statute, such as AB 2588, the Air Toxics "Hot Spots" Information and Assessment Act of 1987. Under AB 2588, TAC emissions from individual facilities are quantified and prioritized by the air quality management district or air pollution control district. High priority facilities are required to perform a health risk assessment (HRA) and, if specific thresholds are exceeded, required to communicate the results to the public in the form of notices and public meetings. In September 1992, the "Hot Spots" Act was amended by Senate Bill (SB) 1731, which required facilities that pose a significant health risk to the community to reduce their risk through a risk management plan.

2.2.3 Local

South Coast Air Quality Management District

The SCAQMD is the air pollution control agency for Orange County and the urban portions of Los Angeles, Riverside, and San Bernardino counties, including the Project Site. The agency's primary responsibility is ensuring that the NAAQS and CAAQS are attained and maintained in the SoCAB. The SCAQMD is also responsible for adopting and enforcing rules and regulations concerning air pollutant sources, issuing permits for stationary sources of air pollutants, inspecting stationary sources of air pollutants, responding to citizen complaints, monitoring ambient air quality and meteorological conditions, awarding grants to reduce motor vehicle emissions, and conducting public education campaigns, as well as many other activities. All projects are subject to SCAQMD rules and regulations in effect at the time of construction.

The following is a list of noteworthy SCAQMD rules that are required of construction activities associated with the Proposed Project:

- **Rule 201 & Rule 203 (Permit to Construct & Permit to Operate)** – Rule 201 requires a "Permit to Construct" prior to the installation of any equipment "the use of which may cause the issuance of air contaminants . . ." and Regulation II provides the requirements for the application for a Permit to Construct. Rule 203 similarly requires a Permit to Operate.
- **Rule 212 (Standards for Approving Permits and Issuing Public Notice)**- This rule requires the applicant to show that the equipment used of which may cause the issuance of air contaminants or the use of which may eliminate, reduce, or control the issuance of air contaminants, is so designed, controlled, or equipped with such air pollution control equipment that it may be expected to operate without emitting air contaminants in violation of Section 41700, 4170 or 44300 of the Health and Safety Code or of these rules.
- **Rule 402 (Nuisance)** – This rule prohibits the discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health, or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. This rule does not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.
- **Rule 403 (Fugitive Dust)** – This rule requires fugitive dust sources to implement best available control measures for all sources, and all forms of visible PM are prohibited from crossing any property line. This rule is intended to reduce PM_{10} emissions from any transportation, handling, construction, or storage activity that has the potential to generate fugitive dust. PM_{10} suppression techniques are summarized below.

  a) Portions of a construction site to remain inactive longer than a period of three months will be seeded and watered until grass cover is grown or otherwise stabilized.
  b) All onsite roads will be paved as soon as feasible or watered periodically or chemically stabilized.
  c) All material transported offsite will be either sufficiently watered or securely covered to prevent excessive amounts of dust.
  d) The area disturbed by clearing, grading, earthmoving, or excavation operations will be minimized at all times.
  e) Where vehicles leave a construction site and enter adjacent public streets, the streets will be swept daily or washed down at the end of the workday to remove soil tracked onto the paved surface.

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

- **Rule 1401 (New Source Review of Toxic Air Contaminants)** – This rule requires new source review of any new, relocated, or modified permit units that emit TACs. The rule establishes allowable risks for permit units requiring permits pursuant to Rules 201 and 203 discussed above.

Additionally, the SCAQMD has adopted the Clean Communities Plan (November 5, 2010), which is a planning document designed to reduce the exposure to air toxics and air-related nuisances throughout the SoCAB. The 2010 Clean Communities Plan is a planning document that outlines the overall control strategy for the SCAQMD's air toxics control program. The plan is the continuing effort and update to both the Air Toxics Control Plan developed in 2000 and the subsequent Addendum in 2004. The 2010 Clean Communities Plan is comprised of traditional source-specific control measures and measures to address cumulative toxic impacts that affect neighborhoods and communities within the SoCAB.

The SCAQMD has conducted an in-depth analysis of the TACs and their resulting health risks for all of Southern California. This study, the Multiple Air Toxics Exposure Study V (MATES V) shows that cancer risk has decreased more than 40 percent between MATES IV and MATES V (cancer risk decreased more than 50 percent between MATES III and MATES IV). MATES V is the most comprehensive dataset documenting the ambient air toxic levels and health risks associated with the SoCAB emissions. The MATES V study represents the baseline health risk for a cumulative analysis. MATES V estimates the average excess cancer risk level from TAC inhalation is 424 in one million basin-wide. These model estimates were based on monitoring data collected at 10 fixed sites within the SoCAB. None of the fixed monitoring sites are within the local area of the Project Site. However, MATES V has extrapolated the excess cancer risk levels throughout the basin by modeling the specific grids. MATES V modeling predicted an excess cancer risk of 415 in one million for the Project Area. DPM is included in this cancer risk along with all other TAC sources. DPM accounts for the majority of total risk shown in MATES V.

Southern California Association of Governments

In April 2024, the SCAG Regional Council adopted the 2024-2050 Regional Transportation Plan/ Sustainable Communities Strategy (2024 RTP/SCS). The 2024 RTP/SCS charts a course for closely integrating land use and transportation – so that the region can grow smartly and sustainably. It was prepared through a collaborative, continuous, and comprehensive process with input from local governments, county transportation commissions, tribal governments, non-profit organizations, businesses and local stakeholders within the counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura. The 2024 RTP/SCS is a long-range visioning plan that balances future mobility and housing needs with economic, environmental and public health goals. The SCAG region strives toward sustainability through integrated land use and transportation planning. The SCAG region must achieve specific federal air quality standards and is required by state law to lower regional GHG emissions. Specifically, the region has been tasked by CARB to achieve a 19 percent per capita reduction by the end of 2035.

2.3 Air Quality Emissions Impact Assessment

2.3.1 Thresholds of Significance

The impact analysis provided below is based on the following California Environmental Quality Act (CEQA) Guidelines Appendix G thresholds of significance. The Project would result in a significant impact to air quality if it would do any of the following:

1) Conflict with or obstruct implementation of any applicable air quality plan.

2) Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).

3) Expose sensitive receptors to substantial pollutant concentrations.

4) Result in other emissions (such as those leading to odors adversely affecting a substantial number of people).

The significance criteria established by the applicable air quality management or air pollution control district (SCAQMD) may be relied upon to make the above determinations. According to the SCAQMD, an air quality impact is considered significant if the Proposed Project would violate any ambient air quality standard, contribute substantially to an existing or projected air quality violation, or expose sensitive receptors to substantial pollutant concentrations. The SCAQMD has established thresholds of significance for air quality for construction and operational activities of land use development projects such as that proposed, as shown in Table 2-4.

Table 2-4. SCAQMD Regional Significance Thresholds – Pounds per Day		
Air Pollutant	**Construction Activities**	**Operations**
Reactive Organic Gas	75	55
Carbon Monoxide	550	550
Nitrogen Oxide	100	55
Sulfur Oxide	150	150
Coarse Particulate Matter	150	150
Fine Particulate Matter	55	55

Source: SCAQMD 1993 ($PM_{2.5}$ threshold adopted June 1, 2007)

By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size, by itself, to result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's individual emissions exceed its identified significance thresholds, the project would be cumulatively considerable. Projects that do not exceed significance thresholds would not be considered cumulative considerable.

Localized Significance Thresholds

In addition to regional significance thresholds, the SCAQMD developed localized significance thresholds (LSTs) for emissions of NO_2, CO, PM_{10}, and $PM_{2.5}$ generated at new development sites (offsite mobile source emissions are not included in the LST analysis protocol). LSTs represent the maximum emissions that can be generated at a Project Site without expecting to cause or substantially contribute to an exceedance of the most stringent national or state ambient air quality standards. LSTs are based on the ambient concentrations of that pollutant within the Project source receptor area (SRA), as demarcated by the SCAQMD, and the distance to the nearest sensitive receptor. LST analysis is applicable for all projects that disturb five acres or less on a single day. The SCAQMD has prepared mass rate LST look-up tables for project disturbing one acre, two acres, and five acres. The Proposed Project spans just under three acres (2.8) and is located within SCAQMD SRA 25 (Lake Elsinore). Table 2-5 shows the LSTs for a project site in SRA 25, as derived from the SCAQMD mass rate LST look-up tables, with sensitive receptors located within 200 meters.

Table 2-5. Local Significance Thresholds at 200 Meters of a Sensitive Receptor				
Project Size	**Pollutant (pounds per day) Construction / Operations**			
	NO_2	**CO**	**PM_{10}**	**$PM_{2.5}$**
1 Acre	460 / 460	4,850 / 4,850	67 / 17	20 / 5
2 Acres	521 / 521	5,641 / 5,641	75 / 18	23 / 6
5 Acres	672 / 672	7,535 / 7,535	96 / 23	31 / 8

Source: SCAQMD 2009

2.3.2 Methodology

Air quality impacts were assessed in accordance with methodologies recommended by the SCAQMD. Where criteria air pollutant quantification was required, emissions were modeled using the California Emissions Estimator Model (CalEEMod), version 2020.4.0. CalEEMod is a statewide land use emissions computer model designed to quantify potential criteria pollutant emissions associated with both construction and operations from a variety of land use projects. Project construction-generated air pollutant emissions were calculated using CalEEMod model defaults for Riverside County. Operational air pollutant emissions were based on the Project site plans and traffic trip generation rates from K2 Traffic Engineering, Inc. (2022).

2.3.3 Impact Analysis

Project Construction-Generated Criteria Air Quality Emissions

Regional Construction Significance Analysis

Construction-generated emissions are temporary and short-term but have the potential to represent a significant air quality impact. Three basic sources of short-term emissions will be generated through construction of the Proposed Project: operation of the construction vehicles (i.e., excavators, trenchers, dump trucks), the creation of fugitive dust during clearing and grading, and the use of asphalt or other oil-based substances during paving activities. Construction activities such as excavation and grading operations, construction vehicle traffic, and wind blowing over exposed soils would generate exhaust emissions and fugitive PM emissions that affect local air quality at various times during construction. Effects would be variable depending on the weather, soil conditions, the amount of activity taking place, and the nature of dust control efforts. The dry climate of the area during the summer months creates a high potential for dust generation. Construction activities would be subject to SCAQMD Rule 403, which requires taking reasonable precautions to prevent the emissions of fugitive dust, such as using water or chemicals, where possible, for control of dust during the clearing of land and other construction activities.

Construction-generated emissions associated the Proposed Project were calculated using the CARB-approved CalEEMod computer program, which is designed to model emissions for land use development

projects, based on typical construction requirements. See Attachment A for more information regarding the construction assumptions, including construction equipment and duration, used in this analysis.

Predicted maximum daily construction-generated emissions for the Proposed Project are summarized in Table 2-6. Construction-generated emissions are short-term and of temporary duration, lasting only as long as construction activities occur, but would be considered a significant air quality impact if the volume of pollutants generated exceeds the SCAQMD's thresholds of significance.

Table 2-6. Construction-Related Emissions (Regional Significance Analysis)

Construction Year	**Pollutant (pounds per day)**					
	ROG	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Construction Year One	3.59	25.48	28.73	0.05	3.62	2.05
Construction Year Two	3.37	23.65	28.50	0.05	1.37	1.13
SCAQMD Regional Significance Threshold	*75*	*100*	*550*	*150*	*150*	*55*
Exceed SCAQMD Regional Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: CalEEMod version 2020.4.0. Refer to Attachment A for Model Data Outputs.

As shown in Table 2-6, emissions generated during Project construction would not exceed the SCAQMD's regional thresholds of significance. Therefore, criteria pollutant emissions generated during Project construction would not result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is nonattainment under an applicable federal or state ambient air quality standard.

Localized Construction Significance Analysis

The nearest sensitive receptors to the Project Site include residences located approximately 700 feet distant from the northeastern boundary, fronting Collier Avenue. LSTs were developed in response to SCAQMD Governing Boards' Environmental Justice Enhancement Initiative (I-4). The SCAQMD provided the *Final Localized Significance Threshold Methodology* (dated June 2003 [revised 2008]) for guidance. The LST methodology assists lead agencies in analyzing localized impacts associated with Project-specific level proposed projects.

For this Project, the appropriate SRA for the localized significance thresholds is Lake Elsinore, SRA 25. LSTs apply to CO, NO_2, PM_{10}, and $PM_{2.5}$. . As previously described, the SCAQMD has produced lookup tables for projects that disturb one, two and five acres. The Proposed Project Site is approximately 2.8 acres, but acreage disturbed daily during phases is much less. The SCAQMD has also issued guidance on applying the CalEEMod emissions software to LSTs. Since CalEEMod calculates construction emissions based on the number of equipment hours and the maximum daily soil disturbance activity possible for each piece of equipment, Table 2-7 is used to determine the maximum daily disturbed acreage for comparison to LSTs. All construction years have the same equipment, as such, only construction phases are shown in the table.

Table 2-7. Equipment-Specific Grading Rates

Construction Phase	Equipment Type	Acres Graded/Disturbed per 8-Hour Day	Equipment Quantity	Operating Hours per Day	Acres Graded per Day
Site Preparation	Graders	0.5	1	8	0.5
	Scrapers	1	1	8	1
	Tractors/Loaders/Backhoes	0.5	1	8	0.5
				Site Preparation Total:	**2.0**
Grading	Graders	0.5	1	8	0.5
	Rubber Tired Dozers	0.5	1	8	0.5
	Tractors/Loaders/Backhoes	0.5	2	8	1.0
				Grading Total:	**2.0**
Building Construction, Paving & Architectural Coating	Cranes	0.0	1	7	0.0
	Forklifts	0.0	2	8	0.0
	Generator Sets	0.0	1	8	0.0
	Tractors/Loaders/Backhoes	0.5	2	8	1.0
	Welders	0.0	3	8	0.0
	Pavers	0.0	1	8	0.0
	Paving Equipment	0.0	1	8	0.0
	Rollers	0.0	2	8	0.0
	Cement and Morter Mixers	0.0	1	8	0.0
	Air Compressors	0.0	1	8	0.0
				Building Construction, Paving & Architectural Coating Total:	**1.0**

As shown in Table 2-7, Project implementation could potentially disturb a total maximum of 2.0 acres during site preparation and grading, and 1.0 acres during building construction, paving & architectural coating. As described, the SCAQMD has produced lookup tables for projects that disturb one, two and five acres. The LST threshold value for a two acre site was used for the site and grading phases, and the LST threshold value for a one acre site was used for the building construction, paving and architectural coating phase.

LST thresholds are provided for distances to sensitive receptors of 25, 50, 100, 200, and 500 meters. The nearest sensitive receptor to the Project Site is a residence located approximately 1,000 feet (approximately 305 meters) distant from the northeastern Project Site boundary, fronting Collier Avenue The SCAQMD's methodology clearly states that "…offsite mobile emissions from a project should not be included in the emissions compared to LSTs." Therefore, for purposes of the construction LST analysis, only emissions

included in the CalEEMod *onsite* emissions outputs were considered. Table 2-8 presents the results of localized emissions. The LSTs reflect a maximum disturbance of the entire Project Site daily at 200 meters from sensitive receptors.

Table 2-8. Maximum Construction-Related Emissions (Localized Significance Analysis)

Activity	Onsite Pollutant (pounds per day)			
	NO_X	**CO**	**PM_{10}**	**$PM_{2.5}$**
Site Preparation	15.67	10.06	1.22	0.61
SCAQMD Localized Significance Threshold (2 acre of disturbance at 200 meters)	*521*	*5,641*	*75*	*23*
Grading	16.98	9.22	3.50	2.02
SCAQMD Localized Significance Threshold (2 acre of disturbance at 200 meters)	*521*	*5,641*	*75*	*23*
Building Construction, Paving & Architectural Coating	25.34	27.86	1.27	0.80
SCAQMD Localized Significance Threshold (1 acre of disturbance at 200 meters)	*460*	*4,850*	*67*	*20*
Exceed SCAQMD Localized Threshold?	**No**	**No**	**No**	**No**

Source: CalEEMod version 2020.4.0. Refer to Attachment A for Model Data Outputs.

Notes: Emissions taken from the year and season, summer or winter, with the highest outputs. Emission reduction/credits for construction emissions are applied based on the required implementation of SCAQMD Rule 403. The specific Rule 403 measures applied in CalEEMod include the following: sweeping/cleaning adjacent roadway access areas daily; washing equipment tires before leaving the construction site; water exposed surfaces three times daily; and limit speeds on unpaved roads to 25 miles per hour.

Table 2-8 shows that the emissions of these pollutants during construction would not result in significant concentrations of pollutants at nearby sensitive receptors. Therefore, significant impacts would not occur concerning LSTs during construction activities. LSTs were developed in response to SCAQMD Governing Boards' Environmental Justice Enhancement Initiative. The SCAQMD Environmental Justice Enhancement Initiative program seeks to ensure that everyone has the right to equal protection from air pollution. Therefore, significant impacts would not occur concerning LSTs during construction activities.

LSTs were developed in response to SCAQMD Governing Boards' Environmental Justice Enhancement Initiative. The SCAQMD Environmental Justice Enhancement Initiative program seeks to ensure that everyone has the right to equal protection from air pollution. The Environmental Justice Program is divided into three categories, with the LST protocol promulgated under Category I: *Further-Reduced Health Risk*. Thus, the fact that onsite Project construction emissions would be generated at rates below the LSTs for NO_x, CO, PM_{10}, and $PM_{2.5}$ demonstrates that the Project would not adversely impact the neighboring receptors in the vicinity of the Project.

Project Operations Criteria Air Quality Emissions

Regional Operational Significance Analysis

Implementation of the Project would result in long-term operational emissions of criteria air pollutants such as PM_{10}, $PM_{2.5}$, CO, and SO_2 as well as O_3 precursors such as ROGs and NO_X. Project-generated increases in emissions would be predominantly associated with motor vehicle use. As previously described, operational air pollutant emissions were based on the Project Site plans and traffic trip generation rates from K2 Traffic Engineering, Inc. (2022). Long-terms operational emissions attributable to the Project are identified in Table 2-9 and compared to the operational significance thresholds promulgated by the SCAQMD.

Table 2-9. Operational-Related Emissions (Regional Significance Analysis)

Emission Source	Pollutant (pounds per day)					
	ROG	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Summer Emissions						
Area	0.26	0.00	0.00	0.00	0.00	0.00
Energy	0.01	0.10	0.08	0.00	0.07	0.07
Mobile	0.41	0.59	4.55	0.01	1.12	0.30
Total:	**0.69**	**0.70**	**4.64**	**0.01**	**1.13**	**0.31**
SCAQMD Regional Significance Threshold	*55*	*55*	*550*	*150*	*150*	*55*
Exceed SCAQMD Regional Threshold?	**No**	**No**	**No**	**No**	**No**	**No**
Winter Emissions						
Area	0.26	0.00	0.00	0.00	0.00	0.00
Energy	0.01	0.10	0.08	0.00	0.00	0.00
Mobile	0.36	0.63	3.97	0.01	1.12	0.30
Total:	**0.64**	**0.73**	**4.06**	**0.01**	**1.13**	**0.31**
SCAQMD Regional Significance Threshold	*55*	*55*	*550*	*150*	*150*	*55*
Exceed SCAQMD Regional Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: CalEEMod version 2020.4.0. Refer to Attachment A for Model Data Outputs.
Notes: Emission projections predominately based on CalEEMod model defaults for Riverside County. Average daily vehicle trips provided by K2 Traffic Engineering, Inc. (2022).

As shown in Table 2-9, the Project's emissions would not exceed any SCAQMD thresholds for any criteria air pollutants during operation.

As identified in Table 2-3, Riverside County portion of the SoCAB is listed as a nonattainment area for federal O_3 and $PM_{2.5}$ standards and is also a nonattainment area for the state standards for O_3, $PM_{2.5}$ and PM_{10} (CARB 2019). O_3 is a health threat to persons who already suffer from respiratory diseases and can cause severe ear, nose and throat irritation and increases susceptibility to respiratory infections. PM can adversely affect the human respiratory system. As shown in Table 2-9, the Proposed Project would result in increased emissions of the O_3 precursor pollutants ROG and NO_x, PM_{10}, and $PM_{2.5}$, however, the correlation between a project's emissions and increases in nonattainment days, or frequency or severity of related illnesses, cannot be accurately quantified. The overall strategy for reducing air pollution and related health effects in the SCAQMD is contained in the SCAQMD 2022 AQMP. The AQMP provides control measures that reduce emissions to attain federal ambient air quality standards by their applicable deadlines such as the application of available cleaner technologies, best management practices, incentive programs, as well as development and implementation of zero and near-zero technologies and control methods. The CEQA thresholds of significance established by the SCAQMD are designed to meet the objectives of the AQMP and in doing so achieve attainment status with state and federal standards. As noted above, the Project would increase the emission of these pollutants, but would not exceed the thresholds of significance established by the SCAQMD for purposes of reducing air pollution and its deleterious health effects.

Localized Operational Significance Analysis

According to the SCAQMD localized significance threshold methodology, LSTs would apply to the operational phase of a proposed project only if the project includes stationary sources (e.g., smokestacks) or attracts heavy-duty trucks that may spend long periods queuing and idling at the site (e.g., warehouse or transfer facilities). The Proposed Project does not include such uses. Therefore, in the case of the Proposed Project, the operational LST protocol is not applied.

2.3.3.1 Conflict with the South Coast Air Quality Management District Air Quality Management Plan

As part of its enforcement responsibilities, the USEPA requires each state with nonattainment areas to prepare and submit a SIP that demonstrates the means to attain the federal standards. The SIP must integrate federal, state, and local plan components and regulations to identify specific measures to reduce pollution in nonattainment areas, using a combination of performance standards and market-based programs. Similarly, under state law, the CCAA requires an air quality attainment plan to be prepared for areas designated as nonattainment with regard to the NAAQS and CAAQS. Air quality attainment plans outline emissions limits and control measures to achieve and maintain these standards by the earliest practical date.

As previously mentioned, the Project Site is located within the SoCAB, which is under the jurisdiction of the SCAQMD. The SCAQMD is required, pursuant to the federal CAA, to reduce emissions of criteria pollutants for which the SoCAB is in nonattainment. In order to reduce such emissions, the SCAQMD drafted and adopted the 2022 AQMP. The 2022 AQMP establishes a program of rules and regulations directed at reducing air pollutant emissions and achieving state and federal air quality standards. The 2022 AQMP is a regional and multi-agency effort including the SCAQMD, CARB, SCAG, and the USEPA. The plan's pollutant control strategies are based on the latest scientific and technical information and planning assumptions,

including SCAG's latest RTP/SCS, updated emission inventory methodologies for various source categories, and SCAG's latest growth forecasts. (SCAG's latest growth forecasts were defined in consultation with local governments and with reference to local general plans.) The Project is subject to the SCAQMD's AQMP.

According to the SCAQMD, in order to determine consistency with SCAQMD's air quality planning two main criteria must be addressed.

Criterion 1:

With respect to the first criterion, SCAQMD methodologies require that an air quality analysis for a project include forecasts of project emissions in relation to contributing to air quality violations and delay of attainment.

a) *Would the project result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new air quality violations?*

As shown in Table 2-7, 2-8, and 2-9 above, the Proposed Project would result in emissions that would be below the SCAQMD regional and localized thresholds during both construction and operations. Therefore, the Proposed Project would not result in an increase in the frequency or severity of existing air quality violations and would not have the potential to cause or affect a violation of the ambient air quality standards.

b) *Would the project delay timely attainment of air quality standards or the interim emissions reductions specified in the AQMP?*

As shown in Table 2-7 and 2-9 above, the Proposed Project would be below the SCAQMD regional thresholds for construction and operations. Because the Project would result in less than significant regional emission impacts, it would not delay the timely attainment of air quality standards or AQMP emissions reductions.

Criterion 2:

With respect to the second criterion for determining consistency with SCAQMD and SCAG air quality policies, it is important to recognize that air quality planning within the SoCAB focuses on attainment of ambient air quality standards at the earliest feasible date. Projections for achieving air quality goals are based on assumptions regarding population, housing, and growth trends. Thus, the SCAQMD's second criterion for determining Project consistency focuses on whether or not the Proposed Project exceeds the assumptions utilized in preparing the forecasts presented in its air quality planning documents. Determining whether or not a project exceeds the assumptions reflected in the 2022 AQMP involves the evaluation of the three criteria outlined below. The following discussion provides an analysis of each of these criteria.

a) *Would the project be consistent with the population, housing, and employment growth projections utilized in the preparation of the 2022 AQMP?*

A project is consistent with regional air quality planning efforts in part if it is consistent with the population, housing, and employment assumptions that were used in the development of the SCAQMD air quality plans.

Generally, three sources of data form the basis for the projections of air pollutant emissions in Lake Elsinore. Specifically, SCAG's Growth Management Chapter of the Regional Comprehensive Plan and Guide (RCPG) provides regional population forecasts for the region and SCAG's RTP/SCS provides socioeconomic forecast projections of regional population growth. The City of Lake Elsinore General Plan is referenced by SCAG in order to assist forecasting future growth in Lake Elsinore.

The Proposed Project Site has a General Plan land use designation of Limited Industrial. The intent of this designation is to reserve appropriate locations for certain categories of light industrial uses that are relatively free of nuisance or hazardous characteristics. (Lake Elsinore 2021). The Project is not proposing to amend the City General Plan, is consistent with all land use designations applied to the site and would not increase the number of people residing in the area beyond that anticipated. Additionally, the Project is considered 'infill development' as it proposes to develop a property in a rapidly urbanizing area with developed sites adjacent to the Project site.

The Project is consistent with the City of Lake Elsinore General Plan and is therefore consistent with the types, intensity, and patterns of land use envisioned for the site vicinity in the RTP/SCS and RCPG. As a result, the Project would not conflict with the land use assumptions or exceed the population or job growth projections used by SCAQMD to develop the 2022 AQMP. The City's population, housing, and employment forecasts, which are adopted by SCAG's Regional Council, are based on the local plans and policies applicable to the City; and these are used by SCAG in all phases of implementation and review. Additionally, as the SCAQMD has incorporated these same projections into their air quality planning efforts, it can be concluded that the Proposed Project would be consistent with the projections. (SCAG's latest growth forecasts were defined in consultation with local governments and with reference to local general plans.) Therefore, the Proposed Project would be considered consistent with the population, housing, and employment growth projections utilized in the preparation of SCAQMD's air quality plans.

b) Would the project implement all feasible air quality mitigation measures?

In order to further reduce emissions, the Project would be required to comply with emission reduction measures promulgated by the SCAQMD, such as SCAQMD Rules 201, 402, 403, and 1113. SCAQMD Rule 402 prohibits the discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health, or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. SCAQMD Rule 403 requires fugitive dust sources to implement Best Available Control Measures for all sources, and all forms of visible particulate matter are prohibited from crossing any property line. SCAQMD Rule 403 is intended to reduce PM_{10} emissions from any transportation, handling, construction, or storage activity that has the potential to generate fugitive dust. SCAQMD 1113 requires manufacturers, distributors, and end-users of architectural and industrial maintenance coatings to reduce ROG emissions from the use of these coatings, primarily by placing limits on the ROG content of various coating categories. As such, the Proposed Project meets this consistency criterion.

c) Would the project be consistent with the land use planning strategies set forth by SCAQMD air quality planning efforts?

The AQMP contains air pollutant reduction strategies based on SCAG's latest growth forecasts, and SCAG's growth forecasts were defined in consultation with local governments and with reference to local general plans. The Proposed Project is consistent with the land use designation and development density presented in the City's General Plan and therefore, would not exceed the population or job growth projections used by the SCAQMD to develop the AQMP.

In conclusion, the determination of AQMP consistency is primarily concerned with the long-term influence of a project on air quality. The Proposed Project would not result in a long-term impact on the region's ability to meet state and federal air quality standards. The Proposed Project's long-term influence would also be consistent with the goals and policies of the SCAQMD's 2016 AQMP.

The Project would be consistent with the emission-reduction goals of the 2016 AQMP.

Exposure of Sensitive Receptors to Toxic Air Contaminants

As previously described, sensitive receptors are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. CARB has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over age 65, children under age 14, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis. The nearest sensitive receptors to the Project Site includes a residence located approximately 700 feet distant from the northeastern Project Site boundary, fronting Collier Avenue.

Construction-Generated Air Contaminants

Construction-related activities would result in temporary, short-term Proposed Project-generated emissions of diesel particulate matter (DPM), ROG, NOx, CO, and PM_{10} from the exhaust of off-road, heavy-duty diesel equipment for site preparation (e.g., clearing, grading); soil hauling truck traffic; paving; and other miscellaneous activities. The portion of the SoCAB which encompasses the Project Area is designated as a nonattainment area for federal O_3 and $PM_{2.5}$ standards and is also a nonattainment area for the state standards for O_3, $PM_{2.5}$, and PM_{10} standards (CARB 2019). Thus, existing O_3, PM_{10}, and $PM_{2.5}$ levels in the SoCAB are at unhealthy levels during certain periods. However, as shown in Table 2-7 and Table 2-8, the Project would not exceed the SCAQMD regional or localized significance thresholds for emissions.

The health effects associated with O_3 are generally associated with reduced lung function. Because the Project would not involve construction activities that would result in O_3 precursor emissions (ROG or NOx) in excess of the SCAQMD thresholds, the Project is not anticipated to substantially contribute to regional O_3 concentrations and the associated health impacts.

CO tends to be a localized impact associated with congested intersections. In terms of adverse health effects, CO competes with oxygen, often replacing it in the blood, reducing the blood's ability to transport oxygen to vital organs. The results of excess CO exposure can include dizziness, fatigue, and impairment of

central nervous system functions. The Project would not involve construction activities that would result in CO emissions in excess of the SCAQMD thresholds. Thus, the Project's CO emissions would not contribute to the health effects associated with this pollutant.

Particulate matter (PM_{10} and $PM_{2.5}$) contains microscopic solids or liquid droplets that are so small that they can get deep into the lungs and cause serious health problems. Particulate matter exposure has been linked to a variety of problems, including premature death in people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms such as irritation of the airways, coughing, or difficulty breathing. For construction activity, DPM is the primary TAC of concern. PM_{10} exhaust is considered a surrogate for DPM as all diesel exhaust is considered to be DPM. As with O_3 and NOx, the Project would not generate emissions of PM_{10} or $PM_{2.5}$ that would exceed the SCAQMD's thresholds. Accordingly, the Project's PM_{10} and $PM_{2.5}$ emissions are not expected to cause any increase in related regional health effects for these pollutants.

In summary, Project construction would not result in a potentially significant contribution to regional concentrations of nonattainment pollutants and would not result in a significant contribution to the adverse health impacts associated with those pollutants.

Operational Air Contaminants

Operation of the Proposed Project would not result in the development of any substantial sources of air toxics. There are no stationary sources associated with the operations of the Project; nor would the Project attract additional mobile sources that spend long periods queuing and idling at the site. Onsite Project emissions would not result in significant concentrations of pollutants at nearby sensitive receptors. The Project would not have a high carcinogenic or non-carcinogenic risk during operation.

Carbon Monoxide Hot Spots

It has long been recognized that CO exceedances are caused by vehicular emissions, primarily when idling at intersections. Concentrations of CO are a direct function of the number of vehicles, length of delay, and traffic flow conditions. Under certain meteorological conditions, CO concentrations close to congested intersections that experience high levels of traffic and elevated background concentrations may reach unhealthy levels, affecting nearby sensitive receptors. Given the high traffic volume potential, areas of high CO concentrations, or "hot spots," are typically associated with intersections that are projected to operate at unacceptable levels of service during the peak commute hours. It has long been recognized that CO hotspots are caused by vehicular emissions, primarily when idling at congested intersections. However, transport of this criteria pollutant is extremely limited, and CO disperses rapidly with distance from the source under normal meteorological conditions. Furthermore, vehicle emissions standards have become increasingly more stringent in the last 20 years. Currently, the allowable CO emissions standard in California is a maximum of 3.4 grams/mile for passenger cars (there are requirements for certain vehicles that are more stringent). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of increasingly sophisticated and efficient emissions control technologies, CO concentration in the SoCAB is designated as in attainment. Detailed modeling of Project-specific CO "hot spots" is not necessary and thus this potential impact is addressed qualitatively.

A CO "hot spot" would occur if an exceedance of the state one-hour standard of 20 parts per million (ppm) or the eight-hour standard of 9 ppm were to occur. The analysis prepared for CO attainment in the South Coast Air Quality Management District's (SCAQMD's) *1992 Federal Attainment Plan for Carbon Monoxide* in Los Angeles County and a Modeling and Attainment Demonstration prepared by the SCAQMD as part of the 2003 AQMP can be used to demonstrate the potential for CO exceedances of these standards. The SCAQMD is the air pollution control officer for much of southern California. The SCAQMD conducted a CO hot spot analysis as part of the 1992 CO Federal Attainment Plan at four busy intersections in Los Angeles County during the peak morning and afternoon time periods. The intersections evaluated included Long Beach Boulevard and Imperial Highway (Lynwood), Wilshire Boulevard and Veteran Avenue (Westwood), Sunset Boulevard and Highland Avenue (Hollywood), and La Cienega Boulevard and Century Boulevard (Inglewood). The busiest intersection evaluated was at Wilshire Boulevard and Veteran Avenue, which has a traffic volume of approximately 100,000 vehicles per day. Despite this level of traffic, the CO analysis concluded that there was no violation of CO standards (SCAQMD 1992). In order to establish a more accurate record of baseline CO concentrations affecting the Los Angeles, a CO "hot spot" analysis was conducted in 2003 at the same four busy intersections in Los Angeles at the peak morning and afternoon time periods. This "hot spot" analysis did not predict any violation of CO standards. The highest one-hour concentration was measured at 4.6 ppm at Wilshire Boulevard and Veteran Avenue and the highest eight-hour concentration was measured at 8.4 ppm at Long Beach Boulevard and Imperial Highway. Thus, there was no violation of CO standards.

Similar considerations are also employed by other Air Districts when evaluating potential CO concentration impacts. More specifically, the Bay Area Air Quality Management District (BAAQMD), the air pollution control officer for the San Francisco Bay Area, concludes that under existing and future vehicle emission rates, a given project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour or 24,000 vehicles per hour where vertical and/or horizontal air does not mix—in order to generate a significant CO impact.

According to the traffic memo provided by K2 Traffic Engineering, Inc., the proposed facility is expected to have a trip generation of 24 trips in the AM peak hour, 12 trips in the PM peak hour, and 119 average daily traffic trips (K2 Traffic Engineering. 2022). Thus, the Proposed Project would not generate traffic volumes at any intersection of more than 100,000 vehicles per day (or 44,000 vehicles per day) and there is no likelihood of the Project traffic exceeding CO values.

Odors

Typically, odors are regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache).

With respect to odors, the human nose is the sole sensing device. The ability to detect odors varies considerably among the population and overall is quite subjective. Some individuals have the ability to smell minute quantities of specific substances; others may not have the same sensitivity but may have sensitivities to odors of other substances. In addition, people may have different reactions to the same odor; in fact, an odor that is offensive to one person (e.g., from a fast-food restaurant) may be perfectly acceptable

to another. It is also important to note that an unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. This is because of the phenomenon known as odor fatigue, in which a person can become desensitized to almost any odor and recognition only occurs with an alteration in the intensity.

Quality and intensity are two properties present in any odor. The quality of an odor indicates the nature of the smell experience. For instance, if a person describes an odor as flowery or sweet, then the person is describing the quality of the odor. Intensity refers to the strength of the odor. For example, a person may use the word "strong" to describe the intensity of an odor. Odor intensity depends on the odorant concentration in the air. When an odorous sample is progressively diluted, the odorant concentration decreases. As this occurs, the odor intensity weakens and eventually becomes so low that the detection or recognition of the odor is quite difficult. At some point during dilution, the concentration of the odorant reaches a detection threshold. An odorant concentration below the detection threshold means that the concentration in the air is not detectable by the average human.

During construction, the Proposed Project presents the potential for generation of objectionable odors in the form of diesel exhaust in the immediate vicinity of the site. However, these emissions are short-term in nature and will rapidly dissipate and be diluted by the atmosphere downwind of the emission sources. Additionally, odors would be localized and generally confined to the construction area. Therefore, construction odors would not adversely affect a substantial number of people to odor emissions.

According to the SCAQMD, land uses commonly considered to be potential sources of obnoxious odorous emissions include agriculture (farming and livestock), wastewater treatment plants, food processing plants, chemical plants, composting facilities, refineries, landfills, dairies, and fiberglass molding. The Proposed Project does not include any uses identified by the SCAQMD as being associated with odors.

3.0 GREENHOUSE GAS EMISSIONS

3.1 Greenhouse Gas Setting

Certain gases in the earth's atmosphere, classified as GHGs, play a critical role in determining the earth's surface temperature. Solar radiation enters the earth's atmosphere from space. A portion of the radiation is absorbed by the earth's surface and a smaller portion of this radiation is reflected back toward space. This absorbed radiation is then emitted from the earth as low-frequency infrared radiation. The frequencies at which bodies emit radiation are proportional to temperature. Because the earth has a much lower temperature than the sun, it emits lower-frequency radiation. Most solar radiation passes through GHGs; however, infrared radiation is absorbed by these gases. As a result, radiation that otherwise would have escaped back into space is instead trapped, resulting in a warming of the atmosphere. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate on earth. Without the greenhouse effect, the earth would not be able to support life as we know it.

Prominent GHGs contributing to the greenhouse effect are CO_2, methane (CH_4), and N_2O. Fluorinated gases also make up a small fraction of the GHGs that contribute to climate change. Fluorinated gases include chlorofluorocarbons, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride; however, it is noted that these gases are not associated with typical land use development. Human-caused emissions of these GHGs in excess of natural ambient concentrations are believed to be responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the earth's climate, known as global climate change or global warming. It is "extremely likely" that more than half of the observed increase in global average surface temperature from 1951 to 2010 was caused by the anthropogenic increase in GHG concentrations and other anthropogenic factors together (Intergovernmental Panel on Climate Change [IPCC] 2014).

Table 3-1 describes the primary GHGs attributed to global climate change, including their physical properties, primary sources, and contributions to the greenhouse effect.

Each GHG differs in its ability to absorb heat in the atmosphere based on the lifetime, or persistence, of the gas molecule in the atmosphere. CH_4 traps over 25 times more heat per ton than CO_2, and N_2O traps 298 times more heat than CO_2 (IPCC 2014). Often, estimates of GHG emissions are presented in carbon dioxide equivalents (CO_2e), which weight each gas by its global warming potential. Expressing GHG emissions in CO_2e takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO_2 were being emitted.

Climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and TACs, which are pollutants of regional and local concern. Whereas pollutants with localized air quality effects have relatively short atmospheric lifetimes (about one day), GHGs have long atmospheric lifetimes (one to several thousand years). GHGs persist in the atmosphere for long enough time periods to be dispersed around the globe. Although the exact lifetime of any particular GHG molecule is dependent on multiple variables and cannot be pinpointed, it is understood that more CO_2 is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, or other forms. Of the total annual human-caused CO_2 emissions, approximately 55 percent is sequestered through ocean and land uptakes every year, averaged over the

last 50 years, whereas the remaining 45 percent of human-caused CO_2 emissions remains stored in the atmosphere (IPCC 2013).

Table 3-1. Greenhouse Gases

Greenhouse Gas	Description
CO_2	Carbon dioxide is a colorless, odorless gas. CO_2 is emitted in a number of ways, both naturally and through human activities. The largest source of CO_2 emissions globally is the combustion of fossil fuels such as coal, oil, and gas in power plants, automobiles, industrial facilities, and other sources. A number of specialized industrial production processes and product uses such as mineral production, metal production, and the use of petroleum-based products can also lead to CO_2 emissions. The atmospheric lifetime of CO_2 is variable because it is so readily exchanged in the atmosphere.[1]
CH_4	Methane is a colorless, odorless gas and is the major component of natural gas, about 87 percent by volume. It is also formed and released to the atmosphere by biological processes occurring in anaerobic environments. Methane is emitted from a variety of both human-related and natural sources. Human-related sources include fossil fuel production, animal husbandry (intestinal fermentation in livestock and manure management), rice cultivation, biomass burning, and waste management. These activities release significant quantities of CH_4 to the atmosphere. Natural sources of CH_4 include wetlands, gas hydrates, permafrost, termites, oceans, freshwater bodies, non-wetland soils, and other sources such as wildfires. The atmospheric lifetime of CH_4 is about 12 years.[2]
N_2O	Nitrous oxide is a clear, colorless gas with a slightly sweet odor. Nitrous oxide is produced by both natural and human-related sources. Primary human-related sources of N_2O are agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuels, adipic acid production, and nitric acid production. N_2O is also produced naturally from a wide variety of biological sources in soil and water, particularly microbial action in wet tropical forests. The atmospheric lifetime of N_2O is approximately 120 years.[3]

Sources: [1]USEPA 2016a, [2] USEPA 2016b, [3] USEPA 2016c

The quantity of GHGs that it takes to ultimately result in climate change is not precisely known; it is sufficient to say the quantity is enormous, and no single project alone would measurably contribute to a noticeable incremental change in the global average temperature or to global, local, or microclimates. From the standpoint of CEQA, GHG impacts to global climate change are inherently cumulative.

3.1.1 Sources of Greenhouse Gas Emissions

In 2023, CARB released the 2023 edition of the California GHG inventory covering calendar year 2021 emissions. In 2021, California emitted 381.3 million gross metric tons of CO2e including from imported electricity. This inventory is 3.4 percent higher than the State's 2020 inventory, but 5.7 percent lower than 2019 level, which aligns with the global changes, shutdowns, and economic recoveries affected by the COVID-19 pandemic. Additionally, between 2020 and 2021, California's Gross Domestic Product (GPD) increased 7.8 percent while the GHG intensity of California's economy (GHG emissions per unit GDP)

decreased 4.1 percent. Combustion of fossil fuel in the transportation sector was the single largest source of California's GHG emissions in 2021, accounting for approximately 38.2 percent of total GHG emissions in the state. Transportation emissions have increased 7.4 percent compared to 2020, which is most likely from light duty vehicle emissions that rebounded when COVID-19 shelter-in-place orders were lifted. Emissions from the electricity sector account for 16.4 percent of the inventory, which is an increase of 4.8 percent since 2020, despite the growth of in-state solar and imported renewable energy. California's industrial sector accounts for the second largest source of the state's GHG emissions in 2021, accounting for 19.4 percent, which saw an increase of nearly 1 percent since 2020 (CARB 2023).

3.2 Regulatory Framework

3.2.1 State

Executive Order S-3-05

Executive Order (EO) S-3-05, signed by Governor Arnold Schwarzenegger in 2005, proclaims that California is vulnerable to the impacts of climate change. It declares that increased temperatures could reduce the Sierra Nevada snowpack, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. To combat those concerns, the EO established total GHG emission targets for the state. Specifically, emissions are to be reduced to the 2000 level by 2010, the 1990 level by 2020, and to 80 percent below the 1990 level by 2050.

Assembly Bill 32 Climate Change Scoping Plan and Updates

In 2006, the California legislature passed Assembly Bill (AB) 32 (Health and Safety Code § 38500 et seq., or AB 32), also known as the Global Warming Solutions Act. AB 32 required CARB to design and implement feasible and cost-effective emission limits, regulations, and other measures, such that statewide GHG emissions are reduced to 1990 levels by 2020 (representing a 25 percent reduction in emissions). Pursuant to AB 32, CARB adopted a Scoping Plan in December 2008, which outlined measures to meet the 2020 GHG reduction goals. California exceeded the target of reducing GHG emissions to 1990 levels by the year 2017.

The Scoping Plan is required by AB 32 to be updated at least every five years. The latest update, the 2022 Scoping Plan Update, outlines strategies and actions to reduce greenhouse gas emissions in California. The plan focuses on achieving the state's goal of reaching carbon neutrality by 2045 and reducing greenhouse gas emissions to 40 percent below 1990 levels by 2030. The plan includes a range of strategies across various sectors, including transportation, industry, energy, and agriculture. Some of the key strategies include transitioning to zero-emission vehicles, expanding renewable energy sources, promoting sustainable land use practices, implementing a low-carbon fuel standard, and reducing emissions from buildings. Additionally, the plan addresses equity and environmental justice by prioritizing investments in communities most impacted by pollution and climate change. The plan also aims to promote economic growth and job creation through the transition to a low-carbon economy.

Senate Bill 32 and Assembly Bill 197 of 2016

In August 2016, Governor Brown signed SB 32 and AB 197, which serve to extend California's GHG reduction programs beyond 2020. SB 32 amended the Health and Safety Code to include § 38566, which contains language to authorize CARB to achieve a statewide GHG emission reduction of at least 40 percent below 1990 levels by no later than December 31, 2030.

Assembly Bill 1279 of 2022

This bill, the California Climate Crisis Act, would declare the policy of the state both to achieve net zero greenhouse gas emissions as soon as possible, but no later than 2045, and achieve and maintain net negative greenhouse gas emissions thereafter, and to ensure that by 2045, statewide anthropogenic greenhouse gas emissions are reduced to at least 85 percent below the 1990 levels. The bill would require the state board to work with relevant state agencies to ensure that updates to the scoping plan identify and recommend measures to achieve these policy goals and to identify and implement a variety of policies and strategies that enable carbon dioxide removal solutions and carbon capture, utilization, and storage technologies in California, as specified. The bill would require the state board to submit an annual report, as specified.

Senate Bill 100 of 2018

In 2018, SB 100 was signed codifying a goal of 60 percent renewable procurement by 2030 and 100 percent by 2045 Renewables Portfolio Standard.

2022 Building Energy Efficiency Standards for Residential and Nonresidential Buildings

The Building and Efficiency Standards (Energy Standards) were first adopted and put into effect in 1978 and have been updated periodically in the intervening years. These standards are a unique California asset that have placed the State on the forefront of energy efficiency, sustainability, energy independence and climate change issues. The 2022 California Building Codes include provisions related to energy efficiency to reduce energy consumption and greenhouse gas emissions from buildings. Some of the key energy efficiency components of the codes are:

1. Energy Performance Requirements: The codes specify minimum energy performance standards for the building envelope, lighting, heating and cooling systems, and other components.
2. Lighting Efficiency: The codes require that lighting systems meet minimum efficiency standards, such as the use of energy-efficient light bulbs and fixtures.
3. HVAC Systems: The codes establish requirements for heating, ventilation, and air conditioning (HVAC) systems, including the use of high-efficiency equipment, duct sealing, and controls.
4. Building Envelope: The codes include provisions for insulation, air sealing, glazing, and other building envelope components to reduce energy loss and improve indoor comfort.
5. Renewable Energy: The codes encourage the use of renewable energy systems, such as photovoltaic panels and wind turbines, to reduce dependence on non-renewable energy sources.

6. Commissioning: The codes require the commissioning of building energy systems to ensure that they are installed and operate correctly and efficiently.

Overall, the energy efficiency provisions of the 2022 California Building Codes aim to reduce the energy consumption of buildings, lower energy costs for building owners and occupants, and reduce the environmental impact of the built environment. The 2022 Building Energy Efficiency Standards improve upon the 2019 Energy Standards for new construction of, and additions and alterations to, residential and nonresidential buildings. The exact amount by which the 2022 Building Codes are more efficient compared to the 2019 Building Codes would depend on the specific provisions that have been updated and the specific building being considered. However, in general, the 2022 Building Codes have been updated to include increased requirements for energy efficiency, such as higher insulation and air sealing standards, which are intended to result in more efficient buildings. The 2022 standards are a major step toward meeting Zero Net Energy..

3.2.2 Local

South Coast Air Quality Management District

To provide guidance to local lead agencies on determining significance for GHG emissions in CEQA documents, SCAQMD staff is convening an ongoing GHG CEQA Significance Threshold Working Group. Members of the working group include government agencies implementing CEQA and representatives from various stakeholder groups that provide input to SCAQMD staff on developing the significance thresholds. On October 8, 2008, the SCAQMD released the Draft AQMD Staff CEQA GHG Significance Thresholds. These thresholds have not been finalized and continue to be developed through the working group.

The Draft AQMD Staff CEQA GHG Significance Thresholds guidance document, which builds on the previous guidance prepared by the California Air Pollution Control Officers Association (CAPCOA), explored various approaches for establishing a significance threshold for GHG emissions and was described as a "work in progress" of efforts to date. However, the draft interim CEQA thresholds guidance document was not adopted or approved by the Governing Board. In December 2008, the SCAQMD adopted a 10,000 metric tons of CO_2e per year threshold for stationary source/industrial projects for which the SCAQMD is the lead agency. From December 2008 to September 2010, SCAQMD hosted working group meetings and revised the draft threshold proposal several times, although it did not officially provide these proposals in a subsequent document. SCAQMD has continued to consider adoption of significance thresholds for residential and general land use development projects. The most recent proposal, issued in September 2010, used the following tiered approach to evaluate potential GHG impacts from various uses:

- Tier 1 Determine if CEQA categorical exemptions are applicable. If not, move to Tier 2.
- Tier 2 Consider whether or not the proposed project is consistent with a locally adopted GHG reduction plan that has gone through public hearing and CEQA review, that has an approved inventory, includes monitoring, etc. If not, move to Tier 3.
- Tier 3 Consider whether the project generates GHG emissions in excess of screening thresholds for individual land uses. The 10,000 metric tons of CO_2e per year threshold for industrial uses would be

recommended for use by all lead agencies. Under option 1, separate screening thresholds are proposed for residential projects (3,500 metric tons of CO_2e per year), commercial projects (1,400 metric tons of CO_2e per year), and mixed-use projects (3,000 metric tons of CO_2e per year). Under option 2, a single numerical screening threshold of 3,000 metric tons of CO_2e per year would be used for all non-industrial projects. If the project generates emissions in excess of the applicable screening threshold, move to Tier 4.

- Tier 4 Consider whether the project generates GHG emissions in excess of applicable performance standards for the project service population (population plus employment). The efficiency targets were established based on the goal of AB 32 to reduce statewide GHG emissions by 40 percent by 2035. The efficiency-based threshold of 3.0 metric tons of CO_2e per service population (defined as the people that work and/or congregate on the Project Site) per year in 2035. If the project generates emissions in excess of the applicable efficiency targets, move to Tier 5.
- Tier 5 Consider the implementation of CEQA mitigation (including the purchase of GHG offsets) to reduce the project efficiency target to Tier 4 levels.

The SCAQMD has not announced when staff are expecting to present a finalized version of its GHG thresholds to the governing board.

These thresholds were developed as part of the SCAQMD GHG CEQA Significance Threshold Working Group. This working group was formed to assist SCAQMD's efforts to develop a GHG significance threshold and is composed of a wide variety of stakeholders including the State Office of Planning and Research (OPR), CARB, the Attorney General's Office, a variety of city and county planning departments in the SoCAB, various utilities such as sanitation and power companies throughout the SoCAB, industry groups, and environmental and professional organizations. These thresholds were developed to be consistent with CEQA requirements for developing significance thresholds, are supported by substantial evidence, and provides guidance to CEQA practitioners with regard to determining whether GHG emissions from a proposed land use project are significant.

Southern California Association of Governments

In April 2024, the SCAG Regional Council adopted the *2024-2050 Regional Transportation Plan/ Sustainable Communities Strategy* (2024 RTP/SCS). The 2024 RTP/SCS charts a course for closely integrating land use and transportation – so that the region can grow smartly and sustainably. It was prepared through a collaborative, continuous, and comprehensive process with input from local governments, county transportation commissions, tribal governments, non-profit organizations, businesses and local stakeholders within the counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura. The 2024 RTP/SCS is a long-range visioning plan that balances future mobility and housing needs with economic, environmental and public health goals. The SCAG region strives toward sustainability through integrated land use and transportation planning. The SCAG region must achieve specific federal air quality standards and is required by state law to lower regional GHG emissions. Specifically, the region has been tasked by CARB to achieve a 19 percent per capita reduction by the end of 2035.

The City of Lake Elsinore (City) Climate Action Plan

The City of Lake Elsinore Climate Action Plan (CAP) is a long-range plan to reduce communitywide greenhouse gas (GHG) emissions from activities within the City limits. Specifically, the CAP is designed to:

- Benchmark Lake Elsinore's existing (2008) GHG emissions and projected emissions relative to statewide emissions targets.
- Establish GHG emissions reduction strategies and measures to reduce the City's proportionate share of emissions to meet the statewide targets identified in Assembly Bill (AB) 32 and Executive Order S-3-05. Set forth procedures to monitor and verify the effectiveness of the CAP and require amendment if the CAP is not achieving targeted levels of emissions.
- Mitigate Lake Elsinore's GHG emissions impacts (by reducing GHG emissions consistent with the State of California via the California Environmental Quality Act [CEQA] Guidelines, AB 32, and Executive Order S-3-05). The CEQA Guidelines encourage the adoption of plans or mitigation programs as a means of comprehensively addressing the cumulative impacts of projects (see CEQA Guidelines, Sections 15064(h)(3), 15130(c)).
- Serve as the programmatic tiering document for the purposes of CEQA within the City of Lake Elsinore for GHG emissions, by which applicable projects will be reviewed. If a proposed development project can demonstrate it is consistent with the applicable emissions reduction measures included in the CAP, the programs and standards that would be implemented as a result of the CAP, and the General Plan Update growth projections, the project's environmental review pertaining to GHG impacts may be streamlined as allowed by CEQA Guidelines Sections 15152 and 15183.5.

The CAP is not intended to limit future development or economic growth within Lake Elsinore, nor is it intended to stop any individual project (as prescribed by the City's General Plan) from moving forward. The CAP is a strategy for Lake Elsinore to grow in a sustainable way that meets GHG reduction targets while continuing to allow for public and private development and redevelopment that will keep the City of Lake Elsinore a vibrant and livable community. A CAP consistency checklist for future development projects is included in the implementation program.

City CAP Consistency Checklist

As part of the CAP, the City developed a CAP consistency checklist for land use projects. The checklist is a streamlined tool that identifies the CAP's mandatory requirements and provides an opportunity for project applicants to demonstrate project consistency with GHG reduction measures and actions in the CAP. The checklist identifies a general development class and the strategies which must be implemented for the Project to be compliant with the CAP. The checklist is also an opportunity to identify additional Project characteristics that support the GHG reduction targets and programs in the CAP. If a project does not comply with the applicable mandatory GHG reduction measures, mitigation measures must be implemented to require compliance.

3.3 Greenhouse Gas Emissions Impact Assessment

3.3.1 Thresholds of Significance

The impact analysis provided below is based on the following CEQA Guidelines Appendix G thresholds of significance. The Project would result in a significant impact to greenhouse gas emissions if it would:

1) Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.

2) Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases or

The Appendix G thresholds for GHG emissions do not prescribe specific methodologies for performing an assessment, do not establish specific thresholds of significance, and do not mandate specific mitigation measures. Rather, the CEQA Guidelines emphasize the lead agency's discretion to determine the appropriate methodologies and thresholds of significance consistent with the manner in which other impact areas are handled in CEQA. With respect to GHG emissions, the CEQA Guidelines Section 15064.4(a) states that lead agencies "shall make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate" GHG emissions resulting from a project. The CEQA Guidelines note that an agency has the discretion to either quantify a project's GHG emissions or rely on a "qualitative analysis or other performance-based standards." (14 CCR 15064.4(b)). A lead agency may use a "model or methodology" to estimate GHG emissions and has the discretion to select the model or methodology it considers "most appropriate to enable decision makers to intelligently take into account the project's incremental contribution to climate change." (14 CCR 15064.4(c)). Section 15064.4(b) provides that the lead agency should consider the following when determining the significance of impacts from GHG emissions on the environment:

1. The extent a project may increase or reduce GHG emissions as compared to the existing environmental setting.
2. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
3. The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions (14 CCR 15064.4(b)).

In addition, Section 15064.7(c) of the CEQA Guidelines specifies that "[w]hen adopting or using thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence" (14 CCR 15064.7(c)). The CEQA Guidelines also clarify that the effects of GHG emissions are cumulative and should be analyzed in the context of CEQA's requirements for cumulative impact analysis (see CEQA Guidelines Section 15130). As a note, the CEQA

Guidelines were amended in response to Senate Bill 97. In particular, the CEQA Guidelines were amended to specify that compliance with a GHG emissions reduction plan renders a cumulative impact insignificant.

Per CEQA Guidelines Section 15064(h)(3), a project's incremental contribution to a cumulative impact can be found not cumulatively considerable if the project would comply with an approved plan or mitigation program that provides specific requirements that would avoid or substantially lessen the cumulative problem within the geographic area of the project. To qualify, such plans or programs must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency. Examples of such programs include a "water quality control plan, air quality attainment or maintenance plan, integrated waste management plan, habitat conservation plan, natural community conservation plans [and] plans or regulations for the reduction of greenhouse gas emissions." Put another way, CEQA Guidelines Section 15064(h)(3) allows a lead agency to make a finding of less than significant for GHG emissions if a project complies with adopted programs, plans, policies and/or other regulatory strategies to reduce GHG emissions.

The local air quality agency regulating the SoCAB is the SCAQMD, the regional air pollution control officer for the basin. As previously stated, to provide guidance to local lead agencies on determining significance for GHG emissions in CEQA documents, SCAQMD staff convened a GHG CEQA Significance Threshold Working Group. The Working Group was formed to assist the SCAQMD's efforts to develop a GHG significance threshold and is composed of a wide variety of stakeholders including the State Office of Planning and Research (OPR), CARB, the Attorney General's Office, a variety of city and county planning departments in the Basin, various utilities such as sanitation and power companies throughout the Basin, industry groups, and environmental and professional organizations. The numeric bright line and efficiency-based thresholds described above were developed to be consistent with CEQA requirements for developing significance thresholds, are supported by substantial evidence, and provide guidance to CEQA practitioners and lead agencies with regard to determining whether GHG emissions from a proposed project are significant.

In *Center for Biological Diversity v. Department of Fish and Wildlife* (2015) 62 Cal. 4th 2014, 213, 221, 227, following its review of various potential GHG thresholds proposed in an academic study [Crockett, *Addressing the Significance of Greenhouse Gas Emissions: California's Search for Regulatory Certainty in an Uncertain World* (July 2011), 4 Golden Gate U. Envtl. L. J. 203], the California Supreme Court identified the use of numeric bright-line thresholds as a potential pathway for compliance with CEQA GHG requirements. The study found numeric bright line thresholds designed to determine when small projects were so small as to not cause a cumulatively considerable impact on global climate change was consistent with CEQA. Specifically, Public Resources Code section 21003(f) provides it is a policy of the State that "[a]ll persons and public agencies involved in the environmental review process be responsible for carrying out the process in the most efficient, expeditious manner in order to conserve the available financial, governmental, physical and social resources with the objective that those resources may be better applied toward the mitigation of actual significant effects on the environment." The Supreme Court-reviewed study noted, "[s]ubjecting the smallest projects to the full panoply of CEQA requirements, even though the public benefit would be minimal, would not be consistent with implementing the statute in the most efficient, expeditious manner.

Nor would it be consistent with applying lead agencies' scarce resources toward mitigating actual significant climate change impacts." (Crockett, *Addressing the Significance of Greenhouse Gas Emissions: California's Search for Regulatory Certainty in an Uncertain World* (July 2011), 4 Golden Gate U. Envtl. L. J. 203, 221, 227.)

The significance of the Project's GHG emissions is evaluated consistent with CEQA Guidelines Section 15064.4(b)(2) by considering whether the Project complies with applicable plans, policies, regulations and requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. The City of Lake Elsinore may set a project-specific threshold based on the context of each particular project, including using the SCAQMD Working Group expert recommendation. This standard is appropriate for this Project because it is in the same air quality basin that the experts analyzed. For the Proposed Project, the SCAQMD's 3,000 metric tons of CO_2e per year threshold is used as the significance threshold in addition to the qualitative thresholds of significance set forth below from Section VII of CEQA Guidelines Appendix G. The 3,000 metric tons of CO_2e per year threshold represents a 90 percent capture rate (i.e., this threshold captures projects that represent approximately 90 percent of GHG emissions from new sources). The 3,000 metric tons of CO_2e per year value is typically used in defining small projects within this air basin that are considered less than significant because it represents less than one percent of future 2050 statewide GHG emissions target and the lead agency can provide more efficient implementation of CEQA by focusing its scarce resources on the top 90 percent. This threshold is correlated to the 90 percent capture rate for industrial projects within the air basin. Land use projects above the 3,000 metric tons of CO_2e per year level would fall within the percentage of largest projects that are worth mitigating without wasting scarce financial, governmental, physical and social resources. (Crockett 2011). As noted in the academic study, the fact that small projects below a numeric bright line threshold are not subject to CEQA-based mitigation does not mean such small projects do not help the State achieve its climate change goals because even small projects participate in or comply with non-CEQA-based GHG reduction programs, such as constructing development in accordance with statewide GHG-reducing energy efficiency building standards, called Cal Green or Title 24 energy-efficiency building standards (Crockett 2011).

Additionally, the Project is assessed for consistency with the City of Lake Elsinore Climate Action Plan (CAP), a long-range plan to reduce communitywide greenhouse gas emissions from activities within the City limits. Specifically, the City set emission reduction goals of 48.2 percent below 2008 emissions levels by lowering GHG emission rates to 4.3 metric tons of carbon dioxide equivalent per person by 2030. Therefore, Project compliance with the CAP adequately establishes Project compliance with statewide GHG reduction goals for the year 2030 associated with AB 32. The CAP is a strategy for the City to continue to grow in a sustainable way that meets GHG reduction targets while continuing to allow for public and private development and redevelopment that will uphold the City as a vibrant and livable community.

3.3.2 Methodology

GHG emissions-related impacts were assessed in accordance with methodologies recommended by the SCAQMD. Where GHG emission quantification was required, emissions were modeled using CalEEMod, version 2020.4.0. CalEEMod is a statewide land use emissions computer model designed to quantify potential GHG emissions associated with both construction and operations from a variety of land use projects. Project construction-generated air pollutant emissions were calculated using CalEEMod model

defaults for Riverside County coupled with details associated with construction timing, phasing, and duration provided by the Project Applicant. Operational air pollutant emissions were based on the Project site plans, and traffic trip generation rates from K2 Traffic Engineering Group, Inc. (2022).

3.3.3 Impact Analysis

Generation of GHG Emissions

Construction

Construction-related activities that would generate GHG emissions include worker commute trips, haul trucks carrying supplies and materials to and from the Project site, and off-road construction equipment (e.g., dozers, loaders, excavators). Table 3-2 illustrates the specific construction generated GHG emissions that would result from construction of the Project. Once construction is complete, the generation of these GHG emissions would cease.

Table 3-2. Construction-Related Greenhouse Gas Emissions

Emissions Source	CO_2e (Metric Tons/ Year)
Construction Calendar Year One	**307**
Construction Calendar Year Two	**93**
Total Construction Emissions	**400**

Source: CalEEMod version 2020.4.0. Refer to Attachment A for Model Data Outputs.

As shown in Table 3-2, Project construction would result in the generation of approximately 400 metric tons of CO_2e over the course of construction. Once construction is complete, the generation of these GHG emissions would cease. Consistent with SCAQMD recommendations, Project construction GHG emissions have been amortized of the expected life of the Project, which is considered to be 30 years per the SCAQMD. The amortized construction emissions are added to the annual average operational emissions (see Table 3-3).

Operational Significance Analysis

Operation of the Project would result in an increase in GHG emissions primarily associated with motor vehicle trips and onsite energy sources. Long-term operational GHG emissions attributed to the Project are identified in Table 3-3.

Table 3-3. Operational-Related Greenhouse Gas Emissions	
Emission Source	**CO_2e (Metric Tons/ Year)**
Construction Emissions (amortized over the 30-year life of the Project)	13
Area Source	0
Energy	42
Mobile	175
Waste	7
Water	10
Total	**247**
SCAQMD Significance Threshold	*3,000*
Exceed SCAQMD Threshold?	**No**

Source: CalEEMod version 2020.4.0. Refer to Attachment B for Model Data Outputs.
Notes: Emission projections predominately based on CalEEMod model defaults for Riverside County. Average daily vehicle trips provided by K2 Traffic Engineering (2022).

As shown in Table 3-3, operational-generated emissions would not exceed the SCAQMD's numeric bright-line threshold of 3,000 metric tons of CO_2e annually. SCAQMD thresholds were developed based on substantial evidence that such thresholds represent quantitative levels of GHG emissions, compliance with which means that the environmental impact of the GHG emissions will normally not be cumulatively considerable under CEQA. These thresholds were developed as part of the SCAQMD GHG CEQA Significance Threshold Working Group. The working group was formed to assist the SCAQMD's efforts to develop a GHG significance threshold and is composed of a wide variety of stakeholders including the State OPR, CARB, the Attorney General's Office, a variety of city and county planning departments in the SoCAB, various utilities such as sanitation and power companies throughout the basin, industry groups, and environmental and professional organizations.

Conflict with any Applicable Plan, Policy, or Regulation of an Agency Adopted for the Purpose of Reducing the Emissions of Greenhouse Gases

In 2011, the City of Lake Elsinore adopted the City of Lake Elsinore Climate Action Plan, a long-range plan to reduce communitywide greenhouse gas emissions from activities within the City limits. The CAP is a strategy for the City to continue to grow in a sustainable way that meets GHG reduction targets while continuing to allow for public and private development and redevelopment that will uphold the City as a vibrant and livable community (City of Lake Elsinore 2011). According to the CAP, the City selected efficiency-based target is 4.4 metric tons of CO_2e per service population (defined as employees + residents) per year by 2030 (a 48.2 percent reduction from the 2008 rate of 8.5 metric tons of CO_2e per service

population). These efficiency-based targets represent the AB 32 and SB 32 targeted emissions levels for 2020 and 2030 on a per service population basis.

The CAP specifically states, "A project-specific environmental document that relies on the CAP for its cumulative impact analysis must identify the CAP measures that apply to the project and demonstrate how the project incorporates or is consistent with them. In order to demonstrate project-level compliance with CEQA relevant to GHG emissions impacts, applications for discretionary projects must demonstrate the following (all mandates not pertaining to the Project excluded):

- How the project is consistent with the CAP and incorporates all applicable measures from the CAP as binding and enforceable components of the project.
- How the project is consistent with the General Plan land use designations and population and employment growth projections within the City limits upon which the CAP modeling is based."

A specific project proposal is considered consistent with the City CAP if it complies with the "required" GHG reduction measures in the adopted CAP. The following questions are used by the City in order to determine consistency:

1. *Is the project consistent with the General Plan land use designation?*

2. *Is the project consistent with the General Plan population and employment projections for the site upon which the CAP modeling is based?*

3. *Does the project incorporate the following CAP measures as binding and enforceable components of the project? Until these measures have been formally adopted by the City and incorporated in to applicable codes, the requirements must be incorporated as mitigation measures applicable to the project (CEQA Guidelines, Section 15183.5(b)(2)).*

    - **T-1.2 Pedestrian Infrastructure**
        - Does the project provide connections to neighborhood activity centers, major destinations, and transit contiguous to site?
    - **D-2 T-1.5 Bicycle Parking**
        - Does new, non-residential development that is anticipated to generate visitor traffic provide permanently anchored bicycle racks within 200 feet of the visitor entrance, readily visible to passers-by, for 5% of visitor motorized vehicle parking capacity, with a minimum of one two-bike capacity rack?
    - **T-2.1 Designated Parking for Fuel-Efficient Vehicles**
        - Does a non-residential development designate 10% of its total parking spaces for "Clean Air Vehicles?"
    - **E-1.1 Tree Planting**
        - Does the developer provide a 15-gal non-deciduous, umbrella-form tree per 30 linear feet of boundary length, near buildings, or to shade pavement in parking lots and streets?
    - **E-1.2 Cool Roof Requirements**

  - Does the new non-residential development use roofing materials having solar reflectance, thermal emittance or Solar Reflectance Index 3 per CalGreen Tier 1 values?
- **E-1.3 Energy Efficient Building Standards**
  - Does new construction achieve CalGreen Tier 1 energy efficiency standards?
- **E-4.1 Landscaping**
  - Does the development comply with the City's AB 1881 Landscaping Ordinance?
- **E-4.2 Indoor Water Conservation Requirements**
  - Does the development reduce indoor water consumption by 30%, consistent with CalGreen Tier 1, Section A5.303.2.3.1?

The Proposed Project is consistent with the City of Lake Elsinore General Plan land use designation for the site and is consistent with the General Plan population and employment projections for the site upon which the CAP modeling is based. In order to ensure the required CAP measures are implemented, mitigation measure GHG-1 is recommended.

Recommended Mitigation Measure:

GHG-1: Climate Action Plan Consistency

The following measures shall be included in the Project design:

- Consistent with CAP Reduction Measure D-2 T-1.5, the Project shall provide permanently anchored bicycle racks within 200 feet of the visitor entrance, readily visible to passers-by, for 5% of visitor motorized vehicle parking capacity, with a minimum of one two-bike capacity rack.
- Consistent with CAP Reduction Measure T-2.1, the Project shall designate 10% of its total parking spaces for "Clean Air Vehicles".
- Consistent with CAP Reduction Measure E-1.1, the Project shall provide a 15-gal non-deciduous, umbrella-form tree per 30 linear feet of boundary length, near buildings, or to shade pavement in parking lots and streets.
- Consistent with CAP Reduction Measure E-1.2, the Project shall use roofing materials having solar reflectance, thermal emittance or Solar Reflectance Index 3 per CalGreen Tier 1 values.
- Consistent with CAP Reduction Measure E-1.3, the Project shall achieve CalGreen Tier 1 energy efficiency standards.
- Consistent with CAP Reduction Measure E-4.1, the Project shall comply with the City's AB 1881 Landscaping Ordinance.
- Consistent with CAP Reduction Measure 4.2, the Project shall reduce indoor water consumption by 30%, consistent with CalGreen Tier 1, Section A5.303.2.3.1.

Timing/Implementation: Prior to the issuance of occupancy permits

Monitoring/Enforcement: City of Lake Elsinore Community Development Department

Implementing the City's CAP will greatly reduce the regional GHG emissions from transportation, helping to achieve statewide emission reduction targets. All development in the City, including the Project, is required to adhere to all applicable City-adopted policy provisions, including those contained in the City CAP. The City ensures all applicable provisions of the CAP are incorporated into projects and their permits through development review and applications of conditions of approval as applicable. All of the applicable and feasible provisions of the City GHG-reduction program as promulgated by its CAP will be incorporated into the Proposed Project. Therefore, the Proposed Project would in no way conflict with the stated goals of the CAP and thus would not interfere with City's ability to achieve the goals set forth in the CAP. The Proposed Project is consistent with the City General Plan land use designation and development intensity for the site. The Proposed Project would not conflict with the CAP GHG-reduction targets. As such, the Project would not conflict with applicable plans, policies, or regulations adopted for the purpose of reducing GHG emissions.

4.0 REFERENCES

CAPCOA. 2021. California Emissions Estimator Model (CalEEMod), version 2020.4.0.

_____. 2013. Health Effects. http://www.capcoa.org/health-effects/.

CARB. 2024. Air Quality Data Statistics. http://www.arb.ca.gov/adam/index.html.

_____. 2023. California Greenhouse Gas Emission Inventory 2023 Edition. https://ww2.arb.ca.gov/ghg-inventory-data

_____. 2022. State and Federal Area Designation Maps. http://www.arb.ca.gov/desig/adm/adm.htm.

_____. 2008. Climate Change Scoping Plan Appendices (Appendix F).

Crockett, Alexander G. 2011. Addressing the Significance of Greenhouse Gas Emissions Under CEQA: California's Search for Regulatory Certainty in an Uncertain World.

IPCC. 2014. Climate Change 2014 Synthesis Report: Approved Summary for Policymakers. http://www.ipcc.ch/.

_____. 2013. Carbon and Other Biogeochemical Cycles. In: Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. http://www.climatechange2013.org/ images/report/WG1AR5_ALL_FINAL.pdf.

K2 Traffic Engineering, Inc. 2022. Trip Generation and VMT Screening Memo: Construction Equipment Rental Facility 29400 Enterprise Way, Lake Elsinore.

Lake Elsinore, City of. 2021. City of Lake Elsinore Municipal Code.

_____. 2011a. City of Lake Elsinore General Plan.

_____. 2011b. City of Lake Elsinore Climate Action Plan.

SCAQMD. 2009. Localized Significance Threshold Appendix C – Mass Rate LST Look-Up Tables. Revised October 21, 2009. http://www.aqmd.gov/ceqa/handbook/LST/LST.html.

_____. 2008. Final Localized Significance Threshold Methodology (dated June 2003 [revised 2008]).

_____. 2003. 2003 Air Quality Management Plan.

_____. 1993. CEQA Air Quality Handbook.

_____. 1992. 1992 Federal Attainment Plan for Carbon Monoxide.

USEPA. 2016a. Climate Change – Greenhouse Gas Emissions: Carbon Dioxide. http://www.epa.gov/climatechange/emissions/co2.html.

_____. 2016b. Methane. https://www3.epa.gov/climatechange/ghgemissions/gases/ch4.html.

_____. 2016c. Nitrous Oxide. https://www3.epa.gov/climatechange/ghgemissions/gases/n2o.html.

_____. 2002. Health Assessment Document for Diesel Engine Exhaust. https://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=300055PV.TXT.

LIST OF ATTACHMENTS

Attachment A – CalEEMod Output File for Air Quality Emissions

Attachment B – CalEEMod Output File for Greenhouse Gas Emissions

ATTACHMENT A

CalEEMod Output Files – Criteria Air Pollutants

Collier Commercial Project - Riverside-South Coast County, Summer

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

Collier Commercial Project

Riverside-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	11.97	1000sqft	2.80	11,975.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Lot acreage totals 2.8 acres

Construction Phase - construction, paving, and architecural coating will be happening simultaneously

Mobile Land Use Mitigation -

Area Mitigation -

Vehicle Trips - corrected trip rate to meet Traffic Study's amount of 119 daily trips

Construction Off-road Equipment Mitigation - Rule 403

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	220.00
tblConstructionPhase	NumDays	10.00	220.00

Collier Commercial Project - Riverside-South Coast County, Summer

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

tblConstructionPhase	PhaseEndDate	3/31/2023	3/3/2023
tblConstructionPhase	PhaseEndDate	3/17/2023	3/3/2023
tblConstructionPhase	PhaseStartDate	3/18/2023	5/2/2022
tblConstructionPhase	PhaseStartDate	4/30/2022	5/2/2022
tblConstructionPhase	PhaseStartDate	3/4/2023	5/2/2022
tblLandUse	LandUseSquareFeet	11,970.00	11,975.00
tblLandUse	LotAcreage	0.27	2.80
tblVehicleTrips	ST_TR	1.99	9.96
tblVehicleTrips	SU_TR	5.00	9.96
tblVehicleTrips	WD_TR	4.96	9.96

2.0 Emissions Summary

Collier Commercial Project - Riverside-South Coast County, Summer

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

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	3.5918	25.4828	28.7293	0.0483	7.1944	1.2741	7.9372	3.4544	1.2070	4.1378	0.0000	4,534.6554	4,534.6554	1.0076	0.0111	4,563.1423
2023	3.3690	23.6494	28.5048	0.0483	0.2475	1.1199	1.3675	0.0659	1.0607	1.1266	0.0000	4,526.7036	4,526.7036	0.9970	0.0104	4,554.7278
Maximum	**3.5918**	**25.4828**	**28.7293**	**0.0483**	**7.1944**	**1.2741**	**7.9372**	**3.4544**	**1.2070**	**4.1378**	**0.0000**	**4,534.6554**	**4,534.6554**	**1.0076**	**0.0111**	**4,563.1423**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	3.5918	25.4828	28.7293	0.0483	2.8740	1.2741	3.6168	1.3653	1.2070	2.0487	0.0000	4,534.6554	4,534.6554	1.0076	0.0111	4,563.1423
2023	3.3690	23.6494	28.5048	0.0483	0.2475	1.1199	1.3675	0.0659	1.0607	1.1266	0.0000	4,526.7036	4,526.7036	0.9970	0.0104	4,554.7278
Maximum	**3.5918**	**25.4828**	**28.7293**	**0.0483**	**2.8740**	**1.2741**	**3.6168**	**1.3653**	**1.2070**	**2.0487**	**0.0000**	**4,534.6554**	**4,534.6554**	**1.0076**	**0.0111**	**4,563.1423**

Collier Commercial Project - Riverside-South Coast County, Summer

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	58.05	0.00	46.43	59.34	0.00	39.68	0.00	0.00	0.00	0.00	0.00	0.00

Collier Commercial Project - Riverside-South Coast County, Summer

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.2676	1.0000e-005	1.2200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.6200e-003	2.6200e-003	1.0000e-005		2.7900e-003
Energy	0.0114	0.1040	0.0874	6.2000e-004		7.9000e-003	7.9000e-003		7.9000e-003	7.9000e-003		124.7870	124.7870	2.3900e-003	2.2900e-003	125.5286
Mobile	0.4169	0.5986	4.5526	0.0109	1.1155	8.2000e-003	1.1237	0.2976	7.6900e-003	0.3053		1,109.0060	1,109.0060	0.0496	0.0488	1,124.7920
Total	**0.6960**	**0.7026**	**4.6412**	**0.0115**	**1.1155**	**0.0161**	**1.1316**	**0.2976**	**0.0156**	**0.3132**		**1,233.7956**	**1,233.7956**	**0.0520**	**0.0511**	**1,250.3234**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.2676	1.0000e-005	1.2200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.6200e-003	2.6200e-003	1.0000e-005		2.7900e-003
Energy	0.0114	0.1040	0.0874	6.2000e-004		7.9000e-003	7.9000e-003		7.9000e-003	7.9000e-003		124.7870	124.7870	2.3900e-003	2.2900e-003	125.5286
Mobile	0.4169	0.5986	4.5526	0.0109	1.1155	8.2000e-003	1.1237	0.2976	7.6900e-003	0.3053		1,109.0060	1,109.0060	0.0496	0.0488	1,124.7920
Total	**0.6960**	**0.7026**	**4.6412**	**0.0115**	**1.1155**	**0.0161**	**1.1316**	**0.2976**	**0.0156**	**0.3132**		**1,233.7956**	**1,233.7956**	**0.0520**	**0.0511**	**1,250.3234**

Collier Commercial Project - Riverside-South Coast County, Summer

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	4/19/2022	4/21/2022	5	3	
2	Grading	Grading	4/22/2022	4/29/2022	5	6	
3	Building Construction	Building Construction	5/2/2022	3/3/2023	5	220	
4	Paving	Paving	5/2/2022	3/3/2023	5	220	
5	Architectural Coating	Architectural Coating	5/2/2022	3/3/2023	5	220	

Acres of Grading (Site Preparation Phase): 4.5

Acres of Grading (Grading Phase): 6

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 17,963; Non-Residential Outdoor: 5,988; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Grading	Graders	1	8.00	187	0.41

Collier Commercial Project - Riverside-South Coast County, Summer

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

Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Paving	Paving Equipment	1	8.00	132	0.36
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Site Preparation	Scrapers	1	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	5.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Collier Commercial Project - Riverside-South Coast County, Summer

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

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	1.3784	15.6673	10.0558	0.0245		0.5952	0.5952		0.5476	0.5476		2,375.1569	2,375.1569	0.7682		2,394.3613
Total	**1.3784**	**15.6673**	**10.0558**	**0.0245**	**1.5908**	**0.5952**	**2.1859**	**0.1718**	**0.5476**	**0.7193**		**2,375.1569**	**2,375.1569**	**0.7682**		**2,394.3613**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0315	0.0204	0.3185	8.1000e-004	0.0894	4.4000e-004	0.0899	0.0237	4.1000e-004	0.0241		82.1515	82.1515	2.0500e-003	2.0300e-003	82.8087
Total	**0.0315**	**0.0204**	**0.3185**	**8.1000e-004**	**0.0894**	**4.4000e-004**	**0.0899**	**0.0237**	**4.1000e-004**	**0.0241**		**82.1515**	**82.1515**	**2.0500e-003**	**2.0300e-003**	**82.8087**

Collier Commercial Project - Riverside-South Coast County, Summer

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

3.2 Site Preparation - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6204	0.0000	0.6204	0.0670	0.0000	0.0670			0.0000			0.0000
Off-Road	1.3784	15.6673	10.0558	0.0245		0.5952	0.5952		0.5476	0.5476	0.0000	2,375.1569	2,375.1569	0.7682		2,394.3613
Total	**1.3784**	**15.6673**	**10.0558**	**0.0245**	**0.6204**	**0.5952**	**1.2156**	**0.0670**	**0.5476**	**0.6146**	**0.0000**	**2,375.1569**	**2,375.1569**	**0.7682**		**2,394.3613**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0315	0.0204	0.3185	8.1000e-004	0.0894	4.4000e-004	0.0899	0.0237	4.1000e-004	0.0241		82.1515	82.1515	2.0500e-003	2.0300e-003	82.8087
Total	**0.0315**	**0.0204**	**0.3185**	**8.1000e-004**	**0.0894**	**4.4000e-004**	**0.0899**	**0.0237**	**4.1000e-004**	**0.0241**		**82.1515**	**82.1515**	**2.0500e-003**	**2.0300e-003**	**82.8087**

Collier Commercial Project - Riverside-South Coast County, Summer

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

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829		1,995.4825	1,995.4825	0.6454		2,011.6169
Total	**1.5403**	**16.9836**	**9.2202**	**0.0206**	**7.0826**	**0.7423**	**7.8249**	**3.4247**	**0.6829**	**4.1076**		**1,995.4825**	**1,995.4825**	**0.6454**		**2,011.6169**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0394	0.0255	0.3981	1.0200e-003	0.1118	5.6000e-004	0.1123	0.0296	5.1000e-004	0.0302		102.6894	102.6894	2.5600e-003	2.5400e-003	103.5109
Total	**0.0394**	**0.0255**	**0.3981**	**1.0200e-003**	**0.1118**	**5.6000e-004**	**0.1123**	**0.0296**	**5.1000e-004**	**0.0302**		**102.6894**	**102.6894**	**2.5600e-003**	**2.5400e-003**	**103.5109**

Collier Commercial Project - Riverside-South Coast County, Summer

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

3.3 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.7622	0.0000	2.7622	1.3357	0.0000	1.3357			0.0000			0.0000
Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829	0.0000	1,995.4825	1,995.4825	0.6454		2,011.6169
Total	**1.5403**	**16.9836**	**9.2202**	**0.0206**	**2.7622**	**0.7423**	**3.5045**	**1.3357**	**0.6829**	**2.0186**	**0.0000**	**1,995.4825**	**1,995.4825**	**0.6454**		**2,011.6169**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0394	0.0255	0.3981	1.0200e-003	0.1118	5.6000e-004	0.1123	0.0296	5.1000e-004	0.0302		102.6894	102.6894	2.5600e-003	2.5400e-003	103.5109
Total	**0.0394**	**0.0255**	**0.3981**	**1.0200e-003**	**0.1118**	**5.6000e-004**	**0.1123**	**0.0296**	**5.1000e-004**	**0.0302**		**102.6894**	**102.6894**	**2.5600e-003**	**2.5400e-003**	**103.5109**

Collier Commercial Project - Riverside-South Coast County, Summer

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

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731		2,289.2813	2,289.2813	0.4417		2,300.3230
Total	**1.8555**	**14.6040**	**14.3533**	**0.0250**		**0.7022**	**0.7022**		**0.6731**	**0.6731**		**2,289.2813**	**2,289.2813**	**0.4417**		**2,300.3230**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.2500e-003	0.0846	0.0294	3.6000e-004	0.0128	1.2200e-003	0.0140	3.6900e-003	1.1700e-003	4.8600e-003		38.5891	38.5891	4.1000e-004	5.7200e-003	40.3046
Worker	0.0197	0.0128	0.1991	5.1000e-004	0.0559	2.8000e-004	0.0562	0.0148	2.6000e-004	0.0151		51.3447	51.3447	1.2800e-003	1.2700e-003	51.7555
Total	**0.0230**	**0.0973**	**0.2285**	**8.7000e-004**	**0.0687**	**1.5000e-003**	**0.0702**	**0.0185**	**1.4300e-003**	**0.0199**		**89.9338**	**89.9338**	**1.6900e-003**	**6.9900e-003**	**92.0601**

Collier Commercial Project - Riverside-South Coast County, Summer

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

3.4 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731	0.0000	2,289.2813	2,289.2813	0.4417		2,300.3230
Total	**1.8555**	**14.6040**	**14.3533**	**0.0250**		**0.7022**	**0.7022**		**0.6731**	**0.6731**	**0.0000**	**2,289.2813**	**2,289.2813**	**0.4417**		**2,300.3230**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.2500e-003	0.0846	0.0294	3.6000e-004	0.0128	1.2200e-003	0.0140	3.6900e-003	1.1700e-003	4.8600e-003		38.5891	38.5891	4.1000e-004	5.7200e-003	40.3046
Worker	0.0197	0.0128	0.1991	5.1000e-004	0.0559	2.8000e-004	0.0562	0.0148	2.6000e-004	0.0151		51.3447	51.3447	1.2800e-003	1.2700e-003	51.7555
Total	**0.0230**	**0.0973**	**0.2285**	**8.7000e-004**	**0.0687**	**1.5000e-003**	**0.0702**	**0.0185**	**1.4300e-003**	**0.0199**		**89.9338**	**89.9338**	**1.6900e-003**	**6.9900e-003**	**92.0601**

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

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7136	13.6239	14.2145	0.0250		0.6136	0.6136		0.5880	0.5880		2,289.5233	2,289.5233	0.4330		2,300.3479
Total	**1.7136**	**13.6239**	**14.2145**	**0.0250**		**0.6136**	**0.6136**		**0.5880**	**0.5880**		**2,289.5233**	**2,289.5233**	**0.4330**		**2,300.3479**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.2500e-003	0.0653	0.0269	3.5000e-004	0.0128	5.7000e-004	0.0134	3.6900e-003	5.4000e-004	4.2300e-003		37.0542	37.0542	3.8000e-004	5.4800e-003	38.6954
Worker	0.0183	0.0113	0.1829	4.9000e-004	0.0559	2.6000e-004	0.0562	0.0148	2.4000e-004	0.0151		49.6870	49.6870	1.1500e-003	1.1700e-003	50.0653
Total	**0.0205**	**0.0766**	**0.2098**	**8.4000e-004**	**0.0687**	**8.3000e-004**	**0.0695**	**0.0185**	**7.8000e-004**	**0.0193**		**86.7412**	**86.7412**	**1.5300e-003**	**6.6500e-003**	**88.7606**

Collier Commercial Project - Riverside-South Coast County, Summer

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

3.4 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7136	13.6239	14.2145	0.0250		0.6136	0.6136		0.5880	0.5880	0.0000	2,289.5233	2,289.5233	0.4330		2,300.3479
Total	**1.7136**	**13.6239**	**14.2145**	**0.0250**		**0.6136**	**0.6136**		**0.5880**	**0.5880**	**0.0000**	**2,289.5233**	**2,289.5233**	**0.4330**		**2,300.3479**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.2500e-003	0.0653	0.0269	3.5000e-004	0.0128	5.7000e-004	0.0134	3.6900e-003	5.4000e-004	4.2300e-003		37.0542	37.0542	3.8000e-004	5.4800e-003	38.6954
Worker	0.0183	0.0113	0.1829	4.9000e-004	0.0559	2.6000e-004	0.0562	0.0148	2.4000e-004	0.0151		49.6870	49.6870	1.1500e-003	1.1700e-003	50.0653
Total	**0.0205**	**0.0766**	**0.2098**	**8.4000e-004**	**0.0687**	**8.3000e-004**	**0.0695**	**0.0185**	**7.8000e-004**	**0.0193**		**86.7412**	**86.7412**	**1.5300e-003**	**6.6500e-003**	**88.7606**

Collier Commercial Project - Riverside-South Coast County, Summer

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

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9412	9.3322	11.6970	0.0179		0.4879	0.4879		0.4500	0.4500		1,709.6892	1,709.6892	0.5419		1,723.2356
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9412**	**9.3322**	**11.6970**	**0.0179**		**0.4879**	**0.4879**		**0.4500**	**0.4500**		**1,709.6892**	**1,709.6892**	**0.5419**		**1,723.2356**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0591	0.0383	0.5972	1.5200e-003	0.1677	8.3000e-004	0.1685	0.0445	7.7000e-004	0.0452		154.0341	154.0341	3.8400e-003	3.8100e-003	155.2664
Total	**0.0591**	**0.0383**	**0.5972**	**1.5200e-003**	**0.1677**	**8.3000e-004**	**0.1685**	**0.0445**	**7.7000e-004**	**0.0452**		**154.0341**	**154.0341**	**3.8400e-003**	**3.8100e-003**	**155.2664**

Collier Commercial Project - Riverside-South Coast County, Summer

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

3.5 Paving - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9412	9.3322	11.6970	0.0179		0.4879	0.4879		0.4500	0.4500	0.0000	1,709.6892	1,709.6892	0.5419		1,723.2356
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9412**	**9.3322**	**11.6970**	**0.0179**		**0.4879**	**0.4879**		**0.4500**	**0.4500**	**0.0000**	**1,709.6892**	**1,709.6892**	**0.5419**		**1,723.2356**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0591	0.0383	0.5972	1.5200e-003	0.1677	8.3000e-004	0.1685	0.0445	7.7000e-004	0.0452		154.0341	154.0341	3.8400e-003	3.8100e-003	155.2664
Total	**0.0591**	**0.0383**	**0.5972**	**1.5200e-003**	**0.1677**	**8.3000e-004**	**0.1685**	**0.0445**	**7.7000e-004**	**0.0452**		**154.0341**	**154.0341**	**3.8400e-003**	**3.8100e-003**	**155.2664**

Collier Commercial Project - Riverside-South Coast County, Summer

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

3.5 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8802	8.6098	11.6840	0.0179		0.4338	0.4338		0.4003	0.4003		1,709.9926	1,709.9926	0.5420		1,723.5414
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8802**	**8.6098**	**11.6840**	**0.0179**		**0.4338**	**0.4338**		**0.4003**	**0.4003**		**1,709.9926**	**1,709.9926**	**0.5420**		**1,723.5414**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0548	0.0338	0.5488	1.4700e-003	0.1677	7.8000e-004	0.1685	0.0445	7.2000e-004	0.0452		149.0611	149.0611	3.4500e-003	3.5200e-003	150.1959
Total	**0.0548**	**0.0338**	**0.5488**	**1.4700e-003**	**0.1677**	**7.8000e-004**	**0.1685**	**0.0445**	**7.2000e-004**	**0.0452**		**149.0611**	**149.0611**	**3.4500e-003**	**3.5200e-003**	**150.1959**

Collier Commercial Project - Riverside-South Coast County, Summer

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

3.5 Paving - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8802	8.6098	11.6840	0.0179		0.4338	0.4338		0.4003	0.4003	0.0000	1,709.9926	1,709.9926	0.5420		1,723.5414
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8802**	**8.6098**	**11.6840**	**0.0179**		**0.4338**	**0.4338**		**0.4003**	**0.4003**	**0.0000**	**1,709.9926**	**1,709.9926**	**0.5420**		**1,723.5414**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0548	0.0338	0.5488	1.4700e-003	0.1677	7.8000e-004	0.1685	0.0445	7.2000e-004	0.0452		149.0611	149.0611	3.4500e-003	3.5200e-003	150.1959
Total	**0.0548**	**0.0338**	**0.5488**	**1.4700e-003**	**0.1677**	**7.8000e-004**	**0.1685**	**0.0445**	**7.2000e-004**	**0.0452**		**149.0611**	**149.0611**	**3.4500e-003**	**3.5200e-003**	**150.1959**

Collier Commercial Project - Riverside-South Coast County, Summer

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

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.5046					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**0.7091**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9400e-003	2.5500e-003	0.0398	1.0000e-004	0.0112	6.0000e-005	0.0112	2.9600e-003	5.0000e-005	3.0200e-003		10.2689	10.2689	2.6000e-004	2.5000e-004	10.3511
Total	**3.9400e-003**	**2.5500e-003**	**0.0398**	**1.0000e-004**	**0.0112**	**6.0000e-005**	**0.0112**	**2.9600e-003**	**5.0000e-005**	**3.0200e-003**		**10.2689**	**10.2689**	**2.6000e-004**	**2.5000e-004**	**10.3511**

Collier Commercial Project - Riverside-South Coast County, Summer

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

3.6 Architectural Coating - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.5046					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**0.7091**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9400e-003	2.5500e-003	0.0398	1.0000e-004	0.0112	6.0000e-005	0.0112	2.9600e-003	5.0000e-005	3.0200e-003		10.2689	10.2689	2.6000e-004	2.5000e-004	10.3511
Total	**3.9400e-003**	**2.5500e-003**	**0.0398**	**1.0000e-004**	**0.0112**	**6.0000e-005**	**0.0112**	**2.9600e-003**	**5.0000e-005**	**3.0200e-003**		**10.2689**	**10.2689**	**2.6000e-004**	**2.5000e-004**	**10.3511**

Collier Commercial Project - Riverside-South Coast County, Summer

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

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.5046					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**0.6963**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6500e-003	2.2600e-003	0.0366	1.0000e-004	0.0112	5.0000e-005	0.0112	2.9600e-003	5.0000e-005	3.0100e-003		9.9374	9.9374	2.3000e-004	2.3000e-004	10.0131
Total	**3.6500e-003**	**2.2600e-003**	**0.0366**	**1.0000e-004**	**0.0112**	**5.0000e-005**	**0.0112**	**2.9600e-003**	**5.0000e-005**	**3.0100e-003**		**9.9374**	**9.9374**	**2.3000e-004**	**2.3000e-004**	**10.0131**

Collier Commercial Project - Riverside-South Coast County, Summer

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

3.6 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.5046					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**0.6963**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6500e-003	2.2600e-003	0.0366	1.0000e-004	0.0112	5.0000e-005	0.0112	2.9600e-003	5.0000e-005	3.0100e-003		9.9374	9.9374	2.3000e-004	2.3000e-004	10.0131
Total	**3.6500e-003**	**2.2600e-003**	**0.0366**	**1.0000e-004**	**0.0112**	**5.0000e-005**	**0.0112**	**2.9600e-003**	**5.0000e-005**	**3.0100e-003**		**9.9374**	**9.9374**	**2.3000e-004**	**2.3000e-004**	**10.0131**

Collier Commercial Project - Riverside-South Coast County, Summer

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.4169	0.5986	4.5526	0.0109	1.1155	8.2000e-003	1.1237	0.2976	7.6900e-003	0.3053		1,109.0060	1,109.0060	0.0496	0.0488	1,124.7920
Unmitigated	0.4169	0.5986	4.5526	0.0109	1.1155	8.2000e-003	1.1237	0.2976	7.6900e-003	0.3053		1,109.0060	1,109.0060	0.0496	0.0488	1,124.7920

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	119.22	119.22	119.22	527,945	527,945
Total	119.22	119.22	119.22	527,945	527,945

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189

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

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0114	0.1040	0.0874	6.2000e-004		7.9000e-003	7.9000e-003		7.9000e-003	7.9000e-003		124.7870	124.7870	2.3900e-003	2.2900e-003	125.5286
NaturalGas Unmitigated	0.0114	0.1040	0.0874	6.2000e-004		7.9000e-003	7.9000e-003		7.9000e-003	7.9000e-003		124.7870	124.7870	2.3900e-003	2.2900e-003	125.5286

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	1060.69	0.0114	0.1040	0.0874	6.2000e-004		7.9000e-003	7.9000e-003		7.9000e-003	7.9000e-003		124.7870	124.7870	2.3900e-003	2.2900e-003	125.5286
Total		**0.0114**	**0.1040**	**0.0874**	**6.2000e-004**		**7.9000e-003**	**7.9000e-003**		**7.9000e-003**	**7.9000e-003**		**124.7870**	**124.7870**	**2.3900e-003**	**2.2900e-003**	**125.5286**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	1.06069	0.0114	0.1040	0.0874	6.2000e-004		7.9000e-003	7.9000e-003		7.9000e-003	7.9000e-003		124.7870	124.7870	2.3900e-003	2.2900e-003	125.5286
Total		**0.0114**	**0.1040**	**0.0874**	**6.2000e-004**		**7.9000e-003**	**7.9000e-003**		**7.9000e-003**	**7.9000e-003**		**124.7870**	**124.7870**	**2.3900e-003**	**2.2900e-003**	**125.5286**

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.2676	1.0000e-005	1.2200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.6200e-003	2.6200e-003	1.0000e-005		2.7900e-003
Unmitigated	0.2676	1.0000e-005	1.2200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.6200e-003	2.6200e-003	1.0000e-005		2.7900e-003

Collier Commercial Project - Riverside-South Coast County, Summer

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

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0304					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.2371					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.1000e-004	1.0000e-005	1.2200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.6200e-003	2.6200e-003	1.0000e-005		2.7900e-003
Total	**0.2676**	**1.0000e-005**	**1.2200e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.6200e-003**	**2.6200e-003**	**1.0000e-005**		**2.7900e-003**

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0304					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.2371					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.1000e-004	1.0000e-005	1.2200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.6200e-003	2.6200e-003	1.0000e-005		2.7900e-003
Total	**0.2676**	**1.0000e-005**	**1.2200e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.6200e-003**	**2.6200e-003**	**1.0000e-005**		**2.7900e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

Collier Commercial Project - Riverside-South Coast County, Winter

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

Collier Commercial Project

Riverside-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	11.97	1000sqft	2.80	11,975.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Lot acreage totals 2.8 acres

Construction Phase - construction, paving, and architecural coating will be happening simultaneously

Mobile Land Use Mitigation -

Area Mitigation -

Vehicle Trips - corrected trip rate to meet Traffic Study's amount of 119 daily trips

Construction Off-road Equipment Mitigation - Rule 403

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	220.00
tblConstructionPhase	NumDays	10.00	220.00

Collier Commercial Project - Riverside-South Coast County, Winter

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

tblConstructionPhase	PhaseEndDate	3/31/2023	3/3/2023
tblConstructionPhase	PhaseEndDate	3/17/2023	3/3/2023
tblConstructionPhase	PhaseStartDate	3/18/2023	5/2/2022
tblConstructionPhase	PhaseStartDate	4/30/2022	5/2/2022
tblConstructionPhase	PhaseStartDate	3/4/2023	5/2/2022
tblLandUse	LandUseSquareFeet	11,970.00	11,975.00
tblLandUse	LotAcreage	0.27	2.80
tblVehicleTrips	ST_TR	1.99	9.96
tblVehicleTrips	SU_TR	5.00	9.96
tblVehicleTrips	WD_TR	4.96	9.96

2.0 Emissions Summary

Collier Commercial Project - Riverside-South Coast County, Winter

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

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	3.5862	25.4894	28.5719	0.0481	7.1944	1.2741	7.9372	3.4544	1.2070	4.1378	0.0000	4,514.3828	4,514.3828	1.0076	0.0112	4,542.9096
2023	3.3641	23.6552	28.3613	0.0481	0.2475	1.1199	1.3675	0.0659	1.0607	1.1266	0.0000	4,507.1990	4,507.1990	0.9969	0.0105	4,535.2625
Maximum	**3.5862**	**25.4894**	**28.5719**	**0.0481**	**7.1944**	**1.2741**	**7.9372**	**3.4544**	**1.2070**	**4.1378**	**0.0000**	**4,514.3828**	**4,514.3828**	**1.0076**	**0.0112**	**4,542.9096**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	3.5862	25.4894	28.5719	0.0481	2.8740	1.2741	3.6168	1.3653	1.2070	2.0487	0.0000	4,514.3828	4,514.3828	1.0076	0.0112	4,542.9096
2023	3.3641	23.6552	28.3613	0.0481	0.2475	1.1199	1.3675	0.0659	1.0607	1.1266	0.0000	4,507.1990	4,507.1990	0.9969	0.0105	4,535.2625
Maximum	**3.5862**	**25.4894**	**28.5719**	**0.0481**	**2.8740**	**1.2741**	**3.6168**	**1.3653**	**1.2070**	**2.0487**	**0.0000**	**4,514.3828**	**4,514.3828**	**1.0076**	**0.0112**	**4,542.9096**

Collier Commercial Project - Riverside-South Coast County, Winter

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	58.05	0.00	46.43	59.34	0.00	39.68	0.00	0.00	0.00	0.00	0.00	0.00

Collier Commercial Project - Riverside-South Coast County, Winter

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.2676	1.0000e-005	1.2200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.6200e-003	2.6200e-003	1.0000e-005		2.7900e-003
Energy	0.0114	0.1040	0.0874	6.2000e-004		7.9000e-003	7.9000e-003		7.9000e-003	7.9000e-003		124.7870	124.7870	2.3900e-003	2.2900e-003	125.5286
Mobile	0.3613	0.6349	3.9793	0.0101	1.1155	8.2100e-003	1.1237	0.2976	7.7000e-003	0.3053		1,029.4889	1,029.4889	0.0502	0.0498	1,045.5890
Total	**0.6404**	**0.7389**	**4.0679**	**0.0107**	**1.1155**	**0.0161**	**1.1316**	**0.2976**	**0.0156**	**0.3132**		**1,154.2785**	**1,154.2785**	**0.0526**	**0.0521**	**1,171.1203**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.2676	1.0000e-005	1.2200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.6200e-003	2.6200e-003	1.0000e-005		2.7900e-003
Energy	0.0114	0.1040	0.0874	6.2000e-004		7.9000e-003	7.9000e-003		7.9000e-003	7.9000e-003		124.7870	124.7870	2.3900e-003	2.2900e-003	125.5286
Mobile	0.3613	0.6349	3.9793	0.0101	1.1155	8.2100e-003	1.1237	0.2976	7.7000e-003	0.3053		1,029.4889	1,029.4889	0.0502	0.0498	1,045.5890
Total	**0.6404**	**0.7389**	**4.0679**	**0.0107**	**1.1155**	**0.0161**	**1.1316**	**0.2976**	**0.0156**	**0.3132**		**1,154.2785**	**1,154.2785**	**0.0526**	**0.0521**	**1,171.1203**

Collier Commercial Project - Riverside-South Coast County, Winter

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	4/19/2022	4/21/2022	5	3	
2	Grading	Grading	4/22/2022	4/29/2022	5	6	
3	Building Construction	Building Construction	5/2/2022	3/3/2023	5	220	
4	Paving	Paving	5/2/2022	3/3/2023	5	220	
5	Architectural Coating	Architectural Coating	5/2/2022	3/3/2023	5	220	

Acres of Grading (Site Preparation Phase): 4.5

Acres of Grading (Grading Phase): 6

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 17,963; Non-Residential Outdoor: 5,988; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Grading	Graders	1	8.00	187	0.41

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

Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Paving	Paving Equipment	1	8.00	132	0.36
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Site Preparation	Scrapers	1	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	5.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

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

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	1.3784	15.6673	10.0558	0.0245		0.5952	0.5952		0.5476	0.5476		2,375.1569	2,375.1569	0.7682		2,394.3613
Total	**1.3784**	**15.6673**	**10.0558**	**0.0245**	**1.5908**	**0.5952**	**2.1859**	**0.1718**	**0.5476**	**0.7193**		**2,375.1569**	**2,375.1569**	**0.7682**		**2,394.3613**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0294	0.0212	0.2581	7.4000e-004	0.0894	4.4000e-004	0.0899	0.0237	4.1000e-004	0.0241		74.4126	74.4126	2.0300e-003	2.0800e-003	75.0838
Total	**0.0294**	**0.0212**	**0.2581**	**7.4000e-004**	**0.0894**	**4.4000e-004**	**0.0899**	**0.0237**	**4.1000e-004**	**0.0241**		**74.4126**	**74.4126**	**2.0300e-003**	**2.0800e-003**	**75.0838**

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

3.2 Site Preparation - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6204	0.0000	0.6204	0.0670	0.0000	0.0670			0.0000			0.0000
Off-Road	1.3784	15.6673	10.0558	0.0245		0.5952	0.5952		0.5476	0.5476	0.0000	2,375.1569	2,375.1569	0.7682		2,394.3613
Total	**1.3784**	**15.6673**	**10.0558**	**0.0245**	**0.6204**	**0.5952**	**1.2156**	**0.0670**	**0.5476**	**0.6146**	**0.0000**	**2,375.1569**	**2,375.1569**	**0.7682**		**2,394.3613**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0294	0.0212	0.2581	7.4000e-004	0.0894	4.4000e-004	0.0899	0.0237	4.1000e-004	0.0241		74.4126	74.4126	2.0300e-003	2.0800e-003	75.0838
Total	**0.0294**	**0.0212**	**0.2581**	**7.4000e-004**	**0.0894**	**4.4000e-004**	**0.0899**	**0.0237**	**4.1000e-004**	**0.0241**		**74.4126**	**74.4126**	**2.0300e-003**	**2.0800e-003**	**75.0838**

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

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829		1,995.4825	1,995.4825	0.6454		2,011.6169
Total	**1.5403**	**16.9836**	**9.2202**	**0.0206**	**7.0826**	**0.7423**	**7.8249**	**3.4247**	**0.6829**	**4.1076**		**1,995.4825**	**1,995.4825**	**0.6454**		**2,011.6169**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0368	0.0265	0.3226	9.2000e-004	0.1118	5.6000e-004	0.1123	0.0296	5.1000e-004	0.0302		93.0158	93.0158	2.5400e-003	2.6000e-003	93.8548
Total	**0.0368**	**0.0265**	**0.3226**	**9.2000e-004**	**0.1118**	**5.6000e-004**	**0.1123**	**0.0296**	**5.1000e-004**	**0.0302**		**93.0158**	**93.0158**	**2.5400e-003**	**2.6000e-003**	**93.8548**

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

3.3 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.7622	0.0000	2.7622	1.3357	0.0000	1.3357			0.0000			0.0000
Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829	0.0000	1,995.4825	1,995.4825	0.6454		2,011.6169
Total	**1.5403**	**16.9836**	**9.2202**	**0.0206**	**2.7622**	**0.7423**	**3.5045**	**1.3357**	**0.6829**	**2.0186**	**0.0000**	**1,995.4825**	**1,995.4825**	**0.6454**		**2,011.6169**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0368	0.0265	0.3226	9.2000e-004	0.1118	5.6000e-004	0.1123	0.0296	5.1000e-004	0.0302		93.0158	93.0158	2.5400e-003	2.6000e-003	93.8548
Total	**0.0368**	**0.0265**	**0.3226**	**9.2000e-004**	**0.1118**	**5.6000e-004**	**0.1123**	**0.0296**	**5.1000e-004**	**0.0302**		**93.0158**	**93.0158**	**2.5400e-003**	**2.6000e-003**	**93.8548**

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

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731		2,289.2813	2,289.2813	0.4417		2,300.3230
Total	**1.8555**	**14.6040**	**14.3533**	**0.0250**		**0.7022**	**0.7022**		**0.6731**	**0.6731**		**2,289.2813**	**2,289.2813**	**0.4417**		**2,300.3230**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.1200e-003	0.0891	0.0305	3.6000e-004	0.0128	1.2200e-003	0.0140	3.6900e-003	1.1700e-003	4.8600e-003		38.6312	38.6312	4.0000e-004	5.7300e-003	40.3497
Worker	0.0184	0.0133	0.1613	4.6000e-004	0.0559	2.8000e-004	0.0562	0.0148	2.6000e-004	0.0151		46.5079	46.5079	1.2700e-003	1.3000e-003	46.9274
Total	**0.0215**	**0.1024**	**0.1919**	**8.2000e-004**	**0.0687**	**1.5000e-003**	**0.0702**	**0.0185**	**1.4300e-003**	**0.0199**		**85.1390**	**85.1390**	**1.6700e-003**	**7.0300e-003**	**87.2771**

Collier Commercial Project - Riverside-South Coast County, Winter

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

3.4 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731	0.0000	2,289.2813	2,289.2813	0.4417		2,300.3230
Total	**1.8555**	**14.6040**	**14.3533**	**0.0250**		**0.7022**	**0.7022**		**0.6731**	**0.6731**	**0.0000**	**2,289.2813**	**2,289.2813**	**0.4417**		**2,300.3230**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.1200e-003	0.0891	0.0305	3.6000e-004	0.0128	1.2200e-003	0.0140	3.6900e-003	1.1700e-003	4.8600e-003		38.6312	38.6312	4.0000e-004	5.7300e-003	40.3497
Worker	0.0184	0.0133	0.1613	4.6000e-004	0.0559	2.8000e-004	0.0562	0.0148	2.6000e-004	0.0151		46.5079	46.5079	1.2700e-003	1.3000e-003	46.9274
Total	**0.0215**	**0.1024**	**0.1919**	**8.2000e-004**	**0.0687**	**1.5000e-003**	**0.0702**	**0.0185**	**1.4300e-003**	**0.0199**		**85.1390**	**85.1390**	**1.6700e-003**	**7.0300e-003**	**87.2771**

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

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7136	13.6239	14.2145	0.0250		0.6136	0.6136		0.5880	0.5880		2,289.5233	2,289.5233	0.4330		2,300.3479
Total	**1.7136**	**13.6239**	**14.2145**	**0.0250**		**0.6136**	**0.6136**		**0.5880**	**0.5880**		**2,289.5233**	**2,289.5233**	**0.4330**		**2,300.3479**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0900e-003	0.0693	0.0278	3.5000e-004	0.0128	5.7000e-004	0.0134	3.6900e-003	5.5000e-004	4.2300e-003		37.1462	37.1462	3.7000e-004	5.4900e-003	38.7926
Worker	0.0171	0.0117	0.1486	4.5000e-004	0.0559	2.6000e-004	0.0562	0.0148	2.4000e-004	0.0151		45.0212	45.0212	1.1400e-003	1.2000e-003	45.4075
Total	**0.0192**	**0.0810**	**0.1764**	**8.0000e-004**	**0.0687**	**8.3000e-004**	**0.0695**	**0.0185**	**7.9000e-004**	**0.0193**		**82.1673**	**82.1673**	**1.5100e-003**	**6.6900e-003**	**84.2001**

Collier Commercial Project - Riverside-South Coast County, Winter

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

3.4 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7136	13.6239	14.2145	0.0250		0.6136	0.6136		0.5880	0.5880	0.0000	2,289.5233	2,289.5233	0.4330		2,300.3479
Total	**1.7136**	**13.6239**	**14.2145**	**0.0250**		**0.6136**	**0.6136**		**0.5880**	**0.5880**	**0.0000**	**2,289.5233**	**2,289.5233**	**0.4330**		**2,300.3479**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0900e-003	0.0693	0.0278	3.5000e-004	0.0128	5.7000e-004	0.0134	3.6900e-003	5.5000e-004	4.2300e-003		37.1462	37.1462	3.7000e-004	5.4900e-003	38.7926
Worker	0.0171	0.0117	0.1486	4.5000e-004	0.0559	2.6000e-004	0.0562	0.0148	2.4000e-004	0.0151		45.0212	45.0212	1.1400e-003	1.2000e-003	45.4075
Total	**0.0192**	**0.0810**	**0.1764**	**8.0000e-004**	**0.0687**	**8.3000e-004**	**0.0695**	**0.0185**	**7.9000e-004**	**0.0193**		**82.1673**	**82.1673**	**1.5100e-003**	**6.6900e-003**	**84.2001**

Collier Commercial Project - Riverside-South Coast County, Winter

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

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9412	9.3322	11.6970	0.0179		0.4879	0.4879		0.4500	0.4500		1,709.6892	1,709.6892	0.5419		1,723.2356
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9412**	**9.3322**	**11.6970**	**0.0179**		**0.4879**	**0.4879**		**0.4500**	**0.4500**		**1,709.6892**	**1,709.6892**	**0.5419**		**1,723.2356**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0552	0.0398	0.4840	1.3800e-003	0.1677	8.3000e-004	0.1685	0.0445	7.7000e-004	0.0452		139.5236	139.5236	3.8100e-003	3.9000e-003	140.7822
Total	**0.0552**	**0.0398**	**0.4840**	**1.3800e-003**	**0.1677**	**8.3000e-004**	**0.1685**	**0.0445**	**7.7000e-004**	**0.0452**		**139.5236**	**139.5236**	**3.8100e-003**	**3.9000e-003**	**140.7822**

Collier Commercial Project - Riverside-South Coast County, Winter

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

3.5 Paving - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9412	9.3322	11.6970	0.0179		0.4879	0.4879		0.4500	0.4500	0.0000	1,709.6892	1,709.6892	0.5419		1,723.2356
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9412**	**9.3322**	**11.6970**	**0.0179**		**0.4879**	**0.4879**		**0.4500**	**0.4500**	**0.0000**	**1,709.6892**	**1,709.6892**	**0.5419**		**1,723.2356**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0552	0.0398	0.4840	1.3800e-003	0.1677	8.3000e-004	0.1685	0.0445	7.7000e-004	0.0452		139.5236	139.5236	3.8100e-003	3.9000e-003	140.7822
Total	**0.0552**	**0.0398**	**0.4840**	**1.3800e-003**	**0.1677**	**8.3000e-004**	**0.1685**	**0.0445**	**7.7000e-004**	**0.0452**		**139.5236**	**139.5236**	**3.8100e-003**	**3.9000e-003**	**140.7822**

Collier Commercial Project - Riverside-South Coast County, Winter

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

3.5 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8802	8.6098	11.6840	0.0179		0.4338	0.4338		0.4003	0.4003		1,709.9926	1,709.9926	0.5420		1,723.5414
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8802**	**8.6098**	**11.6840**	**0.0179**		**0.4338**	**0.4338**		**0.4003**	**0.4003**		**1,709.9926**	**1,709.9926**	**0.5420**		**1,723.5414**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0513	0.0351	0.4456	1.3400e-003	0.1677	7.8000e-004	0.1685	0.0445	7.2000e-004	0.0452		135.0635	135.0635	3.4300e-003	3.6000e-003	136.2226
Total	**0.0513**	**0.0351**	**0.4456**	**1.3400e-003**	**0.1677**	**7.8000e-004**	**0.1685**	**0.0445**	**7.2000e-004**	**0.0452**		**135.0635**	**135.0635**	**3.4300e-003**	**3.6000e-003**	**136.2226**

Collier Commercial Project - Riverside-South Coast County, Winter

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

3.5 Paving - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8802	8.6098	11.6840	0.0179		0.4338	0.4338		0.4003	0.4003	0.0000	1,709.9926	1,709.9926	0.5420		1,723.5414
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8802**	**8.6098**	**11.6840**	**0.0179**		**0.4338**	**0.4338**		**0.4003**	**0.4003**	**0.0000**	**1,709.9926**	**1,709.9926**	**0.5420**		**1,723.5414**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0513	0.0351	0.4456	1.3400e-003	0.1677	7.8000e-004	0.1685	0.0445	7.2000e-004	0.0452		135.0635	135.0635	3.4300e-003	3.6000e-003	136.2226
Total	**0.0513**	**0.0351**	**0.4456**	**1.3400e-003**	**0.1677**	**7.8000e-004**	**0.1685**	**0.0445**	**7.2000e-004**	**0.0452**		**135.0635**	**135.0635**	**3.4300e-003**	**3.6000e-003**	**136.2226**

Collier Commercial Project - Riverside-South Coast County, Winter

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

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.5046					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**0.7091**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6800e-003	2.6500e-003	0.0323	9.0000e-005	0.0112	6.0000e-005	0.0112	2.9600e-003	5.0000e-005	3.0200e-003		9.3016	9.3016	2.5000e-004	2.6000e-004	9.3855
Total	**3.6800e-003**	**2.6500e-003**	**0.0323**	**9.0000e-005**	**0.0112**	**6.0000e-005**	**0.0112**	**2.9600e-003**	**5.0000e-005**	**3.0200e-003**		**9.3016**	**9.3016**	**2.5000e-004**	**2.6000e-004**	**9.3855**

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

3.6 Architectural Coating - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.5046					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**0.7091**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6800e-003	2.6500e-003	0.0323	9.0000e-005	0.0112	6.0000e-005	0.0112	2.9600e-003	5.0000e-005	3.0200e-003		9.3016	9.3016	2.5000e-004	2.6000e-004	9.3855
Total	**3.6800e-003**	**2.6500e-003**	**0.0323**	**9.0000e-005**	**0.0112**	**6.0000e-005**	**0.0112**	**2.9600e-003**	**5.0000e-005**	**3.0200e-003**		**9.3016**	**9.3016**	**2.5000e-004**	**2.6000e-004**	**9.3855**

Collier Commercial Project - Riverside-South Coast County, Winter

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

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.5046					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**0.6963**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.4200e-003	2.3400e-003	0.0297	9.0000e-005	0.0112	5.0000e-005	0.0112	2.9600e-003	5.0000e-005	3.0100e-003		9.0042	9.0042	2.3000e-004	2.4000e-004	9.0815
Total	**3.4200e-003**	**2.3400e-003**	**0.0297**	**9.0000e-005**	**0.0112**	**5.0000e-005**	**0.0112**	**2.9600e-003**	**5.0000e-005**	**3.0100e-003**		**9.0042**	**9.0042**	**2.3000e-004**	**2.4000e-004**	**9.0815**

Collier Commercial Project - Riverside-South Coast County, Winter

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

3.6 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.5046					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**0.6963**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.4200e-003	2.3400e-003	0.0297	9.0000e-005	0.0112	5.0000e-005	0.0112	2.9600e-003	5.0000e-005	3.0100e-003		9.0042	9.0042	2.3000e-004	2.4000e-004	9.0815
Total	**3.4200e-003**	**2.3400e-003**	**0.0297**	**9.0000e-005**	**0.0112**	**5.0000e-005**	**0.0112**	**2.9600e-003**	**5.0000e-005**	**3.0100e-003**		**9.0042**	**9.0042**	**2.3000e-004**	**2.4000e-004**	**9.0815**

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.3613	0.6349	3.9793	0.0101	1.1155	8.2100e-003	1.1237	0.2976	7.7000e-003	0.3053		1,029.4889	1,029.4889	0.0502	0.0498	1,045.5890
Unmitigated	0.3613	0.6349	3.9793	0.0101	1.1155	8.2100e-003	1.1237	0.2976	7.7000e-003	0.3053		1,029.4889	1,029.4889	0.0502	0.0498	1,045.5890

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	119.22	119.22	119.22	527,945	527,945
Total	119.22	119.22	119.22	527,945	527,945

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189

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

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0114	0.1040	0.0874	6.2000e-004		7.9000e-003	7.9000e-003		7.9000e-003	7.9000e-003		124.7870	124.7870	2.3900e-003	2.2900e-003	125.5286
NaturalGas Unmitigated	0.0114	0.1040	0.0874	6.2000e-004		7.9000e-003	7.9000e-003		7.9000e-003	7.9000e-003		124.7870	124.7870	2.3900e-003	2.2900e-003	125.5286

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	1060.69	0.0114	0.1040	0.0874	6.2000e-004		7.9000e-003	7.9000e-003		7.9000e-003	7.9000e-003		124.7870	124.7870	2.3900e-003	2.2900e-003	125.5286
Total		**0.0114**	**0.1040**	**0.0874**	**6.2000e-004**		**7.9000e-003**	**7.9000e-003**		**7.9000e-003**	**7.9000e-003**		**124.7870**	**124.7870**	**2.3900e-003**	**2.2900e-003**	**125.5286**

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

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	1.06069	0.0114	0.1040	0.0874	6.2000e-004		7.9000e-003	7.9000e-003		7.9000e-003	7.9000e-003		124.7870	124.7870	2.3900e-003	2.2900e-003	125.5286
Total		**0.0114**	**0.1040**	**0.0874**	**6.2000e-004**		**7.9000e-003**	**7.9000e-003**		**7.9000e-003**	**7.9000e-003**		**124.7870**	**124.7870**	**2.3900e-003**	**2.2900e-003**	**125.5286**

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.2676	1.0000e-005	1.2200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.6200e-003	2.6200e-003	1.0000e-005		2.7900e-003
Unmitigated	0.2676	1.0000e-005	1.2200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.6200e-003	2.6200e-003	1.0000e-005		2.7900e-003

Collier Commercial Project - Riverside-South Coast County, Winter

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

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0304					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.2371					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.1000e-004	1.0000e-005	1.2200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.6200e-003	2.6200e-003	1.0000e-005		2.7900e-003
Total	**0.2676**	**1.0000e-005**	**1.2200e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.6200e-003**	**2.6200e-003**	**1.0000e-005**		**2.7900e-003**

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0304					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.2371					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.1000e-004	1.0000e-005	1.2200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.6200e-003	2.6200e-003	1.0000e-005		2.7900e-003
Total	**0.2676**	**1.0000e-005**	**1.2200e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.6200e-003**	**2.6200e-003**	**1.0000e-005**		**2.7900e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

ATTACHMENT B

CalEEMod Output Files – Greenhouse Gas Emissions

Collier Commercial Project - Riverside-South Coast County, Annual

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

Collier Commercial Project

Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	11.97	1000sqft	2.80	11,975.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Lot acreage totals 2.8 acres

Construction Phase - construction, paving, and architecural coating will be happening simultaneously

Mobile Land Use Mitigation -

Area Mitigation -

Vehicle Trips - corrected trip rate to meet Traffic Study's amount of 119 daily trips

Construction Off-road Equipment Mitigation - Rule 403

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	220.00
tblConstructionPhase	NumDays	10.00	220.00

Collier Commercial Project - Riverside-South Coast County, Annual

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

tblConstructionPhase	PhaseEndDate	3/31/2023	3/3/2023
tblConstructionPhase	PhaseEndDate	3/17/2023	3/3/2023
tblConstructionPhase	PhaseStartDate	3/18/2023	5/2/2022
tblConstructionPhase	PhaseStartDate	4/30/2022	5/2/2022
tblConstructionPhase	PhaseStartDate	3/4/2023	5/2/2022
tblLandUse	LandUseSquareFeet	11,970.00	11,975.00
tblLandUse	LotAcreage	0.27	2.80
tblVehicleTrips	ST_TR	1.99	9.96
tblVehicleTrips	SU_TR	5.00	9.96
tblVehicleTrips	WD_TR	4.96	9.96

2.0 Emissions Summary

Collier Commercial Project - Riverside-South Coast County, Annual

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

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.3203	2.3050	2.5474	4.3200e-003	0.0454	0.1146	0.1600	0.0163	0.1085	0.1248	0.0000	367.7314	367.7314	0.0828	9.1000e-004	370.0716
2023	0.0756	0.5323	0.6389	1.0800e-003	5.4800e-003	0.0252	0.0307	1.4600e-003	0.0239	0.0253	0.0000	92.0881	92.0881	0.0204	2.2000e-004	92.6615
Maximum	**0.3203**	**2.3050**	**2.5474**	**4.3200e-003**	**0.0454**	**0.1146**	**0.1600**	**0.0163**	**0.1085**	**0.1248**	**0.0000**	**367.7314**	**367.7314**	**0.0828**	**9.1000e-004**	**370.0716**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.3203	2.3050	2.5474	4.3200e-003	0.0310	0.1146	0.1456	9.9100e-003	0.1085	0.1184	0.0000	367.7310	367.7310	0.0828	9.1000e-004	370.0712
2023	0.0756	0.5323	0.6389	1.0800e-003	5.4800e-003	0.0252	0.0307	1.4600e-003	0.0239	0.0253	0.0000	92.0880	92.0880	0.0204	2.2000e-004	92.6614
Maximum	**0.3203**	**2.3050**	**2.5474**	**4.3200e-003**	**0.0310**	**0.1146**	**0.1456**	**9.9100e-003**	**0.1085**	**0.1184**	**0.0000**	**367.7310**	**367.7310**	**0.0828**	**9.1000e-004**	**370.0712**

Collier Commercial Project - Riverside-South Coast County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**28.34**	**0.00**	**7.56**	**36.12**	**0.00**	**4.28**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**4-19-2022**	**7-18-2022**	0.8814	0.8814
2	**7-19-2022**	**10-18-2022**	0.9553	0.9553
3	**10-19-2022**	**1-18-2023**	0.9421	0.9421
4	**1-19-2023**	**4-18-2023**	0.4246	0.4246
		Highest	0.9553	0.9553

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0488	0.0000	1.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0000e-004	3.0000e-004	0.0000	0.0000	3.2000e-004
Energy	2.0900e-003	0.0190	0.0159	1.1000e-004		1.4400e-003	1.4400e-003		1.4400e-003	1.4400e-003	0.0000	41.7271	41.7271	2.1700e-003	5.9000e-004	41.9586
Mobile	0.0665	0.1164	0.7503	1.8700e-003	0.1997	1.4900e-003	0.2012	0.0533	1.4000e-003	0.0547	0.0000	172.6891	172.6891	8.2900e-003	8.2700e-003	175.3620
Waste						0.0000	0.0000		0.0000	0.0000	3.0124	0.0000	3.0124	0.1780	0.0000	7.4631
Water						0.0000	0.0000		0.0000	0.0000	0.8782	6.3921	7.2702	0.0907	2.2000e-003	10.1928
Total	**0.1174**	**0.1354**	**0.7664**	**1.9800e-003**	**0.1997**	**2.9300e-003**	**0.2026**	**0.0533**	**2.8400e-003**	**0.0562**	**3.8906**	**220.8086**	**224.6992**	**0.2792**	**0.0111**	**234.9767**

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

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0488	0.0000	1.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0000e-004	3.0000e-004	0.0000	0.0000	3.2000e-004
Energy	2.0900e-003	0.0190	0.0159	1.1000e-004		1.4400e-003	1.4400e-003		1.4400e-003	1.4400e-003	0.0000	41.7271	41.7271	2.1700e-003	5.9000e-004	41.9586
Mobile	0.0665	0.1164	0.7503	1.8700e-003	0.1997	1.4900e-003	0.2012	0.0533	1.4000e-003	0.0547	0.0000	172.6891	172.6891	8.2900e-003	8.2700e-003	175.3620
Waste						0.0000	0.0000		0.0000	0.0000	3.0124	0.0000	3.0124	0.1780	0.0000	7.4631
Water						0.0000	0.0000		0.0000	0.0000	0.8782	6.3921	7.2702	0.0907	2.2000e-003	10.1928
Total	**0.1174**	**0.1354**	**0.7664**	**1.9800e-003**	**0.1997**	**2.9300e-003**	**0.2026**	**0.0533**	**2.8400e-003**	**0.0562**	**3.8906**	**220.8086**	**224.6992**	**0.2792**	**0.0111**	**234.9767**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	4/19/2022	4/21/2022	5	3	
2	Grading	Grading	4/22/2022	4/29/2022	5	6	
3	Building Construction	Building Construction	5/2/2022	3/3/2023	5	220	

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

4	Paving	Paving	5/2/2022	3/3/2023	5	220	
5	Architectural Coating	Architectural Coating	5/2/2022	3/3/2023	5	220	

Acres of Grading (Site Preparation Phase): 4.5

Acres of Grading (Grading Phase): 6

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 17,963; Non-Residential Outdoor: 5,988; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Grading	Graders	1	8.00	187	0.41
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Paving	Paving Equipment	1	8.00	132	0.36
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Site Preparation	Scrapers	1	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45

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

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	5.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3900e-003	0.0000	2.3900e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0700e-003	0.0235	0.0151	4.0000e-005		8.9000e-004	8.9000e-004		8.2000e-004	8.2000e-004	0.0000	3.2321	3.2321	1.0500e-003	0.0000	3.2582
Total	**2.0700e-003**	**0.0235**	**0.0151**	**4.0000e-005**	**2.3900e-003**	**8.9000e-004**	**3.2800e-003**	**2.6000e-004**	**8.2000e-004**	**1.0800e-003**	**0.0000**	**3.2321**	**3.2321**	**1.0500e-003**	**0.0000**	**3.2582**

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

3.2 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	3.0000e-005	4.1000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1036	0.1036	0.0000	0.0000	0.1046
Total	**4.0000e-005**	**3.0000e-005**	**4.1000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1036**	**0.1036**	**0.0000**	**0.0000**	**0.1046**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.3000e-004	0.0000	9.3000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0700e-003	0.0235	0.0151	4.0000e-005		8.9000e-004	8.9000e-004		8.2000e-004	8.2000e-004	0.0000	3.2321	3.2321	1.0500e-003	0.0000	3.2582
Total	**2.0700e-003**	**0.0235**	**0.0151**	**4.0000e-005**	**9.3000e-004**	**8.9000e-004**	**1.8200e-003**	**1.0000e-004**	**8.2000e-004**	**9.2000e-004**	**0.0000**	**3.2321**	**3.2321**	**1.0500e-003**	**0.0000**	**3.2582**

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

3.2 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	3.0000e-005	4.1000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1036	0.1036	0.0000	0.0000	0.1046
Total	**4.0000e-005**	**3.0000e-005**	**4.1000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1036**	**0.1036**	**0.0000**	**0.0000**	**0.1046**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0213	0.0000	0.0213	0.0103	0.0000	0.0103	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.6200e-003	0.0510	0.0277	6.0000e-005		2.2300e-003	2.2300e-003		2.0500e-003	2.0500e-003	0.0000	5.4308	5.4308	1.7600e-003	0.0000	5.4747
Total	**4.6200e-003**	**0.0510**	**0.0277**	**6.0000e-005**	**0.0213**	**2.2300e-003**	**0.0235**	**0.0103**	**2.0500e-003**	**0.0123**	**0.0000**	**5.4308**	**5.4308**	**1.7600e-003**	**0.0000**	**5.4747**

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

3.3 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-004	8.0000e-005	1.0200e-003	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2591	0.2591	1.0000e-005	1.0000e-005	0.2614
Total	**1.0000e-004**	**8.0000e-005**	**1.0200e-003**	**0.0000**	**3.3000e-004**	**0.0000**	**3.3000e-004**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**0.0000**	**0.2591**	**0.2591**	**1.0000e-005**	**1.0000e-005**	**0.2614**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.2900e-003	0.0000	8.2900e-003	4.0100e-003	0.0000	4.0100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.6200e-003	0.0510	0.0277	6.0000e-005		2.2300e-003	2.2300e-003		2.0500e-003	2.0500e-003	0.0000	5.4308	5.4308	1.7600e-003	0.0000	5.4747
Total	**4.6200e-003**	**0.0510**	**0.0277**	**6.0000e-005**	**8.2900e-003**	**2.2300e-003**	**0.0105**	**4.0100e-003**	**2.0500e-003**	**6.0600e-003**	**0.0000**	**5.4308**	**5.4308**	**1.7600e-003**	**0.0000**	**5.4747**

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

3.3 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-004	8.0000e-005	1.0200e-003	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2591	0.2591	1.0000e-005	1.0000e-005	0.2614
Total	**1.0000e-004**	**8.0000e-005**	**1.0200e-003**	**0.0000**	**3.3000e-004**	**0.0000**	**3.3000e-004**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**0.0000**	**0.2591**	**0.2591**	**1.0000e-005**	**1.0000e-005**	**0.2614**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1624	1.2779	1.2559	2.1900e-003		0.0614	0.0614		0.0589	0.0589	0.0000	181.7201	181.7201	0.0351	0.0000	182.5966
Total	**0.1624**	**1.2779**	**1.2559**	**2.1900e-003**		**0.0614**	**0.0614**		**0.0589**	**0.0589**	**0.0000**	**181.7201**	**181.7201**	**0.0351**	**0.0000**	**182.5966**

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

3.4 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.8000e-004	7.7700e-003	2.6200e-003	3.0000e-005	1.1100e-003	1.1000e-004	1.2100e-003	3.2000e-004	1.0000e-004	4.2000e-004	0.0000	3.0646	3.0646	3.0000e-005	4.5000e-004	3.2009
Worker	1.5300e-003	1.1900e-003	0.0149	4.0000e-005	4.8100e-003	2.0000e-005	4.8300e-003	1.2800e-003	2.0000e-005	1.3000e-003	0.0000	3.7780	3.7780	1.0000e-004	1.1000e-004	3.8119
Total	**1.8100e-003**	**8.9600e-003**	**0.0175**	**7.0000e-005**	**5.9200e-003**	**1.3000e-004**	**6.0400e-003**	**1.6000e-003**	**1.2000e-004**	**1.7200e-003**	**0.0000**	**6.8425**	**6.8425**	**1.3000e-004**	**5.6000e-004**	**7.0127**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1624	1.2779	1.2559	2.1900e-003		0.0614	0.0614		0.0589	0.0589	0.0000	181.7199	181.7199	0.0351	0.0000	182.5964
Total	**0.1624**	**1.2779**	**1.2559**	**2.1900e-003**		**0.0614**	**0.0614**		**0.0589**	**0.0589**	**0.0000**	**181.7199**	**181.7199**	**0.0351**	**0.0000**	**182.5964**

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

3.4 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.8000e-004	7.7700e-003	2.6200e-003	3.0000e-005	1.1100e-003	1.1000e-004	1.2100e-003	3.2000e-004	1.0000e-004	4.2000e-004	0.0000	3.0646	3.0646	3.0000e-005	4.5000e-004	3.2009
Worker	1.5300e-003	1.1900e-003	0.0149	4.0000e-005	4.8100e-003	2.0000e-005	4.8300e-003	1.2800e-003	2.0000e-005	1.3000e-003	0.0000	3.7780	3.7780	1.0000e-004	1.1000e-004	3.8119
Total	**1.8100e-003**	**8.9600e-003**	**0.0175**	**7.0000e-005**	**5.9200e-003**	**1.3000e-004**	**6.0400e-003**	**1.6000e-003**	**1.2000e-004**	**1.7200e-003**	**0.0000**	**6.8425**	**6.8425**	**1.3000e-004**	**5.6000e-004**	**7.0127**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0386	0.3065	0.3198	5.6000e-004		0.0138	0.0138		0.0132	0.0132	0.0000	46.7330	46.7330	8.8400e-003	0.0000	46.9539
Total	**0.0386**	**0.3065**	**0.3198**	**5.6000e-004**		**0.0138**	**0.0138**		**0.0132**	**0.0132**	**0.0000**	**46.7330**	**46.7330**	**8.8400e-003**	**0.0000**	**46.9539**

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

3.4 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.0000e-005	1.5400e-003	6.1000e-004	1.0000e-005	2.8000e-004	1.0000e-005	3.0000e-004	8.0000e-005	1.0000e-005	9.0000e-005	0.0000	0.7571	0.7571	1.0000e-005	1.1000e-004	0.7907
Worker	3.6000e-004	2.7000e-004	3.5200e-003	1.0000e-005	1.2400e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.3000e-004	0.0000	0.9403	0.9403	2.0000e-005	2.0000e-005	0.9484
Total	**4.1000e-004**	**1.8100e-003**	**4.1300e-003**	**2.0000e-005**	**1.5200e-003**	**2.0000e-005**	**1.5400e-003**	**4.1000e-004**	**2.0000e-005**	**4.2000e-004**	**0.0000**	**1.6975**	**1.6975**	**3.0000e-005**	**1.3000e-004**	**1.7390**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0386	0.3065	0.3198	5.6000e-004		0.0138	0.0138		0.0132	0.0132	0.0000	46.7329	46.7329	8.8400e-003	0.0000	46.9539
Total	**0.0386**	**0.3065**	**0.3198**	**5.6000e-004**		**0.0138**	**0.0138**		**0.0132**	**0.0132**	**0.0000**	**46.7329**	**46.7329**	**8.8400e-003**	**0.0000**	**46.9539**

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

3.4 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.0000e-005	1.5400e-003	6.1000e-004	1.0000e-005	2.8000e-004	1.0000e-005	3.0000e-004	8.0000e-005	1.0000e-005	9.0000e-005	0.0000	0.7571	0.7571	1.0000e-005	1.1000e-004	0.7907
Worker	3.6000e-004	2.7000e-004	3.5200e-003	1.0000e-005	1.2400e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.3000e-004	0.0000	0.9403	0.9403	2.0000e-005	2.0000e-005	0.9484
Total	**4.1000e-004**	**1.8100e-003**	**4.1300e-003**	**2.0000e-005**	**1.5200e-003**	**2.0000e-005**	**1.5400e-003**	**4.1000e-004**	**2.0000e-005**	**4.2000e-004**	**0.0000**	**1.6975**	**1.6975**	**3.0000e-005**	**1.3000e-004**	**1.7390**

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0824	0.8166	1.0235	1.5600e-003		0.0427	0.0427		0.0394	0.0394	0.0000	135.7129	135.7129	0.0430	0.0000	136.7881
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0824**	**0.8166**	**1.0235**	**1.5600e-003**		**0.0427**	**0.0427**		**0.0394**	**0.0394**	**0.0000**	**135.7129**	**135.7129**	**0.0430**	**0.0000**	**136.7881**

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

3.5 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.5900e-003	3.5700e-003	0.0447	1.2000e-004	0.0144	7.0000e-005	0.0145	3.8300e-003	7.0000e-005	3.9000e-003	0.0000	11.3339	11.3339	3.0000e-004	3.2000e-004	11.4356
Total	**4.5900e-003**	**3.5700e-003**	**0.0447**	**1.2000e-004**	**0.0144**	**7.0000e-005**	**0.0145**	**3.8300e-003**	**7.0000e-005**	**3.9000e-003**	**0.0000**	**11.3339**	**11.3339**	**3.0000e-004**	**3.2000e-004**	**11.4356**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0824	0.8166	1.0235	1.5600e-003		0.0427	0.0427		0.0394	0.0394	0.0000	135.7127	135.7127	0.0430	0.0000	136.7880
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0824**	**0.8166**	**1.0235**	**1.5600e-003**		**0.0427**	**0.0427**		**0.0394**	**0.0394**	**0.0000**	**135.7127**	**135.7127**	**0.0430**	**0.0000**	**136.7880**

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

3.5 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.5900e-003	3.5700e-003	0.0447	1.2000e-004	0.0144	7.0000e-005	0.0145	3.8300e-003	7.0000e-005	3.9000e-003	0.0000	11.3339	11.3339	3.0000e-004	3.2000e-004	11.4356
Total	**4.5900e-003**	**3.5700e-003**	**0.0447**	**1.2000e-004**	**0.0144**	**7.0000e-005**	**0.0145**	**3.8300e-003**	**7.0000e-005**	**3.9000e-003**	**0.0000**	**11.3339**	**11.3339**	**3.0000e-004**	**3.2000e-004**	**11.4356**

3.5 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0198	0.1937	0.2629	4.0000e-004		9.7600e-003	9.7600e-003		9.0100e-003	9.0100e-003	0.0000	34.9038	34.9038	0.0111	0.0000	35.1803
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0198**	**0.1937**	**0.2629**	**4.0000e-004**		**9.7600e-003**	**9.7600e-003**		**9.0100e-003**	**9.0100e-003**	**0.0000**	**34.9038**	**34.9038**	**0.0111**	**0.0000**	**35.1803**

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

3.5 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0900e-003	8.1000e-004	0.0106	3.0000e-005	3.7100e-003	2.0000e-005	3.7300e-003	9.9000e-004	2.0000e-005	1.0000e-003	0.0000	2.8210	2.8210	7.0000e-005	7.0000e-005	2.8451
Total	**1.0900e-003**	**8.1000e-004**	**0.0106**	**3.0000e-005**	**3.7100e-003**	**2.0000e-005**	**3.7300e-003**	**9.9000e-004**	**2.0000e-005**	**1.0000e-003**	**0.0000**	**2.8210**	**2.8210**	**7.0000e-005**	**7.0000e-005**	**2.8451**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0198	0.1937	0.2629	4.0000e-004		9.7600e-003	9.7600e-003		9.0100e-003	9.0100e-003	0.0000	34.9037	34.9037	0.0111	0.0000	35.1803
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0198**	**0.1937**	**0.2629**	**4.0000e-004**		**9.7600e-003**	**9.7600e-003**		**9.0100e-003**	**9.0100e-003**	**0.0000**	**34.9037**	**34.9037**	**0.0111**	**0.0000**	**35.1803**

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

3.5 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0900e-003	8.1000e-004	0.0106	3.0000e-005	3.7100e-003	2.0000e-005	3.7300e-003	9.9000e-004	2.0000e-005	1.0000e-003	0.0000	2.8210	2.8210	7.0000e-005	7.0000e-005	2.8451
Total	**1.0900e-003**	**8.1000e-004**	**0.0106**	**3.0000e-005**	**3.7100e-003**	**2.0000e-005**	**3.7300e-003**	**9.9000e-004**	**2.0000e-005**	**1.0000e-003**	**0.0000**	**2.8210**	**2.8210**	**7.0000e-005**	**7.0000e-005**	**2.8451**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0442					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0179	0.1232	0.1587	2.6000e-004		7.1500e-003	7.1500e-003		7.1500e-003	7.1500e-003	0.0000	22.3410	22.3410	1.4500e-003	0.0000	22.3773
Total	**0.0621**	**0.1232**	**0.1587**	**2.6000e-004**		**7.1500e-003**	**7.1500e-003**		**7.1500e-003**	**7.1500e-003**	**0.0000**	**22.3410**	**22.3410**	**1.4500e-003**	**0.0000**	**22.3773**

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

3.6 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.1000e-004	2.4000e-004	2.9800e-003	1.0000e-005	9.6000e-004	0.0000	9.7000e-004	2.6000e-004	0.0000	2.6000e-004	0.0000	0.7556	0.7556	2.0000e-005	2.0000e-005	0.7624
Total	**3.1000e-004**	**2.4000e-004**	**2.9800e-003**	**1.0000e-005**	**9.6000e-004**	**0.0000**	**9.7000e-004**	**2.6000e-004**	**0.0000**	**2.6000e-004**	**0.0000**	**0.7556**	**0.7556**	**2.0000e-005**	**2.0000e-005**	**0.7624**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0442					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0179	0.1232	0.1587	2.6000e-004		7.1500e-003	7.1500e-003		7.1500e-003	7.1500e-003	0.0000	22.3409	22.3409	1.4500e-003	0.0000	22.3773
Total	**0.0621**	**0.1232**	**0.1587**	**2.6000e-004**		**7.1500e-003**	**7.1500e-003**		**7.1500e-003**	**7.1500e-003**	**0.0000**	**22.3409**	**22.3409**	**1.4500e-003**	**0.0000**	**22.3773**

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

3.6 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.1000e-004	2.4000e-004	2.9800e-003	1.0000e-005	9.6000e-004	0.0000	9.7000e-004	2.6000e-004	0.0000	2.6000e-004	0.0000	0.7556	0.7556	2.0000e-005	2.0000e-005	0.7624
Total	**3.1000e-004**	**2.4000e-004**	**2.9800e-003**	**1.0000e-005**	**9.6000e-004**	**0.0000**	**9.7000e-004**	**2.6000e-004**	**0.0000**	**2.6000e-004**	**0.0000**	**0.7556**	**0.7556**	**2.0000e-005**	**2.0000e-005**	**0.7624**

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0114					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3100e-003	0.0293	0.0408	7.0000e-005		1.5900e-003	1.5900e-003		1.5900e-003	1.5900e-003	0.0000	5.7448	5.7448	3.4000e-004	0.0000	5.7534
Total	**0.0157**	**0.0293**	**0.0408**	**7.0000e-005**		**1.5900e-003**	**1.5900e-003**		**1.5900e-003**	**1.5900e-003**	**0.0000**	**5.7448**	**5.7448**	**3.4000e-004**	**0.0000**	**5.7534**

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

3.6 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	5.0000e-005	7.0000e-004	0.0000	2.5000e-004	0.0000	2.5000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.1881	0.1881	0.0000	0.0000	0.1897
Total	**7.0000e-005**	**5.0000e-005**	**7.0000e-004**	**0.0000**	**2.5000e-004**	**0.0000**	**2.5000e-004**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.1881**	**0.1881**	**0.0000**	**0.0000**	**0.1897**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0114					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3100e-003	0.0293	0.0408	7.0000e-005		1.5900e-003	1.5900e-003		1.5900e-003	1.5900e-003	0.0000	5.7448	5.7448	3.4000e-004	0.0000	5.7534
Total	**0.0157**	**0.0293**	**0.0408**	**7.0000e-005**		**1.5900e-003**	**1.5900e-003**		**1.5900e-003**	**1.5900e-003**	**0.0000**	**5.7448**	**5.7448**	**3.4000e-004**	**0.0000**	**5.7534**

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

3.6 Architectural Coating - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	5.0000e-005	7.0000e-004	0.0000	2.5000e-004	0.0000	2.5000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.1881	0.1881	0.0000	0.0000	0.1897
Total	**7.0000e-005**	**5.0000e-005**	**7.0000e-004**	**0.0000**	**2.5000e-004**	**0.0000**	**2.5000e-004**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.1881**	**0.1881**	**0.0000**	**0.0000**	**0.1897**

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0665	0.1164	0.7503	1.8700e-003	0.1997	1.4900e-003	0.2012	0.0533	1.4000e-003	0.0547	0.0000	172.6891	172.6891	8.2900e-003	8.2700e-003	175.3620
Unmitigated	0.0665	0.1164	0.7503	1.8700e-003	0.1997	1.4900e-003	0.2012	0.0533	1.4000e-003	0.0547	0.0000	172.6891	172.6891	8.2900e-003	8.2700e-003	175.3620

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	119.22	119.22	119.22	527,945	527,945
Total	119.22	119.22	119.22	527,945	527,945

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189

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

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	21.0672	21.0672	1.7800e-003	2.2000e-004	21.1759
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	21.0672	21.0672	1.7800e-003	2.2000e-004	21.1759
NaturalGas Mitigated	2.0900e-003	0.0190	0.0159	1.1000e-004		1.4400e-003	1.4400e-003		1.4400e-003	1.4400e-003	0.0000	20.6599	20.6599	4.0000e-004	3.8000e-004	20.7827
NaturalGas Unmitigated	2.0900e-003	0.0190	0.0159	1.1000e-004		1.4400e-003	1.4400e-003		1.4400e-003	1.4400e-003	0.0000	20.6599	20.6599	4.0000e-004	3.8000e-004	20.7827

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	387152	2.0900e-003	0.0190	0.0159	1.1000e-004		1.4400e-003	1.4400e-003		1.4400e-003	1.4400e-003	0.0000	20.6599	20.6599	4.0000e-004	3.8000e-004	20.7827
Total		**2.0900e-003**	**0.0190**	**0.0159**	**1.1000e-004**		**1.4400e-003**	**1.4400e-003**		**1.4400e-003**	**1.4400e-003**	**0.0000**	**20.6599**	**20.6599**	**4.0000e-004**	**3.8000e-004**	**20.7827**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	387152	2.0900e-003	0.0190	0.0159	1.1000e-004		1.4400e-003	1.4400e-003		1.4400e-003	1.4400e-003	0.0000	20.6599	20.6599	4.0000e-004	3.8000e-004	20.7827
Total		**2.0900e-003**	**0.0190**	**0.0159**	**1.1000e-004**		**1.4400e-003**	**1.4400e-003**		**1.4400e-003**	**1.4400e-003**	**0.0000**	**20.6599**	**20.6599**	**4.0000e-004**	**3.8000e-004**	**20.7827**

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

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	118792	21.0672	1.7800e-003	2.2000e-004	21.1759
Total		**21.0672**	**1.7800e-003**	**2.2000e-004**	**21.1759**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	118792	21.0672	1.7800e-003	2.2000e-004	21.1759
Total		**21.0672**	**1.7800e-003**	**2.2000e-004**	**21.1759**

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0488	0.0000	1.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0000e-004	3.0000e-004	0.0000	0.0000	3.2000e-004
Unmitigated	0.0488	0.0000	1.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0000e-004	3.0000e-004	0.0000	0.0000	3.2000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	5.5500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0433					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	1.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0000e-004	3.0000e-004	0.0000	0.0000	3.2000e-004
Total	**0.0488**	**0.0000**	**1.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**3.0000e-004**	**3.0000e-004**	**0.0000**	**0.0000**	**3.2000e-004**

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	5.5500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0433					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	1.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0000e-004	3.0000e-004	0.0000	0.0000	3.2000e-004
Total	**0.0488**	**0.0000**	**1.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**3.0000e-004**	**3.0000e-004**	**0.0000**	**0.0000**	**3.2000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

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

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	7.2702	0.0907	2.2000e-003	10.1928
Unmitigated	7.2702	0.0907	2.2000e-003	10.1928

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	2.76806 / 0	7.2702	0.0907	2.2000e-003	10.1928
Total		**7.2702**	**0.0907**	**2.2000e-003**	**10.1928**

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

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	2.76806 / 0	7.2702	0.0907	2.2000e-003	10.1928
Total		**7.2702**	**0.0907**	**2.2000e-003**	**10.1928**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	3.0124	0.1780	0.0000	7.4631
Unmitigated	3.0124	0.1780	0.0000	7.4631

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

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	14.84	3.0124	0.1780	0.0000	7.4631
Total		**3.0124**	**0.1780**	**0.0000**	**7.4631**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	14.84	3.0124	0.1780	0.0000	7.4631
Total		**3.0124**	**0.1780**	**0.0000**	**7.4631**

9.0 Operational Offroad

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

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Appendix B

Biological Technical Report and Multiple Species Habitat Conservation Plan Consistency Analysis for the Collier Commercial Properties

Biological Technical Report and Multiple Species Habitat Conservation Plan Consistency Analysis for the Collier Commercial Properties

Riverside County, California

Assessor's Parcel Numbers 377-190-002, -003, & -004

Prepared For:

Collier Commercial Properties, LLC
43 Golfview Drive
Dove Canyon, California 92679

Prepared By:

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March 1, 2022
Revised December, 2024

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LIST OF ACRONYMS AND ABBREVIATIONS

Term	Definition
CASSA	Criteria Area Species Survey Area
CDFG	California Department of Fish and Game
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CNPSEI	California Native Plant Society's Electronic Inventory
CRPR	California Rare Plant Rank
CWA	Clean Water Act
ESA	Endangered Species Act
GPS	Global Positioning System
HCP	Habitat Conservation Plan
IA	Implementing Agreement
MBTA	Migratory Bird Treaty Act
MSHCP	Multiple Species Habitat Conservation Plan
NEPA	National Environmental Policy Act
NEPSSA	Narrow Endemic Plant Species Survey Area
NPPA	Native Plant Protection Act
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
RCA	Regional Conservation Authority
RCTLMA	Riverside County Transportation and Land Management Agency
RWQCB	Regional Water Quality Control Board
SAA	Streambed Alteration Agreement
SSAR	Society for the Study of Amphibians and Reptiles
SSC	Species of Special Concern
USACE	U.S. Army Corps of Engineers
USC	U.S. Code
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

1.0 INTRODUCTION

ECORP Consulting, Inc. was retained by Collier Commercial Properties, LLC to provide California Environmental Quality Act (CEQA) services for the proposed Collier Commercial Properties (Project) located in the city of Lake Elsinore, Riverside County, California. A reconnaissance-level biological survey of the Project site was conducted to document the existing biological resources, to assess the habitat for its potential to support sensitive plant and wildlife species, and to determine whether Project-related impacts would occur to sensitive biological resources, as required under CEQA. A burrowing owl (*Athene cunicularia*) habitat assessment of the Project site was conducted concurrently with the biological reconnaissance survey to determine if any suitable burrowing owl habitat or suitable burrowing owl burrows were present. The surveys were conducted in accordance with the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). The MSHCP provides information on plant and wildlife species of concern to the County of Riverside (referred to as Planning Species) and outlines goals for their conservation. Information on the MSHCP can be found at www.rctlma.org (Riverside County Transportation and Land Management Agency [RCTLMA] 2022). The purpose of the study is to comply with the requirements of the MSHCP and identify any biological resources that may require mitigation prior to impacts from development.

1.1 Project Location

The Project site consists of an approximately 2.8-acre area composed of Assessor's Parcel Numbers 377-190-002, 377-190-003, and 377-190-004. The Project is located within the city of Lake Elsinore, south of Collier Avenue and east of Chaney Street in Riverside County (Figures 1 and 2). The Project site is west of industrial development, east of a Riverside County Flood Control and Water Conservation District drainage and detention basin, and north of West Minthorn Street. The Project is depicted on the U.S. Geological Survey (USGS) Lake Elsinore 7.5-minute topographic quadrangle. Elevation at the Project site is approximately 1,280 feet above mean sea level.

1.2 Project Description

The Project proposes the construction of two buildings which include an office, conference room, storage, and an electrical room. Two driveways, parking spaces, a sidewalk, gravel fill, landscaping, and a block wall along the western boundary will also be installed with this Project. It is assumed that the entire 2.8-acre Project site will be developed.

2.0 SPECIAL-STATUS SPECIES REGULATIONS

The biological reconnaissance survey was conducted to identify potential constraints to Project development and ensure compliance with state and federal regulations regarding listed, protected, and sensitive species. The regulations are detailed below.



Location: N:\2022\2022-020 Collier Commercial\MAPS\Location_Vicinity\Collier_Vicinity_V1.mxd (MAG)-mguidry 1/25/2022

Map Date: 1/25/2022

Service Layer Credits: Sources: Esri, USGS, NOAA

Figure 1. Project Vicinity

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Location: N:\2022\2022-020 Collier Commercial\MAPS\Location_Vicinity\Collier_Location_V2.mxd (MAG)-trotellini 2/1/2022

Map Date: 2/1/2022
Base Source: Esri World Streetmap
Photo Source: NAIP (2020)

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Figure 2. Project Location

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2.1 Federal Regulations

2.1.1 The Federal Endangered Species Act

The federal Endangered Species Act (ESA) protects plants and animals that are listed as endangered or threatened by the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service. Section 9 of the ESA prohibits the taking of endangered wildlife, where taking is defined as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct" (50 Code of Federal Regulations [CFR] 17.3). For plants, this statute governs removing, possessing, maliciously damaging, or destroying any endangered plant on federal land and removing, cutting, digging up, damaging, or destroying any endangered plant on non-federal land in knowing violation of state law (16 U.S. Code [USC]1538). Under Section 7 of the ESA, federal agencies are required to consult with the USFWS if their actions, including permit approvals or funding, could adversely affect a listed (or proposed) species (including plants) or its critical habitat. Through consultation and the issuance of a biological opinion, the USFWS may issue an incidental take statement allowing take of the species that is incidental to an otherwise authorized activity provided the activity will not jeopardize the continued existence of the species. Section 10 of the ESA provides for issuance of incidental take permits where no other federal actions are necessary provided a Habitat Conservation Plan (HCP) is developed.

2.1.2 Migratory Bird Treaty Act

The federal Migratory Bird Treaty Act (MBTA) implements international treaties between the U.S. and other nations devised to protect migratory birds, any of their parts, eggs, and nests from activities such as hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized in the regulations or by permit. As authorized by the MBTA, the USFWS issues permits to qualified applicants for the following types of activities: falconry, raptor propagation, scientific collecting, special purposes (rehabilitation, education, migratory game bird propagation, and salvage), take of depredating birds, taxidermy, and waterfowl sale and disposal. The regulations governing migratory bird permits can be found in 50 CFR Part 13 General Permit Procedures and 50 CFR Part 21 Migratory Bird Permits. The State of California has incorporated the protection of birds of prey in Sections 3800, 3513, and 3503.5 of the California Fish and Game Code.

2.1.3 Federal Clean Water Act

The purpose of the federal CWA is to "restore and maintain the chemical, physical, and biological integrity of the nation's waters." Section 404 of the CWA prohibits the discharge of dredged or fill material into Waters of the U.S. without a permit from the U.S. Army Corps of Engineers (USACE). The definition of Waters of the U.S. includes rivers, streams, estuaries, the territorial seas, ponds, lakes, and wetlands. Wetlands are defined 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" (33 CFR 328.3 7b).

The U.S. Environmental Protection Agency (USEPA) also has authority over wetlands and may override a USACE permit.

Section 401 of the CWA (33 USC 1341) requires any applicant for a federal license or permit to conduct any activity that may result in a discharge of a pollutant into Waters of the U.S. to obtain a certification that the discharge will comply with the applicable effluent limitations and water quality standards.

Substantial impacts to wetlands may require an individual permit. Projects that only minimally affect wetlands may meet the conditions of one of the existing Nationwide Permits. For commercial development projects, permitting through Section 404 should qualify under the Nationwide Permit Project and specifically Nationwide Permit 39: Commercial and Institutional Developments which has an acreage limit of greater than 0.5 acre to non-tidal Waters of the U.S.

A Water Quality Certification or waiver pursuant to Section 401 of the CWA is required for Section 404 permit actions; this certification or waiver is issued by the Santa Ana Regional Water Quality Control Board (RWQCB).

2.2 State and Local Regulations

2.2.1 California Endangered Species Act

The California ESA generally parallels the main provisions of the ESA but, unlike its federal counterpart, the California ESA applies the take prohibitions to species proposed for listing (called "candidates" by the State). Section 2080 of the California Fish and Game Code prohibits the taking, possession, purchase, sale, and import or export of endangered, threatened, or candidate species, unless otherwise authorized by permit or in the regulations. Take is defined in Section 86 of the California Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." The California ESA allows for take incidental to otherwise lawful development projects. State lead agencies are required to consult with California Department of Fish and Wildlife (CDFW) to ensure that any action they undertake is not likely to jeopardize the continued existence of any endangered or threatened species or result in destruction or adverse modification of essential habitat.

2.2.2 Fully Protected Species

The State of California first began to designate species as "fully protected" prior to the creation of the federal and California ESAs. Lists of fully protected species were initially developed to provide protection to those animals that were rare or faced possible extinction, and included fish, amphibians and reptiles, birds, and mammals. Most fully protected species have since been listed as threatened or endangered under federal and/or California ESAs. The regulations that implement the Fully Protected Species Statute (California Fish and Game Code § 4700) provide that fully protected species may not be taken or possessed at any time. Furthermore, CDFW prohibits any state agency from issuing incidental take permits for fully protected species, except for necessary scientific research.

2.2.3 Native Plant Protection Act

The Native Plant Protection Act (NPPA) of 1977 (California Fish and Game Code §§ 1900-1913) was created with the intent to "preserve, protect and enhance rare and endangered plants in this State." The

NPPA is administered by CDFW. The Fish and Wildlife Commission has the authority to designate native plants as "endangered" or "rare" and to protect endangered and rare plants from take. The California ESA of 1984 (California Fish and Game Code § 2050-2116) provided further protection for rare and endangered plant species, but the NPPA remains part of the California Fish and Game Code.

2.2.4 Porter-Cologne Water Quality Act

The RWQCB implements water quality regulations under the federal CWA and the Porter-Cologne Water Quality Act. These regulations require compliance with the National Pollutant Discharge Elimination System (NPDES), including compliance with the California Storm Water NPDES General Construction Permit for discharges of storm water runoff associated with construction activities. General Construction Permits for projects that disturb 1 or more acres of land require development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). Under the Porter-Cologne Water Quality Act, the RWQCB also regulates actions that would involve "discharging waste, or proposing to discharge waste, within any region that could affect the water of the state" (Water Code 13260(a)). Waters of the State are defined as "any surface water or groundwater, including saline waters, within the boundaries of the state" (Water Code 13050 (e)). The RWQCB regulates all such activities, as well as dredging, filling, or discharging materials into Waters of the State, that are not regulated by the USACE due to a lack of connectivity with a navigable water body. The RWQCB may require issuance of Waste Discharge Requirements for these activities.

2.2.5 California Fish and Game Code

2.2.5.1 Streambed Alteration Agreement

Section 1602 of the California Fish and Game Code requires that a Notification of Lake or Streambed Alteration be submitted to CDFW for "any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake." The CDFW reviews the proposed actions and, if necessary, submits to the Applicant a proposal for measures to protect affected fish and wildlife resources. The final proposal that is mutually agreed upon by CDFW and the Applicant is the Streambed Alteration Agreement (SAA). Often, projects that require an SAA also require a permit from the USACE under Section 404 of the CWA. In these instances, the conditions of the Section 404 permit and the SAA may overlap.

2.2.5.2 Migratory Birds

The CDFW enforces the protection of nongame native birds in §§ 3503, 3503.5, and 3800 of the California Fish and Game Code. Section 3513 of the California Fish and Game Code prohibits the possession or take of birds listed under the MBTA. These sections mandate the protection of California nongame native birds' nests and also make it unlawful to take these birds. All raptor species are protected from "take" pursuant to California Fish and Game Code § 3503.5 and are also protected at the federal level by the MBTA of 1918 (USFWS 1918).

2.2.6 Western Riverside County Multiple Species Habitat Conservation Plan

The Western Riverside County MSHCP is a comprehensive, multi-jurisdictional HCP focusing on conservation of species and their associated habitats in western Riverside County. It is also a Natural Communities Protection Plan (NCCP) under the NCCP Act of 2001. The MSHCP identifies 146 species, referred to as "Covered Species," for which the federal and California ESAs "take" authorization has been granted to signatories to the plan as long as they comply with its requirements. Of the 146 Covered Species within the MSHCP, 118 are considered to be "adequately conserved." The remaining 28 Covered Species will be considered to be adequately conserved when certain landmark conservation requirements are met during the course of future development. The goal of the MSHCP is to maintain the biological and ecological diversity within a rapidly urbanizing region while also improving the future economic development in the county by providing an efficient, streamlined regulatory process through which development can proceed in an efficient way.

The approval of the MSHCP and execution of the Implementing Agreement (IA) by the wildlife agencies (CDFW and USFWS) allows signatories of the IA to issue "take" authorizations for all species covered by the MSHCP, including state- and federally listed species, as well as other identified sensitive species and/or their habitats. Each city of local jurisdiction will impose a Development Mitigation Fee for projects within their jurisdiction. The City of Lake Elsinore is signatory to the MSHCP. With payment of the mitigation fee to the county and compliance with the survey requirements of the MSHCP where required, full mitigation in compliance with CEQA, National Environmental Policy Act (NEPA), the California ESA, and the ESA will be granted. The Development Mitigation Fee varies according to project size and project description and is dependent on development density (Riverside County Ordinance No. 810.2). Payment of the mitigation fee and compliance with the requirements of Section 6.0 of the MSHCP are intended to provide full mitigation under CEQA, NEPA, and the California and federal ESAs for impacts to the species and habitats covered by the MSHCP, pursuant to agreements with USFWS, CDFW, and/or any other appropriate participating regulatory agencies as set forth in the IA for the MSHCP.

2.2.7 CEQA Significance Criteria

The CEQA lead agency, in this case the City of Lake Elsinore, ensures compliance with CEQA requirements. Section 15064.7 of the CEQA Guidelines encourages local agencies to develop and publish the thresholds that the agency uses in determining the significance of environmental effects caused by projects under its review. However, agencies may also rely upon the guidance provided by the expanded Initial Study checklist contained in Appendix G of the CEQA Guidelines. Appendix G provides examples of impacts that would normally be considered significant. Based on these examples, impacts to biological resources would normally be considered significant if the project would:

- 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 CDFW or USFWS;
- have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by CDFW or USFWS;

- have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, and coastal) through direct removal, filling, hydrological interruption, or other means;
- 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;
- conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; and
- conflict with the provisions of an adopted HCP, Natural Community Conservation Plan, or other approved local, regional or state HCP.

An evaluation of whether an impact on biological resources would be substantial must consider both the resource itself and how that resource fits into a regional or local context. Substantial impacts would be those that would diminish, or result in the loss of, an important biological resource, or those that would obviously conflict with local, state, or federal resource conservation plans, goals, or regulations. Impacts are sometimes locally important but not significant according to CEQA. The reason for this is that although the impacts would result in an adverse alteration of existing conditions, they would not substantially diminish, or result in the permanent loss of an important resource on a population-wide or region-wide basis.

3.0 METHODS

3.1 Literature Review

Prior to conducting the biological reconnaissance survey, ECORP biologists performed a literature review using the CDFW's California Natural Diversity Database (CNDDB; CDFW 2022a, 2022b) and the California Native Plant Society's (CNPS) Electronic Inventory (CNPSEI; CNPS 2022a) to determine the special-status plant and wildlife species that have been documented in the vicinity of the Project site. ECORP searched CNDDB and CNPSEI records within the Project site boundaries as depicted on USGS 7.5-minute Lake Elsinore topographic quadrangle, plus the surrounding eight topographic quadrangles, including Lake Mathews, Steele Peak, Perris, Romoland, Murrieta, Wildomar, Sitton Peak, and Alberhill. The CNDDB and CNPSEI contain records of reported occurrences of federally or state-listed endangered, threatened, proposed endangered or threatened species, California Species of Special Concern (SSC), and/or other special-status species or habitat that may occur within or in the vicinity of the Project. Additional information was gathered from the following sources and includes, but is not limited to:

- *State and Federally Listed Endangered and Threatened Animals of California* (CDFW 2022b);
- *Special Animals List* (CDFW 2022c);
- *The Jepson Manual: Vascular Plants of California* (Baldwin et al. 2012);
- *A Manual of California Vegetation*, 2nd Edition (Sawyer et al. 2009);

- *A Manual of California Vegetation*, Online Edition (CNPS 2022b); and
- various online websites (e.g., CalFlora 2022).

Using this information and observations in the field, a list of special-status plant and animal species that have potential to occur within the Project site was generated. For the purposes of this assessment, special-status species are defined as plants or animals that:

- have been designated as either rare, threatened, or endangered by CDFW, CNPS, or the USFWS, and/or are protected under either the federal or California ESAs;
- are candidate species being considered or proposed for listing under these same acts;
- are fully protected by the California Fish and Game Code, §§ 3511, 4700, 5050, or 5515;
- are of expressed concern to resource and regulatory agencies or local jurisdictions; and/or
- are covered species or special-status species under the MSHCP.

Special-status species reported for the region in the literature review or for which suitable habitat occurs on the site were assessed for their potential to occur within the Project site based on the following guidelines:

Present: The species was observed on the site during a site visit or focused survey.

High: Habitat (including soils and elevation factors) for the species occurs within the Project site and a known occurrence has recently been recorded (within the last 20 years) within 5 miles of the area.

Moderate: Habitat (including soils and elevation factors) for the species occurs within the Project site and a documented observation occurs within the database search, but not within 5 miles of the area; a historic documented observation (more than 20 years old) was recorded within 5 miles of the Project site; or a recently documented observation occurs within 5 miles of the area and marginal or limited amounts of habitat occurs in the Project site.

Low: Limited or marginal habitat for the species occurs within the Project site and a recently documented observation occurs within the database search, but not within 5 miles of the area; a historic documented observation (more than 20 years old) was recorded within 5 miles of the Project site; or suitable habitat strongly associated with the species occurs on site, but no records or only historic records were found within the database search.

Presumed Absent: Species was not observed during a site visit or focused surveys conducted in accordance with protocol guidelines at an appropriate time for identification; habitat (including soils and elevation factors) does not exist on site; or the known geographic range of the species does not include the Project site.

Note that location information on some special-status species may be of questionable accuracy or unavailable. Therefore, for survey purposes, the environmental factors associated with a species' occurrence requirements may be considered sufficient reason to give a species a positive potential for occurrence. In addition, just because a record of a species does not exist in the databases does not

mean it does not occur. In many cases, records may not be present in the databases because an area has not been surveyed for that species.

A review of the Natural Resources Conservation Service (NRCS 2022) Web Soil Survey, National Wetlands Inventory (USFWS 2022), and the corresponding USGS topographic maps was also conducted to determine if there were any blue line streams or drainages present on the Project site that potentially fall under the jurisdiction of either federal or state agencies.

3.1.1 Western Riverside County Multiple Species Habitat Conservation Plan Consistency Analysis

Data regarding the Project site were reviewed to determine consistency with the MSHCP. The Western Riverside County Regional Conservation Authority (RCA) MSHCP Information Map was queried to determine requirements for habitat assessment(s), potential focused survey(s), or other issues related to biological resources that could exist on the Project site (RCA 2022).

Section 6.0 of the MSHCP also requires that an assessment of the Project site be completed to identify any potential Project-related effects on biological resources, including burrowing owl, riparian/riverine areas, vernal pool habitats, riparian/riverine species, fairy shrimp, narrow endemic plant species or criteria area plant and wildlife species, and other special-status species, if applicable. In addition, the MSHCP requires that an Urban/Wildlands Interface analysis be conducted to address the indirect effects associated with locating proposed development in the proximity of MSHCP Conservation Areas.

3.2 Field Survey

3.2.1 Biological Reconnaissance Survey

A biological reconnaissance survey was conducted by walking the northern and southern perimeters of the Project site and surrounding areas to identify the vegetation communities and wildlife habitats on the Project site. During the survey, the Project site was not accessible due safety issues with the site currently being used for construction and equipment storage; therefore, the Project site was surveyed from the perimeter with binoculars. A second biological site visit was coordinated with the property representative and then performed to walk the Project site. The biologist documented the plant and wildlife species present on the Project site, and the location and condition of the Project site were assessed for the potential to provide habitat for special-status plant and wildlife species. Data were recorded on a Global Positioning System (GPS) unit, field notebooks, and/or maps. Photographs were also taken during the surveys to provide visual representation of the various vegetation communities and site conditions within and adjacent to the Project site. The Project site was also examined to assess its potential to facilitate wildlife movement or function as a movement corridor for wildlife moving throughout the region. In addition, the biologist mapped the vegetation communities present on the Project site.

Plant and wildlife species, including any special-status species that were observed during the survey, were recorded. Plant nomenclature follows that of *The Jepson Manual: Vascular Plants of California* (Baldwin et al. 2012). Wildlife nomenclature follows Society for the Study of Amphibians and Reptiles

(SSAR 2017), *Check-list of North American Birds* (Chesser et al. 2020, as updated), and the *Revised Checklist of North American Mammals North of Mexico* (Bradley et al. 2014).

In instances where a special-status species was observed, the date, species, location and habitat, and GPS coordinates were recorded. The locations of special-status species observations were recorded using a handheld GPS in NAD83, Universal Transverse Mercator coordinates, Zone 11S.

3.2.2 Burrowing Owl Habitat Assessment

The Project site is not located within a MSHCP burrowing owl survey area, however burrowing owls are to be avoided and under the MSHCP and so a habitat assessment was undertaken. In order to determine if suitable habitat is present, a burrowing owl habitat assessment was conducted concurrently with the biological reconnaissance survey and biological site visit. The Project site was walked as well as a 500-foot buffer to identify the presence of owl habitat and search for presence of potential burrows (i.e., of suitable size and shape for burrowing owl use). Areas that were not accessible by foot were scanned using binoculars for suitable habitat, including presence of burrows. Areas on private property, behind fencing, and north of the I-15 were not surveyed due to safety issues and inaccessibility.

4.0 RESULTS

Summarized below are the results of the literature review and field surveys, including site characteristics, vegetation communities, plants, wildlife, special-status species, and special-status habitats (including any potential wildlife corridors).

4.1 Literature Review

4.1.1 Special-Status Plants and Wildlife

The CNDDB and CNPSEI searches were conducted on January 21, 2022. The database searches identified 35 special-status plant species and 44 special-status wildlife species that could occur on and/or near the Project site. A list was generated from the results of the literature review and the Project site was evaluated for suitable habitat that could support any of the special-status plant or wildlife species on the list. Appendix A contains a list of the special-status plant species with potential to occur on and/or near the Project site and Appendix B contains a list of the special-status wildlife species with potential to occur on and/or near the Project site.

4.1.2 U.S. Fish and Wildlife Service Designated Critical Habitat

The Project site is not located within any USFWS-designated critical habitat. The nearest designated critical habitat is located approximately 2 miles northeast for coastal California gnatcatcher (*Polioptila californica californica*).

4.1.3 State or Federally Protected Wetlands and Waters of the United States

Based on the results of the literature review, the Project site does not contain any state or federally protected wetlands or waters of the United States (USFWS 2022). The National Wetlands Inventory

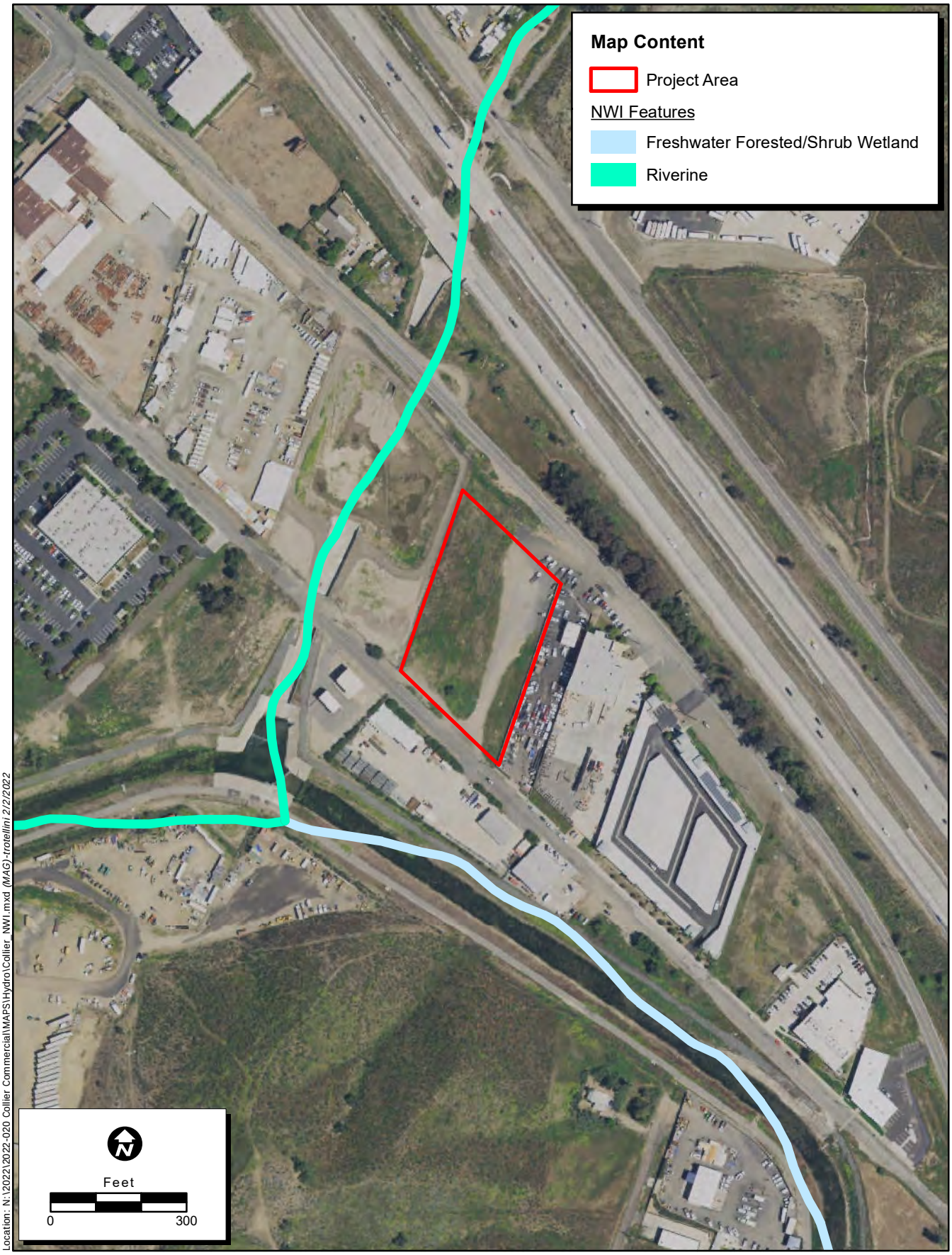
(NWI) shows three blue line features outside of the Project site in the surrounding area: an intermittent riverine (R4SBA) that is temporarily flooded occurs west of the site and travels from the northeast to the southwest; a freshwater forested/shrub wetland (PFOC) that is seasonally flooded occurs south of the Project site; and an intermittent riverine (R4SBC) that is seasonally flooded exists southwest of the Project site (USFWS 2022). These three NWI mapped blue line features are shown on Figure 3.

4.2 Biological Reconnaissance Survey

The biological reconnaissance survey was conducted on January 28, 2022, and the biological site visit was performed on February 4, 2022, by ECORP biologist Chelsie Brown. Summarized below are the results of the biological reconnaissance survey and site visit, including site characteristics, plants and plant communities, wildlife, special-status species, and special-status habitats (including any potential wildlife corridors). Weather conditions during the surveys are summarized in Table 1.

Table 1. Weather Conditions during the Surveys

Date	Time		Temperature (˚F)		Cloud Cover (%)		Wind Speed (mph)	
	Start	End	Start	End	Start	End	Start	End
1/28/2022	0950	1250	59	64	90	50	8-10	8-10
2/4/2022	0920	1020	57	61	0	0	5-8	8-10



Location: N:\2022\2022-020 Collier Commercial\MAPS\Hydro\Collier_NWI.mxd *(MAG)-trotellini 2/2/2022*

Map Date: 2/2/2022
Base Source: Esri World Streetmap
Photo Source: NAIP (2020)

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Figure 3. National Wetlands Inventory

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4.2.1 Property Characteristics

The Project site consists of an occupied construction storage lot containing ruderal vegetation that is heavily disturbed. Gravel and fill are spread over a majority of the Project site for heavy equipment and vehicles to drive over. Vehicle tracks are present throughout the site. At the time of the initial survey, semi-trucks were observed moving around inside the Project site. Heavy construction equipment, construction materials, semi-trucks, tow trucks, vehicles, two travel trailers, a porta john, and a covered storage area are currently being stored on the Project site. Additionally, there is evidence of recent mechanical ground disturbance such as discing and/or mowing, likely done for weed abatement purposes, present on the northern and western sides of the site. The perimeter of the Project site is fenced, and a gate is located on the northeast side. Botta's pocket gopher (*Thomomys bottae*) burrows are present in the southwest corner and western side of the Project site. A few small mammal burrows are present on the western portion of the Project site. Soil types within the Project site consist of Arbuckle gravelly loam, 15 to 25 percent slopes (AIE), Cortina gravelly coarse sandy loam, 2 to 8 percent slopes (CnC), and Waukena loamy fine sand, saline-alkali (Wa; NRCS 2022). The Project site is bounded by a Riverside County Flood Control and Water Conservation District drainage and detention basin to the west, Collier Avenue to the north, an industrial towing business to the east, and W Minthorn Street to the south. There is industrial development to the east and south, vacant land to the north, and flood control structures to the west. Two drainage culverts, one of which is fully filled in with concrete, are present outside of the Project site in the surrounding area to the northeast, between Collier Avenue and I-15. One area with standing water was present outside of the Project site, in vacant land west of the site and immediately adjacent to W Minthorn Street, at the time of the surveys. The water in this area was approximately 2 inches deep at the time of the survey and riparian vegetation species were identified at this location. One small drainage was identified during the survey outside of the Project site in the surrounding area to the southwest. The drainage was dry at the time of the survey and appeared to flow southwest to where it connects to the seasonally flooded intermittent riverine (R4SBC) mapped by NWI; however, the drainage did not connect to any water or wetland features within the Project site. The small drainage may be fed by the area of pooling observed northwest of it due to the proximity of the two features and the slight downward slope in land elevation between them. The two drainage culverts, area of standing water, and small drainage are shown on Figure 4. Representative site photographs are included in Appendix C.

4.2.2 Vegetation Communities

No vegetation communities are present on the Project site; the entire site is disturbed. However, some native vegetation communities are present in adjacent areas within the 500-foot buffer. The Project site is within an urban environment that is generally subjected to repeated and ongoing disturbance from human activities. The dominant plant species observed on the Project site during the survey are nonnative and/or invasive weedy species. The northern and western portions of the Project site appeared recently disced at the time of the survey. Vehicle tracks are present throughout much of the Project site.

Areas surrounding the Project site are largely devoid of native vegetation; however, some native species are present within the 500-foot buffer. A small area of disturbed California buckwheat (*Eriogonum*



Location: N:\2022\2022-020 Collier Commercial\MAPS\Biological_Resources\Collier_BioRecon_Results.mxd (MAG)-trotellini 2/2/2022

Map Date: 2/1/2022
Base Source: Esri World Streetmap
Photo Source: NAIP (2020)

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Figure 4. Biological Reconnaissance Survey Results

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fasciculatum) scrub is present north of the site between Collier Avenue and I-15. California buckwheat scrub is present south of the Project site on hillsides. Ornamental trees are present northeast and south of the Project site. In addition, cattail (*Typha* sp.) marshes occur south and southwest of the Project site. Each of these vegetation communities and land cover types is described below and depicted in Figure 5.

4.2.2.1 Disturbed

Disturbed is not a vegetation classification, but rather a land cover type. The entire Project site is classified as disturbed because it is subject to repeated disturbances (e.g., vehicle and equipment use, discing), largely devoid of native vegetation, and is dominated by open areas or non-native weedy and ruderal vegetation. The disturbed designation indicates a location that has experienced disturbances, typically associated with human activities. Disturbed areas may be actively maintained to be free of vegetation or have been compacted or disced to such a degree that native vegetation is very sparse. Nonnative plant species are present on the northern and western portions of the site. Within the Project site, plants present in this land cover type include non-native weedy species such as coastal heron's bill (*Erodium cicutarium*), short-podded mustard (*Hirschfeldia incana*), and sweetclover (*Melilotus* sp.). A pile of cut down vegetation is present in the southern portion of the site. At the time of the survey, the southern and eastern portions of the Project site appeared the most disturbed based on the large areas of gravel and bare ground. Outside of the Project site, disturbed areas are present scattered throughout the surrounding area and consist of open areas and human disturbed areas.

4.2.2.2 California buckwheat scrub (Eriogonum fasciculatum Shrubland Alliance)

The hillsides south of the Project site contain California buckwheat scrub; this vegetation community is not present on the Project site. California buckwheat scrub is dominated or co-dominated by California buckwheat and consists primarily of shrubs less than 7 feet in height with a continuous to intermittent canopy. The herbaceous layer is variable and may be grassy. Habitats suitable for California buckwheat scrub include upland slopes, intermittently flooded arroyos, and channels and washes. The area mapped as disturbed California buckwheat scrub south of the Project site contains an intermittent shrub canopy and has a variable herbaceous layer, mostly covered in grass. Habitat observed during the survey within this community consists of upland slopes.

The shrubs observed within this community at the time of the survey range from approximately 0.5 feet to 5 feet in height. Species present within this community at the time of the survey include California buckwheat, California cholla *(Cylindropuntia californica)*, and brittlebush (*Encelia farinosa)*.

A small area north of the Project site is mapped as disturbed California buckwheat scrub. This area lays adjacent to the I-15 and disturbances observed include heavy amounts of trash, a chain-link fence, and ruderal nonnative plant species. Species present within this community at the time of the survey include California buckwheat, brittlebush, and short-podded mustard.

Figure 5. Vegetation Communities and Land Cover Types

Map Content

- Project Area
- 500-ft Buffer

Vegetation Communities and Land Cover Types

- Cattail marshes (*Typha* Herbaceous Alliance)
- California buckwheat scrub (*Eriogonum fasciculatum* Shrubland Alliance)
- Disturbed – California buckwheat scrub (*Eriogonum fasciculatum* Shrubland Alliance)
- Ornamental Trees
- Disturbed
- Urban/Developed

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Location: N:\2022\2022-020 Collier Commercial\MAPS\Vegetation_and_LandCover\Collier_Vegetation_v1.mxd (MAG/TR)-trotellini 2/2/2022

2022-020 Collier Commercial

Scale in Feet
0 200

Photo (or Base) Source: NAIP (2020)

Map Date: 2/2/2022

4.2.2.3 Cattail marshes (Typha Herbaceous Alliance)

The NWI mapped seasonally flooded freshwater forested/shrub wetland south of the Project site and the NWI mapped riverine southwest of the site contain cattail marshes. Cattail marshes are dominated or co-dominated by narrow leaf cattail (*Typha angustifolia*), cattail (*Typha domingensis*), or broadleaf cattail (*Typha latifolia*). The community consists primarily of herbs less than 5 feet in height with a continuous to intermittent canopy. The habitats suitable for cattail marshes consist of semi-permanently flooded freshwater or brackish marshes. The area mapped as cattail marshes contains cattails and a continuous to intermittent canopy was observed during the biological survey. Standing water was present throughout the majority of this community to the south of the Project site at the time of the biological survey; however, no water was present within this community southwest of the site. Cattails present within this community south of the site at the time of the survey were approximately 3 feet to 5 feet above the water line. At the time of the survey, cattails southwest of the Project site were approximately 1 foot to 2 feet in height.

4.2.2.4 Ornamental Trees

Areas designated as ornamental trees include areas where ornamental species have been planted and native vegetation is either sparse or non-existent. Ornamental trees are not a vegetation classification, but rather a land cover type where nonnative vegetation has been purposely planted and is not restricted to a known elevation. Ornamental trees occur northeast of the Project site in the form of a stand of eucalyptus (*Eucalyptus* sp.), Mexican palo verde (Parkinsonia aculeata), and Peruvian pepper trees (*Schinus mole*) behind a chain-link fence, along Collier Avenue. South of the Project site, ornamental trees are present along W Minthorn Street in the form of a few stands of oleander (*Nerium oleander)*.

4.2.2.5 Urban/Developed

Urban/Developed areas do not constitute a vegetation classification, but rather a land cover type. Areas outside of the Project site are mapped as developed and have been constructed upon or otherwise physically altered to an extent that natural vegetation communities are no longer supported. Outside of the Project site, portions of the developed areas contain small strips of landscaped vegetation; however, areas mapped with urban/developed land cover type consist primarily of paved roads, buildings, and the Riverside County Flood Control and Water Conservation District drainage and detention basin.

4.2.3 Plants Observed

The majority of the Project site lacks vegetation due to the high level of disturbance. Plant species observed on the Project site were generally characteristic of disturbed urban areas: coastal heron's bill, short-podded mustard, and sweetclover. Other plant species observed during the biological survey include mulefat (*Baccharis salicifolia*), foxtail chess (*Bromus madritensis*), brittlebush, California buckwheat, eucalyptus, oleander, olive (*Olea Europaea*), Mexican palo verde, annual beard grass (*Polypogon monspeliensis*), Peruvian pepper tree, common sowthistle (*Sonchus oleraceus*), wirelettuce (*Stephanomeria* sp.). and tamarisk (*Tamarix* sp.). Note that the native species observed were not found

onsite, but within adjacent areas. A full list of plant species observed on and immediately adjacent to the Project site is included in Appendix D.

4.2.4 Wildlife Observed

The Project site provides habitat only for species adapted to disturbances and urban environments, while adjacent areas are more native and may support a richer species diversity. One insect species was observed during the biological reconnaissance survey: seven-spot lady beetle (*Coccinella septempunctata*). Five bird species were observed during the biological survey: American pipit (*Anthus rubescens*), Anna's hummingbird (*Calypte anna*), killdeer (*Charadrius vociferus*), American crow (*Corvus brachyrhynchos*), and yellow-rumped warbler (*Setophaga coronata*). Three mammal species were also observed during the survey: California ground squirrel (*Otospermophilus beecheyi*), desert cottontail (*Sylvilagus audubonii*), and Botta's pocket gopher. A complete list of wildlife species observed on or immediately adjacent to the Project site is included in Appendix E.

4.2.5 Potential for Special-Status Plant to Occur on the Project Site

The literature review and database searches identified 35 special-status plant species and 44 special-status wildlife species that occur on or near the Project site. However, due to the high level of disturbance at the Project site and the current lack of suitable habitat for the special-status plant and wildlife species, many of the species are presumed absent from the Project site.

4.2.5.1 Special-Status Plants

There were 35 special-status plant species (of those, eight are federally and/or state listed and 20 are covered by the MSHCP) that appeared in the literature review and database searches for the Project site (CDFW 2022a, CNPS 2022a). A list was generated from the results of the literature review and the Project was evaluated for suitable habitat that could support any of the special-status plant species on the list. For the purposes of this study, the results of the literature review were limited to plant species occurring within a nine-quadrangle search of the Project site. Plant species with a known elevation range outside of the Project site's elevation were eliminated from the analysis. Plant species with a California Rare Plant Rank (CRPR) of 1A species were eliminated from the analysis because they are presumed to be extirpated from California. Additionally, CRPR 3 or 4 species were eliminated from the analysis because these rankings are considered a review list and a watch list, respectively. Descriptions of the CRPR designations are found in Table 2. A Potential for Occurrence table outlining each species and their designations can be found in Appendix A. A complete list of the special status plant species that appeared in the CNPS literature search, including CRPR rank 3 and 4 species, is included as Appendix F.

Table 2. CRPR Status Designations	
List Designation	**Meaning**
1A	Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere
1B	Plants Rare, Threatened, or Endangered in California and Elsewhere
2A	Plants Presumed Extirpated in California, But Common Elsewhere
2B	Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere
3	Plants about which more information is needed; a review list
4	Plants of limited distribution; a watch list
List .1, .2 and .3 extension meanings:	
.1	Seriously threatened in California (over 80 percent of occurrences threatened / high degree and immediacy of threat)
.2	Moderately threatened in California (20 to 80 percent occurrences threatened / moderate degree and immediacy of threat)
.3	Not very threatened in California (less than 20 percent of occurrences threatened/low degree and immediacy of threat or no current threats known)

Note: According to CNPS (Skinner and Pavlik 1994), plants on Lists 1B and 2 meet definitions for listing as threatened or endangered under Section 1901, Chapter 10, of the California Fish and Game Code (California Department of Fish and Game 1984). This interpretation is inconsistent with other definitions.

4.2.5.2 Plant Species with a Moderate Potential

One plant species of higher sensitivity than List 3 or 4 was found to have a moderate potential to occur on the Project site. The site provides marginal or limited amounts of habitat (including soils and elevation factors) onsite in the disturbed land cover and recently documented observations occur within 5 miles of the Project site; or a historic documented observation (more than 20 years old) was recorded within 5 miles of the Project site. The special-status plant species with a moderate potential is listed below and also detailed in Appendix A.

- San Diego ambrosia (Ambrosia pumila), federally listed (endangered), CRPR 1B.1, MSHCP Covered

4.2.5.3 Plant Species Presumed Absent

The following 34 species of higher sensitivity than List 3 or 4 are presumed absent from the Project site due to the lack of suitable habitat, soil type, and/or elevation range at the Project site:

- Chaparral sand-verbena (Abronia villosa var. aurita), CRPR 1B.1;
- Munz's onion (*Allium munzii*), federally listed (endangered), state listed (threatened), CRPR 1B.1, MSHCP Covered;
- Alkali marsh aster (Almutaster pauciflorus), CRPR 1B.2;

- Rainbow manzanita (*Arctostaphylos rainbowensis*), CRPR 1B.1, MSHCP Covered;
- San Jacinto Valley crownscale (*Atriplex coronata* var. *notatior*), federally listed (endangered), CRPR 1B.1, MSHCP Covered;
- Parish's brittlescale (*Atriplex parishii*), CRPR 1B.1, MSHCP Covered;
- California ayenia (*Ayenia compacta*), CRPR 2B.3;
- Thread-leaved brodiaea (*Brodiaea filifolia*), federally listed (threatened), state listed (endangered), CRPR 1B.1, MSHCP Covered;
- Intermediate mariposa lily (*Calochortus weedii* var. *intermedius*), CRPR 1B.2, MSHCP Covered;
- Smooth tarplant (*Centromadia pungens* ssp. *laevis*), CRPR 1B.1, MSHCP Covered;
- Parry's spineflower (*Chorizanthe parryi* var. *parryi*), CRPR 1B.1, MSHCP Covered;
- Long-spined spineflower (*Chorizanthe polygonoides* var. *longispina*), CRPR 1B.2, MSHCP Covered;
- San Miguel savory (Clinopodium chandleri), CRPR 1B.2, MSHCP Covered;
- Summer holly (Comarostaphylis diversifolia ssp. Diversifolia), CRPR 1B.2;
- Slender-horned spineflower (Dodecahema leptoceras), federally listed (endangered), state listed (endangered), CRPR 1B.1, MSHCP Covered;
- Many-stemmed dudleya (Dudleya multicaulis), CRPR 1B.2, MSHCP Covered;
- Sticky dudleya (Dudleya viscida), CRPR 1B.2, MSHCP Covered;
- San Diego button-celery (*Eryngium aristulatum* var. *parishii*), federally listed (endangered), state listed (endangered), CRPR 1B.1, MSHCP Covered;
- Campbell's liverwort (*Geothallus tuberosus*), CRPR 1B.1;
- Tecate cypress (*Hesperocyparis forbesii*), CRPR 1B.1;
- Mesa horkelia (Horkelia cuneata var. puberula), CRPR 1B.1;
- Santa Lucia dwarf rush (Juncus luciensis), CRPR 1B.2;
- Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*), CRPR 1B.1, MSHCP Covered;
- Spreading navarretia (Navarretia fossalis), federally listed (threatened), CRPR 1B.1, MSHCP Covered;
- Prostrate vernal pool Navarretia (*Navarretia prostrata*), CRPR 1B.2, MSHCP Covered;
- Chaparral Nolina (*Nolina cismontana*), CRPR 1B.2;
- California Orcutt grass (*Orcuttia californica*), federally listed (endangered), state listed (endangered), CRPR 1B.1, MSHCP Covered;

- White rabbit-tobacco (*Pseudognaphalium leucocephalum*), CRPR 2B.2;
- Bottle liverwort (*Sphaerocarpos drewiae*), CRPR 1B.1;
- San Bernardino aster (*Symphyotrichum defoliatum*), CRPR 1B.2;
- Parry's Tetracoccus (*Tetracoccus dioicus*), CRPR 1B.2;
- California screw moss (*Tortula californica*), CRPR 1B.2;
- Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*), CRPR 2B.1, MSHCP Covered; and
- La Purisima viguiera (*Viguiera purisimae*), CRPR 2B.3.

4.2.6 Potential for Special-Status Wildlife to Occur on the Project Site

There were 44 special-status wildlife species (of those, 15 are federally and/or state listed and 28 are covered by the MSHCP) that appeared in the literature review and database searches for the Project site. Recent mechanical disturbances on the site, gravel added as a cover over the majority of the site, the current active status of the site with construction equipment and vehicle movement, proximity to industrial development, the presence of anthropogenic influences on the site, as well as the lack of suitable habitat likely preclude many of these species from occurring. A complete list of the 44 special-status wildlife species with details on habitat requirements and potential for occurrence designations is included as Appendix B.

4.2.6.1 Wildlife Species with a Low Potential to Occur

The following species has a low potential to occur on the Project site because limited habitat for the species occurs onsite and a known occurrence has been reported in the database, but not within 5 miles of the site; or a historic documented observation (more than 20 years old) was recorded within 5 miles of the project site; or suitable habitat strongly associated with the species occurs on site, but no records were found in the database search.

Crotch Bumble Bee

The Crotch bumble bee (*Bombus crotchii*) was petitioned for listing under the California ESA in October 2018 (Hatfield et al. 2018), advanced to candidacy in June 2019, was challenged in courts and the candidacy was temporarily stayed beginning in February 2021, and candidacy was recently reinstated in September 2022 (CDFW 2023). This species is associated with open grassland and scrub habitats and occurs primarily in California, including the Mediterranean region, Pacific Coast, Western Desert, Great Valley, and adjacent foothills through most of southwestern California (Williams et al. 2014). Crotch bumble bees primarily nest underground, and may occupy cavities in a variety of substrates including: thatched grasses, abandoned rodent burrows or bird nests, brush piles, rock piles, and fallen logs (Alford 1975; Free and Colin Gasking Alford 1959; Fussell and Corbet 1992; Lye et al. 2012; Sladen 1912; Williams et al. 2014) and have also been found nesting in manmade structures such as walls, rubble or abandoned furniture (Fussell and Corbet 1992; Williams et al. 2014). Bumble bee nests are annual and conclude with deaths of the queen, workers, and drones at the end of the season with only the mated

gyne (future queen) surviving the winter (overwintering) in order to emerge the following spring to start the next year's colony. Similar to other bumble bee species, Crotch bumble bee is a generalist forager and reportedly visits a variety of flowering plants, including *Asclepias, Chaenactis, Lupinus, Medicago, Phacelia,* and *Salvia*.

The Project site contains marginally suitable foraging for this species within and adjacent to the Project site and marginally suitable nesting habitat for the species within the Project site. At the time of the biological survey, approximately half of the Project site contained flowering non-native plant species such as coastal heron's bill and sweetclover, although most of the plants were not in bloom at the time of the survey. In addition, ornamental trees consisting of stands of oleander occur adjacent to the Project site in the 500-foot buffer. These plants could provide nectar sources and foraging opportunities for Crotch bumble bee. Gopher burrows and tufts of grass are present within the western half of the Project site which could provide nesting and overwintering habitat for the Crotch bumble bee. However, the western half of the Project site that contains gopher burrows and tufts of grass appears to be regularly disturbed by regular mechanical ground disturbance such as discing and/or mowing and by being actively used as a staging area where large equipment is driven and stored. These disturbances would reduce the likelihood that the species would nest on the Project site.

Two historic occurrences of the species were documented in CNDDB within 5 miles of the Project site (CDFW 2024). The most recent and nearest occurrence was documented in 2001 approximately 3 miles southeast of the Project site (Occurrence # 212; CDFW 2024). This species has a low potential to occur due to the presence marginally suitable foraging, nesting, and overwintering habitat, and CNDDB records within 5 miles of the Project site.

Burrowing owl

Burrowing owl is a MSHCP Covered Species and a CDFW SSC. Burrowing owls historically occurred throughout much of California and the western United States; however, many former California populations have been extirpated. The burrowing owl inhabits open habitats, primarily grasslands and deserts. Burrowing owls require burrows for roosting and nesting cover. Although they often use abandoned California ground squirrel burrows, they will also use other small mammal burrows, pipes, culverts, and nest boxes, particularly where burrows are scarce (Zeiner et al. 1990). One recent record (Occurrence # 974) and one historic record (Occurrence # 632) occur within 5 miles of the Project site (CDFW 2022a). Occurrence # 974 was recorded approximately 4 miles from the site in 2007 (CDFW 2022a). During the biological survey, no potential burrowing owl burrows were observed on the Project site. Although California ground squirrels were observed during the biological survey in the surrounding area, no California ground squirrels were observed on or immediately adjacent to the Project site. The Project site lacks loose, friable soils suitable for burrowing, especially in the areas covered by gravel. The site exhibits high levels of disturbance with the presence of construction and equipment storage activities as well as the evidence of previous mechanical disturbances of the soils, which lowers the suitability of the habitat for burrowing owl. Although marginal amounts of low-quality foraging habitat are present in the areas lacking gravel cover, the presence of high levels of human and vehicular activity and associated disturbances likely preclude burrowing owls from using or occupying the small amounts of low-quality habitat present on the site.

Outside of the Project site and across a heavily trafficked road to the north, two burrows were identified that are suitably sized for burrowing owl use and have potential to be used by the species. No sign of burrowing owl use (e.g., whitewash, pellets, bones of prey items, feathers) were observed at these burrows. The locations of the potential burrowing owl burrows are depicted on Figure 4. Based on the lack of suitable burrows, marginal amounts of low-quality foraging habitat on the site, and the recent record of the species within 5 miles of the Project site, this species has a low potential to occur on the Project site, and would not be expected to use the area for nesting.

4.2.6.2 Wildlife Species Presumed Absent

These 42 species were not present at the site during the site visit and/or habitat was not present or suitable. For some species, there were historic or recent sightings; however, due to the lack of suitable habitat within the Project site, these species are presumed absent:

- Vernal pool fairy shrimp (*Branchinecta lynchi*), federally listed (threatened), MSHCP Covered;
- San Diego fairy shrimp (*Branchinecta sandiegonensis*), federally listed (endangered);
- Quino checkerspot butterfly (*Euphydryas editha quino*), federally listed (endangered), MSHCP Covered;
- Riverside fairy shrimp (*Streptocephalus woottoni*), federally listed (endangered), MSHCP Covered;
- Arroyo chub (*Gila orcutti*), CDFW SSC, MSHCP Covered;
- Steelhead - southern California Distinct Population Segment (*Oncorhynchus mykiss irideus* pop. *10*), federally listed (endangered);
- Arroyo toad (*Anaxyrus californicus*), federally listed (endangered), CDFW SSC, MSHCP Covered;
- California red-legged frog (*Rana draytonii*), federally listed (threatened), CDFW SSC, MSHCP Covered;
- Western spadefoot (*Spea hammondii*), CDFW SSC, MSHCP Covered;
- Coast Range newt (*Taricha torosa*), CDFW SSC, MSHCP Covered;
- Southern California legless lizard (*Anniella stebbinsi*), CDFW SSC;
- California glossy snake (*Arizona elegans occidentalis*), CDFW SSC;
- Red-diamond rattlesnake (*Crotalus ruber*), CDFW SSC, MSHCP Covered;
- Western pond turtle (*Emys marmorata*), CDFW SSC, MSHCP Covered;
- Coast horned lizard (*Phrynosoma blainvillii*), CDFW SSC, MSHCP Covered;
- Coast patch-nosed snake (*Salvadora hexalepis virgultea*), CDFW SSC;
- Two-striped gartersnake (*Thamnophis hammondii*), CDFW SSC;

- Tricolored blackbird (*Agelaius tricolor*), state listed (threatened), CDFW SSC, MSHCP Covered;
- Long-eared owl (*Asio otus*), CDFW SSC, MSHCP Covered;
- Coastal whiptail (*Aspidoscelis tigris stejnegeri*), CDFW SSC, MSHCP Covered;
- Golden eagle (*Aquila chrysaetos*), CDFW Fully Protected, MSHCP Covered;
- Swainson's hawk (*Buteo swainsoni*), state listed (threatened), MSHCP Covered;
- Western snowy plover (*Charadrius alexandrinus nivosus*), federally listed (threatened), CDFW SSC;
- Yellow rail (*Coturnicops noveboracensis*), CDFW SSC;
- White-tailed kite (*Elanus leucurus*), CDFW Fully Protected, MSHCP Covered;
- Bald eagle (*Haliaeetus leucocephalus*), federally delisted, state listed (endangered), CDFW Fully Protected, MSHCP Covered;
- Yellow-breasted chat (*Icteria virens*), CDFW SSC, MSHCP Covered;
- Loggerhead shrike (*Lanius ludovicianus*), CDFW SSC, MSHCP Covered;
- Coastal California gnatcatcher (*Polioptila californica californica*), federally listed (threatened), CDFW SSC, MSHCP Covered;
- Least Bell's vireo (*Vireo bellii pusillus*), federally listed (endangered), state listed (endangered), MSHCP Covered;
- Dulzura pocket mouse (*Chaetodipus californicus femoralis*), CDFW SSC;
- Northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*), CDFW SSC, MSHCP Covered;
- San Bernardino kangaroo rat (*Dipodomys merriami parvus*), federally listed (endangered), candidate for state listing, CDFW SSC, MSHCP Covered;
- Stephens' kangaroo rat (*Dipodomys stephensi*), federally listed (endangered), state listed (threatened), MSHCP Covered;
- Western mastiff bat (*Eumops perotis californicus*), CDFW SSC;
- Western yellow bat (*Lasiurus xanthinus*), CDFW SSC;
- San Diego black-tailed jackrabbit (*Lepus californicus bennettii*), CDFW SSC, MSHCP Covered;
- San Diego desert woodrat (*Neotoma lepida intermedia*), CDFW SSC, MSHCP Covered;
- Pocketed free-tailed bat (*Nyctinomops femorosaccus*), CDFW SSC;
- Southern grasshopper mouse (*Onychomys torridus ramona*), CDFW SSC;
- Los Angeles pocket mouse (*Perognathus longimembris brevinasus*), CDFW SSC, MSHCP Covered; and

- American badger (*Taxidea taxus*), CDFW SSC.

4.2.7 Burrowing Owl Habitat Assessment

The burrowing owl habitat assessment was conducted concurrently with the January 28 and the February 4, 2022 surveys conducted by ECORP biologist Chelsie Brown. Weather conditions during the assessment are summarized in Table 1 (Section 4.2). The Project site contains disturbed soils with gravel and fill material spread over the majority of the property. Very little vegetation is present on the Project site and the non-gravel areas showed signs of being recently disced. The soils throughout the Project site were compact and vehicle tracks were observed throughout the site. A few small mammal burrows were identified within the Project site on the western portion of the site; however, none of the burrows were of suitable size for burrowing owl occupation. The Project site offers small amounts of low-quality foraging habitat for the species; however, the current human and vehicular activity on the Project site likely deter burrowing owls from using the site. Two potential burrowing owl burrows lacking sign of owl use (e.g., whitewash, pellets, feathers) were present outside of the Project site and across a busy road, Collier Avenue (Figure 4). Representative photos of the potential burrowing owl burrows identified outside of the Project site can be found in Appendix C.

Due to the presence of low-quality foraging habitat on the Project site and potential burrows located north of the Project site, preconstruction surveys are recommended no more than 30 days prior to site disturbance to maintain compliance with the MSHCP protection requirements for burrowing owl (RCTLMA 2022). Mitigation measures discussing additional survey requirements are described in Section 6.0.

4.3 Raptors and Migratory Birds

Potential nesting habitat for migratory birds and raptors protected by the MBTA and California Fish and Game Code is present on the Project site in the stored heavy construction equipment, construction materials, gravel areas and semi-trailers. Outside of the Project site, potential nesting habitat is present in the ornamental trees outside of the Project site; the eucalyptus, Mexican palo verde, and Peruvian pepper trees adjacent to the site in the northeast and the stands of oleander located adjacent to the Project site to the south present suitable nesting habitat. In addition, power and telephone lines run along both the north and southern boundaries of the Project site and their poles could provide suitable nesting habitat. Suitable nesting habitat for ground nesting bird species, such as mourning dove (*Zenaida macroura*) and killdeer, is present on many of the ground areas within the Project site. Raptors typically breed between February and August, and songbirds and other passerines generally nest between March and August.

4.4 Wildlife Movement Corridors, Linkages, and Significant Ecological Areas

The concept of habitat corridors addresses the linkage between large blocks of habitat that allow the safe movement of mammals and other wildlife species from one habitat area to another. The definition of a corridor is varied, but corridors may include such areas as greenbelts, refuge systems, underpasses, and biogeographic land bridges, for example. In general, a corridor is described as a linear habitat,

embedded in a dissimilar matrix, which connects two or more large blocks of habitat. Wildlife movement corridors are critical for the survivorship of ecological systems for several reasons. Corridors can connect water, food, and cover sources, spatially linking these three resources with wildlife in different areas. In addition, wildlife movement between habitat areas provides for the potential of genetic exchange between wildlife species populations, thereby maintaining genetic variability and adaptability to maximize the success of wildlife responses to changing environmental conditions. This is especially critical for small populations subject to loss of variability from genetic drift and effects of inbreeding. Naturally, the nature of corridor use and wildlife movement patterns varies greatly among species.

The Project site was assessed for its ability to function as a wildlife corridor. The Project site is disturbed, entirely fenced, and is generally surrounded by industrial development and paved roadways. Because of this, the Project site is isolated from large, contiguous blocks of native habitat. I-15 runs to the north and west of the Project site and is a large barrier to regional wildlife movement. The Project site is fenced with chain-link fencing with a gate located on the northeast side. Additionally, the current human and vehicle activity on the site, the lack of vegetative cover within the Project site, and the urban nature of the site would likely deter wildlife from using the Project site for movement opportunities. Therefore, the Project site is not considered a linkage or corridor between conserved natural habitat areas.

5.0 IMPACT ANALYSIS

All areas where Project construction activities are proposed to take place are dominated by nonnative vegetation, with the majority of the Project site being covered in gravel and used for heavy equipment as well as vehicle and material storage. The remaining area has undergone recent discing or similar mechanical disturbances. Potential impacts to sensitive biological resources resulting from Project activities are presented below.

5.1 Special-Status Species

The Project site consists of disturbed land and is devoid of native vegetation. No vegetation communities occur onsite. The literature review and database searches identified 35 special-status plant species that occur near the Project site. Of these 35 special-status plants, one was found to have a moderate potential to occur (San Diego ambrosia; federally listed (endangered), CRPR 1B.1, and MSHCP Covered Species) on the Project site due to the presence of disturbed land cover and records documented within 5 miles. The remaining 34 species were presumed absent. If rare, special-status, or narrow endemic plants occur on the Project site, direct impacts could occur to individuals in the form of ground disturbance, vegetation removal, habitat loss, and mortality and may be considered significant under CEQA. Within the Western Riverside MSHCP, San Diego ambrosia is a Narrow Endemic Plant Species. Impacts to this species has already been contemplated and addressed under the MSHCP. Furthermore, the Project site is neither located in a MSHCP-designated NEPSSA or Criteria Area Species Survey Area (CASSA). Therefore, additional focused surveys and implementation of mitigation for this species is not required for this particular Project, which is a covered activity under the MSHCP.

Of the 44 special-status wildlife species identified in the literature search, two were found to have a low potential for occurrence: Crotch bumble bee (CDFW candidate for state listing) and burrowing owl (CDFW SSC). The Project site has marginally suitable foraging, nesting, and overwintering habitat for Crotch bumble bee within the Project site. Marginally suitable foraging habitat for the species is present on the Project site where non-native flowering weeds occur and marginally suitable nesting and overwintering habitat is present in the gopher burrows and tufts of grass located on the western half of the Project site. However, the flowering resources are limited to a small patch and the potential nesting habitat is located in an area that is regularly disturbed in the form of mechanical disturbance and is used as a staging area for large equipment. Although it is unlikely, if Crotch bumble bee is found to be using or nesting on the Project site prior to the start of construction, impacts to Crotch bumble bee may occur in the form of direct mortality of individuals, direct mortality to an active nesting colony, direct mortality to an overwintering individual, conversion of foraging habitat, or permanent loss of foraging resources. Because this species is a generalist forager that chooses nest and overwintering locations on an annual basis, temporary and permanent loss of habitat resulting from the Project would not be expected to contribute substantially to the overall decline of this species unless direct impacts were to occur to an active nest or overwintering gyne (future queen). Impacts to Crotch bumble bee would be less than significant with the implementation of Mitigation Measure BIO-1. The Mitigation Measures for the proposed Project are discussed in Section 6.0.

The Project site is not located within a designated survey area under the MSHCP for burrowing owl (RCA 2022) and does not contain suitable burrows for burrowing owl use. Marginal amounts of low-quality foraging habitat for the species occurs on the site in the areas not covered by gravel; however, the high levels of disturbances present, and the lack of friable soils likely preclude burrowing owl from occurring on the Project site. Although a few small mammal burrows were identified on the Project site, none on the Project site were of suitable size and shape for burrowing owl use. The soils within the Project site appeared to have been recently mechanically disturbed (e.g., disced) and were compact at the time of the survey, which further reduces the site's suitability for burrowing owl. Two potential burrowing owl burrows were observed outside of the Project site to the northeast, but neither had sign of burrowing owl use. No burrowing owls or burrowing owl sign were observed within the Project site or adjacent areas during the survey. However, due to the mobile nature of the species, it is possible that burrowing owl could use the area prior to the start of Project activities. Although unlikely, if burrowing owl are found to be using or nesting on the Project site prior to the start of construction, direct impacts may occur in the form of mortality or injury in the form of ground disturbance, entombment, and vegetation removal. If burrowing owl are found to be using or nesting in the area surrounding the Project site prior to the start of construction, indirect impacts from construction noise, increased human and vehicular activity, dust, and ground vibrations may occur. In order to avoid potentially significant impacts to burrowing owl, it is recommended that Mitigation Measure BIO-2 be implemented.

The remaining 42 special-status wildlife species are presumed absent from occurring on or adjacent to the site due to the lack of suitable habitat, including the recent mechanical disturbances to the soils, gravel cover occurring over the majority of the Project site, proximity to I-15, the currently activity status of the site with stored construction equipment and vehicle movement, and the presence of anthropogenic disturbances associated with the industrial development surrounding the site. No

impacts to the 42 presumed absent special-status wildlife species are anticipated to result from the development of this Project.

The stored heavy construction equipment, construction materials, and semi-trailers present on the Project site could provide nesting habitat for nesting birds and raptors protected by the MBTA and California Fish and Game Code. In addition, the trees adjacent to the Project site as well as the power and telephone poles immediately adjacent to the site could provide nesting habitat. Furthermore, the Project site could provide nesting habitat for ground-nesting bird species. If construction of the proposed Project occurs during the bird breeding season (typically February 1 through August 31), ground-disturbing construction activities could directly affect birds protected by the MBTA and their nests through the removal of habitat on the Project site, and indirectly through increased noise, vibrations, and increased human activity. Impacts to nesting birds would be less than significant with the implementation of Mitigation Measure BIO-2.

Coastal California gnatcatcher (federally listed threatened, CDFW SSC, MSHCP Covered) was found to be presumed absent from the Project site. This bird occurs in coastal scrub habitats, especially those dominated by California sage, including dry coastal slopes, washes, and mesas; areas of low plant growth (Atwood 1992). This species generally avoids crossing even small areas of unsuitable habitat (Atwood 1992). The Project site and area within the 500-foot buffer are not within core habitat or any MSHCP-designated area targeted for coastal California gnatcatcher conservation. No suitable habitat for the species is present on the Project site or immediately adjacent to the site. Coastal California gnatcatcher are not expected to occur in the small, disturbed California buckwheat scrub area north of the Project site due to the poor quality of the scrub habitat consisting of sparse shrub growth, close proximity to I-15, and anthropogenic disturbances. Off the Project site, approximately 0.96 acre of suitable California buckwheat scrub habitat for California gnatcatcher is present south of the Project site within the 500-buffer. While suitable habitat for California gnatcatcher is present on the hillsides south of the Project site, the surrounding area is subjected to many disturbances associated with industrial and commercial development, land uses, and I-15 to the north. Furthermore, the Riverside County flood control channel south of the Project site that separates the suitable California buckwheat scrub from the site likely provides an additional barrier between Project activities and the suitable habitat. If California gnatcatcher are present within the California buckwheat scrub habitat south of the Project site, they are likely already used to high levels of human and vehicular activities and the construction of the Project likely will not result in impacts to the species (behavior alteration, nesting or reproduction activities, or habitat loss and degradation). Project-related impacts to California gnatcatcher are not expected due to the lack of habitat on the Project site, high levels of disturbance in the region, and the potentially suitable scrub habitat located approximately 400 feet away from the Project site. In addition, a busy road, W Minthorn Street, and the flood control channel between the Project site and the potential habitat act as a buffer between Project construction activities and the California buckwheat scrub habitat. The literature review revealed 21 records within 5 miles of the Project site. The most recent occurrence (Occurrence # 564) was observed in 2015 less than 1 mile east of the Project site (CDFW 2022a). All other occurrences recorded within 5 miles of the Project site are greater than 20 years old and considered historic. Based on the lack of suitable coastal sage scrub habitat on the Project site, the industrial and commercial development surrounding the site, barriers present between the Project site and the suitable California gnatcatcher habitat located on hillsides south of the Project

site, and high levels of human and vehicular activity, Project-related impacts to the species are not expected to occur.

5.2 Sensitive Natural Communities

The Project site does not support any sensitive natural communities; no vegetation communities were present on the site and only disturbed land cover is present. The California buckwheat scrub and cattail marsh vegetation communities identified outside of the Project site are not considered sensitive natural communities. No impacts to sensitive natural communities are anticipated as a result of this Project.

5.3 State or Federally Protected Wetlands and Waters of the United States

No state or federally protected wetlands or waters of the U.S. were identified on the Project site; therefore, no impacts to these resources are expected to occur. The three blue line features mapped by NWI outside of the Project site may be jurisdictional: a temporarily flooded intermittent riverine is present to the west of the site and flows southwest through the Riverside County Flood Control and Water Conservation District drainage and detention basin; a seasonally flooded freshwater forested/shrub wetland occurs south of the Project site; and a seasonally flooded intermittent riverine is present southwest of the Project site (Figure 3). One area of pooling water was identified outside of the Project site to the west (Figure 4) and one small drainage was identified outside of the Project site to the southwest (Figure 4) that may also be jurisdictional. However, an official aquatic resources delineation was not performed because the aquatic features observed during the surveys are outside the Project site and impacts to these features are not expected to occur. Two drainage culverts, one of which is fully filled in with concrete, were identified outside the boundaries of the Project site to the northeast (Figure 4); however, impacts to these culverts are also not expected as a result of the Project due to their location outside of the Project boundaries. If any offsite improvements are planned that could affect the aquatic features in the vicinity of the Project site, a formal aquatic resources delineation is recommended to identify exact impacts to these features.

5.4 Wildlife Corridors and Nursery Sites

The Project site is located within and adjacent to areas containing existing disturbances (e.g., paved roads and industrial developments). The Project site is disturbed and contains little to no vegetative cover that would facilitate wildlife movement. No migratory wildlife corridors or native wildlife nursery sites were identified within the Project site. No impacts to these resources are expected to occur during the development of the Project site.

5.5 Habitat Conservation Plans and Natural Community Conservation Plans

The Project site is located within the planning area for the Western Riverside MSHCP. The Project site is not located within any Conservation Areas, Criteria Cells, or Subunit designations according to the MSHCP.

5.5.1 Western Riverside County Multiple Species Habitat Conservation Plan Consistency Analysis

The Project site is located within the planning area for the MSHCP, but outside of any Cell Groups, Criteria Cells, and Subunit designations. Section 6.0 of the MSHCP requires assessment of the potential effects from the Project on biological resources including riparian/riverine areas, vernal pools, fairy shrimp, burrowing owl, and Narrow Endemic Plant Species. There is no requirement to analyze the potential effects from the Project on other Section 6.0 species, such as mammals, fish or amphibian species due to lack of presence of habitat. In addition, the MSHCP requires an Urban/Wildlands Interface analysis be conducted in order to address the indirect effects associated with locating proposed development in the proximity of MSHCP Conservation Areas. These resources were assessed during the reconnaissance survey and are discussed below in relation to the Project.

The Proposed Project consists of the construction of two buildings, two driveways, parking spaces, a sidewalk, a block wall along the western boundary, gravel fill, and landscaping on an approximately 2.8-acre Project site in the City of Lake Elsinore, California. Because development of the Project site is a covered activity within the MSHCP, it is an allowable use that has been contemplated within the MSHCP. However, projects that are covered still need to comply with MSHCP requirements.

5.5.1.1 Riparian/Riverine, Vernal Pool, and Fairy Shrimp Habitat Assessment (MSHCP Section 6.1.2)

In accordance with Section 6.1.2 of the MSHCP, a habitat assessment was performed for riparian and riverine communities, vernal pools, and fairy shrimp. The Project site, consisting of Arbuckle gravelly loam, 15 to 25 percent slopes (AIE), Cortina gravelly coarse sandy loam, 2 to 8 percent slopes (CnC), and Waukena loamy fine sand, saline-alkali lacks clay soils and does not contain vernal pool habitat or suitable habitat for fairy shrimp. No evidence of pools or standing water was observed on the Project site.

No riparian vegetation or riverine features are present on the Project site and impacts to these resources are not anticipated as a result of the Project. Off the Project site, riparian vegetation was observed in an area of pooling west of the Project boundaries (Figure 4). Although this area may provide vernal pool habitat potentially suitable for fairy shrimp, it is located outside the Project boundaries and will be avoided under the Proposed Project plan. Riparian vegetation and standing water were observed south of the Project site, within the NWI mapped freshwater forested/shrub wetland (Figure 3). Southwest of the site, a small drainage was identified that was dry at the time of the survey and lacked riparian vegetation and hydric soils (Figure 4). Two drainage culverts (Figure 4) were also recorded outside the Project boundaries during the survey; however, no hydric soils were observed in association with the culverts. These areas are located outside the Project boundaries and will be avoided by the Project. Therefore, no impacts to riparian and riverine habitat, vernal pools, or fairy shrimp habitat are anticipated as a result of the Project. If any offsite improvements are planned that could affect aquatic features present in the areas surrounding the Project site, a formal aquatic resources delineation is recommended to identify impacts to these features.

Additionally, Section 6.1.2 of the MSHCP lists 23 special-status plant species associated with riparian/riverine and vernal pool areas (RCTLMA 2022). There is no suitable habitat on the Project site for any of the 23 special-status plant species listed in Section 6.1.2 of the MSHCP.

5.5.1.2 Narrow Endemic Plant Species (MSHCP Section 6.1.3)

The RCA MSHCP Information Map was reviewed to determine whether the Project site is located within a Narrow Endemic Plant Species Survey Area (NEPSSA), in accordance with Section 6.1.3 of the MSHCP. The Project site is not located within a NEPSSA or a CASSA.

5.5.1.3 Burrowing Owl Habitat Assessment (MSHCP Section 6.3.2)

In accordance with Section 6.3.2 of the MSHCP, a habitat assessment for burrowing owl was performed. Additionally, the RCA MSHCP Information Map was reviewed to identify areas within the Project site that may fall within the designated burrowing owl survey areas. The Project site is not located within a MSHCP-designated burrowing owl survey area. No suitably sized burrows were present on the Project site during the burrowing owl habitat assessment that was performed in accordance with the MSHCP burrowing owl survey guidelines (County of Riverside 2006). Two burrows of suitable size for burrowing owl usage were identified outside of the Project site during the habitat assessment; however, these burrows were located across a busy street, Collier Avenue, and near I-15 (Figure 4).

Although no burrowing owls or burrowing owl sign were observed during the survey, marginal amounts of low-quality foraging habitat is present on the Project site and two potential burrows were observed adjacent to the site. Preconstruction surveys will need to be conducted prior to the start of Project construction in order to maintain compliance with the burrowing owl protection measures in the MSHCP. The preconstruction surveys shall follow the protocols set forth in the MSHCP burrowing owl survey guidelines (County of Riverside 2006) and the California Department of Fish and Game (CDFG) Staff Report on Burrowing Owl Mitigation (CDFG 2012). Implementation of Mitigation Measure BIO-1 would keep the Project in compliance with the MSHCP requirements in Section 6.3.2.

5.5.1.4 Urban/Wildlands Interface Guidelines (MSHCP Section 6.1.4)

The requirements for Urban/Wildlands Interface for the management of edge factors do not apply to the majority of the Project site where it is not situated adjacent to any wildlands or MSHCP-designated Conservation Areas. The Project site is isolated from larger, contiguous blocks of native habitat, and completely surrounded by industrial development, paved roads, and other anthropogenic land use. Public Quasi-Public Conserved Land, owned by Riverside County Flood Control and Water Conservation District, is present immediately west of the Project site that is managed for protection of flood related threats. This area does not provide habitat for special-status species and the construction of the Project would not result in impacts to any Public or Quasi-Public Conserved Land. However, use of invasive species within landscaping on the site should be prohibited due to the potential for seed to disperse into the adjacent areas and move further downstream. A net long-term increase of edge impacts is not expected as a result of this Project.

5.5.1.5 Additional Surveys (MSHCP Section 6.3.2)

The RCA MSHCP Information Map was reviewed to determine if the Project site is located within any MSHCP-designated survey areas. The Information Map revealed that the Project site is not located within the amphibian species, criteria area species, or mammalian species survey areas. Therefore, no further habitat assessments or surveys are required.

6.0 MITIGATION MEASURES

The following section provides recommendations and/or mitigation measures to address the potential impacts to biological resources identified in this report. Recommendations for avoiding impacts to sensitive biological resources are presented below:

BIO-1 Preconstruction Survey for Crotch bumble bee: If the Crotch bumble bee is no longer a Candidate or formally listed species under the California ESA at the time ground-disturbing activities occur, then no additional protection measures are proposed for the species.

If the Crotch bumble bee is legally protected under the California ESA as a Candidate or Listed species at the time ground-disturbing activities are scheduled to begin, a preconstruction survey shall be conducted in accordance with CDFW's Survey Considerations for California ESA Candidate Bumble Bee Species (CDFW 2023) during the Crotch's bumble bee flight season (February – October) no more than 48 hours prior to Project-related ground disturbing activities (including but not limited to vegetation clearing, fence installation, and grading) by a qualified Crotch's bumble bee biologist. The 48-hour preconstruction survey shall be repeated as necessary if the Project does not begin with 48 hours of completion of the preconstruction survey. If Crotch bumble bees are detected (alive or dead), CDFW shall be notified within 24 hours as further coordination may be required to avoid or mitigate certain impacts, and an incidental take permit may be required. If no Crotch bumble bees are detected, then the Project activities may commence.

BIO-2 Preconstruction Surveys for Burrowing Owl: Due to the presence of marginal amounts of low-quality foraging habitat on the Project site and potential burrows adjacent to the site in the surrounding area, preconstruction surveys for burrowing owl shall take place no more than 30 days prior to the start of ground-disturbing activities, regardless of whether Project activities are scheduled to occur during the burrowing owl breeding season (March 1 through August 31) or not. The surveys shall be performed in accordance with the Western Riverside MSHCP Burrowing Owl Survey Instructions (County of Riverside 2006) and the CDFG Staff Report on Burrowing Owl Mitigation (CDFG 2012). If preconstruction survey results are negative, no further action is required for protection of burrowing owls. If preconstruction survey results are positive and impacts to burrowing owls are unavoidable, then additional mitigation measures will need to be implemented to offset impacts to burrowing owl. Further, a burrowing owl avoidance and mitigation plan will prepared for review and approval by the wildlife agencies (CDFW and USFWS) if owls are

present. The plan will include measures developed in accordance with the CDFG Staff Report on Burrowing Owl Mitigation (2012) and may include seasonal work restriction, establishing a non-disturbance buffer around each burrow location, biological monitoring, or passive relocation. If passive relocation is found to be necessary, then coordination with CDFW will need to occur.

BIO-3 Preconstruction Survey for Nesting Birds: Wherever feasible, any ground-disturbing activities (including vegetation removal) shall be conducted during the non-breeding season for birds (approximately September 1 through January 31) in order to avoid violations of the MBTA and California Fish and Game Code §§ 3503, 3503.5 and 3513. If activities with the potential to disrupt nesting birds are scheduled to occur during the bird breeding season (February 1 through August 31), a preconstruction nesting bird survey shall be conducted by a qualified biologist who is experienced in surveying for and identification of avian species no more than three days prior to the start of ground-disturbing activities. The nesting bird survey shall include the Project site and adjacent areas where Project activities have the potential to cause nest failure. If no nesting birds are observed during the survey, site preparation and construction activities may begin. If nesting birds (including nesting raptors) are found to be present, avoidance or minimization measures shall be implemented to avoid potential Project-related impacts. Avoidance and minimization measures shall be developed by the qualified biologist and may include non-disturbance buffers established around active nests until the biologist has determined that the nesting cycle is completed, seasonal work restrictions, or additional survey and monitoring requirements. The width of non-disturbance buffers established around active nests will be determined by the qualified biologist (300 feet is typically recommended for songbirds and 500 feet is typically recommended for raptors). Once nesting is deemed complete by the qualified biologist as determined through periodic nest monitoring, the non-disturbance buffer will be removed by the qualified biologist and Project work may resume in the area.

7.0 CERTIFICATION

I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this biological evaluation, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief. Field work conducted for this assessment was performed by me or under my direct supervision. I certify that I have not signed a non-disclosure or consultant confidentiality agreement with the project applicant or the applicant's representative and that I have no financial interest in the project.

Signed: Chelsie Brown Date: March 1, 2022

Chelsie Brown
Associate Biologist/Assistant Project Manager

8.0 LITERATURE CITED

Alford, D. V. 1975. *Bumblebees*. Davis-Poynter, London.

Atwood, J. L. 1992. A closer look: California gnatcatcher. *Birding*, August, pp. 228-239.

Baldwin, B. G., D. H. Goldman, D. J. Keil, R. Patterson, T. J. Rosatti, and D. H. Wilken, editors. 2012. The Jepson Manual: Vascular Plants of California, Second Edition. University of California Press, Berkeley, California. 1400 pp.

Bradley, R.D., L.K. Ammerman, R.J. Baker, L.C. Bradley, J.A Cook, R.C. Dowler, C. Jones, D. J. Schmidly, F.B. Stangl, Jr., R.A. Van Den Bussche, B. Wursig. 2014. Revised Checklist of North American Mammals North of Mexico. Museum of Texas Tech University.

CalFlora: Information on California plants for education, research and conservation. [Web application]. 2022. Berkeley, California: The CalFlora Database [a non-profit organization]. Available from: http://www.calflora.org.

California Department of Fish and Game (CDFG). 2012. Staff Report on Burrowing Owl Mitigation.

_____. 1984. California Endangered Species Act. Fish and Game Code Section 2050-2085.

California Department of Fish and Wildlife (CDFW). 2022a. RareFind California Department of Fish and Game Natural Diversity Database (CNDDB). California. Sacramento, CA, California Department of Fish and Wildlife, Biogeographic Data Branch. Accessed January 2022.

_____. 2022b. State and Federally Listed Endangered and Threatened Animals of California. Sacramento (CA): State of California, Natural Resources Agency, Department of Fish and Wildlife. Accessed: January 2022.

_____. 2022c. Special Animals List. Sacramento (CA): State of California, Natural Resources Agency, Department of Fish and Game, https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109406. Accessed January 2022.

_____. 2023. *Survey and Considerations for California Endangered Species Act (California ESA) Candidate Bumble Bee Species*. State of California, Natural Resources Agency, Department of Fish and Wildlife. Published June 2023.

_____. 2024. RareFind California Department of Fish and Game Natural Diversity Database (CNDDB). California. Sacramento, CA, California Department of Fish and Wildlife, Biogeographic Data Branch. Accessed December 2024.

California Native Plant Society (CNPS). 2022a. Inventory of Rare and Endangered Plants of California (online edition, v9-01 1.5). California Native Plant Society, Sacramento, CA, http://www.rareplants.cnps.org.

_____. 2022b. A Manual of California Vegetation, Online Edition. http://www.cnps.org/cnps/vegetation/; searched on February 1, 2022. California Native Plant Society, Sacramento, CA.

Chesser, R. T., K. J. Burns, C. Cicero, J. L. Dunn, A. W. Kratter, I. J. Lovette, P. C. Rasmussen, J. V. Remsen, Jr., D. F. Stotz, and K. Winker. 2020. Check-list of North American Birds (online), 7th edition with 61st Supplement. American Ornithological Society. http://checklist.aou.org/taxa

County of Riverside. 2006. *Burrowing Owl Survey Instructions for the Western Riverside County Multiple Species Habitat Conservation Plan Area*. edited by Environmental Programs Department. Riverside, CA: County of Riverside.

Free, J. B., and Colin Gasking Butler. 1959. *Bumblebees*. Collins.

Fussell, M., and S. A. Corbet. 1992. Flower Usage by Bumble-Bees: A Basis for Forage Plant Management. Source: *Journal of Applied Ecology*. Volume 29.

Hatfield, R., S. Jepsen, S. F. Jordan, M. Blackburn, A. Code. 2018. *Petition to List Four Species of Bumble Bees as Endangered Species under the California Endangered Species Act*. Submitted by The Xerces Society for Invertebrate Conservation, Defenders of Wildlife, and Center for Food Safety.

Lye, G. C., J. L. Osborne, K. J. Park, and D. Goulson. 2012. Using citizen science to monitor Bombus populations in the UK; nesting ecology for and relative abundance in the urban environment. *Journal of Insect Conservation* 16:697-707.

Riverside Transportation and Land Management Agency (RCTLMA). 2022. *Western Riverside County Multiple Species Habitat Conservation Plan*. Available from: http://rctlma.org/Portals/0/mshcp/volume1/index.html

Natural Resources Conservation Service (NRCS). 2022. Online Web Soil Survey. U.S. Department of Agriculture. http://websoilsurvey.nrcs.usda.gov. Accessed January 2022.

Regional Conservation Authority (RCA). 2022. RCA MSHCP Information Tool. Available from: https://www.wrc-rca.org/rcamaps/

Sawyer, J. O., T. Keeler-Wolf, and J. M. Evens. 2009. *A Manual of California Vegetation, 2nd ed.* California Native Plant Society, Sacramento, CA.

Skinner, M.W. and B.M. Pavlik. 1994. California Native Plant Society Inventory of Rare and Endangered Vascular Plants of California. 5th edition. California Native Plant Society, Sacramento, CA. 264 pp.

Sladen, F. W. Lambert 1912. *The Humble-bee: its Life-history and how to Domesticate it*. Macmillan and Company, limited.

Society for the Study of Amphibians and Reptiles (SSAR). 2017. *Scientific and Standard English Names of Amphibians and Reptiles of North American North of Mexico, With Comments Regarding Confidence in our Understanding. Eighth Edition*. Committee on Standard English and Scientific Names.

U.S. Fish and Wildlife Service (USFWS). 2022. National Wetlands Inventory Mapper. https://www.fws.gov/wetlands/data/mapper.html. Accessed January 2022.

_____. 1918. Migratory Bird Treaty Act of 1918. Section 16 of the U.S. Code (703-712), as amended 1989.

Williams, P. H., R. W. Thorp, L. L. Richardson, and S. R. Colla. 2014. *The Bumble Bees of North America: An Identification Guide*. Princeton University Press, Princeton.

Zeiner D.C., W.F. Laudenslayer Jr., K.E. Mayer, and M. White, editors (California Department of Fish and Wildlife). 1990. *California's Wildlife. Volume II, Birds*. Sacramento (CA): State of California, the Resources Agency, Department of Fish and Wildlife.

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Appendix C – Representative Site Photographs

Appendix D – Plant Species Observed

Appendix E – Wildlife Species Observed

Appendix F – CNPS Search Results

APPENDIX A

Sensitive Plant Species Potential for Occurrence

Scientific Name Common Name	Status		Bloom Period & Elevation (feet)	Habitat Requirements	Potential for Occurrence
Ambrosia pumila San Diego ambrosia	Fed: Ca: CRPR: MSHCP:	END none 1B.1 COV	Apr-Oct 65-1360	Occurs in chaparral, coastal scrub, valley and foothill grassland, and vernal pools. Often found in sandy loam or clay, often in disturbed areas, sometimes found in alkaline soils.	Moderate Potential to Occur: Although no suitable chaparral, coastal scrub, grassland, or vernal pool habitat is present on the site, the Project site consists of disturbed land cover and four recent records (Occ # 44, 54, 58, 67) of the species occur within 5 miles of the site.
Abronia villosa var. *aurita* Chaparral sand-verbena	Fed: Ca: CRPR: MSHCP:	none none 1B.1 none	(Jan) Mar-Sept 245-5250	Occurs in chaparral, coastal scrub, and desert dune habitats. Often found in sandy soil.	Presumed Absent: No suitable chaparral, coastal scrub, or sandy desert habitat is present on the Project site and there are no records within 5 miles of the site.
Allium munzii Munz's onion	Fed: Ca: CRPR: MSHCP:	END THR 1B.1 COV	Mar-May 975-3510	Occurs in chaparral, cismontane woodland, coastal scrub, pinyon and juniper woodland, and valley and foothill grasslands. Often found in clay soils, growing in grasslands and openings within shrublands or woodlands.	Presumed Absent: Although four recent records occur within 5 miles of the Project site, the site lacks clay soils and does not contain suitable chaparral, woodland, coastal scrub, or grassland habitat.
Almutaster pauciflorus alkali marsh aster	Fed: Ca: CRPR: MSHCP:	none none 1B.2 none	Jun-Oct 785-2625	Occurs in meadows and seeps of alkaline soils.	Presumed Absent: No suitable meadow or seep habitat is present on the Project site and there are no records within 5 miles of the site.
Arctostaphylos rainbowensis rainbow manzanita	Fed: Ca: CRPR: MSHCP:	none none 1B.1 COV	Dec-Mar 675-2200	Occurs in chaparral.	Presumed Absent: No suitable chaparral habitat is present on the Project site and there are no records within 5 miles.
Atriplex coronata var. *notatior* San Jacinto Valley crownscale	Fed: Ca: CRPR: MSHCP:	END none 1B.1 COV	Apr-Aug 455-1640	Occurs in playas, valley and foothill grasslands, and vernal pools in alkaline soils.	Presumed Absent: Although the site contains alkaline soils in the southeast corner, this portion of the site is highly disturbed and covered in gravel currently. There has been one recent records (Occ # 16) within 5 miles of the Project site; however, the site lacks playa, grassland, and vernal pool habitat. only marginally suitable grassland habitat is present.
Atriplex parishii Parish's brittlescale	Fed: Ca: CRPR: MSHCP:	none none COV	Jun-Oct 80-6235	Occurs in chenopod scrub, playas, and vernal pools in alkaline soils.	Presumed Absent: No suitable chenopod scrub, playa, or vernal pool habitats are present on site and no records occur within 5 miles.
Ayenia compacta California ayenia	Fed: Ca: CRPR: MSHCP:	none none 2B.3 none	Mar-Apr 490-3595	Occurs in Mojavean desert scrub and Sonoran desert scrub often in rocky habitats.	Presumed Absent: Although one historic record (Occ # 52) occurs within 5 miles of the site, the record is from 1929 and no suitable rocky, desert habitat is present on the Project site.
Brodiaea filifolia thread-leaved brodiaea	Fed: Ca: CRPR: MSHCP:	THR END 1B.1 COV	Mar-Jun 80-3675	Occurs in cismontane woodland, coastal scrub, playas, valley and foothill grassland, vernal pools, and in openings of chaparral. Often found in clay soils.	Presumed Absent: The site lacks clay soils and suitable woodland, coastal scrub, playa, grassland, vernal pool, and chaparral opening habitat. In addition, there are no records of the species within 5 miles of the site.

Scientific Name Common Name	Status		Bloom Period & Elevation (feet)	Habitat Requirements	Potential for Occurrence
Calochortus weedii var. *intermedius* intermediate mariposa lily	Fed: Ca: CRPR: MSHCP:	none none 1B.2 COV	May-July 345-2805	Occurs in chaparral, coastal scrub, and valley and foothill grasslands, in rocky, calcareous soils.	Presumed Absent: The Project site lacks rocky, calcareous soils and no suitable chaparral, coastal scrub, or valley and foothill grassland habitat is present. In addition, there are no records within 5 miles.
Centromadia pungens ssp. *Laevis* smooth tarplant	Fed: Ca: CRPR: MSHCP:	none none 1B.1 COV	Apr-Sep 0-2100	Occurs in chenopod scrub, meadows and seeps, playas, riparian woodlands, and valley and foothill grassland habitats. Often found in alkaline soil.	Presumed Absent: Although the site contains alkaline soils in the southeast corner, this portion of the site is highly disturbed and covered in gravel currently. Seven recent records of the species occur within 5 miles of the Project site; however, the site lacks scrub, meadow and seep, playa, woodland, and grassland habitat.
Chorizanthe parryi var. *parryi* Parry's spineflower	Fed: Ca: CRPR: MSHCP:	none none 1B.1 COV	Apr-Jun 900-4005	Occurs in chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland habitat. Often found in sandy or rocky openings. Generally associated with larger alluvial plains.	Presumed Absent: Although three recent records of the species occur within 5 miles of the site, the Project site lacks chaparral, woodland, coastal scrub, and grassland habitat.
Chorizanthe polygonoides var. *longispina* long-spined spineflower	Fed: Ca: CRPR: MSHCP:	none none 1B.2 COV	Apr-Jul 100-5020	Occurs in chaparral, coastal scrub, meadows and seeps, valley and foothill grasslands, and vernal pool habitat. Often found in clay soil.	Presumed Absent: Although eight recent records of the species have been recorded within 5 miles of the site, the site lacks clay soils and does not contain suitable chaparral, coastal scrub, meadow and seep, grasslande, or vernal pool habitat.
Clinopodium chandleri San Miguel savory	Fed: Ca: CRPR: MSHCP:	none none 1B.2 COV	Mar-Jul 395-3525	Occurs in chaparral, cismontane woodland, coastal scrub, riparian woodland, and valley and foothill grasslands. Often found in rocky, gabbroic or metavolcanic soils.	Presumed Absent: The site lacks suitable chaparral, woodland, coastal scrub, and valley and foothill grassland habitat. In addition, there are no records within 5 miles.
Comarostaphylis diversifolia ssp. *Diversifolia* Summer Holly	Fed: Ca: CNPS: MSHCP:	none none 1B.2 none	April-June 100-2590	Occurs on shady dry slopes of chaparral or cismontane woodland often near creeks or runoffs.	Presumed Absent: The site lacks dry slopes of chaparral and cistomontane woodland. In addition, there are no records within 5 miles of the site.
Dodecahema leptoceras slender-horned spineflower	Fed: Ca: CNPS: MSHCP:	END END 1B.1 COV	Apr-Jun 655-2495	Occurs in chaparral, cismontane woodland, and alluvial fan coastal scrub in sandy soils. Generally only located in large alluvial systems.	Presumed Absent: No suitable chaparral, woodland, or alluvial fan coastal scrub habitat occurs on the Project site and no records occur within 5 miles of the site.
Dudleya multicaulis many-stemmed dudleya	Fed: Ca: CRPR: MSHCP:	none none 1B.2 COV	Apr-Jul 50-2590	Occurs in chaparral, coastal scrub, and valley and foothill grassland habitats. Often found in areas of clay soil.	Presumed Absent: Although one recent record (Occ # 6) occurs within 5 miles of the Project site, the site lacks clay soils and does not contain suitable chaparral, coastal scrub, or grassland habitat.
Dudleya viscida Sticky Dudleya	Fed: Ca: CNPS: MSHCP:	none none 1B.2 COV	May-June 35-1805	Occurs in coastal bluff scrub, chaparral, cismontane woodland, and coastal scrub in rocky soils.	Presumed Absent: No suitable coastal scrub, chaparral, or woodland habitat occurs on the Project site and no records occur within 5 miles of the site.

Scientific Name Common Name	Status		Bloom Period & Elevation (feet)	Habitat Requirements	Potential for Occurrence
Eryngium aristulatum var. *parishii* San Diego button-celery	Fed: Ca: CRPR: MSHCP:	END END 1B.1 COV	Apr-Jun 65-2035	Occurs in mesic habitats of coastal scrub, valley and foothill grasslands, and vernal pools.	Presumed Absent: The site lacks vernal pools, coastal scrub, and suitable valley and foothill grassland habiat. In addition, there are no records within 5 miles of the site.
Geothallus tuberosus Campbell's liverwort	Fed: Ca: CRPR: MSHCP:	none none 1B.1 none	Ephemeral liverwort 35-1970	Occurs in soils of mesic coastal scrub habitats and vernal pools.	Presumed Absent: The Project site lacks coastal scrub and vernal pool habitat. In addition, there are no records within 5 miles.
Hesperocyparis forbesii Tecate cypress	Fed: Ca: CRPR: MSHCP:	none none 1B.1 none	Perennial evergreen tree 260-4920	Occurs in closed-cone coniferous forest, and chaparral habitat. Often found in areas with clay, gabbroic or metavolcanics soils.	Presumed Absent: No suitable forest or chaparral habitat is present on the Project site. In addition, there are no records within 5 miles of the site.
Horkelia cuneata var. *puberula* mesa horkelia	Fed: Ca: CRPR:	none none 1B.1 none	Feb-Jul (Sep) 230-2660	Occurs in cismontane woodland, coastal scrub, and maritime chaparral in sandy or gravelly soils.	Presumed Absent: No suitable cismontane woodland, coastal scrub, or maritime chaparral habitat was present on the Project site. There are no records within 5 miles.
Juncus luciensis Santa Lucia dwarf rush	Fed: Ca: CRPR: MSHCP:	none none 1B.2 none	Apr-Jul 985-6695	Occurs in chaparral, Great Basin scrub, lower montane coniferous forest, meadows and seeps, and vernal pools.	Presumed Absent: No suitable chaparral, forest, seep, or vernal pool habitat is present on the Project site and there are no records within 5 miles.
Lasthenia glabrata ssp. *coulteri* Coulter's goldfields	Fed: Ca: CRPR: MSHCP:	none none 1B.1 COV	Feb-Jun 5-4005	Occurs in coastal salt marshes and swamps, playas, and vernal pools.	Presumed Absent: Although the literature review revealed one historic record (Occ # 21) and one recent record (Occ # 57) within 5 miles of the site, no suitable marsh, swamp, playa, or vernal pool habitat is present on the Project site.
Navarretia fossalis spreading navarretia	Fed: Ca: CRPR: MSHCP:	THR none 1B.1 COV	Apr-Jun 100-2150	Occurs in chenopod scrub, shallow freshwater marshes and swamps, playas, and vernal pools.	Presumed Absent: No suitable chenopod scrub, marsh, playa, or vernal pool habitat is present on the Project site and there are no records within 5 miles of the site.
Navarretia prostrata prostrate vernal pool Navarretia	Fed: Ca: CRPR: MSHCP:	none none 1B.2 COV	Apr-Jul 10-3970	Occurs in coastal scrub, meadows and seeps, alkaline valley and foothill grasslands, and vernal pools.	Presumed Absent: The site lacks seeps, vernal pools, coastal scrub, and suitable valley & foothill grassland habitat. In addition, there are no records within 5 miles of the site.
Nolina cismontana chaparral Nolina	Fed: Ca: CNPS: MSHCP:	none none 1B.2 none	(Mar) May-July 460-4185	Occurs in chaparral, coastal scrub, and areas with sandstone or gabbro.	Presumed Absent: No suitable chaparral and coastal scrub habitat is present on the Project site and there are no records within 5 miles of the site.
Orcuttia californica California Orcutt grass	Fed: Ca: CRPR: MSHCP:	END END 1B.1 COV	Apr-Aug 50-2165	Occurs in vernal pools.	Presumed Absent: Although one historic record (Occ # 42) of this species was observed within 5 miles of the site in 1998, no vernal pool habitat is present on the Project site.
Pseudognaphalium leucocephalum white rabbit-tobacco	Fed: Ca: CRPR: MSHCP:	none none 2B.2 none	(Jul)Aug-Nov(Dec) 0-6890	Occurs in chaparral, cismontane woodland, coastal scrub, and riparian woodland. Often found in sandy, gravelly soils.	Presumed Absent: The site lacks chaparral, woodland, coastal scrub, and riparian woodland habitat. In addition, there are no records within 5 miles of the site.

Scientific Name Common Name	Status		Bloom Period & Elevation (feet)	Habitat Requirements	Potential for Occurrence
Sphaerocarpos drewiae bottle liverwort	Fed: Ca: CRPR: MSHCP:	none none 1B.1 none	Ephemeral liverwort 295-1970	Occurs in soil openings of chaparral and coastal scrub.	Presumed Absent: The site lacks chaparral and coastal scrub habitat and there are no records within 5 miles.
Symphyotrichum defoliatum San Bernardino aster	Fed: Ca: CRPR: MSHCP:	none none 1B.2 none	Jul-Nov 5-6695	Occurs in meadows and seeps, marshes, and swamps, coastal scrub, cismontane woodland, lower montane coniferous forest, and vernally mesic valley and foothill grassland. Often found in disturbed areas and near ditches, streams, and springs.	Presumed Absent: No suitable habitat was present on the Project site. Species occurs in meadow and seep, marsh, swamp, coastal scrub, cismontane woodland, coniferous forest, and valley and foothill grassland communities. In addition, no records occur within 5 miles of the site.
Tetracoccus dioicus Parry's Tetracoccus	Fed: Ca: CNPS: MSHCP:	none none 1B.2 none	April-May 540-3280	Occurs in chaparral and coastal scrub.	Presumed Absent: There is no chaparral or coastal scrub habitat on the Project site and there are no records within 5 miles.
Tortula californica California screw moss	Fed: Ca: CRPR: MSHCP:	none none 1B.2 none	Moss 35-4790	Occurs in sandy soil of chenopod scrub and valley and foothill grassland.	Presumed Absent: The site lacks chenopod scrub and suitable valley and foothill grassland habitat. In addition, there are no records within 5 miles.
Trichocoronis wrightii var. *wrightii* Wright's trichocoronis	Fed: Ca: CRPR: MSHCP:	none none 2B.1 COV	May-Sep 15-1425	Occurs in meadows and seeps, marshes and swamps, riparian forest, and vernal pools. Often found in alkaline soils.	Presumed Absent: No suitable seep, marsh, riparian, or vernal pool habitat is present on the Project site and there are no records within 5 miles.
Viguiera purisimae La Purisima viguiera	Fed: Ca: CRPR: MSHCP:	none none 2B.3 none	April-Sept 1200-1395	Occurs in chaparral and coastal bluff scrub.	Presumed Absent: There is no chaparral or coastal scrub habitat on the Project site and there are no records within 5 miles.

Federal Designations:

(Federal Endangered Species Act, USFWS)

END: federally listed, endangered

THR: federally listed, threatened

State designations:

(California Endangered Species Act, CDFG)

END: state-listed, endangered

THR: state-listed, threatened

CAN: Candidate for state listing

FP: Fully Protected Species

SSC: Species of Special Concern

Other Designations

COV: Covered under the Western Riverside MSHCP

CRPR Ranking

1A: Presumed extinct

1B: Rare, threatened, or endangered in California and elsewhere

2B: Rare, threatened, or endangered in California, but more common elsewhere

3: Review list of plants requiring more study

4: Plants of limited distribution watch list

CRPR Threat Code

0.1: Seriously threatened in California

0.2: Fairly threatened in California

0.3: Not very threatened in California

Source: California Natural Diversity Data Base (CNDDB) & California Native Plant Society Electronic Inventory (CRPREI) Lake Elsinore, Lake Mathews, Steele Peak, Perris, Romoland, Murrieta, Wildomar, Sitton Peak, and Alberhill 7.5-minute quads.

APPENDIX B

Sensitive Wildlife Species Potential for Occurrence

Scientific Name Common Name	Status		Habitat Requirements	Potential for Occurrence
Invertebrates				
Branchinecta lynchi vernal pool fairy shrimp	Fed: CA: MSHCP:	THR none COV	Vernal pools and ephemeral wetlands. Typically, in small and shallow pools with mud or grassy bottoms.	Presumed Absent: No ephemeral wetlands or vernal pools are present on the Project site and there are no records within 5 miles.
Branchinecta sandiegonensis San Diego fairy shrimp	Fed: CA: MSHCP:	END none none	Vernal pools and ephemeral wetlands in San Diego and Orange Counties.	Presumed Absent: No ephemeral wetlands or vernal pools are present on the Project site and there are no records within 5 miles.
Bombus crotchii Crotch bumble bee	Fed: CA: MSHCP:	none CAN none	Found in coastal California east to the Sierra-Cascade crest and south into Mexico. Occurs in open grassland and scrub habitats. Prefers a diet consisting of certain plant species including milkweeds, dusty maidens, lupines, medics, phacelias, sages, clarkias, poppies, and wild buckwheats. Nests are often located underground in abandoned rodent nests or above ground in tufts of grass, old bird nests, rock piles, or cavities in dead trees.	Low Potential to occur: Marginally suitable forging habitat is present within and adjacent to the Project site and marginally suitable nesting habitat for the species is present within the Project site. At the time of the biological survey, approximately half of the Project site contained flowering non-native plant species such as coastal heron's bill and sweetclover, although most of the plants were not in bloom at the time of the survey. In addition, ornamental trees consisting of stands of oleander occur adjacent to the Project site in the 500-foot buffer. These plants could provide nectar sources and foraging opportunities for Crotch bumble bee. Gopher burrows and tufts of grass are present within the western half of the Project site which could provide nesting and overwintering habitat for the Crotch bumble bee. However, the western half of the Project site that contains gopher burrows and tufts of grass appears to be regularly disturbed by regular mechanical ground disturbance such as discing and/or mowing and by being actively used as a staging area where large equipment is driven and stored. These disturbances would reduce the likelihood that the species would nest on the Project site. There are two historic records of the species within five miles of the Project site. The nearest and most recent record was documented in 2001 approximately 3 miles southeast of the Project site (Occ # 212).
Euphydryas editha quino Quino checkerspot butterfly	Fed: CA: MSHCP:	END none COV	Chaparral and coastal sage scrublands in Riverside and San Diego counties.	Presumed Absent: Although one recent record (Occ # 83) occurs within 5 miles from 2002, the site lacks chaparral and coastal sage scrub habitat.
Streptocephalus woottoni Riverside fairy shrimp	Fed: CA: MSHCP:	END none COV	Occurs in vernal pools, tectonic swales, and earth slump basins in Riverside County.	Presumed Absent: Although one recent record (Occ # 11) occurs within 5 miles of the site from 2010, no ephemeral wetlands or vernal pools are present on the Project site.
Fishes				
Gila orcutti arroyo chub	Fed: CA: MSHCP:	none SSC COV	Creeks, streams, and rivers with areas of slow-moving water with sand or mud bottoms. Ranges from San Diego to San Luis Obispo county.	Presumed Absent: No creeks, streams, or rivers are present on the Project site and there are no records within 5 miles.
Oncorhynchus mykiss irideus pop. *10* steelhead - southern California DPS	Fed: CA: MSHCP:	END none none	Typically occurs in slow water steams or rivers.	Presumed Absent: No suitable water habitat for this species is present on the Project site. No records occur within five miles.
Amphibians				

Scientific Name Common Name	Status		Habitat Requirements	Potential for Occurrence
Anaxyrus californicus arroyo toad	Fed: CA: MSHCP:	END SSC COV	Occurs in desert wash, riparian scrub, riparian woodland, south coast flowing waters, and south coast standing waters habitat. Found in semi-arid regions near washes or intermittent streams. Prefers rivers with sandy banks, willows, cottonwoods, and sycamores. Often found in loose, gravelly areas of streams.	Presumed Absent. No suitable habitat is present on the Project Site. Typically occurs near rivers with riparian scrub. There are no records within 5 miles.
Rana draytonii California red-legged frog	Fed: CA: MSHCP:	THR SSC COV	Occurs in aquatic, artificial flowing waters, artificial standing waters, freshwater marsh, marsh & swamp, riparian forest, riparian scrub, riparian woodland, Sacramento/San Joaquin flowing waters, Sacramento/San Joaquin standing waters, south coast flowing waters, south coast standing waters, and wetland habitats. Requires 11-20 weeks of permanent water for larval development. Often found in lowlands and foothills in or near permanent sources of deep water with dense, shrubby, or emergent riparian vegetation.	Presumed Absent. No suitable aquatic or riparian habitat is present on the Project site and no records exist within 5 miles.
Spea hammondii western spadefoot	Fed: CA: MSHCP:	none SSC COV	Open areas with sandy soils in a wide range of habitats including lowlands to foothills, coastal sage scrub, chaparral, mixed woodlands, sandy washes, river floodplains, alluvial fans, playas, and grasslands. Vernal pools are essential for breeding and egg-laying. The species is almost completely terrestrial, entering water only to breed.	Presumed Absent: Although 10 recent records occur within 5 miles of the Project site, gravel covers a large portion of the site and heavy equipment, vehicles, and construction materials are currently stored and operated on the site. The western and northwestern portions of the site, without gravel present, do not provide suitable sandy habitat for the species. In addition, suitable pooling habitat for breeding and egg-laying was not present. A pooling area was identified to the west of the Project site; however, this was located across a paved road and approximately 400 feet from the Project site.
Taricha torosa Coast Range newt	Fed: CA: MSHCP:	none SSC COV	Occurs in wet forests, oak forests, chaparral, and rolling grasslands. Burrows in moist soil or wood debris.	Presumed Absent: No chaparral, forest, rolling grassland, or moist soil habitat is present on the Project site and there are no records within 5 miles.
Reptiles				
Anniella stebbinsi southern California legless lizard	Fed: CA: MSHCP:	none SSC none	Coastal sand dunes, and variety of interior habitats including sandy washes and alluvial fans. Occurs in moist warm loose soil with plant cover and sparsely vegetated beach dunes, pine-oak woodlands, desert scrub, chaparral, and stream terraces with sycamores, cottonwoods, or oaks. Sometimes found in suburban gardens.	Presumed Absent: Although one recent record (Occ # 177) occurs within 5 miles from 2010, no suitable alluvial fan, sandy wash, dune, woodland, desert scrub, chaparral, or stream terrace habitat occurs on the Project site.
Arizona elegans occidentalis California glossy snake	Fed: CA: MSHCP:	none SSC none	Most common in desert habitats but also found in arid scrub, rocky washes, grasslands, low elevation coastal scrub, valley-foothill hardwood, and chaparral. Prefers washes and sandy areas with patchy brush and rocks. Perennial plants necessary in habitat for food source.	Presumed Absent: Three records of the species occur within 5 miles, however, they are more than 40 years old. In addition, the site lacks desert, scrub, wash, grassland, hardwood, and chaparral habitats.
Crotalus ruber red-diamond rattlesnake	Fed: CA: MSHCP:	none SSC COV	Found in coastal chaparral, arid scrub, rocky grassland, oak and pine woodlands, desert mountain slopes and rocky desert flats. Diet consists of birds, lizards, and small mammals including ground squirrels, wood rats, and rabbits.	Presumed Absent: Although four historic records occur within 5 miles of the site, the site lacks chaparral, scrub, grassland, woodland, desert mountain, and desert flat habitat.

Scientific Name Common Name	Status		Habitat Requirements	Potential for Occurrence
Emys marmorata western pond turtle	Fed: CA: MSHCP:	none SSC COV	Occurs in aquatic, artificial flowing waters, Klamath/North coast flowing waters, Klamath/North coast standing waters, marsh & swamp, Sacramento/San Joaquin flowing waters, Sacramento/San Joaquin standing waters, south coast flowing waters, south coast standing waters, and wetland habitats. Needs basking sites (logs, rocks, and exposed banks) and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	Presumed Absent: Although the Riverside County flood control drainage and basin are present adjacent to the site, they are only temporarily flooded and do not provide suitable habitat for the species. One historic record (Occ # 828) occurs within 5 miles of the site; however, the site does not provide a suitable basking site or upland habitat for the species due to the current construction activities and disturbed nature of the site.
Phrynosoma blainvillii coast horned lizard	Fed: CA: MSHCP:	none SSC COV	Occurs in chaparral, cismontane woodland, coastal bluff scrub, coastal scrub, desert wash, pinon & juniper woodlands, riparian scrub, riparian woodland, and valley & foothill grassland habitats. Requires open areas for sunning, bushes to provide cover, and loose soil for burial. Diet consists mainly of ants and also small invertebrates. Most commonly found in lowlands along sandy washes with scattered low bushes.	Presumed Absent: Although three recent records of the species occur within 5 miles of the site, the site lacks suitable chaparral, woodland, scrub, wash, or grassland habitat for the species and does not provide bushes for cover.
Salvadora hexalepis virgultea coast patch-nosed snake	Fed: CA: MSHCP:	none SSC none	Coastal scrub and semi-arid brushy areas and chaparral in canyons, rocky hillsides, and plains. Brushy or shrubby vegetation in coastal Southern California. Require small mammal burrows for refuge and overwintering sites. Diet consists mostly of lizards, along with small mammals.	Presumed Absent: Although one recent record (Occ # 13) occurs within 5 miles of the site, the Project site lacks coastal scrub, chaparral, rocky hillsides, and plains. Vegetation on the Project site was minimal and did not contain shrubs or brushy areas.
Thamnophis hammondii two-striped gartersnake	Fed: CA: MSHCP:	none SSC none	Occur along aquatic habitats such as pools and creeks usually near chaparral, rocky areas, brushland, oak woodland, and conifer forests. Found in coastal California from vicinity of Salinas to northwest Baja California. From sea to about 7,000 ft elevation. Hunts in water.	Presumed Absent: Although the Riverside County flood control basin and drainage are present adjacent to the site, they are only temporarily flooded and the site lacks suitable chaparral, brushland, rocky areas, oak woodland, and forest habitat. In addition, there are no records within 5 miles of the site.
Birds				
Agelaius tricolor tricolored blackbird (nesting colony)	Fed: CA: MSHCP:	none THR/SSC COV	Occurs in freshwater marsh, swamp, and wetland habitats. Largely endemic to California. Highly colonial species, most numerous in Central Valley & vicinity. Requires open water, protected nesting substrate, and foraging area with insect prey within a few kilometers of the colony. Forages in open habitat such as cultivated fields and pastures.	Presumed Absent: Although the Project site is located approximately 1 mile from Lake Elsinore and one historic record (Occ # 364) from 1971 occurs approximately 5 miles from the Project site, the site does not provide suitable foraging or nesting habitat for the species.
Asio otus long-eared owl	Fed: CA: MSHCP:	none SSC none	Occurs in cismontane woodland, Great Basin scrub, riparian forest, riparian woodland, and upper montane coniferous forest habitats. Found in riparian bottomlands grown to tall willows and cottonwoods. Also found in belts of live oak paralleling stream courses. Require adjacent open land, productive of mice and the presence of old nests of crows, hawks, or magpies for breeding.	Presumed Absent: No suitable woodland, scrub, or forest habitat is present on the Project site. In addition, the site lacks suitable breeding habitat and there are no records within 5 miles.
Aspidoscelis tigris stejnegeri coastal whiptail	Fed: CA: MSHCP:	none SSC COV	Arid habitats including chaparral, woodlands, and dry riparian areas.	Presumed Absent: The site lacks suitable chaparral, woodland, or riparian habitats and no records occur within 5 miles.

Scientific Name Common Name	Status		Habitat Requirements	Potential for Occurrence
Athene cunicularia burrowing owl (burrow & some wintering sites)	Fed: CA: MSHCP:	none SSC COV	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Occurs in coastal prairie, coastal scrub, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Sonoran desert scrub, and valley & foothill grassland habitats. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel. Also found in vacant lots and airports.	Low Potential to occur: No burrows were observed during the biological survey on the Project site and the site lacked loose, friable soils preferred by the species. Low quality foraging habitat is present on the western and northwestern portions of the site. Two potential burrowing owl burrows were observed outside of the Project site, north of Collier Avenue. No sign of burrowing owl was observed at either of the burrows. No suitable burrows were observed during the biological survey. One recent record (Occ # 974) and one historical record (Occ # 632) occur within 5 miles of the Project site. Occ # 974 was recorded approximately 4 miles from the site in 2007.
Aquila chrysaetos golden eagle (nesting & wintering)	Fed: CA: MSHCP:	none FP COV	Occurs in broadleaved upland forest, cismontane woodland, coastal prairie, Great Basin grassland, Great Basin scrub, lower montane coniferous forest, pinon & juniper woodlands, upper montane coniferous forest, and valley & foothill grassland habitats. Found in rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also large trees such as eucalyptus or oak in open areas.	Presumed Absent: No forest, woodland, prairie, grassland, & rolling foothill habitat occurs on the Project site. Although large trees including eucalyptus are present adjacent to the site to the northeast which could provide suitable nesting habitat, nesting activities are not expected on this site because no cliff-walled canyons are located on the Project site. There are no records within 5 miles.
Buteo swainsoni Swainson's hawk (nesting)	Fed: CA: MSHCP:	none THR COV	Occurs in Great Basin grassland, riparian forest, riparian woodland, and valley & foothill grassland habitats. Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, & agricultural or ranch lands with groves or lines of trees. Nests in solitary bush or tree, or in small groves. Requires adjacent suitable foraging areas such as grasslands or alfalfa/grain fields supporting rodent populations.	Presumed Absent: No suitable grassland, forest, or riparian woodland habitat occurs on the Project Site and the site does not provide suitable foraging habitat for the species. In addition, there are no records within 5 miles.
Charadrius alexandrinus nivosus western snowy plover	Fed: CA: MSHCP:	THR SSC none	Sandy beaches, salt pond levees and shores of large alkali lakes. Needs sandy, gravelly or friable soils for nesting.	Presumed Absent: Although one record (Occ # 92) was found approximately 1 mile away in 1974, no sandy beaches, levees, or lake shores are present on the Project site.
Coturnicops noveboracensis yellow rail	Fed: CA: MSHCP:	none SSC none	Occurs in freshwater marshlands.	Presumed Absent: No suitable marshland habitat is present on the Project Site. In addition, there are no records within 5 miles.
Elanus leucurus white-tailed kite (nesting)	Fed: CA: MSHCP:	none FP COV	Open habitat in lowlands including savanna, open woodlands, marshes, and agricultural fields. Nests in trees, riparian scrub areas, oak woodlands, and other similar habitats.	Presumed Absent: Although one occurrence (Occ # 112) from 2006 is within 5 miles, no suitable lowland habitat is present on the Project site.
Haliaeetus leucocephalus bald eagle (nesting & wintering)	Fed: CA: MSHCP:	DL END/FP COV	Breeding habitat most commonly includes areas close to coastal areas, bays, rivers, lakes, reservoirs, or other bodies of water that reflect the general availability of primary food sources including fish, waterfowl, or seabirds. Nests in tall trees or on cliffs or pinnacles near open water.	Presumed Absent: No suitable tall trees, cliffs, or body of water nesting habitat occurs on the Project site and there are no records within 5 miles.
Icteria virens yellow-breasted chat	Fed: CA: MSHCP:	none SSC COV	Occurs in riparian forest, riparian scrub, and riparian woodland habitats. Nests in low, dense riparian, consisting of willow, blackberry, wild grape along streams or at the edges of ponds or swamps. Forages and nests within 10 ft of ground.	Presumed Absent: Although one record (Occ # 105) occurs within 5 miles of the site, no suitable riparian habitat is present on the Project site for the species.

Scientific Name Common Name	Status		Habitat Requirements	Potential for Occurrence
Lanius ludovicianus loggerhead shrike (nesting)	Fed: CA: MSHCP:	none SSC COV	Occurs in broadleaved upland forest, desert wash, Joshua tree woodland, Mojavean desert scrub, pinon & juniper woodlands, riparian woodland, chaparral, and Sonoran desert scrub habitats. Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting.	Presumed Absent: Although one historic record (Occ # 51) occurs within 5 miles of the Project site, the site lacks suitable forest, wash, woodland, scrub, and chaparral habitat. In addition, the site lacks shrubs and brush for nesting and does not provide suitable foraging habitat.
Polioptila californica californica coastal California gnatcatcher	Fed: CA: MSHCP:	THR SSC COV	Dry coastal slopes, washes, and mesas with areas of low vegetation and coastal sage scrub including California sagebrush, California buckwheat, salvia, and prickly pear cactus. Moves about actively in shrubs and low trees to forage. Generally found at elevations below 3,000 ft.	Presumed Absent: Although the literature review revealed one recent and 20 historic records of this species within 5 miles of the Project site, no suitable coastal sage scrub habitat is present on the Project site for the species. Suitable California buckwheat scrub habitat occurs approximately 400 feet south of the Project site.
Vireo bellii pusillus least Bell's vireo (nesting)	Fed: CA: MSHCP:	END END COV	Occurs in riparian forest, riparian scrub, and riparian woodland habitats. Summer resident of Southern California in low riparian vegetation in the vicinity of water or in dry river bottoms, below 2,000 ft msl. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, mulefat, and mesquite.	Presumed Absent: Mulefat was observed during the survey in the pooling area southwest of the Project site; however, it currently consists of a small stand and does not provide suitable nesting habitat. The cattail marshes within the NWI mapped freshwater forested/shrub wetland located outside of the Project site, approximately 0.1 mile south, could offer suitable habitat for the species and 14 recent records of the species occur within 5 miles of the Project site; however, the Project site does not contain suitable riparian or nesting habitat for the species.
Mammals				
Chaetodipus californicus femoralis *Dulzura pocket mouse*	Fed: CA: MSHCP:	none SSC none	Chaparral, coastal scrub, and desert grasslands in San Diego County along the U.S.-Mexico border.	Presumed Absent: The Project site lacks suitable chaparral, coastal scrub, and grassland habitat. In addition, there are no records within 5 miles of the site.
Chaetodipus fallax fallax northwestern San Diego pocket mouse	Fed: CA: MSHCP:	none SSC COV	Sandy herbaceous areas, usually in association with rocks or coarse gravel in southwestern California. Primarily occurs in arid coastal and desert borders. Typical habitats include sandy desert fans and shrub communities such as coastal sage scrub, chaparral, sagebrush, desert wash, desert scrub, desert succulent scrub, pinyon-juniper, and annual grassland.	Presumed Absent: Although one historic record (Occ # 1) occurs within 5 miles of the site, the Project site lacks sandy desert fan and shrub communities.
Dipodomys merriami parvus San Bernardino kangaroo rat	Fed: CA: MSHCP:	END CAN/SSC COV	Gentle slopes of alluvial fans, on flood plains, along washes, and on adjacent upland areas with soils containing sand, loam, and gravel deposited by rivers and streams. Can also be found in sandy soils that are wind deposited. Found in alluvial sage scrub, coastal sage scrub, and chaparral vegetation.	Presumed Absent: Although one historic record (Occ # 102) occurs close to 100 years ago, the Project site does not provide suitable alluvial scrub, coastal scrub, or chaparral vegetation habitat for this species.
Dipodomys stephensi Stephens' kangaroo rat	Fed: CA: MSHCP:	END THR COV	Annual grasslands, coastal sage scrub with sparsely spaced vegetation, loose friable soils, and flat or slightly rolling terrain. Prefer open habitats with less than 50% protective cover.	Presumed Absent: Although 17 historic records occur within 5 miles of the Project site, the site lacks suitable grassland and coastal scrub habitat for the species.
Eumops perotis californicus western mastiff bat	Fed: CA: MSHCP:	none SSC none	Roosts high above ground in rock and cliff crevices, shallow caves, and rarely in buildings. Occurs in arid and semiarid regions including rocky canyon habitats.	Presumed Absent: No suitable rock or cliff habitat is present on the Project site and there are no records within 5 miles.

Scientific Name Common Name	Status		Habitat Requirements	Potential for Occurrence
Lasiurus xanthinus western yellow bat	Fed: CA: MSHCP:	none SSC none	Found in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats and human developed areas. Roosts in trees, particularly palms. Forages over water and among trees.	Presumed Absent: The site lacks suitable riparian, desert wash, and palm oasis habitat. No palm trees were observed during the biological survey. In addition, there are no records within 5 miles of the site.
Lepus californicus bennettii San Diego black-tailed jackrabbit	Fed: CA: MSHCP:	none SSC COV	Variety of open or semi-open country including grasslands, croplands, and sparse coastal scrub. Diet consists primarily of a variety of grasses during spring and summer seasons, with various shrubs and forbs during fall and winter seasons.	Presumed Absent: Although four historic records occur within 5 miles of the Project site, the site does not provide suitable open or semi-open country habitat. In addition, the site is bounded by two high traffic roads.
Neotoma lepida intermedia San Diego desert woodrat	Fed: CA: MSHCP:	none SSC COV	Coastal scrub of Southern California from San Diego County to San Luis Obispo County. Also found in coastal chaparral, sagebrush scrub, sandy desert, Joshua tree woodland, pinyon-juniper pine, and boulder habitats. Moderate to dense canopies preferred. They are particularly abundant in rock outcrops & rocky cliffs & slopes.	Presumed Absent: The Project site does not contain suitable chaparral, scrub, desert, woodland, pine, or boulder habitats. In addition, there are no records within 5 miles.
Nyctinomops femorosaccus pocketed free-tailed bat	Fed: CA: MSHCP:	none SSC none	Roosts in crevices of outcrops and cliffs, shallow caves, and buildings. Found along rugged canyons, high cliffs, and semiarid rock outcroppings.	Presumed Absent: No suitable rugged canyon, cliff, or rock outcropping habitat is present on the Project site and no records occur within 5 miles.
Onychomys torridus ramona southern grasshopper mouse	Fed: CA: MSHCP:	none SSC none	Low, semi-open, and open scrub habitats with flat, sandy valley floors. Habitats include coastal and mixed chaparral, coastal sage scrub, riparian scrub, low sagebrush, and grasslands with interspaced shrubs.	Presumed Absent: The Project site lacks suitable chaparral, coastal scrub, riparian scrub, sagebrush, and grassland habitat. In addition, there are no records within 5 miles of the site.
Perognathus longimembris brevinasus Los Angeles pocket mouse	Fed: CA: MSHCP:	none SSC COV	Lower elevation grasslands, alluvial sage scrub, and coastal sage communities in and around the Los Angeles Basin. Can be found in fine, sandy soils associated with washes or dunes. May hide under weeds and dead leaves in addition to digging burrows.	Presumed Absent: The Project site does not provide suitable grassland, alluvial scrub, or coastal sage habitat. In addition, there are no records within 5 miles.
Taxidea taxus American badger	Fed: CA: MSHCP:	none SSC none	Low, semi-open, and open scrub habitats with flat, sandy valley floors. Habitats include coastal and mixed chaparral, coastal sage scrub, riparian scrub, low sagebrush, and grasslands with interspaced shrubs. Prefers open areas and may also frequent brushlands with little groundcover. When inactive, occupies underground burrow. Young are born in underground burrows.	Presumed Absent: The site lacks suitable chaparral, coastal scrub, riparian, sagebrush, and grassland habitat for the species. In addition, there are no records within 5 miles.

Federal Designations:	State designations:	Other Designations
(Federal Endangered Species Act, U.S. Fish and Wildlife Service)	(California Endangered Species Act, CDFW)	COV: Covered under the Western Riverside MSHCP
END: Federally-listed, Endangered	END: State-listed, Endangered	
THR: Federally-listed, Threatened	THR: State-listed, Threatened	
FC: Federal Candidate Species	CAN: Candidate for state listing	
DL: Federally-delisted	SSC: Species of Special Concern	
	FP: Fully Protected Species	
	WL: Watch List Species	

Source: California Natural Diversity Data Base (CNDDB) Lake Elsinore, Lake Mathews, Steele Peak, Perris, Romoland, Murrieta, Wildomar, Sitton Peak, and Alberhill 7.5-minute quads.

APPENDIX C

Representative Site Photographs



Photo 1. Project site from northeastern boundary at Collier Avenue with stored vehicles and heavy equipment present, facing south



Photo 2. Project site from southwestern boundary along W Minthorn Street showing pile of cut vegetation, gravel spread throughout the majority of the site, vehicle tracks, and construction materials storage, facing northeast



Photo 3. Rocky, disturbed soils and ruderal vegetation present on the northern and western portions of the Project site with evidence of recent mechanical disturbance, facing northeast



Photo 4. Representative photo of rocky, disturbed soils, ruderal vegetation, and vehicle tracks present on the northern portion of the Project site, facing north



Photo 5. Location of NWI mapped riverine which runs through a Riverside County Flood Control and Water Conservation District drainage and detention basin, adjacent to the Project site, facing southwest



Photo 6. Cattail marsh within the NWI mapped seasonally flooded freshwater forested/shrub wetland located and California buckwheat scrub south of the Project site, facing southwest



Photo 7. Two culverts, one of which is fully filled in with concrete, northeast of the Project site, facing north



Photo 8. Drainage located southwest of the Project site which appears to flow southwest to where it connects to a NWI mapped riverine, facing south



Photo 9. Oleanders and telephone and power poles located adjacent to the Project site along W Minthorn Street which provide suitable nesting habitat



Photo 10. Stand of eucalyptus, Peruvian pepper, and Mexican palo verde trees located northeast of the Project site along Collier Avenue, facing southeast



Photo 11. California buckwheat scrub located approximately 450 feet south of the Project site, facing southwest



Photo 12. Disturbed California buckwheat scrub located north of the site between Collier Avenue and I-15



Photo 13. Potential burrowing owl burrow observed outside of the Project site (no sign of burrowing owl use), facing northeast

APPENDIX D

Plant Species Observed

Scientific Name	Common Name
Baccharis salicifolia	mulefat
*Bromus madritensis**	foxtail chess
Croton setiger	turkey mullein
Cylindropuntia californica	California cholla
Encelia farinosa	brittlebush
Eriogonum fasciculatum	California buckwheat
*Erodium cicutarium** [+]	coastal heron's bill
Eucalyptus sp.*	eucalyptus
Helianthus annuus	common sunflower
Heterotheca grandiflora	telegraph weed
*Hirschfeldia incana** [+]	short-podded mustard
Melilotus sp.* [+]	sweetclover
*Nerium oleander**	oleander
*Nicotiana glauca**	tree tobacco
*Olea Europaea**	olive
*Parkinsonia aculeata**	Mexican palo verde
*Polypogon monspeliensis** [+]	annual beard grass
*Schinus mole**	Peruvian pepper tree
*Sonchus oleraceus** [+]	common sowthistle
Stephanomeria sp.	wirelettuce
Tamarix sp.	tamarisk
*Tribulus terrestris** [+]	goathead
Typha sp.	cattail

*Nonnative species

[+]Observed on the Project site

APPENDIX E

Wildlife Species Observed

Scientific Name	Common Name
INSECTA	INSECTS
*Coccinella septempunctata**+	seven-spotted lady beetle
AVES	BIRDS
Anthus rubescens+	American pipit
Calypte anna	Anna's hummingbird
Charadrius vociferus+	killdeer
Corvus brachyrhynchos	American crow
Setophaga coronata+	yellow-rumped warbler
MAMMALIA	MAMMALS
Otospermophilus beecheyi	California ground squirrel
Sylvilagus audubonii	desert cottontail
Thomomys bottae+	Botta's pocket gopher

*Nonnative species

+Observed on the Project site

APPENDIX F

CNPS Search Results

Inventory of Rare and Endangered Plants of California

California Native Plant Society

Search Results

72 matches found. Click on scientific name for details

Search Criteria: Quad is one of [**3311763:3311774:3311773:3311772:3311762:3311752:3311753:3311754:3311764**]

▲ SCIENTIFIC NAME	COMMON NAME	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	CA RARE PLANT RANK	GENERAL HABITATS	MICRO HABITATS	LOWEST ELEVATION (FT)	HIGHEST ELEVATION (FT)	CA ENDEMIC
Abronia villosa var. *aurita*	chaparral sand-verbena	annual herb	(Jan)Mar-Sep	None	None	1B.1	Chaparral, Coastal scrub, Desert dunes	Sandy	245	5250	
Allium marvinii	Yucaipa onion	perennial bulbiferous herb	Apr-May	None	None	1B.2	Chaparral		2495	3495	Yes
Allium munzii	Munz's onion	perennial bulbiferous herb	Mar-May	FE	CT	1B.1	Chaparral, Cismontane woodland, Coastal scrub, Pinyon and juniper woodland, Valley and foothill grassland	Clay, Mesic	975	3510	Yes
Almutaster pauciflorus	alkali marsh aster	perennial herb	Jun-Oct	None	None	2B.2	Meadows and seeps	Alkaline	785	2625	
Ambrosia pumila	San Diego ambrosia	perennial rhizomatous herb	Apr-Oct	FE	None	1B.1	Chaparral, Coastal scrub, Valley and foothill grassland, Vernal pools	Alkaline (sometimes), Clay (sometimes), Disturbed areas (often), Sandy (sometimes)	65	1360	
Amsinckia douglasiana	Douglas' fiddleneck	annual herb	Mar-May	None	None	4.2	Cismontane woodland, Valley and foothill grassland	Dry	0	6400	Yes
Arctostaphylos rainbowensis	Rainbow manzanita	perennial evergreen shrub	Dec-Mar	None	None	1B.1	Chaparral		675	2200	Yes

Asplenium vespertinum	western spleenwort	perennial rhizomatous herb	Feb-Jun	None	None	4.2	Chaparral, Cismontane woodland, Coastal scrub	Rocky	590	3280	
Atriplex coronata var. *notatior*	San Jacinto Valley crownscale	annual herb	Apr-Aug	FE	None	1B.1	Playas, Valley and foothill grassland, Vernal pools	Alkaline	455	1640	Yes
Atriplex parishii	Parish's brittlescale	annual herb	Jun-Oct	None	None	1B.1	Chenopod scrub, Playas, Vernal pools	Alkaline	80	6235	
Atriplex serenana var. *davidsonii*	Davidson's saltscale	annual herb	Apr-Oct	None	None	1B.2	Coastal bluff scrub, Coastal scrub	Alkaline	35	655	
Ayenia compacta	California ayenia	perennial herb	Mar-Apr	None	None	2B.3	Mojavean desert scrub, Sonoran desert scrub	Rocky	490	3595	
Brodiaea filifolia	thread-leaved brodiaea	perennial bulbiferous herb	Mar-Jun	FT	CE	1B.1	Chaparral, Cismontane woodland, Coastal scrub, Playas, Valley and foothill grassland, Vernal pools	Clay (often)	80	3675	Yes
Brodiaea santarosae	Santa Rosa Basalt brodiaea	perennial bulbiferous herb	May-Jun	None	None	1B.2	Valley and foothill grassland		1855	3430	Yes
Calochortus catalinae	Catalina mariposa lily	perennial bulbiferous herb	(Feb)Mar-Jun	None	None	4.2	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland		50	2295	Yes

Calochortus weedii var. *intermedius*	intermediate mariposa-lily	perennial bulbiferous herb	May-Jul	None	None	1B.2	Chaparral, Coastal scrub, Valley and foothill grassland	Rocky	345	2805	Yes
Carex buxbaumii	Buxbaum's sedge	perennial rhizomatous herb	Mar-Aug	None	None	4.2	Bogs and fens, Marshes and swamps, Meadows and seeps		10	10825	
Caulanthus simulans	Payson's jewelflower	annual herb	(Feb)Mar-May(Jun)	None	None	4.2	Chaparral, Coastal scrub	Granitic, Sandy	295	7220	Yes
Centromadia pungens ssp. *laevis*	smooth tarplant	annual herb	Apr-Sep	None	None	1B.1	Chenopod scrub, Meadows and seeps, Playas, Riparian woodland, Valley and foothill grassland	Alkaline	0	2100	Yes
Chorizanthe leptotheca	Peninsular spineflower	annual herb	May-Aug	None	None	4.2	Chaparral, Coastal scrub, Lower montane coniferous forest	Granitic	985	6235	
Chorizanthe parryi var. *parryi*	Parry's spineflower	annual herb	Apr-Jun	None	None	1B.1	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland	Openings, Rocky (sometimes), Sandy (sometimes)	900	4005	Yes
Chorizanthe polygonoides var. *longispina*	long-spined spineflower	annual herb	Apr-Jul	None	None	1B.2	Chaparral, Coastal scrub, Meadows and seeps, Valley and foothill grassland, Vernal pools	Clay (often)	100	5020	

Clinopodium chandleri	San Miguel savory	perennial shrub	Mar-Jul	None	None	1B.2	Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland, Valley and foothill grassland	Gabbroic (sometimes), Rocky (sometimes)	395	3525	
Collomia diversifolia	serpentine collomia	annual herb	May-Jun	None	None	4.3	Chaparral, Cismontane woodland	Gravelly (sometimes), Rocky (sometimes), Serpentinite (sometimes)	655	1970	Yes
Comarostaphylis diversifolia ssp. *diversifolia*	summer holly	perennial evergreen shrub	Apr-Jun	None	None	1B.2	Chaparral, Cismontane woodland		100	2590	
Convolvulus simulans	small-flowered morning-glory	annual herb	Mar-Jul	None	None	4.2	Chaparral, Coastal scrub, Valley and foothill grassland	Clay, Seeps, Serpentinite	100	2430	
Deinandra paniculata	paniculate tarplant	annual herb	(Mar)Apr-Nov	None	None	4.2	Coastal scrub, Valley and foothill grassland, Vernal pools	Sandy (sometimes), Vernally Mesic (usually)	80	3085	
Diplacus clevelandii	Cleveland's bush monkeyflower	perennial rhizomatous herb	Apr-Jul	None	None	4.2	Chaparral, Cismontane woodland, Lower montane coniferous forest	Disturbed areas (often), Gabbroic, Openings, Rocky	1475	6560	
Dodecahema leptoceras	slender-horned spineflower	annual herb	Apr-Jun	FE	CE	1B.1	Chaparral, Cismontane woodland, Coastal scrub	Sandy	655	2495	Yes
Dudleya multicaulis	many-stemmed dudleya	perennial herb	Apr-Jul	None	None	1B.2	Chaparral, Coastal scrub, Valley and foothill grassland	Clay (often)	50	2590	Yes

Dudleya viscida	sticky dudleya	perennial herb	May-Jun	None	None	1B.2	Chaparral, Cismontane woodland, Coastal bluff scrub, Coastal scrub	Rocky	35	1805	Yes
Eryngium aristulatum var. *parishii*	San Diego button-celery	annual/perennial herb	Apr-Jun	FE	CE	1B.1	Coastal scrub, Valley and foothill grassland, Vernal pools	Mesic	65	2035	
Erythranthe diffusa	Palomar monkeyflower	annual herb	Apr-Jun	None	None	4.3	Chaparral, Lower montane coniferous forest	Gravelly (sometimes), Sandy (sometimes)	4005	6005	
Geothallus tuberosus	Campbell's liverwort	ephemeral liverwort		None	None	1B.1	Coastal scrub, Vernal pools		35	1970	Yes
Harpagonella palmeri	Palmer's grapplinghook	annual herb	Mar-May	None	None	4.2	Chaparral, Coastal scrub, Valley and foothill grassland	Clay, Openings	65	3135	
Hesperocyparis forbesii	Tecate cypress	perennial evergreen tree		None	None	1B.1	Chaparral, Closed-cone coniferous forest	Clay, Gabbroic (sometimes)	260	4920	
Holocarpha virgata ssp. *elongata*	graceful tarplant	annual herb	May-Nov	None	None	4.2	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland		195	3610	Yes
Hordeum intercedens	vernal barley	annual herb	Mar-Jun	None	None	3.2	Coastal dunes, Coastal scrub, Valley and foothill grassland, Vernal pools		15	3280	

Horkelia cuneata var. *puberula*	mesa horkelia	perennial herb	Feb-Jul(Sep)	None	None	1B.1	Chaparral, Cismontane woodland, Coastal scrub	Gravelly (sometimes), Sandy (sometimes)	230	2660	Yes
Juglans californica	Southern California black walnut	perennial deciduous tree	Mar-Aug	None	None	4.2	Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland		165	2955	Yes
Juncus acutus ssp. *leopoldii*	southwestern spiny rush	perennial rhizomatous herb	(Mar)May-Jun	None	None	4.2	Coastal dunes, Marshes and swamps, Meadows and seeps		10	2955	
Juncus luciensis	Santa Lucia dwarf rush	annual herb	Apr-Jul	None	None	1B.2	Chaparral, Great Basin scrub, Lower montane coniferous forest, Meadows and seeps, Vernal pools		985	6695	Yes
Lasthenia glabrata ssp. *coulteri*	Coulter's goldfields	annual herb	Feb-Jun	None	None	1B.1	Marshes and swamps, Playas, Vernal pools		5	4005	
Lathyrus splendens	pride-of-California	perennial herb	Mar-Jun	None	None	4.3	Chaparral		655	5005	
Lepechinia cardiophylla	heart-leaved pitcher sage	perennial shrub	Apr-Jul	None	None	1B.2	Chaparral, Cismontane woodland, Closed-cone coniferous forest		1705	4495	
Lepidium virginicum var. *robinsonii*	Robinson's pepper-grass	annual herb	Jan-Jul	None	None	4.3	Chaparral, Coastal scrub		5	2905	

Lilium humboldtii ssp. *ocellatum*	ocellated Humboldt lily	perennial bulbiferous herb	Mar-Jul(Aug)	None	None	4.2	Chaparral, Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Riparian woodland	Openings	100	5905	Yes
Lilium parryi	lemon lily	perennial bulbiferous herb	Jul-Aug	None	None	1B.2	Lower montane coniferous forest, Meadows and seeps, Riparian forest, Upper montane coniferous forest	Mesic	4005	9005	
Limnanthes alba ssp. *parishii*	Parish's meadowfoam	annual herb	Apr-Jun	None	CE	1B.2	Lower montane coniferous forest, Meadows and seeps, Vernal pools	Vernally Mesic	1970	6560	Yes
Microseris douglasii ssp. *platycarpha*	small-flowered microseris	annual herb	Mar-May	None	None	4.2	Cismontane woodland, Coastal scrub, Valley and foothill grassland, Vernal pools		50	3510	
Monardella hypoleuca ssp. *intermedia*	intermediate monardella	perennial rhizomatous herb	Apr-Sep	None	None	1B.3	Chaparral, Cismontane woodland, Lower montane coniferous forest		1310	4100	Yes

Monardella macrantha ssp. *hallii*	Hall's monardella	perennial rhizomatous herb	Jun-Oct	None	None	1B.3	Broadleafed upland forest, Chaparral, Cismontane woodland, Lower montane coniferous forest, Valley and foothill grassland	2395	7200	Yes
Myosurus minimus ssp. *apus*	little mousetail	annual herb	Mar-Jun	None	None	3.1	Valley and foothill grassland, Vernal pools	65	2100	
Navarretia fossalis	spreading navarretia	annual herb	Apr-Jun	FT	None	1B.1	Chenopod scrub, Marshes and swamps, Playas, Vernal pools	100	2150	
Navarretia prostrata	prostrate vernal pool navarretia	annual herb	Apr-Jul	None	None	1B.2	Coastal scrub, Meadows and seeps, Valley and foothill grassland, Vernal pools	10	3970	Yes
Nolina cismontana	chaparral nolina	perennial evergreen shrub	(Mar)May-Jul	None	None	1B.2	Chaparral, Coastal scrub	460	4185	Yes
Orcuttia californica	California Orcutt grass	annual herb	Apr-Aug	FE	CE	1B.1	Vernal pools	50	2165	
Phacelia keckii	Santiago Peak phacelia	annual herb	May-Jul	None	None	1B.3	Chaparral, Closed-cone coniferous forest	1790	5250	Yes
Polygala cornuta var. *fishiae*	Fish's milkwort	perennial deciduous shrub	May-Aug	None	None	4.3	Chaparral, Cismontane woodland, Riparian woodland	330	3280	

Pseudognaphalium leucocephalum	white rabbit-tobacco	perennial herb	(Jul)Aug-Nov(Dec)	None	None	2B.2	Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland	0	6890	
Quercus engelmannii	Engelmann oak	perennial deciduous tree	Mar-Jun	None	None	4.2	Chaparral, Cismontane woodland, Riparian woodland, Valley and foothill grassland	165	4265	
Romneya coulteri	Coulter's matilija poppy	perennial rhizomatous herb	Mar-Jul(Aug)	None	None	4.2	Chaparral, Coastal scrub	65	3935	
Scutellaria bolanderi ssp. *austromontana*	southern mountains skullcap	perennial rhizomatous herb	Jun-Aug	None	None	1B.2	Chaparral, Cismontane woodland, Lower montane coniferous forest	1395	6560	Yes
Sibaropsis hammittii	Hammitt's clay-cress	annual herb	Mar-Apr	None	None	1B.2	Chaparral, Valley and foothill grassland	2360	3495	Yes
Sphaerocarpos drewiae	bottle liverwort	ephemeral liverwort		None	None	1B.1	Chaparral, Coastal scrub	295	1970	Yes
Symphyotrichum defoliatum	San Bernardino aster	perennial rhizomatous herb	Jul-Nov	None	None	1B.2	Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Marshes and swamps, Meadows and seeps, Valley and foothill grassland	5	6695	Yes
Tetracoccus dioicus	Parry's tetracoccus	perennial deciduous shrub	Apr-May	None	None	1B.2	Chaparral, Coastal scrub	540	3280	

Texosporium sancti-jacobi	woven-spored lichen	crustose lichen (terricolous)		None	None	3	Chaparral	195	2165	
Tortula californica	California screw moss	moss		None	None	1B.2	Chenopod scrub, Valley and foothill grassland	35	4790	Yes
Trichocoronis wrightii var. *wrightii*	Wright's trichocoronis	annual herb	May-Sep	None	None	2B.1	Marshes and swamps, Meadows and seeps, Riparian forest, Vernal pools	15	1425	
Viguiera laciniata	San Diego County viguiera	perennial shrub	Feb-Jun(Aug)	None	None	4.3	Chaparral, Coastal scrub	195	2460	
Viguiera purisimae	La Purisima viguiera	shrub	Apr-Sep	None	None	2B.3	Chaparral, Coastal bluff scrub	1200	1395	

Showing 1 to 72 of 72 entries

Suggested Citation:

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Appendix C

Cultural Resources Inventory for the Collier Commercial Properties Project

CONFIDENTIAL

Cultural Resources Inventory for the Collier Commercial Properties Project

City of Lake Elsinore, California

Prepared For:

Collier Commercial Properties, LLC
43 Golfview Drive
Dove Canyon, California 92679

Prepared By:

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS
3838 Camino Del Rio North, Suite 370
San Diego, California 92108

April 2022

MANAGEMENT SUMMARY

Collier Commercial Properties, LLC retained ECORP Consulting, Inc. in 2021 to conduct a cultural resources inventory for the proposed Collier Commercial Properties Project (Project or Proposed Project) in Riverside County, California. Collier Commercial Properties, LLC proposes to develop three parcels (APNs 377-190-002, 377-190-003, and 377-190-004) on approximately 2.8 acres in the City of Lake Elsinore. The inventory included a records search, literature review, and field survey.

The records search indicated that 55 previous cultural resource studies have been conducted within 1 mile of the Project Area, none of which overlap the Project Area. The records search also indicated that no resources have previously been recorded within the Project Area; however, 197 resources have been recorded within 1 mile of the Project Area: five pre-contact resources, one multicomponent resource, and 191 historic-period resources.

A search of the Sacred Lands File was requested from the Native American Heritage Commission. The results of the Sacred Lands File records search were negative, indicating no recorded presence of Native American Sacred Lands within the Project Area.

No pre-contact or historic-period sites or isolated finds were identified as a result of the records search and field survey. The Project would, therefore, not result in any significant impacts to known Historical Resources under the California Environmental Quality Act (CEQA) and Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations in 36 CFR 800. The archaeological sensitivity of the Project Area is believed to be moderate; however, there always remains a potential for ground-disturbing activities to expose previously unrecorded cultural resources. Recommendations for the management of unanticipated discoveries are provided.

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LIST OF ACRONYMS AND ABBREVIATIONS

Term	Description
AB	Assembly Bill
APE	Area of Potential Effects
BLM	Bureau of Land Management
BP	Before present
Caltrans	California Department of Transportation
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CHRIS	California Historical Resources Information System
CRHR	California Register of Historical Resources
DPR	Department of Parks and Recreation
ECORP	ECORP Consulting, Inc.
EIC	Eastern Information Center
GLO	General Land Office
MLD	Most Likely Descendant
NAHC	Native American Heritage Commission
NHPA	National Historic Preservation Act
NPS	National Park Service
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
OHP	Office of Historic Preservation
PRC	Public Resources Code
RPA	Registered Professional Archaeologist
SOI	Secretary of the Interior
U.S.	United States of America
USC	U.S. Code
USGS	U.S. Geological Survey

1.0 INTRODUCTION

Collier Commercial Properties, LLC retained ECORP Consulting, Inc. in 2021 to conduct a cultural resources inventory for the proposed Collier Commercial Properties Project (Project or Proposed Project) in the City of Lake Elsinore in Riverside County, California. A survey of the property was required to identify potentially eligible cultural resources (archaeological sites and historic buildings, structures, and objects) that could be affected by the Project.

1.1 Project Location

The Project Area consists of approximately 2.8 acres of property located in the northeast quarter of Section 6, of Township 6 South, Range 4 West, San Bernardino Base and Meridian as depicted on the 1997 Lake Elsinore, California United States Geological Survey (USGS) 7.5-minute topographic quadrangle map (Figure 1-1). This property is an undeveloped partially paved area, bounded to the east by a reservoir, to the south by West Minthorn Street, to the north by Collier Avenue, and to the west by a commercial property.

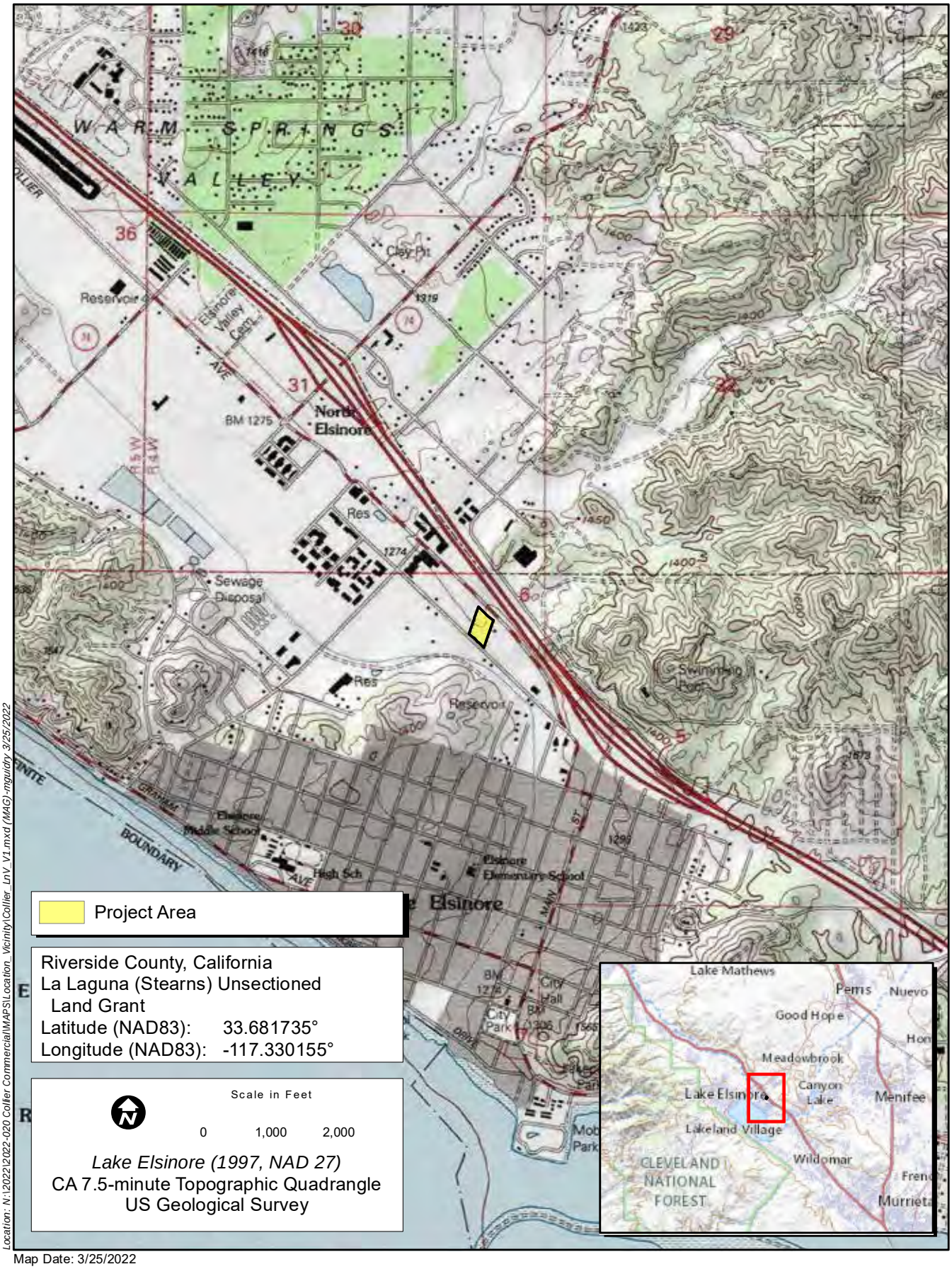
1.2 Project Description

The Project proposes the construction of two buildings which include an office, conference room, storage, and an electrical room. Two driveways, parking spaces, a sidewalk, gravel fill, landscaping, and a block wall along the western boundary will also be installed with this Project. It is assumed that the entire 2.8-acre Project site will be developed.

1.3 Area of Potential Effects

The Area of Potential Effects (APE) consists of the horizontal and vertical limits of a project and includes the area within which significant impacts or adverse effects to Historical Resources or Historic Properties could occur as a result of the project. The APE is defined for projects subject to regulations implementing Section 106 (federal law and regulations). For projects subject to the California Environmental Quality Act (CEQA), the term Project Area is used rather than APE. The terms Project Area and APE are interchangeable for the purpose of this document.

The horizontal APE consists of all areas where activities associated with a project are proposed and, in the case of the current Project, equals the Project Area subject to environmental review under the National Environmental Policy Act and CEQA. The horizontal APE is illustrated on Figure 1-1 and also represents the survey coverage area. It measures approximately 0.10 mile in length by 0.06 mile in width.



Location: N:\2022\2022-020 Collier Commercial\MAPS\Location_Vicinity\Collier_LnV_V1.mxd (MAG) -mguidry 3/25/2022

Map Date: 3/25/2022

Sources: Collier Commercial Property, Esri, USGS

Figure 1-1. Project Location and Vicinity

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

2022-020 Collier Commercial

The vertical APE is described as the maximum depth below the surface to which excavations for Project foundations and facilities will extend. Therefore, the vertical APE includes all subsurface areas where archaeological deposits could be affected. The subsurface vertical APE varies across the Project.

The vertical APE also is described as the maximum height of structures that could impact the physical integrity and integrity of setting of cultural resources, including districts and traditional cultural properties. This study assumes the maximum height for structures will not exceed 30 feet.

1.4 Regulatory Context

This cultural resources investigation was conducted pursuant to the provisions for the treatment of cultural resources contained within Section 106 of the National Historic Preservation Act (NHPA) and in CEQA (Public Resources Code [PRC] § 21000 et seq.) to meet the regulatory requirements of this Project. The goal of NHPA and CEQA is to develop and maintain a high-quality environment that serves to identify the significant environmental effects of the actions of a proposed project and to either avoid or mitigate those significant effects where feasible. CEQA pertains to all proposed projects that require state or local government agency approval, including the enactment of zoning ordinances, the issuance of conditional use permits, and the approval of development project maps. The NHPA pertains to projects that entail some degree of federal funding or permit approval.

The NHPA and CEQA (Title 54 U.S. Code [USC] Section 100101 et seq and Title 14, California Code of Regulations [CCR], Article 5, § 15064.5) apply to cultural resources of the historical and precontact periods. Any project with an effect that may cause a substantial adverse change in the significance of a cultural resource, either directly or indirectly, is a project that may have a significant effect on the environment. As a result, such a project would require avoidance or mitigation of impacts to those affected resources. Significant cultural resources must meet at least one of four criteria that define eligibility for listing on either the California Register of Historical Resources (CRHR; PRC § 5024.1, Title 14 CCR, § 4852) or the National Register of Historic Places (NRHP; 36 Code of Federal Regulations [CFR] 60.4). Cultural resources eligible for listing on the NRHP are considered Historic Properties under 36 CFR Part 800 and are automatically eligible for the CRHR. Resources listed on or eligible for inclusion in the CRHR are considered Historical Resources under CEQA.

Tribal Cultural Resources are defined in Section 21074 of the California PRC as sites, features, places, cultural landscapes (geographically defined in terms of the size and scope), sacred places, and objects with cultural value to a California Native American tribe that are either included in or determined to be eligible for inclusion in the CRHR, or are included in a local register of historical resources as defined in subdivision (k) of Section 5020.1, or are 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 Section 5024.1. Section 1(b)(4) of Assembly Bill (AB) 52 established that only California Native American tribes, as defined in Section 21073 of the California PRC, are experts in the identification of Tribal Cultural Resources and impacts thereto. Because ECORP does not meet the definition of a California Native American tribe, this report only addresses information for which ECORP is qualified to identify and evaluate, and that which is needed to inform the cultural resources section of CEQA documents. This report, therefore, does not identify or evaluate Tribal Cultural Resources. Should California Native

American tribes ascribe additional importance to or interpretation of archaeological resources described herein, or provide information about non-archeological Tribal Cultural Resources, that information is documented separately in the AB 52 tribal consultation record between the tribe(s) and lead agency, and summarized in the Tribal Cultural Resources section of the CEQA document, if applicable.

1.5 Report Organization

The following report documents the study and its findings and was prepared in conformance with the California Office of Historic Preservation's (OHP's) *Archaeological Resource Management Reports: Recommended Contents and Format*. Attachment A contains documentation of a search of the Sacred Lands File. Attachment B presents photographs of the Project Area, and Attachment C contains confidential cultural resource site locations and site records.

Sections 6253, 6254, and 6254.10 of the California Code authorize state agencies to exclude archaeological site information from public disclosure under the Public Records Act. In addition, the California Public Records Act (Government Code § 6250 et seq.) and California's open meeting laws (The Brown Act, Government Code § 54950 et seq.) protect the confidentiality of Native American cultural place information. Under Exemption 3 of the federal Freedom of Information Act (5 USC 5), because the disclosure of cultural resources location information is prohibited by the Archaeological Resources Protection Act of 1979 (16 USC 470hh) and Section 307103 of the NHPA, it is also exempted from disclosure under the Freedom of Information Act. Likewise, the Information Centers of the California Historical Resources Information System (CHRIS) maintained by the OHP prohibit public dissemination of records search information. In compliance with these requirements, the results of this cultural resource investigation were prepared as a confidential document, which is not intended for public distribution in either paper or electronic format.

2.0 SETTING

2.1 Environmental Setting

Elevations within the Project Area range from 1,291 to 1,280 feet above mean sea level. The Project Area is open land bounded by commercial properties to the east, west, and south, and by Collier Avenue to the north. The Project Area is in the City of Lake Elsinore. It is approximately 1.08 miles north of Lake Elsinore, 3.22 miles southwest of Canyon Lake, 4.73 miles east of the Santa Ana Mountains, and 0.06 mile southwest of the I-15 Freeway.

2.2 Geology and Soils

Sediments within the Project Area consist of Holocene and late Pleistocene (Qya) young alluvial channel deposits described as fluvial deposits along canyon floors (Morton and Weber 2003). Pleistocene and Holocene sediments are known to be contemporaneous with human occupation of the region.

According to the U.S. Department of Agriculture's Natural Resources Conservation Service (NRCS) Web Soil Survey website (NRCS 2021), three soil types are located within the Project Area: Waukena loamy fine sand, found on nearly level basin areas, that is moderately well to poorly drained; Cortina gravelly coarse sand loam, with 2 to 8 percent slopes, found on alluvial fans and floodplains; and Arbuckle gravelly loam, with 15 to 25 percent slopes, well drained soils, formed in alluvium.

2.3 Vegetation and Wildlife

No vegetation communities are present in the Project Area because the entire site is disturbed. The Project is located within an urban environment that is generally subjected to repeated and ongoing disturbance from human activities and development. The dominant plant species observed in the Project Area are nonnative or invasive weedy species. California buckwheat (*Eriogonum fasciculatum*) scrub is noted to be present in the area surrounding the Project Area, in addition to commercial landscaping.

Wildlife species that may occur in the Project Area are those who thrive within an urban or disturbed environment. These include mammals such as the California ground squirrel (*Otospermophilus beecheyi*), desert cottontail (*Sylvilagus audubonii*), and Botta's pocket gopher; bird species include American pipit (*Anthus rubescens*), Anna's hummingbird (*Calypte anna*), and American crow (*Corvus brachyrhynchos*).

3.0 CULTURAL CONTEXT

3.1 Regional Precontact History

3.1.1 Paleo-Indian Period/Terminal Pleistocene (12,000 Before Present [BP] to 10,000 BP)

The first inhabitants of Southern California were big-game hunters and gatherers exploiting extinct species of Pleistocene megafauna (e.g., mammoth and other Rancholabrean fauna). Local "fluted point" assemblages, composed of large spear points or knives, are stylistically and technologically similar to the Clovis Paleo-Indian cultural tradition dated to this period elsewhere in North America (Moratto 1984). Archaeological evidence for this period in Southern California is limited to a few small temporary camps with fluted points found around late Pleistocene lake margins in the Mojave Desert and around Tulare Lake in the southern San Joaquin Valley. Single points are reported from Ocotillo Wells and Cuyamaca Pass in eastern San Diego County and from the Yuha Desert in Imperial County (Rondeau et al. 2007).

3.1.2 Early Archaic Period/Early Holocene (10,000 BP to 8,500 BP)

Approximately 10,000 years ago, at the beginning of the Holocene, warming temperatures and the extinction of the megafauna resulted in changing subsistence strategies with an emphasis on hunting smaller game and increasing reliance on plant gathering. Previously, Early Holocene sites were represented by only a few sites and isolates from the Lake Mojave and San Dieguito complexes found along former lakebeds and grasslands of the Mojave Desert and in inland San Diego County. More recently, Southern California Early Holocene sites have been found along the Santa Barbara Channel (Erlandson 1994), in western Riverside County (Goldberg 2001; Grenda 1997), and along the San Diego County coast (Gallegos 1991; Koerper et al. 1991; Warren 1967).

The San Dieguito Complex was defined based on material found at the Harris site (CA-SDI-149) on the San Dieguito River near Lake Hodges in San Diego County. San Dieguito artifacts include large leaf-shaped points; leaf-shaped knives; large ovoid, domed, and rectangular end and side scrapers; engraving tools; and crescentics (Koerper et al. 1991). The San Dieguito Complex at the Harris site dates to 9,000 BP to 7,500 BP (Gallegos 1991). However, sites from this time period in coastal San Diego County have yielded artifacts and subsistence remains characteristic of the succeeding Encinitas Tradition, including manos, metates, core-cobble tools, and marine shell (Gallegos 1991; Koerper et al. 1991).

3.1.3 Encinitas Tradition or Milling Stone Period/Middle Holocene (8,500 BP to 1,250 BP)

The Encinitas Tradition (Warren 1968) and the Milling Stone Period (Wallace 1955) refer to a long period of time during which small mobile bands of people foraged for a wide variety of resources, including hard seeds, berries, and roots/tubers (yucca in inland areas), rabbits and other small animals, and shellfish and fish in coastal areas. Sites from the Encinitas Tradition consist of residential bases and resource acquisition locations with no evidence of overnight stays. Residential bases have hearths and fire-affected rock,

indicating overnight stays and food preparation. Residential bases along the coast have large amounts of shell and are often termed shell middens.

The Encinitas Tradition as originally defined (Warren 1968) applied to all of the non-desert areas of Southern California. Recently, four patterns within the Encinitas Tradition have been proposed that apply to different regions of Southern California (Sutton and Gardner 2010). The Topanga Pattern includes archaeological material from the Los Angeles Basin and Orange County. The Greven Knoll Pattern pertains to southwestern San Bernardino County and western Riverside County (Sutton and Gardner 2010). Each of the patterns are divided into temporal phases. The Topanga I phase extends from 8,500 BP to 5,000 BP and Topanga II runs from 5,000 BP to 3,500 BP. The Topanga Pattern ended about 3,500 BP with the arrival of Takic speakers, except in the Santa Monica Mountains where the Topanga III phase lasted until about 2,000 BP.

The Encinitas Tradition in inland areas east of the Topanga Pattern (southwestern San Bernardino County and western Riverside County) is the Greven Knoll Pattern (Sutton and Gardner 2010). Greven Knoll I (9,400 BP to 4,000 BP) has abundant manos and metates. Projectile points are few and are mostly Pinto points. Greven Knoll II (4,000 BP to 3,000 BP) has abundant manos, metates, and core tools. Projectile points are mostly Elko points. The Elsinore site on the east shore of Lake Elsinore was occupied during Greven Knoll I and Greven Knoll II. During Greven Knoll I, faunal processing (butchering) took place at the lakeshore and floral processing (seed grinding), cooking, and the consumption of foodstuffs took place farther from the shore. The primary foods were rabbit meat and seeds from grasses, sage, and ragweed. A few deer, waterfowl, and reptiles were consumed. The recovered archaeological material suggests that a highly mobile population visited the site at a specific time each year. It is possible that their seasonal rounds included travel to the coast at other times of the year. These people had an unspecialized technology as exemplified by the numerous crescents, a multi-purpose tool. The few projectile points suggest that most of the small game was trapped using nets and snares (Grenda 1997). During Greven Knoll II, which included a warmer, drier climatic episode known as the Altithermal, it is thought that populations in interior Southern California concentrated at oases, of which Lake Elsinore was one. The Elsinore site (CA-RIV-2798) is one of five known Middle Holocene residential sites around Lake Elsinore. Tools were mostly manos, metates, and hammerstones. Scraper planes were absent. Flaked-stone tools consisted mostly of utilized flakes used as scrapers. The Elsinore site during the Middle Holocene was a "recurrent extended encampment," which could have been occupied during much of the year.

The Encinitas Tradition lasted longer in inland areas (until circa 1,000 BP). Greven Knoll III (3,000 BP to 1,000 BP) is present at the Liberty Grove site in Cucamonga (Salls 1983) and at sites in Cajon Pass that were defined as part of the Sayles Complex (Kowta 1969). Greven Knoll III sites have a large proportion of manos, metates, and core tools, as well as scraper planes. Kowta (1969) suggested the scraper planes may have been used to process yucca and agave. The faunal assemblage consists of large quantities of lagomorphs (rabbits and hares) and lesser quantities of deer, rodents, birds, carnivores, and reptiles.

3.1.4 Palomar Tradition (1,250 BP to 150 BP)

The material culture of the inland areas — where Takic languages, which form a branch or subfamily of the Uto-Aztecan language family, were spoken at the time of Spanish contact — is part of the Palomar

Tradition (Sutton 2011). San Luis Rey I Phase (1,000 BP to 500 BP) and San Luis Rey II Phase (500 BP to 150 BP) pertain to the area occupied by the Luiseño at the time of Spanish contact. The Peninsular I (1,000 BP to 750 BP), Peninsular II (750 BP to 300 BP), and Peninsular III (300 BP to 150 BP) phases are used in the areas occupied by the Cahuilla and Serrano (Sutton 2011).

San Luis Rey I is characterized by Cottonwood Triangular arrow points, use of bedrock mortars, stone pendants, shell beads, quartz crystals, and bone tools. San Luis Rey II sees the addition of ceramics, including ceramic cremation urns, red pictographs on boulders in village sites, and steatite arrow straighteners. San Luis Rey II represents the archaeological manifestation of the antecedents of the historically known Luiseño (Goldberg 2001:I-43). During San Luis Rey I, there were a series of small permanent residential bases at water sources, each occupied by a kin group (probably a lineage). During San Luis Rey II, people from several related residential bases moved into a large village located at the most reliable water source (Waugh 1986). Each village had a territory that included acorn harvesting camps at higher elevations. Villages have numerous bedrock mortars, large dense midden areas with a full range of flaked and ground stone tools, rock art, and a cemetery.

3.2 Ethnohistory

Ethnographic accounts of Native Americans indicate that the Project Area lies predominantly within the original territory of the Luiseño. The Luiseño are a Takic-speaking people who occupied what is now western Riverside County and northern San Diego County (the San Luis Rey River drainage) in prehistoric and historic times. The term Luiseño was given by the Spanish to the native groups who were living in this area and who were forcibly removed to Mission San Luis Rey. The Luiseño believe the world was created in the area now known as Temecula and that they have been here since the beginning of time. Specifically, the region around Lake Elsinore was called *Etengvo Wumoma* – "Hot Springs by the Little Sea" and has been inhabited since as early as 6,000 years ago (City of Lake Elsinore 2011).

The Luiseño lived in sedentary and autonomous village groups, each with specific subsistence territories encompassing hunting, collecting, and fishing areas. Villages were typically located in valley bottoms, along streams, or along coastal strands near mountain ranges where water was available and village defense was possible. Inland populations had access to fishing and gathering sites on the coast, which they used during the winter months (Bean and Shipek 1978).

Luiseño subsistence was centered around the gathering of acorns, seeds, greens, bulbs, roots, berries, and other vegetal foods. This was supplemented with hunting mammals such as deer, antelope, rabbit, woodrat, ground squirrels, and mice, as well as quail, doves, ducks, and other birds. Bands along the coast also exploited marine resources, such as sea mammals, fish, crustaceans, and mollusks. Inland, trout and other fish were taken from mountain streams (Bean and Shipek 1978).

Hunting was carried out both individually and by organized groups. Tool technology for food acquisition, storage, and preparation reflects the size and quantity of items procured. Small game was hunted with the use of curved throwing sticks, nets, slings, or traps. Bows and arrows were used for hunting larger game. Dugout canoes, basketry fish traps, and shell hooks were used for near-shore ocean fishing. Coiled and twined baskets were made for food gathering, preparation, storing, and serving. Other items used for food processing included large shallow trays for winnowing chaff from grain, ceramic and basketry

storage containers, manos and metates for grinding seeds, and ceramic jars for cooking (Bean and Shipek 1978).

Villages had hereditary chiefs who controlled religious, economic, and territorial activities (Bean and Shipek 1978; Boscana 1933). An advisory council of ritual specialists and shamans was consulted for environmental and other knowledge. large villages located along the coast or in inland valleys may have had more complex social and political structures than settlements controlling smaller territories (Bean and Shipek 1978; Strong 1929).

Most Luiseño villages contained a ceremonial structure, which were enclosed by circular fencing and located near the center of the village. Houses were semisubterranean and thatched with locally available brush, bark, or reeds. Earth-covered semisubterranean sweathouses were also common and were used for purification and curing rituals (Bean and Shipek 1978).

The Luiseño first came into contact with Europeans in 1769 when the expedition led by Gaspar de Portolá arrived in their territory. That same year, the San Diego Mission was established just to the south, followed by the San Juan Capistrano Mission in 1776 and the San Luis Rey Mission in 1798. Poor living conditions at the missions and introduced European diseases led to a rapid decline of the Luiseño population. Following the Mission Period (1769-1834), Luiseño Indians scattered throughout southern California. Some became serfs on the Mexican ranchos, others moved to newly founded pueblos established for them, some sought refuge among inland groups, and a few managed to acquire land grants. Later, many moved to or were forced onto reservations. Although many of their cultural traditions had been suppressed during the Mission Period, the Luiseño were successful at retaining their language and certain rituals and ceremonies. Starting in the 1970s, there was a revival of interest in the Luiseño language and classes were organized. Since then, traditional games, songs, and dances have been performed, traditional foods have been gathered and prepared, and traditional medicines and curing procedures have been practiced (Bean and Shipek 1978).

3.3 Regional History

The first European to visit California was Spanish maritime explorer Juan Rodriguez Cabrillo in 1542. The Viceroy of New Spain (Mexico) sent Cabrillo north to look for the Northwest Passage. Cabrillo visited San Diego Bay, Catalina Island, San Pedro Bay, and the northern Channel Islands. The English adventurer Francis Drake visited the Miwok Native American group at Drake's Bay or Bodega Bay in 1579. Sebastian Vizcaíno explored the coast as far north as Monterey in 1602. He reported that Monterey was an excellent location for a port (Castillo 1978). Vizcaíno also named San Diego Bay to commemorate Saint Didacus. San Diego began to appear on European maps of the New World by 1624 (Gudde 1998).

Colonization of California by Euro-Americans began with the Spanish Portolá land expedition. The expedition, led by Captain Gaspar de Portolá of the Spanish army and Father Junipero Serra, a Franciscan missionary, explored the California coast from San Diego to the Monterey Bay area in 1769. As a result of this expedition, Spanish missions to convert the native population, *presidios* (forts), and towns were established. The Franciscan missionary friars established 21 missions in Alta California (the area north of Baja California), beginning with Mission San Diego in 1769 and ending with the mission in Sonoma established in 1823. The purpose of the missions and presidios was to establish Spanish economic,

military, political, and religious control over the Alta California territory. Mission San Gabriel Archangel was founded in 1771, east of what is now Los Angeles, to convert the Tongva or Gabrielino. Mission San Luis Rey was established in 1798 on the San Luis Rey River (in what is now northern San Diego County) to convert the Luiseño (Castillo 1978). Some missions later established outposts in inland areas. An *asistencia* (mission outpost) of Mission San Luis Rey, known as San Antonio de Pala, was built in Luiseño territory along the upper San Luis Rey River near Mount Palomar in 1810 (Pourade 1961). A chapel administered by Mission San Gabriel Archangel was established in the San Bernardino area in 1819 (Bean and Smith 1978). The present *asistencia* within the western outskirts of present-day Redlands was built circa 1830 (Haenszel and Reynolds 1975).

The missions sustained themselves through cattle ranching and traded hides and tallow for supplies brought by ship. Large cattle ranches were established by Mission San Luis Rey at Temecula and San Jacinto (Gunther 1984). The Spanish also constructed *presidios*, or forts, at San Diego and Santa Barbara, and established a *pueblo*, or town, at Los Angeles. The Spanish period in California began in 1769 with the Portolá expedition and ended in 1821 with Mexican independence.

After Mexico became independent from Spain in 1821, what is now California became the Mexican province of Alta California. The Mexican government closed the missions in the 1830s and former mission lands were granted to retired soldiers and other Mexican citizens for use as cattle ranches. Much of the land along the coast and in the interior valleys became part of Mexican land grants or "ranchos" (Robinson 1948). The rancho owners lived in an adobe house on the rancho. The Mexican period includes the years 1821 to 1848.

The American period began when Mexico and the U.S. signed the Treaty of Guadalupe Hidalgo in 1848 that ended the Mexican-American War. As a result of the treaty, Alta California became part of the U.S. as the territory of California. Rapid population increase occasioned by the Gold Rush of 1849 allowed California to become a state in 1850. Most Mexican land grants were confirmed to the grantees by U.S. courts, but usually with more restricted boundaries, which were surveyed by the U.S. Surveyor General's office. Land that was not part of a land grant was owned by the U.S. government until it was acquired by individuals through purchase or homesteading. Floods and drought in the 1860s greatly reduced the cattle herds on the ranchos, making it difficult to pay the new American taxes on the thousands of acres they owned. Many Mexican-American cattle ranchers borrowed money at usurious rates from newly arrived Anglo-Americans. The resulting foreclosures and land sales transferred most of the land grants into the hands of Anglo-Americans (Cleland 1941).

3.4 Project Area History

The Project Area is near the present-day city limits of the City of Lake Elsinore. The community was founded in 1883 on the northeast shore of La Laguna (Lake Elsinore), a shallow body of brackish water that expands and shrinks depending on inflow from the San Jacinto River. The land on which the historic town center is located was part of Rancho La Laguna, granted to Julian Manriquez by Governor Manuel Micheltorena in 1844. When Manriquez died a few years later, the rancho was inherited by his wife, Trinidad Manriquez, and their children. Señora Manriquez sold Rancho La Laguna to Abel Stearns in 1852, and Stearns sold the land to Augustin Machado in 1858. Augustin Machado died in 1865, leaving the

rancho to his widow, Ramona Machado, and their 12 children. Señora Machado and 11 of her children sold their interests in the land, comprising the majority of Rancho La Laguna, to Charles A. Sumner, an immigrant from England, in 1873. Two years later, Sumner mortgaged the rancho to the Temple and Workman Bank of Los Angeles; however, he defaulted on the mortgage and the bank foreclosed. In 1877, Frederick M. Sumner, Charles Sumner's brother, acquired Rancho La Laguna, but sold it to Arthur Scrivener as trustee for the London and San Francisco Bank in 1881. Two years later, the 12,832-acre rancho was purchased by Franklin Heald, Donald Graham, and William Collier for $24,000 (Gunther 1984; Hudson 1978).

Heald, Graham, and Collier intended to establish a town called Laguna, and requested a post office from the U.S. Government. The Post Office Department would not grant the name because *Laguna* was already taken by a settlement on the southern California coast. Collier's sister (Graham's wife), Margaret Collier Graham, suggested the name *Elsinore*, after the Danish setting of Shakespeare's Hamlet. The town and the lake were given the name, and the Elsinore Post Office opened in 1883 (Gunther 1984).

The City of Elsinore, in what was then San Diego County, was incorporated on April 9, 1888, supported by the tourist attraction of its hot springs, the nearby clay products industries of Alberhill and Terra Cotta City, ranching, and the farming of olives, apricots, citrus, and walnuts. Elsinore became one of the judicial townships and election districts of the new Riverside County, which was formed in 1893. The California Southern Railway reached Elsinore Junction in 1882 on its route from San Diego to San Bernardino. A spur to Elsinore from Elsinore Junction was subsequently built in 1895, with an extension to Alberhill in 1896 (Gunther 1984; Robertson 1998). The South Riverside Land and Water Company bought the lake itself from Heald, Graham, and Collier in 1893 with the intention of piping water to South Riverside (Corona) to irrigate citrus groves. Within five years, the project was stopped because the alkaline water was killing the trees (Gunther 1984; Hudson 1978).

Elsinore remained a small town for most of the 20th century, relying mostly on agriculture, the clay industry, and tourism for its economy. The lake completely dried and was filled again in the 1880s and 1890s. Flooding of the San Jacinto River caused the lake to overflow in 1916 and 1921. In the 1930s, the Great Depression nearly halted economic growth completely; however, after World War II, plans were initiated to capitalize on tourism and recreation. The Lake Elsinore Park and Recreation District was created in 1948 to stabilize the lake and market it for recreational use; however, the lake completely dried out in 1951. After partially filling in 1952, it was again dry by 1954. Efforts continued to establish a park and Governor Goodwin Knight established a $350,000 fund for the Lake Elsinore State Park Project in 1956. Heavy rains in 1958 partially filled the lake, but it was soon desiccated again. The Lake Elsinore State Recreation Area was dedicated in 1962. Colorado River water was purchased and pumped into the lake, which was refilled by 1964. Since then, the lake's level has been maintained by a combination of natural inflow and well water. Floods in 1978 and 1980 partially inundated the downtown section of the city (Gunther 1984; Hudson 1978).

In 1972, the Elsinore Chamber of Commerce suggested the city change its name to Lake Elsinore as a promotional tactic. The proposal was approved by residents in a vote held in November of the same year. The California Secretary of State and the U.S. Post Office approved the new name shortly thereafter and it was officially changed from Elsinore to Lake Elsinore on December 15, 1972 (Gunther 1984; Hudson 1978).

The completion of State Highway 74 and Interstate 15 through Lake Elsinore greatly improved transportation to the City of Riverside, as well as to San Diego, San Bernardino, and Orange counties. Increased residential and commercial development followed. The population of the City of Lake Elsinore was approximately 47,600 in 2007 (City of Lake Elsinore 2022).

4.0 METHODS

4.1 Personnel Qualifications

All phases of the cultural resources investigation were supervised by Registered Professional Archaeologist (RPA) John O'Connor, Ph.D., who meets the Secretary of the Interior's (SOI's) Professional Qualifications Standards for prehistoric and historical archaeology. Fieldwork was conducted by Staff Archaeologist Julian Acuña, M.A., RPA, who also served as co-author of this report. Senior Archaeologist Sonia Sifuentes, M.S., RPA served as co-author of this report. Lisa Westwood, M.A., RPA provided technical report review and quality assurance.

Dr. O'Connor, RPA has over 12 years of archaeological experience in North America and the Pacific Islands. His experience includes cultural resources management, academic research, museum collections management, and university teaching. Dr. O'Connor meets the SOI's Professional Qualifications Standards for prehistoric and historic archaeology. He is well versed in the evaluation of impacts to cultural resources for CEQA and NHPA projects and has written or otherwise contributed to numerous environmental compliance documents. Dr. O'Connor serves as the Southern California Cultural Resources Manager for ECORP.

Sonia Sifuentes, RPA is a Senior Archaeologist at ECORP and has more than 14 years of experience in cultural resources management, primarily in southern California. Ms. Sifuentes holds a M.S. in Archaeology of the North and meets the SOI's Professional Qualifications Standards for prehistoric and historic archaeology. She has participated in and supervised numerous surveys, test programs, and data recovery excavations for both prehistoric and historical sites; and has cataloged, identified, and curated thousands of artifacts. She has conducted evaluations of cultural resources for eligibility for the NRHP and CRHR. Ms. Sifuentes is experienced in the organization and execution of field projects in compliance with Section 106 of the NHPA and CEQA. She has contributed to and authored numerous cultural resources technical reports, research designs, and cultural resources management plans.

Julian Acuña, RPA is an Associate Archaeologist with over six years of experience in cultural resources management. Mr. Acuña holds an M.A. in Applied Archaeology and a B.A. Cum Laude in Anthropology from California State University, San Bernardino. He meets the SOI's Professional Qualifications Standards for prehistoric and historic archaeology. He has participated in various aspects of archaeological fieldwork including survey, test excavations, construction monitoring, the recording of both pre-contact and historic-period archaeological sites, and laboratory work for the analysis and cataloging of artifacts from multi-component sites.

Lisa Westwood, RPA meets the SOI's Professional Qualifications Standards for prehistoric and historic archaeology and has 26 years of experience. She holds a B.A. in Anthropology and an M.A. in Anthropology (Archaeology). She is the Director of Cultural Resources for ECORP.

4.2 Records Search Methods

ECORP requested a records search for the property at the Eastern Information Center (EIC) of the CHRIS at University of California, Riverside on January 31, 2022. The purpose of the records search was to

determine the extent of previous surveys within a 1-mile (1,600-meter) radius of the Proposed Project location, and whether previously documented pre-contact or historic archaeological sites, architectural resources, or traditional cultural properties exist within this area.

In addition to the official records and maps for archaeological sites and surveys in Riverside County, the following historic references were also reviewed: Built Environment Resources Directory for Riverside County (OHP 2022); *The National Register Information System* (National Park Service [NPS] 2022); *Office of Historic Preservation, California Historical Landmarks* (OHP 2020); *California Historical Landmarks* (OHP 1996 and updates); and *Caltrans Local Bridge Survey* (California Department of Transportation [Caltrans] 2019).

Other references examined include historic GLO land patent records (Bureau of Land Management [BLM] 2022). Historic maps reviewed include:

- 1901 USGS Elsinore, California topographic quadrangle map (1:125,000 scale);
- 1942 USGS Elsinore, California topographic quadrangle map (1:62,500 scale);
- 1953 USGS Elsinore, California topographic quadrangle map (1:24,000 scale);
- 1960 USGS Santa Ana, California topographic quadrangle map (1:250,000 scale);
- 1974 USGS Elsinore, California topographic quadrangle map (1:24,000 scale);
- 1983 USGS Santa Ana, California topographic quadrangle map (1:100,000 scale); and
- 1997 USGS Lake Elsinore, California topographic quadrangle map (1:24,000 scale).

ECORP also reviewed historic aerial photos taken in 1967, 1978, 1980, 1994, 2002, 2005, 2009, 2010, 2012, 2014, 2016, and 2018 for any indications of property usage and built environment.

4.3 Sacred Lands File Coordination Methods

In addition to the record search, ECORP contacted the California Native American Heritage Commission (NAHC) on February 4, 2022 to request a search of the Sacred Lands File for the APE (Attachment A). This search will determine whether Sacred Lands have been recorded by California Native American tribes within the APE, because the Sacred Lands File is populated by members of the Native American community with knowledge about the locations of tribal resources. In requesting a search of the Sacred Lands File, ECORP solicited information from the Native American community regarding Tribal cultural resources, but the responsibility to formally consult with the Native American community lies exclusively with the federal and local agencies under applicable state and federal law. ECORP was not delegated authority by the lead agencies to conduct tribal consultation.

4.4 Field Methods

On March 23, 2022, ECORP subjected the APE to an intensive pedestrian survey under the guidance of the *Secretary of the Interior's Standards for the Identification of Historic Properties* (NPS 1983) using 15-meter transects. ECORP expended one half person-day in the field. ECORP archaeologists examined the ground

surface for indications of surface or subsurface cultural resources and inspected the general morphological characteristics of the ground surface for indications of subsurface deposits that may be manifested on the surface, such as circular depressions or ditches. Whenever possible, the archaeologists examined the locations of subsurface exposures caused by such factors as rodent activity, water or soil erosion, or vegetation disturbances for artifacts or for indications of buried deposits. No subsurface investigations or artifact collections were undertaken during the pedestrian survey.

The archaeologists recorded any cultural resources encountered during the survey using Department of Parks and Recreation (DPR) 523-series forms approved by the California OHP. They photographed the resources, mapped them using a handheld Global Positioning System receiver, and sketched them, as necessary, to document their presence using appropriate DPR forms.

5.0 RESULTS

5.1 Records Search

ECORP requested a records search of the CHRIS from the EIC on January 31, 2022. The EIC provided the results to ECORP on March 21, 2022.

5.1.1 Previous Research

Fifty-five previous cultural resource investigations have been conducted within 1 mile of the property, covering approximately 85 percent of the total area surrounding the property within the record search radius (Appendix C). The previous studies were conducted between 1978 and 2018. The results of the records search indicate that none of the property has been previously surveyed for cultural resources, and therefore, a pedestrian survey of the APE was warranted.

The records search also determined that 197 previously recorded pre-contact and historic-period cultural resources are located within 1 mile of the Project Area, none of which overlap the Project Area (Appendix C). A total of five pre-contact resources, one multicomponent resource, and 191 historic-period resources are located within 1 mile of the Project Area. The five previously recorded pre-contact resources consist of two lithic scatters, one pre-contact isolated flakes/tools, and two pre-contact isolated granitic manos. The multicomponent resource is the natural feature of Lake Elsinore. The remaining 191 historic-period resources consist of 106 residential properties, 61 commercial buildings, five religious buildings, four community center/social halls, two residential/hotel properties, two farms/ranches, two isolated historic-period glass fragments, one government building, one community park, one courtyard, one railroad, one theater, one school, one refuse scatter, one historic district, and one cemetery.

The historic district located within 1 mile of the Project Area is Lake Elsinore Downtown Historic District (P-33-007143). A total of 159 contributing elements to the Lake Elsinore Downtown Historic District are located within 1 mile of the Project Area.

5.1.2 Records

The *Built Environment Resources Directory* for Riverside County (OHP 2022) lists one historic district, Lake Elsinore Historical District, and 159 contributing historic properties associated with the historic district within 1 mile of the Project Area. The historic district, a mix of commercial and residential sections located in the downtown area of Lake Elsinore, has been evaluated and given a status code 5S2 – determined recognized as a historically significant by local government.

In addition to the historic district and its contributors, 38 properties are located within 1 mile of the Project Area. Two properties are evaluated as 1S - individually listed in the National Register (NR) by the keeper; six properties are evaluated as 3S – appears eligible for NR individually through survey evaluation; two properties are evaluated as 3D – appears eligible for NR as a contributor to a NR eligible multi-component resource through survey evaluation; 10 properties are evaluated as 5S2 – determined individually eligible for local listing or designation; 11 are evaluated as 6Y – determined ineligible for the NRHP by consensus through Section 106 process; two properties are evaluated as 7N – needs to be

reevaluated; and five properties are evaluated as 7R – identified in reconnaissance level survey or in an area.

The National Register Information System (NPS 2022) failed to reveal any eligible or listed properties within the Project Area. The nearest National Register property, the Armory Hall at 252 North Main Street, is located 0.74 mile southeast of the Project Area.

ECORP reviewed resources listed as *California Historical Landmarks* (OHP 1996) and by the OHP (OHP 2022) on March 23, 2022. There are no landmarks listed within the Project Area.

Historic GLO land patent records from the BLM's patent information database (BLM 2022) revealed four separate patents for the APE (Township 6 South, Range 4 West). The surrounding area was first granted to Abel Stearns on September 3, 1872, under the authority of the Grant-Spanish/Mexican, (9 Stat. 631). The next two patents were granted to Thomas D Langstaff in 1888, under the jurisdiction of the Land Act of 1820. The last patent was the transfer of the land to the State of California on September 19, 1934 (Table 5-1).

Table 5-1. GLO Land Patent Records

Patentee	Patent Date	Serial Number	Patent Type/Authority
Stearns, Abel	9/3/1872	CACAAA 083219	March 3, 1851: Grant-Spanish/Mexican (9 Stat. 631)
Langstaff, Thomas D	1/25/1888	CA0520.149	April 24, 1820: Sale-Cash Entry (3 Stat. 566)
Langstaff, Thomas D	1/25/1888	CACAAA 083504	April 24, 1820: Sale-Cash Entry (3 Stat. 566)
California, State of	9/19/1934	CACAAA 014547 01	January 21, 1927: Indemnity Selections (44 Stat. 1022)

The Caltrans Bridge Local and State Inventories (Caltrans 2019) did not list any bridges of historical significance within 1 mile of the Project Area.

5.1.3 Map Review and Aerial Photographs

The review of historical aerial photographs and maps of the Project Area provide information on the past land uses of the property and potential for buried archaeological sites. Based on this information, the property was undeveloped. Following is a summary of the review of historical maps and photographs.

The 1901, 1942, and 1953 Elsinore, California (1:125,000; 1:62,500; and 1:24,000 scale) and 1960 USGS Santa Ana, California (1:250,000 scale) topographic quadrangle maps show the Project Area as undeveloped with the vicinity continuing to expand its roads and commercial properties. The 1974 USGS Elsinore, California (1:24,000 scale) topographic quadrangle map shows the Project Area as undeveloped.

Aerial photography from 1967 shows the property as undeveloped. The Project Area is bounded by undeveloped land, what is now Collier Avenue and Minthorn Street, and by a commercial property.

The 1978 aerial photographs show the Project Area as unchanged from the 1967 photograph. Commercial properties are expanding in the vicinity of the Project Area.

On 1980 aerial photographs, the Project Area appears to be graded and all vegetation removed. Conditions remain unchanged to present day (NETROnline 2022).

5.2 Sacred Lands File Results

ECORP received the results of the Sacred Lands File by the NAHC on March 24, 2022. The search of the Sacred Lands File was negative and failed to indicate the presence of Native American cultural resources in the Project Area. Correspondence between the NAHC and ECORP is included in Attachment A. Any additional comments received after the submission of this report will be forwarded to the Lead Agency for further consideration and appropriate action.

5.3 Field Survey Results

ECORP surveyed the Project Area for cultural resources on March 23, 2022. Ground visibility in the Project Area was approximately 5 percent due to recent introduction of imported surface gravel to the area. The Project Area is currently utilized as a laydown, stagging, and parking area for a nearby business. During survey efforts, a local worker informed ECORP personnel that the Project Area had been vacant for at least one year. Complete photography of the Project Area is included in Attachment B.

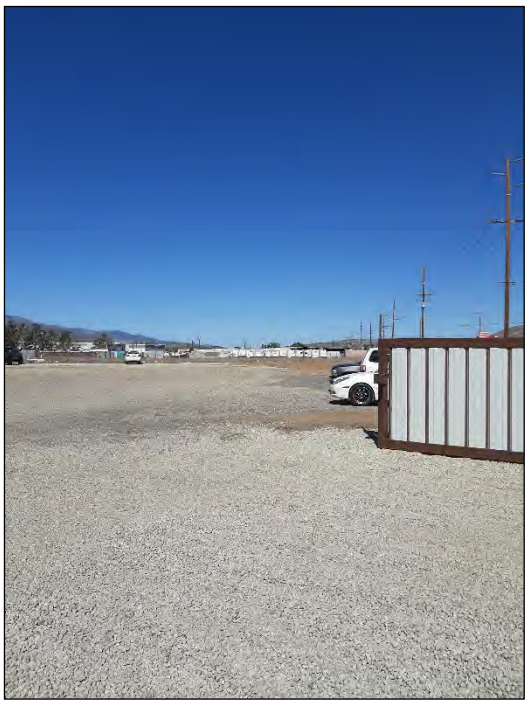


Figure 5-1. Project Area overview from southeastern corner (view west, March 23, 2022).



Figure 5-2. Project Area overview from northeastern corner (view south, March 23, 2022).



Figure 5-3. Overview of ground conditions (view detail, March 23, 2022).

As a result of the field survey, no cultural resources were encountered within the Project Area.

6.0 MANAGEMENT CONSIDERATIONS

6.1 Conclusions

The records search and the 2022 field survey did not yield any historic-period or pre-contact cultural resources in the Project Area. No cultural resources were identified on the property as a result of field survey. Therefore, no Historic Properties under Section 106 of the NHPA or Historical Resources under CEQA will be affected by the Proposed Project. Until the lead agencies concur with the identification and evaluation of eligibility of cultural resources, no Project activities should occur.

6.2 Likelihood for Subsurface Cultural Resources

The Project Area contains Holocene alluvial deposits contemporaneous with human occupation of the region. Although no pre-contact resources were identified during the field survey, due to the presence of Holocene alluvial deposits within the Project Area and the proximity of the Project Area to Lake Elsinore, a location in which Native American populations were known to settle, there exists a moderate potential for buried pre-contact archaeological sites within the Project Area.

6.3 Recommendations

6.3.1 Contractor Awareness Training

The lead agency shall ensure that a Contractor Awareness Training Program is delivered to train equipment operators about cultural resources. The program shall be designed to inform construction personnel about: federal and state regulations pertaining to cultural resources and tribal cultural resources; the subsurface indicators of resources that shall require a work stoppage; procedures for notifying the lead agency of any occurrences; project-specific requirements and mitigation measures; and enforcement of penalties and repercussions for non-compliance with the program.

The training shall be prepared by a qualified professional archaeologist and may be provided either through a brochure, video, or in-person tailgate meeting, as determined appropriate by the archaeologist. The training shall be provided to all construction supervisors, forepersons, and operators of ground-disturbing equipment. All personnel shall be required to sign a training roster. The construction manager is responsible for ensuring that all required personnel receive the training. The Construction Manager shall provide a copy of the signed training roster to the lead agency as proof of compliance.

6.3.2 Post-Review Discoveries

There always remains the potential for ground-disturbing activities to expose previously unrecorded cultural resources. Both CEQA and Section 106 of the NHPA require the lead agency to address any unanticipated cultural resource discoveries during Project construction. Therefore, ECORP recommends the following mitigation measures be adopted and implemented by the lead agency to reduce potential adverse impacts to less than significant:

- If subsurface deposits believed to be cultural or human in origin are discovered during construction, all work must halt within a 100-foot radius of the discovery. A qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for pre-contact and historic archaeologist, shall be retained to evaluate the significance of the find, and shall have the authority to modify the no-work radius as appropriate, using professional judgment. The following notifications shall apply, depending on the nature of the find:

    - If the professional archaeologist determines that the find does not represent a cultural resource, work may resume immediately, and no agency notifications are required.

    - If the professional archaeologist determines that the find does represent a cultural resource from any time period or cultural affiliation, the archaeologist shall immediately notify the lead CEQA agency, and landowner. The agencies shall consult on a finding of eligibility and implement appropriate treatment measures, if the find is determined to be a Historical Resource under CEQA, as defined in Section 15064.5(a) of the CEQA Guidelines or a historic property under Section 106 NHPA, if applicable. Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the site either: 1) is not a Historical Resource under CEQA, as defined in Section 15064.5(a) of the CEQA Guidelines or a Historic Property under Section 106; or 2) that the treatment measures have been completed to their satisfaction.

    - If the find includes human remains, or remains that are potentially human, they shall ensure reasonable protection measures are taken to protect the discovery from disturbance (AB 2641). The archaeologist shall notify the Riverside County Coroner (per § 7050.5 of the Health and Safety Code). The provisions of § 7050.5 of the California Health and Safety Code, § 5097.98 of the California PRC, and AB 2641 will be implemented. If the Coroner determines the remains are Native American and not the result of a crime scene, the Coroner will notify the NAHC, which then will designate a Native American Most Likely Descendant (MLD) for the Project (§ 5097.98 of the PRC). The designated MLD will have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If the landowner does not agree with the recommendations of the MLD, the NAHC can mediate (§ 5097.94 of the PRC). If no agreement is reached, the landowner must rebury the remains where they will not be further disturbed (§ 5097.98 of the PRC). This will also include either recording the site with the NAHC or the appropriate Information Center; using an open space or conservation zoning designation or easement; or recording a reinternment document with the county in which the property is located (AB 2641). Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the treatment measures have been completed to their satisfaction.

The lead agency is responsible for ensuring compliance with these mitigation measures because damage to significant cultural resources is in violation of CEQA and Section 106. Section 15097 of Title 14, Chapter 3, Article 7 of CEQA, *Mitigation Monitoring or Reporting*, "the public agency shall adopt a program for monitoring or reporting on the revisions which it has required in the project and the measures it has imposed to mitigate or avoid significant environmental effects. A public agency may delegate reporting or

monitoring responsibilities to another public agency or to a private entity which accepts the delegation; however, until mitigation measures have been completed the lead agency remains responsible for ensuring that implementation of the mitigation measures occurs in accordance with the program."

7.0 REFERENCES CITED

Bean, L. J. and F. C. Shipek. 1978. Luiseño. In *Handbook of North American Indians*, *Volume 8, California*. Edited by R. F. Heizer, pp. 550-563. Smithsonian Institution, Washington, D.C.

Bean, L. J. and C. R. Smith. 1978. Serrano. In: *Handbook of North American Indians, Volume 8: California*. 8: California. Heizer Robert F., editor. p. 570-574. Published by Smithsonian Institution, Washington, D.C.

Boscana, G. 1933. *Chinigchinich: A Revised and Annotated Version of Alfred Robinson's Translation of Father Geronimo Boscana's Historical Account of the Belief, Usages, Customs and Extravagancies of the Indians of San Juan Capistrano Called the Acagchemem Tribe*. Fine Arts Press, Santa Ana.

Bureau of Land Management (BLM). 2022. Bureau of Land Management, General Land Office Records, Records Automation website. http://www.glorecords.blm.gov/. Accessed online on March 23, 2022.

California Department of Transportation (Caltrans). 2019. Structure and Maintenance & Investigations, Historical Significance–Local Agency Bridges Database March 2019. https://dot.ca.gov/-/media/dot-media/programs/maintenance/documents/f0009165-hs-local-a11y.pdf. Accessed online on March 24, 2022.

Castillo, Edward D. 1978. The Impact of Euro-American Exploration and Settlement. In *Handbook of North American Indians, Volume 8, California*, edited by R.F. Heizer, pp. 99-127. Smithsonian Institution, Washington D. C.

City of Lake Elsinore. 2022. City Timeline. A Brief Chronology of Lake Elsinore Valley. http://www.lake-elsinore.org/visitors/history/city-timeline . Accessed 1/18/2022.

_____. 2011. City of Lake Elsinore General Plan. http://www.lake-elsinore.org/home/showdocument?id=7301. Accessed online on March 24, 2022.

Cleland, Robert G. 1941. The Cattle on a Thousand Hills: Southern California, 1850-1870. Huntington Library, San Marino, California.

Erlandson, J. M. 1994. *Early Hunter-Gatherers of the California Coast*. Plenum Press, New York.

Gallegos, D. 1991. Antiquity and Adaptation at Agua Hedionda, Carlsbad, California. In *Perspectives in California Archaeology 1*, edited by J. M. Erlandson and R. H. Colton, pp. 19-41. Institute of Archaeology, University of California, Los Angeles.

Goldberg, S. E. 2001. *Eastside Reservoir Project: Final Report of Archaeological Investigations* (Five volumes). Applied Earthworks, Inc., Hemet, California.

Grenda, D. R. 1997. *Continuity and Change: 8,500 Years of Lacustrine Adaptation on the Shores of Lake Elsinore: Archaeological Investigations at a Stratified Site in Southern California*. Statistical Research Technical Series No 59. Statistical Research, Inc., Tucson, Arizona.

Gudde, E. G. 1998. *California Place Names: The Origin and Etymology of Current Geographical Names*. Revised from first edition, 1949. University of California Press, Berkeley.

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

Haenszel, Arda M. and Jennifer Reynolds. 1975. *The Historic San Bernardino Mission District*. San Bernardino County Museum Association, Redlands, California.

Hudson, T. 1978. Lake Elsinore Valley: Its Story, 1776-1977. Published for Lake Elsinore Downtown Business Association and City of Lake Elsinore Centennial.

Koerper, H. C., P. Langenwalter II, and A. Schroth. 1991. Early Holocene Adaptations and the Transition Problem: Evidence from the Allan O. Kelly Site, Agua Hedionda Lagoon. In *Hunter-Gatherers of Early Holocene Coastal California, Perspectives in California Archaeology, Volume 1*, edited by R. H. Colten and J. M. Erlandson, pp. 81-88. Published by Institute of Archaeology, University of California, Los Angeles, Los Angeles, CA.

Kowta, M. 1969. *The Sayles Complex: A Late Milling Stone Assemblage from Cajon Pass and the Ecological Implications of Its Scraper Planes*. University of California Publications in Anthropology.

Moratto, M. J. 1984. *California Archaeology*. Academic Press, Inc., Orlando, Florida

Morton, D.M., and F.H. Weber. 2003. Preliminary geologic map of the Elsinore 7.5' quadrangle, Riverside County, California. U.S. Geological Survey. Open-File Report OF-2003-281, scale 1:24,000. Accessed online on February 4, 2022.

National Park Service (NPS). 2022. National Register of Historic Places, Digital Archive on NPGallery https://npgallery.nps.gov/NRHP/BasicSearch/. Accessed March 23, 2022.

_____. 1983. Archaeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines. 48 FR (Federal Register) 44716-68.

Nationwide Environmental Title Research, LLC (NETROnline). 2022. Historic aerial photography of the Oildale area from 1956 to present.

Natural Resources Conservation Service (NRCS). 2021. Natural Resources Conservation Service Web Soil Survey. http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm. Accessed February 4, 2022.

Office of Historic Preservation (OHP). 2022. Built Environment Resource Directory. https://ohp.parks.ca.gov/pages/1068/files/San%20Bernardino.csv. Accessed March 24, 2022.

_____. 2022. Office of Historic Preservation California Historical Landmarks Website. http://ohp.parks.ca.gov/?page_id=21387, accessed September 2, 2021.

_____. 1996. California Historical Landmarks. California Department of Parks and Recreation, Sacramento, California.

Pourade, Richard. 1961. *The History of San Diego: Time of the Bells*. San Diego Historical Society. http://www.sandiegohistory.org/books/pourade/time/timechapter9.htm

Robertson, Donald B. 1998. *Encyclopedia of Western Railroad History, Volume IV, California.* The Caxton Printers, Caldwell, Idaho

Robinson, W. W. 1948. *Land in California: The Story of Mission Lands, Ranchos, Squatters, Mining Claims, Railroad Grants, Land Scrip, Homesteads*. University of California Press, Berkeley.

Rondeau, M. F., J. Cassidy, and T. L. Jones. 2007. Colonization Technologies: Fluted Projectile Points and the San Clemente Island Woodworking/Microblade Complex. In *California Prehistory: Colonization, Culture, and Complexity*, edited by T. L. Jones and K. A. Klar, pp. 299-315. Altamira Press, Lanham, Maryland.

Salls, R. A. 1983. The Liberty Grove Site: Archaeological Interpretation of a Late Milling Stone Horizon Site on the Cucamonga Plan. M.A. Thesis, Department of Anthropology, University of California, Los Angeles.

Strong, W. D. 1929. *Aboriginal Society in Southern California*. University of California Press, Berkeley, CA.

Sutton, M. Q. 2011. The Palomar Tradition and Its Place in the Prehistory of Southern California. *Pacific Coast Archaeological Society Quarterly* 44(4):1-74.

Sutton, M. Q. and J. K. Gardner. 2010. Reconceptualizing the Encinitas Tradition of Southern California. *Pacific Coast Archaeological Society Quarterly* 42(4):1-64

Wallace, W. J. 1955. A Suggested Chronology for Southern California Coastal Archaeology. *Southwestern Journal of Anthropology* 11:214-230

Warren, C. N. 1968. Cultural Tradition and Ecological Adaptation on the Southern California Coast. In *Archaic Prehistory in the Western United States*, *1*, edited by Cynthia Irwin-Williams, pp. 1-14. Eastern New Mexico University Contributions in Anthropology, Portales, New Mexico.

_____. 1967. The San Dieguito Complex: a Review and Hypothesis. *American Antiquity* 32:168-185.

Waugh, M. G. 1986. *Intensification and Land-Use: Archaeological Indication of Transition and Transformation in a Late Prehistoric Complex in Southern California* [Ph.D.]. [University of California, Davis. UMI Dissertation Services, ProQuest, Ann Arbor]: University of California, Davis.

LIST OF ATTACHMENTS

Attachment A – Sacred Lands File Coordination

Attachment B – Project Area Photographs

Attachment C – ***Confidential*** Cultural Resource Site Locations and Site Records

ATTACHMENT A

Sacred Lands File Coordination

From:	Julian Acuna
To:	nahc@nahc.ca.gov
Cc:	Robert Cunningham
Subject:	Sacred Lands File search request for Collier Commercial Properties 2022-020
Date:	Monday, January 31, 2022 10:28:00 AM
Attachments:	sacred-lands-file-na-contact-form.pdf Collier_RS_V1(draft01).pdf image001.jpg

Hello,

ECORP is requesting a Sacred Lands File search for the proposed development of three parcels in the City of Lake Elsinore, Riverside County. I have attached a copy of the Sacred Lands File contact form above along with a map showing the project area. The results of this search can be sent to me at joconnor@ecorpconsulting.com. They can also be faxed to my attention at (858) 279-4043. Please reference the project number 2022-020 on all correspondence. Please let me know if you have any questions or need any additional information.

Thanks,

Julian E. Acuña, M.A., RPA

Associate Archaeologist

ECORP Consulting, Inc.

Federal Small Business

California Small Business for Public Works (SB-PW)

All ECORP offices will be closed for Thanksgiving from Thursday, November 25, 2021 through Friday, November 26, 2021. We will reopen on Monday, November 29, 2021.

215 N. Fifth Street, Redlands, CA 92374

Ph: 909.307.0046 ◆ Cell: 909.649.8587

wblumel@ecorpconsulting.com ◆ www.ecorpconsulting.com

Rocklin ◆ Redlands ◆ Santa Ana ◆ San Diego ◆ Chico ◆ Flagstaff, AZ ◆ Santa Fe, NM

Sacred Lands File & Native American Contacts List Request

Native American Heritage Commission
1550 Harbor Blvd, Suite 100
West Sacramento, CA 95691
916-373-3710
916-373-5471 – Fax
nahc@nahc.ca.gov

Information Below is Required for a Sacred Lands File

Search **Project:** 2022-020 Collier Commercial Properties

County: Riverside

USGS Quadrangle Name: Lake Elsinore (1997, NAD27)

Township: 6S **Range:** 4w **Section(s):** 6

Company/Firm/Agency: ECORP Consulting, Inc.

Street Address: 3838 Camino Del Rio North, Suite 370

City: San Diego **Zip:** 92108

Phone: (858) 279-4040

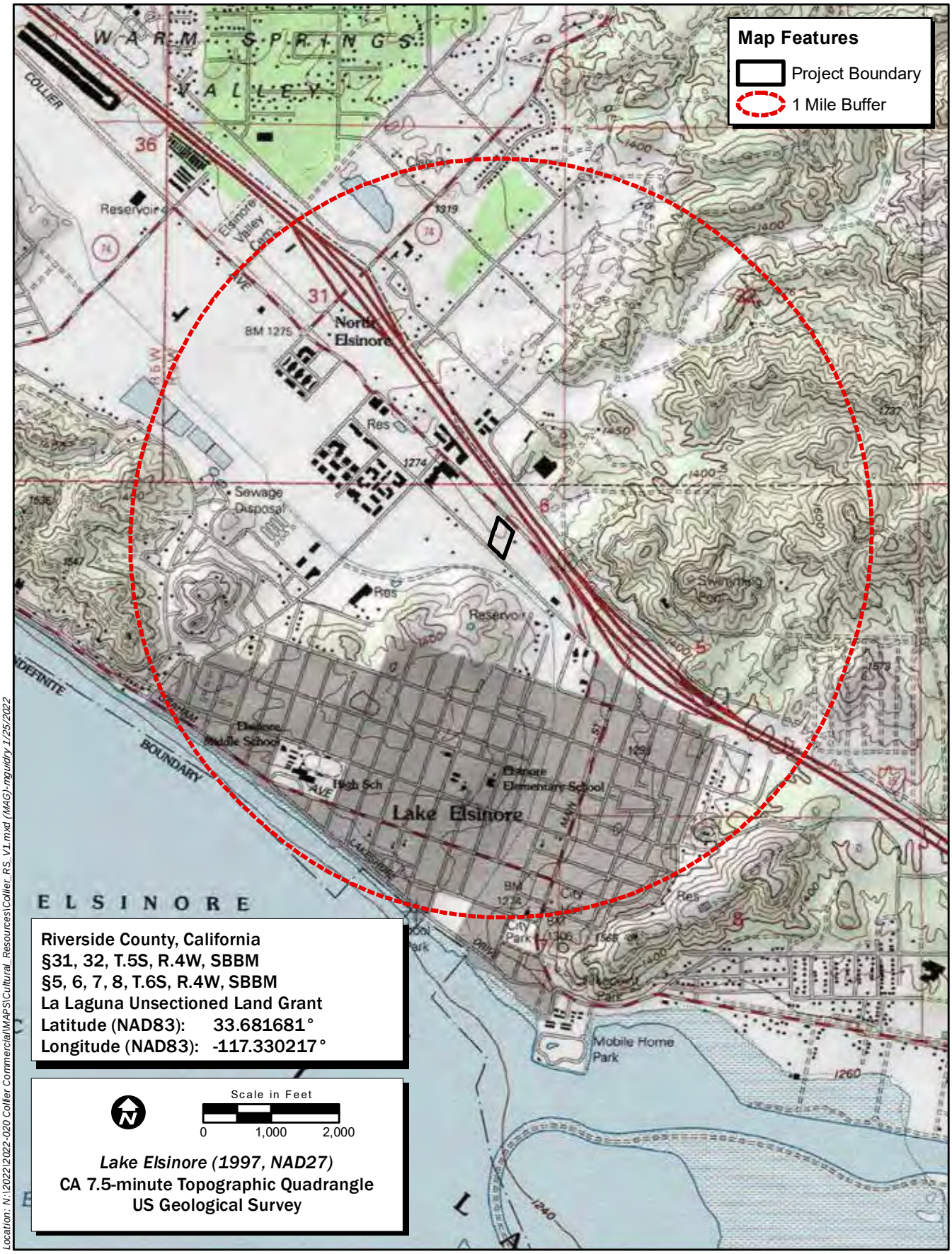
Fax: (858) 279-4043

Email: joconnor@ecorpconsulting.com

Project Description: ECORP is requesting a Sacred Lands File search for the proposed development of three parcels in the City of Lake Elsinore, Riverside County. I have attached a copy of the Sacred Lands File contact form above along with a map showing the project area. The results of this search can be sent to me at joconnor@ecorpconsulting.com. They can also be faxed to my attention at (858) 279-4043. Please reference the project number 2022-020 on all correspondence.

Please let me know if you have any questions or need any additional information.

Thanks,



Location: N:\2022\2022-020 Collier Commercial\MAPS\Cultural_Resources\Collier_RS_V1.mxd (MAG)-nguidry 1/25/2022

Map Date: 1/25/2022

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

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Records Search

2022-020 Collier Commercial

ATTACHMENT B

Project Area Photographs

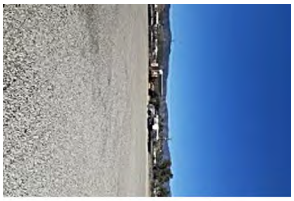
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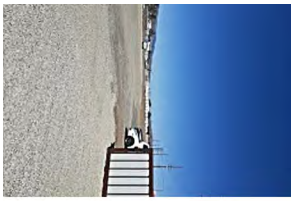
Project Name: Collier Commercial properties

Project Number: 2022-020

Camera	Photo No.	Description	Facing	Date	Initials
Samsung	104451	Project area from southeast corner	West	3/23/22	JEA
	104457	Project from southeast corner	NW		
	104501	Project from southeast corner	North		
	104541	Ground conditions	Detail		
	104920	Construction materials southwest corner	South		
	104925	Project from southwest corner	North		
	105100	Project from southwest boundary	North		
	110619	Project from northeast corner	South		
	110626	Project from northeast corner	South		
	110628	Project from northeast corner	West		
	110637	Ground conditions	Detail		
	110900	Project from northwest corner	East		
	110906	Construction equipment	Southeast		
	110912	Project from northeast corner	Southeast		


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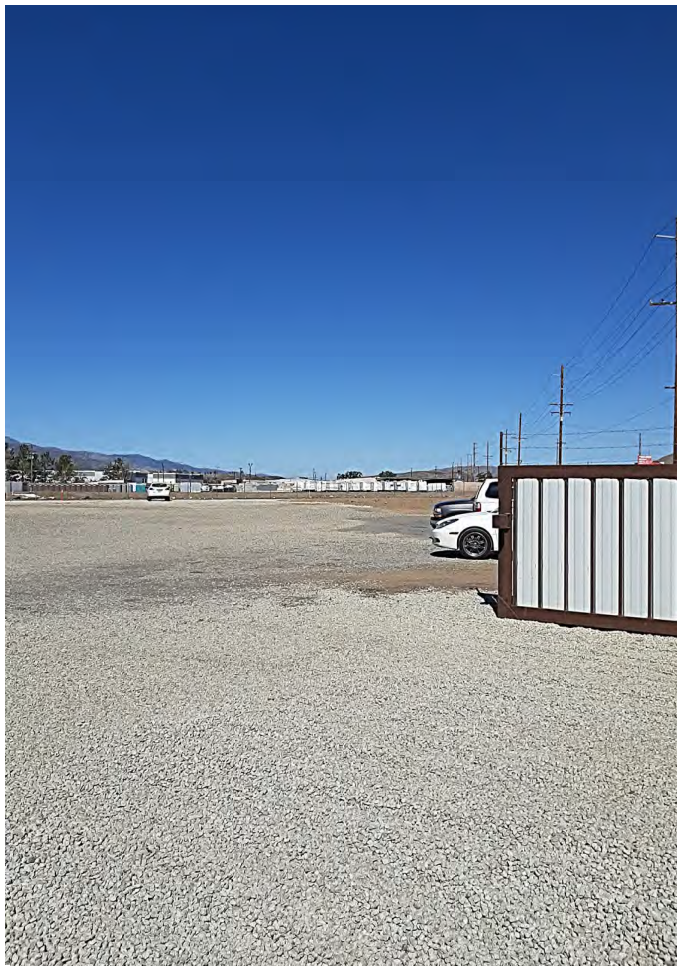

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SOUTHERN
CALIFORNIA
GRADING





Appendix D

Preliminary Geotechnical Investigation,
Proposed Commercial Development,
Collier Avenue

SoCal Professional Engineers
Serving all Southern California

229 Cajon St., Ste.#2, Redlands, CA 92373 909.271.3135

April 25, 2021

JONATHAN L. ZANE ARCHITECTURE
958 N. LA CADENA DRIVE
COLTON, CALIFORNIA 92324

SUBJECT: **PRELIMINARY GEOTECHNICAL INVESTIGATION**
Proposed Commercial Development
COLLIER AVENUE
APN'S 377-190-002, 377-190-003, 377-190-004
LAKE ELSINORE, CALIFORNIA 92530
Work Order No. 0612101.00

Dear Mr. Zane:

Pursuant to your authorization, a preliminary geotechnical investigation was conducted on the subject site in accordance with the 2019 California Building Code, Section 1803.5.11. Attached as **Plate 1**, the **Geotechnical Map** is a reduced image of a Google Earth image, the approximate location of our exploration borings and pertinent geotechnical information.

Scope of Work

The scope of work performed for this study included the following:

1. Onsite observation and documentation of existing site geometry with respect to the location of the proposed Starbucks.

2. Advancement of two (2) exploratory borings to the total depth explored of 51.5.0-ft (B-1) below the ground surface (bgs) for sample recovery for laboratory testing and observation of subsurface conditions.

3. Engineering analysis of test results to develop specifications for grading and preliminary foundation design.

4. Research of Geologic literature to develop design specifications for hazards such as seismic shaking and related effects.

5. Preparation of report of findings, including conclusions and recommendations for grading and minimum foundation design.

Introduction

This investigation has been conducted resulting from a 2019 California Building Code Chapter 18 requirement for preliminary geotechnical investigation being conducted for all projects in Seismic Category D. This investigation will address geotechnical conditions existing on the site as they may pertain to the proposed commercial development on the subject parcel. It is our understanding that the foundations are anticipated to consist of continuous spread and column footings to carry structural loads, otherwise typical light weight commercial construction will be utilized. Contained herein are preliminary recommendations for foundation design for the proposed construction.

Site Description

The proposed Building will be constructed on the northwest portion of the site, south of Collier Avenue in the City of Lake Elsinore, Riverside County, California. The geographical relationships of the site and surrounding area are depicted on our Site Location Map, **Figure 1**.

At the time of our investigation, the site was undeveloped and nearly clear of vegetation. Topographically, the area slopes to the south at approximately 5%. Drainage is accomplished by sheetflow to the south toward Minthorn Street. Overall relief onsite is approximately 15-ft.

Proposed Development

The proposed development consists of a Commercial Building which will be constructed on the northwest portion of the site. Please refer to **Plate 1, Geotechnical Map**, for proposed site geometry and location of the adjacent existing buildings, streets, and proposed Commercial Building development.

Field Work

Field work on the site consisted of observation and logging of two (2) exploratory borings advanced with a Mobile B-60 truck mounted drill rig. Representative bulk and in-situ samples of earth materials were obtained for laboratory testing and observing the conditions of the soils on the site. Subsurface exploration of the subject site was performed on March 31, 2020 and the exploratory boring logs are presented in **Appendix B**. The approximate locations of our exploratory borings are presented on our **Geotechnical Map, Plate 1**. Observation and sampling of the exploratory borings were performed by our field personnel, who logged alluvial soils overlying bedrock to the total depth explored of 51.5-ft bgs (B-1).

Laboratory Testing

The results of laboratory testing are presented in **Appendix C**. It should be noted test results are preliminary and generally representative for the purposes of demonstrating feasibility of design for proposed construction. Additional testing recommended by this report may result in changes of minimum design requirements.

Subsurface Conditions

The USGS Preliminary Geologic Map of the Elsinore 7.5 Minute Quadrangle (Morton, Weber, 2003) indicates the formational earth materials underlying the site to be late Holocene-age young alluvial channel deposits (map symbol Qyv_a) and bedrock composed of Phyllite (Map Symbol – Mzp). A brief description of the geologic units underlying the site that are considered pertinent to proposed development are: "Young alluvial-channel deposits, arenaceous, Fluvial deposits along valley floors. Consists of unconsolidated sand, silt, and clay-bearing alluvium". Materials exposed on site are described below and in more detail in **Appendix B - Exploratory Boring Logs**.

Young Alluvial Channel Deposits (Map Symbol – Qya_a)

Alluvial soils were encountered at shallow depths across the subject site and extended to 30-ft bgs. This unit in the upper 10-ft, for the most part, consists of a brown silty Sand (SM) that can be described as, fine to coarse sand, moist, to very moist, micaceous in part, loose in upper 10-ft. Below 10-ft the Alluvial soils encountered were silty Sands, sandy Silts, sandy Clays, and clayey Sands with occasional 1-2-inch-thick coarse sand layers with minor gravel. The relative density of the Alluvium increased with depth. The silt and clay layers were medium stiff to stiff as measured by sampler penetration blow counts.

Phyllite (Map Symbol – Mzp)

(Mesozoic)—Fissile black phyllite. Commonly has sheen produced by very fine-grained white mica on surface; locally contains small elongate prisms of fine-grained white mica, which may be pseudomorphs after chiastolite bedrock was encountered at a depth of approximately 30 to 35-ft on the northerly portion of the subject site and extended to the full depth explored of 51.5-ft bgs. This unit consists of bedrock that excavates as a grey silty sandy Gravel (SM/GM) that can be described as medium to coarse silty sandy gravel, moist, with angular particles. The bedrock was very dense as measured by sampler penetration blow counts.

Groundwater

Groundwater was not encountered within our exploratory borings, which were advanced to a maximum depth of 51.5.0-ft bgs. Mottling, often indicative of past high groundwater, was observed within the exploratory boring at a depth of 30-ft Bgs at the bedrock-alluvial interface. Regional high groundwater is mapped at greater than 150-ft bgs in the vicinity of the subject site (EMWD, 2004) The historic groundwater in the area has been as shallow as 10-ft (Waring, G.A. 1919).

Minor fluctuations can and will likely occur in moisture or free water content of the soil owing to lake level, rainfall, and irrigation over time.

Excavation Characteristics

We anticipate that the onsite alluvial soils can be excavated with moderate ease to the proposed depths utilizing conventional grading equipment in proper working condition.

Seismicity

There are no potentially active or active faults possibly transecting the site (Morton, Weber, 2003). The subject site is not located within the presently defined boundaries of a State of California Alquist-Priolo Earthquake Fault Zone (Hart, 2000) and a County of Riverside fault hazard zone. The subject site is located in the Elsinore Basin, "The Elsinore Basin is dominated by the Elsinore graben, a down dropped block between the Glen Ivy fault zone and the Wildomar fault zone located to the north and south of Lake Elsinore, respectively. Major faults zones in the Elsinore Basin include the Glen Ivy fault zone, which includes the Glen Ivy fault, the Freeway fault and the Sedco fault, and the Wildomar fault zone, which includes the Wildomar fault, the Rome Hill fault, and the Willard fault.

Active fault zones regional to the site include the Glen Ivy fault, the Wildomar fault, the San Andreas fault (San Bernardino segment), the Elsinore fault (San Jacinto Valley segment), and the San Jacinto, (San Bernardino Segment). The following table lists the known faults that would have the most significant impact on the site:

FAULT	MAXIMUM PROBABLE EARTHQUAKE (MOMENT MAGNITUDE)	SLIP RATE	FAULT TYPE
Elsinore (Glen-Ivy) (3.5-km SW)	6.8	5 mm/year	A
San Andres (San Bernardino) (47-km NE)	7.2	25 mm/year	A
San Jacinto (San Jacinto Valley Segment) (32-km NE)	7.0	24 mm/year	A
San Jacinto (San Bernardino Segment) (38-km NE)	7.0	1 mm/year	B

2019 California Building Code (CBC) -Seismic Parameters:

Based on the geologic setting and soil conditions encountered, the soils underlying the site are classified as "Site Class D, "Stiff Soil Profile", according to the CBC. The seismic parameters according to the CBC are summarized in the USGS Design Maps Summary Report presented in **Appendix E**. The corresponding value for peak ground acceleration from the design response spectrum based on the 2019 CBC seismic parameters is **1.027g**.

SEISMIC EFFECTS

Ground Accelerations

The most significant earthquake to affect the property is a 7.5 Richter magnitude earthquake on the Elsinore fault zone. Based on Section 1803.5.12 of the 2019 California Building Code, peak ground accelerations modified for site class effects (PGA_M) of approximately **1.027g** are possible for the design earthquake. The seismic parameters according to the CBC are summarized in the USGS Design Maps Summary Report presented in **Appendix E**.

Ground Cracks

The risk of surface rupture because of active faulting is considered moderate based on the location of known active faulting near the site (Morton, Weber, 2003). Ground cracks can and do appear on sites for a variety of reasons including, but not limited to, strong seismic shaking, imperfections in subsurface strata (either man-made or natural), and the expansive nature of some soils near the ground surface. Therefore, the possibility of cracks at the ground surface for the life of the project cannot be eliminated.

Landslides

The subject property is located in an area of relatively flat terrain and no landslides have been mapped in the area (Morton, Weber, 2003). The risk of seismically induced landsliding to affect the proposed development is **low**.

Liquefaction

The site is within a State of California designated and mapped liquefaction hazard zone, the site is in a County of Riverside "Very High" liquefaction hazard zone. However, coupled with the absence of shallow groundwater, the indications of groundwater (mottling) at 30-ft Bgs, historic groundwater recorded at 10' Bgs (Waring, 1919), the medium dense to dense nature of the underlying alluvial materials, the shallow depth to bedrock (±30-ft), the very moist to wet condition of the alluvial soils and the recommendations for overexcavation and recompaction of the upper 10-ft of the building pad, it is our opinion that the potential for liquefaction is Low.

Seismically Induced Soil Settlement

The proposed footings are anticipated to be founded in a minimum of 10-ft of medium dense to dense engineered fill soils, underlain by medium dense to dense Alluvial deposits and shallow bedrock. The settlement potential, under seismic loading conditions for these materials following grading, in our opinion, is **Low**.

Seiches and Tsunami

Considering the location of the site in relation to large bodies of water, seiches and tsunamis **are not** considered potential hazards of the site (California Emergency Management Agency, 2021) and are "less than significant", (Draft Program EIR for the Lakeland Village MDP, 2014).

Rockfall Potential

The subject site is in an area of relatively flat terrain that is free of boulder outcroppings. The potential for rockfall is anticipated to be **negligible**.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

General

The development of the site as proposed is both feasible and safe from a geotechnical standpoint provided that the recommendations contained herein are implemented during design and construction.

1. It is our understanding that the proposed Commercial Building will be located in the northeasterly portion of the site as shown on **Plate 1, Geotechnical Map**.

2. Observation of excavations indicates that suitable material for support of fill and/or structures is near the surface on the site. Earth materials on the site are also suitable for use as compacted structural fill.

3. Observation, classification, and testing indicate that the near surface soils have a very low expansion potential (EI = 0) consisting of low plastic silty Sand (SM) and Sand (SP) with gravel. The underlying alluvial material is in interbedded with clayey Sands, sandy Silts and Silts.

4. Based on our exploratory borings, approximately ±30-ft of alluvial soils over bedrock underlie the subject site.

RECOMMENDATIONS

Site Grading

General

Based on our conversation with the developer it our understanding that the Commercial Building will be constructed as shown on **Plate 1, Geotechnical Map**, with access from Collier Avenue and Minthorn Street. Based on our subsurface investigation and recommendations contained herein we anticipate that the proposed building will be founded entirely in engineered fill soils. Owing to the flat nature of the subject site, no fill slopes are anticipated for site development. No retaining walls are indicated to achieve final grades of the proposed structures.

It is important to note that all imported soils must be observed and approved by the soil engineer prior to use as fill to verify compliance with project specifications and consistency with onsite soils with respect to expansion potential and structural contact pressure.

Site Specific Grading

A representative of this firm shall be present to observe the bottoms of all excavations. A representative of this firm shall be present during all fill placement operations to monitor and test as the earth materials are being placed. This observation and testing is intended to assure compliance with the recommendations of this report as well as project specifications as they relate to earthwork construction, County and State ordinances and Table 1705.6 of the 2019 California Building Code.

Within the building pad and in areas where structural fill is to be placed, all construction debris, loose undocumented fill and alluvial soils to a minimum depth of 10-ft below existing grade or 4 -ft below the bottom of any foundation, whichever is deepest, shall be overexcavated to competent earth, i.e., alluvial soils that is free of voids and roots as determined by the soils engineer. After overexcavation the proposed building pad will require recompaction. Overexcavation and recompaction of the pad should extend a minimum of 10-ft outside the building footprint or equal to the depth of overexcavation whichever is deeper. Deep root systems buried utility lines, or deeper areas of disturbance or undocumented fill may require deeper removals and should be evaluated during rough grading operations.

No structural fill shall be placed within the building areas or on any ground without first being observed by a representative of the company providing this report and then providing written certification that the ground is competent and prepared to receive fill.

Onsite soils derived from excavations will be suitable for use as structural fill provided, they are free of large rock (6" or larger) and organic debris or construction debris. Approved fill material should be placed in 6 to 8-inch loose lifts, brought to optimum moisture content, and compacted to a minimum of 90% of the maximum laboratory dry density, as determined by the ASTM D 1557-12 test method. No rocks larger than 6-inches in diameter should be used as fill material as they inhibit the compaction process. Rocks larger than 6-inches may be removed or crushed and used as fill material. Rocks larger than 6-inches that cannot be crushed, organic materials, asphaltic concrete or oil-bearing surface aggregate should be removed from the graded area and in the case of oil-bearing materials, removed and taken to an appropriate dump site that is designed to handle such.

All earthwork should be done in accordance with the specifications contained in **Appendix D**. Additionally, it will be the responsibility of the owner and or the contractor to provide this firm with schedule information for grading activities that require observation and testing. It is preferred that we have a minimum of 48 hours of notice for such.

Slope Construction

Slopes are not anticipated to achieve pad grade, However, cut and fill slopes constructed at a 2:1 (horizontal:vertical) slope ratio, to a maximum vertical height of approximately 10-ft, will be surficially and grossly stable if constructed in accordance with the recommendations presented in this

report and in **Appendix D** of this report. It is assumed that no slopes will be required to achieve pad grade.

A keyway should be established along the toe of any proposed fill slope. The outside edge of the keyway should be founded a minimum of 2-ft into observed and competent formation and inclined into the hillside at a minimum 2% gradient for a minimum width of 12'. The keyway excavations should expose alluvial valley deposits that are free of pinpoint pores and fine roots throughout the bottom area and up a minimum of 2 feet on all sides. Any loose soils or severely weathered formation should be completely removed in the keyway and by benching during rough grade operation.

The importance of proper compaction at the face of slope cannot be overemphasized. In order to achieve proper compaction to the slope face, one or more of the following methods should be employed by the contractor following implementation of typical slope construction guidelines; 1) track walk the slopes at grade, 2) grid roll the slopes, 3) use a combination of sheep foot roller and track walking.

Care should be taken to avoid spillage of loose materials down the face of any slope during grading. Loose fill on the face of the slope will require complete removal prior to shaping and or track walking. Proper seeding and planting of the slopes should follow as soon as practical to inhibit erosion and deterioration of the slope surfaces. Proper moisture control will enhance the long-term stability of the finish slope surface.

Bearing Value and Footing Geometry

A safe allowable bearing value of 1,800 psf for foundations embedded into observed competent fill soils. This value may be increased by 300 psf for each additional foot of width and by 500 psf for each additional foot of depth to a maximum allowable bearing capacity of 2,800 psf. These values may be increased by 33 percent to provide for lateral loads of short duration such as those caused by wind or seismic forces. Continuous footings, for single-story or for two-story or equivalent structures, should have a minimum width of 15-inches and depth of 18-inches into competent engineered fill and conform to the minimum criteria of the 2019 CBC for non-expansive soils (EI=<20). The use of isolated column footings is not discouraged, however, where utilized, should have a minimum embedment of 18-inches below lowest adjacent grade. The minimum distance of the bottom outside edge of all footings and any slope face shall be 5-ft. All footings should be embedded a minimum of 18-inches into observed competent engineered fill, regardless of depth below the adjacent ground surface. All foundations, particularly within and near the top of slopes, shall be extended to sufficient depth to provide a minimum horizontal clearance at the bottom face of the footing of at least H/3 where H is the slope height in feet (2019 CBC, sections 1808A.7.2 and 1808A.7.3).

Settlement

The bearing value recommended above reflects a total settlement of 0.5-inches and a differential settlement of 0.5-inches within a horizontal distance of 20-ft (L/480). Most of this settlement is expected to occur during construction and as the loads are being applied.

Concrete Slabs

All concrete slabs on grade should be 4-inches thick, minimum. They should be underlain by 2-inches of sand or approved non-expansive onsite materials. Imported or approved onsite materials may be utilized for this purpose. Contractors should be advised that when pouring during hot or windy weather conditions, they should provide large slabs with sufficiently deep weakened plane joints to inhibit the development of irregular or unsightly cracks. Also, 4-inch thick slabs should be jointed in panels not exceeding 8-ft in both directions to augment proper crack direction and development.

Moisture Barrier

When the intrusion of moisture through concrete slabs is objectionable, particularly with interior slabs where flooring is moisture sensitive, a vapor barrier should be installed onto the subgrade prior to the pouring of concrete. It should consist of a minimum 10-mil visqueen, protected from puncture with 2-inches of sand above and 2-inches of sand below. This is considered a minimum recommendation as there are other devices that provide as good as or better moisture protection. The project architect and or structural engineer may recommend alternative devices for moisture protection.

Reinforcement

From a Geotechnical standpoint, continuous footings should be reinforced with a minimum of two number 4 steel bar placed at the top and bottom. In no case, should the content of steel in concrete footings be less than the recommended minimums of the appropriate sections of the A.C.I. standards. Slabs should be reinforced with a minimum of number 3 steel bars placed at the center of thickness at 24-inch centers both ways (CBC 2019). These are considered minimums and additional requirements may be imposed by other structural engineering design requirements. In addition, at the completion of grading, testing of the near surface soils may indicate that different or more stringent reinforcing schedule minimums may be appropriate. Careful consideration should be given to the recommendations that will be contained in the final report of compaction test results and foundation design requirements.

Concrete

Based on corrosivity suite testing of the on-site soils, Type II Portland cement concrete can be utilized for the subject site. The percentage of soluble sulfate of the onsite soils is anticipated to be less than **ND (non-detect)**, which equates to a **Negligible** sulfate exposure per American Concrete Institute (ACI), 318, Table 4.3.1 (2005). Soluble sulfate content testing should be conducted within the building pads and subgrade soils at the completion of overexcavation and recompaction to confirm concentration of sulfite ions within the onsite earth materials.

Corrosivity test results indicated a saturated resistivity of **7,200** ohms/cm for the onsite soils, which indicates the onsite soils are **Moderately Corrosive** (NACE International, 1984). Laboratory analysis was performed by (LGC, Geoenviro, 2020). SoCal Professional Engineers does not practice corrosion engineering. If specific information or evaluation relating to the corrosivity of the

onsite or any import soil is required, we recommend that a competent corrosion engineer be retained to interpret or provide additional corrosion analysis and mitigation.

Corrosivity testing should also be conducted within the building pad at the completion of overexcavation and recompaction. SoCal Professional Engineers does not practice corrosion engineering. If specific information or evaluation relating to the corrosivity of the onsite or any import soil is required, we recommend that a competent corrosion engineer be retained to interpret or provide additional corrosion analysis and mitigation.

The recommendations of this report are intended to reduce the potential for cracking of slabs due to expansive soil (if present), differential settlement of existing soil or soil with varying thicknesses. However, even with the incorporation of the recommendations presented herein, foundations, stucco walls, and slabs-on-grade placed on such conditions may still exhibit some cracking due to soil movement, lateral extension, or shrinkage. The occurrence of cracks in concrete can be due to shrinkage and be independent of supporting soil characteristics. Their occurrence may be reduced and/or controlled by limiting the slump of the concrete, proper concrete placement and curing, and by installation of crack control joints at periodic intervals, in particular, where re-entrant slab corners occur. Doweling of concrete into adjacent panels, curbs, and foundations can help minimize elevation differences and effects of expansive soils and potential uplift or minor heave.

Lateral Loads

The bearing value of the soil may be increased by one third for short duration loading (wind, seismic). Lateral loads may be resisted by passive forces developed along the sides of concrete footings or by friction along the bottom of concrete footings. The value of the passive resistance for level ground may be computed using an equivalent fluid density of 250 pcf for level ground. The total force should not exceed 2,800 psf. A coefficient of friction of .30 may be used for the horizontal soil/concrete interface for resistance of lateral forces. If friction and passive forces are combined, then the passive values should be reduced by one third.

Cut/Fill Transitions

Based on the recommended overexcavation and recompaction of the proposed pad (see "Site Specific Grading" section), it is anticipated that any cut-to-fill transitions will be eliminated.

Oversize Rock

Oversize rock was not encountered during our subsurface investigation of the subject site. If any oversize material is generated during site development, it should be disposed of off-site, utilized in landscaping, or placed in an approved rock fill in accordance with **Appendix D** of this report.

Preliminary Structural Section

We recommend the following preliminary structural section for proposed parking and driveway areas for the subject site. The preliminary design of the pavement sections for the proposed concrete

parking, driveways and asphalt driveways is based on an assumed R-value test of 50. R-value testing should be conducted at the completion of rough grading to verify soils exposed at subgrade, and a final structural section should be recommended at that time. The recommended preliminary pavement sections are:

AREA	TI	PAVEMENT SECTION
Concrete Pavement Driveway	6.0	0.50' (6.0") PCC over 0.33'(4.0")
Concrete Pavement Parking	4.5	0.33'(4.0") PCC over 0.33'(4.0")
Asphalt Pavement Driveway	6.0	0.33'(4.0") AC over 0.5' (6.0") ABII
Asphalt Pavement Parking	4.5	0.25' (3.0") AC over 0.33' (4.0") ABII

AC – Asphalt Concrete
ABII – Class II Aggregate Base
PCC - Portland Cement Concrete
All PCC should be fiber mesh reinforced at a minimum

It is recommended that the subgrade materials be compacted to a depth of 1 foot below subgrade elevation and that both the subgrade materials and the ABII be compacted to 95% relative to the maximum density of the respective materials, as determined by ASTM D1557 laboratory tests. R-Value testing should be conducted on imported soils prior to their approval as structural fill material

Utility Trench Backfill

All trench excavations should be conducted in accordance with Cal-OSHA standards as a minimum. The soils encountered within our exploratory trenches are generally classified as Type "C" soil in accordance with the current CAL/OSHA excavation standards. Based upon a soil classification of Type "C", the temporary excavations should not be inclined steeper than 1.5:1 (h: v) for a maximum depth of 20-ft. For temporary excavations, deeper than 20-ft or for conditions that differ from those described for Type "C" in the CAL/OSHA excavation standards, the project geotechnical engineer should be contacted.

Utility trench backfill should be compacted to a minimum of 90 percent of the maximum dry density determined in laboratory testing by the ASTM D 1557-12 test method. It is our opinion that utility trench backfills consisting of onsite or approved sandy soils can best be placed by mechanical compaction to a minimum of 90 percent of the maximum dry density. The upper 1-ft of utility trench excavations located within pavement areas should be compacted to a minimum of 95 percent of the maximum dry density.

Fine Grading and Site Drainage

Fine grading of areas outside of the structures should be accomplished such that positive drainage exists away from all footings in accordance with 2019 CBC and local governing agency requirements. Run-off should be conducted in a non-erosive manner toward approved drainage devices per approved plans. No run-off should be allowed to concentrate and flow over the tops of slopes.

Construction

SoCal Professional Engineers, or a duly designated representative, should be present during all earthwork construction in accordance with the standard specifications contained at the back of this report, to test and or confirm the conditions encountered during this study. In addition, post earthwork construction monitoring should be conducted at the following stages:

- At the completion of final grading of the building pad so that a finished surface compaction test may be obtained. Moisture content near optimum will necessarily need to be maintained, both to maintain proper compaction and to prevent wind erosion of the pad.

- At the completion of foundation excavations, but prior to the placement of steel and or other construction materials in them. As a requirement of this report, the undersigned must, in writing, certify that the foundations meet the minimum requirements of this report and the building plans for depth and width along with the earth materials being the appropriate moisture content and compaction.

- Backfilling of over deepened footings with earth materials will not be allowed and must be poured with concrete. Consequential changes and differences may exist throughout the earth materials on the site. It may be possible that certain excavations may have to be deepened slightly if earth materials are found to be loose or weak during these observations.

- Any other pertinent post construction activity where soils are excavated or manipulated or relied upon in any way for the performance of buildings or hardscape features.

Supplemental Recommendations

If at any time during grading or construction on this site, conditions are found to be different than those indicated in this report, it is essential that the soil engineer be notified. The soil engineer reserves the right to modify in any appropriate way the recommendations of this report if site conditions are found to be different than those indicated in this report.

- The earth unit exposed at the surface is observed to be loose alluvial soils. It is moderately erosive. It is dense at shallow depths, on the order of 10-ft and water does not percolate well into the onsite compacted alluvial soils consisting of a silty sand.

- Cuts in the compacted building pads to 5-ft, or slightly more will stand vertical for normal time periods associated with construction of backcuts for fill slopes or retaining walls. Time periods for unsupported cuts 5-ft or greater vertical should be limited to 15 days in the non-rainy season and 10 days in the rainy season. Owing to the loose sandy nature of the onsite soil, caving may occur in shallow unsupported trenches outside the compacted building pad.

Construction Monitoring

Observation and testing by SoCal Professional Engineers is necessary to verify compliance with recommendations contained in this report and to confirm that the geotechnical conditions encountered

are consistent with those encountered. SoCal Professional Engineers should conduct construction monitoring during any fill placement and subgrade preparation prior to placement of fill or construction materials.

LIMITATIONS

Our investigation was performed using the degree of care and skill ordinarily exercised, under similar circumstances, by reputable Geotechnical Engineers and Geologists practicing in this or similar localities. No other warranty, expressed or implied, is made as to the conclusions and professional advice included in this report.

The report is issued with the understanding that it is used only by the owner and it is the sole responsibility of the owner or their representative to ensure that the information and recommendations contained herein are brought to the attention of the architect, engineer, and appropriate jurisdictional agency for the project and incorporated into the plans; and the necessary steps are taken to see that the contractor and subcontractors carry out such recommendations contained herein during construction and in the field.

The samples taken and used for testing and the observations made are believed representative; however, soil and geologic conditions can vary significantly between test locations. The evaluation or identification of the potential presence of hazardous or corrosive materials was not part of the scope of services provided by **SoCal Professional Engineers**, or its assigns.

The findings of this report are valid as of the present date. However, changes in the condition of a property can occur with the passage of time, whether due to natural processes or the works of man on this or adjacent properties. In addition, changes in applicable or appropriate standards may occur, whether they result from legislation or the broadening of knowledge. Accordingly, the findings of this report may be invalidated wholly or partially by changes outside our control. Therefore, this report is subject to review and revision as changed conditions are identified.

The firm that performed the geotechnical investigation for this project should be retained to provide testing observation services during construction to maintain continuity of geotechnical interpretation and to check that the recommendations presented herein are implemented during site grading, excavation of foundations and construction of improvements.

If another geotechnical firm is selected to perform the testing and observation services during construction operations, that firm should prepare a letter indicating their intent to assume the responsibilities of project geotechnical engineer of record. Selection of another firm to perform any of the recommended activities or failure to retain the undersigned to perform the recommended activities wholly absolves **SoCal Professional Engineers**, the undersigned, and its assigns from all liability arising directly or indirectly from any aspects of this project.

We appreciate the opportunity to be of service. Limitations and conditions contained in reference documents are considered in full force and applicable. If you have any questions, please do not hesitate to call our office.

Respectfully submitted,

SoCal Professional Engineers

KHALED FARAH

Digitally signed by KHALED FARAH
DN: cn=KHALED FARAH, o=SOCAL PROFESSIONAL ENGINEERS, email=info@socal-pe.com, c=US
Date: 2021.04.27 17:33:12 -07'00'

Khaled S. Farah, RCE 83128
Civil Engineer,



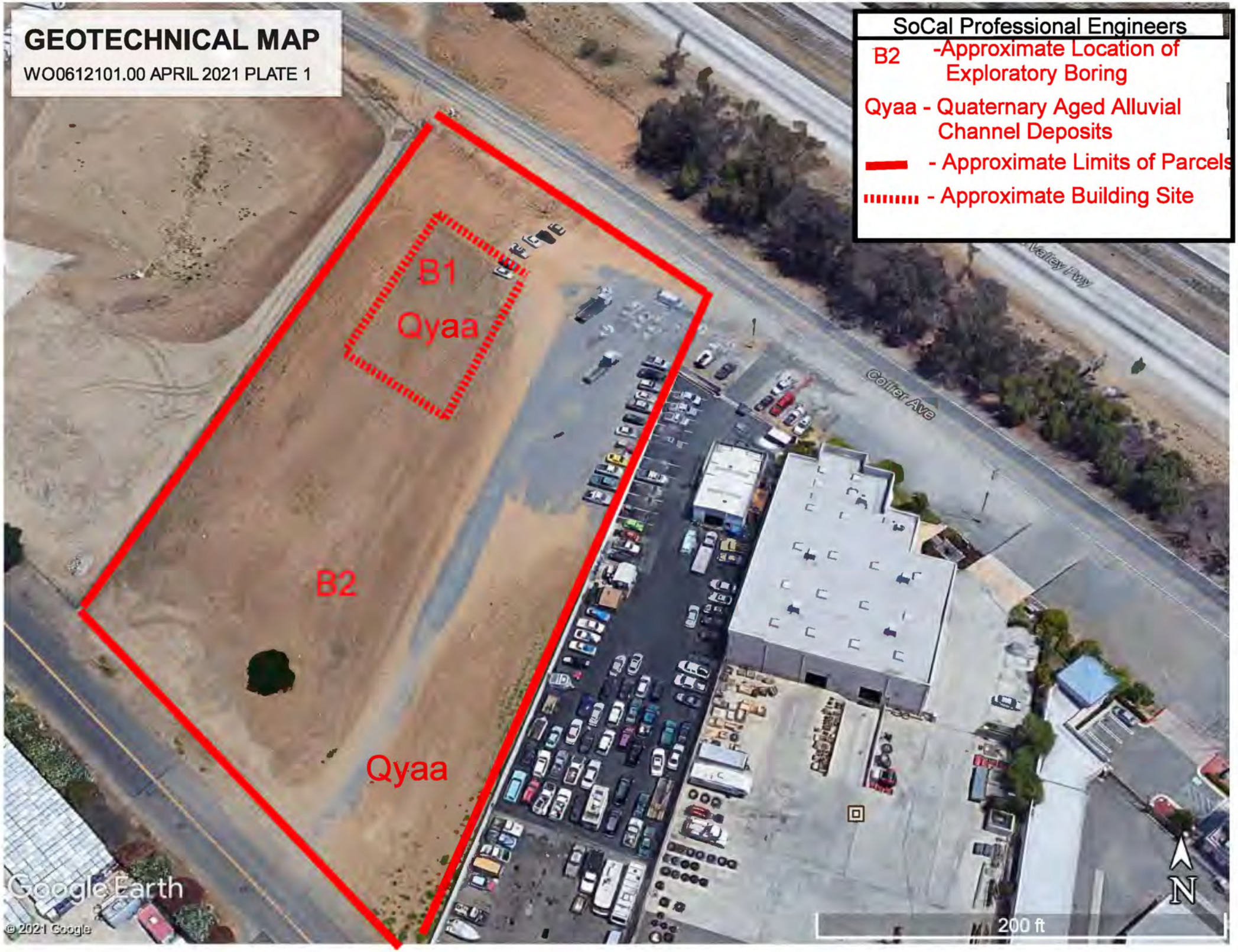
ATTACHMENTS

Figure 1 - Site Location Map
Plate 1 - Geotechnical Map
Appendix A - References
Appendix B - Exploratory Boring Logs
Appendix C - Laboratory Test Results
Appendix D – Standards of Grading
Appendix E – ASCE 7 Hazard Report

SITE LOCATION MAP MAP

WO0612101.00 APRIL 2021 FIGURE 1




GEOTECHNICAL MAP
WO0612101.00 APRIL 2021 PLATE 1
SoCal Professional Engineers
B2 -Approximate Location of Exploratory Boring
Qyaa - Quaternary Aged Alluvial Channel Deposits
- Approximate Limits of Parcels
- Approximate Building Site
B1
Qyaa
B2
Qyaa
Collier Ave
Valley Pwy
Google Earth
© 2021 Google
200 ft
N

APPENDIX A

References

REFERENCES

California Building Standards Commission (CBSC), 2019, "2019 California Building Code, California Code of Regulations, Title 24, Part 2, Volume 2 of 2".

California Division of Mines & Geology, 1997, "Guidelines for Evaluating and Mitigating Seismic Hazards in California", Special Publication 117.

California Division of Mines & Geology, 1996, "Probabilistic Seismic Hazard Assessment for the State of California", DMG Open File Report 96-08, USGS Open File Report 96-706.

California Geologic Survey, revised 2018, "Earthquake Fault Zones, A Guide for Government Agencies, Property Owners/Developers, and Geoscience Practitioners for Assessing Fault Rupture Hazards in California", Special Publication 42.

California Geological Survey, 2006, "California Fault Parameters", California Geologic Survey website - Open-file Report 96-08.

Coduto, Don, P., 1994, "Foundation Design Principles and Practice", Prentice Hall, pages 637-655.

Dudek, 2014, "Draft Program EIR for the Lakeland Village Master Drainage Plan, Riverside County Flood Control and Water Conservation District" dated January 2014.

Grant, et al, 1999, "Late Quaternary Uplift and Earthquake Potential of the San Joaquin Hills, Southern Los Angeles Basin, California", California Geology, Volume 27, p. 1031-1034.

Hart, E.W., 2000, "Fault-Rupture Hazard Zones in California", California Division of Mines and Geology Special Publication 42, CD-003 (CD-ROM Version).

Inland Foundation Engineering, Inc. 2016, "Preliminary Geotechnical Report, La Laguna RV Resort/Water Park, Riverside Drive, South of Lincoln Street, Lake Elsinore, California ". Dated December 22, 2016, Project No. L202-004.

Morton, D.M.,& Miller, F.K. 2006, " Geologic Map of the Santa Ana 30' x 60' Quadrangle, California (Version 1.0)", U.S. Geological Survey in Cooperation with the California Geologic Survey, Open-File Report 2006-1217, Scale: 1"=100,000'.

Morton, D.M.,& Weber, F. Harold 2003, "Preliminary Geologic Map of the Elsinore 7.5 Minute Quadrangle, California (Version 1.0)", U.S. Geological Survey in Cooperation with the California Geologic Survey, Open-File Report 03-281, Scale: 1"=24,000'.

Waring, G.A. 1919. Ground Water in the San Jacinto and Temecula Basins, California: USGS Water Supply Paper 429.

Weber, F.H., Jr., 1977, Seismic Hazards Related to Geologic Factors, Elsinore and Chino Fault Zones, Northwestern Riverside County, California, DMG Open File Report, 77-4 L.A., 96 pages.

Wildermuth, *WE* Environmental, Inc., 2000, "TIN/TDS Study - Phase 2A, Santa Ana Watershed, Final Technical Memorandum, Development of Groundwater Management Zones, Estimation of

Historical and Current TDS and Nitrogen Concentrations in Groundwater," prepared for the TIN/TDS Task Force, dated July 2000.

APPENDIX B

Exploratory Boring Logs

LOGGED BY:JRH	METHOD OF EXCAVATION: MOBILE B60 TRUCK MOUNTED DRILL RIG EQUIPPED W/ 6" HOLLOW STEM AUGERS ELEVATION: ±	DATE OBSERVED:3/31/2020 LOCATION: SEE GEOTECHNICAL MAP

DEPTH (FEET)	CLASSIFICATION	BLOWS/FOOT	UNDISTURBED SAMPLE	BULK SAMPLE	MOISTURE CONTENT(%)	INPLACE DRY DENSITY (PCF)	BORING LOG NO._1A____ DESCRIPTION	SOIL TEST
					6.6		VERY DENSE, MOIST, MOTTLED	
		50-2"						
45								
					8.1		**SANDY GRAVEL (GM):** GRAY , COARSE GRAINED, DENSE, MOIST, MICACEOUS	
		50-3"						
50								
					5.1			
		50-3"						
							TOTAL DEPTH 51.5-FT	
15							**NO GROUND WATER**	
20								
25								
30								
35								
40								

JOB NO:0612101.00	LOG OF BORING	FIGURE: B-1A

LOGGED BY:JRH	METHOD OF EXCAVATION: Mobile B60 TRUCK MOUNTED DRILL RIG EQUIPPED W/ 6" HOLLOW STEM AUGERS ELEVATION:	DATE OBSERVED:03/31/2021 LOCATION: SEE GEOTECHNICAL MAP

DEPTH (FEET)	CLASSIFICATION	BLOWS/FOOT	UNDISTURBED SAMPLE	BULK SAMPLE	MOISTURE CONTENT(%)	INPLACE DRY DENSITY (PCF)	BORING LOG NO._1___ DESCRIPTION	SOIL TEST
				V			**YOUNG ALLUVIALCHANNEL DEPOSITS(Qyaa)**	
				I			**SILTY SAND (SM):** BROWN ,FINE TO COARSE, UNCONSOLIDATED	MAXIMUM DENSITY/OPTIMUM MOISTURE
				I			MOIST AND LOOSE,	CONTENT, EXPANSION,
				I				CORROSIVITY SUITE, SEIVE ANALYSIS
5				Λ	9.1	92.3		27% PASSING #200
							SILTY SAND (SM): RED BROWN ,FINE TO COARSE, LOOSE	
		8					MOIST	
10								
							SILTY SAND (SM): RED BROWN ,FINE TO COARSE,	
		33			11.4	98.6	MOIST AND LOOSE,	
15								
							SILTY SAND (SM): RED BROWN, FINE TO MEDIUM GRAINED, MINOR GRAVEL	36% PASSING #200
					12.1		MOIST, MEDIUM DENSE	
		13						
20								
					10.8		**SILTY SAND (SM):** RED BROWN, FINE GRAINED,	
		9					MOIST, MEDIUM DENSE	
25								
							SANDY SILT(ML): BROWN , FINE GRAINED, MICACOUS	72% PASSING #200
					15.2		STIFF, VERY MOIST,	
		13						
30								
							SANDY GRAVEL (GM): GRAY , COARSE GRAINED, DENSE, MOIST, MOTTLED,	4% PASSING #200
					6.8			
		48						
35								
							SANDY GRAVEL (GM): GRAY , COARSE GRAINED, DENSE, MOIST,	
					5.0			
		50-4"						
40								
							SANDY GRAVEL (GM): GRAY , COARSE GRAINED, DENSE, MOIST, MOTTLED,	

JOB NO:0612101.00	LOG OF BORING	FIGURE: B-1

LOGGED BY:JRH	METHOD OF EXCAVATION: Mobile B60 TRUCK MOUNTED DRILL RIG EQUIPPED W/ 6" HOLLOW STEM AUGERS ELEVATION:	DATE OBSERVED:03/31/2021 LOCATION: SEE GEOTECHNICAL MAP

DEPTH (FEET)	CLASSIFICATION	BLOWS/FOOT	UNDISTURBED SAMPLE	BULK SAMPLE	MOISTURE CONTENT(%)	INPLACE DRY DENSITY (PCF)	BORING LOG NO._2____ DESCRIPTION	SOIL TEST
				V			**YOUNG ALLUVIALCHANNEL DEPOSITS(Qyaa)**	
				I			**SILTY SAND (SM):** BROWN ,FINE TO COARSE, UNCONSOLIDATED	
				I			MOIST AND LOOSE,	
5				I				
				Λ				
							SILTY SAND (SM): RED BROWN ,FINE TO COARSE, LOOSE	
		12					MOIST	
10								
							SILTY SAND (SM): RED BROWN ,FINE TO COARSE,	
					10.5		MOIST AND LOOSE,	
		18						
15								
							SILTY SAND (SM): RED BROWN, FINE TO MEDIUM GRAINED, MINOR GRAVEL	
					12.1		MOIST, MEDIUM DENSE	
		13						
20							**TOTAL DEPTH - 15.5FT**	
							NO GROUNDWATER	
25								
30								
35								
40								

JOB NO:0612101.00	LOG OF BORING	FIGURE: B-2

APPENDIX C

Laboratory Test Results

LABORATORY TESTING

A. Classification

Soils were visually classified according to the Unified Soil Classification System. Classification was supplemented by index tests such as maximum density and optimum moisture content.

B. Expansion Index

An expansion index test was performed on a representative sample of the onsite soils remolded and tested under a surcharge of 144 lb/ft^2, in accordance with ASTM D-4829-11. The test results are presented on **Figure C-1, Table I.**

C. Maximum Density/Optimum Moisture Content

A maximum density/optimum moisture content relationship was determined for typical sample of the onsite soils. The laboratory standards used were ASTM 1557-Method A. The test results are summarized on **Figure C-1, Table II** and laboratory results are presented on **Figure C-2.**

D. Particle Size Determination

Particle size determination, consisting of mechanical analyses (sieve) was performed on representative samples of the onsite soils in accordance with ASTM D 422-63 and CAL TEST 202. The test results are shown on **Figures C-3 & C-4.**

E. Corrosivity Suite

Corrosivity suite testing including resistivity, soluble sulfate content, pH and chloride content were performed on a representative sample of the onsite soils. The laboratory standards used were CTM 643, CTM 417 & CTM 422. The test results are presented on **Figure C-1, Table III**.

TABLE I EXPANSION INDEX		
TEST LOCATION	EXPANSION INDEX	EXPANSION POTENTIAL
B-1 @ 0-5 ft	0	Non-Expansive

TABLE II MAXIMUM DENSITY/OPTIMUM MOISTURE RELATIONSHIP ASTM D 1557		
TEST LOCATION	MAXIMUM DRY DENSITY (pcf)	OPTIMUM MOISTURE (%)
B-1 @ 0-5 ft	121.5	11.5

TABLE III CORROSIVITY SUITE				
TEST LOCATION	SATURATED RESISTIVITY	pH	CHLORIDE CONTENT	SULFATE CONTENT
B-1 @ 0-5 ft by LGC	7,200	8.7	28 ppm	ND(non-detect) ppm

Figure C-1

COMPACTION TEST REPORT

Curve No.: 2.60

Project No.: 0612101.00
Project: COLLIER

Date: 4/15/2021

Location: B-1
Elev./Depth: 0-5ft
Remarks:

Sample No.

MATERIAL DESCRIPTION

Description: BRN SILTY SAND

Classifications - CL/SC USCS:

AASHTO:

Nat. Moist. =
Liquid Limit =
% > No.4 = %

Sp.G. = 2.65
Plasticity Index =
% < No.200 =

TEST RESULTS	
Maximum dry density =	121.5
Optimum moisture =	11.5

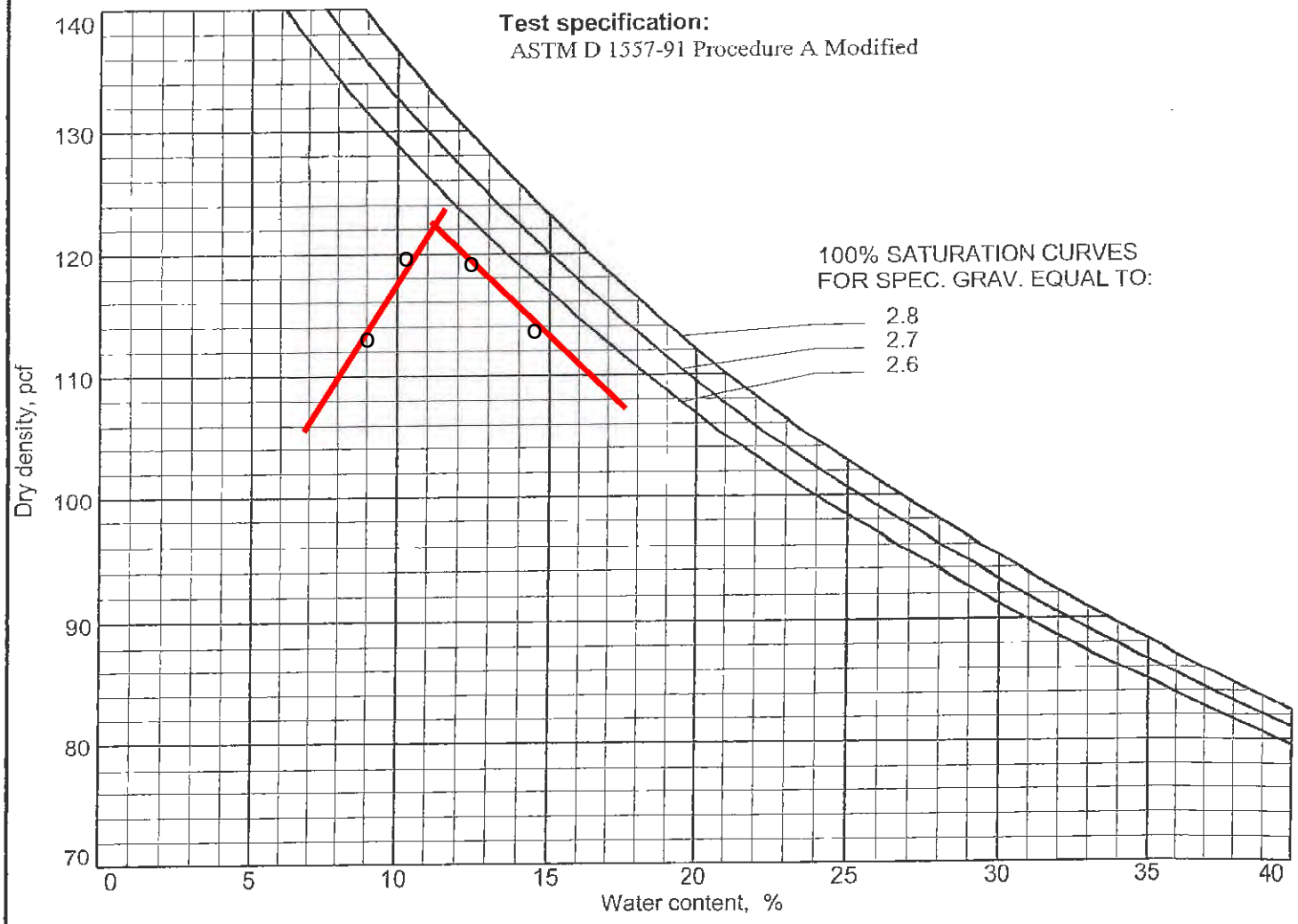
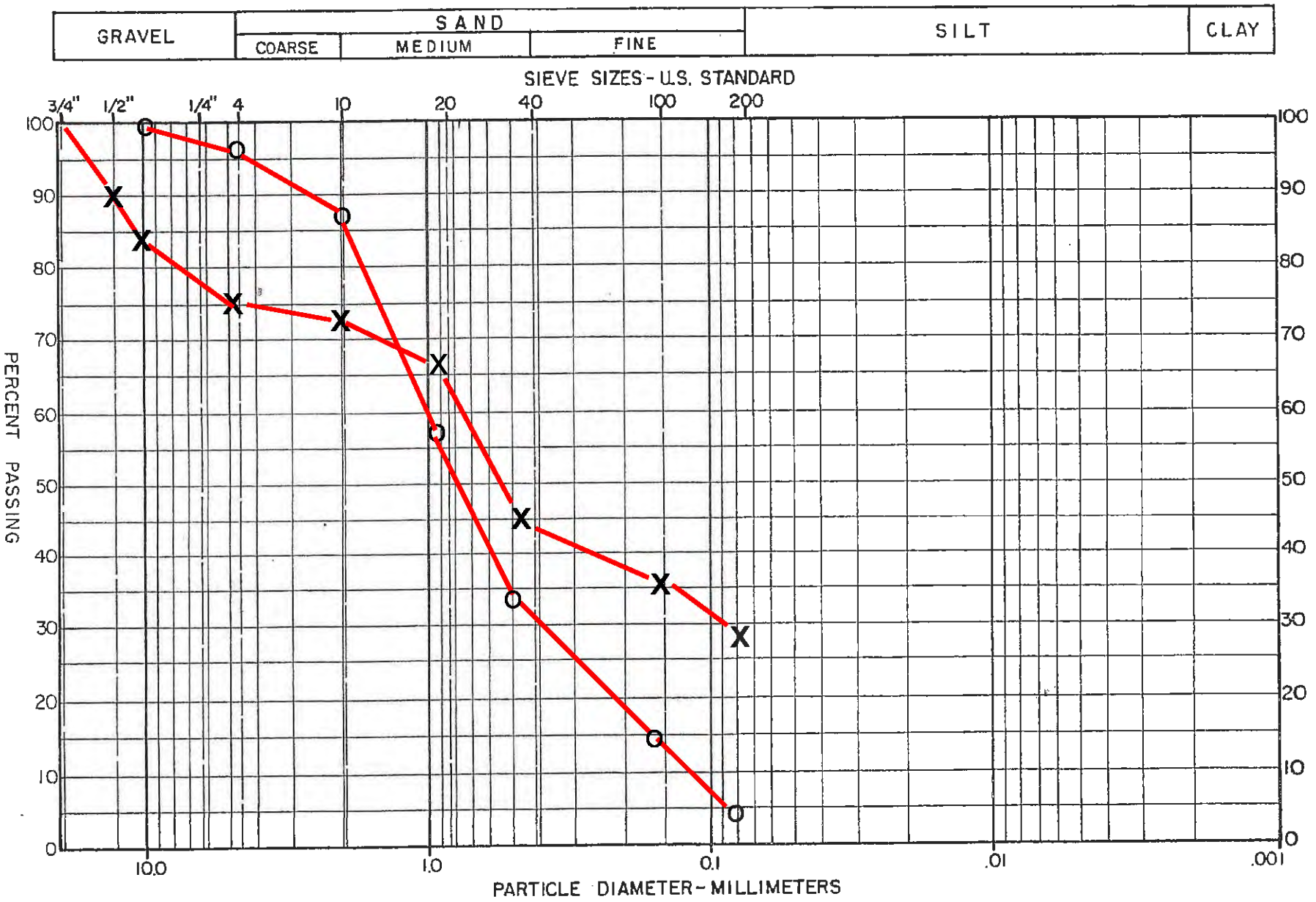


Figure C-2

JOB NO: 0612101.00

GRAIN SIZE DISTRIBUTION

FIGURE NO: C-3

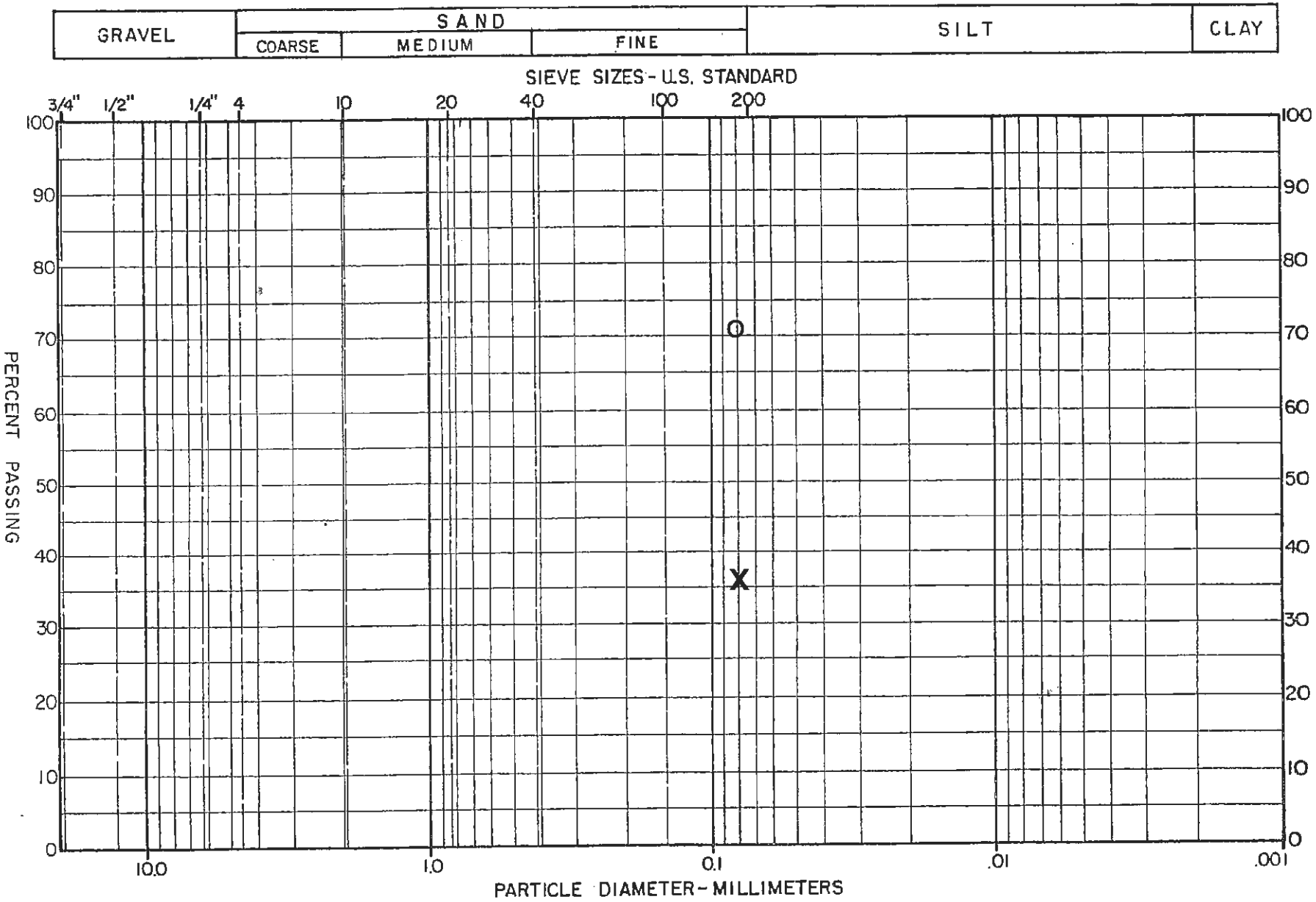


BORING NO.	DEPTH, FT.	SYMBOL	LIQUID LIMIT	PLASTIC INDEX	CLASSIFICATION
B-1	0-5ft	X			SM
B-1	30ft	O			GM

JOB NO: 0612101.00

GRAIN SIZE DISTRIBUTION

FIGURE NO: C-4



BORING NO.	DEPTH, FT.	SYMBOL	LIQUID LIMIT	PLASTIC INDEX	CLASSIFICATION
B-1	15ft	X			SM
B-1	25ft	O			ML

APPENDIX D

Standards of Grading

STANDARD GRADING AND EARTHWORK SPECIFICATIONS

These specifications present **SoCal Professional Engineers,** standard recommendations for grading and earthwork.

No deviation from these specifications should be permitted unless specifically superseded in the geotechnical report of the project or by written communication signed by the Soils Consultant. Evaluations performed by the Soils Consultant during the course of grading may result in subsequent recommendations which could supersede these specifications or the recommendations of the geotechnical report.

1.0 GENERAL

1.1 The Soils Consultant is the Owner's or Developer's representative on the project. For the purpose of these specifications, observations by the Soils Consultant include observations by the Soils Engineer, Soils Engineer, Engineering Geologist, and others employed by and responsible to the Soils Consultant.

1.2 All clearing, site preparation, or earthwork performed on the project shall be conducted and directed by the Contractor under the allowance or the supervision of the Soils Consultant.

1.3 The Contractor should be responsible for the safety of the project and satisfactory completion of all grading. During grading, the Contractor shall remain accessible.

1.4 Prior to the commencement of grading, the Soils Consultant shall be employed for the purpose of providing field, laboratory, and office services for conformance with the recommendations of the geotechnical report and these specifications. It will be necessary that the Soils Consultant provide adequate testing and observations so that he may provide an opinion as to determine that the work was accomplished as specified. It shall be the responsibility of the Contractor to assist the Soils Consultant and keep him apprised of work schedules and changes so that he may schedule his personnel accordingly.

1.5 It shall be the sole responsibility of the Contractor to provide adequate equipment and methods to accomplish the work in accordance with applicable grading codes, agency ordinances, these specifications, and the approved grading plans. If, in the opinion of the Soils Consultant, unsatisfactory conditions, such as questionable soil, poor moisture condition, inadequate compaction, adverse weather, etc, are resulting in a quality of work less then required in these specifications, the Soils Consultant will be empowered to reject the work and recommend that construction be stopped until the conditions are rectified.

1.6 It is the Contractor's responsibility to provides safe access to the Soils Consultant for testing and/or grading observation purposes. This may require the excavation of the test pits and/or the relocation of grading equipment.

1.7 A final report shall be issued by the Soils Consultant attesting to the Contractor's conformance with these specifications.

2.0 SITE PREPARTION

2.1 All vegetation and deleterious material shall be disposed of off-site. This removal shall be observed by the Soils Consultant and concluded prior to fill placement.

2.2 Soil, Alluvium or bedrock materials determined by the Soils Consultant as being unsuitable for placement in compacted fills shall be removed from the site or used in open areas as determined by the Soils Consultant. Any material incorporated as a part of a compacted fill must be approved by the Soils Consultant prior to fill placement.

2.3 After the ground surface to receive fill has been cleared, it shall be scarified, disced and/or bladed by the Contractor until it is uniform and free from ruts, hollows, hummocks, or other uneven features which may prevent uniform compaction.

The scarified ground surface shall then be brought to optimum moisture, mixed as required, and compacted as specified. If the scarified zone is greater than twelve inches in depth, the excess shall be removed and placed in lifts not to exceed six inches or less.

Prior to placing fill, the ground surface to receive fill shall be observed, tested, and approved by the soils consultant.

2.4 Any underground structures or cavities such as cesspools, cisterns, mining shafts, tunnels, septic tanks, wells, pipe lines, or others are to be removed or treated in a manner prescribed by the Soils Consultant.

2.5 In cut-fill transitions lots and where cut lots are partially in soil, colluvium or unweathered bedrock materials, in order to provide uniform bearing conditions, the bedrock portion of the lot extending a minimum of 5 feet outside of building lines shall be over excavated a minimum of 3 feet and replaced with compacted fill. Greater over excavation could be required as determined by Soils Consultant. Typical details are attached.

3.0 COMPACTED FILLS

3.1 Material to be placed as fill shall be free of organic matter and other deleterious substances, and shall be approved by the Soils Consultant. Soils of poor gradation, expansion, or strength characteristics shall be placed in areas designated by Soils Consultant or shall be mixed with other soils to serve as satisfactory fill material, as directed by the Soils Consultant.

3.2 Rock fragments less than six inches in diameter may be utilized in the fill, provided

- They are not placed or nested in concentrated pockets
- There is sufficient amount of approved soil to surround the rocks
- The distribution of rocks is supervised by the Soils Consultant

3.3 Rocks greater than twelve inches in diameter shall be taken off-site, or placed in accordance with the recommendations of the Soils Consultant, areas designated as suitable for rock disposal (A typical detail for Rock Disposal is attached.)

3.4 Material that is spongy, subject to decay, or otherwise considered unsuitable shall not be used in the compacted fil.

3.5 Representative samples of materials to be utilized as compacted fill shall be analyzed by the laboratory of the Soils Consultant to determine the physical properties. If any material other than that previously tested is encountered during grading, the appropriate analysis of this material shall be conducted by the Soils Consultant before being approved as fill material.

3.6 Material used in the compacting process shall be evenly spread, watered, processed, and compacted in thin lifts not to exceed six inches in thickness to obtain a uniformly dense layer. The fill shall be placed and compacted on a horizontal plane, unless otherwise approved by the Soils Consultant.

3.7 If the moisture content or relative compaction varies from that required by the Soils Consultant, the Contractor shall rework the fill until it has been approved by the Soils Consultant.

3.8 Each layer shall be compacted to at least 90 percent of the maximum density in compliance with the testing method specified by the controlling government agency or ASTM 1557-12, whichever applies.

If compaction to a lesser percentage is authorized by the controlling governmental agency because of a specific land use or expansive soil conditions the area to receive fill compacted to less than 90 percent shall either be delineated on the grading plan and/or appropriate reference made to the area in the geotechnical report.

3.9 All fills shall be keyed and benched through all topsoil, colluvium, alluvium, or creep material, into sound bedrock, or firm material where the slope receiving fill exceeds a ratio of five horizontal to one vertical or in accordance with the recommendations of the Soils Consultant.

3.10 The key for side hill fills shall be a minimum width of 15 feet within bedrock or firm materials, unless otherwise specified in the geotechnical report, (see detail attached.)

3.11 Sub drainage devices shall be constructed in compliance with the ordinances of the controlling governmental agency, or with the recommendations of the Soils Consultant. (Typical Canyon Subdrain details are attached.)

3.12 The contractor will be required to obtain a minimum relative compaction of at least 90 percent out to the finish slope face of fill slopes, buttresses, and stabilization fills. This may be achieved by either over building the slope and cutting back to the compacted core, or by direct compaction of the slope face with suitable equipment, or by any other procedure, which produces the required compaction approved by the Soils Consultant.

3.13 All fill slopes should be planted or protected from erosion by other methods specified in the Soils report.

3.14 Fill-over-cut slopes shall be properly keyed through topsoil, colluvium or creep material into rock or firm materials and the transition shall be stripped of all soils prior to placing fill (see attached detail.)

4.0 CUT SLOPES

4.1 The Soils Consultant shall inspect all cut slopes at vertical intervals exceeding five feet.

4.2 If any conditions not anticipated in the geotechnical report such as perched water, seepage, lenticular or confined strata of a potentially adverse nature, unfavorably inclined bedding, joint or fault planes encountered during grading, these conditions shall be analyzed by the Soils Consultant, and recommendations shall be made to mitigate these problems (Typical details for stabilization of a portion of a cut slope are attached.)

4.3 Cut slopes that face in the same direction as the prevailing drainage shall be protected from slope wash by a non-erodible interceptor swale placed at the top of the slope.

4.4 Unless otherwise specified in the geotechnical report, no cut sloped shall be excavated higher or steeper than that allowed by the ordinances of controlling governmental agencies.

4.5 Drainage terraces shall be constructed in compliance with the ordinances of controlling governmental agencies, or with the recommendations of the Soils Consultant.

5.0 TRENCH BACKFILLS

5.1 Trench excavation shall be inspected prior to structure placement for competent bottom.

5.2 Trench excavations for utility pipes shall be backfilled under the supervision of the Soils Consultant.

5.3 After the utility pipes has been laid, the space under and around the pipe shall be backfilled with clean sand or approved granular soil to a depth of at least one foot over the top of the top of the pipe. The sand backfill shall be uniformly jetted into place before the controlled backfill is placed over the sand.

5.4 The on-site materials, or other soils approved by the Soils Consultant, shall be watered and mixed, as necessary, prior to placement in lifts over the sand backfill.

5.5 The controlled backfill shall be compacted to at least 90 percent of the maximum laboratory density, as determined by the ASTM D1557-12 or the controlling governmental agency.

5.6 Field density tests and inspection of the backfill procedures shall be made by the Soils Consultant during backfilling to see that proper moisture content and uniform compaction is being maintained. The contract shall provide test holes and exploratory pits as required by the Soils Consultant to enable sampling and testing.

6.0 GRADING CONTROL

6.1 Inspection of the fill placement shall be provided by the Soils Consultant during the progress of grading.

6.2 In general, density tests should be made at intervals not exceeding two feet of fill height or every 500 cubic yards of fill placed. This criteria will vary depending on soil conditions and the size of the job. In any event, an adequate number of field density tests shall be made to verify that the required compaction is being achieved.

6.3 Density tests should be made on the native surface material to receive fill, as required by the Soils Consultant.

6.4 All clean-out, processed ground to received fill, key excavations, subdrains, and rock disposals should be inspected and approved by the Soils Consultant prior to placing any fill. It shall be the Contractor's responsibility to notify the Soils Consultant prior to placing any fill. It shall be the Contractor's responsibility to notify the Soils Consultant when such areas will be ready for inspection.

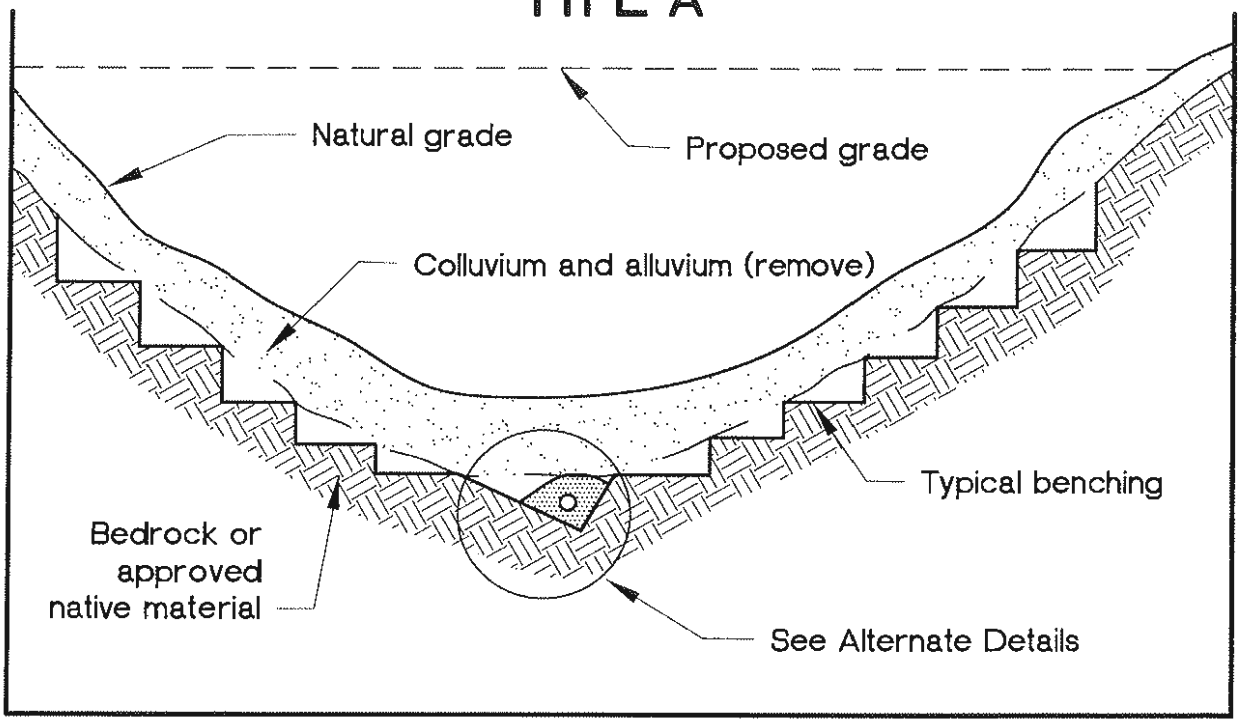
7.0 CONSTRUCTION CONSIDERATIONS

7.1 Erosion control measures, when necessary, shall be provided by the Contractor during grading and prior to the completion and construction of permanent drainage controls.

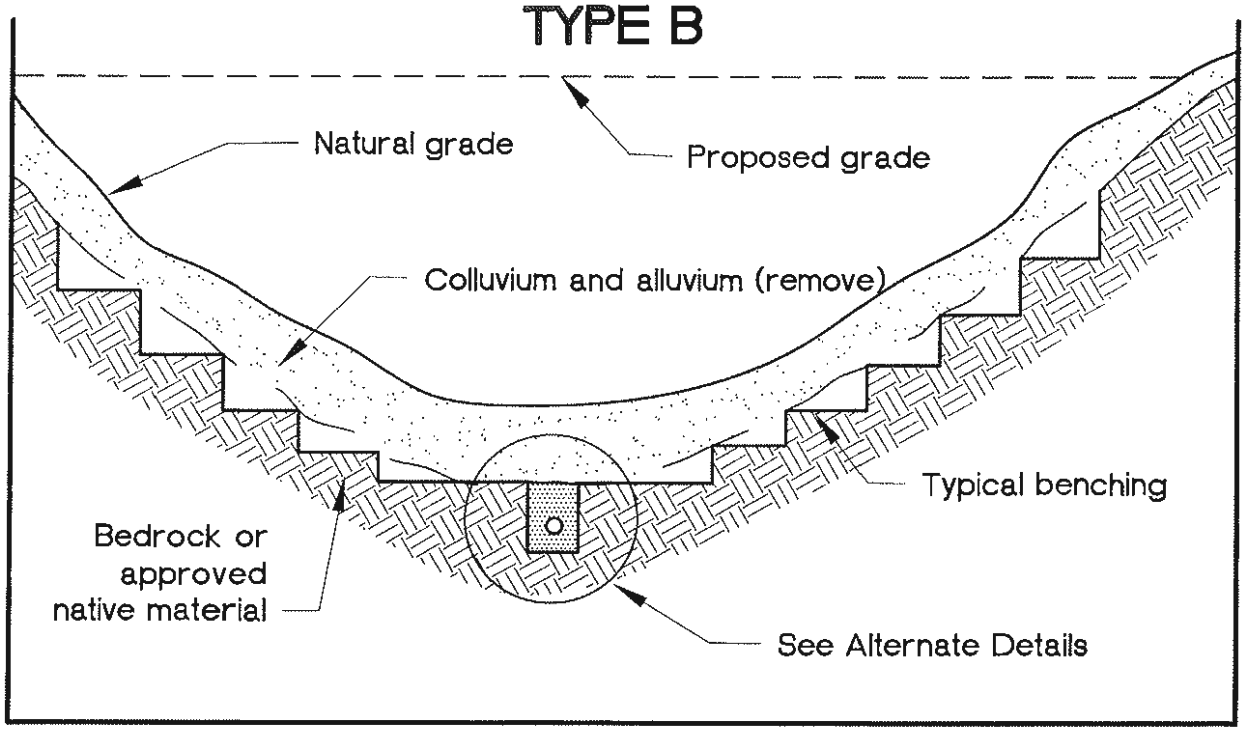
7.2 Upon completion of grading and termination of inspection by the Soils Consultant, no further filling or excavating, including that necessary for the footings foundations, large tree wells, retaining walls, or other features shall be performed without the approval of the Soils Consultant.

7.3 Care shall be taken by the Contractor during the final grading to preserve any berms, drainage terraces, interceptor swales, or other devices of permanent nature on or adjacent to the property.

TYPE A

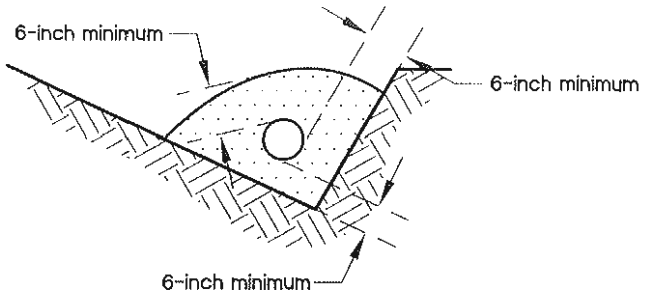


TYPE B

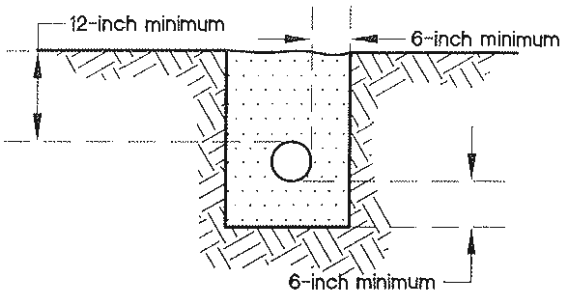


Selection of alternate subdrain details, location, and extent of subdrains should be evaluated by the geotechnical consultant during grading.

SoCal Professional Engineers	CANYON SUBDRAIN DETAIL	Plate 1



A-1



B-1

Filter material: Minimum volume of 9 cubic feet per lineal foot of pipe.

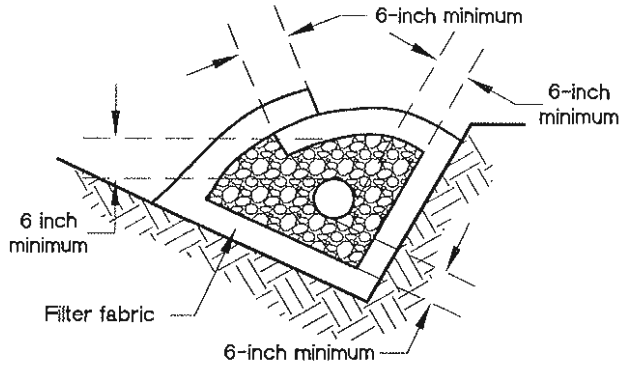
Perforated pipe: 6-inch-diameter ABS or PVC pipe or approved substitute with minimum 8 perforations (¼-inch diameter) per lineal foot in bottom half of pipe (ASTM D-2751, SDR-35, or ASTM D-1527, Schd. 40).

For continuous run in excess of 500 feet, use 8-inch-diameter pipe (ASTM D-3034, SDR-35, or ASTM D-1785, Schd. 40).

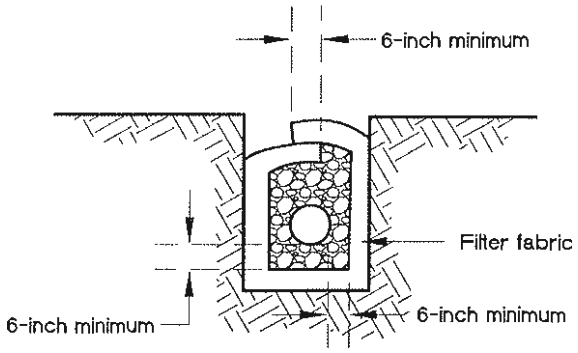
FILTER MATERIAL

Sieve Size	Percent Passing
1 inch	100
¾ inch	90-100
⅜ inch	40-100
No. 4	25-40
No. 8	18-33
No. 30	5-15
No. 50	0-7
No. 200	0-3

ALTERNATE 1: PERFORATED PIPE AND FILTER MATERIAL



A-2

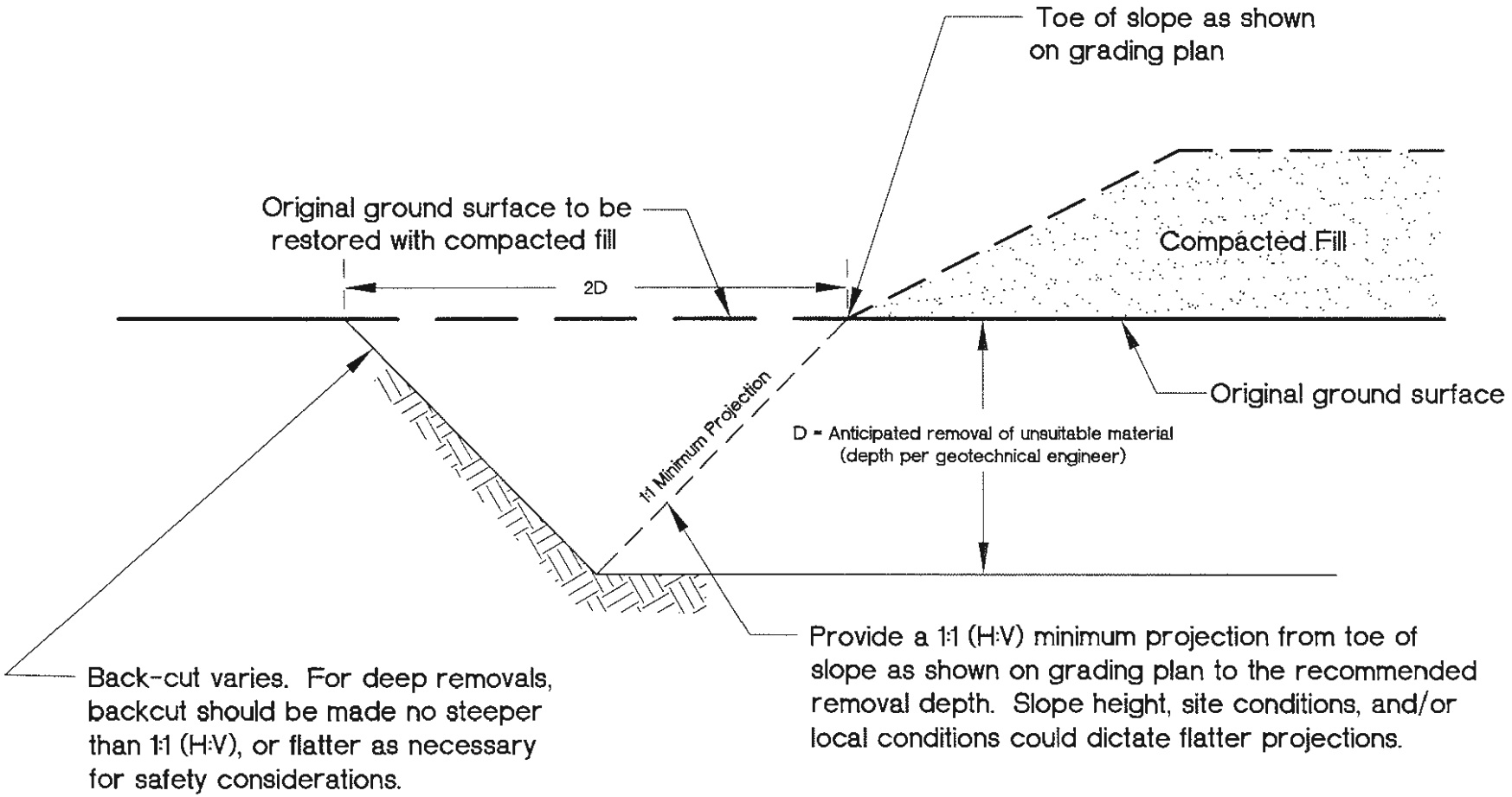


B-2

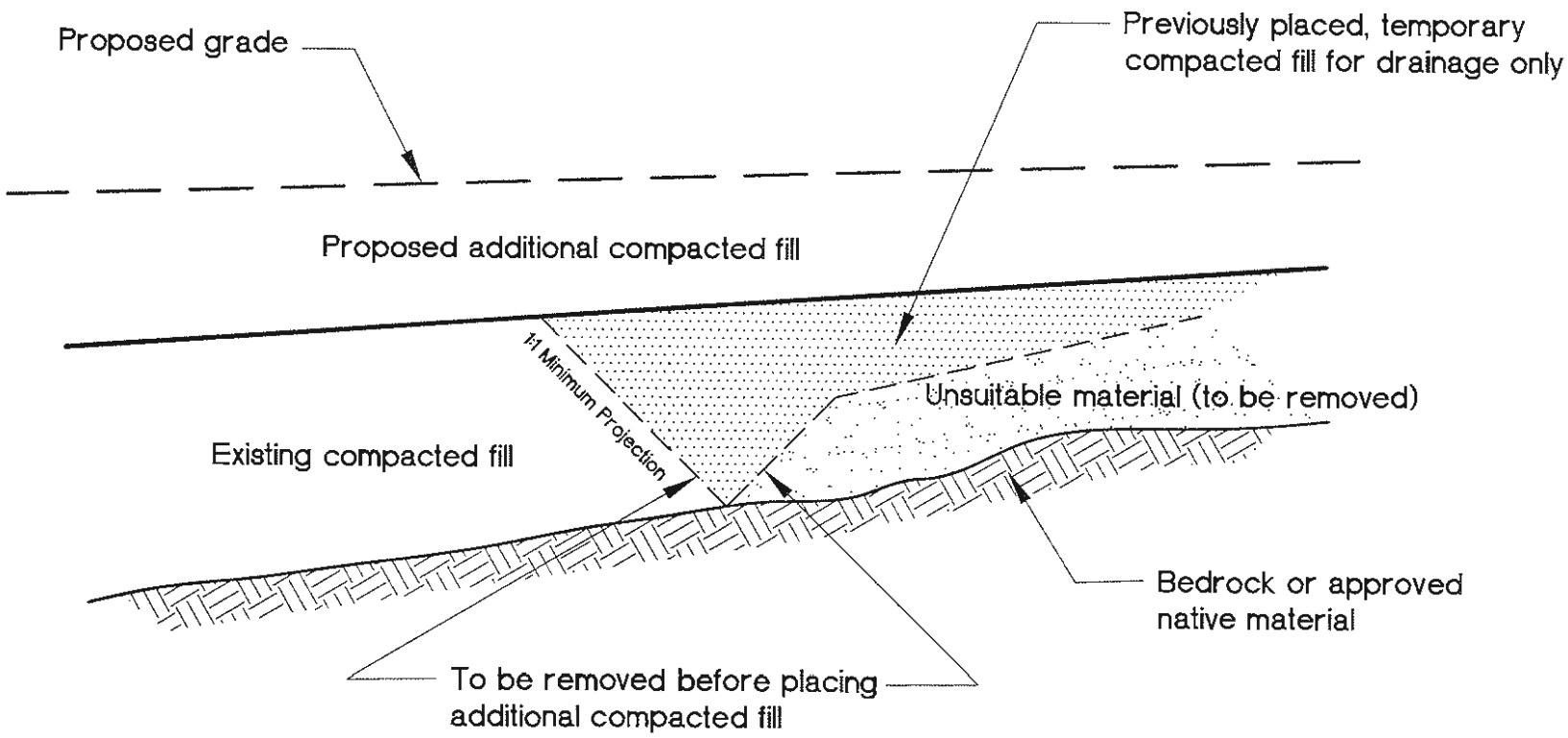
Gravel Material: 9 cubic feet per lineal foot.
Perforated Pipe: See Alternate 1
Gravel: Clean ¾-inch rock or approved substitute.
Filter Fabric: Mirafi 140 or approved substitute.

ALTERNATE 2: PERFORATED PIPE, GRAVEL, AND FILTER FABRIC

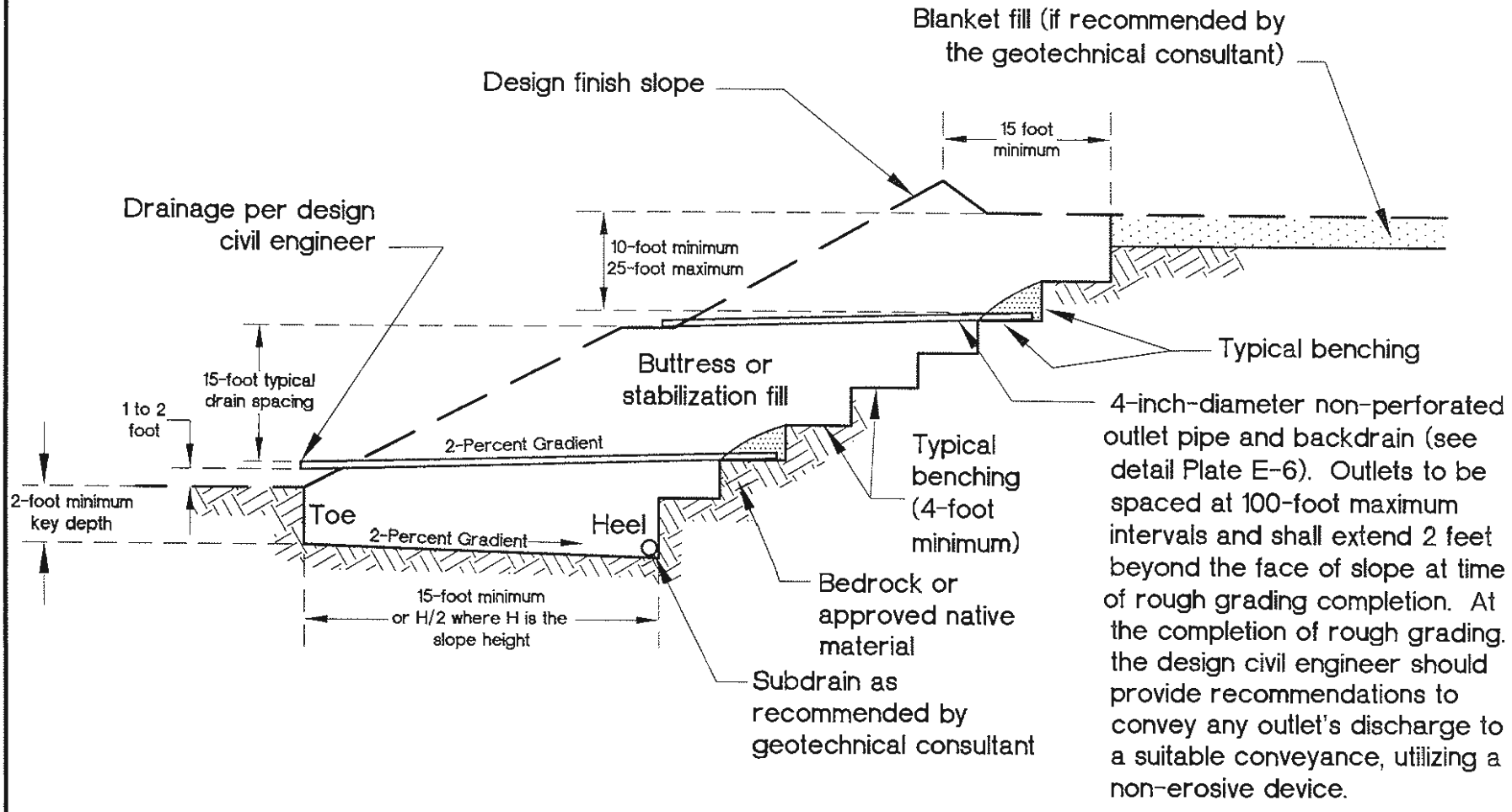
SoCal Professional Engineers	CANYON SUBDRAIN ALTERNATE DETAILS	Plate 2



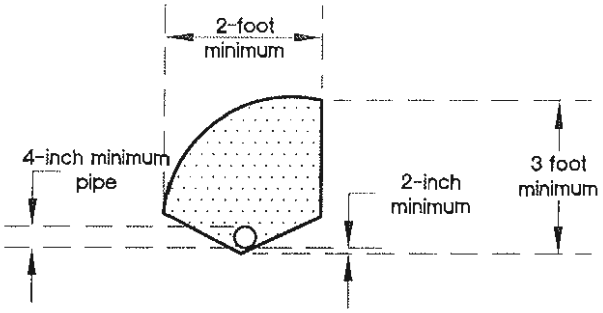
SoCal Professional Engineers	FILL SLOPE TOEING OUT ON FLAT ALLUVIATED CANYON DETAIL	PLATE 3

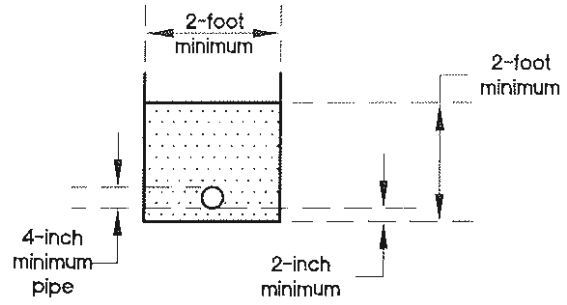


SoCal Professional Engineers	REMOVAL ADJACENT TO EXISTING FILL ADJOINING CANYON FILL DETAIL	Plate 4



SoCal Professional Engineers	TYPICAL STABILIZATION / BUTTRESS FILL DETAIL	Plate 5





Filter Material: Minimum of 5 cubic feet per lineal foot of pipe or 4 cubic feet per lineal feet of pipe when placed in square cut trench.

Alternative in Lieu of Filter Material: Gravel may be encased in approved filter fabric. Filter fabric shall be Mirafi 140 or equivalent. Filter fabric shall be lapped a minimum of 12 inches in all joints.

Minimum 4-Inch-Diameter Pipe: ABS-ASTM D-2751, SDR 35; or ASTM D-1527 Schedule 40, PVC-ASTM D-3034, SDR 35; or ASTM D-1785 Schedule 40 with a crushing strength of 1,000 pounds minimum, and a minimum of 8 uniformly-spaced perforations per foot of pipe. Must be installed with perforations down at bottom of pipe. Provide cap at upstream end of pipe. Slope at 2 percent to outlet pipe. Outlet pipe to be connected to subdrain pipe with tee or elbow.

Notes:
1. Trench for outlet pipes to be backfilled and compacted with onsite soil.
2. Backdrains and lateral drains shall be located at elevation of every bench drain. First drain located at elevation just above lower lot grade. Additional drains may be required at the discretion of the geotechnical consultant.

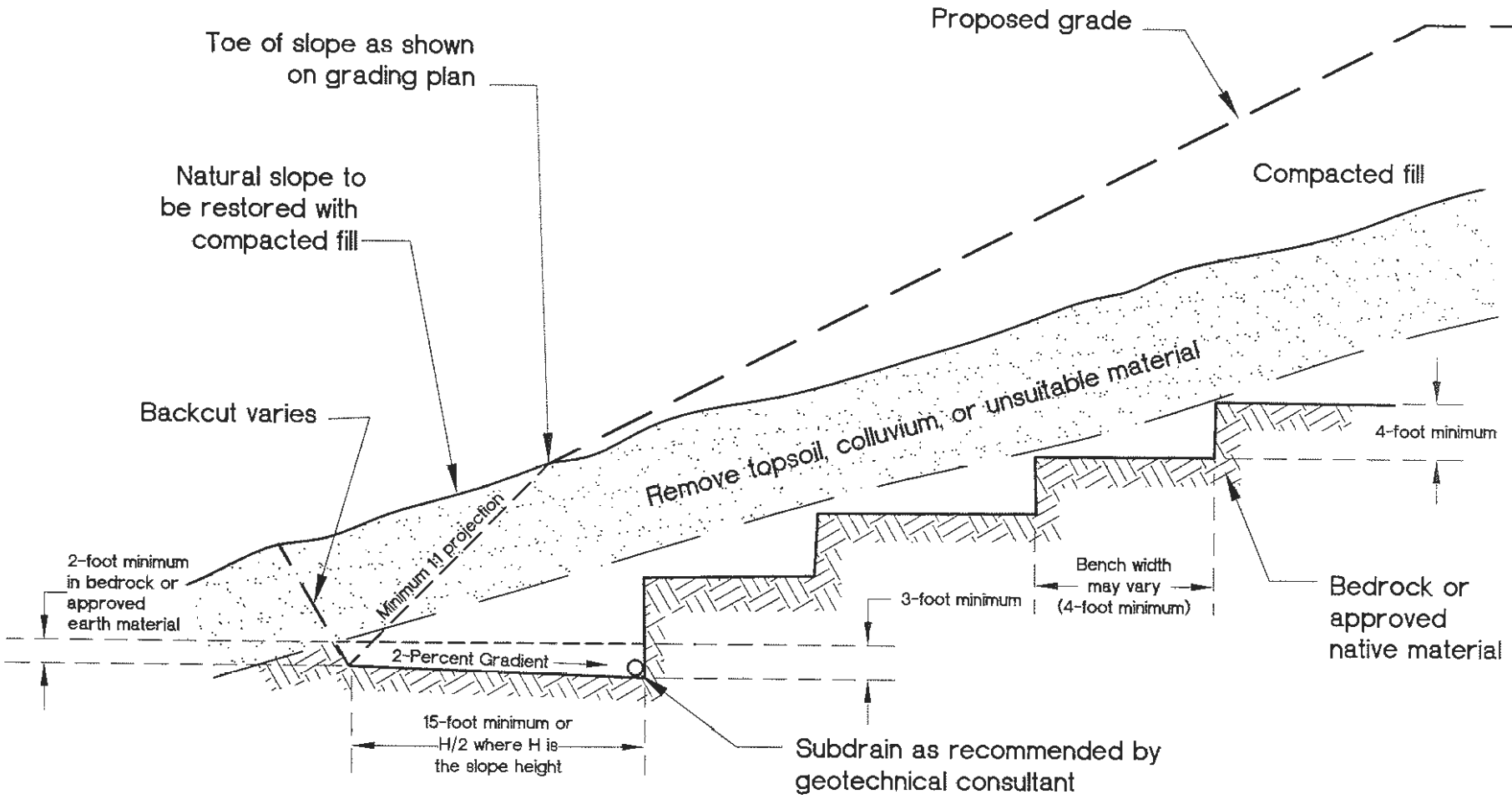
Filter Material shall be of the following specification or an approved equivalent.

Sieve Size	Percent Passing
1 inch	100
¾ inch	90-100
⅜ inch	40-100
No. 4	25-40
No. 8	18-33
No. 30	5-15
No. 50	0-7
No. 200	0-3

Gravel shall be of the following specification or an approved equivalent.

Sieve Size	Percent Passing
1½ inch	100
No. 4	50
No. 200	8

SoCal Professional Engineers	TYPICAL BUTTRESS SUBDRAIN DETAIL	Plate 6

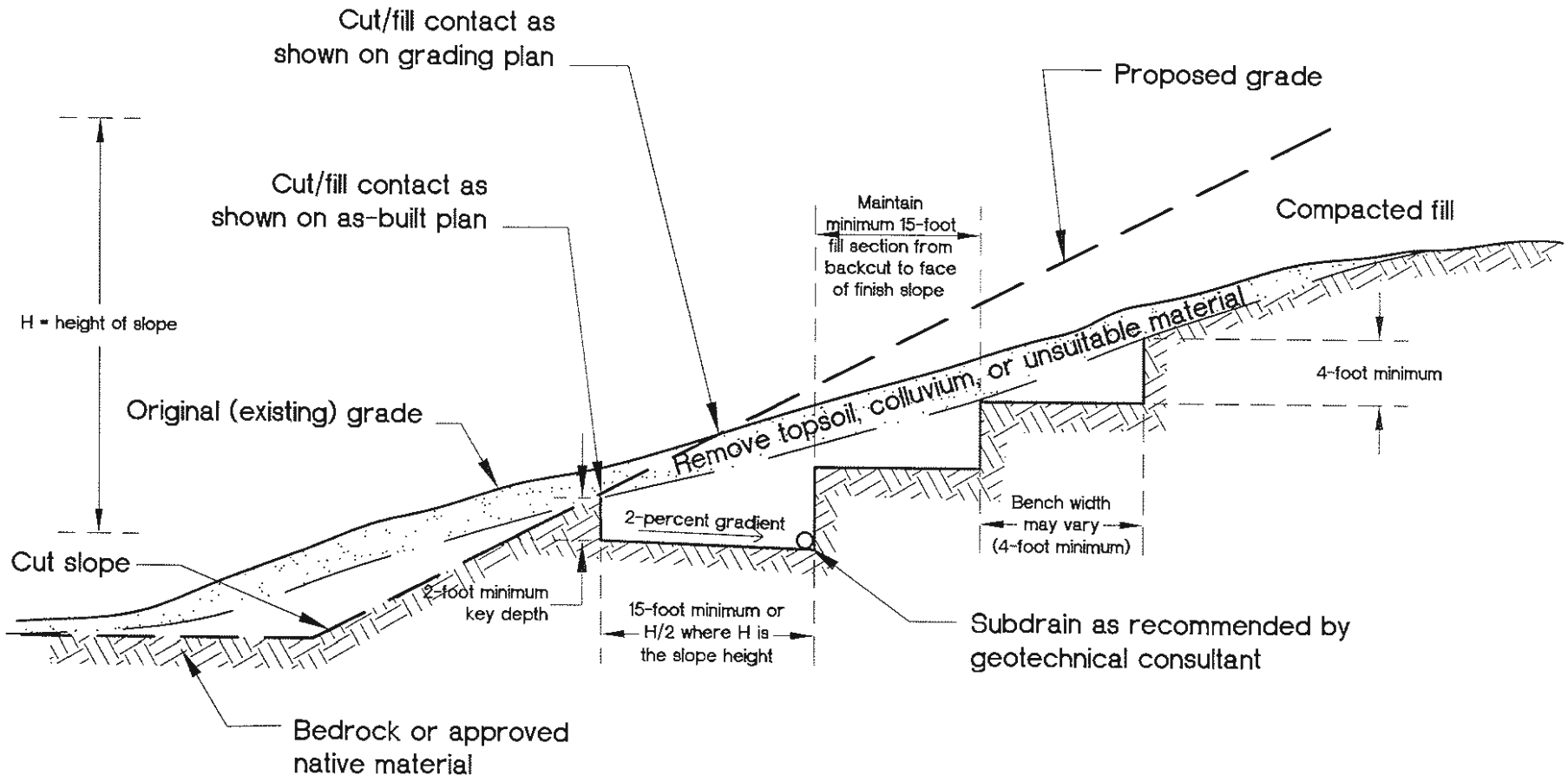


NOTES:

1. Where the natural slope approaches or exceeds the design slope ratio, special recommendations would be provided by the geotechnical consultant.

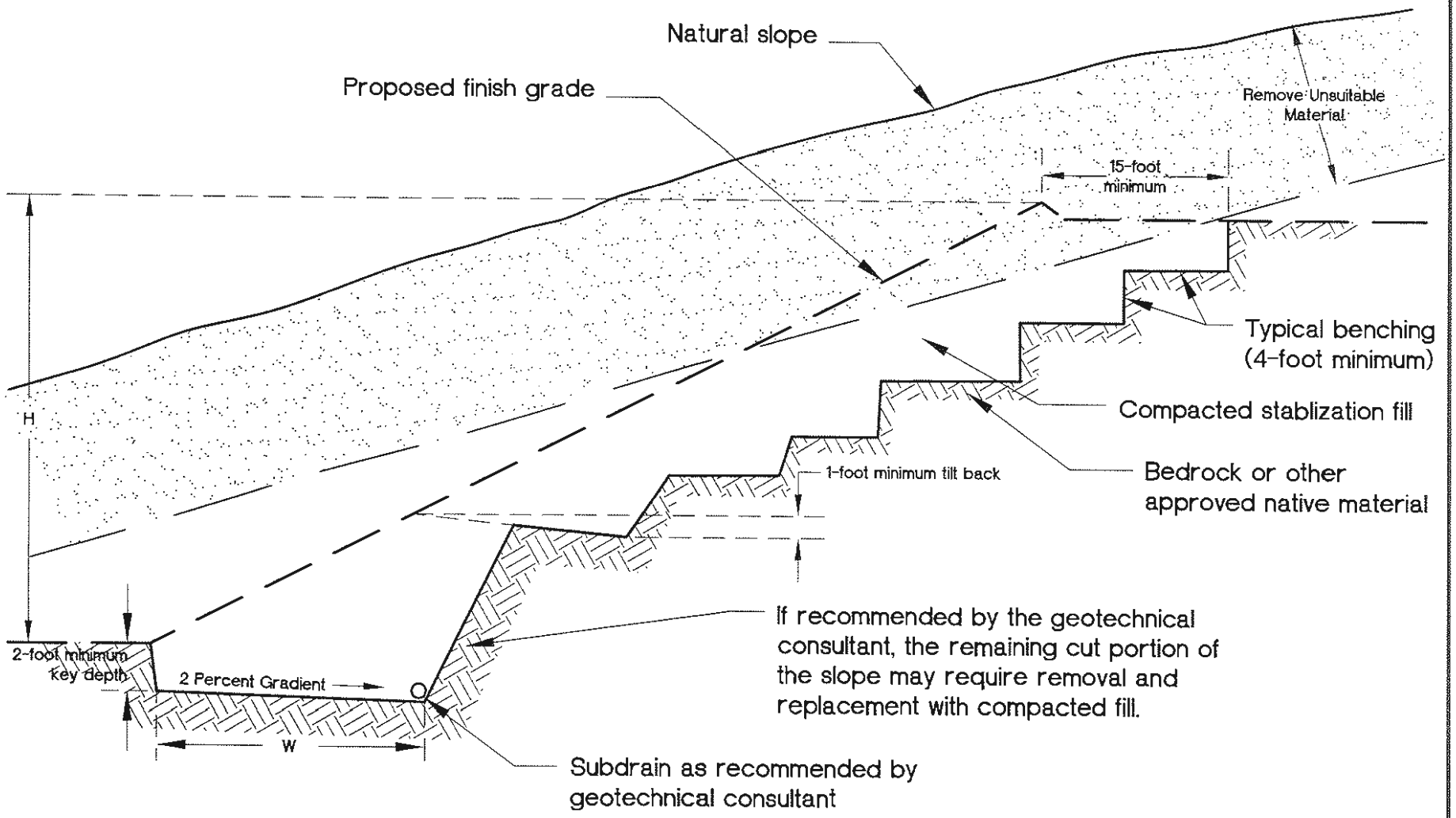
2. The need for and disposition of drains should be evaluated by the geotechnical consultant, based upon exposed conditions.

SoCal Professional Engineers	FILL OVER NATURAL (SIDEHILL FILL) DETAIL	Plate 7



NOTE: The cut portion of the slope should be excavated and evaluated by the geotechnical consultant prior to construction of the fill portion.

SoCal Professional Engineers	FILL OVER CUT DETAIL	Plate 8

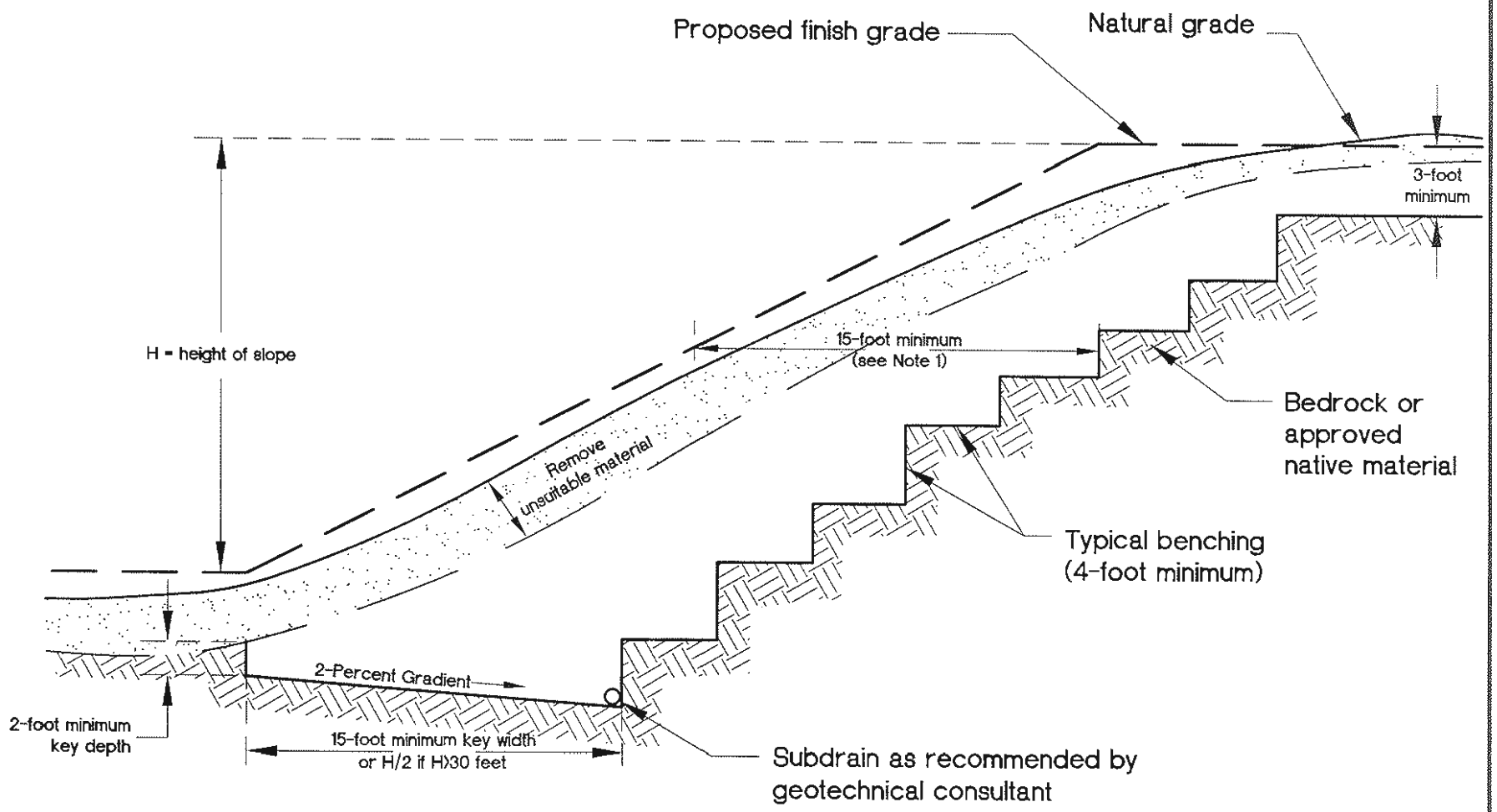


NOTES:

1. Subdrains may be required as specified by the geotechnical consultant.

2. W shall be equipment width (15 feet) for slope heights less than 25 feet. For slopes greater than 25 feet, W shall be evaluated by the geotechnical consultant. At no time, shall W be less than H/2, where H is the height of the slope.

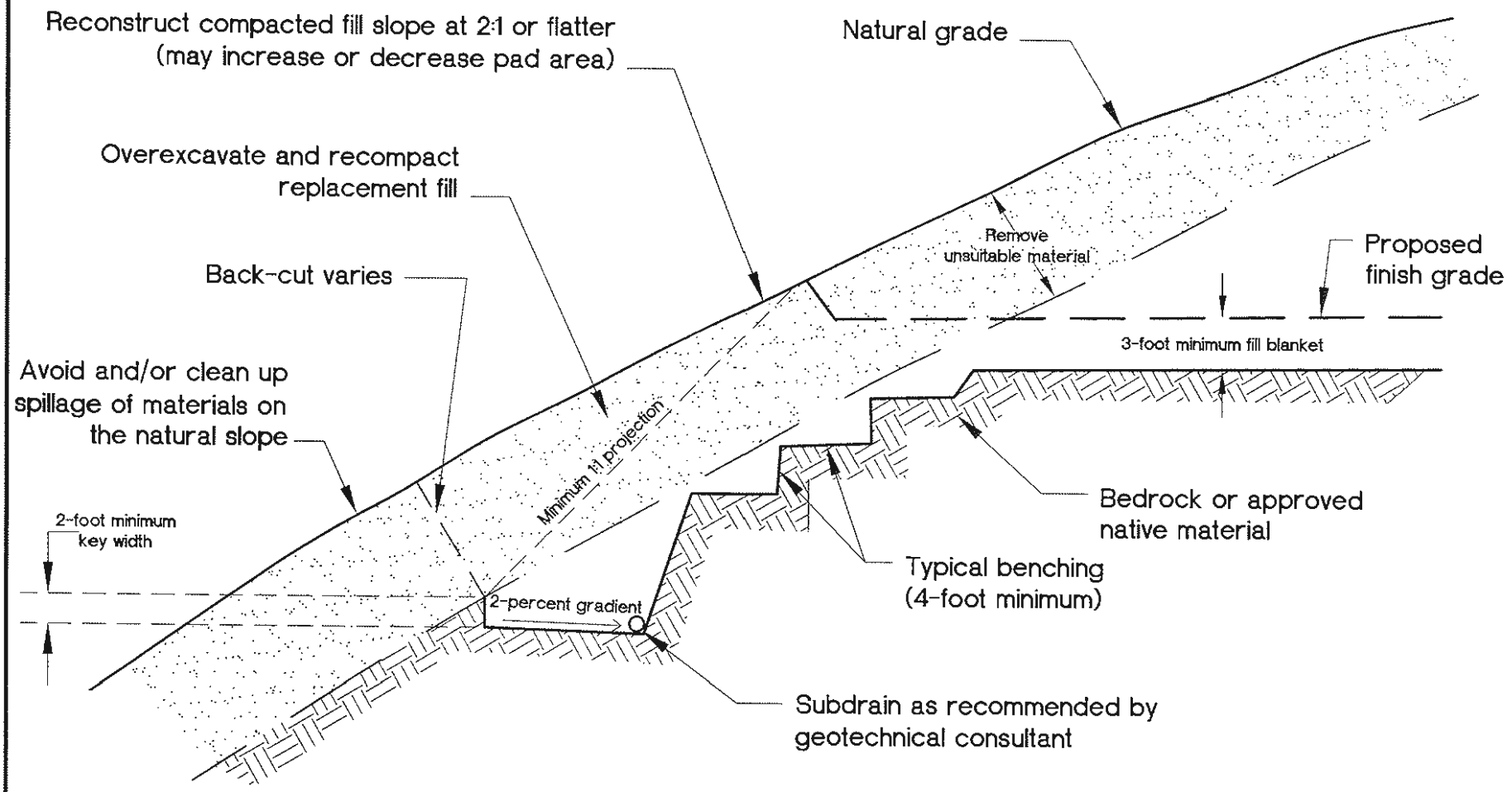
SoCal Professional Engineers	STABLIZATION FILL FOR UNSTABLE MATERIAL EXPOSED IN CUT SLOPE DETAIL	Plate 9



NOTES:

1. 15-foot minimum to be maintained from proposed finish slope face to backcut.
2. The need and disposition of drains will be evaluated by the geotechnical consultant based on field conditions.
3. Pad overexcavation and recompaction should be performed if evaluated to be necessary by the geotechnical consultant.

SoCal Professional Engineers	SKIN FILL OF NATURAL GROUND DETAIL	Plate 10

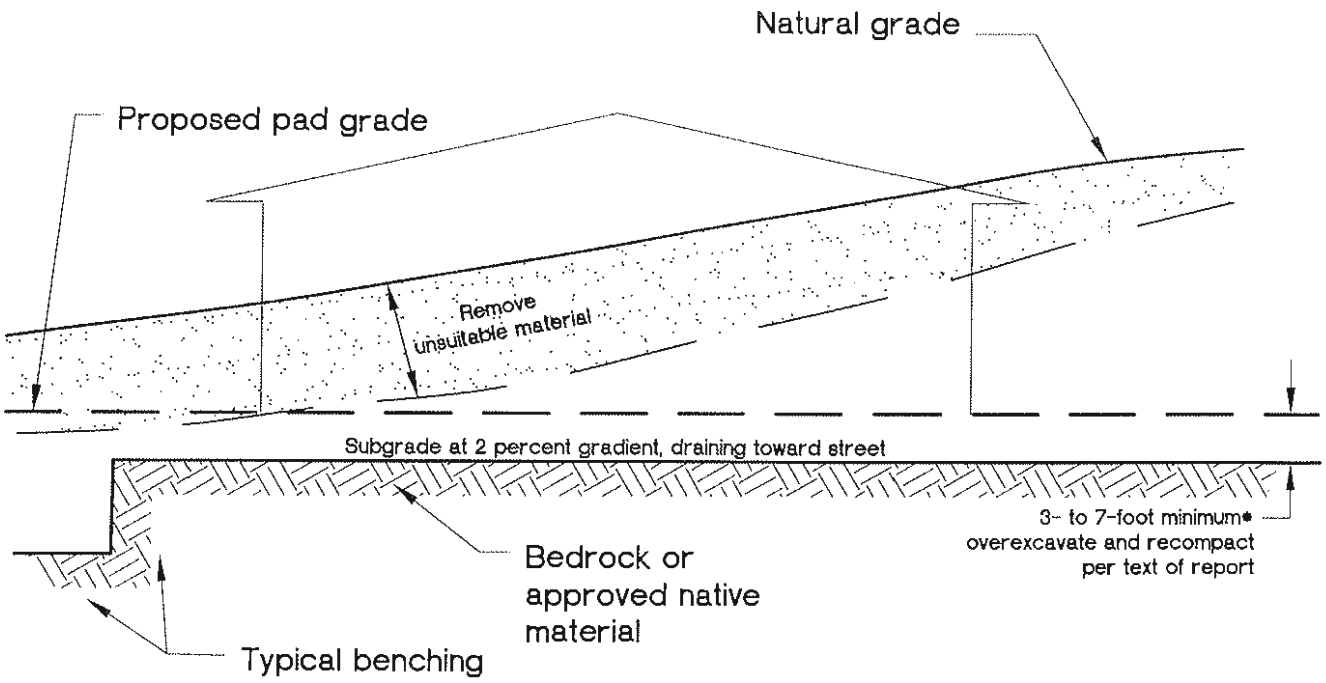


NOTES:

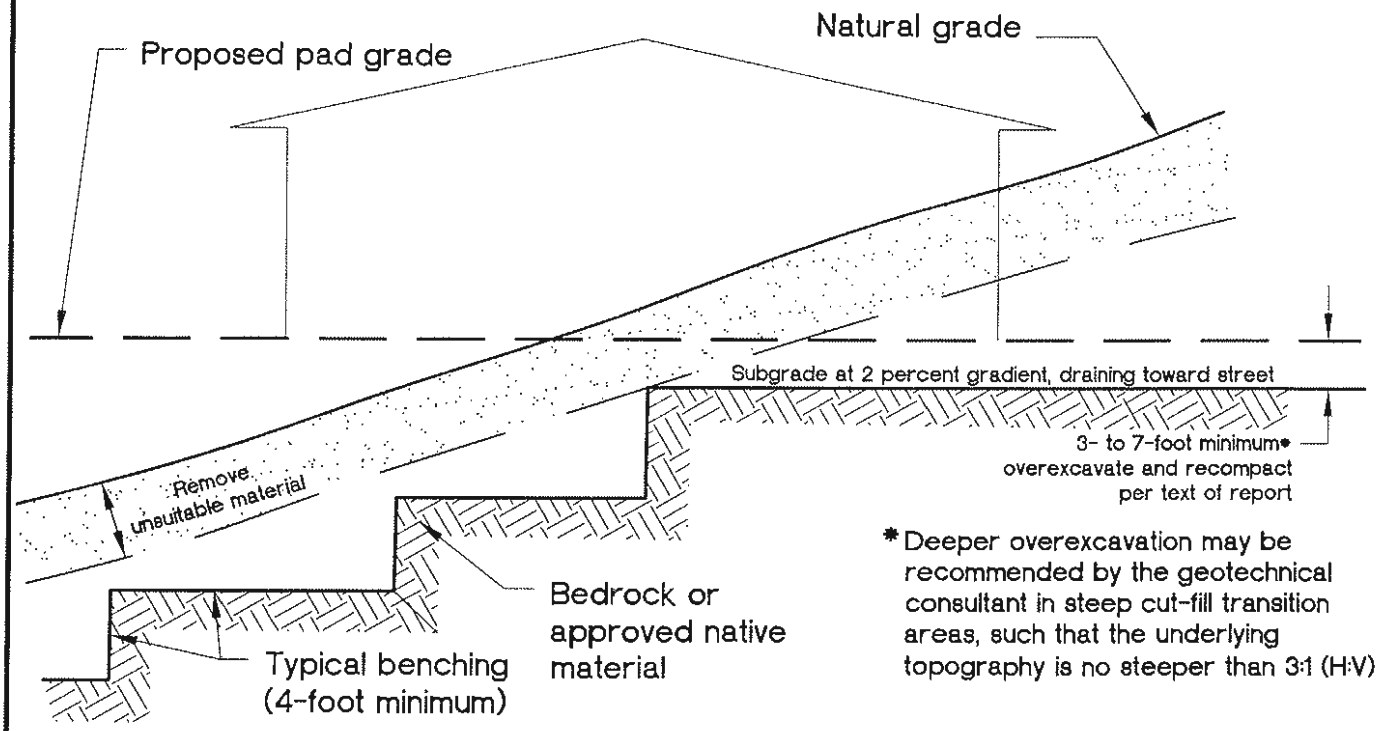
1. Subdrain and key width requirements will be evaluated based on exposed subsurface conditions and thickness of overburden.

2. Pad overexcavation and recompaction should be performed if evaluated necessary by the geotechnical consultant.

SoCal Professional Engineers	DAYLIGHT CUT LOT DETAIL	Plate 11



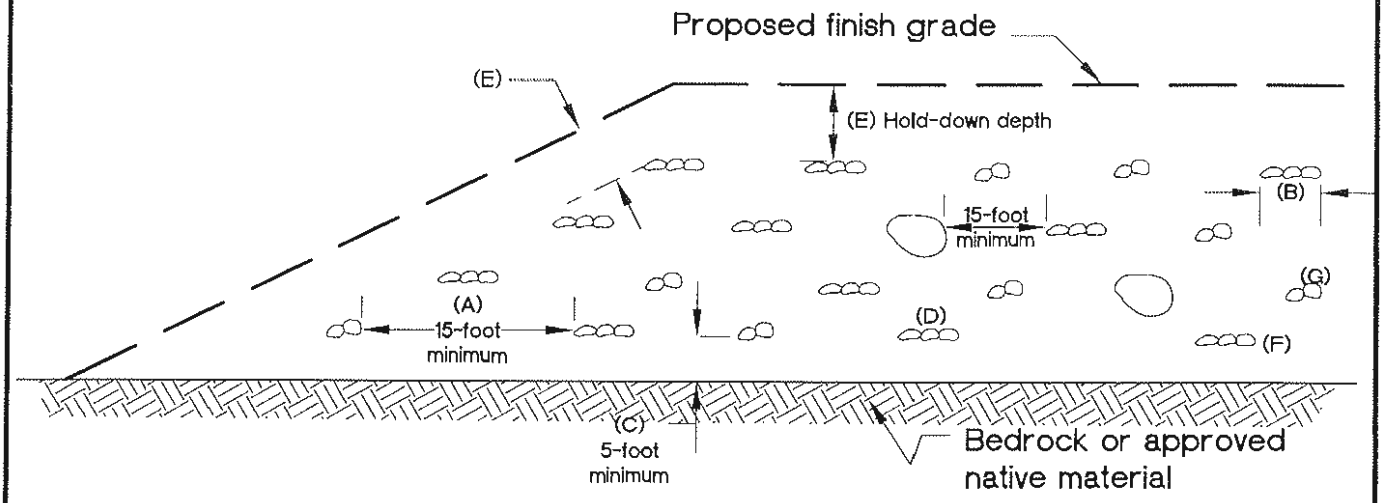
CUT LOT OR MATERIAL-TYPE TRANSITION



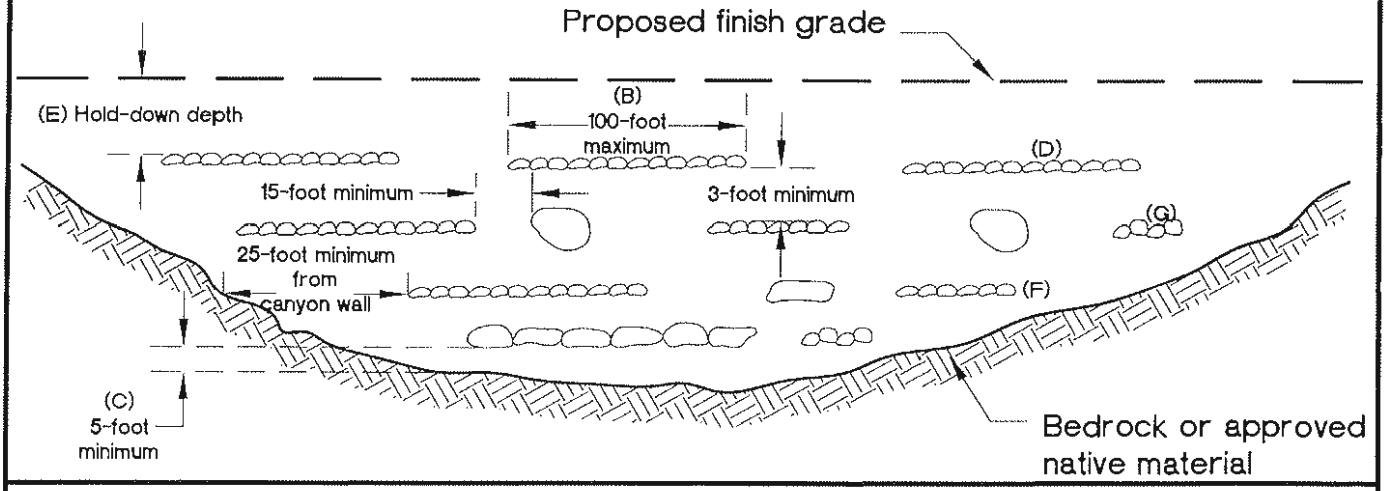
CUT-FILL LOT (DAYLIGHT TRANSITION)

SoCal Professional Engineers	TRANSITION LOT DETAILS	Plate 12

VIEW NORMAL TO SLOPE FACE



VIEW PARALLEL TO SLOPE FACE



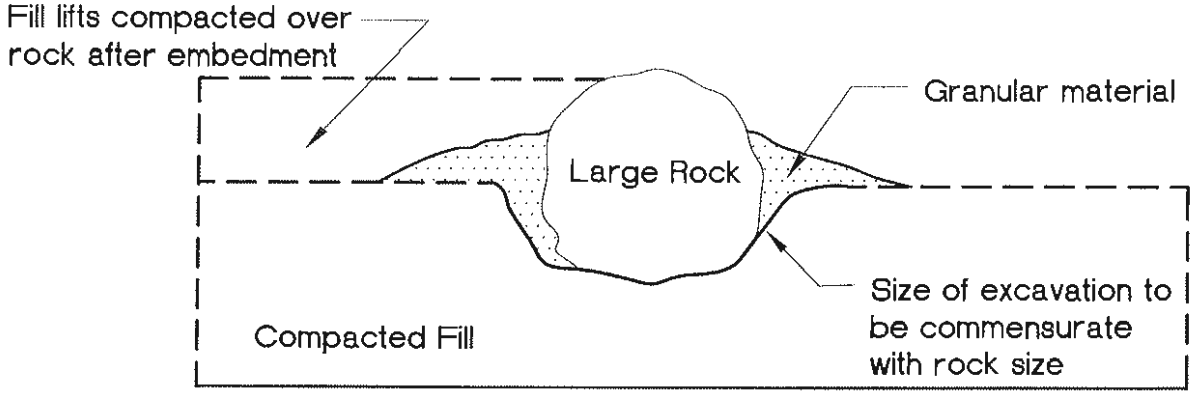
NOTES:

A. One equipment width or a minimum of 15 feet between rows (or windrows).
B. Height and width may vary depending on rock size and type of equipment. Length of windrow shall be no greater than 100 feet.
C. If approved by the geotechnical consultant, windrows may be placed directly on competent material or bedrock, provided adequate space is available for compaction.
D. Orientation of windrows may vary but should be as recommended by the geotechnical engineer and/or engineering geologist. Staggering of windrows is not necessary unless recommended.
E. Clear area for utility trenches, foundations, and swimming pools: Hold-down depth as specified in text of report, subject to governing agency approval.
F. All fill over and around rock windrow shall be compacted to at least 90 percent relative compaction or as recommended.
G. After fill between windrows is placed and compacted, with the lift of fill covering windrow, windrow should be proof rolled with a D-9 dozer or equivalent.

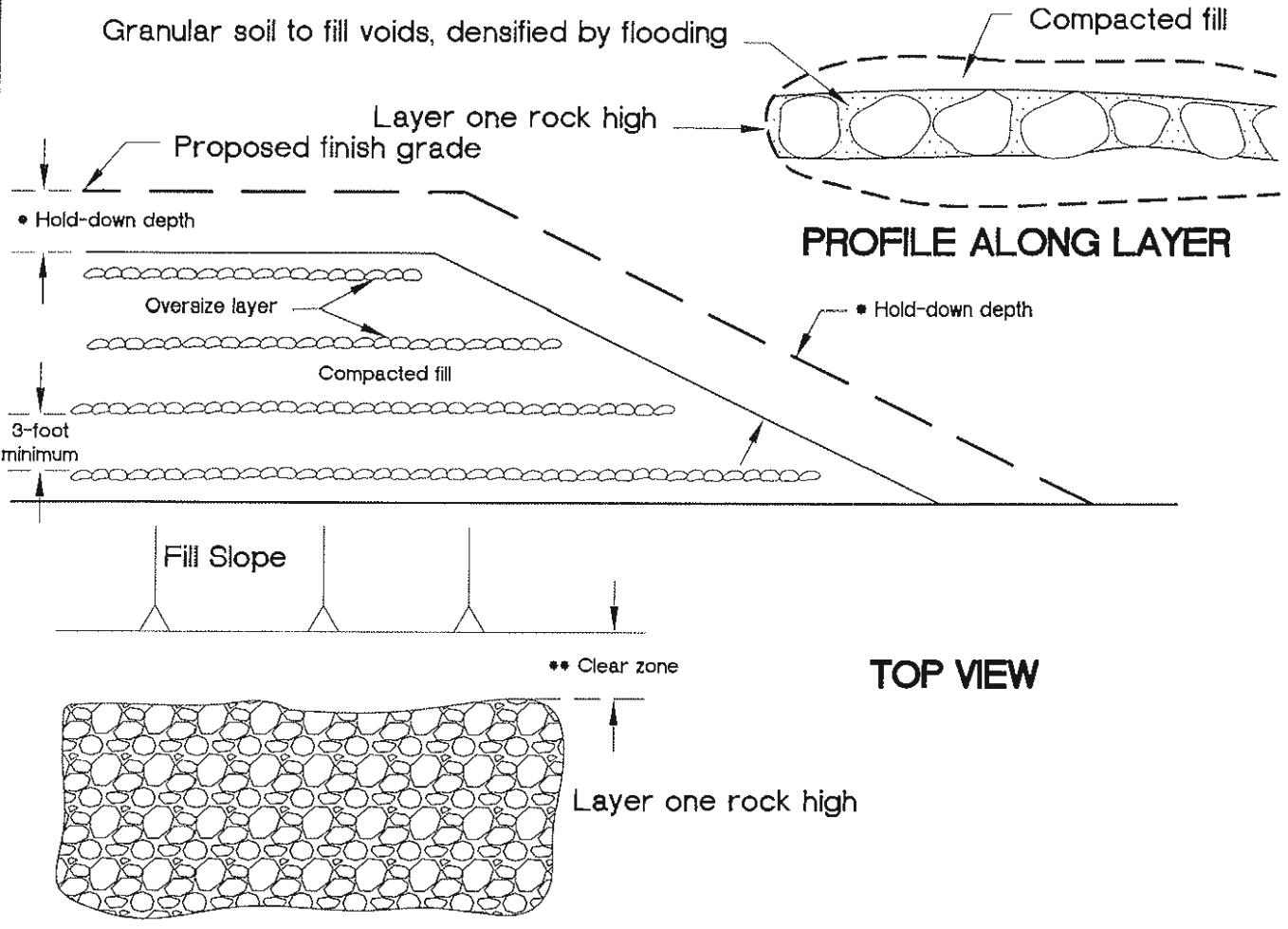
VIEWS ARE DIAGRAMMATIC ONLY AND MAY BE SUPERSEDED BY REPORT RECOMMENDATIONS OR CODE
ROCK SHOULD NOT TOUCH AND VOIDS SHOULD BE COMPLETELY FILLED

SoCal Professional Engineers	OVERSIZE ROCK DISPOSAL DETAIL	Plate 13

ROCK DISPOSAL PITS



ROCK DISPOSAL LAYERS



* Hold-down depth or below lowest utility as specified in text of report, subject to governing agency approval.

** Clear zone for utility trenches, foundations, and swimming pools, as specified in text of report.

VIEWS ARE DIAGRAMMATIC ONLY AND MAY BE SUPERSEDED BY REPORT RECOMMENDATIONS OR CODE

ROCK SHOULD NOT TOUCH AND VOIDS SHOULD BE COMPLETELY FILLED IN

SoCal Professional Engineers	ROCK DISPOSAL DETAIL	Plate 14

APPENDIX E

ASCE 7 Hazard Report

ASCE 7 Hazards Report

Address:
No Address at This Location

Standard:	ASCE/SEI 7-16	**Elevation:**	1282.42 m (NAVD 88)
Risk Category:	II	**Latitude:**	33.682103
Soil Class:	D - Default (see Section 11.4.3)	**Longitude:**	-117.330162





Seismic

Site Soil Class: D - Default (see Section 11.4.3)

Results:

S_S :	2.003	S_{D1} :	N/A
S_1 :	0.721	T_L :	8
F_a :	1.2	PGA :	0.856
F_v :	N/A	PGA_M :	1.027
S_{MS} :	2.404	F_{PGA} :	1.2
S_{M1} :	N/A	I_e :	1
S_{DS} :	1.603	C_v :	1.5

Ground motion hazard analysis may be required. See ASCE/SEI 7-16 Section 11.4.8.

Data Accessed: Fri Apr 23 2021

Date Source: USGS Seismic Design Maps

The ASCE 7 Hazard Tool is provided for your convenience, for informational purposes only, and is provided “as is” and without warranties of any kind. The location data included herein has been obtained from information developed, produced, and maintained by third party providers; or has been extrapolated from maps incorporated in the ASCE 7 standard. While ASCE has made every effort to use data obtained from reliable sources or methodologies, ASCE does not make any representations or warranties as to the accuracy, completeness, reliability, currency, or quality of any data provided herein. Any third-party links provided by this Tool should not be construed as an endorsement, affiliation, relationship, or sponsorship of such third-party content by or from ASCE.

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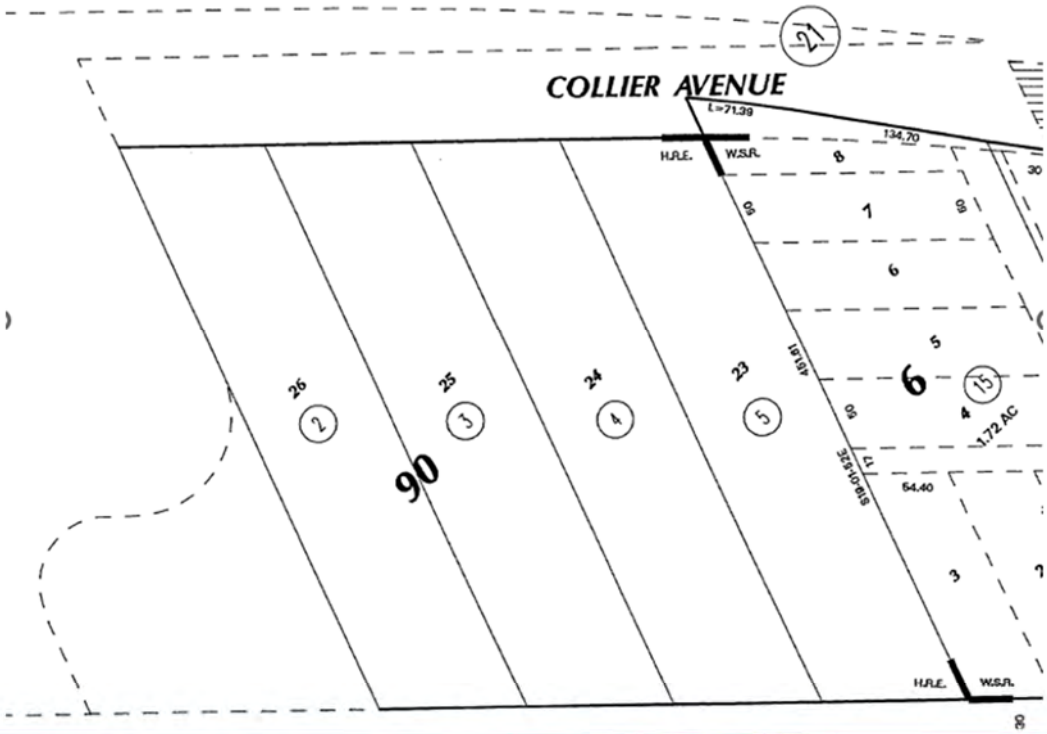
In using this Tool, you expressly assume all risks associated with your use. Under no circumstances shall ASCE or its officers, directors, employees, members, affiliates, or agents be liable to you or any other person for any direct, indirect, special, incidental, or consequential damages arising from or related to your use of, or reliance on, the Tool or any information obtained therein. To the fullest extent permitted by law, you agree to release and hold harmless ASCE from any and all liability of any nature arising out of or resulting from any use of data provided by the ASCE 7 Hazard Tool.

Appendix E

Phase One Environmental Site Assessment,
APNS 377-190-002, 377-190-003,
377-190-004, Collier Avenue

S & S Commercial Environmental Services, Inc.

Phone (949)650-4994 714-337-4323 Fax (909)498-0302 e-mail s.quart@verizon.net





TOP: APN Map Parcels 377-190-002, 377-190-003, 377-190-004

BOTTOM: View Across Subject Property SW to NE

PHASE ONE ENVIRONMENTAL SITE ASSESSMENT
APNS 377-190-002, 377-190-003, 377-190-004 COLLIER AVENUE
LAKE ELSINORE, CALIFORNIA 92530

24732 Overlook Drive Corona, CA 92882

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October 28, 2024 **S & S Job #OC24012**

Lender - Client Privilege Work Product

ATTN: COLLIER COMMERCIAL PROPERTIES, LLC
43 Golfview Drive
Dove Canyon, CA 92679

N 33-40-55, W 117-19-49 (NAD 83)
33.681843, -117.330313

RE: Phase I Environmental Site Assessment
Undeveloped Property on Collier Avenue
APNS 377-190-002, 377-190-003, 377-190-004 **Township: 06S Range: 04W Section: 06**
Lake Elsinore, CA 92530 **Baseline: San Bernardino**

1.0 INTRODUCTION

This report presents the results of our Phase I Environmental Site Assessment performed on the subject property known as APNS 377-190-002, 377-190-003, 377-190-004 in the City of Lake Elsinore in the County of Riverside, California. The Intended User for this Report is the Addressee above and the financial institution for which is intended.

This Phase I Site Assessment updates and relies on in part a Phase I Site Assessment performed in April 20th, 2021 by SoCal Engineers per ASTM 1527-13 on the property.

That Phase I did not identify any long term issues for the subject property. (see below)

"Based upon the site reconnaissance, historical review, regulatory records review, and other information detailed within this report, this Assessment identified no obvious evidence of Recognized Environmental Conditions (RECs), Controlled RECs or Historic RECs in connection with the subject property. No further investigation is recommended."

The purpose of this Phase I Site Assessment is for Due Diligence to identify any historical or current environmental issues which might affect the subject property during due diligence for a loan where the subject property is collateral.

The following Phase I Site Assessment is intended to meet the Scope of Work requirements and procedures included within 40 CFR §312 et al and ASTM E 1527-21 for the transfer, new finance or a refinance of an existing loan on the above property.

The purpose of this report is to provide an AAI- Compliant Phase I Environmental Site Assessment to evaluate the risks associated with providing financing and/or accepting the Property as collateral. "innocent landowner, contiguous property owner, or bona fide prospective purchaser limitations on CERCLA liability" (42 U.S.C.§9601 et seq). Qualification for these limitations is predicated on the assumption that "…the defendant must have undertaken, at the time of acquisition, all appropriate inquiry into the previous

ownership and uses of the property consistent with good commercial or customary practice in an effort to minimize liability…." However, no warranty is made so that this report constitutes all appropriate inquiry since numerous other factors, including user responsibilities, are required.

There were no Special Conditions for this Phase I Site Assessment Environmental Report.

The site inspection was performed on Monday October 28, 2024. This Phase I is valid per ASTM 1527 -21 Section 4.6 for 180 days from that date or March 28, 2024.
All appropriate inquiry into the previous ownership and uses of the Property was conducted to identify all potential environmental conditions that may have a material impact on the Property and to minimize the liability both on-site and from adjoining and adjacent properties which may have environmental issues germane to the subject

Current State of California & Federal Agency Web Data Reviewed For This Report

* Cal-EPA	Envirostor
* Regional Water Quality Control Board	Geotracker
* Dept of Conservation (DOGGR)	Div. of Oil & Gas
* SCAQMD	Find
* SoCal Professional Engineers	Phase I

The 2006 EPA "All Appropriate Inquires" provides for determination by the Environmental Professional CFR Title 40 Section 312.22 as to what records are necessary to understand a subject property history. The ASTM 1527-2021 Standard provides a list of possible sources of information for the Environmental Professional to use to determine that history and the potential for Environmental Problems.

Property tax records (ASTM §8.3.4.3) and Zoning/Land use records (ASTM §8.3.4.8) were not considered significant sources for information due to the known history of the individual parcels making up the subject property, the known current and former occupants and the building permit history for the parcel. ASTM §8.3.4.7)

Recorded land title records (ASTM §8.3.4.4) are part of a Title Report which was requested as part of the contract and is the Clients Responsibility per ASTM 1527-2013 Standard. The new standard states in summary that in order to satisfy AAI, a user must conduct a search for the existence of environmental liens or AULs that are filed or recorded against the property.

While not provided, a Title Report was not deemed necessary by this Environmental Professional to evaluate the environmental status of the property based upon the information identified in the research for this report.

No Significant Data Gaps were identified. Greatest reliance was on Historical Aerial Photographs, SoCal Professional Engineers, and Envirostor.

A Google search was the only Other Historical Source used (ASTM §8.3.4.9) due to the nature of the parcel and the other information available to determine the history. There were no unusual or environmentally sensitive uses noted.

Cross Streets Directories were not considered necessary based upon the history of the subject property and properties adjoining and adjacent.

Sanborn Fire Insurance Maps showed the area of the subject property in 1933 the last year that they were drawn for Elsinore. The maps were not site specific. (See 12.2 Historical Aerial Photographs and Sanborn Fire Insurance Maps in the appendix)

An Underground Tank Research Request was not submitted due to the known activities on the subject property, prior research and availability of records.

An Environmental Records Search was purchased to identify any CERCLIS, NPL, SPL, RCRA-CORRACTS, CERCLIS/NFRAP, RCRA-TSD, SCL, SWLF Sites within a significant distance of the subject property.

This list was also checked for Leaking Underground Tank Sites within a significant distance of the subject property. Those closest to the subject property have all been closed and are not considered an issue. (see 12. 6 DTSC Envirostor Map and Geotracker in appendix)

No potential leaking underground tanks, RCRA Generators or other environmentally sensitive activities were identified within a significant distance of the subject property

There are 3 Geothermal Wells within an approximate mile of the subject property. These are not expected to be an issue.

Current State of California Agency Information Reviewed For This Report

*	Cal-EPA	Envirostor
*	Regional Water Quality Control Board	Geotracker
*	Dept of Conservation (DOGGR)	Div of Oil & Gas
*	South Coast Air Quality Management District	SCAQMD

No Significant *Data Gaps* were identified. The subject property has been shown to be undeveloped and vacant over the years. Development south as a Towing Yard. West across W. Minthorn Street as a portable and toilet rental and piping contractor with Flood Control Basin monitoring and operations building. North the construction of a Flood Control Stormwater Retention Basis. Across Collier Avenue to the east State Highway 395 then completion of Interstate 15.

A *Title Report* was not provided for research for *Environmental Liens*. Based on the research for this report, a *Google Internet Search* , *CAL-EPA Envirostor* and known history, no environmental liens are expected.

Report Organization
This report is divided into sections which discuss the field investigation, government records search, regulatory agency contacts and recommendations. Appendices follow the text.

1.1 Purpose and Scope of Work

The purpose of a Phase I Environmental Site Assessment is to discover any past or present environmentally related events which may negatively impact the subject property. This includes a search of all available records concerning the property and the performance of an on-site inspection. Procedures followed in the performance of a Phase I Environmental Site Assessment include executing a government records search, researching permits for the site where prudent, interviewing the tenants of the subject property or neighbors in close proximity, studying aerial photographs, interviewing personnel at the appropriate regulatory agencies and conducting a physical survey of the subject property.

1.2 Involved Parties/Information Sources

This ***S & S Commercial Environmental Services, Inc.***, Phase I Environmental Site Assessment is produced through the efforts of a California Registered Environmental Assessor working in conjunction with Federal, State and county regulatory agencies. Track Info Services L.L.C. maintains a comprehensive, computerized data base of pertinent, environmentally related records, referred to as an *Environmental First Search Report*, which is updated on a regular basis. This database is researched for Category I, II, III and IV sites within a mile of the subject property and a report is generated based upon the available regulatory records. The report is reviewed for sites which might impact the subject property, and an inquiry is directed toward those sites within the 2,000-foot hazardous waste disclosure zone.

The field investigation includes a site assessment, observations of the neighboring facilities and verification of permits and building records, as necessary. This review and inspection was performed by Stephen A. Quartararo, California Registered Environmental Assessor, California General Engineering Contractor, Hazardous Materials Certified, California Asbestos Contractor, CA Drilling Contractor and *ASPE* Professional Estimator.

Definitions modified and added in the ASTM-1527 2013/21 Revision as approved by the EPA include:

a. Simplified Recognized Environmental Condition (REC) definition to "the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment."

b. Stated a Limitation on the definition of an HREC (historical REC) to closed RECs that have been completely resolved ("clean closure") with no restrictions. Those

undergoing continued maintenance or monitoring should be discussed.

Also, for HREC's, if there has been a change in the regulatory criteria and if the Environmental Professional (EP) considers this past release to now be an REC at the time the Phase I ESA investigation is conducted,"... the condition shall be included in the conclusions section of the report as a REC."

c. Review of Title and Judicial Records for Environmental Liens or Activity and Use Limitations (AULs) continues to be a User (Client) requirement that is to be conducted by a Title professional, not the EP or Phase I Professional. Buyer or Lender needs to ensure that Title companies are searching for judicial records.

d. (VES) Vapor Encroachment Screening under E2600-22 is a referenced document in ASTM E1527 2021 under Section 2.1. Under this Standard Vapor migration should be treated no differently than the way contaminated groundwater migration is considered in a Phase I ESA and should be discussed using the CERCLA definition of "release" and "environment" which includes vapor.

BACKGROUND OF CALIFORNIA VAPOR REGULATIONS

During the early 2000's the EPA and DTSC formulated guidelines for soil vapor including Volatile Organic Compounds known as VOC. This was because while VOCs are sinkers with a heavy center of gravity, remnants of chlorinated hydrocarbons, including Benzene in Gasoline and any cleaners for engines such as PCE left residual amounts of VOC in the soil which later became airborne and were related to future cancers.

In 2009 the EPA Published Regional Screening levels (RSLs) which included Vapor and PCE also known as VOCs or Volatile Organic Compounds.

In 2010 California (CAL EPA-DTSC) Published California Human Health Screening Levels (CHHSLs) which included vapor and VOCs/PCE.

In 2011 DTSC required that vapor intrusion into buildings be assessed at sites where VOCs are present in soil vapor…[if regulated compounds are found in soil then testing of the vapor should be performed]

… Assessment of the indoor air exposure pathway involves characterizing subsurface VOC vapor plumes, obtaining appropriate environmental data, using an attenuation factor to predict indoor air concentrations from vapor intrusion, and conducting a human health risk assessment for the inhalation pathway to estimate cancer risk and noncancer hazard.

DTSC provides guidance for assessing potential for health risks from the indoor air exposure pathway [DTSC, 2011].

In 2013 ASTM 1527-2013 was published and CERCLIS (Comprehensive Environmental Response, Compensation, and Liability Information System) was expanded to include vapor along with soil and water as potential sources of contamination and human health risk.

In 2015 ASTM 2600-15 was modified from the previous version as a model for soil vapor investigation where regulated soil contaminants were known or suspected in soil or vapor.

2019 saw the publication of ASTM E 1903 : 2019 Standard Practice for Environmental Site Assessments: Phase II Environmental Site Assessment Process.

In 2022 ASTM 2600-15 was modified from the previous version as a model for soil vapor investigation where regulated soil contaminants were known or suspected in soil or vapor. To ASTM 2600 – 22.

The most current version of the CA CHHSLs are included in HHRA Note 3 (DTSC 2023). HHRA Note 3 which lists the recommended DTSC modified screening levels for soil, tap water, and ambient air. The DTSC-SLs along with the U.S. EPA

Regional Screening Levels (RSLs) are to be used when conducting a screening level risk assessment.

Section 2.1 of ASTM E1527 - 2021 Standard - Vapor Encroachment Screening - 42 U.S.C. § 9601(22) defines a "release" as "any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discharging of barrels, containers, and other closed receptacles containing any hazardous substances or pollutant or contaminant"

This includes solid, liquid and the ensuing migration of vapor into soil and water or from water upwards through soil in occupied areas

e. Controlled Recognized Environmental Condition (CREC) is a new term introduced in the ASTM E1527 -13 standard for Phase I Environmental Site Assessments (ESAs). The Controlled REC concept was introduced to address contaminated sites that have received risk-based regulatory closure, where no further remediation is required but residual contamination still exists at a site and the property is subject to some sort of control or use restriction. These sites, where contamination is controlled but could still pose ongoing or future obligations on the owner (such as special precautions during construction or grading activities), have been a source of some confusion to the environmental due diligence industry with regards to how they should be classified.

The CREC, as subset of the Recognized Environmental Condition (REC) category and a distinct category from Historical Recognized Environmental Condition (HREC), is intended to clarify the level of risk these sites represent. The environmental professional is required to list any CRECs (as well as RECs) identified in the findings and conclusions section of the Phase I Environmental Site Assessment report.

The ASTM definition of CREC in the E1527-21 standard is as follows: "a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls)."

There were no CREC's noted in the records researched.

f. Adjoining Property Research
In the updated ASTM 1527 -21 standard, the section governing review of prior uses on the subject property specifically enumerates four standard historical resources that must be reviewed if, based on the judgment of the environmental consultant, they are reasonably ascertainable, likely to be useful, and applicable to the subject property: (1) aerial photographs, (2) fire insurance maps, (3) local street directories, and (4) historical topographic maps. ASTM E1527-21 also requires review of these four standard historical resources for properties adjoining the subject property if they have been researched for the subject property, provide coverage of one or more adjoining properties, and are likely to be useful.

Online information regarding underground tanks leaks and closures on adjacent properties were identified in the records researched and further investigated with no underground tanks.

There are no significant other changes to the ASTM 1527-21 Standard that was given final approval by the EPA.

1.3 Limitations and Exceptions

This Phase I ESA does not address whether requirements in addition to AAI have been met in order to qualify for the LLPs under CERCLA of 1980. Nor does it address requirements of any state or local laws, or of any federal laws other than the AAI provisions of the LLPs. There may be other local, state, and/or federal laws which impose environmental assessment obligations that are beyond the scope of the ASTM Standard for a Phase I ESA. There may also be other legal obligations regarding hazardous substances or petroleum products that are not addressed in the

ASTM Standard and that may pose risk of civil and/or criminal sanctions for non-compliance.

There may be environmental conditions or issues at the subject property which are not covered under the scope of the Phase I ESA. Assessment of such non-scope considerations is not required for the AAI defined in the ASTM Standard. Examples of non-scope considerations which may be assessed in addition to the scope of the Phase I ESA include (in no particular order of importance): asbestos-containing materials, biological agents, cultural and historic resources, ecological resources, endangered species, health and safety, indoor air quality, industrial hygiene, lead-based paint, lead in drinking water, mold, radon, regulatory compliance, wetlands, or other non-scope considerations.

No ESA can wholly eliminate uncertainty regarding the potential for RECs in connection with a property. Completion of this ESA was intended to reduce, but not eliminate, uncertainty regarding this potential within the limits of reasonable time and cost.

2.0 PRINCIPAL FINDINGS

2.1 Summary of Operations and Environmental Discrepancies

The subject property has always been vacant land southwest of former Highway 395/ 15 Freeway.

With the exception of grading in 2021/23 and parking of some vehicles there have been no known activities on the subject property.

Adjoining and Adjacent Properties

Over the years the free flowing creek to the west was redirected into a concrete lined flood channel, a monitoring station was constructed to the west and a retention basin to control flooding and conserve stormwater to the north.

A towing service started to the south with Laidlaw Transit having an oil leak in an underground tank south in 1989 that was closed.

Beyond the retention basin to the north operates Right Way Toilets which is the site of an underground tank leak of gasoline that was closed in 1989.

Neither of those underground tank leaks is expected to be an issue for the subject property.

Current Adjoining Property Uses.
North is a Flood Control/Stormwater Retention Basin.

South is Brothers Towing and Steve's Towing.

West is W. Minthorn and a construction materials rental yard and the monitoring building for the flood control system.

East is a vacant parcel then the 15 Freeway.

There were no problems noted adjoining or adjacent to the subject property discovered through the site inspection or noted in the agency scan which would indicate a potential problem for the subject property.

The closed former underground tank leaks noted were not within 100 feet of the subject property and did not appear to be significant.

2.2 Summary of Building Materials and Environmental Discrepancies

There are no buildings on the subject property, only gravel base installed three years ago. As such, there are no friable or non-friable asbestos building materials presumed on the subject property, no lead paint or lead in water and no Pcb containing fluorescent light fixtures.

A summary of the current regulatory status of asbestos precedes further description as non-friable asbestos is still sold in the United States.

2.2.1 Asbestos

Background - Asbestos is a natural occurring mineral fiber utilized in a multitude of building material products due to its high tensile strength and excellent fire-resistant properties. The *EPA* has defined asbestos materials as being either *friable* or *non-friable* materials. *Friable* material is defined as being easily broken or crushed by hand pressure (e.g., soft acoustical ceilings or blown-on fireproofing).

Non-friable asbestos is generally found in pre-manufactured products that bind the asbestos in an adhesive material, such as roofing felts, floor tile, transite pipe and mastics. This is significant, due to the ability to create a fiber release and cause human exposure during normal activities. The *EPA* currently does not require the removal of asbestos-containing materials that do not present a problem for human exposure. Most *friable* asbestos-containing materials were banned in building materials by 1978.

In October 1995, a new *FED-OSHA* ruling became effective which redefined building materials perceived as asbestos-containing into four classes of work and modified the way in which these asbestos-containing materials are handled.

Under this ruling, "thermal system insulation and sprayed-on or troweled on or otherwise applied surfacing materials" installed before 1980 are considered PACM (presumed asbestos-containing material) unless sampled and identified by a certified individual as to asbestos content. These materials are considered high risk materials for abatement and their removal is classified under Class I removal activities.

Other building materials such as "floor or ceiling tiles, siding, roofing, transite panels [floor sheeting, floor or roof mastics]" are also considered PACM (presumed asbestos-containing material) unless sampled and identified by a certified individual as to asbestos content but are considered low risk materials for abatement and their removal is classified under Class II, III and IV removal and repair and maintenance operations.

Significant under these new regulations is the deletion of the category of "Small-Scale Short-Term Duration" removal activities which regularly allowed Class I, II, III and IV activities to proceed with less regulatory oversight.

In July 1996, *CAL-OSHA* adopted the *FED-OSHA* guidelines as part of California law subject to some of the more stringent requirements pre-existing in California under Prop 65, the Conelly Bill and various other requirements or legislation passed by the California legislature.

Under the *NESHAPS* laws of 1976 and as later amended, asbestos does not have to be removed from a facility until such time as it undergoes major renovations or is demolished. Until that time, the present emphasis by the *EPA* is to recommend repair of any damaged areas and management of the asbestos-containing materials.

Prior to any renovation work being done involving asbestos-containing materials of 260 lineal feet or 160 square feet in area, the local branch of the *EPA* must be notified.

Prior to the demolition of any building or house, mandatory bulk sampling must be accomplished and, if asbestos is present, notification must be made to the local branch of the *EPA* and *Air Quality Management District*.

In California, for the removal of any asbestos-containing materials greater than 0.1% by weight, notifications must also be made to *CAL-OSHA* and a licensed contractor with an asbestos certification is required for any work which exceeds 100 square feet.

2.2.1 Asbestos De Minimis Condition

2.2.1.1 Building Materials Presumed to Contain Friable Asbestos

There are no presumed friable asbestos-containing materials.

2.2.1.2 Building Materials Presumed to Contain Non-Friable Asbestos
There are no presumed friable asbestos-containing materials.

2.2.2 Radon
APNS 377-190-002, 377-190-003, 377-190-004 Lake Elsinore, CA 92530 is in Radon Zone "2" and no Radon Exposure Issues are expected.

2.2.3. Lead Paint
Paint containing more than 0.06% (by weight of dried product) lead was banned for residential use in the United States in 1978 by the U.S. Consumer Product Safety Commission (16 Code of Federal Regulations CFR 1303).

EPA Regulations for maintenance, renovation and handling are contained in 40 CFR 745.225, 40 CFR 745.226, 40 CFR 745.324

There are no buildings and no lead paint.

2.2.4. PCB Poly Chlorinated Bi Phenyl
Pcb was outlawed for use in Transformers and Florescent Light Fixture ballasts in 1978. There are no buildings and no Florescent Light Fixture ballasts with Pcb.

There is no Pcb is expected in transformers supplying the subject property based upon Federal Regulations in 1978 requiring removal of Pcb in transformers within 30 feet of occupied areas.

Discussions with Southern California Edison Company found that all of the pad and pole-mounted transformers in the City of Elsinore had been checked. There is no threat of pcb-containing transformers in the area.

.2.5. Lead In Water
A prohibition on lead in plumbing materials has been in effect since 1986. There are no building improvements and no lead water valves.

2.2.6. Mold
Mold results from rainwater intrusion and from leaking plumbing pipes.

A mold survey was not conducted.

2.2.7 Flood Plain
Panel: 06065C2037G, Effective Date: 8/28/2008
Zone X - Area of minimal flood hazard, usually depicted on FIRMs as above the 500-year flood level.

2.2.8. Wetlands

The subject property is not part of any National Wetlands Inventory, and no Wetlands were noted on the subject property during the site inspection.

2.2.9. Indoor Air Quality - Subjective

Unsatisfactory indoor air quality was not identified via Olfaction (smell) and there is a Pro Active Management Style regarding sanitation. There were no areas identified in this research of concern for Unsatisfactory Indoor Air Quality from chemicals, gases or regulated materials being used on or off site, present from past activities or building construction

2.2.10 Underground Tanks

There is no history of underground tanks on the subject property and no operations requiring underground tanks. No further research was deemed necessary.

2.2.11 Vapor Intrusion

Vapor intrusion is a potential human exposure pathway that people may come into contact with hazardous vapors while performing their day-to-day indoor activities.

Vapor intrusion occurs when vapor-forming chemicals migrate from any subsurface source into an overlying building which can occur in ways similar to that of radon gas seeping into homes.

Vapor screening levels were established in 2009 by the EPA in a Regional Screening Levels (RSLs) Table and are part of CA Codes known as CHHSLs and were last updated in 2020 under the CA Health Environmental Risk program HERO, note 3.

The purpose of the RSLs and CHHSLs was to define levels of soil vapor that could cause cancer in long term human exposure to air in confined spaces where carcinogens can become concentrated. The most significant threat is for residents in single and multi-family housing that may be inside for a period of many years.

2.2.12 Vapor Encroachment Condition

ASTM E2600 - 22 : ASTM defines the term "Vapor Encroachment Condition" - presence or likely presence of "chemical of concern" vapors in the subsurface of the Target Property caused by the release of vapors from contaminated soil or groundwater or both either on or near the Target Property as identified by the Tier 1 or Tier 2 procedure.

The EPA has defined a potential Vapor Encroachment Zone as current or historical vapor sites within 100 feet. A Tier I Vapor Encroachment Screening was performed which did not identify any sources of regulated vapor within 100 feet (VEZ) of the subject property.

3.0 SITE OVERVIEW

3.1 Location

The subject property is north of the intersection of W. Collier Avenue and Minthorn Street and abutting both W. Collier Avenue and Minthorn Street on the north and south sides, respectively. The site is located west of Interstate Freeway 16 and north of Central Avenue in the City of Lake Elsinore, County of Riverside, California.

The land use in the general area is commercial and vacant.

3.2 Adjacent Properties

North is a Flood Control/Stormwater Retention Basin operated by the Riverside County Flood Control and Water Conservation. Next is Rightway Site Services Inc. at 653 W. Minthorn Street, which had a former underground tank leak closed in 1989.

South is Brothers Towing and Steve's Towing then Aggregate Crushing. That site was the Laidlaw site which had an underground tank leak that closed in 1989.

West is W. Minthorn and a construction materials rental yard by Rightway Rentals. Adjoining to the north of Rightway is a monitoring building for the Riverside County Flood Control and Water Conservation.

East is a vacant parcel then the 15 Freeway.

There were no environmentally unsafe emissions or discharges noted from any adjacent properties during the site visit. There was no suspicion of any unsafe emissions or discharges from any of the adjoining or adjacent properties.

3.3 Site Description

The subject property consists of a total of 2.64-acres of vacant commercial land. The subject property is comprised of three undeveloped lots. The subject property is located between Collier Avenue on the northeast and W. Minthorn Street on the southwest, within a commercial and light industrial area.

The surface is covered with crushed aggregate or gravel.

There is a piece of construction equipment on the northeast next to containers with expected construction equipment inside.

There were no significant discolorations to indicate chemical spills. There were no significant stains. There was no indication of current improper storage or handling of hazardous or corrosive materials on the day of the site visit.

4.0 SITE HISTORY AND OPERATIONS

4.1 Building Permit History

There were no buildings or building permits for the subject property.

There was no indication that the subject property was ever a gas station or had underground tanks.

4.2 Operations

Former Operations - The subject property was an agricultural or vacant parcel of land east of the body of water referred to as Lake Elsinore, then a 2.64 parcel of vacant land between Collier Avenue and W. Minthorn Street west of the 15 Freeway adjoining a Flood Control Basin. The property was rough graded in 2021/3 and covered with a layer of rock base also referred to as agragate.

Current Operations

The subject property remains a 2.64 acre parcel of vacant land covered with a rock base and fenced with locking gate on the Collier Avenue side.

4.3 Operational Permits, Manifests and Material Safety Data Sheets

EPA ID Number - An *EPA* ID number is used by a facility to dispose of hazardous chemicals over a certain specified quantity. There have been no known regulated materials used on the subject property and no RCRA or CA EPA numbers.

Hazardous Waste Manifests - Hazardous waste manifests are used to transport regulated hazardous wastes for legal disposal. There are no regulated hazardous materials being generated on-site and disposed of and no manifests.

Air Emissions - According to the *South Coast Air Quality Management District* online service named FIND permits are only issued by address and there are no known addresses or permits.

Safety Data Sheets (SDS) - Safety Data Sheets are required for hazardous materials being used on-site. There are no operations on the subject property which require SDS.

5.0 ENVIRONMENTAL SETTING

5.1 Regional Physiographic

The subject property is at an elevation approximately 1,280 feet above sea level, according to the US Geological Survey. The land around the subject property is composed of flat land with a general slope to the southwest towards Lake Elsinore to the west.

The general area of the subject property is located within the Peninsular Ranges geomorphic province of southern California. The Santa Ana Mountains to the west are separated from the Perris Block to the east by the Elsinore Fault zone. The

subsurface features of the alluvial fans are related to erosion of the surrounding hills and mountains, resulting in the deposition of deep layers of alluvial deposits.

5.2 Soil Conditions

Soil conditions can only be accurately assessed with soil borings which are outside the scope of this report. Based upon the research and lack of known operations on the site soil contamination does not appear to be a concern.

5.3 Groundwater Conditions

There were no tests found of the groundwater directly under the subject property. Hydrogeologically, the site is located in the Elsinore Basin which lies in the valley between the Santa Ana Mountains and the low plateau of the Perris area.

Site-specific groundwater information for the subject property was unavailable. According to State Water Resources Control Board's on-line Geotracker database (www.geotracker.swrcb.ca.gov), the closest LUST site with available online groundwater data was the Raj Ultramar Service Station at 301 N. Main Street, located approximately 0.67-mile southeast of the subject property. This site indicates a reported depth to first groundwater of approximately 22.7 feet below ground surface. The available on-line data also indicates a general north-northwesterly direction of groundwater flow at that site.

The first water is from surface runoff which has percolated through the soil. This water is not used for drinking water.

Groundwater sampling is outside the scope of this investigation.

6.0 RESULTS OF INVESTIGATION

6.1 Site Inspection Observations

The subject property is a flat rough graded parcel covered with crushed aggregate or gravel.

There is a piece of construction equipment on the northeast side with storage containers in the shape of a U and compartments for tools.

There were no current operations, which would be considered a potential problem for the subject property.

The surrounding properties appear to be free of any problems which would be a significant source of migratory contamination to the subject property.

6.2 Regulatory Agency Contacts

6.2.1 Elsinore Valley Municipal Water District

Mr. Julius Ma with the district formerly stated that water supply for the area comes from local deep Elsinore Aquifer groundwater sources during the winter months and is mostly imported from the *MWD* and treated at *Skinner Lake Treatment Plant* during the summer.

This water is chlorinated at the wellhead or treatment plant per State regulation, and it is provided to the water company's customers through a system of pipelines. Mr. Ma stated that all of the water meets State and Federal drinking water standards.

6.2.2 California Department of Conservation, Division of Mines and Geology

The *California Department of Conservation, Division of Mines and Geology*, was contacted regarding the proximity of active earthquake faults. According to Mr. Jerry Tremain, Geologist, the subject property is not part of any special studies zone pursuant to the Alquist-Priolo Earthquake Fault Rupture Hazard Zones Act of 1972, which mandated studies of active faults in California. An active fault zone is described by the *State Mining and Geology Board* as "one which had surface displacement within the Holocene time (about the last 10,000 years)".

6.2.3 California Division of Oil and Gas

A review of the *State of California Division of Oil and Gas* Maps do not indicate that there were ever any oil well surface-drilled into the subject property. (See appendix). There are 3 Geo Thermal Wells for steam within a mile of the subject property. These are of no concern due to the soil and drill muds expected to be non hydrocarbon.

6.2.4 Southern California Edison Company

Southern California Edison supplies electrical power to the area. According to Mr. Barry Guimond, Service Planner, there is no pcb in any of the transformers owned by *Southern California Edison*. He said that they were never specified for the equipment. A check of the transformers has not revealed any pcb in any cooling oils.

6.2.5 City of Lake Elsinore Building Department

There are no building permits for the subject property.

6.2.6 Department of Health Services, State Department of Radon

Mr. David Quinton, Environmental Health Specialist with the *State Department of Radon*, was contacted regarding the presence of radon in the area. He said that the most recent studies done predicted less than 2.4% of homes and less than 0.04% of the schools in the State of California would be over the *EPA's* action level of four picocuries/liter. He stated that this study was performed in existing homes and that there was no effective methodology of correlating soil samples to houses. Mr. Quinton explained that much is dependent upon the soil under a residence and thetype of foundation a house is built upon. Additionally, the standard is based

upon exposure of 18 hours per day for 70 years, which would not correlate to a business exposure. Mr. Quinton said that, with the exception of Madera County in Northern California, the *State of California* has nearly concluded all radon testing in the State and has found that there is little likelihood of a significant radon exposure in California.

Mr. Quinton said that business exposures had not been within the parameters of any of these studies due to the limited time most businesspeople are in one location. He also said that the State does not plan to study businesses based upon the previous studies and that there is no standard for a commercial enterprise being conducted outside of a home.

6.2.7 South Coast Air Quality Management District (SCAQMD)

FIND was researched regarding permits or violations for the subject property. Permits are by address and there are no addresses or permits for the subject property.

6.3 Personal Interviews, Site Records Review

6.3.1 Personal Interviews

Mr. Troy Chislock, Property Representative - Mr. Chislock provided access to the subject property and a copy of the 2021 Phase I Environmental Site Assessment.

6.3.2 Site Records Review

The property is vacant and there were no records regarding regulated materials or operations to review.

6.4 Historical Aerial Photograph & Sanborn Fire Insurance Map Review

A *USGS* topographic map from 1953, and aerial photographs dated 1938, 1953, 1967, 1978, 1986, 1992, 1997, 2002, 2005, 2008. 2014, 2024 from the 2021 Phase I and *Rupp Aerial* formerly in Corona, California and historicaerials.com and with the USGS were reviewed to establish the history of the property.

The photographs, interviews and quadrangle map were specifically examined for evidence of hazardous materials, as well as on and off-site features that may affect the environmental quality of the property. These features include sumps, pits, ponds, lagoons, aboveground tanks, landfills, outside storage of hazardous materials and general land use.

None of the above anomalies were noted to be *on* or within a problematic distance of the subject property in the photographs reviewed regarding the historical significance of adjacent properties.

Sanborn Fire Insurance Maps were not available for this property as it has never been developed and *Sanborn Fire Insurance Maps* were discontinued in 1950. There was a Sanborn Fire Insurance Map for downtown Lake Elsinore first drawn in 1925

and updated in 1933. That map covered and area further southwest than the subject property. (see appendix)

1938 - The subject property is land east of a free flowing stream between a road on the north and a road on the south. There are trees to the north. A road exists further east.

1953 - There are no significant changes to the subject or adjoining properties.

1967 - There are no significant changes to the subject or adjoining properties. There is now a building further south and a highway north.

1978 - This aerial photo is provided with streets drawn in to show San Jacinto to the northwest, the property vacant, Interstate 15 being developed and supporting operations adjacent to the freeway.

1986 - There are no significant changes. Further development is in progress and new buildings further south and northeast. The free flowing stream to the west has now been concrete channelized.

1992 - There are no significant changes to the subject or adjoining properties. The retention basis to the north is being developed. Additional buildings are in area.

1997 – There are no significant changes to the subject or adjoining properties.

2002 - There are no significant changes to the subject or adjoining properties.

2005 - There are no significant changes to the subject or adjoining properties.

2014 - There are no significant changes to the subject or adjoining properties.

2019 – There are no significant changes to the subject or adjoining properties.

2021 - There are no significant changes to the subject or adjoining properties.

2024 - There are no significant changes to the subject or adjoining properties.

A copy of the *USGS* map along with relevant aerial photographs are in the Appendix.

6.5 Synopsis of Previous Environmental Investigations

There was a Phase I performed by SoCal Professional Engineers in 2021 based upon ASTM 1527 – 2013. That "…Assessment identified no obvious evidence of Recognized Environmental Conditions (RECs), Controlled RECs or Historic RECs in connection with the subject property…"

No further investigation was recommended.

6.6 Summary of Government Records Search (Environmental First Search Report)

NOTE: This government records summary is based, in part, on investigating critical or "border zone" properties near the subject property. The *State of California, Department of Health Services* has defined these sites as being within 2,000 feet (or approximately 0.4 mile) of the subject property. Other sites more distant in proximity may be listed but not considered critical and, therefore, not further investigated. For this report, a search of agency listings of properties within one mile was made. Because of the property address and the width of the subject property, some sites will show as being within .1 or .2 miles or the subject property when they are actually on the subject property.

The subject property is not listed.

The following is a summarized form of the detail provided in the Environmental First Search Report in the Appendix.

CATEGORY ONE: NPL, SPL, RCRA-CORRACTS, RCRA-TSD, SWLF, SCL, CERCLIS/NVRAP, TRIBAL LANDS

This category is composed of lists compiled by the *US Environmental Protection Agency* and the *State of California Equivalency* lists. This category includes National Priority List sites, RCRA Corrective Actions by the *EPA* and *USEPA* permitted treatment, storage and disposal facilities within a one-mile radius of the subject property. This includes sites for designation under the Federal SUPERFUND Program, permitted solid waste landfills, incinerator sites or transfer stations and the State Bond Program for sites representing an environmental concern for the discharge of hazardous wastes.

There are no Category One sites listed as being within a one-mile radius of the subject property as of the date of this report.

CATEGORY TWO: (½ mile) **LUST, DEED RSTR, TOXIC PITS, CORTESE**

The sites within this category include sites selected for possible placement on the Federal NPL list or the State risks to human health and the environment. This category also includes leaking underground tank sites from both the *Regional Water Quality Control Board* and the State mandated CORTESE lists of properties with hazardous wastes, sites with DEED restrictions and Toxic Pits Cleanup facilities. Sites within this category are provided in this list within a mile as of the date of this report, with other DEED restrictions and Toxic Pits sites from 1994 and 1995.

There are six Category Two sites listed within one-half mile of the subject property. These sites are closed with the gradient away from the subject property. There are no problems noted. See appendix.

CATEGORY THREE: (1/4 mile) **RCRA VIOL, TRIS, UST/AST**
Sites in this list are the result of RCRA enforcement actions, the Toxic release inventory base and registered aboveground or underground tanks. The databases range from 1994 information for underground tanks to the date of this report for information concerning RCRA actions and registered aboveground storage tanks.

There are no Category Three sites listed within a one-quarter mile radius of the subject property.

CATEGORY FOUR: (1/8 mile) **ERNS, GNRTR**, **SPILLS**
Sites in this category include ERNS, RCRA and State Spill reports.

ERNS - ERNS is a national database retrieval system of Incident-Notification information as initially reported by any party regarding incidents of reported releases of oil and hazardous substances. The information in this report combines data from the *United States Coast Guard National Response Center* data base with data from the 10 *EPA* Regions. ERNS supports the release notification requirements of Section 103 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), as amended; Section 311 of the Clean Water Act; and Sections 300.51 and 300.65 of the National Oil and Hazardous Substances Contingency Plan. This database is current as of the date of this report . There are no ERNS sites listed within a one-eighth mile radius of the subject.

RCRA - Sites which generate regulated hazardous waste above a certain quantity are required to use *EPA* identification numbers and are called RCRA sites. An *EPA* identification number does not indicate a problem with a site, but merely that they use or dispose of a minimum quantity of a hazardous waste. There are nine RCRA sites listed within a one-eighth mile radius of the subject property as of the date of this report. None are close enough to be of concern.

SPILLS - These sites are on the State of California lists as having had spills of regulated hazardous waste as of the date of this report. There are no SPILLS sites listed within a one-eighth mile radius of the subject property.

7.0 DISCUSSION OF INVESTIGATION

Asbestos 1527-05 Section 13.1.5.1 - The site inspection revealed no buildings and no presumed asbestos-containing materials.

Pcb 1527-05 Section 9.4.1.10 - There should not be any pcb in any of the utility transformers on or near the site, according to *Southern California Edison.* There are no fluorescent light fixtures on-site which are suspected of having ballasts that could contain a small quantity of pcb.

Aboveground Storage Tanks 1527-05 - The physical site survey did not evidence the existence of aboveground storage tanks on the subject property.

Underground Storage Tanks 1527-05 Section 9.4.1.3 9.4.1.4 & .5 - The physical site survey and record survey did not evidence current or former underground storage tanks on the subject property.

Air Emissions - There are no regulated air emissions from the subject property.

Water Supplies 1527-05 Section 9.4.1.9 - Discussions with the *Elsinore Valley Municipal Water District* evidenced a potential water supply to the site which meets all of California's drinking water requirements.

Wastewater 1527-05 Section 9.4.1.10 & 9.4.4.7 - Site observations did not evidence any source for illegal disposal of toxic chemicals into the public sanitary sewer system.

Waste Generation, Storage and Disposal 1527-21 Section 9.4.1.4.4 & .5 & .6 & .7 - The physical site survey did not evidence current or former generation of regulated hazardous waste.

Pesticides, Herbicides - There was no current use of herbicides or pesticides noted beyond the normal residential and commercial insect and pest control.

Radon - Radon comes from the natural breakdown (radioactive decay) of uranium. The *Environmental Protection Agency* (*EPA*) estimates that the average soil in the United States contains only about one part per million of uranium. Uranium is found in about 150 minerals including granite, phosphate and shale. Granite is a major concern for the presence of radon, as some deposits have been found to contain extremely high levels of uranium. The area of the subject property does not indicate any large deposits of granite material which would be of concern to test for the presence of radon. Phosphorous is an essential ingredient in chemical fertilizers and comes from phosphate rock. There does not appear to ever have been much fertilizer used around the subject property. According to Mr. David Quinton of the *State Department of Radon*, the chance of radon being a hazard in Southern California is less than 1%.

Lead-Based Paint - Specific testing is required to determine if paint or other materials used in the construction of any building contains significant levels of lead. These tests are not within the scope of work for this report and no investigation for lead content was, or will be, performed unless agreed to by the property owner as an additional service, incurring additional costs. Buildings constructed after 1980 would not be expected to have lead in the paint.

Regulatory Actions - No evidence of regulatory actions on the subject property was found in any of the records checked.

Known Site Problems - There are no known site problems.

Regional or Adjacent Problems - There was no direct evidence of regional or adjacent problems found in the records checked that indicated a conclusive impact on the subject property during any of the time periods reviewed.

8.0 CONCLUSIONS

8.1 Areas of No Apparent Concern

There is no concern for migration of contaminants from off-site sources to the subject property. There is no concern for contamination on the subject property.

8.2 Areas of Further Concern

There are no areas of further concern.

9.0 RECOMMENDATIONS

9.1 Areas of No Action

There are no areas of action recommended.

9.2 Further Investigation

In this Assessors Opinion, there is no need for further investigation.

9.3 Performance Statement 1527-21 12.8.1- We have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E1527 - 21 of APNS 377-190-002, 377-190-003, 377-190-004 Lake Elsinore, CA 92530. Any exceptions to, or deletions from, this practice are described in Section 1 of this report. This assessment has revealed no evidence of a REC Recognized Environmental Concerns or Historical Recognized Environmental Concern (HREC).

10.0 LIMITATIONS

This report is intended to satisfy the requirements of a Phase I Environmental Site Audit as outlined in the ASTM 1527-21 & EPA "All Appropriate Inquiry" November 2006 standards. These are intended to define the scope of due diligence necessary in a real estate transaction to provide for the "innocent buyer's defense" under the SARA amendments to CERCLA.

The findings set forth in this Phase I Environmental Site Assessment are strictly limited in time and scope to the date of evaluation(s). Government records searched are limited to the accuracy of the agency prepared lists. The conclusions presented in the report are based solely on the services described therein and not on scientific tasks or procedures beyond the scope of the agreed upon Phase I Environmental Site Assessment. It is hereby acknowledged that, within the scope of this survey, no level of assessment can ensure the real property is completely free of chemicals or toxic substances.

This public records search was conducted with available Federal, State, County and City agency departments, according to recognized procedures and current availability of records. Conclusions resulting from these searches are solely a result of the same. ***S & S***

Commercial Environmental Services, Inc. assumes no responsibility for events that are not part of these public records.

S&S Commercial Environmental Services, Inc.



Stephen A Quartararo, CEO
Environmental Professional
Title 40, Code of Federal
Regulations CFR Part 312.22

11.0 REFERENCES

11.1 Published References

11.1.1 Environmental First Search Report – October 2024

11.1.2 Aerial Photograph Review -*Rupp Aerial*, USGS http://earth.google.com/ http://www.terraserverusa.com/ Http://historicalaerial.com

11.1.3 Topographic Maps - *USGS*

11.1.4 *DOG* Maps/1992 Munger Map Book Division of Oil & Gas W-106 http://www.conservation.ca.gov/dog/Pages/Index.aspx

11.1.5 Alquist-Priolo Earthquake Fault Rupture Hazard Special Study Zones

11.1.6 California Code of Regulations Title 22 Chapter 30, Regulations for Hazardous Waste Transport and Disposal, *California Highway Patrol*

11.1.7 FEDERAL, 29 CFR, Part 1910.120; 40 CFR Part 761, DOT; 49 CFR Parts 172.516; Toxic Substance Control Act

11.1.8 http://www.lapl.org/ Los Angeles Public Library Sanborn Fire Insurance Map Collection

11.1.9 CAL EPA Envirostor With Links To Regional Water Quality Control Board http://www.envirostor.dtsc.ca.gov/public/

11.1.10 **http://www.epa.gov/swerosps/bf/aai/aai_final_factsheet.htm**
All Appropriate Inquiries Final Rule

WHAT IS "ALL APPROPRIATE INQUIRIES?"
"All appropriate inquiries" is the process of evaluating a property's environmental conditions and assessing potential liability for any contamination.

WHY IS EPA ESTABLISHING STANDARDS FOR CONDUCTING ALL APPROPRIATE INQUIRIES?
The 2002 Brownfields Amendments to CERCLA require EPA to promulgate regulations establishing standards and practices for conducting all appropriate inquiries.

11.1.11 Internet Research http://www.google.com

11.2 Record of Personal Communications

11.2.1 *Elsinore Valley Municipal Water District*	October 2024
Mr. Julius Ma	(909)674-3146
11.2.2 *California Division of Mines and Geology*	October 2024
Mr. Jerry Tremain, Geologist	(213)620-3560
11.2.3 *California Division of Oil and Gas*	October 2024
Cerritos Office	(714)816-6847

11.2 Record of Personal Communications (cont.)

11.2.4	*Southern California Edison Company* Mr. Barry Guimond, Service Planner	October 2024 (310)481-8801
11.2.5	*South Coast Air Quality Management District* http://www.aqmd.gov/webappl/fim/default.htm	November 2022 (909)396-2900
11.2.6	*State Department of Radon* Mr. David Quinton, Environmental Health Specialist	February 1999 (916)324-2308
11.2.7	*Lake Elsinore Building Department*	October 2024 (951)674-3124

12.0 APPENDIX

12.1 Site Location Map

12.2 Historical Aerial Photographs

12.3 USGS Topographic Map of Site

12.4 Environmental Features

12.5 Building Permits

12.6 DTSC Envirostor Map and Geotracker

12.7 DOGGR Section

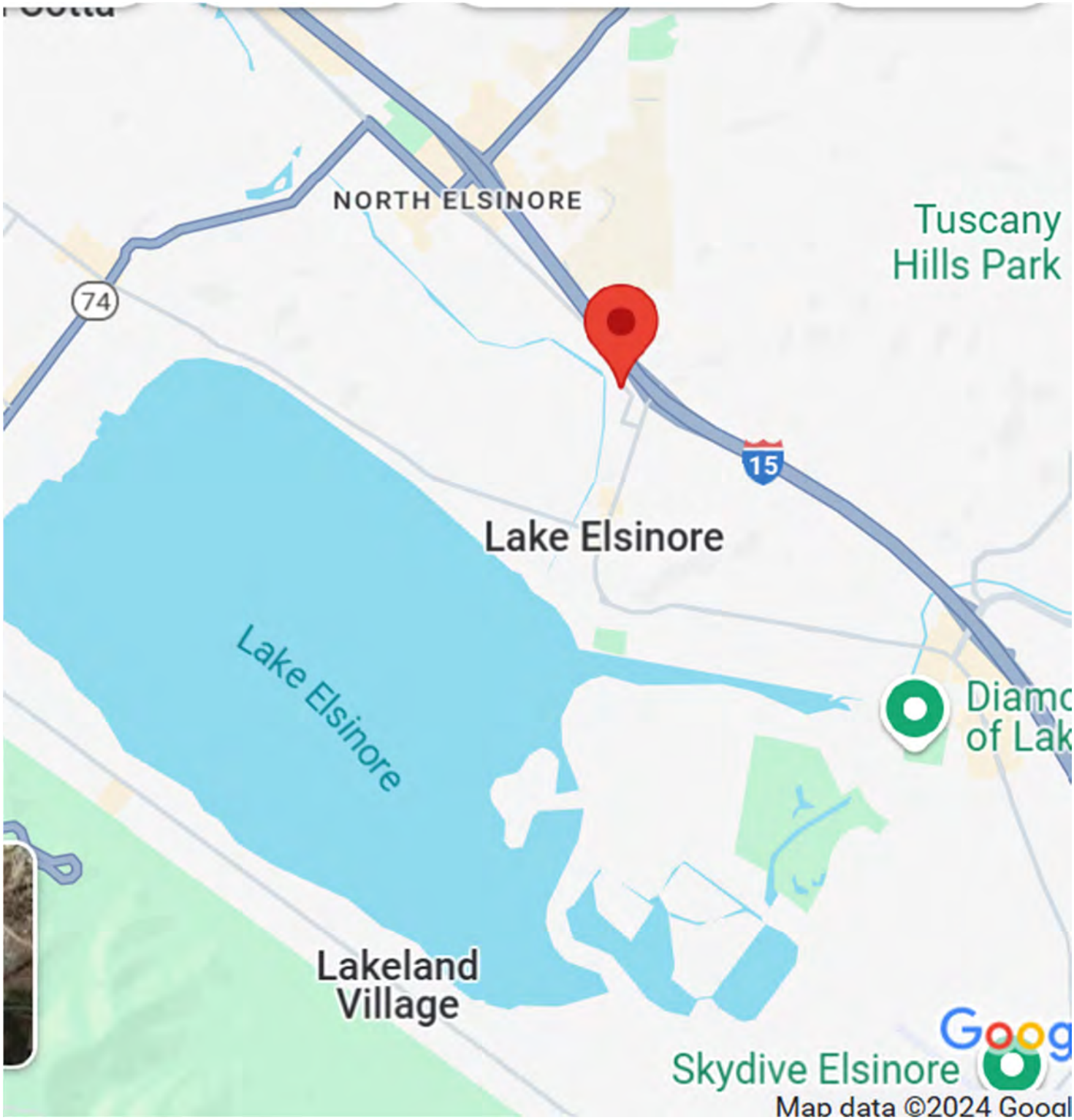
12.8 Letter from Magnetek

12.9 Certification

12.10 Resume

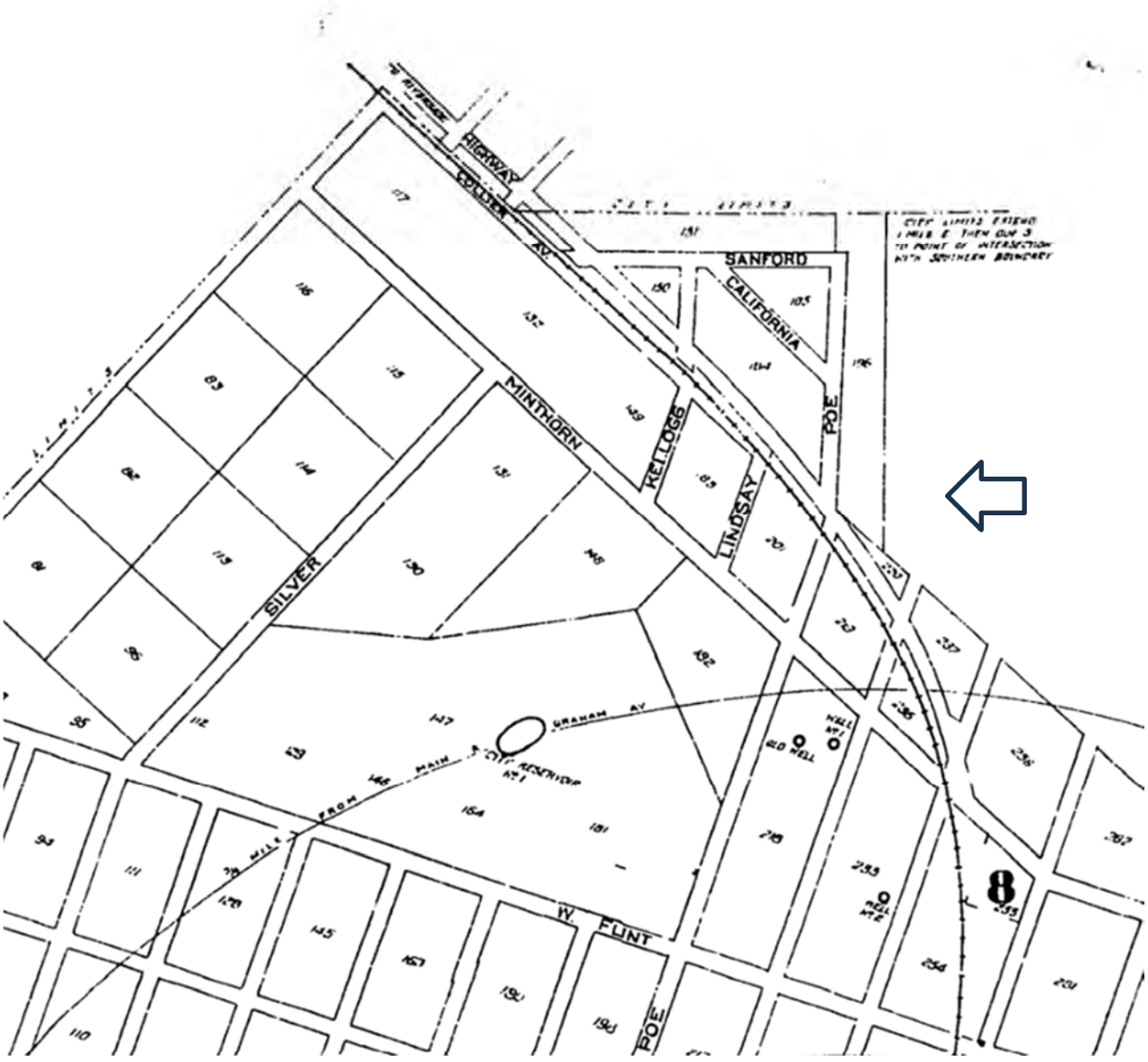
12.11 Environmental First Search Report

12.1 Site Location Map


NORTH ELSINORE
Tuscany
Hills Park
74
15
Lake Elsinore
Lake Elsinore
Lakeland
Village
Skydive Elsinore
Map data ©2024 Google

12.2 Historical Aerial Photographs

Sanborn Map 1933

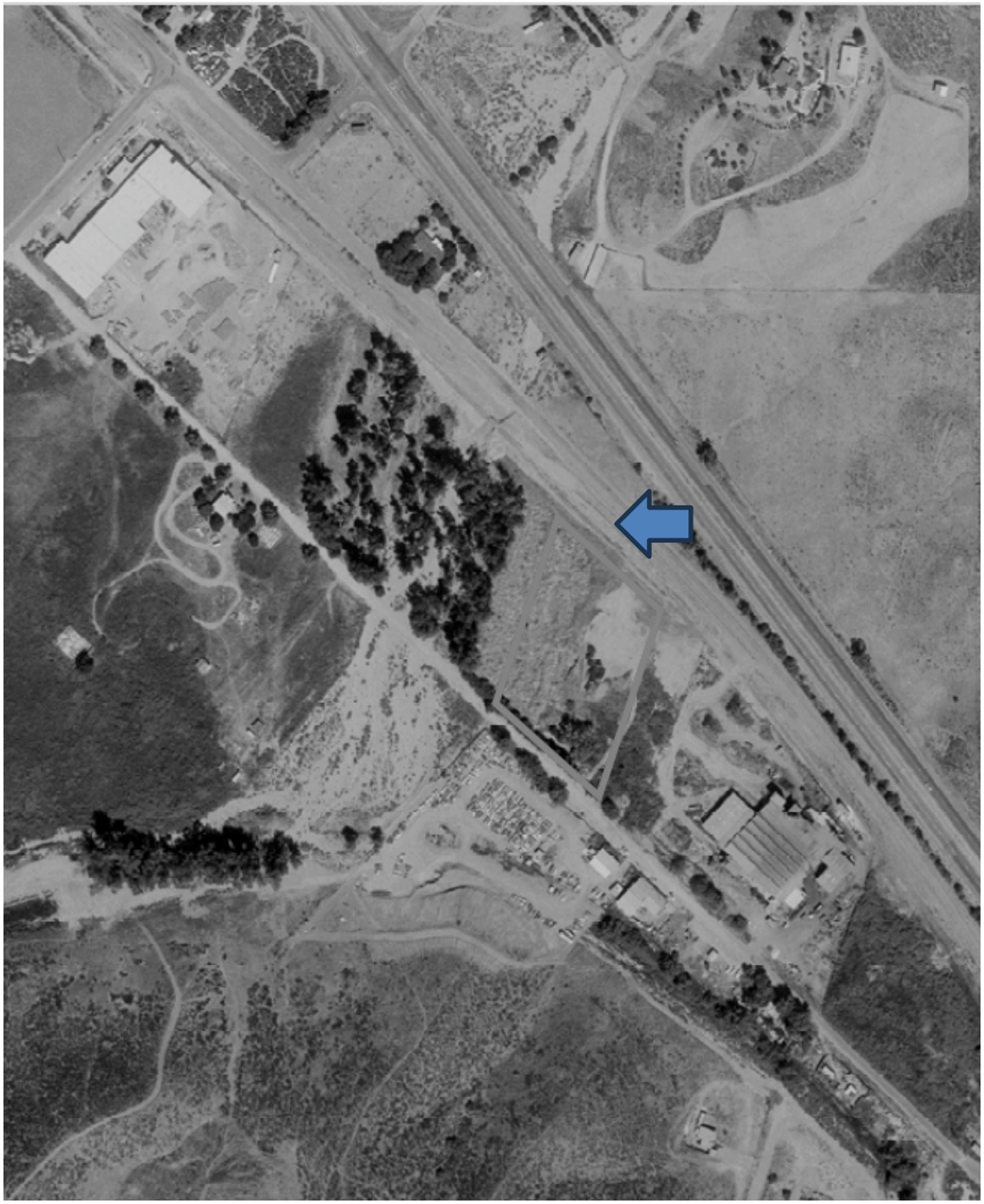




1938



1953



1967



1978



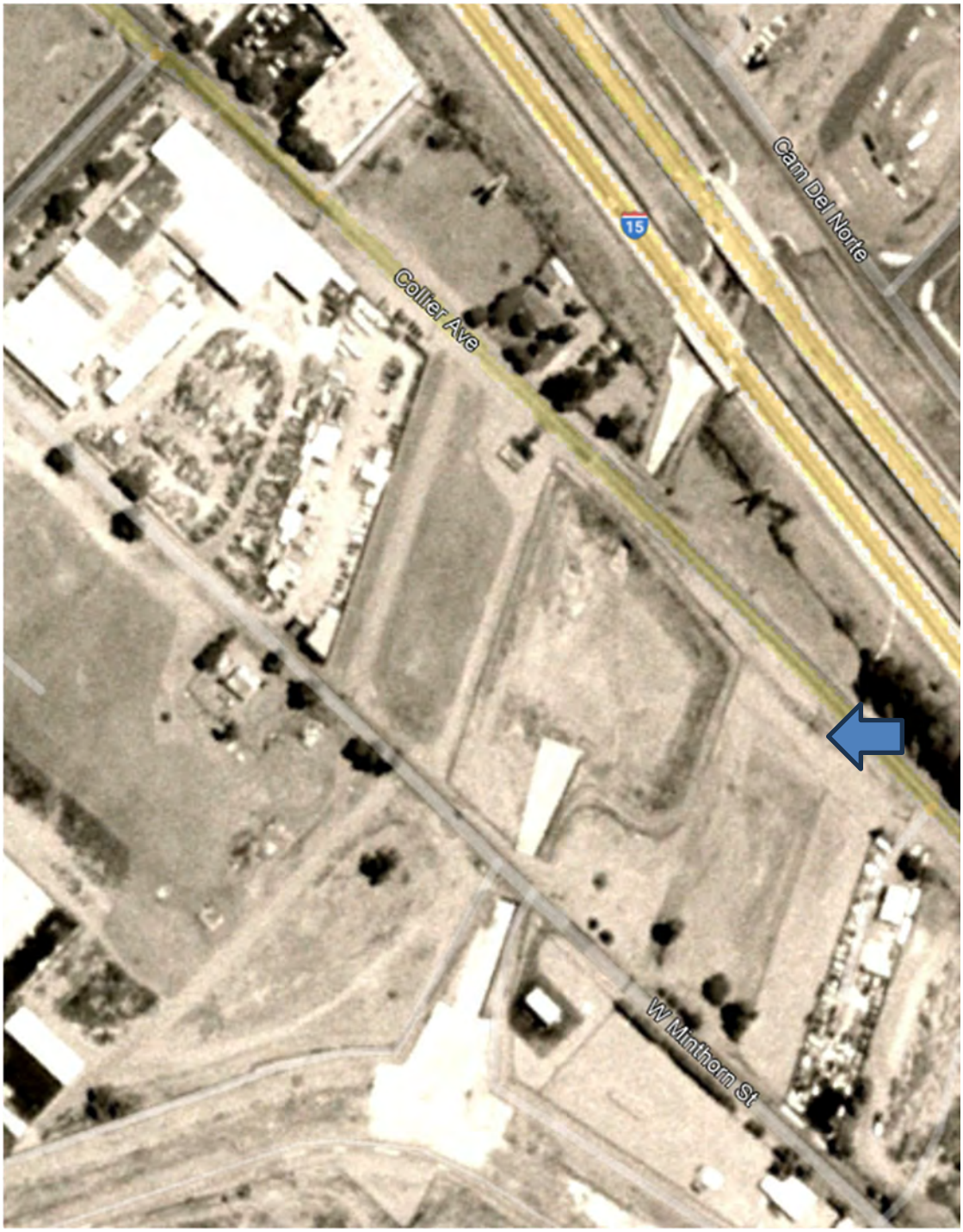
1986



1992



1997



2002


Cam Del Norte
Ohana Cir
15
Collier Ave
Collier Ave
W Minthorn St

2005



2014



2019 East To West


Chaney St
Collier Ave
15
Cam Del Norte
Ohana Cir
Collier Ave
W Minthorn St

2021


15
Collier Ave
Collier Ave
Chaney St
Cam Del Norte
W Minthorn St
Collier Ave

2024

12.3 USGS Topographic Map of Site



7.5 Minute Topographic Map Section Elsinore

12.4 Environmental Features



Construction Equipment and Container Storage



East To West



February 2023



February 2023



East



West



North Flood Control



South Towing Services

12.5 Building Permits

THIS MAP WAS PREPARED FOR ASSESSMENT PURPOSES ONLY. NO LIABILITY IS ASSUMED FOR THE ACCURACY OF THE DATA SHOWN. ASSESSOR'S PARCEL MAY NOT COMPLY WITH LOCAL LOT-SPLIT OR BUILDING SITE ORDINANCES.

JUN 11 2005

SEC.6 T.6S.,R.4W
CITY OF LAKE ELSINORE

T.R.A. 005-017

377-19

17-9
17-10

1" ANGLE = 100'

COLLIER AVENUE

A.T. & S.F. R/R

12 PU SBE 804-33-33 PAR 3 MRO

L=71.39
134.70
409.85
H.R.E.
W.S.R.
45'ISH
SUB-0.52E
1.72 AC.
2.96 AC.
54.40
54.40
373.27
189.28
N46-17-38W
30
50
60
14.20
(UNDAY STREET VACATED)
(POE STREET VACATED)

MINTHORN STREET

ASSESSOR'S MAP BK377 PG.19
Riverside County, Calif.

MB 8/378 S.D. HEALD'S RESUB. ELSINORE
MB 10/492 S.D. WALL & STARBIRD'S RESUB.

Jun 2005

DATE	OLD NUMBER	NEW NUMBER
02/79	908	9
05/82	7	10
05/82	9	11
04/86	ADD/ASMNT	12
10/04	10	13
10/04	ADD/ASMNT	14
10/04	6,14	15
06/05	11	ST



Property Profile

Property Data

Site Address:

, CA
Mail Address:
43 GOLF VIEW DR
TRABUCO CANYON, CA 92679-3802
Primary Owner (s):
COLLIER COMMERICAL PROPERTIES

APN: 377-190-002
Census Tract:
Housing Tract Number:
Legal Block/Lot: LOT:26 BLOCK:90
Legal Description: LOT 26 BLK 90 MB 008/378 SD HEALDS RESUB
Subdivision: HEALDS RESUB
Property County RIVERSIDE COUNTY
Vesting:

Property Characteristics

Bedrooms: 0
Baths (F/H): 0 / 0
Total Rooms: 0
Zoning: M1
Number of Stories:

Year Built:
Use Code: COMMERCIAL LOT
Number of Units:
Building Style:

SQFT:
Lot Size: 38333
Garage: ()
Coords: 33.681922, -117.330491

Sale & Loan Information

Transfer Date: 5/28/2021
Transfer Value: $975,000.00
First Loan Amt: $0.00

Seller: MILLER JOHNNY AL
Cost/Sq Feet: $0.00
Lender:

Document: 2021.328778
Title Company: TICOR TITLE COMPANY

Assessed & Tax Information

Assessed Value: $350,198.00
Land Value: $350,198.00
Improvement Value: $0.00

Percent Improvement: %
Tax Amount: $3,637.52
Delinquent Year:

Homeowner Exemption:
Tax Rate Area: 005-017
Tax Year: 2024



Property History

, CA
APN: 377-190-002

Item 1 - Transaction Date: 5/28/2021

SALE

Buyer/Borrower: Collier Commerical Properties Llc
Seller: Miller Johnny Al
Title Company TICOR TITLE COMPANY
Transaction Value $975,000.00
Transaction Type: SALE
Deed Type: Deed Transfer
Document Number: 2021.328778 View Doc

Item 2 - Transaction Date: 5/28/2021

SALE

Buyer/Borrower: Miller Johnny Al
Seller: Miller Spring
Title Company TICOR TITLE COMPANY
Transaction Value $0.00
Transaction Type: SALE
Deed Type: Deed Transfer
Document Number: 2021.328777 View Doc

Item 3 - Transaction Date: 8/21/2012

SALE

Buyer/Borrower: Miller Johnny A
Seller: First Citizens Bk & Trust Co
Title Company CHICAGO TITLE CO.
Transaction Value $130,000.00
Transaction Type: SALE
Deed Type: Deed Transfer
Document Number: 2012.397216 View Doc

Item 4 - Transaction Date: 7/8/2010

ASSIGNMENT

Buyer/Borrower:
Seller:
Title Company
Transaction Value $0.00
Transaction Type: ASSIGNMENT
Deed Type: Assignment
Document Number: 2010.321287 View Doc

Item 5 - Transaction Date: 6/23/2010

SALE

Buyer/Borrower: First Citizens Bk & Trust
Seller: Fidelity Natl Default
Title Company FIDELITY NATIONAL TITLE
Transaction Value $422,000.00
Transaction Type: SALE
Deed Type: Deed Transfer
Document Number: 2010.288280 View Doc

Item 6 - Transaction Date: 5/27/2010

FORECLOSURE

Buyer/Borrower:
Seller:
Title Company
Transaction Value $0.00
Transaction Type: FORECLOSURE
Deed Type: Notice Of Trustee Sale
Document Number: 2010.245759 View Doc



Notice Of Trustee Sale

Item 7 - Transaction Date: 2/25/2010

FORECLOSURE

Buyer/Borrower:
Seller:
Title Company
Transaction Value $0.00
Transaction Type: FORECLOSURE
Deed Type: Notice Of Default
Document Number: 2010.86149 View Doc



Notice Of Default

Item 8 - Transaction Date: 11/10/2008

RELEASE

Buyer/Borrower:
Seller:
Title Company
Transaction Value $0.00
Transaction Type: RELEASE
Deed Type: SUBST OF TRUSTEE / RECONVEYANCE
Document Number: 2008.595348 View Doc

Item 9 - Transaction Date: 9/26/2008

REFINANCE

Buyer/Borrower: Elsinore West Llc
Seller:
Title Company
Transaction Value $550,000.00
Transaction Type: FINANCE
Deed Type: Trust Deed/Mortgage
Document Number: 2008.527044 View Doc

MORTGAGE RECORD

Lender: TEMECULA VALLEY BANK NA
Loan Type: CONVENTIONAL
Interest Rate Type: VAR
Finance Type: REFINANCE

Item 10 - Transaction Date: 10/18/2007

RELEASE

Buyer/Borrower:
Seller:
Title Company
Transaction Value $0.00
Transaction Type: RELEASE
Deed Type: SUBST OF TRUSTEE / RECONVEYANCE
Document Number: 2007.644217 View Doc

Item 11 - Transaction Date: 8/20/2007

REFINANCE

Buyer/Borrower: Elsinore West Llc
Seller:
Title Company
Transaction Value $550,000.00
Transaction Type: FINANCE
Deed Type: Trust Deed/Mortgage
Document Number: 2007.535687 View Doc

MORTGAGE RECORD

Lender: TEMECULA VALLEY BANK NA
Loan Type: CONVENTIONAL
Interest Rate Type: VAR
Finance Type: REFINANCE

Item 12 - Transaction Date: 7/17/2007

SALE

Buyer/Borrower: Elsinore West Llc
Seller: Quirk Family Trust
Title Company
Transaction Value $1,550,000.00
Transaction Type: SALE
Deed Type: Deed Transfer
Document Number: 2007.463006 View Doc

Item 13 - Transaction Date: 7/3/2006

SALE

Buyer/Borrower: Elsinore West Llc
Seller: Elsinore Vly Municipal Water D
Title Company
Transaction Value $0.00
Transaction Type: SALE
Deed Type: Deed Transfer
Document Number: 2006.481146 View Doc

Item 14 - Transaction Date: 1/13/2006

REFINANCE

Buyer/Borrower: Elsinore West Llc
Seller:
Title Company
Transaction Value $150,000.00
Transaction Type: FINANCE
Deed Type: Trust Deed/Mortgage
Document Number: 2006.33274 View Doc

MORTGAGE RECORD

Lender: TEMECULA VALLEY BANK NA
Loan Type: CONVENTIONAL
Interest Rate Type: VAR
Finance Type: REFINANCE

Item 15 - Transaction Date: 10/31/2005

SALE

Buyer/Borrower: Elsinore West Llc
Seller: Quirk Family Trust
Title Company
Transaction Value $1,550,000.00
Transaction Type: SALE
Deed Type: Deed Transfer
Document Number: 2005.901205 View Doc

Item 16 - Transaction Date: 9/30/2005

SALE

Buyer/Borrower: Quirk Family Trust
Seller: Lafornara,Chris
Title Company FIDELITY NATIONAL TITLE
Transaction Value $1,000,000.00
Transaction Type: SALE
Deed Type: Deed Transfer
Document Number: 2005.810903 View Doc

Item 17 - Transaction Date: 9/30/2005

SALE

Buyer/Borrower: Lafornara,Chris
Seller: Lake Elsinore Collier Indl
Title Company FIDELITY NATIONAL TITLE
Transaction Value $0.00
Transaction Type: SALE
Deed Type: Deed Transfer
Document Number: 2005.810902 View Doc

Item 18 - Transaction Date: 8/3/2005

SALE

Buyer/Borrower: Lake Elsinore Collier Indl Co
Seller: Lafornara,Chris
Title Company
Transaction Value $0.00
Transaction Type: SALE
Deed Type: Deed Transfer
Document Number: 2005.625252 View Doc

Item 19 - Transaction Date: 11/30/2001

SALE

Buyer/Borrower: Morris,Gary & Elena
Seller: Rios,Martin & Christine
Title Company STEWART TITLE
Transaction Value $125,000.00
Transaction Type: SALE
Deed Type: Deed Transfer
Document Number: 2001.591223 View Doc

Item 20 - Transaction Date: 8/11/1997

SALE

Buyer/Borrower: Eastn Muni Wtr Dist
Seller: Rios,Martin Etal
Title Company UNKNOWN
Transaction Value $0.00
Transaction Type: SALE
Deed Type: Deed Transfer
Document Number: 1997.283899 View Doc

Item 21 - Transaction Date: 1/24/1996

SALE

Buyer/Borrower: Rios,Martin & Christine
Seller: Hardcastle,Jack E & Corinne M
Title Company
Transaction Value $22,000.00
Transaction Type: SALE
Deed Type: Deed Transfer
Document Number: 1996.27331 View Doc



Property Profile

Property Data

Site Address:

, CA
Mail Address:
43 GOLF VIEW DR
TRABUCO CANYON, CA 92679-3802
Primary Owner (s):
COLLIER COMMERICAL PROPERTIES

APN: 377-190-003
Census Tract:
Housing Tract Number:
Legal Block/Lot: LOT:25 BLOCK:90
Legal Description: LOT 25 BLK 90 MB 008/378 SD HEALDS RESUB
Subdivision: HEALDS RESUB
Property County RIVERSIDE COUNTY
Vesting:

Property Characteristics

Bedrooms: 0
Baths (F/H): 0 / 0
Total Rooms: 0
Zoning: M1
Number of Stories:

Year Built:
Use Code: COMMERCIAL LOT
Number of Units:
Building Style:

SQFT:
Lot Size: 38333
Garage: ()
Coords: 33.681735, -117.330251

Sale & Loan Information

Transfer Date: 5/28/2021
Transfer Value: $975,000.00
First Loan Amt: $0.00

Seller: MILLER JOHNNY AL
Cost/Sq Feet: $0.00
Lender:

Document: 2021.328778
Title Company: TICOR TITLE COMPANY

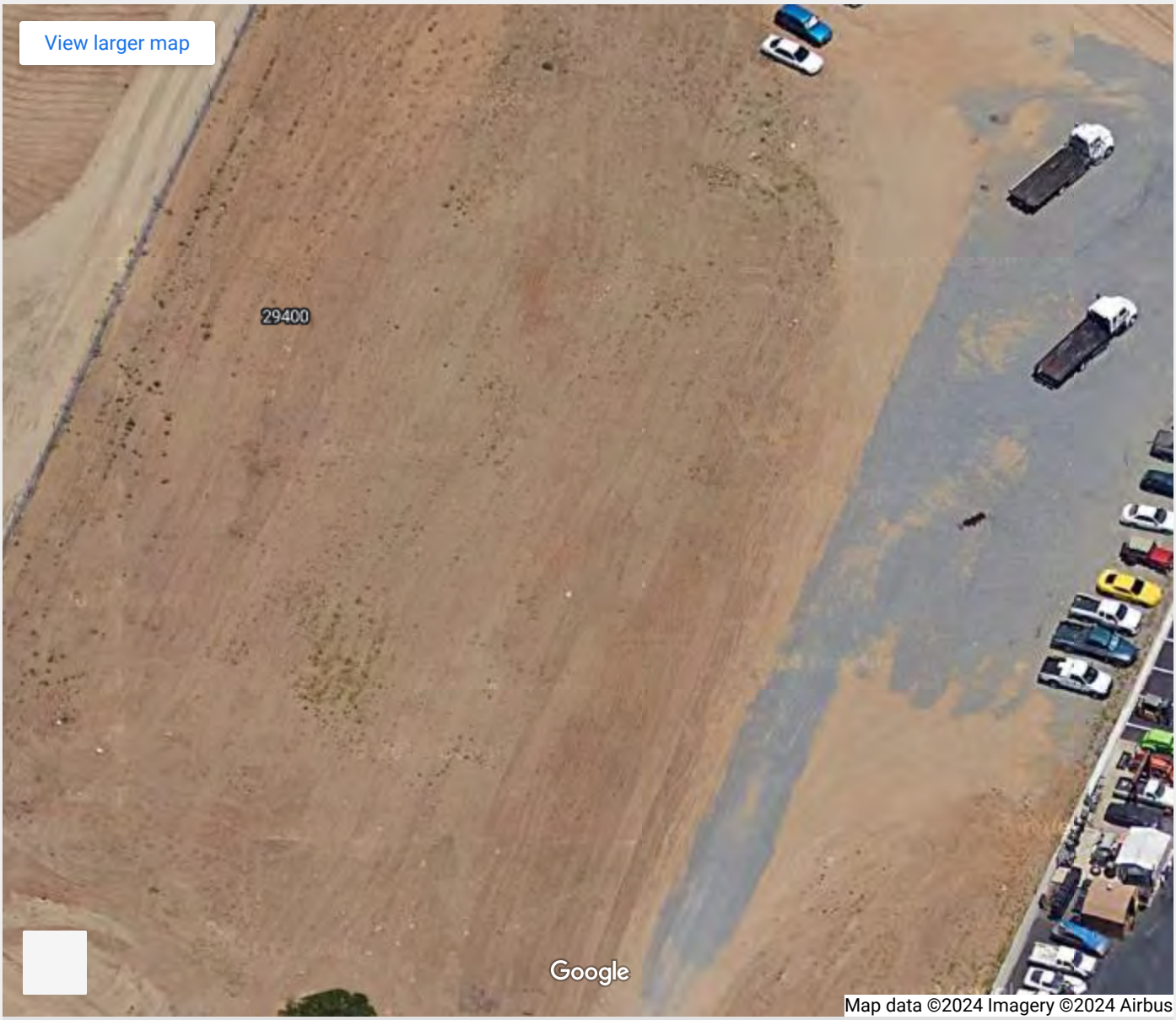
Assessed & Tax Information

Assessed Value: $350,198.00
Land Value: $350,198.00
Improvement Value: $0.00

Percent Improvement: %
Tax Amount: $3,637.52
Delinquent Year:

Homeowner Exemption:
Tax Rate Area: 005-017
Tax Year: 2024

Aerial Map


View larger map
29400
Google
Map data ©2024 Imagery ©2024 Airbus

Street View





Property History

, CA
APN: 377-190-003

Item 1 - Transaction Date: 5/28/2021

SALE

Buyer/Borrower: Collier Commerical Properties Llc
Seller: Miller Johnny Al
Title Company TICOR TITLE COMPANY
Transaction Value $975,000.00
Transaction Type: SALE
Deed Type: Deed Transfer
Document Number: 2021.328778 View Doc

Item 2 - Transaction Date: 5/28/2021

SALE

Buyer/Borrower: Miller Johnny Al
Seller: Miller Spring
Title Company TICOR TITLE COMPANY
Transaction Value $0.00
Transaction Type: SALE
Deed Type: Deed Transfer
Document Number: 2021.328777 View Doc

Item 3 - Transaction Date: 7/8/2010

ASSIGNMENT

Buyer/Borrower:
Seller:
Title Company
Transaction Value $0.00
Transaction Type: ASSIGNMENT
Deed Type: Assignment
Document Number: 2010.321287 View Doc

Item 4 - Transaction Date: 6/23/2010

SALE

Buyer/Borrower: First Citizens Bk & Trust
Seller: Fidelity Natl Default
Title Company FIDELITY NATIONAL TITLE
Transaction Value $422,000.00
Transaction Type: SALE
Deed Type: Deed Transfer
Document Number: 2010.288280 View Doc

Item 5 - Transaction Date: 5/27/2010

FORECLOSURE

Buyer/Borrower:
Seller:
Title Company
Transaction Value $0.00
Transaction Type: FORECLOSURE
Deed Type: Notice Of Trustee Sale
Document Number: 2010.245759 View Doc



Notice Of Trustee Sale

Item 6 - Transaction Date: 2/25/2010

FORECLOSURE

Buyer/Borrower:
Seller:
Title Company
Transaction Value $0.00
Transaction Type: FORECLOSURE
Deed Type: Notice Of Default
Document Number: 2010.86149 View Doc



Notice Of Default

Item 7 - Transaction Date: 9/26/2008

REFINANCE

Buyer/Borrower: Elsinore West Llc
Seller:
Title Company
Transaction Value $550,000.00
Transaction Type: FINANCE
Deed Type: Trust Deed/Mortgage
Document Number: 2008.527044 View Doc

MORTGAGE RECORD

Lender: TEMECULA VALLEY BANK NA
Loan Type: CONVENTIONAL
Interest Rate Type: VAR
Finance Type: REFINANCE

Item 8 - Transaction Date: 7/17/2007

SALE

Buyer/Borrower: Elsinore West Llc
Seller: Quirk Family Trust
Title Company
Transaction Value $1,550,000.00
Transaction Type: SALE
Deed Type: Deed Transfer
Document Number: 2007.463006 View Doc

Item 9 - Transaction Date: 10/31/2005

SALE

Buyer/Borrower: Elsinore West Llc
Seller: Quirk Family Trust
Title Company
Transaction Value $1,550,000.00
Transaction Type: SALE
Deed Type: Deed Transfer
Document Number: 2005.901205 View Doc

Item 10 - Transaction Date: 9/30/2005

SALE

Buyer/Borrower: Quirk Family Trust
Seller: Lafornara,Chris
Title Company FIDELITY NATIONAL TITLE
Transaction Value $1,000,000.00
Transaction Type: SALE
Deed Type: Deed Transfer
Document Number: 2005.810903 View Doc

Item 11 - Transaction Date: 9/30/2005

SALE

Buyer/Borrower: Lafornara,Chris
Seller: Lake Elsinore Collier Indl
Title Company FIDELITY NATIONAL TITLE
Transaction Value $0.00
Transaction Type: SALE
Deed Type: Deed Transfer
Document Number: 2005.810902 View Doc

Item 12 - Transaction Date: 8/3/2005

SALE

Buyer/Borrower: Lake Elsinore Collier Indl Co
Seller: Lafornara,Chris
Title Company
Transaction Value $0.00
Transaction Type: SALE
Deed Type: Deed Transfer
Document Number: 2005.625252 View Doc

Item 13 - Transaction Date: 3/26/2004

SALE

Buyer/Borrower: Lafornara,Chris
Seller: Morris,Gary & Elena
Title Company STEWART TITLE
Transaction Value $410,000.00
Transaction Type: SALE
Deed Type: Deed Transfer
Document Number: 2004.212181 View Doc

Item 14 - Transaction Date: 11/30/2001

SALE

Buyer/Borrower: Morris,Gary & Elena
Seller: Rios,Martin & Christine
Title Company STEWART TITLE
Transaction Value $125,000.00
Transaction Type: SALE
Deed Type: Deed Transfer
Document Number: 2001.591223 View Doc

Item 15 - Transaction Date: 1/24/1996

SALE

Buyer/Borrower: Rios,Martin & Christine
Seller: Hardcastle,Jack E & Corinne M
Title Company
Transaction Value $22,000.00
Transaction Type: SALE
Deed Type: Deed Transfer
Document Number: 1996.27331 View Doc

Item 16 - Transaction Date: 3/1/1990

SALE

Buyer/Borrower: Gilson H Henry &
Seller: Hardcastle Jack
Title Company QUALITY TITLE
Transaction Value: $300,000.00
Transaction Type: SALE
Deed Type: Deed Transfer
Document Number: 1990.109557

MORTGAGE RECORD

Lender: HARDCASTLE JACK
Finance Type: RESALE
Loan Type: CONVENTIONAL
Interest Rate Type:
Document Number: View Doc



Property Profile

Property Data

Site Address:

, CA
Mail Address:
43 GOLF VIEW DR
TRABUCO CANYON, CA 92679-3802
Primary Owner (s):
COLLIER COMMERICAL PROPERTIES

APN: 377-190-004
Census Tract:
Housing Tract Number:
Legal Block/Lot: LOT:24 BLOCK:90
Legal Description: LOT 24 BLK 90 MB 008/378 SD HEALDS RESUB
Subdivision: HEALDS RESUB
Property County RIVERSIDE COUNTY
Vesting:

Property Characteristics

Bedrooms: 0
Baths (F/H): 0 / 0
Total Rooms: 0
Zoning: M1
Number of Stories:

Year Built:
Use Code: COMMERCIAL LOT
Number of Units:
Building Style:

SQFT:
Lot Size: 38333
Garage: ()
Coords: 33.681547, -117.330011

Sale & Loan Information

Transfer Date: 5/28/2021
Transfer Value: $975,000.00
First Loan Amt: $0.00

Seller: MILLER JOHNNY AL
Cost/Sq Feet: $0.00
Lender:

Document: 2021.328778
Title Company: TICOR TITLE COMPANY

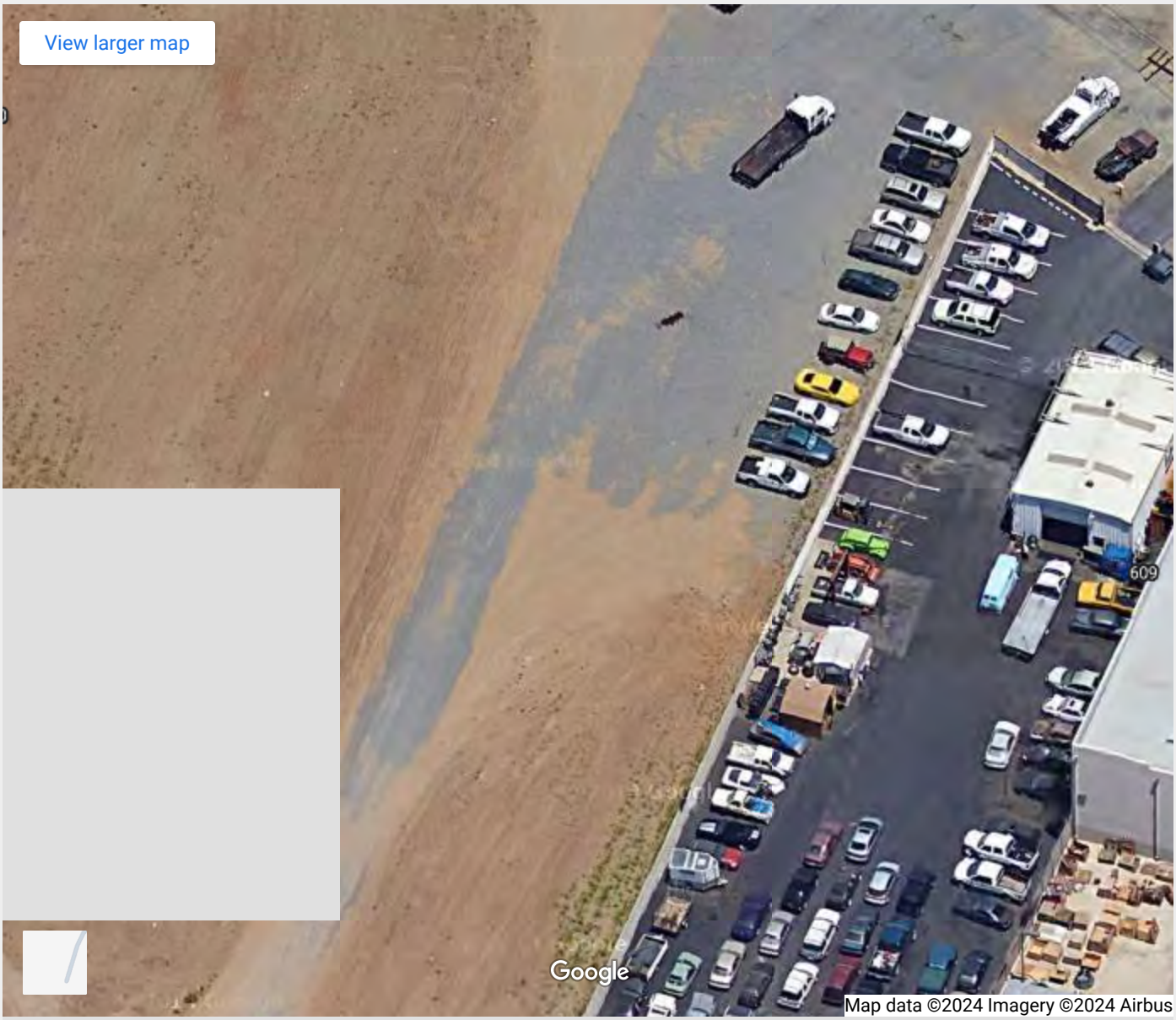
Assessed & Tax Information

Assessed Value: $334,280.00
Land Value: $334,280.00
Improvement Value: $0.00

Percent Improvement: %
Tax Amount: $3,473.76
Delinquent Year:

Homeowner Exemption:
Tax Rate Area: 005-017
Tax Year: 2024

Aerial Map


View larger map
609
Google
Map data ©2024 Imagery ©2024 Airbus



Street View





Property History

, CA
APN: 377-190-004

Item 1 - Transaction Date: 5/28/2021

SALE

Buyer/Borrower: Collier Commerical Properties Llc
Seller: Miller Johnny Al
Title Company TICOR TITLE COMPANY
Transaction Value $975,000.00
Transaction Type: SALE
Deed Type: Deed Transfer
Document Number: 2021.328778 View Doc

Item 2 - Transaction Date: 5/28/2021

SALE

Buyer/Borrower: Miller Johnny Al
Seller: Miller Spring
Title Company TICOR TITLE COMPANY
Transaction Value $0.00
Transaction Type: SALE
Deed Type: Deed Transfer
Document Number: 2021.328777 View Doc

Item 3 - Transaction Date: 7/8/2010

ASSIGNMENT

Buyer/Borrower:
Seller:
Title Company
Transaction Value $0.00
Transaction Type: ASSIGNMENT
Deed Type: Assignment
Document Number: 2010.321287 View Doc

Item 4 - Transaction Date: 6/23/2010

SALE

Buyer/Borrower: First Citizens Bk & Trust
Seller: Fidelity Natl Default
Title Company FIDELITY NATIONAL TITLE
Transaction Value $422,000.00
Transaction Type: SALE
Deed Type: Deed Transfer
Document Number: 2010.288280 View Doc

Item 5 - Transaction Date: 5/27/2010

FORECLOSURE

Buyer/Borrower:
Seller:
Title Company
Transaction Value $0.00
Transaction Type: FORECLOSURE
Deed Type: Notice Of Trustee Sale
Document Number: 2010.245759 View Doc



Notice Of Trustee Sale

Item 6 - Transaction Date: 2/25/2010

FORECLOSURE

Buyer/Borrower:
Seller:
Title Company
Transaction Value $0.00
Transaction Type: FORECLOSURE
Deed Type: Notice Of Default
Document Number: 2010.86149 View Doc



Notice Of Default

Item 7 - Transaction Date: 9/26/2008

REFINANCE

Buyer/Borrower: Elsinore West Llc
Seller:
Title Company
Transaction Value $550,000.00
Transaction Type: FINANCE
Deed Type: Trust Deed/Mortgage
Document Number: 2008.527044 View Doc

MORTGAGE RECORD

Lender: TEMECULA VALLEY BANK NA
Loan Type: CONVENTIONAL
Interest Rate Type: VAR
Finance Type: REFINANCE

Item 8 - Transaction Date: 7/17/2007

SALE

Buyer/Borrower: Elsinore West Llc
Seller: Quirk Family Trust
Title Company
Transaction Value $1,550,000.00
Transaction Type: SALE
Deed Type: Deed Transfer
Document Number: 2007.463006 View Doc

Item 9 - Transaction Date: 10/31/2005

SALE

Buyer/Borrower: Elsinore West Llc
Seller: Quirk Family Trust
Title Company
Transaction Value $1,550,000.00
Transaction Type: SALE
Deed Type: Deed Transfer
Document Number: 2005.901205 View Doc

Item 10 - Transaction Date: 7/21/2005

SALE

Buyer/Borrower: Quirk Family Trust
Seller: Carson Robert & S Trust
Title Company FIDELITY NATIONAL TITLE
Transaction Value $550,000.00
Transaction Type: SALE
Deed Type: Deed Transfer
Document Number: 2005.584328 View Doc

Item 11 - Transaction Date: 10/15/2004

SALE

Buyer/Borrower: Quality Fence Co Inc
Seller: Jackson,Floyd B & Anna K
Title Company STEWART TITLE
Transaction Value $0.00
Transaction Type: SALE
Deed Type: Deed Transfer
Document Number: 2004.820899 View Doc

Item 12 - Transaction Date: 4/19/2002

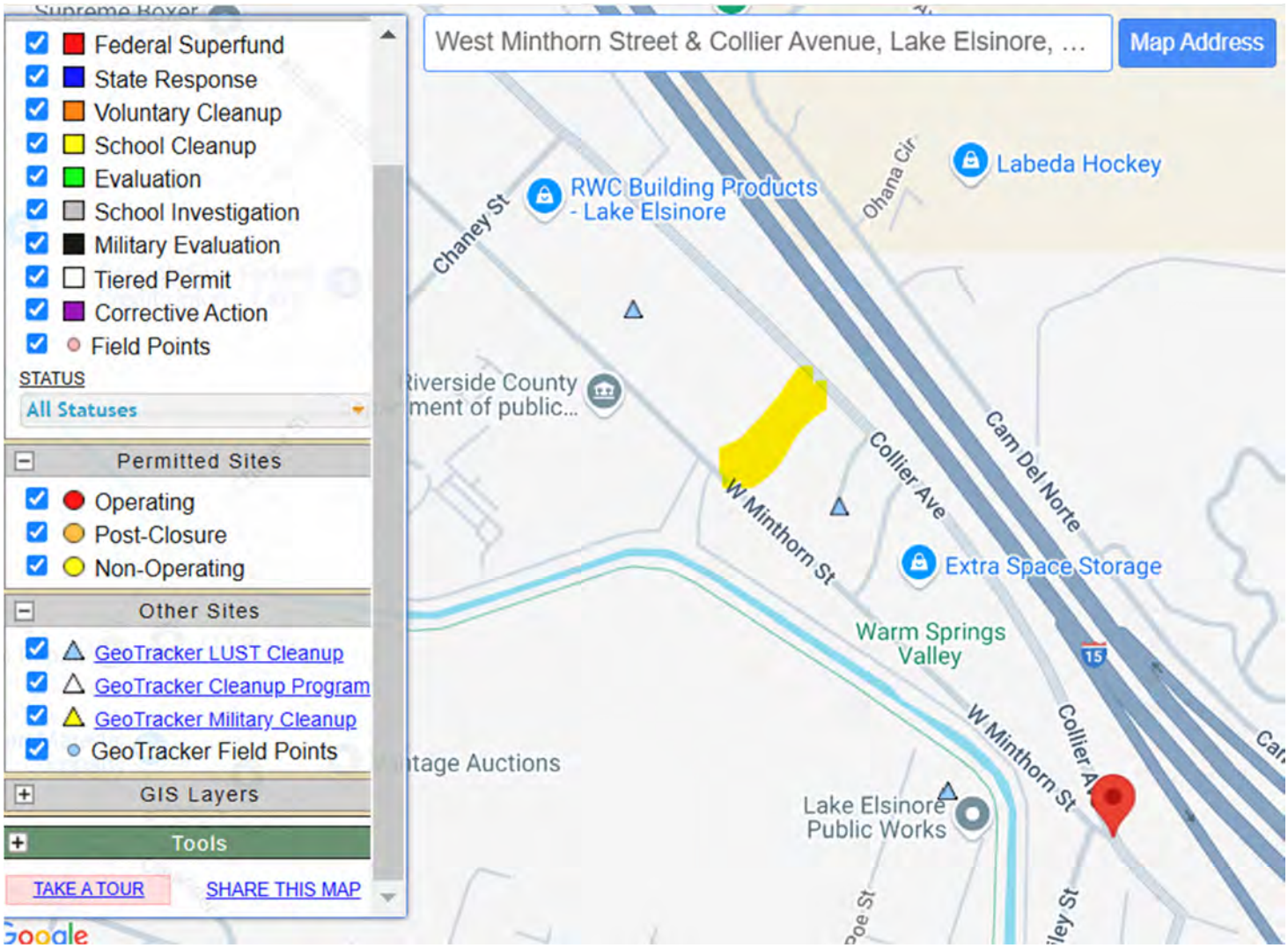
SALE

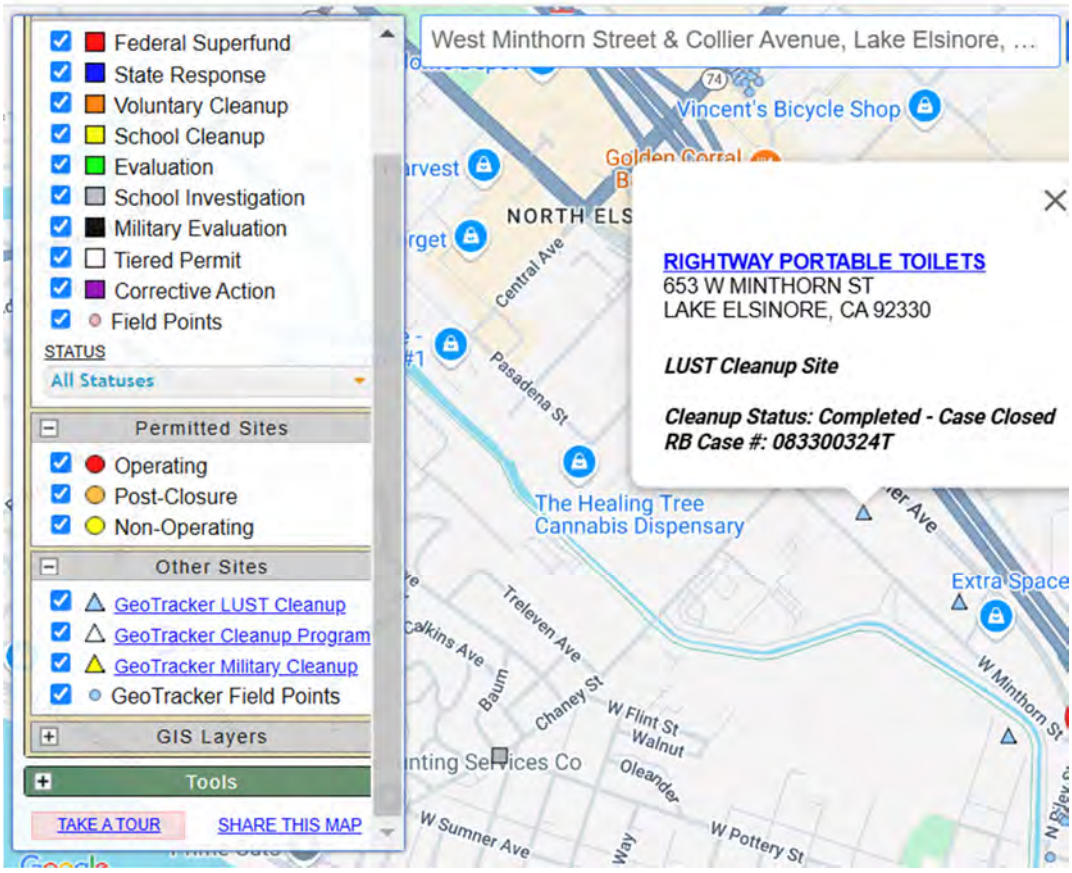
Buyer/Borrower: Quality Fence Co Inc
Seller: Jackson,Floyd B & Anna
Title Company STEWART TITLE
Transaction Value: $143,500.00
Transaction Type: SALE
Deed Type: Deed Transfer
Document Number: 2002.207116 View Doc

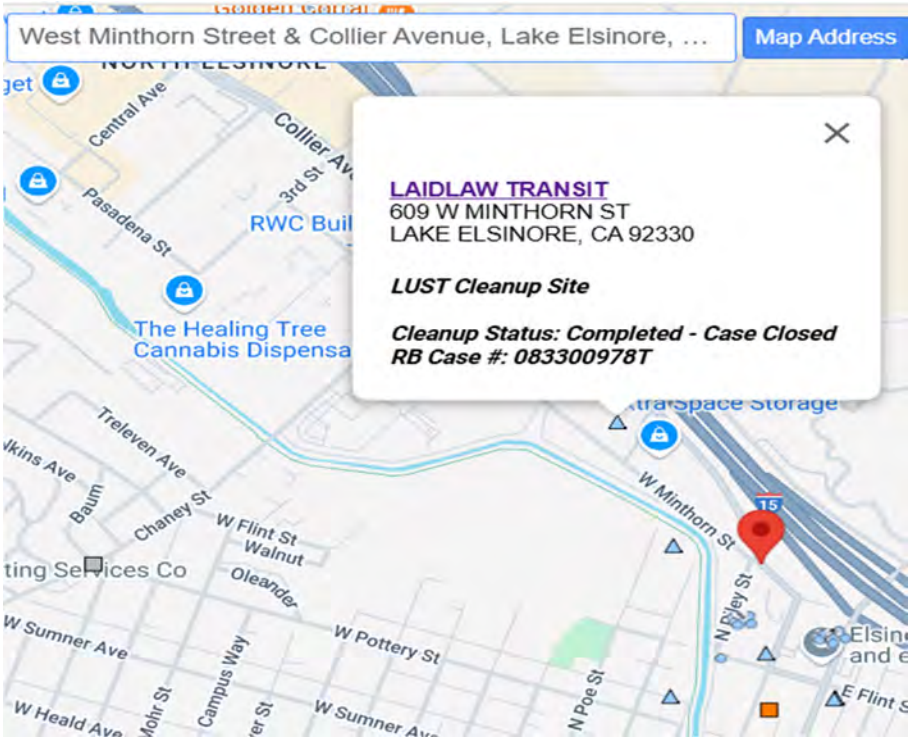
MORTGAGE RECORD

Lender: JACKSON, FLOYD B & ANNA
Finance Type: RESALE
Loan Type: CONVENTIONAL
Interest Rate Type: FIX
Document Number: 2002.207117 View Doc

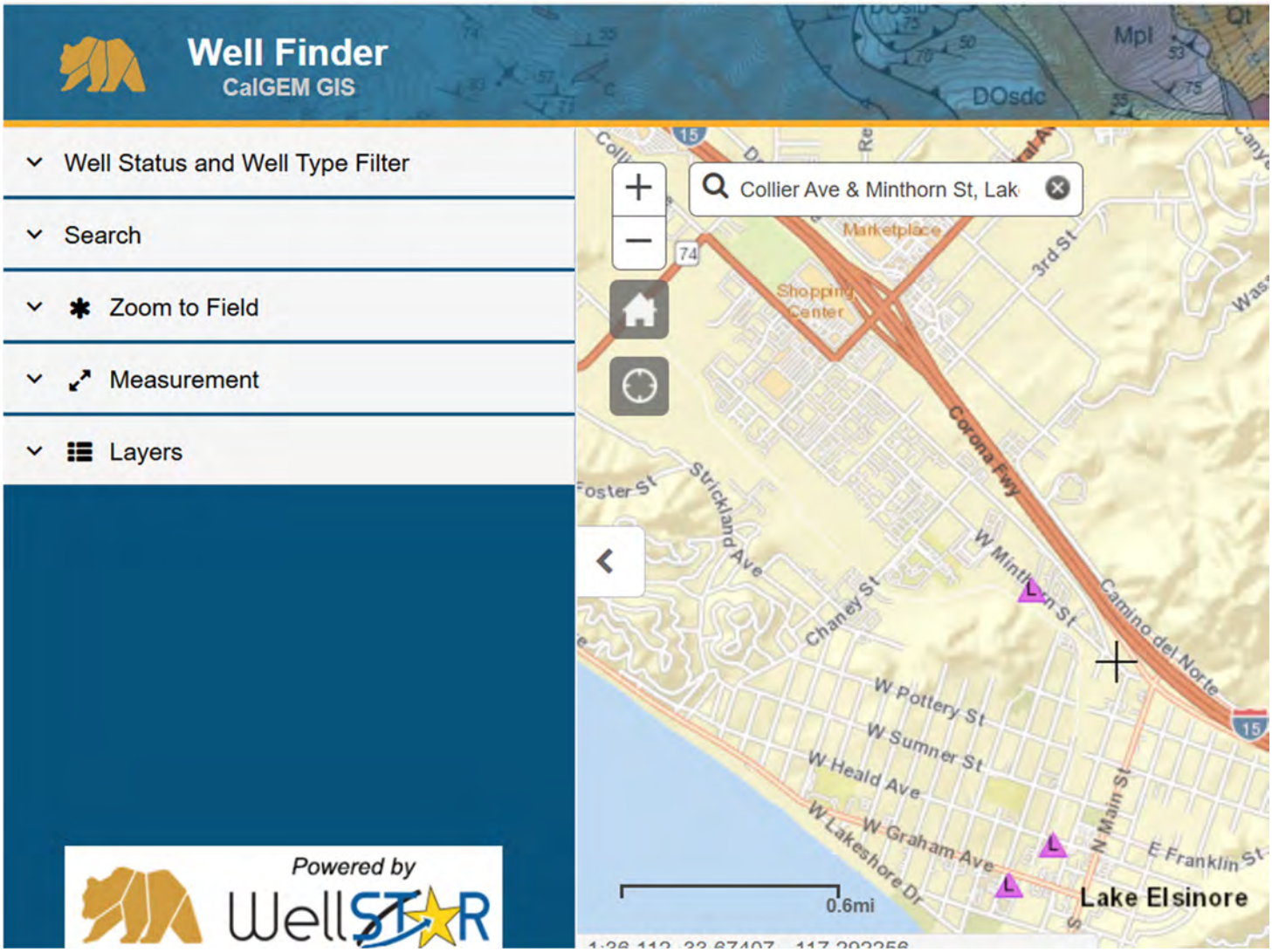
12.6 DTSC Envirostor Map and Geotracker

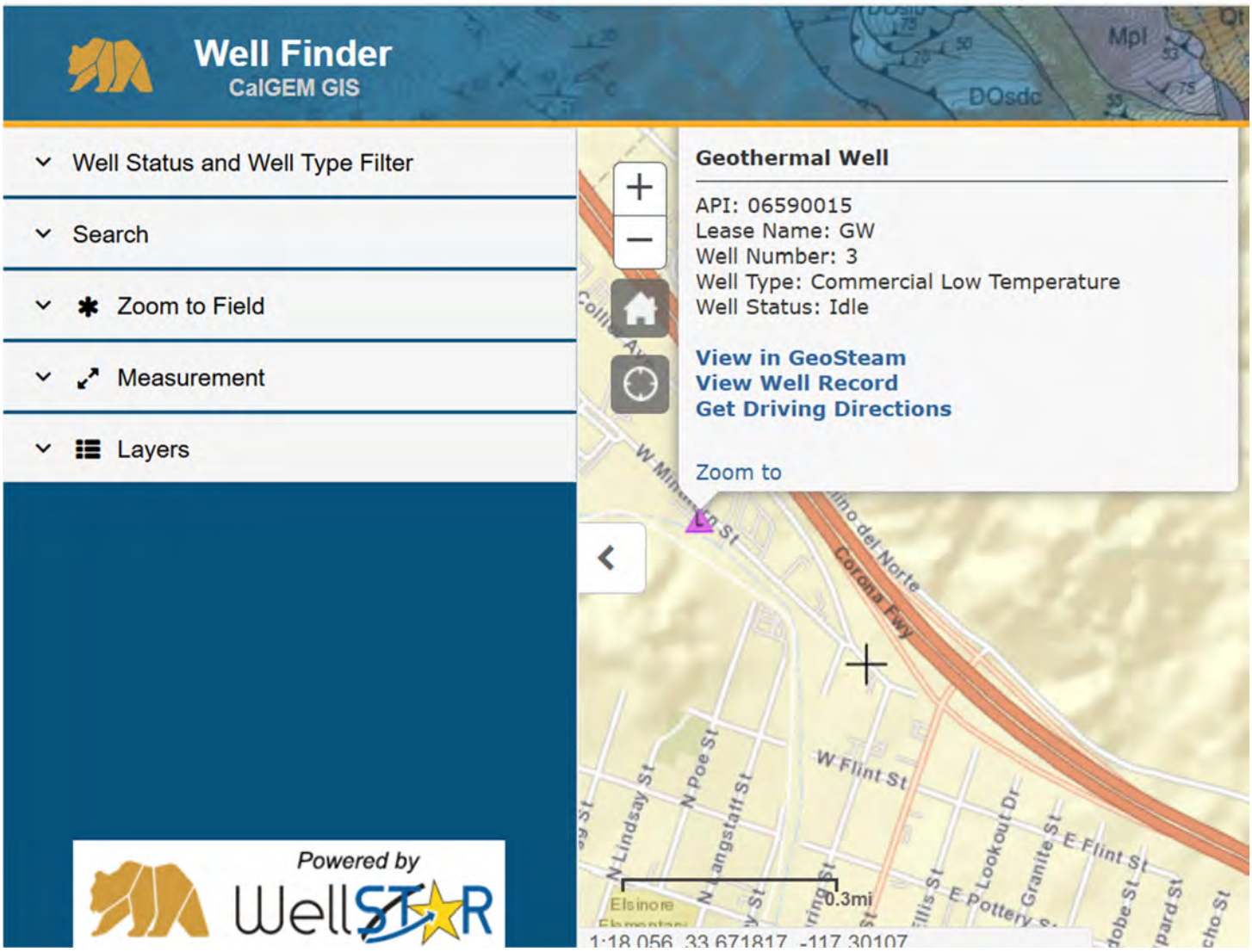

Federal Superfund
State Response
Voluntary Cleanup
School Cleanup
Evaluation
School Investigation
Military Evaluation
Tiered Permit
Corrective Action
Field Points
STATUS
All Statuses
Permitted Sites
Operating
Post-Closure
Non-Operating
Other Sites
GeoTracker LUST Cleanup
GeoTracker Cleanup Program
GeoTracker Military Cleanup
GeoTracker Field Points
GIS Layers
Tools
TAKE A TOUR
SHARE THIS MAP
West Minthorn Street & Collier Avenue, Lake Elsinore, …
Map Address
RWC Building Products - Lake Elsinore
Labeda Hockey
Ohana Cir
Chaney St
Riverside County
Collier Ave
Cam Del Norte
W Minthorn St
Extra Space Storage
Warm Springs Valley
15
Lake Elsinore Public Works
Google


Federal Superfund
State Response
Voluntary Cleanup
School Cleanup
Evaluation
School Investigation
Military Evaluation
Tiered Permit
Corrective Action
Field Points
STATUS
All Statuses
Permitted Sites
Operating
Post-Closure
Non-Operating
Other Sites
GeoTracker LUST Cleanup
GeoTracker Cleanup Program
GeoTracker Military Cleanup
GeoTracker Field Points
GIS Layers
Tools
TAKE A TOUR
SHARE THIS MAP
West Minthorn Street & Collier Avenue, Lake Elsinore, ...
Vincent's Bicycle Shop
Golden Corral
NORTH ELS
Central Ave
Pasadena St
RIGHTWAY PORTABLE TOILETS
653 W MINTHORN ST
LAKE ELSINORE, CA 92330
LUST Cleanup Site
Cleanup Status: Completed - Case Closed
RB Case #: 083300324T
The Healing Tree
Cannabis Dispensary
Extra Space
Treleven Ave
Baum
Chaney St
W Flint St
Walnut
Oleander
W Minthorn St
W Sumner Ave
W Pottery St


West Minthorn Street & Collier Avenue, Lake Elsinore, ...
Map Address
Central Ave
Collier Ave
Pasadena St
LAIDLAW TRANSIT
609 W MINTHORN ST
LAKE ELSINORE, CA 92330
LUST Cleanup Site
Cleanup Status: Completed - Case Closed
RB Case #: 083300978T
The Healing Tree
Cannabis Dispensa
Treleven Ave
Baum
Chaney St
W Flint St
Walnut
Oleander
W Minthorn St
N Riley St
W Sumner Ave
W Pottery St
W Heald Ave
Campus Way
N Poe St

12.7 DOGGR Map


Well Finder
CalGEM GIS
Well Status and Well Type Filter
Search
Zoom to Field
Measurement
Layers
Powered by
WellSTAR
Collier Ave & Minthorn St, Lak
Marketplace
Shopping Center
3rd St
Corona Fwy
Foster St
Strickland Ave
Chaney St
W Minthorn St
Camino del Norte
W Pottery St
W Sumner St
W Heald Ave
W Graham Ave
W Lakeshore Dr
N Main St
E Franklin St
Lake Elsinore
0.6mi
74
15
DOsdc
Mpl
Qt


Well Finder
CalGEM GIS
Well Status and Well Type Filter
Search
Zoom to Field
Measurement
Layers
Powered by
WellSTAR
Geothermal Well
API: 06590015
Lease Name: GW
Well Number: 3
Well Type: Commercial Low Temperature
Well Status: Idle
View in GeoSteam
View Well Record
Get Driving Directions
Zoom to
Corona Fwy
W Flint St
E Flint St
N Lindsay St
N Poe St
E Pottery St
Granite St
Elsinore
0.3mi
1:18,056 33.671817 -117.30107

12.8 SCAQMD Permit

No Address and No Permits

12.9 Letter from Magnetek

The following is a reprint of:

MagneTek
Universal Manufacturing

200 Robin Road
Paramus, NJ 07652
Phone (201) 967-7600
TELEX 753330
Fax (201) 967-0904

Mailing Address
P.O. Box 3028
Paterson, NJ 07509

RE: PCB's

Ballasts are used in fluorescent fixtures in business, commercial and industrial establishments, as well as in schools. One of the devices used in these ballasts is called a capacitor, which makes the ballasts operate more efficiently. These capacitors, used in ballasts made by every manufacturer in the industry, including Universal, used PCBs in small amounts until 1978, when a change was made to another liquid. Universal ballasts manufactured since January 1979 do not contain PCBs and the label of all these ballasts contain the statement "No PCB's".

The capacitor is a hermetically sealed device, which entirely isolates the PCB from human contact. The typical fluorescent ballast contained about 0.05 lbs. of 100% PCB liquid. That represents 1-2 liquid ounces. The weight of PCB used in relationship to the total capacitor weight, was approximately 15%. In relationship to the total ballast weight it varied from 0.6% (Slimline ballasts) to 1.5% (2 lamp, 40 watt ballasts). The degree of chlorination was 42%.

For HID ballasts where larger capacitors were used, it may have been as much as 5-6 ounces of liquid. In all cases the amount of "free PCBs" (the quantity that could leak if the can ruptured), was much less because most of the liquid was absorbed by the blotter-like dielectric material.

Ballasts occasionally fail in service and sometimes the asphalt (tar) with which they are filled melts and leaks out. On very rare occasions, the capacitor will also rupture and its contents mix with the tar. If a leak occurs, it should be cleaned up with any petroleum-based solvent.

Such a leak does not represent any significant immediate or long-term hazard. The United States Environmental Protection Agency has recognized the existence of PCBs in ballasts, has carefully evaluated the situation and in the regulations controlling the use and disposal of PCBs has concluded that continued use in existing lighting installations is acceptable; also that the occasional ballasts which becomes defective in service may be disposed of in compliance with 40 CFR* Part 761 or check with your local State Environmental Protection Agency for instruction.

Should you have any questions regarding this matter, please do not hesitate to call me at your convenience.

Very truly yours,

MagneTek Universal Manufacturing

Robert E. Babcock
Manager, Marketing Engineering

REB:cp

* Code of Federal Regulations

12.10 Certification

ENVIRONMENTAL PROFESSIONAL CERTIFICATION

I, Stephen A. Quartararo declare that, to the best of my professional knowledge and belief, I meet the definition of an Environmental Professional as defined in Section 312.10 of this part [40CFR Part 312].

I have the specific qualifications based upon education, training, and experience to assess a property of the nature, history and setting of the subject property. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

S&S Commercial Environmental Services, Inc.



Stephen A Quartararo, CEO
Environmental Professional
Title 40, Code of Federal
Regulations CFR Part 312.22

12.11 Resume

RESUME

STEPHEN A. QUARTARARO http://www.phase1reports.com
Environmental Professional, CFR Title 40 Code of Federal Regulations Section 312.22
ASTM 1527-2021, ASTM 2600-15, CA 2010 CHHSLs, CA HERO 2016, SBA May 1, 2015, HUD 2016

Owner S&S Commercial Environmental Services, Inc. since formation 1997. General Engineering Contractor A Hazardous Materials Certified, General Building Contractor B, Insulation and Acoustical C-2, Asbestos Certified, Water Well Drilling Contractor C-57.
CA Real Estate Brokers License, Life & Health Insurance License (former).

Phase I Site Surveys, Phase II Soil and Groundwater Investigations, Phase III Remediation of Soil and Groundwater leading to No Further Action or Closure by Local, County, State and Federal Agencies. Environmental Hazard Assessment, Project Cost to Cure Physical Deterioration, Construction Management, Environmental Site Appraisals. Storm and Irrigation Water Conservation, Re-use.

Coordinator for Oil Well Re-abandonment at Signal Hill, CA site in 2009 and at a Valencia, California Site in 2006.

Recent Projects
2020, 21 - Phase II & II Characterization &Vapor Extraction - former dry cleaner in Ventura County CA

2020 - Phase I and Phase II of former auto wrecking yard in Inland Empire with one area owned by City and other area part of DTSC Conditionally Closed former Gas Manufacturing Plant.

2020 - Phase I, II, III, Lead Dust Abatement Excavation and Disposal of 12 tons of lead and copper contaminated soil in former radiator shop in South Bay.

2019 – Clarifier Closure including off excavation and off haul of 8 truckloads of contaminated soil in Gardena, CA under LADPW oversight.

2019 – January and July 2019 – Phase I, II and III including Abandonment of two separate Industrial Clarifiers in Southeast and Middle Los Angeles County with closure through LA County Department of Public Works. .

2018 – Phase I and Phase II with Risk Assessment by others to prove property adjoining HITCO, a regional soil and groundwater contamination site on 135th Street Gardena CA was safe for Commercial Worker Occupancy leading to approval for SBA Loan. June 2017 - Closure Investigation after nine years Under Regional Water Quality Board Oversight including 2 groundwater monitoring wells in City Sidewalk Long Beach CA.

June 2017 - Closure Investigation after nine years Under Regional Water Quality Board Oversight

including 2 groundwater monitoring wells in City Sidewalk Long Beach CA.

May 2017 - Investigation - Remediation of Gas Station in Calexico, CA under Regional Water Quality Board Oversight.

December 2016 - Facilitator with LA County Fire Department Site Mitigation Unit and General Engineering Contractor for Closure of 3.5-acre industrial property in Carson, CA over a five year period. Removal of PCE Vapor in three major areas to 45 feet. Removal and off haul of 30 = twenty-four-ton truckloads of gasoline and diesel, pce and tce contaminated waste under over site of LA County Fire Department Site Mitigation Unit in a final remediation of source. Closure of minimally contaminated groundwater at 58 feet as non-beneficial water attenuating naturally.

March 2016 - Facilitator for No Further Action (NFA) Closure Letter for Soil, Soil Vapor and Groundwater for large light industrial property in Carson, CA after four years of testing and remediation. Relieved Owner from for further quarterly monitoring and remediation of groundwater under NFA property by proving that the contamination was from an offsite VOC contaminant source being remediated by Others.

EXPERIENCE
6,000 plus Phase I site assessments in CA, AL, AZ, AR, NV, NY and TN.
100's of Phase II and Phase III site investigations and closures in CA.

40 years as asbestos and environmental consultant and abatement contractor direct and subcontract. 20 of those years as owner of an Environmental Company, 19 as a General Engineering Contractor with Hazardous Certification and 3 of those years with related storm and irrigation water conservation related companies.

Professional cost estimation, third party verification of sampling activities, underground tank removal monitoring and property assessment consultant for soil and groundwater.

Coordinator of design and construction in two Los Angeles high rise office buildings for fire safety retrofit under the City of Los Angeles fire life safety ordinance.

Develop and Design of Affordable Housing, including site selection, negotiation, planning and permit process and funding sourcing.

MAJOR CONTRACTS
UC Santa Barbara (1979) - HVAC system cleaning of five-story Chemistry and Physical Sciences buildings on campus.
VA Medical Center LA Jolla (1980) - After-fire decontamination of Surgery Floor HVAC.
TRW (1983) - Bulk materials sampling for asbestos in 65-building facility, Redondo Beach, CA. UC Chancellors Office, UC San Francisco Medical Center (1984) - Survey design, field work completion, report design, report completion for UC Chancellor's office's funding request to State Assembly funding for asbestos abatement and management - 103 buildings - hospital, classrooms, administrative offices.
California Hospital Medical Center (1983) - Contract and specification design and

completion of asbestos abatement projects.
County of Los Angeles (1984) - Approval of specifications, third party monitoring of contractor during Building 5 Asbestos Abatement Project at Rancho Los Amigos Medical Center.
JMB Property Management (1985) - Coordination as part of Pacific Abatement Group with building management and Med Tox abatement and hygiene personnel on 3 stories of asbestos containment project in 25 story high rise office building, Century City, CA.
UC Riverside (1985) - Asbestos management and control in utility tunnels under campus.
Tishman Construction (1985) - Area containment for electrical work adjacent to occupied areas in asbestos affected Bank of America offices at ARCO Towers, Los Angeles, CA.
Equitable Real Estate Investment Management (1986) - Asbestos abatement and containment projects, including elevator lobby doors, full floor abatement and after-fire decontamination projects in former First Interstate Bank and Union Bank buildings, Los Angeles, CA.
Baxter Pharmaceutical (1988) - Building materials sampling for asbestos and reports for 14 buildings in seven Midwest States.
Fremont Indemnity (1991) - Independent owner's agent for fire protection citation response to LAFD and construction of tenant improvements for asbestos abatement and fire life safety rehabilitation of 11-story office building in midtown Los Angeles. Included removal of underground diesel tank.
Redlands Federal Savings (1990) - Phase I Environmental Assessments of raw land in Inland Empire and San Diego areas of Southern California.
SPS Technologies (1993) - "Qualified Risk Assessment"(QRA) for sale of existing 20-acre site in Costa Mesa, CA: Work involved review of commercial appraisals, Environmental Site Remediation work completed, further remediation cost proposals, interviews with responsible
government agencies, interviews with banking authorities, preparation of report detailing current conditions and value of property less expected remediation costs, results of interviews with regulatory agencies and financial authorities, four scenarios under which the property might be sold and the anticipated financial return and liability concerns of each scenario.
Money Store Investment Corporation (from 1992 until sold) - Related - 400+ Phase I Environmental Assessments of commercial property as collateral for SBA backed commercial loans in California.
First Union/Wachovia - Successors to Money Story Investment Corporation, Then Wells Fargo Coast Federal Savings (Former- early 1990's) - 300+ Phase I Environmental Assessments and Asbestos Inspections of residential apartment buildings, commercial shopping centers and other commercial buildings from San Diego to San Francisco and Sacramento to New York State.
Chevron Real Estate Services (1991) - Coordination and management of gasoline contaminated soil remediation project in Blythe, CA; work included shoring to 30 feet along the western perimeter of project to protect adjacent restaurant, removal and bio-remediation of 3,500 cubic feet of contaminated soil, removal of 5,000 gallons of contaminated water, placement of filter over local groundwater, back filling of excavation with remediated soil.

Carlsberg Management Company (1989-1995) - Independent owner's agent for fire protection citation response to LAFD and construction of tenant improvements for asbestos abatement and fire life safety rehabilitation of 10-story office building in West Los Angeles.
Owner's representative: work included selection and coordination of architect, mechanical, electrical, fire sprinkler, asbestos abatement/containment and industrial hygiene contractors and

interface with the City of Los Angeles Building, Electrical and Structural Departments and Inspectors over a five-year period under occupied and vacant building conditions.
California Federal Bank (1993) - Phase I Environmental Assessments and Asbestos Inspections of commercial and residential buildings in Northern and Southern California.
Folger & Levin, Law Firm (1995) - "Environmental Risk Assessment" (ERA) for 3-acre parcel in West Los Angeles. Review of six environmental soil and groundwater studies, practical expansion of research and coordinated explanation of real environmental issues for use by commercial property appraiser.
State Farm Insurance Company (1995) - Asbestos expert for client negotiations.
Berger, Kahn, Shafton, Moss, Figler, Simon & Gladstone (1996/1997) - Asbestos expert witness.
Prestholt, Kleeger, Fidone & Villasenor (1996) - Asbestos expert witness.
S&S Commercial Environmental Services (1997 - Present) - Phase I Site Assessments and Miscellaneous Independent Project Management and General Engineering Contractor for soil and groundwater sampling and remediation leading to site closure letter from County and City Fire Departments, Health Departments and CA Regional Water Boards ranging from thousands to hundreds of thousands of dollars. Oil Well Re-abandonment.
Bank of America - Related - Phase I Environmental Assessments Southern California.
Wells Fargo Bank - Phase I Environmental Assessments and Asbestos Inspections in California for Standard and SBA backed RE property loans. (Successor To Wachovia Bank - SBA Division) Chase Bank - Phase I Site Assessments
First Foundation Bank - Phase I Environmental Site Assessments & Phase I Reviews, Phase II Site Investigations. California and Nevada
Standard Life Insurance Company - Phase I Site Assessments
Metropolitan Life Insurance Company - Phase I Site Assessments
Textron Financial - Heritage Golf Group - 127 Acre Golf Course Santa Clarita - Phase I
Blue Green Preservation - Phase I and Phase II Site Assessments HUD Senior Housing California, Alabama, Tennessee, Arkansas
Miscellaneous Independent Cost Estimation for required remediation of contaminated sites with commercial and industrial property appraisers.

EDUCATION
B.S. Urban Environmental Management; Cal State University Dominguez Hills
J.D. Candidate Classes in Torts, Contracts, Criminal Law, Legal Writing; Western State University, Southern California College of Law
Major Emphasis - Tort Theory and the implications to modern environmental contamination and clean-up problems.
"Low Risk Closure Guidelines" - California Regional Water Quality Board - Los Angeles Region Seminar June 1996.

Miscellaneous Classes provided by State Agencies in past twenty years and job site discussion regarding water quality standards and remediation with Regulators for Closure.
California Storm Water Association (CASQA - Member and participation as vendor representing OSORB as Absorb Concentrate & Eliminate (AC&E San Diego August 2012.
Member and participation as vendor representing ASRE (Advanced Stormwater Recovery & Engineering Garden Grove September 2014.

LICENSES
California A General Engineering Contractor, Hazardous Materials Certified
California B General Building Contractor
California C-2 Contractors License, Asbestos
Certified California C-57 Water Well Driller
California Real Estate Broker
CA Life & Health Agent (former)

Current & Former
CERTIFICATIONS
Certified Asbestos Consultant (CAC, State of California
EPA/AHERA Competent Person, Supervisor/ Management Planner/Project Designer
Hazwhopper 48 Hour OSHA Certified Field Supervisor
Certified Professional Estimator (CPE) Lead Abatement Supervisor

REGISTRATIONS
Registered Environmental Assessor (REA)
Registered Property Manager (RPM)

AFFILIATIONS
American Society of Professional Estimators (ASPE)
California Society of Real Estate Appraisers
(CSOREA) American Institute of Plant Engineers
(AIPE)
California Society of Hospital Engineers
(CSHE) National Society of Power Engineers
(NSPE)
Kiwanis International, Greater Anaheim, CA (KIWANIS)

PUBLICATIONS
Industrial Real Estate Association Fall 1997 Newsletter, "The Environmental Report, To Close or Not To Close", 1997
Home Trader Publications, Copyright 1994 - Residential properties for sale or trade. American
Numerous articles on asbestos in "Asbestos Issues", a nationally published magazine, and the "Los Angeles BOMA" magazine.

SEMINAR SPEAKER
IRS (Internal Revenue Service), "Discounted Value of Asbestos and Environmentally Affected Property"
CATL (CA Assoc of Thrift and Loans), "The Effect of Asbestos and Environmental Discounts on Loans"
American Society of Professional Estimators - "The Design and Estimate of an Asbestos Abatement Project"
Los Angeles Board of Realtors, "Asbestos in Homes and Property"
(AIPE) American Institute of Plant Engineers, "Asbestos, History and Challenges"
(CSHE) California Society of Hospital Engineers, "Asbestos, History and Challenges"

(SCACEO)Southern California Association of Code Enforcement Officials "Single Room Occupancy Hotels, History and Modern Operations"

TRAINING CLASSES PRESENTED

8-hour Asbestos Awareness Class presented to:

* City of LA Fire Safety Inspectors
* Zurn Cosco Supervisors and Workers
* Grinnell Fire Protection Supervisors and Workers

EDUCATION VIDEOS

Installation of Fire Sprinkler Hangers within asbestos affected environments, 1986
SROs, The Myth and Reality, 1991

DEVELOPMENT DESIGN

General Partner - 210-unit Single Room Occupancy (SRO residential project in Anaheim, CA.
General Partner - 55-unit Single Room Occupancy (SRO residential project in Santa Ana, CA.

EMPLOYMENT HISTORY AND OWNERSHIP

S & S Commercial Environmental Services, Inc., ASRE, Inc. AC&E, Inc., Enviroprop, Home Trader Realty, Inc., Equity Funding Mortgage, NATEC International, Inc., McClelland Management Services, National Abatement Corporation, Med-Tox Consultants, Pacific Abatement Group, Asbestos

12.14 Environmental First Search Report

ENVIRONMENTAL RECORD SEARCH

"The Intelligent Choice"

RecCheck

Report Results

The Standard for ASTM/AAI Radius Searches

(One Mile Environmental Records Search, Exceeds ASTM 1527/1528 and EPA All Appropriate Inquiry)

REPORT RESULTS



Site Location:

Collier And Minthorn
Lake Elsinore , CA 92530
(N 33-40-55, W 117-19-49) NAD83

Client:

S&S Commercial Environmental Services, Inc.

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EXECUTIVE SUMMARY

INFORMATION ON THE REQUESTED LOCATION

Site Address:	Collier And Minthorn Lake Elsinore , CA 92530
Client Project Name/Number:	2104787850
Coordinates:	N 33-40-55, W 117-19-49 (NAD 83) 33.681843, -117.330313
Date of Report	October 29, 2024
ERS Project Number:	2104787850
Subject Site Listed on the following lists:	Not Listed
Subject Site Listed as Map ID#:	N/A
USGS 7.5 Minute Quad Map:	Lake Elsinore (Date Unavailable)
Subject Site Located within a Potential Area of Concern:	No
Township, Section and Range:	Township: 06S Range: 04W Section: 06 Baseline: San Bernardino
Site Elevation: (feet above or below (-) mean sea level)	1282
Flood Zone: (Digital Flood Insurance Rate Maps - DFIRMs) Only available digital data is provided	Panel: 06065C2037G, Effective Date: 8/28/2008 Zone X - Area of minimal flood hazard, usually depicted on FIRMs as above the 500-year flood level.
Fire Insurance Map Coverage:	No
Radon Information:	EPA Radon Zone: 2 (Predicted avg for county: 2 to 4 pCi/L)
Search Radius Expansion Size: (In Miles)	0

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Soil Type: **(USDA Soil Survey Geographic Database) (SSURGO)**	Map Unit Name: Arbuckle gravelly loam, 15 to 25 percent slopes Map Unit Type: Consociation Drainage Class - Dominant Condition: Well drained General Information: Fine-loamy, mixed, thermic Typic Haploxeralfs Top 3 Map Unit Components are below (if available): Component Name: Garretson, Cortina, Arbuckle Component Percentage: 5%, 5%, 85% Hydric: No, No, No
Zip Codes Searched for "Un-Mappable" Sites:	Not Researched
Occurrence Count:	66

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SUMMARY OF OCCURRENCES

MAP ID	ID/SITE NAME	ADDRESS	DATABASE	STATUS	DISTANCE (MILES)	ELEV DIFF (FEET)
1 Maps: 1, 2, 3, 4	214479 LAIDLAW TRANSIT	Not Reported by Agency	CRSP-CA	Listed	0.05 SE	-6
2 Maps: 1, 2, 3, 4	124616-SC EASTERN MUNICIPAL WATER DISTRICT	866 MINTHORN ST LAKE ELSINORE	AIR-DIST-CA	Listed	0.05 SW	-5
3 Maps: 1, 2, 3, 4	77669-SC M & J AUTO & BODY	609 MINTHORN ST LAKE ELSINORE	AIR-DIST-CA	Listed	0.06 W	-4
3 Maps: 1, 2, 3, 4	110065082234 LAIDLAW TRANSIT	609 W MINTHORN ST LAKE ELSINORE	FRS-US	Listed	0.06 W	-4
3 Maps: 1, 2, 3, 4	110070474323 STEVES TOWING INC	609 W MINTHORN ST LAKE ELSINORE	FRS-US	Listed	0.06 W	-4
3 Maps: 1, 2, 3, 4	235566 LAIDLAW TRANSIT	609 MINTHORN STREET, WEST LAKE ELSINORE	Hist-LUSTIS-CA	Listed	0.06 W	-4
3 Maps: 1, 2, 3, 4	235566 LAIDLAW TRANSIT	609 MINTHORN STREET WEST LAKE ELSINORE	Hist-Regional-UST-CA	Listed	0.06 W	-4
3 Maps: 1, 2, 3, 4	214068 ARA TRANSPORTATIO N INC	609 MINTHORN AVE LAKE ELSINORE	Hist-UST-CA	Listed	0.06 W	-4
3 Maps: 1, 2, 3, 4	244271 LAIDLAW TRANSIT / ELSINORE DIV	609 MINTHORN LAKE ELSINORE	Hist-UST-CA	Listed	0.06 W	-4
3 Maps: 1, 2, 3, 4	54FDFFFA-CAL000337032 STEVE'S TOWING INC	609 W MINTHORN ST LAKE ELSINORE	HWIS-CA	No Longer Listed	0.06 W	-4

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MAP ID	ID/SITE NAME	ADDRESS	DATABASE	STATUS	DISTANCE (MILES)	ELEV DIFF (FEET)
3 Maps: 1, 2, 3, 4	CAL000337032 STEVE'S TOWING INC	609 W MINTHORN ST LAKE ELSINORE	HWIS-CA	No Longer Listed	0.06 W	-4
3 Maps: 1, 2, 3, 4	T0606500097 LAIDLAW TRANSIT	609 W MINTHORN ST LAKE ELSINORE	LUST-Closed-CA	COMPLETED - CASE CLOSED	0.06 W	-4
3 Maps: 1, 2, 3, 4	CAL000337032 STEVE'S TOWING INC	609 W MINTHORN ST LAKE ELSINORE	RCRA-NON-US	Listed	0.06 W	-4
3 Maps: 1, 2, 3, 4	CAD982317299 ZIEMBAS AUTO	609 MINTHORN LAKE ELSINORE	RCRA-SQG-US	Listed	0.06 W	-4
4 Maps: 1, 2, 4	265854 Lake Elsinore Outlet Channel Maintenance Project	Not Reported by Agency	CRSP-CA	Listed	0.07 SW	-8
5 Maps: 1, 2, 4	36895-SC THERMAL ELECTRONICS INC	403 MINTHORN LAKE ELSINORE	AIR-DIST-CA	Listed	0.08 S	-9
5 Maps: 1, 2, 4	CAD052663085 THERMAL ELECTRONICS, INC	403 W Minthorn St Lake Elsinore	RCRA-NON-US	Listed	0.08 S	-9
6 Maps: 1, 2, 4	338019 Temescal Creek Outfall	Not Reported by Agency	ENF-Wastewater-CA	Historical	0.09 SW	-6
6 Maps: 1, 2, 4	221849 Temescal Creek Outfall	Not Reported by Agency	ENF-Wastewater-CA	Historical	0.09 SW	-6
6 Maps: 1, 2, 4	253277 Temescal Creek Outfall	Not Reported by Agency	ENF-Wastewater-CA	Historical	0.09 SW	-6
6 Maps: 1, 2, 4	251510 Temescal Creek Outfall	Not Reported by Agency	ENF-Wastewater-CA	Historical	0.09 SW	-6
6 Maps: 1, 2, 4	74331 Temescal Creek Outfall	Not Reported by Agency	CRSP-CA	Listed	0.09 SW	-6

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MAP ID	ID/SITE NAME	ADDRESS	DATABASE	STATUS	DISTANCE (MILES)	ELEV DIFF (FEET)
7 Maps: 1, 2, 4	CAC003030691 NET DEVELOPMENT CO.	311 W Minthorn St Lake Elsinore	RCRA-NON-US	Listed	0.1 S	-12
7 Maps: 1, 2, 4	CAR000284208 ABEL'S AUTO REPAIR LLC	311 W Minthorn St Ste 4 Lake Elsinore	RCRA-SQG-US	Listed	0.1 S	-12
8 Maps: 1, 2, 4	319242 Lake Elsinore Inflatable Dam Installation	Not Reported by Agency	CRSP-CA	Listed	0.15 W	-8
9 Maps: 1, 2, 4	61661 Rightway Portable Toilets	Not Reported by Agency	CRSP-CA	Listed	0.16 NW	-1
10 Maps: 1, 2, 4	28303 EMWD Reach 4 Dissipitation Facility	Not Reported by Agency	CRSP-CA	Listed	0.17 SE	-15
11 Maps: 1, 2, 4	5607-RSD EMWD Reach 4 Dissipitation Facility	636 Minthorn St Lake Elsinore	County-Others-CA	Listed	0.17 SE	-16
12 Maps: 1, 2, 4	66761-RSD Rightway Portable Toilets	653 W Minthorn St Lake Elsinore	County-Others-CA	Listed	0.17 NW	-3
12 Maps: 1, 2, 4	5713-RSD Rightway Portable Toilets	653 W Minthorn St Lake Elsinore	County-Others-CA	Listed	0.17 NW	-3
12 Maps: 1, 2, 4	55715 RIGHTWAY PORTABLE TOILETS	653 W MINTHORN ST LAKE ELSINORE	ENF-CA	Listed	0.17 NW	-3
12 Maps: 1, 2, 4	1293320 RIGHTWAY PORTABLE TOILETS	653 MINTHORN STREET, WEST LAKE ELSINORE	Hist-LUSTIS-CA	Listed	0.17 NW	-3
12 Maps: 1, 2, 4	1293320 RIGHTWAY PORTABLE TOILETS	653 MINTHORN STREET WEST LAKE ELSINORE	Hist-Regional-UST-CA	Listed	0.17 NW	-3
12 Maps: 1, 2, 4	260446 RIGHTWAY	653 W MINTHORN LAKE ELSINORE	Hist-UST-CA	Listed	0.17 NW	-3
12 Maps: 1, 2, 4	79 RIGHTWAY	653 W MINTHORN LAKE ELSINOR	HWT-CA	Listed	0.17 NW	-3

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MAP ID	ID/SITE NAME	ADDRESS	DATABASE	STATUS	DISTANCE (MILES)	ELEV DIFF (FEET)
12 Maps: 1, 2, 4	T0606500035 RIGHTWAY PORTABLE TOILETS	653 W MINTHORN ST LAKE ELSINORE	LUST-Closed-CA	COMPLETED - CASE CLOSED	0.17 NW	-3
12 Maps: 1, 2, 4	CAD092259407 RIGHTWAY	653 W MINTHORN LAKE ELSINORE	RCRA-NON-US	Listed	0.17 NW	-3
12 Maps: 1, 2, 4	CAL000059230 RIGHTWAY	653 W MINTHORN ST LAKE ELSINORE	RCRA-NON-US	Listed	0.17 NW	-3
13 Maps: 1, 2, 4	112507 Douglas Technology Group Inc	Not Reported by Agency	CRSP-CA	Listed	0.18 NW	-4
14 Maps: 1, 2, 4	218756 BUTTERFIELD SUPVEYS INC	18740 Collier Ave Lake Elsinore	Hist-UST-CA	Listed	0.2 NW	5
14 Maps: 1, 2, 4	3193660 BUTTERFIELD SURVEYS INC	18740 Collier Ave Lake Elsinore	Hist-USTReg-CA	Listed	0.2 NW	5
15 Maps: 1, 2, 4	10578097 SoCal RV Doctor	29910 Ohana Cir # 102 Lake Elsinore	CERS-CA	Listed	0.22 NE	36
15 Maps: 1, 2, 4	5722-RSD SoCal RV Doctor	29910 Ohana Cir #102 Lake Elsinore	County-Others-CA	Listed	0.22 NE	36
15 Maps: 1, 2, 4	5708-RSD Precision Sports Inc	29910 Ohana Cir Lake Elsinore	County-Others-CA	Listed	0.22 NE	36
15 Maps: 1, 2, 4	66773-RSD SoCal RV Doctor	29910 Ohana Cir #102 Lake Elsinore	County-Others-CA	Listed	0.22 NE	36
15 Maps: 1, 2, 4	66758-RSD Precision Sports Inc	29910 Ohana Cir Lake Elsinore	County-Others-CA	Listed	0.22 NE	36
15 Maps: 1, 2, 4	19908 LABEDA WHEELS	29910 Ohana Cir Lake Elsinore	Hist-Auto Repair	Listed	0.22 NE	36
15 Maps: 1, 2, 4	CAL000129258 PRECISION SPORTS	29910 Ohana Cir Lake Elsinore	RCRA-NON-US	Listed	0.22 NE	36

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MAP ID	ID/SITE NAME	ADDRESS	DATABASE	STATUS	DISTANCE (MILES)	ELEV DIFF (FEET)
15 Maps: 1, 2, 4	CAL000366697 TEAM LABEDA TEST FACILITY LLC DBA SOCAL RV DOCTOR	29910 Ohana Cir Ste 102 Lake Elsinore	RCRA-NON-US	Listed	0.22 NE	36
15 Maps: 1, 2, 4	402422 SoCal RV Doctor	Not Reported by Agency	CRSP-CA	Listed	0.22 NE	36
15 Maps: 1, 2, 4	58562 Precision Sports Inc	Not Reported by Agency	CRSP-CA	Listed	0.22 NE	36
16 Maps: 1, 2, 4	184414 Deleo Clay Tile Co Inc	Not Reported by Agency	CRSP-CA	Listed	0.24 NW	-1
17 Maps: 1, 2, 4	118612-SC J S TECHNOLOGIES INC, JOHN SUHN, DBA	18650 COLLIER AVE UNIT A LAKE ELSINORE	AIR-DIST-CA	Listed	0.24 NW	4
17 Maps: 1, 2, 4	2260 Comm Bldg,Lake Elsinore	18650 Collier Elsinore	WDR-CA	Listed	0.24 NW	4
18 Maps: 1, 2, 4	5595-RSD Deleo Clay Tile Co Inc.	600 Chaney St Lake Elsinore	County-Others-CA	Listed	0.25 NW	0
18 Maps: 1, 2, 4	66698-RSD Deleo Clay Tile Co Inc.	600 Chaney St Lake Elsinore	County-Others-CA	Listed	0.25 NW	0
18 Maps: 1, 2, 4	411564 Deleo Clay Tile Co	600 CHANEY ST Lake Elsinore	ENF-SMARTS-CA	Historical	0.25 NW	0
18 Maps: 1, 2, 4	232632 Deleo Clay Tile Co	600 CHANEY ST Lake Elsinore	ENF-SMARTS-CA	Historical	0.25 NW	0
18 Maps: 1, 2, 4	233686 Deleo Clay Tile Co	600 CHANEY ST Lake Elsinore	ENF-SMARTS-CA	Historical	0.25 NW	0
18 Maps: 1, 2, 4	400585 Deleo Clay Tile Co	600 CHANEY ST Lake Elsinore	ENF-SMARTS-CA	Active	0.25 NW	0
19 Maps: 1, 4	94051-RSD Redman Property	520 Riley St Lake Elsinore	County-LUST-CA	Listed	0.37 SE	-7

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MAP ID	ID/SITE NAME	ADDRESS	DATABASE	STATUS	DISTANCE (MILES)	ELEV DIFF (FEET)
19 Maps: 1, 4	T0606500134 REDMAN PROPERTY	520 N Riley St Lake Elsinore	LUST-Closed-CA	COMPLETED - CASE CLOSED	0.37 SE	-7
20 Maps: 1, 4	88062-RSD City Yard	521 N Langstaff St Lake Elsinore	County-LUST-Closed-CA	Closed	0.39 S	-8
20 Maps: 1, 4	T0606500084 CITY YARD	521 N Langstaff St Lake Elsinore	LUST-Closed-CA	COMPLETED - CASE CLOSED	0.39 S	-8
21 Maps: 1, 4	2488 Elsinore Valley Cemetary Dist	18170 Collier Ave Lake Elsinore	SWIS-CA	Listed	0.39 NW	4
22 Maps: 1, 4	91081-RSD Big Al Oil Co	501 N Spring St Lake Elsinore	County-LUST-Closed-CA	Closed	0.49 SE	-5

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POTENTIAL AREAS OF CONCERN/CONTAMINATION SUMMARY

DATABASE SEARCHED	SUBJECT SITE WITHIN POTENTIAL AREA OF CONCERN	AREAS FOUND WITHIN 1-MILE RADIUS
MethaneLF-CA	No	0
LA-LF-CA	No	0
Military-Bases-US	No	0
SGV-Deep-Plumes-CA	No	0
SGV-Shallow-Plumes-Puente-Valley-CA	No	0
SGV-Shallow-Plumes-CA	No	0
NPL-Boundaries-US	No	0

DATABASE OCCURRENCE SUMMARY

HIGH RISK* OCCURRENCES IDENTIFIED IN REQUESTED SEARCH RADIUS		
DATABASE SEARCHED	DISTANCE SEARCHED (MILES)	HIGH RISK OCCURRENCES FOUND
CorAct-Open-CA	0.5	0
County-LUST-Open-CA	0.5	0
County-SLIC-Open-CA	0.5	0
Eval-Hist-Active-CA	0.5	0
Hist-UST-Cleanup-CA	0.5	0
LUST-Open-CA	0.5	0
Military-Active-CA	1	0
NPL-Proposed-US	1	0
NPL-US	1	0
Response-CA	1	0
SAA-Agreements-US	1	0
School-Active-CA	0.5	0
SCP-Open-CA	0.5	0
SEMS-Active-US	0.5	0
State-Response-Active-CA	1	0
Superfund-Active-CA	1	0
Tribal-LUST-Open-US	0.5	0
VCP-Active-CA	0.5	0

* For the purposes of this report, “high risk” occurrences are those that have known contamination and have not received a “case closed” or “no further action” status from the agency that maintains the records.

ASTM/AAI STANDARD RECORD SOURCES SUMMARY				
STANDARD ENVIRONMENTAL RECORD SOURCES	ASTM MIN. SEARCH DIST. / ERS SEARCH DIST. (MILES)	ERS DATABASE NAME	TOTAL LISTINGS	MAP ID #’S
Federal NPL site list	1.0 / 1.0	NPL-Proposed-US	0	None Listed
		NPL-US	0	None Listed

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Federal Delisted NPL site list	0.5 / 1.0	NPL-Delisted-US	0	None Listed
Federal CERCLIS list	0.5 / 0.5	SEMS-Active-US	0	None Listed
Federal CERCLIS NFRAP site list	0.5 / 0.5	SEMS-Archived-US	0	None Listed
Federal RCRA CORRACTS facilities list	1.0 / 1.0	RCRA-COR-US	0	None Listed
Federal RCRA non-CORRACTS TSD facilities list	0.5 / 0.5	RCRA-TSDF-US	0	None Listed
Federal RCRA generators list	Property and adjoining properties / 0.25	RCRA-CESQG-US	0	None Listed
		RCRA-LQG-US	0	None Listed
		RCRA-NON-US	7	3, 5, 7, 12, 12, 15, 15
		RCRA-SQG-US	2	3, 7
Federal Inst/Eng control registries	Property Only / 0.25	Controls-RCRA-US	0	None Listed
		Controls-US	0	None Listed
		Hist-US-EC	0	None Listed
		Hist-US-IC	0	None Listed
		LIENS-US	0	None Listed
Federal ERNS list	Property Only / 0.0625	ERNS-US	0	None Listed
State and Tribal-Equivalent NPL	1.0 / 1.0	Response-CA	0	None Listed
		State-Response-Active-CA	0	None Listed
		State-Response-NFA-CA	0	None Listed
		State-Response-Other-CA	0	None Listed
State and Tribal-Equivalent CERCLIS	0.5 / 0.5	Superfund-Active-CA	0	None Listed
		Superfund-NFA-CA	0	None Listed
		Superfund-Other-CA	0	None Listed
State and Tribal landfill and/or solid waste disposal sites	0.5 / 0.5	County-SWF-CA	0	None Listed
		Debris-Reg9-US	0	None Listed
		Hist-Dumps-US	0	None Listed
		Land-Disposal-CA	0	None Listed
		SWIS-CA	1	21
		SWLF-US	0	None Listed
		Tribal-ODI-US	0	None Listed
State and Tribal Leaking Storage Tank Lists	0.5 / 0.5	County-LUST-CA	1	19
		County-LUST-Closed-CA	2	20, 22
		County-LUST-Open-CA	0	None Listed
		Hist-UST-Cleanup-CA	0	None Listed
		LUST-Closed-CA	4	3, 12, 19, 20
		LUST-Open-CA	0	None Listed

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		Tribal-LUST-Closed-US	0	None Listed
		Tribal-LUST-Open-US	0	None Listed
State and Tribal Registered Storage Tank Lists	Property and adjoining properties / 0.25	AST-CA	0	None Listed
		City-AST-CA	0	None Listed
		City-UST-CA	0	None Listed
		County-AST-CA	0	None Listed
		County-UST-CA	0	None Listed
		FEMA-UST-US	0	None Listed
		Hist-AST2-CA	0	None Listed
		Hist-UST-CA	4	3, 3, 12, 14
		Military-UST-CA	0	None Listed
		Tribal-LUST-Open-US	0	None Listed
		UST-Abandoned-COMP-CA	0	None Listed
		UST-Abandoned-NCOMP-CA	0	None Listed
		UST-CA	0	None Listed
		UST-Closed-CA	0	None Listed
		UST-Priority-CA	0	None Listed
		UST-Proposed-CA	0	None Listed
State and Tribal Inst/Eng Control Registries	Property Only / 0.5	Controls-CA	0	None Listed
		Deed-CA	0	None Listed
		Hist-Controls-CA	0	None Listed
		HWMP-Controls-CA	0	None Listed
		Liens-CA	0	None Listed
State and Tribal Voluntary Cleanup Sites	0.5 / 0.5	Military-Active-CA	0	None Listed
		Military-NFA-CA	0	None Listed
		Military-Other-CA	0	None Listed
		School-Active-CA	0	None Listed
		School-NFA-CA	0	None Listed
		School-Other-CA	0	None Listed
		VCP-Active-CA	0	None Listed
		VCP-NFA-CA	0	None Listed
		VCP-Other-CA	0	None Listed
State and Tribal Brownfield Sites	0.5 / 0.5	BF-MOA-CA	0	None Listed
		BF-Tribal-US	0	None Listed

FEDERAL ASTM/AAI DATABASES							
DATABASE SEARCHED	**DISTANCE SEARCHED**	**SUBJECT SITE**	**0.125 MILES**	**0.25 MILES**	**0.5 MILES**	**1.0 MILES**	**TOTAL**
BF-Tribal-US	0.5	0	0	0	0	-	0
BF-US	0.5	0	0	0	0	-	0
Controls-RCRA-US	0.5	0	0	0	0	-	0
Controls-US	0.5	0	0	0	0	-	0
Debris-Reg9-US	0.5	0	0	0	0	-	0

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FEDERAL ASTM/AAI DATABASES

DATABASE SEARCHED	DISTANCE SEARCHED	SUBJECT SITE	0.125 MILES	0.25 MILES	0.5 MILES	1.0 MILES	TOTAL
ERNS-US	0.0625	0	0	-	-	-	0
FTTS-ENF-US	0.25	0	0	0	-	-	0
Hist-Dumps-US	0.5	0	0	0	0	-	0
Hist-FEMA-UST-US	0.25	0	0	0	-	-	0
Hist-US-EC	0.5	0	0	0	0	-	0
Hist-US-IC	0.5	0	0	0	0	-	0
HMIS-US	0.0625	0	0	-	-	-	0
LIENS-US	0.0625	0	0	-	-	-	0
NPL-Delisted-US	1	0	0	0	0	0	0
NPL-Proposed-US	1	0	0	0	0	0	0
NPL-US	1	0	0	0	0	0	0
PADS-US	0.0625	0	0	-	-	-	0
PCB-US	0.25	0	0	0	-	-	0
RCRA-CESQG-US	0.25	0	0	0	-	-	0
RCRA-COR-US	1	0	0	0	0	0	0
RCRA-LQG-US	0.25	0	0	0	-	-	0
RCRA-NON-US	0.25	0	3	4	-	-	7
RCRA-SQG-US	0.25	0	2	0	-	-	2
RCRA-TSDF-US	0.5	0	0	0	0	-	0
SAA-Agreements-US	1	0	0	0	0	0	0
SEMS-Active-US	0.5	0	0	0	0	-	0
SEMS-Archived-US	0.5	0	0	0	0	-	0
SWLF-US	0.5	0	0	0	0	-	0
Tribal-LUST-Closed-US	0.5	0	0	0	0	-	0
Tribal-LUST-Open-US	0.5	0	0	0	0	-	0
Tribal-ODL-US	0.5	0	0	0	0	-	0
Tribal-UST-US	0.25	0	0	0	-	-	0

STATE ASTM/AAI DATABASES

DATABASE SEARCHED	DISTANCE SEARCHED	SUBJECT SITE	0.125 MILES	0.25 MILES	0.5 MILES	1.0 MILES	TOTAL
AST-CA	0.25	0	0	0	-	-	0
BF-MOA-CA	0.5	0	0	0	0	-	0
BZ-HazWaste-CA	0.5	0	0	0	0	-	0
CERS-CA	0.25	0	0	1	-	-	1
CHMIRS-CA	0.0625	0	0	-	-	-	0
City-AST-CA	0.25	0	0	0	-	-	0
City-CUPA-CA	0.25	0	0	0	-	-	0
City-Others-CA	0.25	0	0	0	-	-	0
City-UST-CA	0.25	0	0	0	-	-	0
Controls-CA	0.5	0	0	0	0	-	0
CorAct-Closed-CA	0.5	0	0	0	0	-	0
CorAct-Open-CA	0.5	0	0	0	0	-	0
CorAct-Other-CA	0.5	0	0	0	0	-	0
CORTESE-CA	0.25	0	0	0	-	-	0
County-AST-CA	0.25	0	0	0	-	-	0
County-Hist-CA	0.25	0	0	0	-	-	0
County-LUST-CA	0.5	0	0	0	1	-	1
County-LUST-Closed-CA	0.5	0	0	0	2	-	2
County-LUST-Open-CA	0.5	0	0	0	0	-	0
County-Others-CA	0.25	0	0	9	-	-	9
County-SLIC-Closed-CA	0.25	0	0	0	-	-	0
County-SLIC-Open-CA	0.5	0	0	0	0	-	0

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STATE ASTM/AAI DATABASES

DATABASE SEARCHED	DISTANCE SEARCHED	SUBJECT SITE	0.125 MILES	0.25 MILES	0.5 MILES	1.0 MILES	TOTAL
County-SML-CA	0.5	0	0	0	0	-	0
County-SWF-CA	0.5	0	0	0	0	-	0
County-UST-CA	0.25	0	0	0	-	-	0
CRSP-CA	0.25	0	3	7	-	-	10
CUPA-CA	0.25	0	0	0	-	-	0
Deed-CA	0.5	0	0	0	0	-	0
ENF-CA	0.25	0	0	1	-	-	1
ENF-SMARTS-CA	0.25	0	0	4	-	-	4
ENF-Wastewater-CA	0.25	0	4	0	-	-	4
Eval-Hist-Active-CA	0.5	0	0	0	0	-	0
Eval-Hist-NFA-CA	0.5	0	0	0	0	-	0
Eval-Hist-Other-CA	0.5	0	0	0	0	-	0
HazWaste-CA	0.25	0	0	0	-	-	0
Hist-AST2-CA	0.25	0	0	0	-	-	0
Hist-Controls-CA	0.5	0	0	0	0	-	0
Hist-Cort-CA	0.25	0	0	0	-	-	0
HIST-R4-CA	0.25	0	0	0	-	-	0
HIST-SLIC-CV-CLOSED-CA	0.5	0	0	0	0	-	0
HIST-SLIC-CV-OPEN-CA	0.5	0	0	0	0	-	0
Hist-UST-CA	0.25	0	2	2	-	-	4
Hist-UST-Cleanup-CA	0.5	0	0	0	0	-	0
Hist-WIP-Active-CA	0.5	0	0	0	0	-	0
Hist-WIP-Backlog-CA	0.5	0	0	0	0	-	0
Hist-WIP-Historical-CA	0.5	0	0	0	0	-	0
HWIS-CA	0.0625	0	2	-	-	-	2
HWMP-Controls-CA	0.5	0	0	0	0	-	0
ICE-CA	0.25	0	0	0	-	-	0
Land-Disposal-CA	0.5	0	0	0	0	-	0
Liens-CA	0.0625	0	0	-	-	-	0
LUST-Closed-CA	0.5	0	1	1	2	-	4
LUST-Open-CA	0.5	0	0	0	0	-	0
Manifest2-RI	0.0625	0	0	-	-	-	0
Military-Active-CA	1	0	0	0	0	0	0
Military-NFA-CA	1	0	0	0	0	0	0
Military-Other-CA	1	0	0	0	0	0	0
Military-UST-CA	0.25	0	0	0	-	-	0
PR-MOA-CA	0.25	0	0	0	-	-	0
Response-CA	1	0	0	0	0	0	0
School-Active-CA	0.5	0	0	0	0	-	0
School-NFA-CA	0.5	0	0	0	0	-	0
School-Other-CA	0.5	0	0	0	0	-	0
SCP-Closed-CA	0.5	0	0	0	0	-	0
SCP-Open-CA	0.5	0	0	0	0	-	0
SML-CA	0.5	0	0	0	0	-	0
State-Response-Active-CA	1	0	0	0	0	0	0
State-Response-NFA-CA	0.5	0	0	0	0	-	0
State-Response-Other-CA	0.5	0	0	0	0	-	0
Superfund-Active-CA	1	0	0	0	0	0	0
Superfund-NFA-CA	1	0	0	0	0	0	0
Superfund-Other-CA	1	0	0	0	0	0	0
SWIS-CA	0.5	0	0	0	1	-	1
SWRCY-CA	0.5	0	0	0	0	-	0
UST-Abandoned-COMP-CA	0.25	0	0	0	-	-	0
UST-Abandoned-NCOMP-CA	0.25	0	0	0	-	-	0
UST-CA	0.25	0	0	0	-	-	0

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STATE ASTM/AAI DATABASES

DATABASE SEARCHED	DISTANCE SEARCHED	SUBJECT SITE	0.125 MILES	0.25 MILES	0.5 MILES	1.0 MILES	TOTAL
UST-Closed-CA	0.25	0	0	0	-	-	0
UST-Priority-CA	0.5	0	0	0	0	-	0
UST-Proposed-CA	0.25	0	0	0	-	-	0
VCP-Active-CA	0.5	0	0	0	0	-	0
VCP-NFA-CA	0.5	0	0	0	0	-	0
VCP-Other-CA	0.5	0	0	0	0	-	0

SUPPLEMENTAL DATABASES

DATABASE SEARCHED	DISTANCE SEARCHED	SUBJECT SITE	0.125 MILES	0.25 MILES	0.5 MILES	1.0 MILES	TOTAL
Air-CA	0.25	0	0	0	-	-	0
AIR-DIST-CA	0.25	0	3	1	-	-	4
BioFuel-US	0.25	0	0	0	-	-	0
CAF-CA	0.25	0	0	0	-	-	0
CDL-CA	0.0625	0	0	-	-	-	0
CDL-US	0.0625	0	0	-	-	-	0
CHWF-CA	0.5	0	0	0	0	-	0
Cleaners-CA	0.25	0	0	0	-	-	0
Coal-Ash-Dams-US	0.5	0	0	0	0	-	0
County-BI-CA	0.25	0	0	0	-	-	0
Dams-CA	0.25	0	0	0	-	-	0
DPR-CA	0.25	0	0	0	-	-	0
DryCleaners-CA	0.25	0	0	0	-	-	0
EGRID-US	0.5	0	0	0	0	-	0
EPA-Watch-List-US	0.25	0	0	0	-	-	0
FA-HW-CA	0.0625	0	0	-	-	-	0
FA-HW-US	0.0625	0	0	-	-	-	0
FA-SWF-CA	0.0625	0	0	-	-	-	0
FRS-US	0.0625	0	2	-	-	-	2
FTTS-INSP-US	0.0625	0	0	-	-	-	0
FUDS-US	1	0	0	0	0	0	0
FUSRAP-US	0.25	0	0	0	-	-	0
Haulers-CA	0.0625	0	0	-	-	-	0
Hist-AFS2-US	0.25	0	0	0	-	-	0
Hist-AFS-US	0.25	0	0	0	-	-	0
Hist-AST-CA	0.25	0	0	0	-	-	0
Hist-AWS-CA	0.25	0	0	0	-	-	0
Hist-CA	0.0625	0	0	-	-	-	0
Hist-CalFID-CA	0.25	0	0	0	-	-	0
Hist-CALSITES-CA	0.25	0	0	0	-	-	0
Hist-CERCLIS-NFRAP-US	0.25	0	0	0	-	-	0
Hist-CERCLIS-US	0.25	0	0	0	-	-	0
Hist-City-UST-CA	0.25	0	0	0	-	-	0
Hist-Deed-CA	0.25	0	0	0	-	-	0
Hist-DTG-CA	0.25	0	0	0	-	-	0
Hist-ERNS-US	0.0625	0	0	-	-	-	0
Hist-FIFRA-US	0.25	0	0	0	-	-	0
Hist-FINDS-US	0.0625	0	0	-	-	-	0
Hist-HWS-CA	0.25	0	0	0	-	-	0
Hist-LUSTIS-CA	0.25	0	1	1	-	-	2
HIST-MLTS-US	0.25	0	0	0	-	-	0
HIST-MTBE-CA	0.25	0	0	0	-	-	0
Hist-NPL-US	0.25	0	0	0	-	-	0

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SUPPLEMENTAL DATABASES							
DATABASE SEARCHED	DISTANCE SEARCHED	SUBJECT SITE	0.125 MILES	0.25 MILES	0.5 MILES	1.0 MILES	TOTAL
Hist-Orange-County-LF-CA	0.25	0	0	0	-	-	0
Historical-CA	0.5	0	0	0	0	-	0
Hist-Prop65-CA	0.25	0	0	0	-	-	0
Hist-RCRIS-US	0.25	0	0	0	-	-	0
Hist-Regional-LUST-CA	0.25	0	0	0	-	-	0
Hist-Regional-Other-CA	0.25	0	0	0	-	-	0
Hist-Regional-SLIC-CA	0.25	0	0	0	-	-	0
Hist-Regional-Spills-CA	0.25	0	0	0	-	-	0
Hist-Regional-SWLF-CA	0.25	0	0	0	-	-	0
Hist-Regional-UST-CA	0.25	0	1	1	-	-	2
Hist-SCL-CA	0.25	0	0	0	-	-	0
Hist-SWIS-CA	0.25	0	0	0	-	-	0
Hist-ToxicPits-CA	0.25	0	0	0	-	-	0
Hist-TRIS-US	0.25	0	0	0	-	-	0
Hist-US	0.0625	0	0	-	-	-	0
Hist-USGS-WaterWells-CA	0.0625	0	0	-	-	-	0
Hist-USTReg-CA	0.25	0	0	1	-	-	1
Hist-WaterWells-US	0.0625	0	0	-	-	-	0
Hist-WMUDS-CA	0.25	0	0	0	-	-	0
HWT-CA	0.25	0	0	1	-	-	1
ICIS-Air-US	0.0625	0	0	-	-	-	0
ICIS-FEC-US	0.0625	0	0	-	-	-	0
ICIS-NPDES-US	0.0625	0	0	-	-	-	0
LA-Waste-Haulers-CA	0.0625	0	0	-	-	-	0
Lead-Smelter-2-US	0.25	0	0	0	-	-	0
Lead-US	0.25	0	0	0	-	-	0
LMOP-US	0.5	0	0	0	0	-	0
Mines2-CA	0.0625	0	0	-	-	-	0
Mines-CA	0.0625	0	0	-	-	-	0
Mines-CDMG-CA	0.0625	0	0	-	-	-	0
MINES-US	0.0625	0	0	-	-	-	0
MLTS-US	0.0625	0	0	-	-	-	0
Mortgage-CA	0.25	0	0	0	-	-	0
MRDS-US	0.25	0	0	0	-	-	0
MWMP-CA	0.25	0	0	0	-	-	0
NCI-CA	0.25	0	0	0	-	-	0
NEI-LF-CA	0.25	0	0	0	-	-	0
NPDES-CA	0.0625	0	0	-	-	-	0
NPDES-SW-CA	0.0625	0	0	-	-	-	0
OGM-CA	0.0625	0	0	-	-	-	0
OGW-CA	0.0625	0	0	-	-	-	0
OSCF-CA	0.5	0	0	0	0	-	0
PCS-US	0.25	0	0	0	-	-	0
Perch1-CA	0.25	0	0	0	-	-	0
Perch2-CA	0.25	0	0	0	-	-	0
Project-CA	0.25	0	0	0	-	-	0
RADINFO-US	0.0625	0	0	-	-	-	0
RFG-Lab-US	0.25	0	0	0	-	-	0
RMP-US	0.0625	0	0	-	-	-	0
ROD-US	0.5	0	0	0	0	-	0
SDWIS-US	0.25	0	0	0	-	-	0
SP-CA	0.25	0	0	0	-	-	0
Spills-SSO-CA	0.0625	0	0	-	-	-	0
SSTS-US	0.0625	0	0	-	-	-	0
TierPer-CA	0.25	0	0	0	-	-	0

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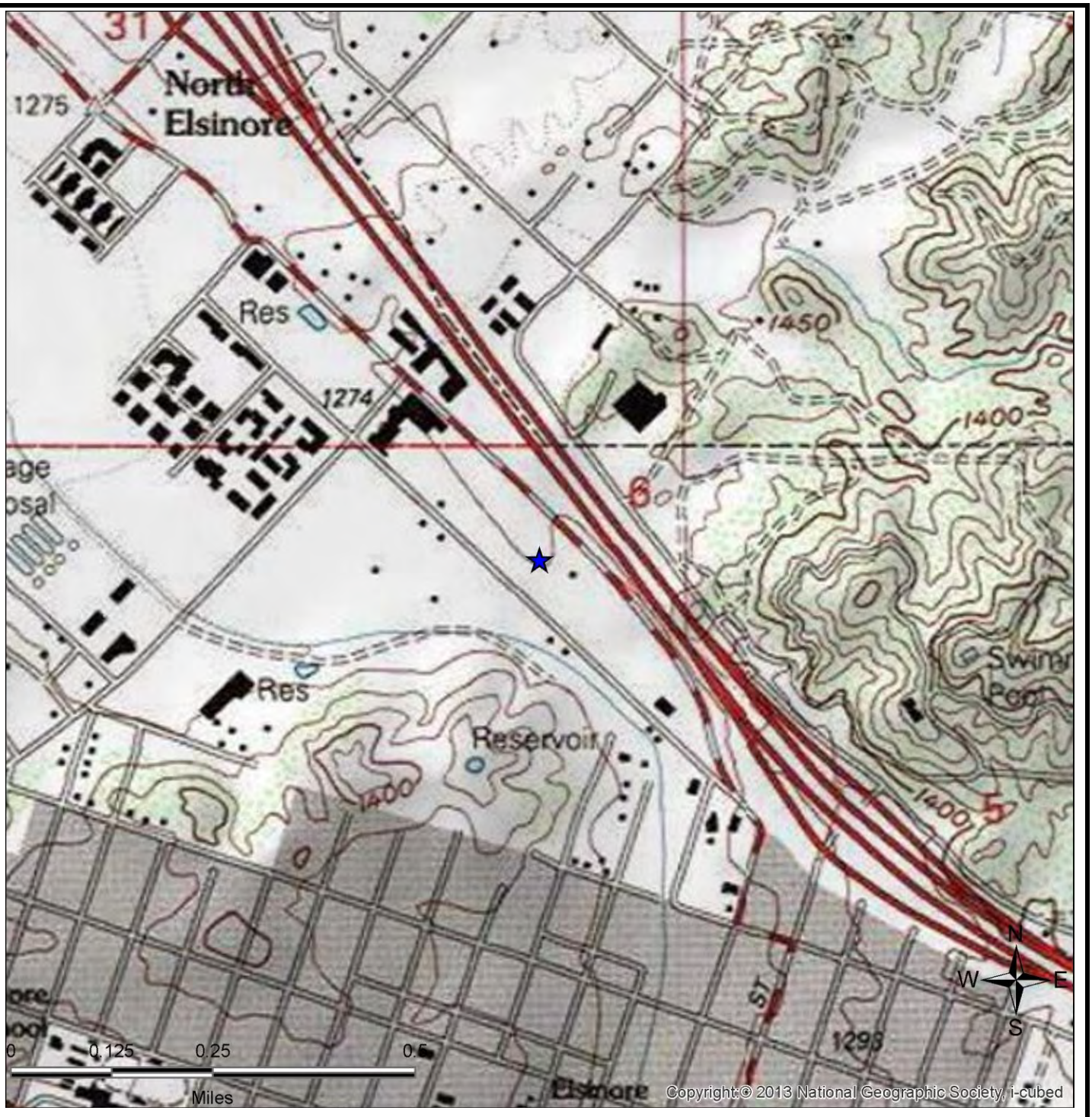
SUPPLEMENTAL DATABASES

DATABASE SEARCHED	DISTANCE SEARCHED	SUBJECT SITE	0.125 MILES	0.25 MILES	0.5 MILES	1.0 MILES	TOTAL
TOMS-CA	0.0625	0	0	-	-	-	0
Tribal-Air-US	0.25	0	0	0	-	-	0
Tribal-VCP-US	0.5	0	0	0	0	-	0
TRIS2000-US	0.0625	0	0	-	-	-	0
TRIS2010-US	0.0625	0	0	-	-	-	0
TRIS80-US	0.0625	0	0	-	-	-	0
TRIS90-US	0.0625	0	0	-	-	-	0
TSCA-US	0.0625	0	0	-	-	-	0
UIC2-CA	0.0625	0	0	-	-	-	0
UIC-CA	0.0625	0	0	-	-	-	0
UMTRA-US	0.0625	0	0	-	-	-	0
USGS-Waterwells-US	0.0625	0	0	-	-	-	0
Vapor-Intrusions-US	0.5	0	0	0	0	-	0
WDR-CA	0.25	0	0	1	-	-	1

PROPRIETARY HISTORIC DATABASES

DATABASE SEARCHED	DISTANCE SEARCHED	SUBJECT SITE	0.125 MILES	0.25 MILES	0.5 MILES	1.0 MILES	TOTAL
Hist-Agriculture	0.0625	0	0	-	-	-	0
Hist-Auto Dealers	0.0625	0	0	-	-	-	0
Hist-Auto Repair	0.25	0	0	1	-	-	1
Hist-Chemical Manufacturing	0.0625	0	0	-	-	-	0
Hist-Chemical-Storage	0.0625	0	0	-	-	-	0
Hist-Cleaners	0.25	0	0	0	-	-	0
Hist-Convenience	0.0625	0	0	-	-	-	0
Hist-Disposal-Recycle	0.0625	0	0	-	-	-	0
Hist-Food-Processors	0.0625	0	0	-	-	-	0
Hist-Gun-Ranges	0.0625	0	0	-	-	-	0
Hist-Machine Shop	0.0625	0	0	-	-	-	0
Hist-Manufacturing	0.0625	0	0	-	-	-	0
Hist-Metal Plating	0.0625	0	0	-	-	-	0
Hist-Mining	0.0625	0	0	-	-	-	0
Hist-Mortuaries	0.0625	0	0	-	-	-	0
Hist-Oil-Gas	0.0625	0	0	-	-	-	0
Hist-OilGas-Refiners	0.0625	0	0	-	-	-	0
Hist-Other	0.0625	0	0	-	-	-	0
Hist-Paint-Stores	0.0625	0	0	-	-	-	0
Hist-Petroleum	0.0625	0	0	-	-	-	0
Hist-Post-Offices	0.0625	0	0	-	-	-	0
Hist-Printers	0.0625	0	0	-	-	-	0
Hist-Rental	0.0625	0	0	-	-	-	0
Hist-RV-Dealers	0.0625	0	0	-	-	-	0
Hist-Salvage	0.0625	0	0	-	-	-	0
Hist-Service Stations	0.25	0	0	0	-	-	0
Hist-Steel-Metals	0.0625	0	0	-	-	-	0
Hist-Textile	0.0625	0	0	-	-	-	0
Hist-Transportation	0.0625	0	0	-	-	-	0
Hist-Trucking	0.0625	0	0	-	-	-	0
Hist-Vehicle-Parts	0.0625	0	0	-	-	-	0
Hist-Vehicle-Washing	0.0625	0	0	-	-	-	0

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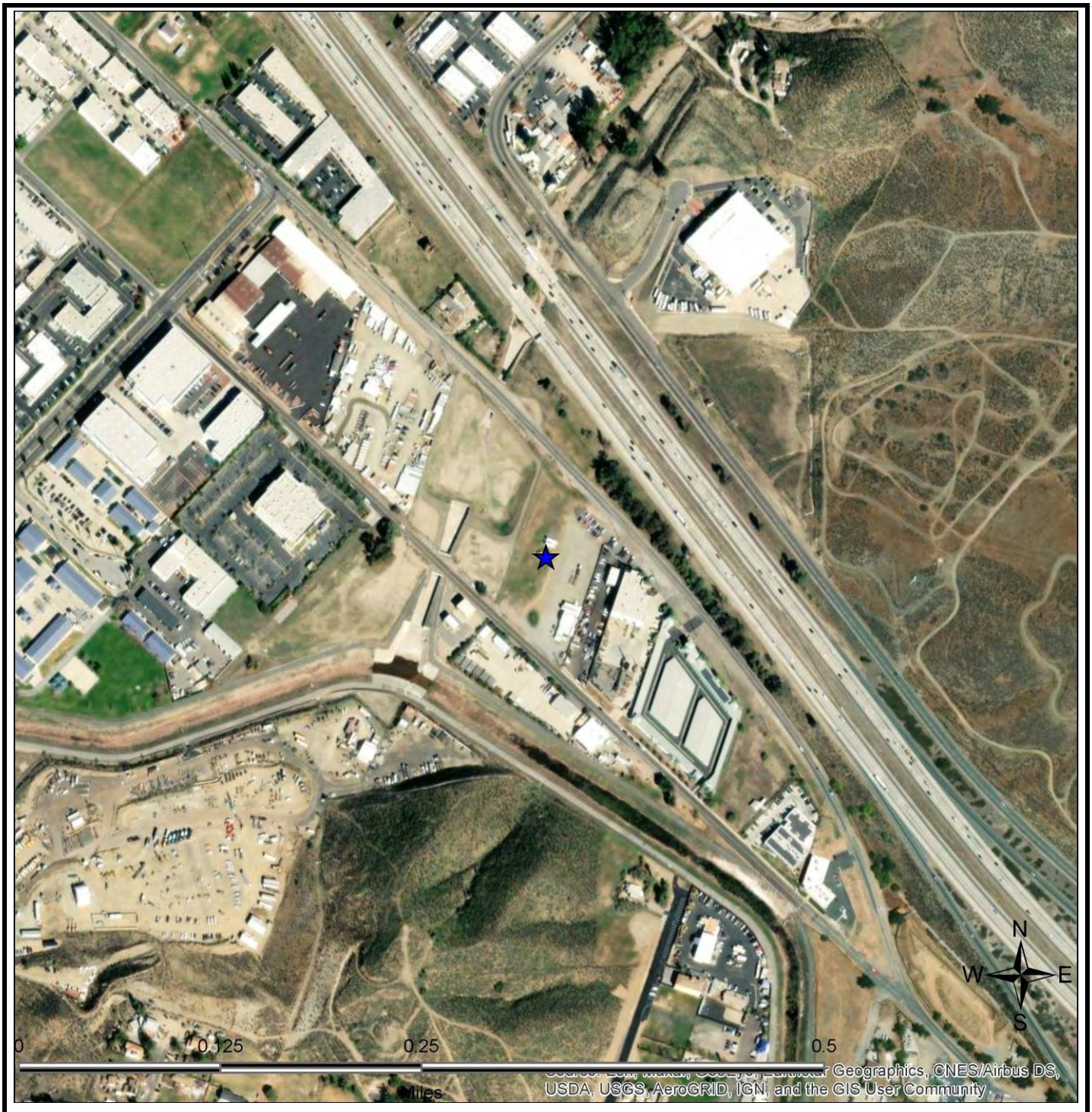


SITE LOCATION TOPOGRAPHIC MAP

U.S. Geological Survey. Lake Elsinore (Date Unavailable) Quadrangle, 7.5 Minute Series

S&S Commercial Environmental Services, Inc.	Collier And Minthorn Lake Elsinore , CA 92530	FIGURE: 1 JOB: 2104787850 DATE: 10/29/2024

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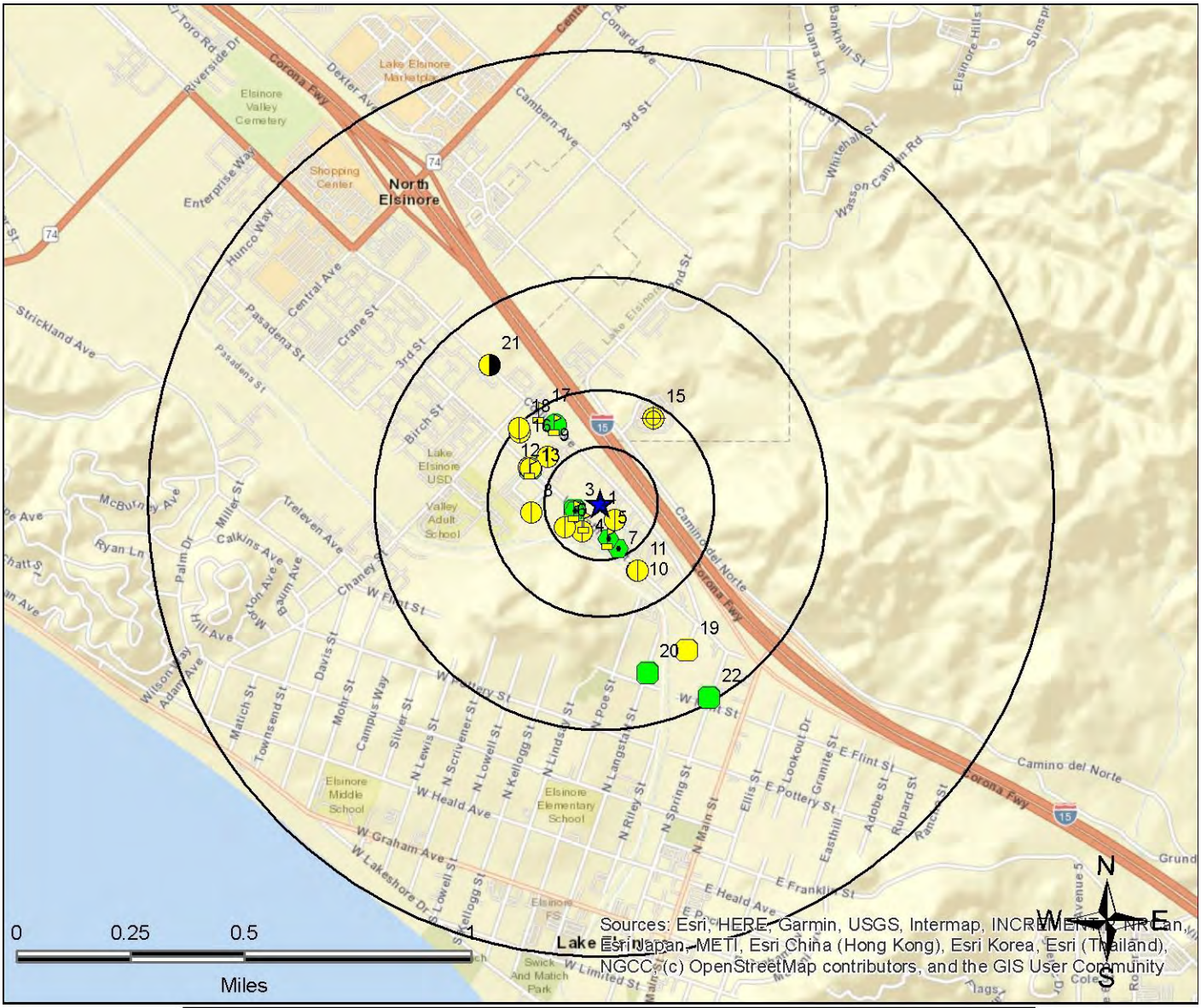


SITE LOCATION MAP

S&S Commercial Environmental Services, Inc.	Collier And Minthorn Lake Elsinore , CA 92530	FIGURE: 2 JOB: 2104787850 DATE: 10/29/2024

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1-MILE RADIUS STREET MAP W/OCCURRENCES (MAP1)



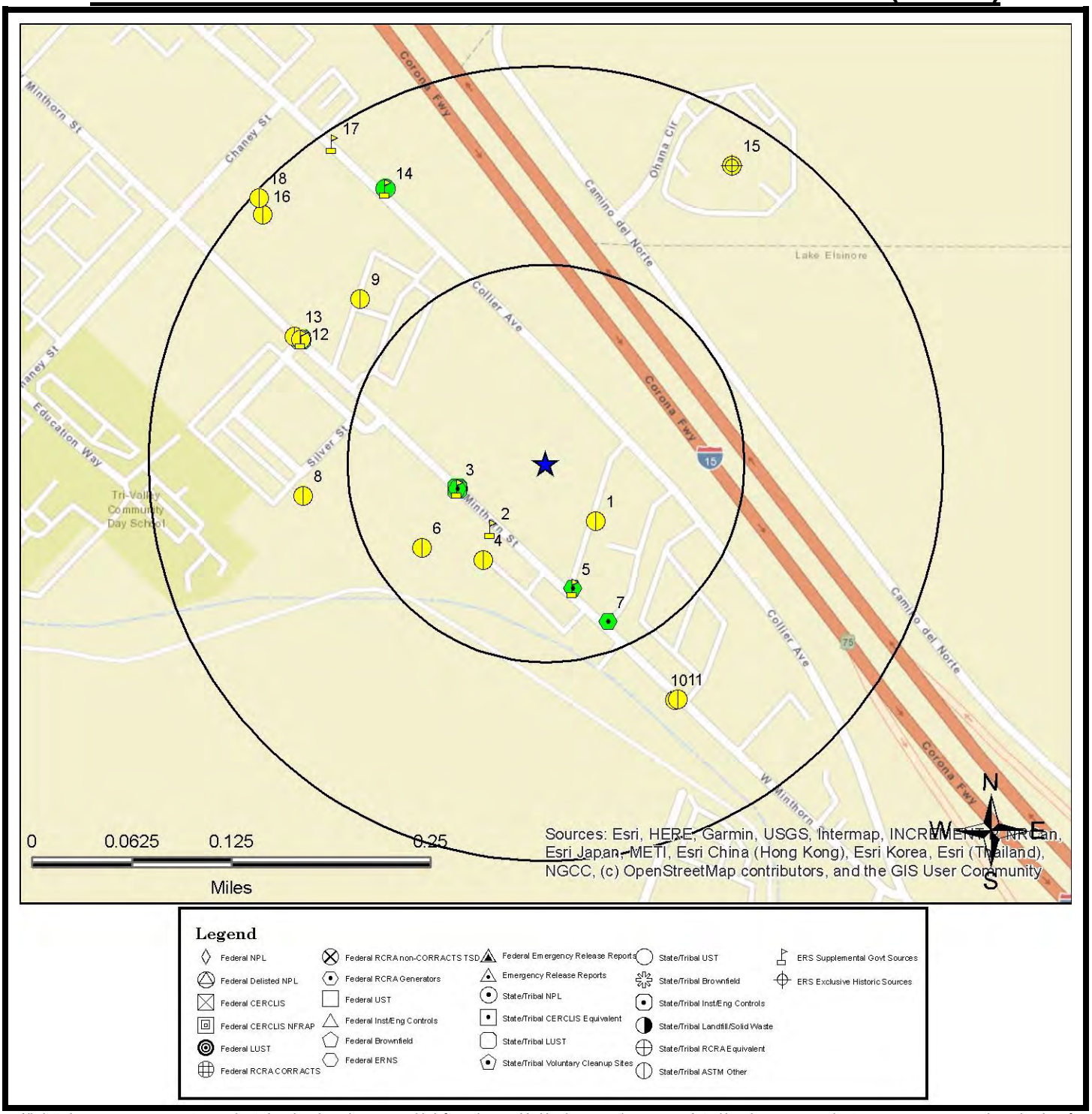
Legend

Federal NPL	Federal RCRA non-CORRACTS TSD	Federal Emergency Release Reports	State/Tribal UST	ERS Supplemental Govt Sources
Federal Delisted NPL	Federal RCRA Generators	Emergency Release Reports	State/Tribal Brownfield	ERS Exclusive Historic Sources
Federal CERCLIS	Federal UST	State/Tribal NPL	State/Tribal Inst/Eng Controls	
Federal CERCLIS NFRAP	Federal Inst/Eng Controls	State/Tribal CERCLIS Equivalent	State/Tribal Landfill/Solid Waste	
Federal LUST	Federal Brownfield	State/Tribal LUST	State/Tribal RCRA Equivalent	
Federal RCRA CORRACTS	Federal ERNS	State/Tribal Voluntary Cleanup Sites	State/Tribal ASTM Other	

All plotted occurrences represent approximate locations based on geographic information provided by the respective agency. Actual locations may vary due to numerous reasons such as: the size of the property, accuracy of the provided location, accuracy of the software used to determine the location, etc. **Occurrences are shown in three colors** to give a visual indication of the potential risk of the listed occurrence based on the type of list and the current status of the occurrence. Occurrences shown in **RED** are locations with known contamination that have not received a "case closed" or "no further action" status. Occurrences shown in **YELLOW** have been listed by the respective agency, but do not always represent an environmental risk. The detailed status information and description of the listing should be reviewed for further information. Occurrences shown in **GREEN** are occurrences that have active permits or have had contamination in the past but have received a "case closed" or "no further action" status and therefore, do not likely present an environmental risk.

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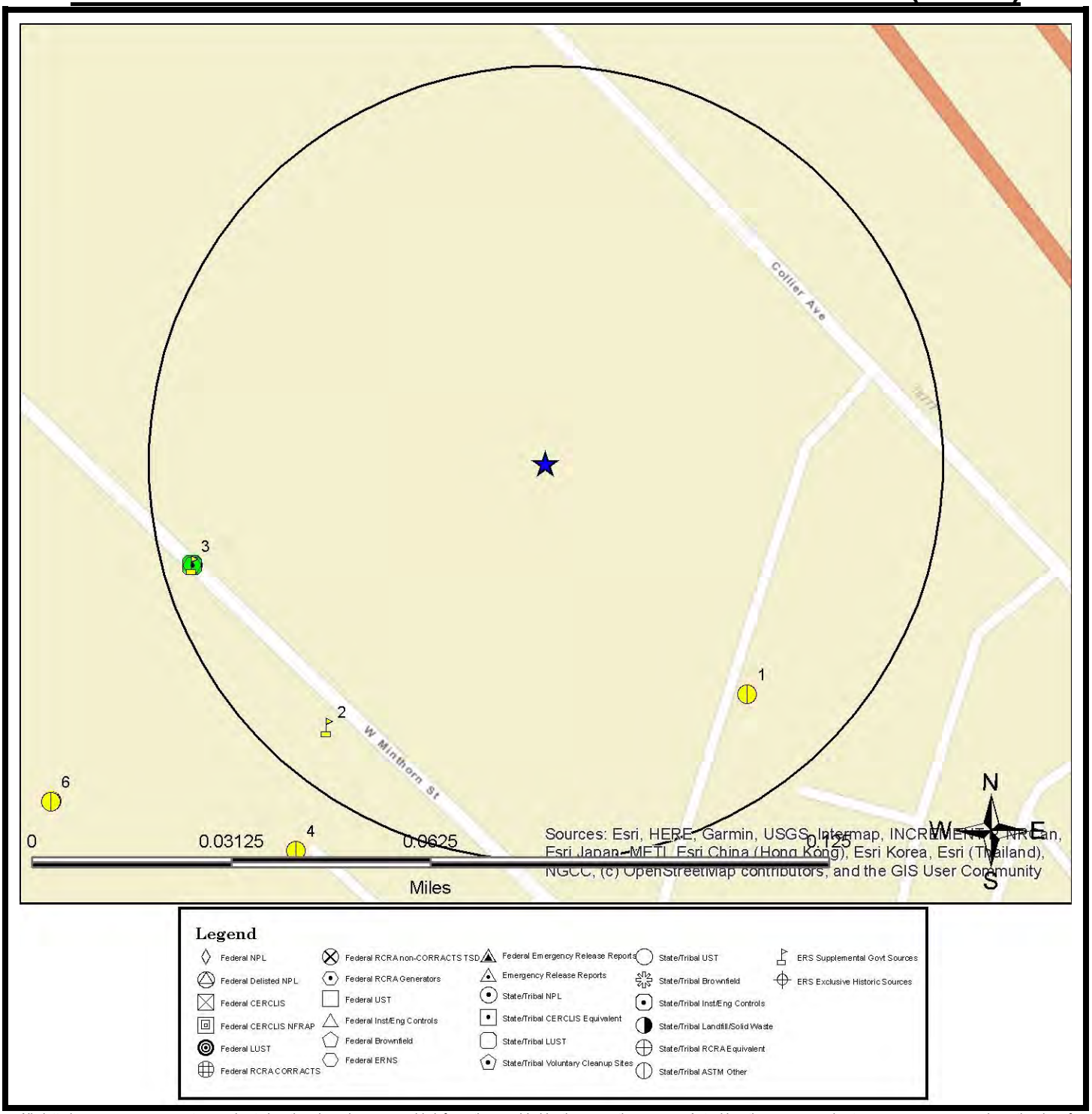
0.25-MILE RADIUS STREET MAP W/OCCURRENCES (MAP2)



All plotted occurrences represent approximate locations based on geographic information provided by the respective agency. Actual locations may vary due to numerous reasons such as: the size of the property, accuracy of the provided location, accuracy of the software used to determine the location, etc. **Occurrences are shown in three colors** to give a visual indication of the potential risk of the listed occurrence based on the type of list and the current status of the occurrence. Occurrences shown in **RED** are locations with known contamination that have not received a "case closed" or "no further action" status. Occurrences shown in **YELLOW** have been listed by the respective agency, but do not always represent an environmental risk. The detailed status information and description of the listing should be reviewed for further information. Occurrences shown in **GREEN** are occurrences that have active permits or have had contamination in the past but have received a "case closed" or "no further action" status and therefore, do not likely present an environmental risk.

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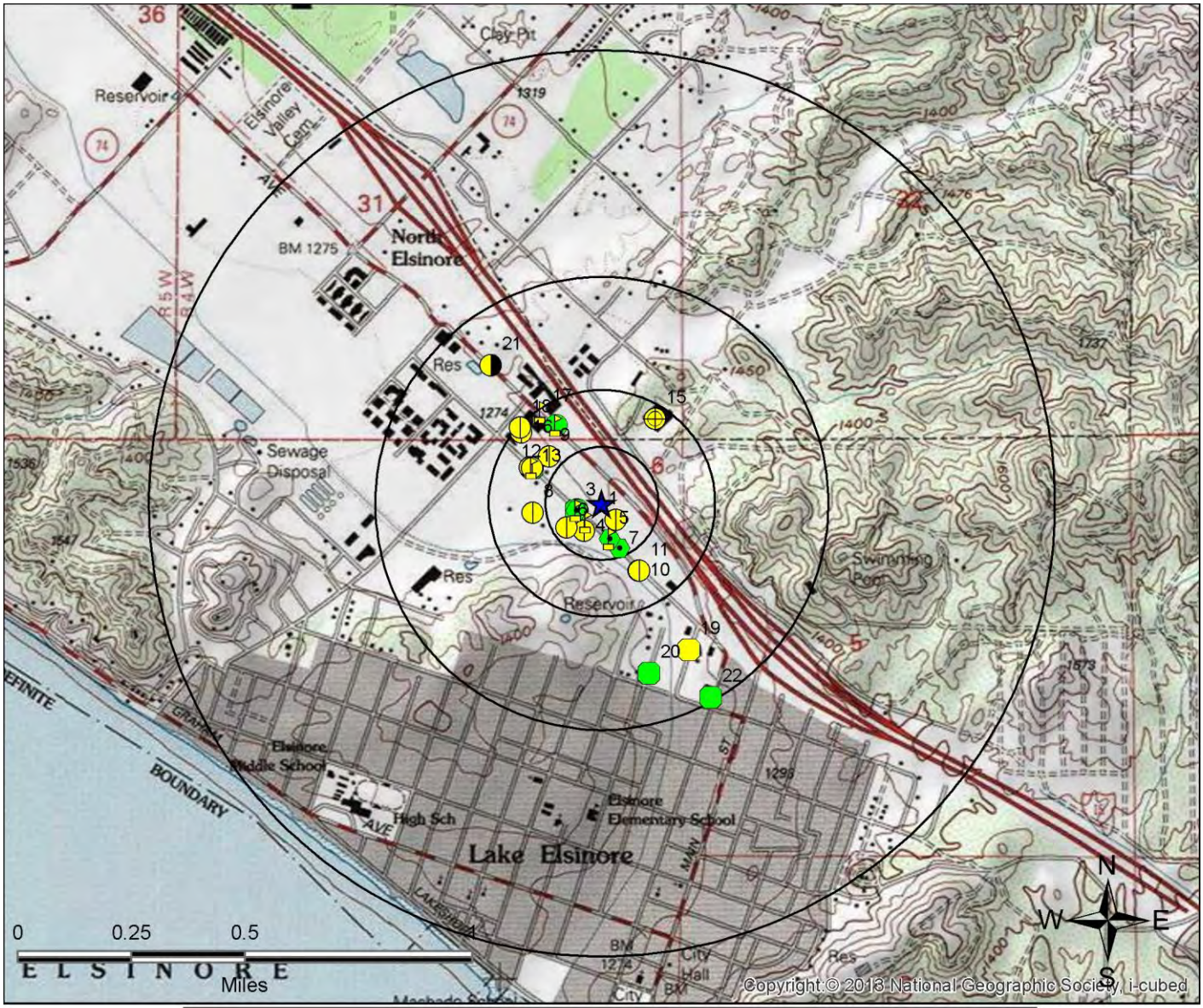
0.0625-MILE RADIUS STREET MAP W/ OCCURRENCES (MAP3)



All plotted occurrences represent approximate locations based on geographic information provided by the respective agency. Actual locations may vary due to numerous reasons such as: the size of the property, accuracy of the provided location, accuracy of the software used to determine the location, etc. **Occurrences are shown in three colors** to give a visual indication of the potential risk of the listed occurrence based on the type of list and the current status of the occurrence. Occurrences shown in **RED** are locations with known contamination that have not received a "case closed" or "no further action" status. Occurrences shown in **YELLOW** have been listed by the respective agency, but do not always represent an environmental risk. The detailed status information and description of the listing should be reviewed for further information. Occurrences shown in **GREEN** are occurrences that have active permits or have had contamination in the past but have received a "case closed" or "no further action" status and therefore, do not likely present an environmental risk.

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1-MILE TOPOGRAPHIC MAP W/OCCURRENCES (MAP4)

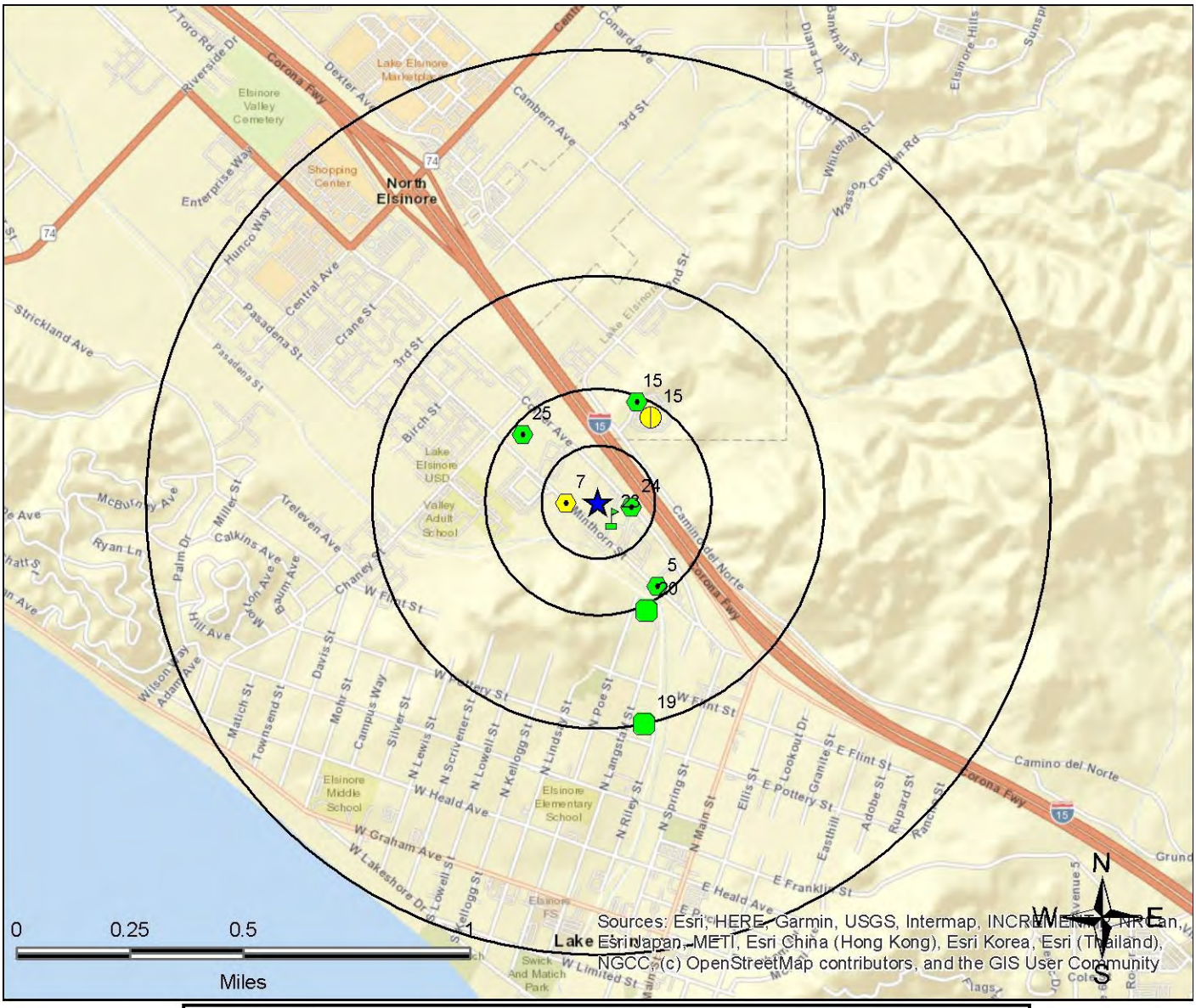


All plotted occurrences represent approximate locations based on geographic information provided by the respective agency. Actual locations may vary due to numerous reasons such as: the size of the property, accuracy of the provided location, accuracy of the software used to determine the location, etc. **Occurrences are shown in three colors** to give a visual indication of the potential risk of the listed occurrence based on the type of list and the current status of the occurrence. Occurrences shown in **RED** are locations with known contamination that have not received a "case closed" or "no further action" status. Occurrences shown in **YELLOW** have been listed by the respective agency, but do not always represent an environmental risk. The detailed status information and description of the listing should be reviewed for further information. Occurrences shown in **GREEN** are occurrences that have active permits or have had contamination in the past but have received a "case closed" or "no further action" status and therefore, do not likely present an environmental risk.

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AGENCY DIFFERENCES IN MAPPED LOCATIONS (MAP5)

Note: Occurrences on this map have agency provided coordinates which differ significantly from geocoded locations.



Legend

- Federal NPL
- Federal Delisted NPL
- Federal CERCLIS
- Federal CERCLIS NFRAP
- Federal LUST
- Federal RCRA CORRACTS
- Federal RCRA non-CORRACTS TSD
- Federal RCRA Generators
- Federal UST
- Federal Inst/Eng Controls
- Federal Brownfield
- Federal ERNS
- Federal Emergency Release Reports
- Emergency Release Reports
- State/Tribal NPL
- State/Tribal CERCLIS Equivalent
- State/Tribal LUST
- State/Tribal Voluntary Cleanup Sites
- State/Tribal UST
- State/Tribal Brownfield
- State/Tribal Inst/Eng Controls
- State/Tribal Landfill/Solid Waste
- State/Tribal RCRA Equivalent
- State/Tribal ASTM Other
- ERS Supplemental Govt Sources
- ERS Exclusive Historic Sources

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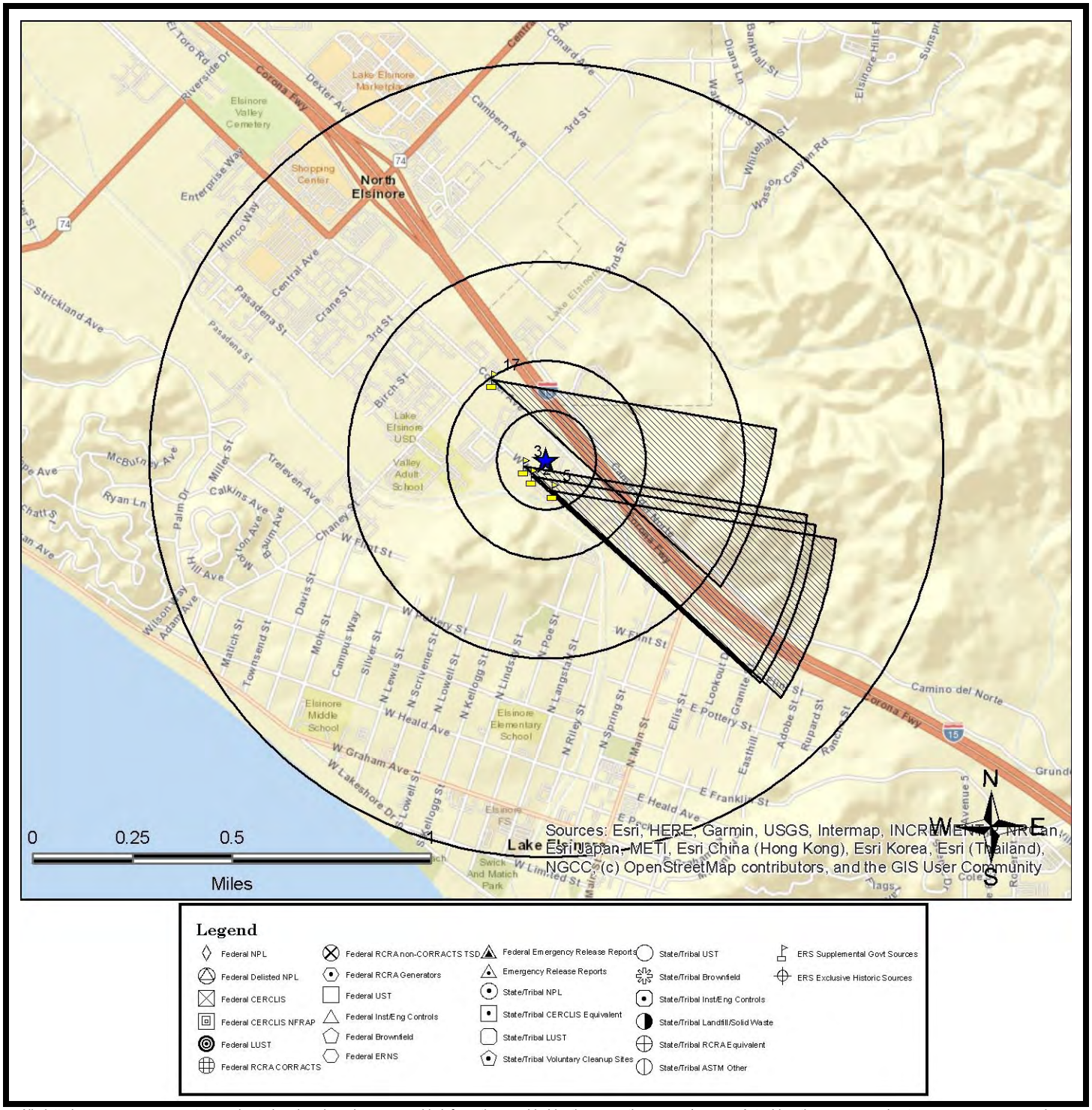
SUMMARY OF AGENCY DIFFERENCES

MAP ID	ID / SITE NAME	ADDRESS / DATABASE	AGENCY COORDINATES	DISTANCE (MILES)	DIRECTION
5	CAD052663085 THERMAL ELECTRONICS, INC	403 W Minthorn St RCRA-NON-US	-117.32803, 33.679184	0.23	SE
7	CAR000284208 ABEL'S AUTO REPAIR LLC	311 W Minthorn St Ste 4 RCRA-SQG-US	-117.331542, 33.681854	0.07	W
15	10578097 SoCal RV Doctor	29910 Ohana Cir # 102 CERS-CA	-117.32829, 33.68461	0.22	NE
15	CAL000366697 TEAM LABEDA TEST FACILITY LLC DBA SOCAL RV DOCTOR	29910 Ohana Cir Ste 102 RCRA-NON-US	-117.328845, 33.685099	0.24	N
15	CAL000129258 PRECISION SPORTS	29910 Ohana Cir RCRA-NON-US	-117.328845, 33.685099	0.24	N
19	T0606500134 REDMAN PROPERTY	520 N Riley St LUST-Closed-CA	-117.3285037, 33.6747664	0.5	S
20	T0606500084 CITY YARD	521 N Langstaff St LUST-Closed-CA	-117.3284271, 33.67841564	0.26	SE
23	T0606500097 LAIDLAW TRANSIT	609 W MINTHORN ST Hist-CA	-117.329771, 33.681359	0.05	SE
24	CAL000399691 AGGREGATE CRUSHER SPECIALISTS INC DBA ACS INC	18785 Collier Ave RCRA-NON-US	-117.329048, 33.681723	0.07	E
25	CAD981568488 DELEO CLAY TILE CO INC	600 Chaney St RCRA-LQG-US	-117.333225, 33.684039	0.23	NW
25	CAL000375591 NP MECHANICAL INC	600 Chaney St RCRA-NON-US	-117.333225, 33.684039	0.23	NW

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MAPPED AIR PERMITS WITH POTENTIAL DISPERSION (MAP6)

Note: Occurrences on this map are reported in Air Quality databases. Potential air plumes are drawn in the direction of the prevailing wind.



All plotted occurrences represent approximate locations based on geographic information provided by the respective agency/source. Actual locations may vary due to numerous reasons such as: the size of the property, accuracy of the provided location, accuracy of the software used to determine the location, etc. Potential air dispersion plumes are depicted to graphically show the direction contaminates may travel based on prevailing wind data and provide a visual screening tool only. Actual direction will vary especially by season. Depending on the actual contaminate, amount released, and other variables, the distance from the source the contaminate may travel can and will vary. Interpretation and review of all the actual relevant data by an environmental professional is recommended before making any decisions, conclusions or otherwise based on the map depictions, air data, and potential air dispersion plumes.

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LISTED OCCURRENCE DETAILS

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
CRSP-CA	Listed	0.05 miles SE	1276 ft (6 ft lower than site)	1
SITE NAME			**MAPS**	**ID**
LAIDLAW TRANSIT			1, 2, 3, 4	214479
ADDRESS			**CITY**	**ZIP**
Not Reported by Agency			LAKE ELSINORE	92330

DETAILS

Site Regulated Program Information
Site ID: 214479
Site EI ID: T0606500097
Agency Provided Latitude: 33.681359
Agency Provided Longitude: -117.329771

Program Description: Leaking Underground Storage Tank Cleanup Site

Evaluation Information
: Not Reported
:Violation Information
: Not Reported
:Enforcement Information
: Not Reported
:Chemical Information
: Not Reported
:Coordinate Information
: Not Reported
:

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
AIR-DIST-CA	Listed	0.05 miles SW	1277 ft (5 ft lower than site)	2
SITE NAME			**MAPS**	**ID**
EASTERN MUNICIPAL WATER DISTRICT			1, 2, 3, 4	124616-SC
ADDRESS			**CITY**	**ZIP**
866 MINTHORN ST			LAKE ELSINORE	92530

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DETAILS
District: South Coast AQMD Compliance URL: https://xappprod.aqmd.gov/find//facility/AQMDsearch?facilityID=124616 Note: For additional Facility, Equipment, Emissions, Hearing Board or Transporation Plan Information click on different tabs. Facility Id: 124616 County Code: RV County: Riverside Facility Status Code: A Facility Status: ACTIVE Number of Employees: 0 Location Zip Code Extension: Not Reported Facility Representative First Name: FELIPE Facility Representative Last Name: GREGORIO Location Area Code: 951 Location Phone Number: 9283777 Location Phone Extension: 6325 Mailing Address: P.O. BOX 8300 Mailing City: PERRIS Mailing State: CA Mailing Zip Code: 92572 Mailing Zip Code Extension: 8300 Mailing Area Code: 951 Mailing Phone Number: 9283777 Mailing Phone Extension: 6325 Mailing Representative First Name: FELIPE Mailing Representative Last Name: GREGORIO More Details Link

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
AIR-DIST-CA	Listed	0.06 miles W	1278 ft (4 ft lower than site)	3
SITE NAME			**MAPS**	**ID**
M & J AUTO & BODY			1, 2, 3, 4	77669-SC
ADDRESS			**CITY**	**ZIP**
609 MINTHORN ST			LAKE ELSINORE	92532

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DETAILS
District: South Coast AQMD Compliance URL: https://xappprod.aqmd.gov/find//facility/AQMDsearch?facilityID=77669 Note: For additional Facility, Equipment, Emissions, Hearing Board or Transporation Plan Information click on different tabs. Facility Id: 77669 County Code: RV County: Riverside Facility Status Code: A Facility Status: ACTIVE Number of Employees: 0 Location Zip Code Extension: Not Reported Facility Representative First Name: MAURICE Facility Representative Last Name: CARMICHAEL Location Area Code: 213 Location Phone Number: 3759848 Location Phone Extension: Not Reported Mailing Address: 39634 WILD FLOWER DR Mailing City: MURRIETA Mailing State: CA Mailing Zip Code: 92563 Mailing Zip Code Extension: 8664 Mailing Area Code: 213 Mailing Phone Number: 3759848 Mailing Phone Extension: Not Reported Mailing Representative First Name: MAURICE Mailing Representative Last Name: CARMICHAEL More Details Link

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
FRS-US	Listed	0.06 miles W	1278 ft (4 ft lower than site)	3
SITE NAME			**MAPS**	**ID**
LAIDLAW TRANSIT			1, 2, 3, 4	110065082234
ADDRESS			**CITY**	**ZIP**
609 W MINTHORN ST			LAKE ELSINORE	92330
DETAILS				
FRS Facility Detail Report URL: https://frs-public.epa.gov/ords/frs_public2/fii_query_detail.disp_program_facility?p_registry_id=110065082234 Registry ID: 110065082234				

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DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
FRS-US	Listed	0.06 miles W	1278 ft (4 ft lower than site)	3
SITE NAME			**MAPS**	**ID**
STEVES TOWING INC			1, 2, 3, 4	110070474323
ADDRESS			**CITY**	**ZIP**
609 W MINTHORN ST			LAKE ELSINORE	
DETAILS				
FRS Facility Detail Report URL: https://frs-public.epa.gov/ords/frs_public2/fii_query_detail.disp_program_facility?p_registry_id=110070474323 Registry ID: 110070474323				

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
Hist-LUSTIS-CA	Listed	0.06 miles W	1278 ft (4 ft lower than site)	3
SITE NAME			**MAPS**	**ID**
LAIDLAW TRANSIT			1, 2, 3, 4	235566
ADDRESS			**CITY**	**ZIP**
609 MINTHORN STREET, WEST			LAKE ELSINORE	92330
DETAILS				
Reported Date: 1998				

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
Hist-Regional-UST-CA	Listed	0.06 miles W	1278 ft (4 ft lower than site)	3
SITE NAME			**MAPS**	**ID**
LAIDLAW TRANSIT			1, 2, 3, 4	235566
ADDRESS			**CITY**	**ZIP**
609 MINTHORN STREET WEST			LAKE ELSINORE	

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DETAILS
Reported Date: 1998 List: Region #8-Santa Ana Regional Underground Tank Database List Agency: Regional Water Quality Control Board, Region #8

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
Hist-UST-CA	Listed	0.06 miles W	1278 ft (4 ft lower than site)	3
SITE NAME			**MAPS**	**ID**
ARA TRANSPORTATION INC			1, 2, 3, 4	214068
ADDRESS			**CITY**	**ZIP**
609 MINTHORN AVE			LAKE ELSINORE	92330
DETAILS				
Note: ID has been assigned by ERS Tank Details: https://documents.geotracker.waterboards.ca.gov/ustpdfs/pdf/0001f413.pdf				

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
Hist-UST-CA	Listed	0.06 miles W	1278 ft (4 ft lower than site)	3
SITE NAME			**MAPS**	**ID**
LAIDLAW TRANSIT / ELSINORE DIV			1, 2, 3, 4	244271
ADDRESS			**CITY**	**ZIP**
609 MINTHORN			LAKE ELSINORE	92330
DETAILS				
Note: ID has been assigned by ERS Tank Details: https://documents.geotracker.waterboards.ca.gov/ustpdfs/pdf/0001f7a3.pdf				

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DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
HWIS-CA	No Longer Listed	0.06 miles W	1278 ft (4 ft lower than site)	3
SITE NAME			**MAPS**	**ID**
STEVE'S TOWING INC			1, 2, 3, 4	54FDFFFA-CAL000337032
ADDRESS			**CITY**	**ZIP**
609 W MINTHORN ST			LAKE ELSINORE	8561800900
DETAILS				
Previous List: HWIS-CA Archived: 4/2/2012				

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
HWIS-CA	No Longer Listed	0.06 miles W	1278 ft (4 ft lower than site)	3
SITE NAME			**MAPS**	**ID**
STEVE'S TOWING INC			1, 2, 3, 4	CAL000337032
ADDRESS			**CITY**	**ZIP**
609 W MINTHORN ST			LAKE ELSINORE	925302801

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DETAILS
Original Database: HWIS-CA Last Agency Status: Listed Archive Date: 10/07/21 No Longer Listed-EPA ID: CAL000337032 Facility County: 33 Mailing Street: PO BOX 355 Mailing City: LAKE ELSINORE Mailing State: CA Mailing Zip: 925310355 Contact Name: JOHN MILLER Contact Phone: 9515381400 Year: 2016 TONS: 0.3525 TSD EPA ID: UTD991301748 Category Code: 352 Category Description: Other organic solids Method Description: LANDFILL OR SURFACE IMPOUNDMENT THAT WILL BE CLOSED AS LANDFILL(TO INCLUDE ON-SITE TREATMENT AND/OR STABILIZATION) Year: 2015 TONS: 0.1125 TSD EPA ID: UTD991301748 Category Code: 352 Category Description: Other organic solids Method Description: LANDFILL OR SURFACE IMPOUNDMENT THAT WILL BE CLOSED AS LANDFILL(TO INCLUDE ON-SITE TREATMENT AND/OR STABILIZATION) Year: 2015 More Details Link

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
LUST-Closed-CA	COMPLETED - CASE CLOSED	0.06 miles W	1278 ft (4 ft lower than site)	3
SITE NAME			**MAPS**	**ID**
LAIDLAW TRANSIT			1, 2, 3, 4	T0606500097
ADDRESS			**CITY**	**ZIP**
609 W MINTHORN ST			LAKE ELSINORE	92330

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DETAILS

Global ID: T0606500097
Site/Facility Type: LUST CLEANUP SITE
County: RIVERSIDE
Census Tract: 6065043006
EPA Region: 9
Case Type: LUST Cleanup Site
Status Date: 4/4/1989
CUF Case: NO
Lead Agency: RIVERSIDE COUNTY LOP
Case Manager: RIV
Local Agency: RIVERSIDE COUNTY LOP
Regional Water Board Case Case Number: 083300978T
Potential Contaminants of Concern: Heating Oil / Fuel Oil
Potential Media of Concern: Soil
Case Begin Date: 3/2/1988
Leak Reported Date: 6/2/1988
How Leak was Discovered: Tank Closure
Discharge Source: Tank
Discharge Cause: Corrosion
No Further Action Date: 4/4/1989
CalWater Watershed Name: Santa Ana River - Lake Mathews - Terra Colta (801.35)
DWR Groundwater Sub-Basin Name: Elsinore - Elsinore Valley (8-004.01)
CalEnviroScreen 3 Percentile: 81-85%
CalEnviroScreen 4 Percentile: 80-85%
Is the site a Military or DOD site?: No
Regional Board Office Region: SANTA ANA RWQCB (REGION 8)

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
RCRA-NON-US	Listed	0.06 miles W	1278 ft (4 ft lower than site)	**3**
SITE NAME			**MAPS**	**ID**
STEVE'S TOWING INC			1, 2, 3, 4	CAL000337032
ADDRESS			**CITY**	**ZIP**
609 W MINTHORN ST			LAKE ELSINORE	92530-2801

DETAILS

More Details:
https://enviro.epa.gov/envirofacts/rcrainfo/facility?handlerId=CAL000337032
Reporting Universe: Other

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DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
RCRA-SQG-US	Listed	0.06 miles W	1278 ft (4 ft lower than site)	3
SITE NAME			**MAPS**	**ID**
ZIEMBAS AUTO			1, 2, 3, 4	CAD982317299
ADDRESS			**CITY**	**ZIP**
609 MINTHORN			LAKE ELSINORE	92530
DETAILS				
More Details: https://enviro.epa.gov/envirofacts/rcrainfo/facility?handlerId=CAD982317299 Reporting Universe: SQG				

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
CRSP-CA	Listed	0.07 miles SW	1274 ft (8 ft lower than site)	4
SITE NAME			**MAPS**	**ID**
Lake Elsinore Outlet Channel Maintenance Project			1, 2, 4	265854
ADDRESS			**CITY**	**ZIP**
Not Reported by Agency				

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DETAILS
Site Regulated Program Information Site ID: 265854 Site EI ID: 772217 Agency Provided Latitude: 33.681 Agency Provided Longitude: -117.331 Program Description: Wetlands - Fill and Dredge Material Evaluation Information : Not Reported :Violation Information : Not Reported :Enforcement Information : Not Reported :Chemical Information : Not Reported :Coordinate Information : Not Reported :

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
AIR-DIST-CA	Listed	0.08 miles S	1273 ft (9 ft lower than site)	5
SITE NAME			**MAPS**	**ID**
THERMAL ELECTRONICS INC			1, 2, 4	36895-SC
ADDRESS			**CITY**	**ZIP**
403 MINTHORN			LAKE ELSINORE	92530

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DETAILS

District: South Coast AQMD
Compliance URL:
https://xappprod.aqmd.gov/find//facility/AQMDsearch?facilityID=36895
Note: For additional Facility, Equipment, Emissions, Hearing Board or Transporation Plan Information click on different tabs.
Facility Id: 36895
County Code: RV
County: Riverside
Facility Status Code: A
Facility Status: ACTIVE
Number of Employees: 0
Location Zip Code Extension: Not Reported
Facility Representative First Name: Not Reported
Facility Representative Last Name: Not Reported
Location Area Code: Not Reported
Location Phone Number: Not Reported
Location Phone Extension: Not Reported
Mailing Address: 403 MINTHORN
Mailing City: LAKE ELSINORE
Mailing State: CA
Mailing Zip Code: 92530
Mailing Zip Code Extension: Not Reported
Mailing Area Code: Not Reported
Mailing Phone Number: Not Reported
Mailing Phone Extension: Not Reported
Mailing Representative First Name: Not Reported
Mailing Representative Last Name: Not Reported

More Details Link

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
RCRA-NON-US	Listed	0.08 miles S	1273 ft (9 ft lower than site)	**5**
SITE NAME			**MAPS**	**ID**
THERMAL ELECTRONICS, INC			1, 2, 4	CAD052663085
ADDRESS			**CITY**	**ZIP**
403 W Minthorn St			Lake Elsinore	92530

DETAILS

More Details:
https://enviro.epa.gov/envirofacts/rcrainfo/facility?handlerId=CAD052663085
Reporting Universe: Other

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DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
ENF-Wastewater-CA	Historical	0.09 miles SW	1276 ft (6 ft lower than site)	6

SITE NAME	MAPS	ID
Temescal Creek Outfall	1, 2, 4	338019

ADDRESS	CITY	ZIP
Not Reported by Agency		

DETAILS

ENFORCEMENT ID (EID): 338019
FACILITY NAME: Temescal Creek Outfall
PLACE SUBTYPE: Wastewater Treatment Facility
PLACE LATITUDE: 33.681111
STATUS: Historical
REGION: 8
FACILITY ID: 259196
AGENCY NAME: Eastern Municipal Water District
PLACE TYPE: Utility
PLACE LONGITUDE: -117.331667
WDID: 8 332303001
REG MEASURE ID: 133107
REG MEASURE TYPE: NPDES Permits
ORDER / RESOLUTION NUMBER: R8-2006-0069
ENFORCEMENT ACTION TYPE: Admin Civil Liability
EFFECTIVE DATE: 12/15/2006
ACL ISSUANCE DATE: 12/15/2006
TITLE: MPC No. R8-2006-0069 for EMWD
DESCRIPTION: Issued Mandatory Penalty Complaint to address minimum mandatory penalties accrued from 7 (seven) effluent limit violations for Aluminum and chlorine residual, which occurred between Jan-05 & Mar-06.
PROGRAM: NPDMUNILRG
PROGRAM CATEGORY: NPDESWW
TOTAL ASSESSMENT AMOUNT: 21000
INITIAL ASSESSED AMOUNT: 0
LIABILITY $ AMOUNT: 10500
PROJECT $ AMOUNT: 0
LIABILITY $ PAID: 10500
PROJECT $ COMPLETED: 0

More Details Link

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DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
ENF-Wastewater-CA	Historical	0.09 miles SW	1276 ft (6 ft lower than site)	6

SITE NAME	MAPS	ID
Temescal Creek Outfall	1, 2, 4	221849

ADDRESS	CITY	ZIP
Not Reported by Agency		

DETAILS

ENFORCEMENT ID (EID): 221849
FACILITY NAME: Temescal Creek Outfall
PLACE SUBTYPE: Wastewater Treatment Facility
PLACE LATITUDE: 33.681111
STATUS: Historical
REGION: 8
FACILITY ID: 259196
AGENCY NAME: Eastern Municipal Water District
PLACE TYPE: Utility
PLACE LONGITUDE: -117.331667
WDID: 8 332303001
REG MEASURE ID: 133107
REG MEASURE TYPE: NPDES Permits
ORDER / RESOLUTION NUMBER: R8-1998-0106
ENFORCEMENT ACTION TYPE: Admin Civil Liability
EFFECTIVE DATE: 12/18/1998
TERMINATION DATE: 10/2/2003
TITLE: Enforcement - 8 332303001
DESCRIPTION: 13385-CHLORINE DISCHARGE TO TEMESCAL CREEK SEP-DAIRY RUNOFF SAMPLING
PROGRAM: NPDMUNILRG
PROGRAM CATEGORY: NPDESWW
TOTAL ASSESSMENT AMOUNT: 10000
INITIAL ASSESSED AMOUNT: 0
LIABILITY $ AMOUNT: 2000
PROJECT $ AMOUNT: 0
LIABILITY $ PAID: 2000
PROJECT $ COMPLETED: 0

More Details Link

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DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
ENF-Wastewater-CA	Historical	0.09 miles SW	1276 ft (6 ft lower than site)	6

SITE NAME	MAPS	ID
Temescal Creek Outfall	1, 2, 4	253277

ADDRESS	CITY	ZIP
Not Reported by Agency		

DETAILS

ENFORCEMENT ID (EID): 253277
FACILITY NAME: Temescal Creek Outfall
PLACE SUBTYPE: Wastewater Treatment Facility
PLACE LATITUDE: 33.681111
STATUS: Historical
REGION: 8
FACILITY ID: 259196
AGENCY NAME: Eastern Municipal Water District
PLACE TYPE: Utility
PLACE LONGITUDE: -117.331667
WDID: 8 332303001
REG MEASURE ID: 147651
REG MEASURE TYPE: NPDES Permits
ORDER / RESOLUTION NUMBER: R8-2004-0100
ENFORCEMENT ACTION TYPE: Admin Civil Liability
EFFECTIVE DATE: 11/16/2004
TITLE: MPC R8-2004-0100 for EMWD
DESCRIPTION: For violations of Se & cyanide in January & February 2004
PROGRAM: NPDMUNILRG
PROGRAM CATEGORY: NPDESWW
TOTAL ASSESSMENT AMOUNT: 12000
INITIAL ASSESSED AMOUNT: 12000
LIABILITY $ AMOUNT: 12000
PROJECT $ AMOUNT: 0
LIABILITY $ PAID: 12000
PROJECT $ COMPLETED: 0
TOTAL $ PAID/COMPLETED AMOUNT: 12000
More Details Link

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DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
ENF-Wastewater-CA	Historical	0.09 miles SW	1276 ft (6 ft lower than site)	6
SITE NAME			**MAPS**	**ID**
Temescal Creek Outfall			1, 2, 4	251510
ADDRESS			**CITY**	**ZIP**
Not Reported by Agency				

DETAILS

ENFORCEMENT ID (EID): 251510
FACILITY NAME: Temescal Creek Outfall
PLACE SUBTYPE: Wastewater Treatment Facility
PLACE LATITUDE: 33.681111
STATUS: Historical
REGION: 8
FACILITY ID: 259196
PLACE TYPE: Utility
PLACE LONGITUDE: -117.331667
ORDER / RESOLUTION NUMBER: R8-2004-0045
ENFORCEMENT ACTION TYPE: Admin Civil Liability
EFFECTIVE DATE: 3/11/2004
TITLE: MPC R8-2004-0045 for EMWD
DESCRIPTION: Issued to address chlorine residual (6 violations), cyanide (1), iron (1), Turbidity (2), selenium (2), and Mercury (1) violations from discharge to Temescal Creek from March 2001 to December 2003.
PROGRAM: NPDESWW
PROGRAM CATEGORY: NPDESWW
TOTAL ASSESSMENT AMOUNT: 30000
INITIAL ASSESSED AMOUNT: 0
LIABILITY $ AMOUNT: 30000
PROJECT $ AMOUNT: 0
LIABILITY $ PAID: 30000
PROJECT $ COMPLETED: 0
TOTAL $ PAID/COMPLETED AMOUNT: 30000
Location 1: (33.681111, -117.331667)

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
CRSP-CA	Listed	0.09 miles SW	1276 ft (6 ft lower than site)	6
SITE NAME			**MAPS**	**ID**
Temescal Creek Outfall			1, 2, 4	74331
ADDRESS			**CITY**	**ZIP**
Not Reported by Agency			LAKE ELSINORE	

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DETAILS
Site Regulated Program Information Site ID: 74331 Site EI ID: 259196 Agency Provided Latitude: 33.681111 Agency Provided Longitude: -117.331667 Program Description: NPDES Wastewater and Stormwater Evaluation Information Evaluation Date: 5/16/2018 Violations Found? (Y/N): No Evaluation General Type: Compliance Evaluation Inspection Evaluation Type: RWQCB Type B compliance inspection Evaluation Note(s): Not Reported Evaluation Division: Water Boards Evaluation Program: NPDMUNILRG Evaluation Source: CIWQS Evaluation Date: 2/3/2016 Violations Found? (Y/N): No Evaluation General Type: Compliance Evaluation Inspection Evaluation Type: RWQCB Type B compliance inspection Evaluation Note(s): Not Reported Evaluation Division: Water Boards Evaluation Program: NPDMUNILRG Evaluation Source: CIWQS More Details Link

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
RCRA-NON-US	Listed	0.1 miles S	1270 ft (12 ft lower than site)	7
SITE NAME			**MAPS**	**ID**
NET DEVELOPMENT CO.			1, 2, 4	CAC003030691
ADDRESS			**CITY**	**ZIP**
311 W Minthorn St			Lake Elsinore	92530
DETAILS				
More Details: https://enviro.epa.gov/envirofacts/rcrainfo/facility?handlerId=CAC003030691 Reporting Universe: Other				

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DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
RCRA-SQG-US	Listed	0.1 miles S	1270 ft (12 ft lower than site)	7
SITE NAME			**MAPS**	**ID**
ABEL'S AUTO REPAIR LLC			1, 2, 4	CAR000284208
ADDRESS			**CITY**	**ZIP**
311 W Minthorn St Ste 4			Lake Elsinore	92530
DETAILS				
More Details: https://enviro.epa.gov/envirofacts/rcrainfo/facility?handlerId=CAR000284208 Reporting Universe: SQG				

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
CRSP-CA	Listed	0.15 miles W	1274 ft (8 ft lower than site)	8
SITE NAME			**MAPS**	**ID**
Lake Elsinore Inflatable Dam Installation			1, 2, 4	319242
ADDRESS			**CITY**	**ZIP**
Not Reported by Agency				

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DETAILS
Site Regulated Program Information Site ID: 319242 Site EI ID: 783611 Agency Provided Latitude: 33.68158 Agency Provided Longitude: -117.33297 Program Description: Wetlands - Fill and Dredge Material Evaluation Information : Not Reported :Violation Information : Not Reported :Enforcement Information : Not Reported :Chemical Information : Not Reported :Coordinate Information : Not Reported :

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
CRSP-CA	Listed	0.16 miles NW	1281 ft (1 ft lower than site)	9
SITE NAME			**MAPS**	**ID**
Rightway Portable Toilets			1, 2, 4	61661
ADDRESS			**CITY**	**ZIP**
Not Reported by Agency			LAKE ELSINORE	92530

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DETAILS
Site Regulated Program Information Site ID: 61661 Site EI ID: 10316641 Agency Provided Latitude: 33.683379 Agency Provided Longitude: -117.33235 Program Description: Chemical Storage Facilities Program Description: Hazardous Waste Generator Program Description: Leaking Underground Storage Tank Cleanup Site Program Description: Underground Storage Tank Evaluation Information Evaluation Date: 11/29/2018 Violations Found? (Y/N): Yes Evaluation General Type: Compliance Evaluation Inspection Evaluation Type: Routine done by local agency Evaluation Note(s): Not Reported Evaluation Division: Riverside County Department of Env Health Evaluation Program: HW Evaluation Source: CERS Evaluation Date: 11/29/2018 Violations Found? (Y/N): Yes More Details Link

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
CRSP-CA	Listed	0.17 miles SE	1267 ft (15 ft lower than site)	10
SITE NAME			**MAPS**	**ID**
EMWD Reach 4 Dissipitation Facility			1, 2, 4	28303
ADDRESS			**CITY**	**ZIP**
Not Reported by Agency			LAKE ELSINORE	92530

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DETAILS
Site Regulated Program Information Site ID: 28303 Site EI ID: 10322920 Agency Provided Latitude: 33.67973 Agency Provided Longitude: -117.3289 Program Description: Chemical Storage Facilities Evaluation Information Evaluation Date: 2/9/2017 Violations Found? (Y/N): No Evaluation General Type: Compliance Evaluation Inspection Evaluation Type: Routine done by local agency Evaluation Note(s): Not Reported Evaluation Division: Riverside County Department of Env Health Evaluation Program: HMRRP Evaluation Source: CERS Violation Information : Not Reported :Enforcement Information : Not Reported :Chemical Information : Not Reported :Coordinate Information More Details Link

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
County-Others-CA	Listed	0.17 miles SE	1266 ft (16 ft lower than site)	11
SITE NAME			**MAPS**	**ID**
EMWD Reach 4 Dissipitation Facility			1, 2, 4	5607-RSD
ADDRESS			**CITY**	**ZIP**
636 Minthorn St			Lake Elsinore	92530
DETAILS				
Agency: Riverside County Department of Environmental Health, Hazardous Materials Management Branch Note: This is an ERS assigned ID County: Riverside Type: Disclosure Facility List				

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DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
County-Others-CA	Listed	0.17 miles NW	1279 ft (3 ft lower than site)	12
SITE NAME			**MAPS**	**ID**
Rightway Portable Toilets			1, 2, 4	66761-RSD
ADDRESS			**CITY**	**ZIP**
653 W Minthorn St			Lake Elsinore	92530

DETAILS

Agency: Riverside County Department of Environmental Health
Note: This is an ERS assigned ID
County: Riverside
Type: Generator
Agency Provided Latitude: Not Reported
Agency Provided Longitude: Not Reported

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
County-Others-CA	Listed	0.17 miles NW	1279 ft (3 ft lower than site)	12
SITE NAME			**MAPS**	**ID**
Rightway Portable Toilets			1, 2, 4	5713-RSD
ADDRESS			**CITY**	**ZIP**
653 W Minthorn St			Lake Elsinore	92530

DETAILS

Agency: Riverside County Department of Environmental Health, Hazardous Materials Management Branch
Note: This is an ERS assigned ID
County: Riverside
Type: Disclosure Facility List

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DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
ENF-CA	Listed	0.17 miles NW	1279 ft (3 ft lower than site)	12
SITE NAME			**MAPS**	**ID**
RIGHTWAY PORTABLE TOILETS			1, 2, 4	55715
ADDRESS			**CITY**	**ZIP**
653 W MINTHORN ST			LAKE ELSINORE	92330

DETAILS

Note: This is an ERS generated SOURCEID
SOURCEID: 55715
Global ID: T0607301511
Action Type: ENFORCEMENT
Action Date: 4/4/1989
Action Taken: Closure/No Further Action Letter
Street Number: 653
Street Name: W MINTHORN ST
Status: Completed - Case Closed
Status Date: 4/4/1989
County: Riverside
EPA Region: 9
Coordinate Source: Google Geocode
Case Type: LUST Cleanup Site
Is the site linked to a Cleanup Fund SCUFIIS case?: NO
Lead Agency: RIVERSIDE COUNTY LOP
Case Manager: RIV
Local Agency: RIVERSIDE COUNTY LOP
Regional Water Board case number: 083300324T
Potential contaminants of concern: Gasoline
Potential media of concern: Soil

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
Hist-LUSTIS-CA	Listed	0.17 miles NW	1279 ft (3 ft lower than site)	12
SITE NAME			**MAPS**	**ID**
RIGHTWAY PORTABLE TOILETS			1, 2, 4	1293320
ADDRESS			**CITY**	**ZIP**
653 MINTHORN STREET, WEST			LAKE ELSINORE	92330

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DETAILS
Reported Date: 1998

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
Hist-Regional-UST-CA	Listed	0.17 miles NW	1279 ft (3 ft lower than site)	12
SITE NAME			**MAPS**	**ID**
RIGHTWAY PORTABLE TOILETS			1, 2, 4	1293320
ADDRESS			**CITY**	**ZIP**
653 MINTHORN STREET WEST			LAKE ELSINORE	
DETAILS				
Reported Date: 1998 List: Region #8-Santa Ana Regional Underground Tank Database List Agency: Regional Water Quality Control Board, Region #8				

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
Hist-UST-CA	Listed	0.17 miles NW	1279 ft (3 ft lower than site)	12
SITE NAME			**MAPS**	**ID**
RIGHTWAY			1, 2, 4	260446
ADDRESS			**CITY**	**ZIP**
653 W MINTHORN			LAKE ELSINORE	92330
DETAILS				
Note: ID has been assigned by ERS Tank Details: https://documents.geotracker.waterboards.ca.gov/ustpdfs/pdf/0001f8c7.pdf				

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DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
HWT-CA	Listed	0.17 miles NW	1279 ft (3 ft lower than site)	12
SITE NAME			**MAPS**	**ID**
RIGHTWAY			1, 2, 4	79
ADDRESS			**CITY**	**ZIP**
653 W MINTHORN			LAKE ELSINOR	92330

DETAILS

URL:
https://hwts.dtsc.ca.gov/reports/transporter/79
Registration Number: 79
Registration Date: 6/30/1985
Expiration Date: 6/30/1986
Last Updated: 4/28/1993
Record Entered: 3/5/1982
Standing Flag: Expired
County: RIVERSIDE
Mailing Address: 653 W MINTHORN STREET LAKE ELSINORE, CA 92330
Contact: ROBERT M. HARDING
Position: OWNER
Contact Number: 7146742708
Owner(s): ROBERT M. HARDING
EPA ID(s): CAD092259407

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
LUST-Closed-CA	COMPLETED - CASE CLOSED	0.17 miles NW	1279 ft (3 ft lower than site)	12
SITE NAME			**MAPS**	**ID**
RIGHTWAY PORTABLE TOILETS			1, 2, 4	T0606500035
ADDRESS			**CITY**	**ZIP**
653 W MINTHORN ST			LAKE ELSINORE	92330

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DETAILS

Global ID: T0606500035
Site/Facility Type: LUST CLEANUP SITE
County: RIVERSIDE
Census Tract: 6065043006
EPA Region: 9
Case Type: LUST Cleanup Site
Status Date: 4/4/1989
CUF Case: NO
Lead Agency: RIVERSIDE COUNTY LOP
Case Manager: RIV
Local Agency: RIVERSIDE COUNTY LOP
Regional Water Board Case Case Number: 083300324T
Potential Contaminants of Concern: Gasoline
Potential Media of Concern: Soil
Case Begin Date: 7/24/1986
Leak Reported Date: 7/24/1986
How Leak was Discovered: Tank Tightness Test
Discharge Source: Other
Discharge Cause: Unknown
No Further Action Date: 4/4/1989
CalWater Watershed Name: Santa Ana River - Lake Mathews - Terra Colta (801.35)
DWR Groundwater Sub-Basin Name: Elsinore - Elsinore Valley (8-004.01)
CalEnviroScreen 3 Percentile: 81-85%
CalEnviroScreen 4 Percentile: 80-85%
Is the site a Military or DOD site?: No
Regional Board Office Region: SANTA ANA RWQCB (REGION 8)

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
RCRA-NON-US	Listed	0.17 miles NW	1279 ft (3 ft lower than site)	12
SITE NAME			**MAPS**	**ID**
RIGHTWAY			1, 2, 4	CAD092259407
ADDRESS			**CITY**	**ZIP**
653 W MINTHORN			LAKE ELSINORE	92530

DETAILS

More Details:
https://enviro.epa.gov/envirofacts/rcrainfo/facility?handlerId=CAD092259407
Reporting Universe: Transporter

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DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
RCRA-NON-US	Listed	0.17 miles NW	1279 ft (3 ft lower than site)	12
SITE NAME			**MAPS**	**ID**
RIGHTWAY			1, 2, 4	CAL000059230
ADDRESS			**CITY**	**ZIP**
653 W MINTHORN ST			LAKE ELSINORE	92530-0000
DETAILS				
More Details: https://enviro.epa.gov/envirofacts/rcrainfo/facility?handlerId=CAL000059230 Reporting Universe: Other				

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
CRSP-CA	Listed	0.18 miles NW	1278 ft (4 ft lower than site)	13
SITE NAME			**MAPS**	**ID**
Douglas Technology Group Inc			1, 2, 4	112507
ADDRESS			**CITY**	**ZIP**
Not Reported by Agency			LAKE ELSINORE	92530

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DETAILS
Site Regulated Program Information Site ID: 112507 Site EI ID: 10449442 Agency Provided Latitude: 33.68304 Agency Provided Longitude: -117.33307 Program Description: Chemical Storage Facilities Evaluation Information : Not Reported :Violation Information : Not Reported :Enforcement Information : Not Reported :Chemical Information : Not Reported :Coordinate Information : Not Reported :

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
Hist-UST-CA	Listed	0.2 miles NW	1287 ft (5 ft higher than site)	**14**
SITE NAME			**MAPS**	**ID**
BUTTERFIELD SUPVEYS INC			1, 2, 4	218756
ADDRESS			**CITY**	**ZIP**
18740 Collier Ave			Lake Elsinore	92530
DETAILS				
Note: ID has been assigned by ERS Tank Details: https://documents.geotracker.waterboards.ca.gov/ustpdfs/pdf/0001f455.pdf				

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DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
Hist-USTReg-CA	Listed	0.2 miles NW	1287 ft (5 ft higher than site)	14
SITE NAME			MAPS	ID
BUTTERFIELD SURVEYS INC			1, 2, 4	3193660
ADDRESS			CITY	ZIP
18740 Collier Ave			Lake Elsinore	92530
DETAILS				
Reported Date: 1998				

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
CERS-CA	Listed	0.22 miles NE	1318 ft (36 ft higher than site)	15
SITE NAME			MAPS	ID
SoCal RV Doctor			1, 2, 4	10578097
ADDRESS			CITY	ZIP
29910 Ohana Cir # 102			Lake Elsinore	92532
DETAILS				
SiteID: 402422 EI ID: 10578097 Description: Chemical Storage Facilities Hazardous Waste Generator				

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
County-Others-CA	Listed	0.22 miles NE	1318 ft (36 ft higher than site)	15
SITE NAME			MAPS	ID
SoCal RV Doctor			1, 2, 4	5722-RSD
ADDRESS			CITY	ZIP
29910 Ohana Cir #102			Lake Elsinore	92532

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DETAILS
Agency: Riverside County Department of Environmental Health, Hazardous Materials Management Branch Note: This is an ERS assigned ID County: Riverside Type: Disclosure Facility List

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
County-Others-CA	Listed	0.22 miles NE	1318 ft (36 ft higher than site)	15
SITE NAME			**MAPS**	**ID**
Precision Sports Inc			1, 2, 4	5708-RSD
ADDRESS			**CITY**	**ZIP**
29910 Ohana Cir			Lake Elsinore	92532
DETAILS				
Agency: Riverside County Department of Environmental Health, Hazardous Materials Management Branch Note: This is an ERS assigned ID County: Riverside Type: Disclosure Facility List				

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
County-Others-CA	Listed	0.22 miles NE	1318 ft (36 ft higher than site)	15
SITE NAME			**MAPS**	**ID**
SoCal RV Doctor			1, 2, 4	66773-RSD
ADDRESS			**CITY**	**ZIP**
29910 Ohana Cir #102			Lake Elsinore	92532

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DETAILS
Agency: Riverside County Department of Environmental Health Note: This is an ERS assigned ID County: Riverside Type: Generator Agency Provided Latitude: Not Reported Agency Provided Longitude: Not Reported

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
County-Others-CA	Listed	0.22 miles NE	1318 ft (36 ft higher than site)	15
SITE NAME			**MAPS**	**ID**
Precision Sports Inc			1, 2, 4	66758-RSD
ADDRESS			**CITY**	**ZIP**
29910 Ohana Cir			Lake Elsinore	92532
DETAILS				
Agency: Riverside County Department of Environmental Health Note: This is an ERS assigned ID County: Riverside Type: Generator Agency Provided Latitude: Not Reported Agency Provided Longitude: Not Reported				

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
Hist-Auto Repair	Listed	0.22 miles NE	1318 ft (36 ft higher than site)	15
SITE NAME			**MAPS**	**ID**
LABEDA WHEELS			1, 2, 4	19908
ADDRESS			**CITY**	**ZIP**
29910 Ohana Cir			Lake Elsinore	92532

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DETAILS
Sic Code: 5531 Desc: Auto, Truck & Tire Service Site Added: 2/2010

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
RCRA-NON-US	Listed	0.22 miles NE	1318 ft (36 ft higher than site)	15
SITE NAME			**MAPS**	**ID**
PRECISION SPORTS			1, 2, 4	CAL000129258
ADDRESS			**CITY**	**ZIP**
29910 Ohana Cir			Lake Elsinore	92532
DETAILS				
More Details: https://enviro.epa.gov/envirofacts/rcrainfo/facility?handlerId=CAL000129258 Reporting Universe: Other				

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
RCRA-NON-US	Listed	0.22 miles NE	1318 ft (36 ft higher than site)	15
SITE NAME			**MAPS**	**ID**
TEAM LABEDA TEST FACILITY LLC DBA SOCAL RV DOCTOR			1, 2, 4	CAL000366697
ADDRESS			**CITY**	**ZIP**
29910 Ohana Cir Ste 102			Lake Elsinore	92532
DETAILS				
More Details: https://enviro.epa.gov/envirofacts/rcrainfo/facility?handlerId=CAL000366697 Reporting Universe: Other				

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DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
CRSP-CA	Listed	0.22 miles NE	1318 ft (36 ft higher than site)	15

SITE NAME	MAPS	ID
SoCal RV Doctor	1, 2, 4	402422

ADDRESS	CITY	ZIP
Not Reported by Agency	LAKE ELSINORE	92532

DETAILS

Site Regulated Program Information
Site ID: 402422
Site EI ID: 10578097
Agency Provided Latitude: 33.68461
Agency Provided Longitude: -117.32829

Program Description: Chemical Storage Facilities

Program Description: Hazardous Waste Generator

Evaluation Information
Evaluation Date: 6/29/2016
Violations Found? (Y/N): No
Evaluation General Type: Compliance Evaluation Inspection
Evaluation Type: Routine done by local agency
Evaluation Note(s): SoCal RV add generator program
Evaluation Division: Riverside County Department of Env Health
Evaluation Program: HW
Evaluation Source: CERS

Evaluation Date: 6/29/2016
Violations Found? (Y/N): Yes
Evaluation General Type: Compliance Evaluation Inspection
Evaluation Type: Routine done by local agency
Evaluation Note(s): Not Reported
Evaluation Division: Riverside County Department of Env Health

More Details Link

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DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
CRSP-CA	Listed	0.22 miles NE	1318 ft (36 ft higher than site)	15

SITE NAME	MAPS	ID
Precision Sports Inc	1, 2, 4	58562

ADDRESS	CITY	ZIP
Not Reported by Agency	LAKE ELSINORE	92532

DETAILS

Site Regulated Program Information
Site ID: 58562
Site EI ID: 10320322
Agency Provided Latitude: 33.68461
Agency Provided Longitude: -117.32829

Program Description: Chemical Storage Facilities

Program Description: Hazardous Waste Generator

Evaluation Information
Evaluation Date: 10/20/2017
Violations Found? (Y/N): Yes
Evaluation General Type: Other/Unknown
Evaluation Type: Other, not routine, done by local agency
Evaluation Note(s): Not Reported
Evaluation Division: Riverside County Department of Env Health
Evaluation Program: HMRRP
Evaluation Source: CERS

Evaluation Date: 9/12/2017
Violations Found? (Y/N): Yes
Evaluation General Type: Other/Unknown
Evaluation Type: Other, not routine, done by local agency
Evaluation Note(s): Not Reported
Evaluation Division: Riverside County Department of Env Health

More Details Link

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DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
CRSP-CA	Listed	0.24 miles NW	1281 ft (1 ft lower than site)	16

SITE NAME	MAPS	ID
Deleo Clay Tile Co Inc	1, 2, 4	184414

ADDRESS	CITY	ZIP
Not Reported by Agency	LAKE ELSINORE	92530

DETAILS

Site Regulated Program Information
Site ID: 184414
Site EI ID: 10614910
Agency Provided Latitude: 33.684147
Agency Provided Longitude: -117.33342

Program Description: Chemical Storage Facilities

Program Description: Hazardous Waste Generator

Evaluation Information
Evaluation Date: 11/27/2018
Violations Found? (Y/N): Yes
Evaluation General Type: Other/Unknown
Evaluation Type: Other, not routine, done by local agency
Evaluation Note(s): Not Reported
Evaluation Division: Riverside County Department of Env Health
Evaluation Program: HMRRP
Evaluation Source: CERS

Evaluation Date: 8/25/2016
Violations Found? (Y/N): No
Evaluation General Type: Other/Unknown
Evaluation Type: Other, not routine, done by local agency
Evaluation Note(s): Not Reported
Evaluation Division: Riverside County Department of Env Health

More Details Link

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DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
AIR-DIST-CA	Listed	0.24 miles NW	1286 ft (4 ft higher than site)	17

SITE NAME	MAPS	ID
J S TECHNOLOGIES INC, JOHN SUHN, DBA	1, 2, 4	118612-SC

ADDRESS	CITY	ZIP
18650 COLLIER AVE UNIT A	LAKE ELSINORE	92530

DETAILS

District: South Coast AQMD
Compliance URL:
https://xappprod.aqmd.gov/find//facility/AQMDsearch?facilityID=118612
Note: For additional Facility, Equipment, Emissions, Hearing Board or Transporation Plan Information click on different tabs.
Facility Id: 118612
County Code: RV
County: Riverside
Facility Status Code: A
Facility Status: ACTIVE
Number of Employees: 8
Location Zip Code Extension: Not Reported
Facility Representative First Name: ROBERT
Facility Representative Last Name: SUMMERS
Location Area Code: 310
Location Phone Number: 5052559
Location Phone Extension: Not Reported
Mailing Address: 18650 COLLIER AVE UNIT A
Mailing City: LAKE ELSINORE
Mailing State: CA
Mailing Zip Code: 92530
Mailing Zip Code Extension: Not Reported
Mailing Area Code: 310
Mailing Phone Number: 5052559
Mailing Phone Extension: Not Reported
Mailing Representative First Name: ROBERT
Mailing Representative Last Name: SUMMERS

More Details Link

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DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
WDR-CA	Listed	0.24 miles NW	1286 ft (4 ft higher than site)	17

SITE NAME	MAPS	ID
Comm Bldg,Lake Elsinore	1, 2, 4	2260

ADDRESS	CITY	ZIP
18650 Collier	Elsinore	

DETAILS

Note: This is an ERS assigned Automated ID.
SIC/NAICS: 1541
County: Riverside
Region: 8 - Santa Ana
WDID: 8 332198001
Agency: Ayres & Son Contruction Company
Agency Address: Po Box A, Huntington Beach, CA 92648
Place/Project Type: Other
Program: WDRMUNIOTH
Regulatory Measure Status: Historical
Regulatory Measure Type: WDR
Order Number: 91-03501
NPDES Number: Not Reported
Adoption Date: 3/15/1991
Effective Date: 3/15/1991
Termination Date: Not Reported
Expiration/Review Date: Not Reported
Design Flow: 0.0037
Major/Minor: Not Reported
Complexity: C
TTWQ: 3
Number Of Enforcement Actions within 5 years: 0
Number Of Violations within 5 years: 0
Latitude: Not Reported
Longitude: Not Reported

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
County-Others-CA	Listed	0.25 miles NW	1282 ft (0 ft higher than site)	18

SITE NAME	MAPS	ID
Deleo Clay Tile Co Inc.	1, 2, 4	5595-RSD

ADDRESS	CITY	ZIP
600 Chaney St	Lake Elsinore	92530

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DETAILS
Agency: Riverside County Department of Environmental Health, Hazardous Materials Management Branch Note: This is an ERS assigned ID County: Riverside Type: Disclosure Facility List

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
County-Others-CA	Listed	0.25 miles NW	1282 ft (0 ft higher than site)	18
SITE NAME			**MAPS**	**ID**
Deleo Clay Tile Co Inc.			1, 2, 4	66698-RSD
ADDRESS			**CITY**	**ZIP**
600 Chaney St			Lake Elsinore	92530
DETAILS				
Agency: Riverside County Department of Environmental Health Note: This is an ERS assigned ID County: Riverside Type: Generator Agency Provided Latitude: Not Reported Agency Provided Longitude: Not Reported				

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
ENF-SMARTS-CA	Historical	0.25 miles NW	1282 ft (0 ft higher than site)	18
SITE NAME			**MAPS**	**ID**
Deleo Clay Tile Co			1, 2, 4	411564
ADDRESS			**CITY**	**ZIP**
600 CHANEY ST			Lake Elsinore	92530

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DETAILS

ENFORCEMENT ID: 411564
ENFORCEMENT STATUS: Historical
PLACE NAME: Deleo Clay Tile Co
PLACE ADDRESS: 600 Chaney St
PLACE CITY: Lake Elsinore
PLACE STATE: CA
PLACE ZIP: 92530
PLACE LATITUDE: 33.68415
PLACE LONGITUDE: -117.3344
WASTE DISCHARGE ID: 8 33I014321
APP ID: 210863
ENFORCEMENT TYPE: 1st NNC - AR
ISSUANCE DATE: 8/9/2012
DUE DATE: 9/10/2012
DESCRIPTION: 2011-2012 annual report late submissionSite has not submit the 2011-2012 annual report by 07/02/2012.- 1st Notice of Non-Compliance sent on 08/09/2012, via certified mail to facility, CC to owner.
INITIAL ASSESSMENT: 0
TOTAL ASSESSMENT: 0
RECEIVED AMOUNT: 0
SPENT AMOUNT: 0
BALANCE DUE: 0
COUNT OF VIOLATIONS: 1
PERMIT TYPE: Industrial
REGIONAL BOARD: 8
PLACE COUNTY: Riverside
PLACE TOTAL SIZE: 5
PLACE TOTAL SIZE UNIT: Acres
RECEIVING WATER NAME: Lake Elsinore

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
ENF-SMARTS-CA	Historical	0.25 miles NW	1282 ft (0 ft higher than site)	18
SITE NAME			**MAPS**	**ID**
Deleo Clay Tile Co			1, 2, 4	232632
ADDRESS			**CITY**	**ZIP**
600 CHANEY ST			Lake Elsinore	92530

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DETAILS

ENFORCEMENT ID: 232632
ENFORCEMENT STATUS: Historical
PLACE NAME: Deleo Clay Tile Co
PLACE ADDRESS: 600 Chaney St
PLACE CITY: Lake Elsinore
PLACE STATE: CA
PLACE ZIP: 92530
PLACE LATITUDE: 33.68415
PLACE LONGITUDE: -117.3344
WASTE DISCHARGE ID: 8 33I014321
APP ID: 210863
ENFORCEMENT TYPE: NOV
ISSUANCE DATE: 8/18/2000
DESCRIPTION: NOV letter sent 8/18/00
ORDER NUMBER: UNKNOWN
STAFF COSTS: 0
INITIAL ASSESSMENT: 0
TOTAL ASSESSMENT: 0
RECEIVED AMOUNT: 0
SPENT AMOUNT: 0
BALANCE DUE: 0
COMPLIANCE DATE: 8/18/2000
PERMIT TYPE: Industrial
REGIONAL BOARD: 8
PLACE COUNTY: Riverside
PLACE TOTAL SIZE: 5
PLACE TOTAL SIZE UNIT: Acres
More Details Link

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
ENF-SMARTS-CA	Historical	0.25 miles NW	1282 ft (0 ft higher than site)	18

SITE NAME	MAPS	ID
Deleo Clay Tile Co	1, 2, 4	233686

ADDRESS	CITY	ZIP
600 CHANEY ST	Lake Elsinore	92530

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DETAILS
ENFORCEMENT ID: 233686 ENFORCEMENT STATUS: Historical PLACE NAME: Deleo Clay Tile Co PLACE ADDRESS: 600 Chaney St PLACE CITY: Lake Elsinore PLACE STATE: CA PLACE ZIP: 92530 PLACE LATITUDE: 33.68415 PLACE LONGITUDE: -117.3344 WASTE DISCHARGE ID: 8 33I014321 APP ID: 210863 ENFORCEMENT TYPE: NOV ISSUANCE DATE: 10/26/1999 DESCRIPTION: Notice of Violation for non-submittal of Annual Report CORRECTIVE ACTION: This enforcement action generated from SWRCB NOI database ORDER NUMBER: UNKNOWN STAFF COSTS: 0 INITIAL ASSESSMENT: 0 TOTAL ASSESSMENT: 0 RECEIVED AMOUNT: 0 SPENT AMOUNT: 0 BALANCE DUE: 0 COMPLIANCE DATE: 10/26/1999 COUNT OF VIOLATIONS: 1 PERMIT TYPE: Industrial REGIONAL BOARD: 8 PLACE COUNTY: Riverside More Details Link

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
ENF-SMARTS-CA	Active	0.25 miles NW	1282 ft (0 ft higher than site)	18
SITE NAME			**MAPS**	**ID**
Deleo Clay Tile Co			1, 2, 4	400585
ADDRESS			**CITY**	**ZIP**
600 CHANEY ST			Lake Elsinore	92530

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DETAILS
ENFORCEMENT ID: 400585 ENFORCEMENT STATUS: Active PLACE NAME: Deleo Clay Tile Co PLACE ADDRESS: 600 Chaney St PLACE CITY: Lake Elsinore PLACE STATE: CA PLACE ZIP: 92530 PLACE LATITUDE: 33.68415 PLACE LONGITUDE: -117.3344 WASTE DISCHARGE ID: 8 33I014321 APP ID: 210863 ENFORCEMENT TYPE: Verbal Communication ISSUANCE DATE: 11/10/2009 DESCRIPTION: Sent email with inspection report asking for corrective actions INITIAL ASSESSMENT: 0 TOTAL ASSESSMENT: 0 RECEIVED AMOUNT: 0 SPENT AMOUNT: 0 BALANCE DUE: 0 COUNT OF VIOLATIONS: 2 PERMIT TYPE: Industrial REGIONAL BOARD: 8 PLACE COUNTY: Riverside PLACE TOTAL SIZE: 5 PLACE TOTAL SIZE UNIT: Acres RECEIVING WATER NAME: Lake Elsinore

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
County-LUST-CA	Listed	0.37 miles SE	1275 ft (7 ft lower than site)	19
SITE NAME			**MAPS**	**ID**
Redman Property			1, 4	94051-RSD
ADDRESS			**CITY**	**ZIP**
520 Riley St			Lake Elsinore	
DETAILS				
Note: The agency has notified ERS that the only status to trust within its database is the closed status. All other statuses should not be trusted and should be reviewed on Geotracker Site ID: 94051 Closed: R Employee: Malloy Status: Not Reported Case Type: Undefined				

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DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
LUST-Closed-CA	COMPLETED - CASE CLOSED	0.37 miles SE	1275 ft (7 ft lower than site)	19

SITE NAME	MAPS	ID
REDMAN PROPERTY	1, 4	T0606500134

ADDRESS	CITY	ZIP
520 N Riley St	Lake Elsinore	92530

DETAILS

Global ID: T0606500134
Site/Facility Type: LUST CLEANUP SITE
County: RIVERSIDE
Census Tract: 6065043006
EPA Region: 9
Case Type: LUST Cleanup Site
Status Date: 3/10/2014
CUF Case: NO
Lead Agency: SANTA ANA RWQCB (REGION 8)
Local Agency: RIVERSIDE COUNTY LOP
Regional Water Board Case Case Number: 083301248T
Local Agency Case Number: 94051
Potential Contaminants of Concern: Gasoline
Potential Media of Concern: Aquifer used for drinking water supply
Site History: .
Case Begin Date: 2/2/1994
Leak Reported Date: 2/2/1994
How Leak was Discovered: Tank Closure
Discharge Source: Other
Discharge Cause: Unknown
No Further Action Date: 3/10/2014
CalWater Watershed Name: Santa Ana River - Lake Mathews - Terra Colta (801.35)
DWR Groundwater Sub-Basin Name: Elsinore - Elsinore Valley (8-004.01)
CalEnviroScreen 3 Percentile: 81-85%
CalEnviroScreen 4 Percentile: 80-85%
Is the site a Military or DOD site?: No
Regional Board Office Region: SANTA ANA RWQCB (REGION 8)
More Details Link

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DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
County-LUST-Closed-CA	Closed	0.39 miles S	1274 ft (8 ft lower than site)	20
SITE NAME			**MAPS**	**ID**
City Yard			1, 4	88062-RSD
ADDRESS			**CITY**	**ZIP**
521 N Langstaff St			Lake Elsinore	
DETAILS				
Site ID: 88062 Closed: Y Employee: Rogers Status: Closed/Action Completed Case Type: Soil only is impacted				

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
LUST-Closed-CA	COMPLETED - CASE CLOSED	0.39 miles S	1274 ft (8 ft lower than site)	20
SITE NAME			**MAPS**	**ID**
CITY YARD			1, 4	T0606500084
ADDRESS			**CITY**	**ZIP**
521 N Langstaff St			Lake Elsinore	92530

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DETAILS

Global ID: T0606500084
Site/Facility Type: LUST CLEANUP SITE
County: RIVERSIDE
Census Tract: 6065043006
EPA Region: 9
Case Type: LUST Cleanup Site
Status Date: 10/30/1989
CUF Case: NO
Lead Agency: RIVERSIDE COUNTY LOP
Case Manager: RIV
Local Agency: RIVERSIDE COUNTY LOP
Regional Water Board Case Case Number: 083300791T
Local Agency Case Number: 88062
File Location: Local Agency Warehouse
Potential Contaminants of Concern: Diesel
Potential Media of Concern: Aquifer used for drinking water supply
Case Begin Date: 12/9/1987
Leak Reported Date: 1/5/1988
How Leak was Discovered: Tank Closure
Discharge Source: Other
Discharge Cause: Overfill
How Leak was Stopped: Close and Remove Tank, Remove Contents
No Further Action Date: 10/30/1989
CalWater Watershed Name: Santa Ana River - Lake Mathews - Terra Colta (801.35)
DWR Groundwater Sub-Basin Name: Elsinore - Elsinore Valley (8-004.01)
CalEnviroScreen 3 Percentile: 81-85%
CalEnviroScreen 4 Percentile: 80-85%
More Details Link

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
SWIS-CA	Listed	0.39 miles NW	1286 ft (4 ft higher than site)	21

SITE NAME	MAPS	ID
Elsinore Valley Cemetary Dist	1, 4	2488

ADDRESS	CITY	ZIP
18170 Collier Ave	Lake Elsinore	92530

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DETAILS

Site ID: 2488
SWIS Number: 33-CR-0026
Site Name: Elsinore Valley Cemetary Dist
Point of Contact: Angela Gomez
Operational Status: To be Determined
Regulatory Status: TBD (Pending Investigation)
Site Type: Disposal Only
Operator: Akins J W
Owner: County Of Riverside Cemetary District
Owner Name:
Owner Phone: (909) 638-1840
Owner Address: 4414 14th St
Owner City: Riverside
Owner State: CA
Owner ZIP: 92501
Operator Contact Name: James W. Akins
Operator Phone: (909) 674-2418
Operator Address: 18170 Collier St.
Operator City: Elsinore
Is Archived: Yes
Is Closed Illegal Abandoned: No
Is Site Inert Debris Engineered Fill: No
Is Financial Assurances Responsible: No
County: Riverside
ARB District: South Coast
SWRCB Region: Santa Ana
Local Government: Lake Elsinore
More Details Link

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
County-LUST-Closed-CA	Closed	0.49 miles SE	1277 ft (5 ft lower than site)	22
SITE NAME			**MAPS**	**ID**
Big Al Oil Co			1, 4	91081-RSD
ADDRESS			**CITY**	**ZIP**
501 N Spring St			Lake Elsinore	

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DETAILS

Site ID: 91081
Closed: Y
Employee: Shurlow-LOP
Status: Closed/Action Completed
Case Type: An Aquifer used for Drinking Water Supply has been contaminated.

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RECORDS SOURCES SEARCHED

ABREVIATION	DATABASE FULLNAME	DATABASE CATEGORY	DATABASE DETAILS LINK	TOTAL LISTINGS
Air-CA	Air Permits with Emissions	ERS Supplemental Govt Sources	Click Here	None Found
AIR-DIST-CA	Air Pollution Control District	ERS Supplemental Govt Sources	Click Here	4
AST-CA	Aboveground Storage Tanks	State/Tribal UST	Click Here	None Found
BF-MOA-CA	Brownfield MOA Sites (aka Considered Brownfield Sites, SWRCB MOA, Brownfield Memorandum of Agreement)	State/Tribal Brownfield	Click Here	None Found
BF-Tribal-US	Tribal Brownfields	Federal Brownfield	Click Here	None Found
BF-US	Brownfields Sites	Federal Brownfields	Click Here	None Found
BioFuel-US	Bio Diesel Fuel	ERS Supplemental Govt Sources	Click Here	None Found
BZ-HazWaste-CA	Border Zone or Hazardous Waste Property	State/Tribal ASTM Other Med	Click Here	None Found
CAF-CA	Confined Animal Facilities	ERS Supplemental Govt Sources	Click Here	None Found
CDL-CA	Clandestine Drug Labs	ERS Supplemental Govt Sources	Click Here	None Found
CDL-US	National Clandestine Drug Lab Register	ERS Supplemental Govt Sources	Click Here	None Found
CERS-CA	California Environmental Reporting System (CERS)	State/Tribal ASTM Other Med	Click Here	1
CHMIRS-CA	California Hazardous Material Incident Report System	Emergency Release Reports	Click Here	None Found
CHWF-CA	Commercial Offsite Hazardous Waste Facilities	ERS Supplemental Govt Sources	Click Here	None Found
City-AST-CA	Underground Storage Tanks	State/Tribal UST	Click Here	None Found
City-CUPA-CA	Certified Unified Program Agency	State/Tribal ASTM Other Med	Click Here	None Found
City-Others-CA	Hazardous Material Facilities	State/Tribal ASTM Other Med	Click Here	None Found
City-UST-CA	City Agency Underground Storage Tanks	State/Tribal UST	Click Here	None Found
Cleaners-CA	Cleaners	ERS Supplemental Govt Sources	Click Here	None Found
Coal-Ash-Dams-US	Coal Ash Contaminated Sites and Hazard Dams	ERS Supplemental Govt Sources	Click Here	None Found
Controls-CA	California sites with Deed Restrictions or other Controls	State/Tribal Inst/Eng Controls	Click Here	None Found

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ABREVIATION	DATABASE FULLNAME	DATABASE CATEGORY	DATABASE DETAILS LINK	TOTAL LISTINGS
Controls-RCRA-US	RCRA Institutional and Engineering Controls Summary (aka Federal RCRA with Controls)	Federal Institutional/Engineering Controls	Click Here	None Found
Controls-US	US CERCLA Sites with Controls (aka US IC/EC, Institutional/Engineering List Controls, Land Use Controls)	Federal Institutional/Engineering Controls	Click Here	None Found
CorAct-Closed-CA	Corrective Action Sites	State/Tribal ASTM Other Low	Click Here	None Found
CorAct-Open-CA	Corrective Action Sites	State/Tribal ASTM Other High	Click Here	None Found
CorAct-Other-CA	Corrective Action Sites	State/Tribal ASTM Other Low	Click Here	None Found
CORTESE-CA	Cortese Hazardous Waste & Substances Sites List	State/Tribal ASTM Other Med	Click Here	None Found
County-AST-CA	Aboveground Storage Tanks	State/Tribal UST	Click Here	None Found
County-BI-CA	Business Inventory	ERS Supplemental Govt Sources	Click Here	None Found
County-Hist-CA	Historic Environmental County Listings	State/Tribal ASTM Other Med	Click Here	None Found
County-LUST-CA	County Agency Leaking Underground Storage Tanks	State/Tribal LUST	Click Here	1
County-LUST-Closed-CA	County Agency Leaking Underground Storage Tanks, Closed Cases	State/Tribal LUST	Click Here	2
County-LUST-Open-CA	County Agency Leaking Underground Storage Tanks, Open Cases	State/Tribal LUST	Click Here	None Found
County-Others-CA	Environmental Related Databases	State/Tribal ASTM Other Med	Click Here	9
County-SLIC-Closed-CA	County SLIC Sites	Emergency Release Reports	Click Here	None Found
County-SLIC-Open-CA	County SLIC Sites	Emergency Release Reports	Click Here	None Found
County-SML-CA	County Site Mitigation Unit List	State/Tribal ASTM Other Med	Click Here	None Found
County-SWF-CA	County Solid Waste Facilities	State/Tribal Landfill/Solid Waste	Click Here	None Found
County-UST-CA	County Agency Underground Storage Tanks	State/Tribal UST	Click Here	None Found
CRSP-CA	Cal EPA Regulated Site Portal	State/Tribal ASTM Other Med	Click Here	10

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ABREVIATION	DATABASE FULLNAME	DATABASE CATEGORY	DATABASE DETAILS LINK	TOTAL LISTINGS
CUPA-CA	Certified Unified Program Agency	State/Tribal ASTM Other Med	Click Here	None Found
Dams-CA	California Dams	ERS Supplemental Govt Sources	Click Here	None Found
Debris-Reg9-US	Debris Region 9 Torres Martinez Reservation Illegal dump Site Locations	Federal Solid Waste	Click Here	None Found
Deed-CA	Deed Restrictions/Land Use Restrictions	State/Tribal Inst/Eng Controls	Click Here	None Found
DPR-CA	Pesticide Regulation Licenses	ERS Supplemental Govt Sources	Click Here	None Found
DryCleaners-CA	Dry Cleaner Facilities	ERS Supplemental Govt Sources	Click Here	None Found
EGRID-US	Emissions & Generation Resource Facilities	ERS Supplemental Govt Sources	Click Here	None Found
ENF-CA	Enforcement Actions Data	State/Tribal ASTM Other Med	Click Here	1
ENF-SMARTS-CA	Storm Water Enforcement Actions	State/Tribal ASTM Other Med	Click Here	4
ENF-Wastewater-CA	Wastewater Enforcement Actions	State/Tribal ASTM Other Med	Click Here	4
EPA-Watch-List-US	Historical EPA Watch List	ERS Supplemental Govt Sources	Click Here	None Found
ERNS-US	Emergency Response Notification System	Federal ERNS	Click Here	None Found
Eval-Hist-Active-CA	EnviroStor Evaluation History Sites	State/Tribal ASTM Other	Click Here	None Found
Eval-Hist-NFA-CA	EnviroStor Database Evaluation History NFA Sites	State/Tribal ASTM Other	Click Here	None Found
Eval-Hist-Other-CA	EnviroStor Database Evaluation History NFA Sites	State/Tribal ASTM Other	Click Here	None Found
FA-HW-CA	Financial Assurance, Hazardous Waste	ERS Supplemental Govt Sources	Click Here	None Found
FA-HW-US	Financial Assurance, Hazardous Waste	ERS Supplemental Govt Sources	Click Here	None Found
FA-SWF-CA	Financial Assurance, Solid Waste Facilities	ERS Supplemental Govt Sources	Click Here	None Found
FRS-US	Facility Registry Index (FINDS)	ERS Supplemental Govt Sources	Click Here	2
FTTS-ENF-US	Historical FIFRA/TSCA Tracking System (FTTS) Enforcement Actions	Federal ASTM Other	Click Here	None Found

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ABREVIATION	DATABASE FULLNAME	DATABASE CATEGORY	DATABASE DETAILS LINK	TOTAL LISTINGS
FTTS-INSP-US	Historical FIFRA/TSCA Tracking System (FTTS) Inspections	ERS Supplemental Govt Sources	Click Here	None Found
FUDS-US	Formerly Used Defense Sites	ERS Supplemental Govt Sources	Click Here	None Found
FUSRAP-US	Formerly Utilized Sites Remedial Action Program Sites	ERS Supplemental Govt Sources	Click Here	None Found
Haulers-CA	Registered Waste Tire Haulers Listing	ERS Supplemental Govt Sources	Click Here	None Found
HazWaste-CA	Hazardous Waste Facilities	State/Tribal ASTM Other Med	Click Here	None Found
Hist-AFS2-US	Historical Air Facility System for Clean Air Act stationary sources	ERS Supplemental Govt Sources	Click Here	None Found
Hist-AFS-US	Historical Air Facility System for Clean Air Act stationary sources	ERS Supplemental Govt Sources	Click Here	None Found
Hist-Agriculture	Historical Ranches/Farms, Livestock/Agriculture	ERS Exclusive Historic Sources	Click Here	None Found
Hist-AST2-CA	Historical Aboveground Storage Tanks	State/Tribal UST	Click Here	None Found
Hist-AST-CA	Historical Aboveground Storage Tanks	ERS Supplemental Govt Sources	Click Here	None Found
Hist-Auto Dealers	Historical Auto and Truck Dealers	ERS Exclusive Historic Sources	Click Here	None Found
Hist-Auto Repair	Historical Automotive Repair	ERS Exclusive Historic Sources	Click Here	1
Hist-AWS-CA	Historical Annual Workplan Sites	ERS Supplemental Govt Sources	Click Here	None Found
Hist-CA	Previously Listed California Sites	ERS Supplemental Govt Sources	Click Here	None Found
Hist-CalFID-CA	Historical Facility Inventory Database	ERS Supplemental Govt Sources	Click Here	None Found
Hist-CALSITES-CA	Historical Calsites Database	ERS Supplemental Govt Sources	Click Here	None Found
Hist-CERCLIS-NFRAP-US	Historical CERCLIS-NFRAP	ERS Supplemental Govt Sources	Click Here	None Found
Hist-CERCLIS-US	Historical CERCLIS Sites	ERS Supplemental Govt Sources	Click Here	None Found
Hist-Chemical Manufacturing	Historical Manufacturing and Distribution of Chemicals, Gases, and/or Solids	ERS Exclusive Historic Sources	Click Here	None Found
Hist-Chemical-Storage	Historical Chemical/Hazardous Use Storage	ERS Exclusive Historic Sources	Click Here	None Found

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ABREVIATION	DATABASE FULLNAME	DATABASE CATEGORY	DATABASE DETAILS LINK	TOTAL LISTINGS
Hist-City-UST-CA	Historical Underground Storage Tanks	ERS Supplemental Govt Sources	Click Here	None Found
Hist-Cleaners	Historical Laundry, Cleaners, and Dry Cleaning Services	ERS Exclusive Historic Sources	Click Here	None Found
Hist-Controls-CA	Historical Restricted Use Sites	State/Tribal Inst/Eng Controls	Click Here	None Found
Hist-Convenience	Historical Convenience Store with Possible Gas	ERS Exclusive Historic Sources	Click Here	None Found
Hist-Cort-CA	Historical Cortese list	State/Tribal ASTM Other Med	Click Here	None Found
Hist-Deed-CA	Historical Deed Restriction Properties	ERS Supplemental Govt Sources	Click Here	None Found
Hist-Disposal-Recycle	Historical Hazardous Disposal/Recycle and Dumps/Waste	ERS Exclusive Historic Sources	Click Here	None Found
Hist-DTG-CA	Depth to Groundwater	ERS Supplemental Govt Sources	Click Here	None Found
Hist-Dumps-US	Historical Dumps Inventory of 1985	Federal Solid Waste	Click Here	None Found
Hist-ERNS-US	Historical Emergency Response Notification System (ERNS)	ERS Supplemental Govt Sources	Click Here	None Found
Hist-FEMA-UST-US	Historical FEMA Underground Storage Tanks	Federal UST	Click Here	None Found
Hist-FIFRA-US	Historical Case Administration Data from National Compliance Database (Federal Insecticide, Fungicide, and Rodenticide Act)	ERS Supplemental Govt Sources	Click Here	None Found
Hist-FINDS-US	Historical Facility Index System	ERS Supplemental Govt Sources	Click Here	None Found
Hist-Food-Processors	Historical Food Processing Manufacturers	ERS Exclusive Historic Sources	Click Here	None Found
Hist-Gun-Ranges	Historical Gun Ranges/Clubs	ERS Exclusive Historic Sources	Click Here	None Found
Hist-HWS-CA	Historical Cortese List-Hazardous Waste Substance Site List	ERS Supplemental Govt Sources	Click Here	None Found
Hist-LUSTIS-CA	Historical Lust Information System (LUSTIS)	ERS Supplemental Govt Sources	Click Here	2
Hist-Machine Shop	Historical Machine Shops, Welding, Machine Repair	ERS Exclusive Historic Sources	Click Here	None Found
Hist-Manufacturing	Historical Sources US: Manufacturing	ERS Exclusive Historic Sources	Click Here	None Found

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ABREVIATION	DATABASE FULLNAME	DATABASE CATEGORY	DATABASE DETAILS LINK	TOTAL LISTINGS
Hist-Metal Plating	Historical Metal Plating	ERS Exclusive Historic Sources	Click Here	None Found
Hist-Mining	Historical Mining Operations	ERS Exclusive Historic Sources	Click Here	None Found
HIST-MLTS-US	Historical Material Licensing Tracking System	ERS Supplemental Govt Sources	Click Here	None Found
Hist-Mortuaries	Historical Crematories/Mortuaries	ERS Exclusive Historic Sources	Click Here	None Found
HIST-MTBE-CA	Historical Sites With MTBE (Methyl Tertiary-Butyl Ether) Contamination	ERS Supplemental Govt Sources	Click Here	None Found
Hist-NPL-US	Historical National Priority List	ERS Supplemental Govt Sources	Click Here	None Found
Hist-Oil-Gas	Historical Oil and Gas Well Related Facilities	ERS Exclusive Historic Sources	Click Here	None Found
Hist-OilGas-Refiners	Historical Oil/Gas Refiners/Manufacturers/Plants	ERS Exclusive Historic Sources	Click Here	None Found
Hist-Orange-County-LF-CA	Historical Orange County Landfills	ERS Supplemental Govt Sources	Click Here	None Found
Historical-CA	Historical Sites	ERS Supplemental Govt Sources	Click Here	None Found
Hist-Other	Historical Environmental Facilities	ERS Exclusive Historic Sources	Click Here	None Found
Hist-Paint-Stores	Historical Paint Stores	ERS Exclusive Historic Sources	Click Here	None Found
Hist-Petroleum	Historical Petroleum Refining/ Manufacturing/ Chemicals	ERS Exclusive Historic Sources	Click Here	None Found
Hist-Post-Offices	Historical Post Offices	ERS Exclusive Historic Sources	Click Here	None Found
Hist-Printers	Historical Printers and Publishers	ERS Exclusive Historic Sources	Click Here	None Found
Hist-Prop65-CA	Historical Prop 65 Sites	ERS Supplemental Govt Sources	Click Here	None Found
HIST-R4-CA	Historical sites	State/Tribal ASTM Other Med	Click Here	None Found
Hist-RCRIS-US	Historical EPA's Resource Conservation and Recovery Act	ERS Supplemental Govt Sources	Click Here	None Found
Hist-Regional-LUST-CA	Historical Leaking Underground Storage Tanks	ERS Supplemental Govt Sources	Click Here	None Found
Hist-Regional-Other-CA	Historical Toxic Lists, Site Mitigation, and Groundwater Cleanup Program	ERS Supplemental Govt Sources	Click Here	None Found

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ABREVIATION	DATABASE FULLNAME	DATABASE CATEGORY	DATABASE DETAILS LINK	TOTAL LISTINGS
Hist-Regional-SLIC-CA	Historical Spills and Leak Sites	ERS Supplemental Govt Sources	Click Here	None Found
Hist-Regional-Spills-CA	Historical Industrial Cleanup Sites	ERS Supplemental Govt Sources	Click Here	None Found
Hist-Regional-SWLF-CA	Historical County Landfills and Transfer Stations	ERS Supplemental Govt Sources	Click Here	None Found
Hist-Regional-UST-CA	Historical Underground Storage Tanks	ERS Supplemental Govt Sources	Click Here	2
Hist-Rental	Historical Rental Equipment & Yards	ERS Exclusive Historic Sources	Click Here	None Found
Hist-RV-Dealers	Historical Trailer and Recreational Vehicle Dealers	ERS Exclusive Historic Sources	Click Here	None Found
Hist-Salvage	Historical Vehicle Salvage Yards or Wreckers	ERS Exclusive Historic Sources	Click Here	None Found
Hist-SCL-CA	Historical California Cerclis Sites	ERS Supplemental Govt Sources	Click Here	None Found
Hist-Service Stations	Historical Service Stations/Vehicle Fueling	ERS Exclusive Historic Sources	Click Here	None Found
HIST-SLIC-CV-CLOSED-CA	Historical Central Valley Spills and Leak Sites	Emergency Release Reports	Click Here	None Found
HIST-SLIC-CV-OPEN-CA	Historical Central Valley Spills and Leak Sites	Emergency Release Reports	Click Here	None Found
Hist-Steel-Metals	Historical Steel Mills/Manufacturers/Foundries/Smelters	ERS Exclusive Historic Sources	Click Here	None Found
Hist-SWIS-CA	Historical Solid Waste Information System (SWIS)	ERS Supplemental Govt Sources	Click Here	None Found
Hist-Textile	Historical Textile Mills/Manufacturers	ERS Exclusive Historic Sources	Click Here	None Found
Hist-ToxicPits-CA	Historical Toxic Pits Cleanup Facilities	ERS Supplemental Govt Sources	Click Here	None Found
Hist-Transportation	Historical Transportation Facilities	ERS Exclusive Historic Sources	Click Here	None Found
Hist-TRIS-US	Historical Toxic Release Inventory System	ERS Supplemental Govt Sources	Click Here	None Found
Hist-Trucking	Historical Trucking, Shipping, Delivery, and/or Storage	ERS Exclusive Historic Sources	Click Here	None Found
Hist-US	Historical Previously Listed Federal Sites	ERS Supplemental Govt Sources	Click Here	None Found

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ABREVIATION	DATABASE FULLNAME	DATABASE CATEGORY	DATABASE DETAILS LINK	TOTAL LISTINGS
Hist-US-EC	Historical Engineering Controls Sites (aka US EC, Engineering Controls, Land Use Controls)	Federal Institutional/Engineering Controls	Click Here	None Found
Hist-USGS-WaterWells-CA	Historical Ground Water Site Inventory for California	ERS Supplemental Govt Sources	Click Here	None Found
Hist-US-IC	Historical Sites with Institutional Controls (aka US IC, Institutional Controls, Land Use Controls)	Federal Institutional/Engineering Controls	Click Here	None Found
Hist-UST-CA	Historical Hazardous Substance Storage Infirmation (aka Historical Underground Storage Tanks)	State/Tribal UST	Click Here	4
Hist-UST-Cleanup-CA	Historic UST Cases Recommended for Closure under UST Cleanup Fund 5 Year Review (aka UST Cleanup Fund Cases)	State/Tribal LUST	Click Here	None Found
Hist-USTReg-CA	Historical Underground Storage Tank Registrations Database	ERS Supplemental Govt Sources	Click Here	1
Hist-Vehicle-Parts	Historical Vehicle Parts	ERS Exclusive Historic Sources	Click Here	None Found
Hist-Vehicle-Washing	Historical Vehicle/Truck Washing Facilities	ERS Exclusive Historic Sources	Click Here	None Found
Hist-WaterWells-US	Historical Public Community Water Supply/Well Head Protection Database	ERS Supplemental Govt Sources	Click Here	None Found
Hist-WIP-Active-CA	Historical Well Investigation Program Case List, Active Sites (aka WIP)	State/Tribal ASTM Other Med	Click Here	None Found
Hist-WIP-Backlog-CA	Historical Well Investigation Program Case List, Backlog Sites (aka WIP)	State/Tribal ASTM Other Med	Click Here	None Found
Hist-WIP-Historical-CA	Historical Well Investigation Program Case List, Historical Sites (aka WIP)	State/Tribal ASTM Other Low	Click Here	None Found
Hist-WMUDS-CA	Historical Waste Management Unit Database System	ERS Supplemental Govt Sources	Click Here	None Found
HMIS-US	Hazardous Materials Information System	Federal Emergency Release Reports	Click Here	None Found
HWIS-CA	Hazardous Waste Information Summary	State/Tribal RCRA Equivalent	Click Here	2
HWMP-Controls-CA	Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction	State/Tribal Inst/Eng Controls	Click Here	None Found
HWT-CA	Hazardous Waste Transporters	ERS Supplemental Govt Sources	Click Here	1
ICE-CA	Inspection, Compliance, and Enforcement	State/Tribal ASTM Other Med	Click Here	None Found

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ABREVIATION	DATABASE FULLNAME	DATABASE CATEGORY	DATABASE DETAILS LINK	TOTAL LISTINGS
ICIS-Air-US	Integrated Compliance Information System for Air	ERS Supplemental Govt Sources	Click Here	None Found
ICIS-FEC-US	Integrated Compliance Information System for Federal Enforcement Data	ERS Supplemental Govt Sources	Click Here	None Found
ICIS-NPDES-US	National Pollutant Discharge Elimination System (NPDES)	ERS Supplemental Govt Sources	Click Here	None Found
LA-LF-CA	Los Angeles County Landfills	State/Tribal Solid Waste	Click Here	None Found
Land-Disposal-CA	Geotracker - Land Disposal Sites (aka Landfills, LDS)	State/Tribal Landfill/Solid Waste	Click Here	None Found
LA-Waste-Haulers-CA	Waste Haulers	ERS Supplemental Govt Sources	Click Here	None Found
Lead-Smelter-2-US	Historical Lead Smelter Sites	ERS Supplemental Govt Sources	Click Here	None Found
Lead-US	Lead Smelter Sites	ERS Supplemental Govt Sources	Click Here	None Found
Liens-CA	Environmental Liens	State/Tribal Inst/Eng Controls	Click Here	None Found
LIENS-US	Superfund Liens	Federal Institutional/Engineering Controls	Click Here	None Found
LMOP-US	Landfill Methane Outreach Program	ERS Supplemental Govt Sources	Click Here	None Found
LUST-Closed-CA	Geotracker - Leaking Underground Storage Tanks, Closed Cases	State/Tribal LUST	Click Here	4
LUST-Open-CA	Geotracker - Leaking Underground Storage Tanks, Open Cases	State/Tribal LUST	Click Here	None Found
Manifest2-RI	Hazardous Waste Manifest	State/Tribal RCRA Equivalent	Click Here	None Found
MethaneLF-CA	Methane Producing Landfills	State/Tribal Other	Click Here	None Found
Military-Active-CA	EnviroStor Database Military Active Sites (aka MCS)	State/Tribal Voluntary Cleanup Sites	Click Here	None Found
Military-Bases-US	Military Base Boundaries	ERS Supplemental Govt Sources	Click Here	None Found
Military-NFA-CA	EnviroStor Database Military Active Sites (aka MCS)	State/Tribal Voluntary Cleanup Sites	Click Here	None Found
Military-Other-CA	EnviroStor Database Military Active Sites (aka MCS)	State/Tribal Voluntary Cleanup Sites	Click Here	None Found
Military-UST-CA	Underground Storage Tanks	State/Tribal UST	Click Here	None Found

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ABREVIATION	DATABASE FULLNAME	DATABASE CATEGORY	DATABASE DETAILS LINK	TOTAL LISTINGS
Mines2-CA	California Mines	ERS Supplemental Govt Sources	Click Here	None Found
Mines-CA	Historical Death Valley Mines	ERS Supplemental Govt Sources	Click Here	None Found
Mines-CDMG-CA	California Division of Mines and Geology	ERS Supplemental Govt Sources	Click Here	None Found
MINES-US	Mines Master Index File	ERS Supplemental Govt Sources	Click Here	None Found
MLTS-US	Material Licensing Tracking System	ERS Supplemental Govt Sources	Click Here	None Found
Mortgage-CA	Cal Mortgage Facilities	ERS Supplemental Govt Sources	Click Here	None Found
MRDS-US	Mineral Resources Data System (MRDS)	ERS Supplemental Govt Sources	Click Here	None Found
MWMP-CA	Medical Waste Management Program	ERS Supplemental Govt Sources	Click Here	None Found
NCI-CA	Non-Case Information	ERS Supplemental Govt Sources	Click Here	None Found
NEI-LF-CA	Historical NEI (National Emission Inventory) Landfill Point Sources	ERS Supplemental Govt Sources	Click Here	None Found
NPDES-CA	National Pollutant Discharge Elimination System	ERS Supplemental Govt Sources	Click Here	None Found
NPDES-SW-CA	Notice of Intent Data	ERS Supplemental Govt Sources	Click Here	None Found
NPL-Boundaries-US	NPL Boundaries	Federal NPL	Click Here	None Found
NPL-Delisted-US	Delisted NPL Sites	Federal Delisted NPL	Click Here	None Found
NPL-Proposed-US	Proposed NPL Sites	Federal NPL	Click Here	None Found
NPL-US	National Priorities List	Federal NPL	Click Here	None Found
OGM-CA	Oil and Gas Monitoring	ERS Supplemental Govt Sources	Click Here	None Found
OGW-CA	California Oil and Gas Wells	ERS Supplemental Govt Sources	Click Here	None Found
OSCF-CA	Orphan Site Cleanup Fund	ERS Supplemental Govt Sources	Click Here	None Found
PADS-US	PCB Registration Database System	Federal ASTM Other	Click Here	None Found
PCB-US	PCB Transformers	Federal ASTM Other	Click Here	None Found
PCS-US	Historical Permit Compliance System for Clean Water Act	ERS Supplemental Govt Sources	Click Here	None Found

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ABREVIATION	DATABASE FULLNAME	DATABASE CATEGORY	DATABASE DETAILS LINK	TOTAL LISTINGS
Perch1-CA	Perchlorate Confirmed Contaminant Sites	ERS Supplemental Govt Sources	Click Here	None Found
Perch2-CA	Perchlorate Confirmed Contaminant Sites	ERS Supplemental Govt Sources	Click Here	None Found
PR-MOA-CA	Polanco Redevelopment MOA Sites	State/Tribal ASTM Other Med	Click Here	None Found
Project-CA	Project - Multipurpose Site Type	ERS Supplemental Govt Sources	Click Here	None Found
RADINFO-US	Radiation Information Database	ERS Supplemental Govt Sources	Click Here	None Found
RCRA-CESQG-US	Resource Conservation and Recovery Act, Conditionally Exempt Small Quantity Generators (aka RCRA CESQG)	Federal RCRA Generators	Click Here	None Found
RCRA-COR-US	Resource Conservation and Recovery Act, - Corrective Actions (aka RCRA CORRACTS)	Federal RCRA CORRACTS	Click Here	None Found
RCRA-LQG-US	Resource Conservation and Recovery Act, Large Quantity Generators (aka RCRA LQG)	Federal RCRA Generators	Click Here	None Found
RCRA-NON-US	Resource Conservation and Recovery Act, Non-Hazardous Generators (aka RCRA Non-Haz, RCRA NonGen, RCRA No longer Regulated)	Federal RCRA Generators	Click Here	7
RCRA-SQG-US	Resource Conservation and Recovery Act, Small Quantity Generators (aka RCRA SQG)	Federal RCRA Generators	Click Here	2
RCRA-TSDF-US	Resource Conservation and Recovery Act -, Treatment, Storage, and Disposal Facilities (aka RCRA TSD, RCRA TSDF)	Federal RCRA non-CORRACTS TSD	Click Here	None Found
Response-CA	State Response Sites and National Priorities List (NPL)	State/Tribal NPL	Click Here	None Found
RFG-Lab-US	Reformulated Gasoline (RFG)	ERS Supplemental Govt Sources	Click Here	None Found
RMP-US	Risk Management Plans	ERS Supplemental Govt Sources	Click Here	None Found
ROD-US	Records of Decision	ERS Supplemental Govt Sources	Click Here	None Found
SAA-Agreements-US	Sites with Superfund Alternative Approach Agreements	Federal ASTM Other	Click Here	None Found
School-Active-CA	EnviroStor Database School Active Sites (aka School Property Evaluation Program, SCH)	State/Tribal Voluntary Cleanup Sites	Click Here	None Found

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ABREVIATION	DATABASE FULLNAME	DATABASE CATEGORY	DATABASE DETAILS LINK	TOTAL LISTINGS
School-NFA-CA	EnviroStor Database School Active Sites (aka School Property Evaluation Program, SCH)	State/Tribal Voluntary Cleanup Sites	Click Here	None Found
School-Other-CA	EnviroStor Database School Active Sites (aka School Property Evaluation Program, SCH)	State/Tribal Voluntary Cleanup Sites	Click Here	None Found
SCP-Closed-CA	Site Cleanup Program, Closed Cases	Emergency Release Reports	Click Here	None Found
SCP-Open-CA	Site Cleanup Program, Open Cases	Emergency Release Reports	Click Here	None Found
SDWIS-US	Safe Drinking Water Information System	ERS Supplemental Govt Sources	Click Here	None Found
SEMS-Active-US	Comprehensive Environmental Response, Compensation, and Liability Information System	Federal CERCLIS	Click Here	None Found
SEMS-Archived-US	CERCLIS sites that have been archived	Federal CERCLIS NFRAP	Click Here	None Found
SGV-Deep-Plumes-CA	San Gabriel Valley Deep Plumes	State/Tribal Solid Waste	Click Here	None Found
SGV-Shallow-Plumes-CA	San Gabriel Valley Shallow Plumes	State/Tribal Solid Waste	Click Here	None Found
SGV-Shallow-Plumes-Puente-Valley-CA	Puente Valley Shallow Plumes	State/Tribal Solid Waste	Click Here	None Found
SML-CA	Site Mitigation List	State/Tribal ASTM Other Med	Click Here	None Found
SP-CA	Sampling Points	ERS Supplemental Govt Sources	Click Here	None Found
Spills-SSO-CA	Sanitary Sewer System	ERS Supplemental Govt Sources	Click Here	None Found
SSTS-US	Section 7 Tracking System	ERS Supplemental Govt Sources	Click Here	None Found
State-Response-Active-CA	EnviroStor State Response Active Sites	State/Tribal NPL	Click Here	None Found
State-Response-NFA-CA	EnviroStor State Response NFA Sites	State/Tribal NPL	Click Here	None Found
State-Response-Other-CA	EnviroStor State Response Other Sites	State/Tribal NPL	Click Here	None Found

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ABREVIATION	DATABASE FULLNAME	DATABASE CATEGORY	DATABASE DETAILS LINK	TOTAL LISTINGS
Superfund-Active-CA	Envirorstor Superfund Active Sites (aka BEAP, CalSites, Brownfields and Environmental Restoration Program)	State/Tribal CERCLIS Equivalent	Click Here	None Found
Superfund-NFA-CA	EnviroStor Superfund NFA Sites (aka BEAP, CalSites, Brownfields and Environmental Restoration Program)	State/Tribal CERCLIS Equivalent	Click Here	None Found
Superfund-Other-CA	EnviroStor Superfund Sites (aka BEAP, CalSites, Brownfields and Environmental Restoration Program)	State/Tribal CERCLIS Equivalent	Click Here	None Found
SWIS-CA	Solid Waste Information System	State/Tribal Landfill/Solid Waste	Click Here	1
SWLF-US	Solid Waste Facilities	Federal Solid Waste	Click Here	None Found
SWRCY-CA	Beverage Container Recycler Database	State/Tribal ASTM Other Med	Click Here	None Found
TierPer-CA	Tiered Permits	ERS Supplemental Govt Sources	Click Here	None Found
TOMS-CA	Topographically Occurring Mine Symbols	ERS Supplemental Govt Sources	Click Here	None Found
Tribal-Air-US	Tribal Air Permitted Facilities	ERS Supplemental Govt Sources	Click Here	None Found
Tribal-LUST-Closed-US	Tribal Leaking Underground Storage Tanks, Closed Cases	Federal LUST	Click Here	None Found
Tribal-LUST-Open-US	Tribal Leaking Underground Storage Tanks, Open Cases	Federal LUST	Click Here	None Found
Tribal-ODL-US	Tribal Open Dump Sites	Federal Solid Waste	Click Here	None Found
Tribal-UST-US	Tribal Underground Storage Tanks	Federal UST	Click Here	None Found
Tribal-VCP-US	Historical Tribal VCP	ERS Supplemental Govt Sources	Click Here	None Found
TRIS2000-US	Historical Toxics Release Inventory System	ERS Supplemental Govt Sources	Click Here	None Found
TRIS2010-US	Toxics Release Inventory System	ERS Supplemental Govt Sources	Click Here	None Found
TRIS80-US	Historical Toxics Release Inventory System	ERS Supplemental Govt Sources	Click Here	None Found
TRIS90-US	Historical Toxics Release Inventory System	ERS Supplemental Govt Sources	Click Here	None Found
TSCA-US	Toxics Substance Control Sites	ERS Supplemental Govt Sources	Click Here	None Found
UIC2-CA	Injection Wells	ERS Supplemental Govt Sources	Click Here	None Found
UIC-CA	Underground Injection Control Wells	ERS Supplemental Govt Sources	Click Here	None Found

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ABREVIATION	DATABASE FULLNAME	DATABASE CATEGORY	DATABASE DETAILS LINK	TOTAL LISTINGS
UMTRA-US	Historical Uranium Mill Tailings Remedial Action Sites	ERS Supplemental Govt Sources	Click Here	None Found
USGS-Waterwells-US	Ground Water Site Inventory	ERS Supplemental Govt Sources	Click Here	None Found
UST-Abandoned-COMP-CA	Previously Abandoned Tanks Now in Compliance (aka Compliance UST)	State/Tribal UST	Click Here	None Found
UST-Abandoned-NCOMP-CA	Abandoned UST Initiative (aka Inventory of Abandoned Tank Sites)	State/Tribal UST	Click Here	None Found
UST-CA	Geotracker - Underground Storage Tanks	State/Tribal UST	Click Here	None Found
UST-Closed-CA	UST Case Closure Review Denials and Approved Orders (aka Closure of Underground Storage Tank (UST) Cases)	State/Tribal UST	Click Here	None Found
UST-Priority-CA	UST Cleanup Fund Priority List	State/Tribal UST	Click Here	None Found
UST-Proposed-CA	Proposed Closure of UST Cases (aka UST Proposed for Closure)	State/Tribal UST	Click Here	None Found
Vapor-Intrusions-US	Vapor Intrusion Database	ERS Supplemental Govt Sources	Click Here	None Found
VCP-Active-CA	EnviroStor VCP Active Sites	State/Tribal Voluntary Cleanup Sites	Click Here	None Found
VCP-NFA-CA	EnviroStor Database VCP NFA Listing	State/Tribal Voluntary Cleanup Sites	Click Here	None Found
VCP-Other-CA	EnviroStor VCP Other Sites	State/Tribal Voluntary Cleanup Sites	Click Here	None Found
WDR-CA	Waste Discharge Requirements	ERS Supplemental Govt Sources	Click Here	1

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UN-MAPPABLE OCCURRENCES

The following occurrences were not mapped primarily due to incomplete or inaccurate address information. All of the following occurrences were determined to share the same zip code as the area searched. General status information is given with each occurrence along with any address information entered by the agency responsible for the list.

ID	Facility Name	Address	Database	Status
No "un-mapped" sites requested.				

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Appendix F

Hydrology and Hydraulic Calculations,
Collier Commercial Properties

Hydrology and Hydraulic Calculations

Collier Commercial Properties

City of Lake of Elsinore, CA 92530
APN(s) 377-190-02,03,04

Prepared For:

COLLIER COMMERCIAL PROPERTIES
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1-16-2023

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January 16, 2023

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A. Introduction

1.1 Purpose & Scope

The following Hydrology & Hydraulics Study has been prepared for the development of the Lake Elsinore Rentals site in the City of Lake Elsinore, CA to satisfy the City of Lake Elsinore per Riverside County Flood Control and Conservation District Hydrology requirements for developments of this type.

The scope of this Study is as follows:

- Identification of existing conditions tributary drainage areas and calculation of total peak flow rates and run-on/run-off volumes impacting the project site.
- Identification of existing conditions on-site drainage areas and calculation of peak flow rates and runoff volumes for these areas.
- Identification of proposed on-site hydrologic conditions and site/drainage plan.
- Identification of Water Quality Best Management Practices (BMPs) proposed for the project.
- Summary of Findings and Conclusions.

1.2 Project Overview

The proposed project entails the construction of two new industrial buildings in the City of Lake Elsinore. Total Building A= 3,000 s.f. and Building B= 8,975 s.f. in a 121,966 s.f. lot in a zoning of Limited Manufacturing (M-1). The project will be operating an equipment rental and trucking operations business which also include outside storage of equipment and trucks. To the north boundary of the project site is Collier Avenue, to the south is Minthorn Street, to the west is a vacant lot and to the east is a commercial development with block wall fence.

A. Introduction



VICINITY MAP/N.T.S.

SITE LOCATION

A. Introduction

1.3 Existing Conditions Off-Site Areas

The project site is surrounded by existing streets to the north and to the south, a commercial building to the east and vacant lot to the west.

Photo 1- Minthorn Street looking Northeast



A. Introduction

Photo 1- Collier Avenue looking Northwest



A. Introduction

1.4 Existing Conditions On-Site Areas

The existing on-site project area is generally flat with poorly covered native soil that has been disturbed from past use. It was noted that most of the site surface material is lightly covered with native vegetation (weeds).



A. Introduction

1.5 References

The following documents have been made part of this Study by reference:

1.) Riverside County Flood Control and Water Conservation Hydrology Manual, April 1978.

2.) Site Plans provided to NM Civil Engineering, Inc. by Jonathan Zane Architecture, January 2019.

B. Methodology

1.1 General Methodology

The requirements and recommendations found in the Riverside County Flood Control and Water Conservation Rational Hydrology was used as the basis for the methodology and calculations found in this Study. On-site calculations were performed using the rational method per requirements for the San Jacinto River watershed.

The site incorporates water quality bmp volumes into the gravel open areas and a bioretention areas, thereby satisfying the Regional Water Quality Control Board. The Riverside County Flood Control and Water Conservation District approved software applications provided by Advance Engineering Software were used for all study calculations.

Rainfall Data: Standard intensity-duration curve data generated from Plate D-4.1 of the Riverside County Flood Control and Water Conservation Rational Hydrology Manual for Elsinore area was used.

Soil Type Data: The soil type was obtained from the Hydrologic Soils Group Map Plate C-1.41 within the Riverside County Flood Control and Water Conservation Rational Hydrology Manual. A copy of this map is included within this report. The predominant soil type obtained from the Hydrologic Soils Group Map was determined to be type B.

Type of Development: Both existing and ultimate conditions were analyzed. For the existing condition, undeveloped land use was assumed to model current storm discharges.

The project site is planned for commercial facilities. Therefore, the hydrology report incorporates factors that generate discharges representing commercial type development throughout the site for the ultimate developed condition.

Runoff Index: Runoff Index factors for undeveloped and developed conditions were obtained from Plate E-6.1 of the Riverside County and Water Conservation Hydrology Manual.

Impervious Cover: Impervious Cover factors for developed conditions were obtained from Plate E-6.3 of the Riverside County and Water Conservation Hydrology Manual.

1.2 Sources of Topography

For the existing condition on-site area, topographic contours provided by Jim Williams, License Surveyor were used. For the developed conditions on-site areas, site layout provided by Jonathan Zane Architecture and grades provided by NM Civil Engineering, Inc. were used.

B. Methodology

1.3 Watershed Precipitation

Precipitation values used in this report for Elsinore-Wildomar areas are tabulated below.

Table 1- Precipitation Values (Rational Method Calculations)

STORM	PRECIPITATION
10- YEAR, 1-HOUR	0.98
100- YEAR, 1-HOUR	1.50

1.4 Rational Hydrology Method Calculations

The Riverside County Flood Control and Water Conservation Rational Method (RATRV) software applications provided by Advance Engineering Software was used for the rational method calculations include in this report.

E. Summary & Conclusions

1.1 Summary

The following table provides a clear comparison of the existing and developed condition rational method storm flows for the 10-year and 100-year storm events. Based on the storm quantities calculated and shown below, there is an increase in storm flow due to the development. In accordance with Riverside County policy for drainage tributary to Lake Elsinore, the increased developed condition runoff quantity will not be retained or detained in order to provide the most quantity of runoff to the lake ('Highest and Best Use' policy).

	10-YEAR EVENT CFS	100-YEAR EVENT CFS
EXISTING	2.17	3.83
DEVELOPED	5.86	8.93
DIFFERENCE	3.69 CFS INCREASE	5.10 CFS INCREASE

1.2 Bioretention Water Quality BMP

The Riverside County Stormwater Quality Best Management Practice Design Handbook was utilized in generating capacity requirements for the project. The design procedure for BMP design volume was applied to calculate the site requirement. The design calculations are in the Project Specific Water Quality Management Plan (WQMP) for this project. As shown in the WQMP, the total BMP volume required is 3,560 cubic feet. The design capacity of the bioretention BMPs is 3,750 cubic feet, to satisfy the water quality requirement.

1.3 Conclusion

With the above mitigation measure the development of the Lake Elsinore Rentals will not have a negative impact on downstream properties of facilities. Refer to project specific WQMP for additional requirements.

(END)

EXHIBIT “A”

Project Watershed
Aerial Orthophoto



EXHIBIT "A" Project Watershed Aerial Orthophoto

EXHIBIT "B"

Standard Intensity-Duration Curves
Data, Plate D-4.1

RAINFALL INTENSITY—INCHES PER HOUR

CATHEDRAL CITY			CHERRY VALLEY			CORONA			DESERT HOT SPRINGS			ELSINORE - WILDOMAR		
DURATION MINUTES	FREQUENCY		DURATION MINUTES	FREQUENCY		DURATION MINUTES	FREQUENCY		DURATION MINUTES	FREQUENCY		DURATION MINUTES	FREQUENCY	
	10 YEAR	100 YEAR		10 YEAR	100 YEAR		10 YEAR	100 YEAR		10 YEAR	100 YEAR		10 YEAR	100 YEAR
5	4.14	6.76	5	3.65	5.49	5	3.10	4.78	5	4.39	6.76	5	3.23	4.94
6	3.73	6.08	6	3.30	4.97	6	2.84	4.38	6	3.95	6.08	6	2.96	4.53
7	3.41	5.56	7	3.03	4.56	7	2.64	4.07	7	3.62	5.56	7	2.75	4.21
8	3.15	5.15	8	2.82	4.24	8	2.47	3.81	8	3.35	5.15	8	2.58	3.95
9	2.95	4.81	9	2.64	3.97	9	2.34	3.60	9	3.13	4.81	9	2.44	3.73
10	2.77	4.52	10	2.49	3.75	10	2.22	3.43	10	2.94	4.52	10	2.32	3.54
11	2.62	4.28	11	2.36	3.56	11	2.12	3.27	11	2.78	4.28	11	2.21	3.39
12	2.49	4.07	12	2.25	3.39	12	2.04	3.14	12	2.65	4.07	12	2.12	3.25
13	2.38	3.88	13	2.16	3.25	13	1.96	3.02	13	2.53	3.88	13	2.04	3.13
14	2.28	3.72	14	2.07	3.12	14	1.89	2.92	14	2.42	3.72	14	1.97	3.02
15	2.19	3.58	15	1.99	3.00	15	1.83	2.82	15	2.32	3.58	15	1.91	2.92
16	2.11	3.44	16	1.92	2.90	16	1.77	2.73	16	2.24	3.44	16	1.85	2.83
17	2.04	3.32	17	1.86	2.80	17	1.72	2.66	17	2.16	3.32	17	1.80	2.75
18	1.97	3.22	18	1.80	2.71	18	1.68	2.58	18	2.09	3.22	18	1.75	2.67
19	1.91	3.12	19	1.75	2.64	19	1.63	2.52	19	2.03	3.12	19	1.70	2.60
20	1.85	3.03	20	1.70	2.56	20	1.59	2.46	20	1.97	3.03	20	1.66	2.54
22	1.75	2.86	22	1.61	2.43	22	1.52	2.35	22	1.86	2.86	22	1.59	2.43
24	1.67	2.72	24	1.54	2.32	24	1.46	2.25	24	1.77	2.72	24	1.52	2.33
26	1.59	2.60	26	1.47	2.22	26	1.40	2.17	26	1.69	2.60	26	1.46	2.24
28	1.52	2.49	28	1.41	2.13	28	1.36	2.09	28	1.62	2.49	28	1.41	2.16
30	1.46	2.39	30	1.36	2.05	30	1.31	2.02	30	1.55	2.39	30	1.37	2.09
32	1.41	2.30	32	1.31	1.98	32	1.27	1.96	32	1.50	2.30	32	1.33	2.03
34	1.36	2.22	34	1.27	1.91	34	1.23	1.90	34	1.45	2.22	34	1.29	1.97
36	1.32	2.15	36	1.23	1.85	36	1.20	1.85	36	1.40	2.15	36	1.25	1.92
38	1.28	2.09	38	1.20	1.80	38	1.17	1.81	38	1.36	2.09	38	1.22	1.87
40	1.24	2.02	40	1.16	1.75	40	1.14	1.76	40	1.32	2.02	40	1.19	1.82
45	1.16	1.89	45	1.09	1.64	45	1.08	1.66	45	1.23	1.89	45	1.13	1.72
50	1.09	1.78	50	1.03	1.55	50	1.03	1.58	50	1.16	1.78	50	1.07	1.64
55	1.03	1.68	55	.98	1.47	55	.98	1.51	55	1.09	1.68	55	1.02	1.56
60	.98	1.60	60	.93	1.40	60	.94	1.45	60	1.04	1.60	60	.98	1.50
65	.94	1.53	65	.89	1.34	65	.90	1.40	65	.99	1.53	65	.94	1.44
70	.90	1.46	70	.85	1.29	70	.87	1.35	70	.95	1.46	70	.91	1.39
75	.86	1.41	75	.82	1.24	75	.84	1.30	75	.91	1.41	75	.88	1.35
80	.83	1.35	80	.79	1.20	80	.82	1.26	80	.88	1.35	80	.85	1.31
85	.80	1.31	85	.77	1.16	85	.80	1.23	85	.85	1.31	85	.83	1.27
SLOPE = .580			SLOPE = .550			SLOPE = .480			SLOPE = .580			SLOPE = .480		

RCFC & WCD

HYDROLOGY MANUAL

STANDARD INTENSITY-DURATION CURVES DATA

PLATE D-4.1 (2 of 6)

EXHIBIT "C"

Runoff Index Numbers for Pervious Areas

Plate E-6.1

RUNOFF INDEX NUMBERS OF HYDROLOGIC SOIL-COVER COMPLEXES FOR PERVIOUS AREAS-AMC II

Cover Type (3)	Quality of Cover (2)	Soil Group A	B	C	D
NATURAL COVERS -					
Barren (Rockland, eroded and graded land)		78	86	91	93
Chaparrel, Broadleaf (Manzonita, ceanothus and scrub oak)	Poor	53	70	80	85
	Fair	40	63	75	81
	Good	31	57	71	78
Chaparrel, Narrowleaf (Chamise and redshank)	Poor	71	82	88	91
	Fair	55	72	81	86
Grass, Annual or Perennial	Poor	67	78	86	89
	Fair	50	69	79	84
	Good	38	61	74	80
Meadows or Cienegas (Areas with seasonally high water table, principal vegetation is sod forming grass)	Poor	63	77	85	88
	Fair	51	70	80	84
	Good	30	58	72	78
Open Brush (Soft wood shrubs - buckwheat, sage, etc.)	Poor	62	76	84	88
	Fair	46	66	77	83
	Good	41	63	75	81
Woodland (Coniferous or broadleaf trees predominate. Canopy density is at least 50 percent)	Poor	45	66	77	83
	Fair	36	60	73	79
	Good	28	55	70	77
Woodland, Grass (Coniferous or broadleaf trees with canopy density from 20 to 50 percent)	Poor	57	73	82	86
	Fair	44	65	77	82
	Good	33	58	72	79
URBAN COVERS -					
Residential or Commercial Landscaping (Lawn, shrubs, etc.)	Good	32	56	69	75
Turf (Irrigated and mowed grass)	Poor	58	74	83	87
	Fair	44	65	77	82
	Good	33	58	72	79
AGRICULTURAL COVERS -					
Fallow (Land plowed but not tilled or seeded)		76	85	90	92

RCFC & WCD
HYDROLOGY MANUAL

RUNOFF INDEX NUMBERS FOR PERVIOUS AREAS

PLATE E-6.1 (1 of 2)

RUNOFF INDEX NUMBERS OF HYDROLOGIC SOIL-COVER COMPLEXES FOR PERVIOUS AREAS-AMC II

Cover Type (3)	Quality of Cover (2)	Soil Group A	B	C	D
AGRICULTURAL COVERS (cont.) -					
Legumes, Close Seeded (Alfalfa, sweetclover, timothy, etc.)	Poor	66	77	85	89
	Good	58	72	81	85
Orchards, Deciduous (Apples, apricots, pears, walnuts, etc.)		See Note 4			
Orchards, Evergreen (Citrus, avocados, etc.)	Poor	57	73	82	86
	Fair	44	65	77	82
	Good	33	58	72	79
Pasture, Dryland (Annual grasses)	Poor	67	78	86	89
	Fair	50	69	79	84
	Good	38	61	74	80
Pasture, Irrigated (Legumes and perennial grass)	Poor	58	74	83	87
	Fair	44	65	77	82
	Good	33	58	72	79
Row Crops (Field crops - tomatoes, sugar beets, etc.)	Poor	72	81	88	91
	Good	67	78	85	89
Small Grain (Wheat, oats, barley, etc.)	Poor	65	76	84	88
	Good	63	75	83	87
Vineyard		See Note 4			

Notes:

1. All runoff index (RI) numbers are for Antecedent Moisture Condition (AMC) II.

2. Quality of cover definitions:
   Poor-Heavily grazed or regularly burned areas. Less than 50 percent of the ground surface is protected by plant cover or brush and tree canopy.
   Fair-Moderate cover with 50 percent to 75 percent of the ground surface protected.
   Good-Heavy or dense cover with more than 75 percent of the ground surface protected.

3. See Plate C-2 for a detailed description of cover types.

4. Use runoff index numbers based on ground cover type. See discussion under "Cover Type Descriptions" on Plate C-2.

5. Reference Bibliography item 17.

EXHIBIT "D"

Impervious Cover for Developed Areas

Plate E-6.3

ACTUAL IMPERVIOUS COVER

Land Use (1)	Range-Percent	Recommended Value For Average Conditions-Percent(2)
Natural or Agriculture	0 - 10	0
Single Family Residential: (3)		
40,000 S. F. (1 Acre) Lots	10 - 25	20
20,000 S. F. (½ Acre) Lots	30 - 45	40
7,200 - 10,000 S. F. Lots	45 - 55	50
Multiple Family Residential:		
Condominiums	45 - 70	65
Apartments	65 - 90	80
Mobile Home Park	60 - 85	75
Commercial, Downtown Business or Industrial	80 -100	90

Notes:

1. Land use should be based on ultimate development of the watershed. Long range master plans for the County and incorporated cities should be reviewed to insure reasonable land use assumptions.

2. Recommended values are based on average conditions which may not apply to a particular study area. The percentage impervious may vary greatly even on comparable sized lots due to differences in dwelling size, improvements, etc. Landscape practices should also be considered as it is common in some areas to use ornamental gravels underlain by impervious plastic materials in place of lawns and shrubs. A field investigation of a study area should always be made, and a review of aerial photos, where available may assist in estimating the percentage of impervious cover in developed areas.

3. For typical horse ranch subdivisions increase impervious area 5 percent over the values recommended in the table above.

RCFC & WCD
HYDROLOGY MANUAL

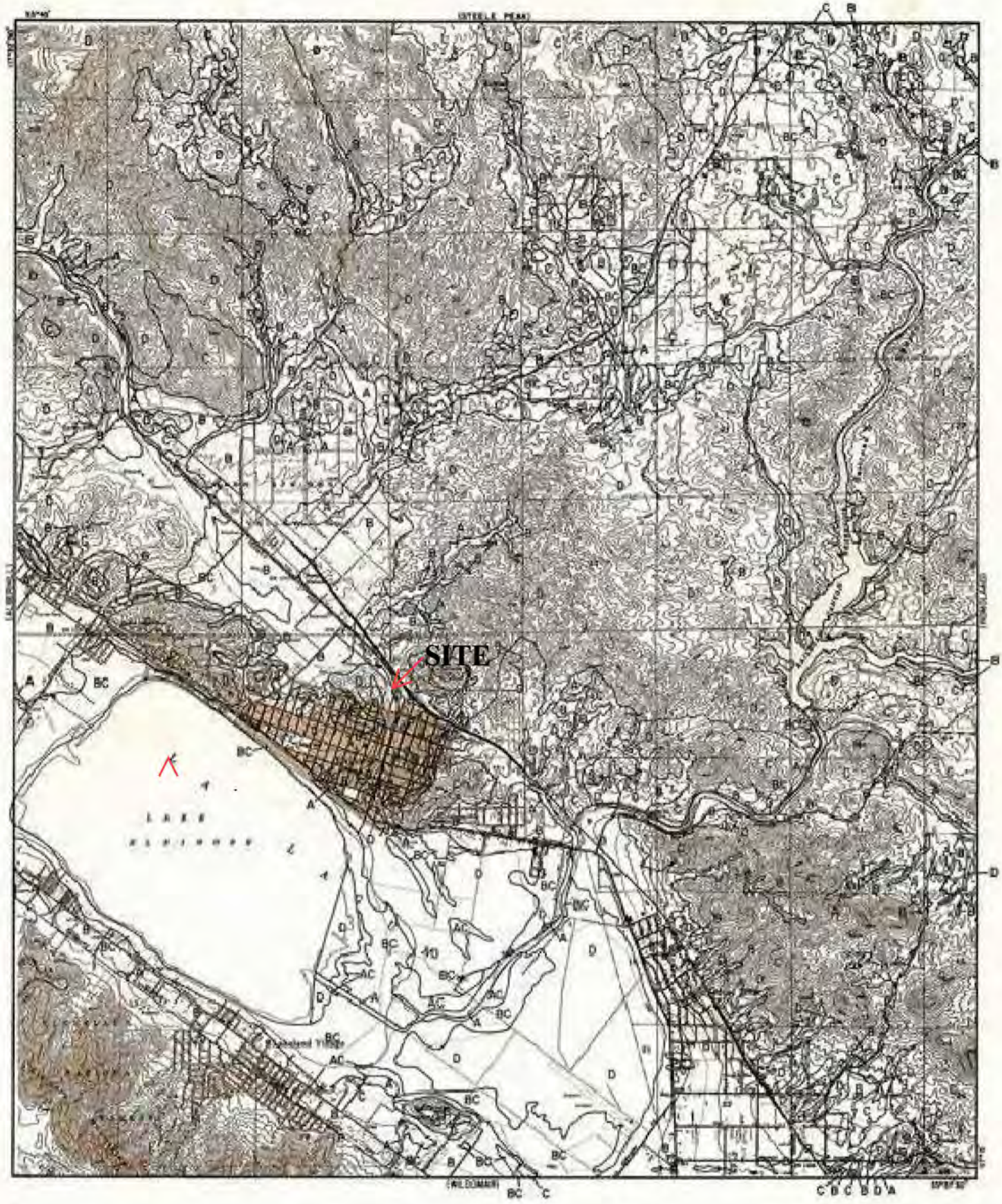
IMPERVIOUS COVER FOR DEVELOPED AREAS

PLATE E-6.3

EXHIBIT "E"

Hydrologic Soils Group Map for Elsinore

Plate C-1.41



LEGEND

— SOILS GROUP BOUNDARY

A SOILS GROUP DESIGNATION

RCFC&WCD

HYDROLOGY MANUAL

N

0 FEET 2000

HYDROLOGIC SOILS GROUP MAP FOR ELSINORE

PLATE C-1.41

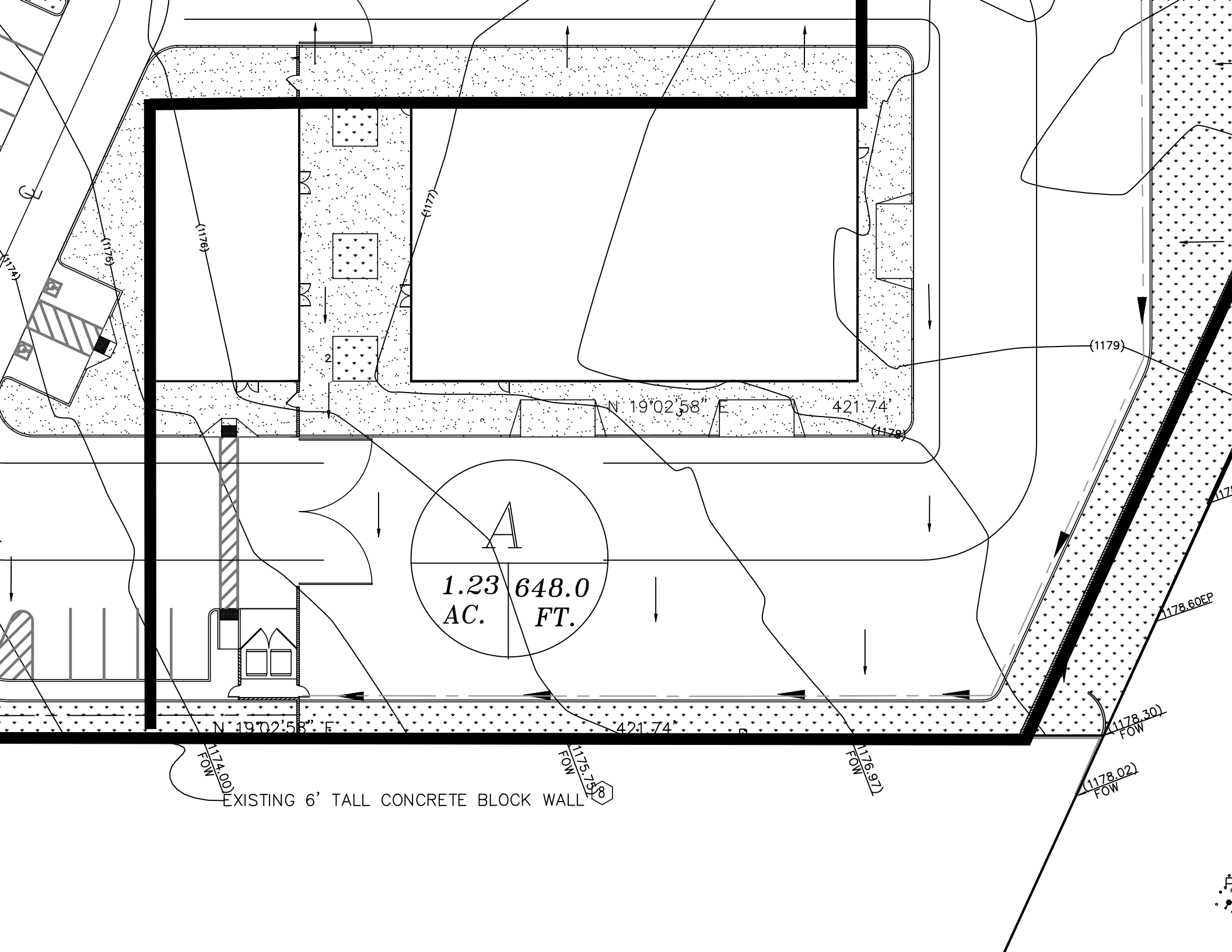
EXHIBIT “F”

Existing Hydrologic Conditions
Study Map


N 19°02'58" E
421.74'
1177
1178
1179
A
2.80
AC.
880.0
FT.
N 19°02'58" E
421.74'

EXHIBIT “G”

Developed Hydrologic Conditions
Study Map (On-Site)


(1174)
(1175)
(1176)
(1177)
(1179)
N 19°02'58" E
421.74'
(1178)
A
1.23 AC.
648.0 FT.
N 19°02'58" E
421.74'
1178.60EP
(1178.30) FOW
(1178.02) FOW
1174.00 FOW
1175.78 FOW
1176.97 FOW
EXISTING 6' TALL CONCRETE BLOCK WALL

ATTACHMENT 1

Existing Conditions
100-Year, 1-Hour
Rational Method Calculations

```
**************************************************************************
            RATIONAL METHOD HYDROLOGY COMPUTER PROGRAM BASED ON
         RIVERSIDE COUNTY FLOOD CONTROL & WATER CONSERVATION DISTRICT
                      (RCFC&WCD)  1978 HYDROLOGY MANUAL
          (c) Copyright 1982-2016 Advanced Engineering Software (aes)
                      (Rational Tabling Version 23.0)
                  Release Date: 07/01/2016  License ID 1360

                              Analysis prepared by:

                             NM CIVIL ENGINEERING INC
                              22880 VAN BUREN STREET
                             GRAND TERRACE, CA 92313
                                  (951) 712-0623

  ************************* DESCRIPTION OF STUDY ***********************
 * HYDROLOGY STUDY FOR COLLIER PROPERTIES
*
 * 100 YR STORM, UNDEVELOPED CONDITION
*
 * NOVEMEMBER 2,2022 BY NMM
**************************************************************************

   FILE NAME: HAMUD.DAT
   TIME/DATE OF STUDY: 15:14 11/01/2022
 --------------------------------------------------------------------------
   USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:
 --------------------------------------------------------------------------
   USER SPECIFIED STORM EVENT(YEAR) =  100.00
   SPECIFIED MINIMUM PIPE SIZE(INCH) =  12.00
   SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE =
0.95
   10-YEAR STORM 10-MINUTE INTENSITY(INCH/HOUR) =  2.320
   10-YEAR STORM 60-MINUTE INTENSITY(INCH/HOUR) =  0.980
   100-YEAR STORM 10-MINUTE INTENSITY(INCH/HOUR) =  3.540
   100-YEAR STORM 60-MINUTE INTENSITY(INCH/HOUR) =  1.500
   SLOPE OF 10-YEAR INTENSITY-DURATION CURVE =  0.4809628
   SLOPE OF 100-YEAR INTENSITY-DURATION CURVE =  0.4792280
   COMPUTED RAINFALL INTENSITY DATA:
   STORM EVENT =  100.00   1-HOUR INTENSITY(INCH/HOUR) =   1.500
   SLOPE OF INTENSITY DURATION CURVE = 0.4792
   RCFC&WCD HYDROLOGY MANUAL "C"-VALUES USED FOR RATIONAL METHOD
   NOTE: COMPUTE CONFLUENCE VALUES ACCORDING TO RCFC&WCD HYDROLOGY MANUAL
         AND IGNORE OTHER CONFLUENCE COMBINATIONS FOR DOWNSTREAM ANALYSES
   *USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW
MODEL*
      HALF-  CROWN TO   STREET-CROSSFALL:   CURB  GUTTER-GEOMETRIES:
MANNING
      WIDTH  CROSSFALL  IN-  / OUT-/PARK-  HEIGHT  WIDTH  LIP   HIKE
FACTOR
 NO.   (FT)   (FT)    SIDE / SIDE/ WAY    (FT)    (FT)  (FT)  (FT)    (n)
```

```
 ===  =====  =========  =================  ======  ===== ====== ===== ==
   1   30.0  20.0    0.018/0.018/0.020   0.67    2.00 0.0312 0.167 0.0150

   GLOBAL STREET FLOW-DEPTH CONSTRAINTS:
     1. Relative Flow-Depth =  0.50 FEET
        as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
     2. (Depth)*(Velocity) Constraint =  0.1 (FT*FT/S)
   *SIZE PIPE WITH A FLOW CAPACITY GREATER THAN
    OR EQUAL TO THE UPSTREAM TRIBUTARY PIPE.*
****************************************************************************
   FLOW PROCESS FROM NODE    100.00 TO NODE    101.00 IS CODE =  21
 ----------------------------------------------------------------------------
   >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
============================================================================
           ASSUMED INITIAL SUBAREA UNIFORM
           DEVELOPMENT IS: UNDEVELOPED WITH FAIR COVER
   TC = K*[(LENGTH**3)/(ELEVATION CHANGE)]**.2
   INITIAL SUBAREA FLOW-LENGTH(FEET) =   880.00
   UPSTREAM ELEVATION(FEET) =   1180.50
   DOWNSTREAM ELEVATION(FEET) =   1170.50
   ELEVATION DIFFERENCE(FEET) =     10.00
   TC = 0.709*[(  880.00**3)/(    10.00)]**.2 =   26.157
    100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  2.233
   UNDEVELOPED WATERSHED RUNOFF COEFFICIENT = .6126
   SOIL CLASSIFICATION IS "B"
   SUBAREA RUNOFF(CFS) =      3.83
   TOTAL AREA(ACRES) =      2.80   TOTAL RUNOFF(CFS) =      3.83

============================================================================
   END OF STUDY SUMMARY:
   TOTAL AREA(ACRES)     =        2.8  TC(MIN.) =     26.16
   PEAK FLOW RATE(CFS)   =       3.83
============================================================================

============================================================================
   END OF RATIONAL METHOD ANALYSIS
```

ATTACHMENT 2

Developed Conditions
100-Year, 1-Hour
Rational Method Calculations

```
**************************************************************************
            RATIONAL METHOD HYDROLOGY COMPUTER PROGRAM BASED ON
         RIVERSIDE COUNTY FLOOD CONTROL & WATER CONSERVATION DISTRICT
                      (RCFC&WCD)  1978 HYDROLOGY MANUAL
          (c) Copyright 1982-2016 Advanced Engineering Software (aes)
                      (Rational Tabling Version 23.0)
                  Release Date: 07/01/2016  License ID 1360

                              Analysis prepared by:

                            NM CIVIL ENGINEERING INC
                             22880 VAN BUREN STREET
                            GRAND TERRACE, CA 92313
                                 (951) 712-0623

  ********************** DESCRIPTION OF STUDY *************************
 * HYDROLOGY STUDY FOR LAKE ELSINORE RENTALS
*
 * 100 YR STORM, DEVELOPED CONDITION
*
 * JANUARY 18,2023 BY NMM
*

**************************************************************************

   FILE NAME: HAMUD.DAT
   TIME/DATE OF STUDY: 18:02 01/18/2023
 --------------------------------------------------------------------------
   USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:
 --------------------------------------------------------------------------
   USER SPECIFIED STORM EVENT(YEAR) =  100.00
   SPECIFIED MINIMUM PIPE SIZE(INCH) =  12.00
   SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE =
0.95
   10-YEAR STORM 10-MINUTE INTENSITY(INCH/HOUR) =  2.320
   10-YEAR STORM 60-MINUTE INTENSITY(INCH/HOUR) =  0.980
   100-YEAR STORM 10-MINUTE INTENSITY(INCH/HOUR) =  3.540
   100-YEAR STORM 60-MINUTE INTENSITY(INCH/HOUR) =  1.500
   SLOPE OF 10-YEAR INTENSITY-DURATION CURVE =  0.4809628
   SLOPE OF 100-YEAR INTENSITY-DURATION CURVE =  0.4792280
   COMPUTED RAINFALL INTENSITY DATA:
   STORM EVENT =  100.00   1-HOUR INTENSITY(INCH/HOUR) =   1.500
   SLOPE OF INTENSITY DURATION CURVE = 0.4792
   RCFC&WCD HYDROLOGY MANUAL "C"-VALUES USED FOR RATIONAL METHOD
   NOTE: COMPUTE CONFLUENCE VALUES ACCORDING TO RCFC&WCD HYDROLOGY MANUAL
         AND IGNORE OTHER CONFLUENCE COMBINATIONS FOR DOWNSTREAM ANALYSES
   *USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW
MODEL*
      HALF-  CROWN TO   STREET-CROSSFALL:   CURB  GUTTER-GEOMETRIES:
MANNING
```

```
      WIDTH  CROSSFALL  IN-  / OUT-/PARK-  HEIGHT  WIDTH  LIP   HIKE
FACTOR
 NO.   (FT)   (FT)    SIDE / SIDE/ WAY    (FT)    (FT)  (FT)   (FT)    (n)
 ===  =====  =========  ================  ======  ===== ====== =====
   1   30.0  20.0    0.018/0.018/0.020   0.67    2.00 0.0312 0.167 0.0150

   GLOBAL STREET FLOW-DEPTH CONSTRAINTS:
     1. Relative Flow-Depth =  0.50 FEET
        as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
     2. (Depth)*(Velocity) Constraint =  0.1 (FT*FT/S)
   *SIZE PIPE WITH A FLOW CAPACITY GREATER THAN
    OR EQUAL TO THE UPSTREAM TRIBUTARY PIPE.*


****************************************************************************
   FLOW PROCESS FROM NODE    100.00 TO NODE    101.00 IS CODE =  21
 ----------------------------------------------------------------------------
   >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<

============================================================================
           ASSUMED INITIAL SUBAREA UNIFORM
           DEVELOPMENT IS COMMERCIAL
   TC = K*[(LENGTH**3)/(ELEVATION CHANGE)]**.2
   INITIAL SUBAREA FLOW-LENGTH(FEET) =   648.00
   UPSTREAM ELEVATION(FEET) =   1178.58
   DOWNSTREAM ELEVATION(FEET) =   1170.00
   ELEVATION DIFFERENCE(FEET) =      8.58
   TC = 0.303*[(  648.00**3)/(     8.58)]**.2 =    9.590
    100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  3.612
   COMMERCIAL DEVELOPMENT RUNOFF COEFFICIENT = .8798
   SOIL CLASSIFICATION IS "B"
   SUBAREA RUNOFF(CFS) =      3.91
   TOTAL AREA(ACRES) =      1.23   TOTAL RUNOFF(CFS) =      3.91


****************************************************************************
   FLOW PROCESS FROM NODE    101.00 TO NODE    101.00 IS CODE =  81
 ----------------------------------------------------------------------------
   >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<

============================================================================
    100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  3.612
   COMMERCIAL DEVELOPMENT RUNOFF COEFFICIENT = .8798
   SOIL CLASSIFICATION IS "B"
   SUBAREA AREA(ACRES) =    1.58   SUBAREA RUNOFF(CFS) =    5.02
   TOTAL AREA(ACRES) =        2.8   TOTAL RUNOFF(CFS) =       8.93
   TC(MIN.) =    9.59

============================================================================
   END OF STUDY SUMMARY:
   TOTAL AREA(ACRES)     =        2.8  TC(MIN.) =      9.59
   PEAK FLOW RATE(CFS)   =       8.93

============================================================================
```

ATTACHMENT 3

Existing Conditions
10-Year, 1-Hour
Rational Method Calculations

```
**************************************************************************
          RATIONAL METHOD HYDROLOGY COMPUTER PROGRAM BASED ON
        RIVERSIDE COUNTY FLOOD CONTROL & WATER CONSERVATION DISTRICT
                    (RCFC&WCD)  1978 HYDROLOGY MANUAL
         (c) Copyright 1982-2016 Advanced Engineering Software (aes)
                    (Rational Tabling Version 23.0)
                Release Date: 07/01/2016  License ID 1360

                          Analysis prepared by:

                        NM CIVIL ENGINEERING INC
                         22880 VAN BUREN STREET
                        GRAND TERRACE, CA 92313
                             (951) 712-0623

  ************************* DESCRIPTION OF STUDY **********************
 * HYDROLOGY STUDY FOR COLLIER PROPERTIES

* 10 YR STORM, UNDEVELOPED CONDITION
*
 * NOVEMBER 2,2022 BY NMM
**************************************************************************
   FILE NAME: HAMUD.DAT
   TIME/DATE OF STUDY: 09:18 11/01/2022
 --------------------------------------------------------------------------
   USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:
 --------------------------------------------------------------------------
   USER SPECIFIED STORM EVENT(YEAR) =   10.00
   SPECIFIED MINIMUM PIPE SIZE(INCH) =  12.00
   SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE =
0.95
   10-YEAR STORM 10-MINUTE INTENSITY(INCH/HOUR) =  2.320
   10-YEAR STORM 60-MINUTE INTENSITY(INCH/HOUR) =  0.980
   100-YEAR STORM 10-MINUTE INTENSITY(INCH/HOUR) =  3.540
   100-YEAR STORM 60-MINUTE INTENSITY(INCH/HOUR) =  1.500
   SLOPE OF 10-YEAR INTENSITY-DURATION CURVE =  0.4809628
   SLOPE OF 100-YEAR INTENSITY-DURATION CURVE =  0.4792280
   COMPUTED RAINFALL INTENSITY DATA:
   STORM EVENT =   10.00   1-HOUR INTENSITY(INCH/HOUR) =   0.990
   SLOPE OF INTENSITY DURATION CURVE = 0.4810
   RCFC&WCD HYDROLOGY MANUAL "C"-VALUES USED FOR RATIONAL METHOD
   NOTE: COMPUTE CONFLUENCE VALUES ACCORDING TO RCFC&WCD HYDROLOGY MANUAL
         AND IGNORE OTHER CONFLUENCE COMBINATIONS FOR DOWNSTREAM ANALYSES
   *USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW
MODEL*
      HALF-  CROWN TO   STREET-CROSSFALL:   CURB  GUTTER-GEOMETRIES:
MANNING
      WIDTH  CROSSFALL  IN-  / OUT-/PARK-  HEIGHT  WIDTH  LIP   HIKE
FACTOR
 NO.   (FT)   (FT)    SIDE / SIDE/ WAY    (FT)    (FT)   (FT)   (FT)    (n)
 ===  =====  =========  ================  ======  ===== ====== ===== ==
```

```
   1   30.0  20.0    0.018/0.018/0.020   0.67    2.00 0.0312 0.167 0.0150

   GLOBAL STREET FLOW-DEPTH CONSTRAINTS:
     1. Relative Flow-Depth =  0.50 FEET
        as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
     2. (Depth)*(Velocity) Constraint =  0.1 (FT*FT/S)
   *SIZE PIPE WITH A FLOW CAPACITY GREATER THAN
    OR EQUAL TO THE UPSTREAM TRIBUTARY PIPE.*

****************************************************************************
   FLOW PROCESS FROM NODE    100.00 TO NODE    101.00 IS CODE =  21
 ----------------------------------------------------------------------------
   >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
============================================================================
           ASSUMED INITIAL SUBAREA UNIFORM
           DEVELOPMENT IS: UNDEVELOPED WITH FAIR COVER
   TC = K*[(LENGTH**3)/(ELEVATION CHANGE)]**.2
   INITIAL SUBAREA FLOW-LENGTH(FEET) =   880.00
   UPSTREAM ELEVATION(FEET) =   1180.50
   DOWNSTREAM ELEVATION(FEET) =   1170.50
   ELEVATION DIFFERENCE(FEET) =     10.00
   TC = 0.709*[(  880.00**3)/(    10.00)]**.2 =   26.157
     10 YEAR RAINFALL INTENSITY(INCH/HOUR) =  1.476
   UNDEVELOPED WATERSHED RUNOFF COEFFICIENT = .5263
   SOIL CLASSIFICATION IS "B"
   SUBAREA RUNOFF(CFS) =      2.17
   TOTAL AREA(ACRES) =      2.80   TOTAL RUNOFF(CFS) =      2.17

============================================================================
   END OF STUDY SUMMARY:
   TOTAL AREA(ACRES)     =        2.8  TC(MIN.) =     26.16
   PEAK FLOW RATE(CFS)   =       2.17

============================================================================

============================================================================
   END OF RATIONAL METHOD ANALYSIS
```

ATTACHMENT 4

Developed Conditions
10-Year, 1-Hour
Rational Method Calculations

```
**************************************************************************
            RATIONAL METHOD HYDROLOGY COMPUTER PROGRAM BASED ON
         RIVERSIDE COUNTY FLOOD CONTROL & WATER CONSERVATION DISTRICT
                      (RCFC&WCD)  1978 HYDROLOGY MANUAL
          (c) Copyright 1982-2016 Advanced Engineering Software (aes)
                      (Rational Tabling Version 23.0)
                  Release Date: 07/01/2016  License ID 1360

                              Analysis prepared by:

                             NM CIVIL ENGINEERING INC
                              22880 VAN BUREN STREET
                             GRAND TERRACE, CA 92313
                                  (951) 712-0623

  ********************** DESCRIPTION OF STUDY **************************
 * HYDROLOGY STUDY FOR LAKE ELSINORE RENTALS
*
 * 10 YR STORM, DEVELOPED CONDITION
*
 * JANUARY 18,2023 BY NMM

**************************************************************************

   FILE NAME: HAMUD.DAT
   TIME/DATE OF STUDY: 17:38 01/18/2023
 --------------------------------------------------------------------------
   USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:
 --------------------------------------------------------------------------
   USER SPECIFIED STORM EVENT(YEAR) =   10.00
   SPECIFIED MINIMUM PIPE SIZE(INCH) =  12.00
   SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE =
0.95
   10-YEAR STORM 10-MINUTE INTENSITY(INCH/HOUR) =  2.320
   10-YEAR STORM 60-MINUTE INTENSITY(INCH/HOUR) =  0.980
   100-YEAR STORM 10-MINUTE INTENSITY(INCH/HOUR) =  3.540
   100-YEAR STORM 60-MINUTE INTENSITY(INCH/HOUR) =  1.500
   SLOPE OF 10-YEAR INTENSITY-DURATION CURVE =  0.4809628
   SLOPE OF 100-YEAR INTENSITY-DURATION CURVE =  0.4792280
   COMPUTED RAINFALL INTENSITY DATA:
   STORM EVENT =   10.00   1-HOUR INTENSITY(INCH/HOUR) =   0.990
   SLOPE OF INTENSITY DURATION CURVE = 0.4810
   RCFC&WCD HYDROLOGY MANUAL "C"-VALUES USED FOR RATIONAL METHOD
   NOTE: COMPUTE CONFLUENCE VALUES ACCORDING TO RCFC&WCD HYDROLOGY MANUAL
         AND IGNORE OTHER CONFLUENCE COMBINATIONS FOR DOWNSTREAM ANALYSES
   *USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW
MODEL*
      HALF-  CROWN TO   STREET-CROSSFALL:   CURB  GUTTER-GEOMETRIES:
MANNING
      WIDTH  CROSSFALL  IN-  / OUT-/PARK-  HEIGHT  WIDTH  LIP   HIKE
FACTOR
```

```
 NO.   (FT)  (FT)    SIDE / SIDE/ WAY    (FT)    (FT)  (FT)  (FT)    (n)
 ===  =====  =========  ================  ======  ===== ====== ===== ===
   1   30.0  20.0    0.018/0.018/0.020   0.67    2.00 0.0312 0.167 0.0150

   GLOBAL STREET FLOW-DEPTH CONSTRAINTS:
     1. Relative Flow-Depth =  0.50 FEET
        as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
     2. (Depth)*(Velocity) Constraint =  0.1 (FT*FT/S)
   *SIZE PIPE WITH A FLOW CAPACITY GREATER THAN
    OR EQUAL TO THE UPSTREAM TRIBUTARY PIPE.*


****************************************************************************
   FLOW PROCESS FROM NODE    100.00 TO NODE    101.00 IS CODE =  21
 ----------------------------------------------------------------------------
   >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<

============================================================================
          ASSUMED INITIAL SUBAREA UNIFORM
          DEVELOPMENT IS COMMERCIAL
   TC = K*[(LENGTH**3)/(ELEVATION CHANGE)]**.2
   INITIAL SUBAREA FLOW-LENGTH(FEET) =   648.00
   UPSTREAM ELEVATION(FEET) =   1178.58
   DOWNSTREAM ELEVATION(FEET) =   1170.00
   ELEVATION DIFFERENCE(FEET) =      8.58
   TC = 0.303*[(  648.00**3)/(     8.58)]**.2 =    9.590
     10 YEAR RAINFALL INTENSITY(INCH/HOUR) =  2.391
   COMMERCIAL DEVELOPMENT RUNOFF COEFFICIENT = .8726
   SOIL CLASSIFICATION IS "B"
   SUBAREA RUNOFF(CFS) =      2.57
   TOTAL AREA(ACRES) =      1.23   TOTAL RUNOFF(CFS) =      2.57


****************************************************************************
   FLOW PROCESS FROM NODE    101.00 TO NODE    101.00 IS CODE =  81
 ----------------------------------------------------------------------------
   >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<

============================================================================
     10 YEAR RAINFALL INTENSITY(INCH/HOUR) =  2.391
   COMMERCIAL DEVELOPMENT RUNOFF COEFFICIENT = .8726
   SOIL CLASSIFICATION IS "B"
   SUBAREA AREA(ACRES) =    1.58   SUBAREA RUNOFF(CFS) =    3.30
   TOTAL AREA(ACRES) =        2.8   TOTAL RUNOFF(CFS) =       5.86
   TC(MIN.) =    9.59

============================================================================
   END OF STUDY SUMMARY:
   TOTAL AREA(ACRES)     =        2.8  TC(MIN.) =      9.59
   PEAK FLOW RATE(CFS)   =       5.86

============================================================================

============================================================================
```

Appendix G

Preliminary Project Specific Water Quality Management Plan

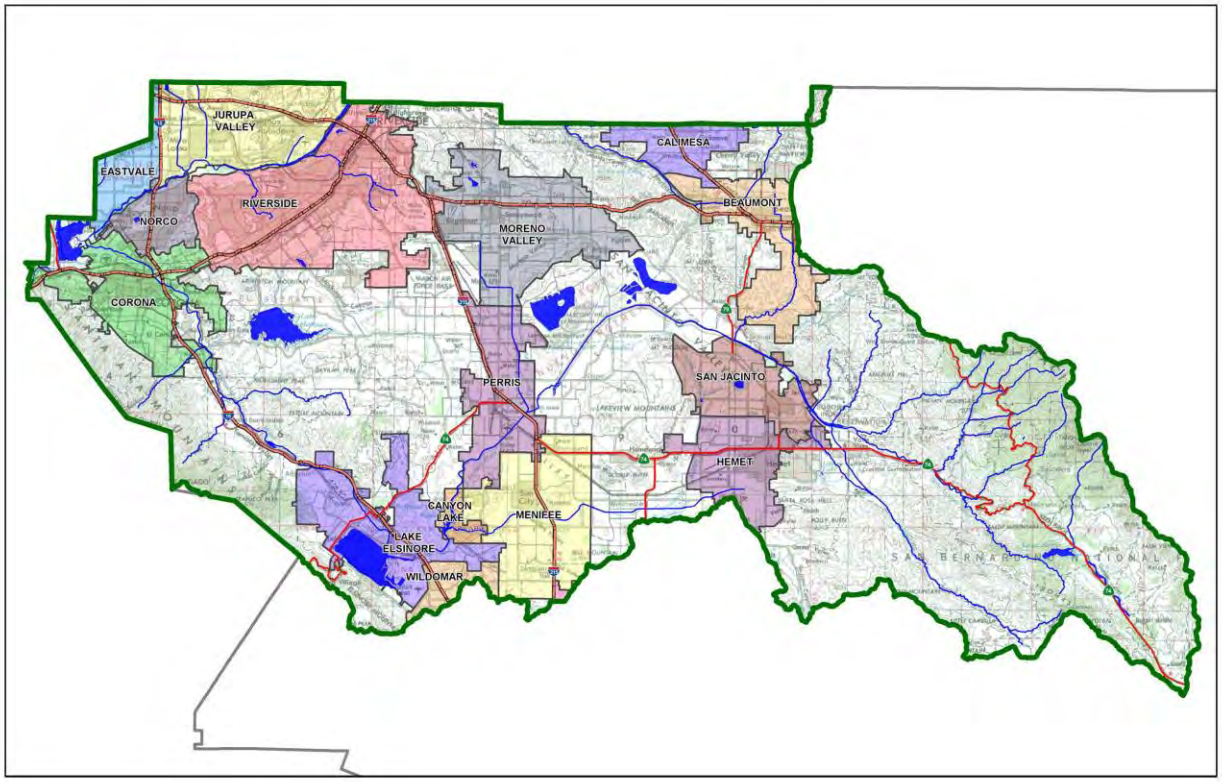
PRELIMINARY

Project Specific Water Quality Management Plan

*A Template for Projects located within the **Santa Ana Watershed** Region of Riverside County*

Project Title: COLLIER COMMERCIAL PROPERTIES (Collier Ave. & Minthorn St.)

Design Review/Case No: PA No. 2021-22



☒ **Preliminary**
☐ **Final**

Original Date Prepared: January 6, 2022

Revision Date(s): January 16, 2023

Prepared for Compliance with
Regional Board Order No. **R8-2010-0033**

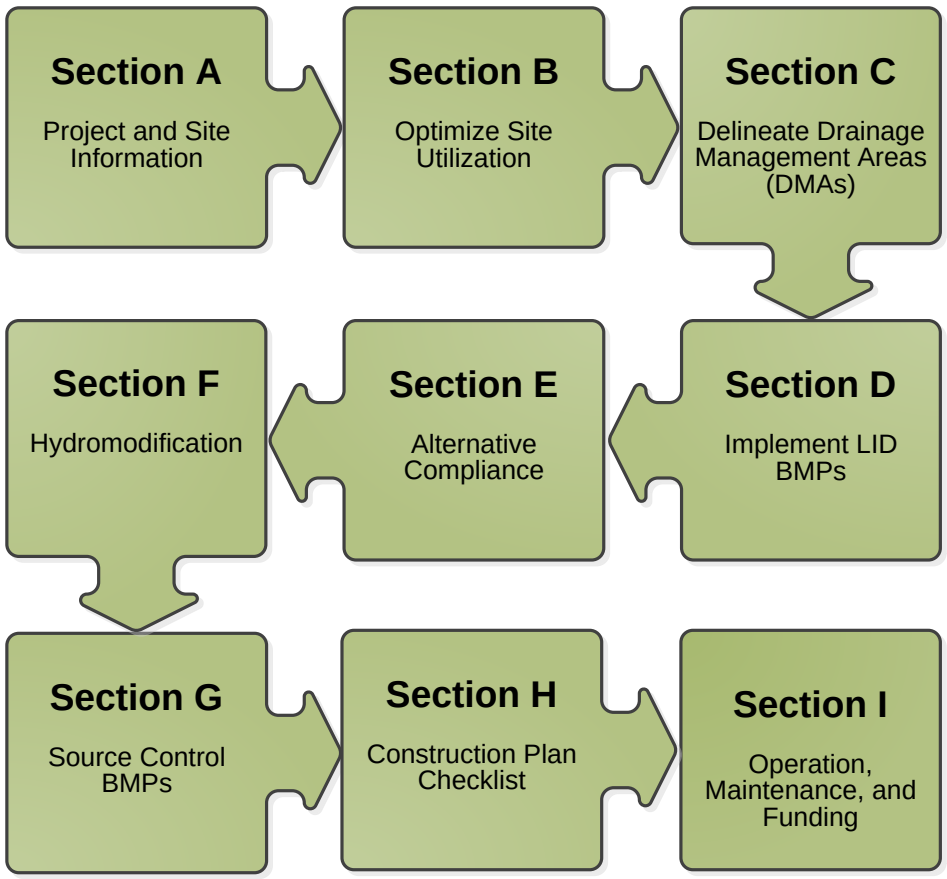
Contact Information:

Prepared for: Edward &Leslie Hamud
43 Golfview Drive, Dove Canyon, CA 92679
(949) 275 – 8880

Prepared by:
NM Civil Engineering, Inc.
22880 Van Buren St., Grand Terrace CA 92313
Phone No. (951) 712 - 0623
Email: nmanlolo@gmail.com

A Brief Introduction

This Project-Specific WQMP Template for the **Santa Ana Region** has been prepared to help guide you in documenting compliance for your project. Because this document has been designed to specifically document compliance, you will need to utilize the WQMP Guidance Document as your "how-to" manual to help guide you through this process. Both the Template and Guidance Document go hand-in-hand, and will help facilitate a well prepared Project-Specific WQMP. Below is a flowchart for the layout of this Template that will provide the steps required to document compliance.



OWNER'S CERTIFICATION

This Project-Specific Water Quality Management Plan (WQMP) has been prepared for **Edward & Leslie Hamud** by **NM Civil Engineering, Inc.** for the **COLLIER COMMERCIAL PROPERTIES** the project.

This WQMP is intended to comply with the requirements of **City of Lake Elsinore** for **Design Review for the construction of a new Collier Commercial Properties, PA 2021-22,** which includes the requirement for the preparation and implementation of a Project-Specific WQMP.

The undersigned, while owning the property/project described in the preceding paragraph, shall be responsible for the implementation and funding of this WQMP and will ensure that this WQMP is amended as appropriate to reflect up-to-date conditions on the site. In addition, the property owner accepts responsibility for interim operation and maintenance of Stormwater BMPs until such time as this responsibility is formally transferred to a subsequent owner. This WQMP will be reviewed with the facility operator, facility supervisors, employees, tenants, maintenance and service contractors, or any other party (or parties) having responsibility for implementing portions of this WQMP. At least one copy of this WQMP will be maintained at the project site or project office in perpetuity. The undersigned is authorized to certify and to approve implementation of this WQMP. The undersigned is aware that implementation of this WQMP is enforceable under Perris Water Quality Ordinance (Municipal Code Section 1194).

"I, the undersigned, certify under penalty of law that the provisions of this WQMP have been reviewed and accepted and that the WQMP will be transferred to future successors in interest."

Edward Hamud
Edward Hamud (Oct 11, 2022 14:53 MDT)

Owner's Signature

Oct 11, 2022
Date

EDWARD AND LESLIE HAMUD
Owner's Printed Name

OWNER'S
Owner's Title/Position

PREPARER'S CERTIFICATION

"The selection, sizing and design of stormwater treatment and other stormwater quality and quantity control measures in this plan meet the requirements of Regional Water Quality Control Board Order No. **R8-2010-0033** and any subsequent amendments thereto."

Preparer's Signature

10/11/2022
Date

NELSON M MANLOLO
Preparer's Printed Name

CIVIL ENGINEER
Preparer's Title/Position

Preparer's Licensure:



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Section A: Project and Site Information

PROJECT INFORMATION	
Type of Project:	New Commercial Building Construction
Planning Area:	Northside
Community Name:	
Development Name:	COLLIER COMMERCIAL PROPERTIES

PROJECT LOCATION
Latitude & Longitude (DMS): Latitude: N33°40'34"W Longitude: -117°19'55"
Project Watershed and Sub-Watershed: San Jacinto River/Lake Elsinore
Sub-Water Shed: Lake Elsinore
APN(s): 377-190- 02, 03, 04
Map Book and Page No.: Thomas Bros. Map; Page 748 D-7, 1999 edition

PROJECT CHARACTERISTICS	
Proposed or Potential Land Use(s)	Commercial Bldg.
Proposed or Potential SIC Code(s)	No
Area of Impervious Project Footprint (SF)	121,966 S.F.
Total Area of proposed Impervious Surfaces within the Project Limits (SF)/or Replacement	80,072 S.F.
Does the project consist of offsite road improvements?	☒ Y ☐ N
Does the project propose to construct unpaved roads?	☐ Y ☒ N
Is the project part of a larger common plan of development (phased project)?	☐ Y ☒ N
EXISTING SITE CHARACTERISTICS	
Total area of existing Impervious Surfaces within the project limits (SF)	0.00 S.F.
Is the project located within any MSHCP Criteria Cell?	☐ Y ☒ N
If so, identify the Cell number:	N/A
Are there any natural hydrologic features on the project site?	☐ Y ☒ N
Is a Geotechnical Report attached?	☐ Y ☒
If no Geotech. Report, list the NRCS soils type(s) present on the site (A, B, C and/or D)	N/A
What is the Water Quality Design Storm Depth for the project?	0.65 FT

A.1 Maps and Site Plans

Project Description:

The site is vacant with three (3) Parcels having a total site gross area of 2.80 Acres (121,966 S.F.). An existing block wall fence in the easterly property line, an existing chain link fence in the westerly property line, Collier Avenue to the North, Minthorn Street to the South and a 50' access road connecting Collier Avenue and Minthorn Street. The site is surrounded by vacant land and slopes from the northerly to southerly direction characterized by sheet flow following the slopes that exited on the access road and surface flow on to Minthorn Street. Flow will ultimately reach and discharge into Lake Elsinore.

On-site flows generated by the proposed project will surface flow through the site pave areas that will discharge to landscape areas and eventually to Lake Elsinore.

The proposal is to construct a 11,975 sq. ft. building to serve us office, storage, and an outdoor lounge within the Light Industrial (LI) zone of the PVCC Specific Plan. Improvements include a pave parking area

a peripheral road and concrete apron around the building of 80,072 sq. ft., a landscape area of 29,919. An off-site street improvement with curb and gutter and sidewalk are to be constructed fronting the property along Minthorn Street. No entrance are provided along Collier Avenue.

The proposed water quality design for this project is a bioretention area (BMP A) constructed on-site of the property. Drainage Area No. 1 (DMA 1) building, access road and parking runoffs will drain to BMP A. Landscape Areas and gravel filled site are self-retaining.

Appendix 1 includes a map of the local vicinity and existing site. In addition, WQMP Site Plan, located in Appendix 1 includes the following:

- Drainage Management Areas
- Proposed Structural BMPs
- Drainage Path
- Drainage Infrastructure, Inlets, Overflows
- Source Control BMPs
- Buildings, Roof Lines, Downspouts
- Impervious Surfaces
- Standard Labeling

A.2 Receiving Waters

In order of upstream to downstream, the receiving waters that the project site is tributary to are as follows: A map of the receiving waters is included in Appendix 1.

Table A.1 Identification of Receiving Waters

Receiving Waters	EPA Approved 303(d) List Impairments	Designated Beneficial Uses	Proximity to RARE Beneficial Use
San Jacinto River, HU# 802.32 & 802.31	None	MUN – AGR – GWR – REC1 – REC2 – WARM - WILD	1.0 MILES
Lake Elsinore, HU# 802.31	Nutrients - Organic Compounds/Oxygen Demanding Substances - Sediment/Turbidity - Unknown Toxicity	REC1 - REC2-WARM - WILD	1.5 MILE

A.3 Additional Permits/Approvals required for the Project:

Table A.2 Other Applicable Permits

State Department of Fish and Game, 1602 Streambed Alteration Agreement	☐ Y	☒ N
State Water Resources Control Board, Clean Water Act (CWA) Section 401 Water Quality Cert.	☐ Y	☒ N
US Army Corps of Engineers, CWA Section 404 Permit	☐ Y	☒ N
US Fish and Wildlife, Endangered Species Act Section 7 Biological Opinion	☐ Y	☒ N
Statewide Construction General Permit Coverage	☐ Y	☒ N
Statewide Industrial General Permit Coverage (Order No. 2014-0057-DWQ)	☐ Y	☒ N
Western Riverside MSHCP Consistency Approval (e.g., JPR, DBESP)	☐ Y	☒ N
Other *(please list in the space below as required)* DESIGN REVIEW,BUILDING PERMIT, GRADING PERMIT, STREET IMPROVEMENTS PERMIT	☒ Y	☐ N

If yes is answered to any of the questions above, the Co-Permittee may require proof of approval/coverage from those agencies as applicable including documentation of any associated requirements that may affect this Project-Specific WQMP.

Section B: Optimize Site Utilization (LID Principles)

Review of the information collected in Section 'A' will aid in identifying the principal constraints on site design and selection of LID BMPs as well as opportunities to reduce imperviousness and incorporate LID Principles into the site and landscape design. For example, constraints might include impermeable soils, high groundwater, groundwater pollution or contaminated soils, steep slopes, geotechnical instability, high-intensity land use, heavy pedestrian or vehicular traffic, utility locations or safety concerns. Opportunities might include existing natural areas, low areas, oddly configured or otherwise unbuildable parcels, easements and landscape amenities including open space and buffers (which can double as locations for bioretention BMPs), and differences in elevation (which can provide hydraulic head). Prepare a brief narrative for each of the site optimization strategies described below. This narrative will help you as you proceed with your LID design and explain your design decisions to others.

The 2010 Santa Ana MS4 Permit further requires that LID Retention BMPs (Infiltration Only or Harvest and Use) be used unless it can be shown that those BMPs are infeasible. Therefore, it is important that your narrative identify and justify if there are any constraints that would prevent the use of those categories of LID BMPs. Similarly, you should also note opportunities that exist which will be utilized during project design. Upon completion of identifying Constraints and Opportunities, include these on your WQMP Site plan in Appendix 1.

Consideration of "highest and best use" of the discharge should also be considered. For example, Lake Elsinore is evaporating faster than runoff from natural precipitation can recharge it. Requiring infiltration of 85% of runoff events for projects tributary to Lake Elsinore would only exacerbate current water quality problems associated with Pollutant concentration due to lake water evaporation. In cases where rainfall events have low potential to recharge Lake Elsinore (i.e. no hydraulic connection between groundwater to Lake Elsinore, or other factors), requiring infiltration of Urban Runoff from projects is counterproductive to the overall watershed goals. Project proponents, in these cases, would be allowed to discharge Urban Runoff, provided they used equally effective filtration-based BMPs.

Site Optimization

The following questions are based upon Section 3.2 of the WQMP Guidance Document. Review of the WQMP Guidance Document will help you determine how best to optimize your site and subsequently identify opportunities and/or constraints, and document compliance.

Did you identify and preserve existing drainage patterns? If so, how? If not, why?

Yes. Existing natural drainage systems are protected, retained, and incorporated in the design. The lot is protected from any offsite runoffs coming from the northerly with the existing Collier Avenue and onsite drainage are directed to the proposed bioretention area onsite that will overflow to Minthorn Street on the south.

Did you identify and protect existing vegetation? If so, how? If not, why?

No. There are no existing trees on-site to be removed or protected. Existing pervious area are open field with no vegetation.

Did you identify and preserve natural infiltration capacity? If so, how? If not, why?

Yes. Landscape and gravel areas are provided as catchment for runoff coming from the roof gutters of the building, access road and pave parking area.

Did you identify and minimize impervious area? If so, how? If not, why?

Yes. The building and its walkway are designed as such to minimize impervious area. Pave parking area has been minimized to the minimum required.

Did you identify and disperse runoff to adjacent pervious areas? If so, how? If not, why?

Yes, landscaped areas are utilized as self-treating while remainder open areas are covered with gravel that will also serve as areas for water quality treatment in addition to the bioretention areas.

Section C: Delineate Drainage Management Areas (DMAs)

Utilizing the procedure in Section 3.3 of the WQMP Guidance Document which discusses the methods of delineating and mapping your project site into individual DMAs, complete Table C.1 below to appropriately categorize the types of classification (e.g., Type A, Type B, etc.) per DMA for your project site. Upon completion of this table, this information will then be used to populate and tabulate the corresponding tables for their respective DMA classifications.

Table C.1 DMA Classifications

DMA Name or ID	Surface Type(s)[1]	Area (Sq. Ft.)	DMA Type
R - 1	Roofs	11,975	D
H - 2	Concrete or Asphalt	80,072	D
L - 3	Landscape	29,919	A

[1]Reference Table 2-1 in the WQMP Guidance Document to populate this column

Table C.2 Type 'A', Self-Treating Areas

DMA Name or ID	Area (Sq. Ft.)	Stabilization Type	Irrigation Type (if any)
L – 3	29,919	Vegetated	Sprinkler System

Table C.3 Type 'B', Self-Retaining Areas

Self-Retaining Area				**Type 'C' DMAs that are draining to the Self-Retaining Area**		
DMA Name/ ID	Post-project surface type	Area (square feet) [A]	Storm Depth (inches) [B]	DMA Name / ID	[C] from Table C.4 = [C]	Required Retention Depth (inches) [D]

$$[D] = [B] + \frac{[B] \cdot [C]}{[A]}$$

Table C.4 Type 'C', Areas that Drain to Self-Retaining Areas

DMA					Receiving Self-Retaining DMA		
DMA Name/ ID	Area (square feet)	Post-project surface type	Runoff factor	Product		Area (square feet)	Ratio
	[A]		[B]	[C] = [A] x [B]	DMA name /ID	[D]	[C]/[D]

Table C.5 Type 'D', Areas Draining to BMPs

DMA Name or ID	BMP Name or ID
R - 1	BMP
H - 2	BMP

Note: More than one drainage management area can drain to a single LID BMP, however, one drainage management area may not drain to more than one BMP.

Section D: Implement LID BMPs

D.1 Infiltration Applicability

Is there an approved downstream 'Highest and Best Use' for stormwater runoff (see discussion in Chapter 2.4.4 of the WQMP Guidance Document for further details)? ☒ Y ☐ N

If yes has been checked, Infiltration BMPs shall not be used for the site; proceed to section D.3

If no, continue working through this section to implement your LID BMPs. It is recommended that you contact your Co-Permittee to verify whether or not your project discharges to an approved downstream 'Highest and Best Use' feature.

Geotechnical Report

A Geotechnical Report or Phase I Environmental Site Assessment may be required by the Copermittee to confirm present and past site characteristics that may affect the use of Infiltration BMPs. In addition, the Co-Permittee, at their discretion, may not require a geotechnical report for small projects as described in Chapter 2 of the WQMP Guidance Document. If a geotechnical report has been prepared, include it in Appendix 3. In addition, if a Phase I Environmental Site Assessment has been prepared, include it in Appendix 4.

A Geotechnical Report is required by the City of Lake Perris to confirm present and past site characteristics that may affect the use of Infiltration BMPs, see Appendix 3.

Is this project classified as a small project consistent with the requirements of Chapter 2 of the WQMP Guidance Document? ☐ Y ☐ N

Infiltration Feasibility

Table D.1 below is meant to provide a simple means of assessing which DMAs on your site support Infiltration BMPs and is discussed in the WQMP Guidance Document in Chapter 2.4.5. Check the appropriate box for each question and then list affected DMAs as applicable. If additional space is needed, add a row below the corresponding answer.

Table D.1 Infiltration Feasibility

Does the project site…	YES	NO
…have any DMAs with a seasonal high groundwater mark shallower than 10 feet?		X
If Yes, list affected DMAs:		
…have any DMAs located within 100 feet of a water supply well?		X
If Yes, list affected DMAs:		
…have any areas identified by the geotechnical report as posing a public safety risk where infiltration of stormwater could have a negative impact?		X
If Yes, list affected DMAs:		
…have measured in-situ infiltration rates of less than 1.6 inches / hour?		X
If Yes, list affected DMAs 1 and 2:		
…have significant cut and/or fill conditions that would preclude in-situ testing of infiltration rates at the final infiltration surface?		X
If Yes, list affected DMAs:		
…geotechnical report to identify other site-specific factors that would preclude effective and safe infiltration?		X
Describe here: None		

If you answered "Yes" to any of the questions above for any DMA, Infiltration BMPs should not be used for those DMA's and you should proceed to the assessment for Harvest and Use below.

D.2 Harvest and Use Assessment

The following condition apply*:*

☐ Reclaimed water will be used for the non-potable water demands for the project.

☐Downstream water rights may be impacted by Harvest and Use as approved by the Regional Board (verify with the City of Riverside).

☐The Design Capture Volume will be addressed using Bioretention Area. Only BMPs. (Harvest and Use BMPs are still encouraged but are not required as the Design Capture Volume will be evapotranspired.)

If any of the above boxes have been checked, Harvest and Use BMPs need not be assessed for the site. If none of the above criteria applies, follow the steps below to assess the feasibility of irrigation use, toilet use and other non-potable uses (e.g., industrial use).

Harvest and Use BMPs need not be assessed for the site.

Irrigation Use Feasibility

Complete the following steps to determine the feasibility of harvesting stormwater runoff for Irrigation Use BMPs on your site:

Step 1: Identify the total area of irrigated landscape on the site, and the type of landscaping used.

Total Area of Irrigated Landscape: Acres

Type of Landscaping (Conservation Design or Active Turf): Active Turf

Step 2: Identify the planned total of all impervious areas on the proposed project from which runoff might be feasibly captured and stored for irrigation use. Depending on the configuration of buildings and other impervious areas on the site, you may consider the site as a whole, or parts of the site, to evaluate reasonable scenarios for capturing and storing runoff and directing the stored runoff to the potential use(s) identified in Step 1 above.

Total Area of Impervious Surfaces: Acres

Step 3: Cross reference the Design Storm depth for the project site (see Exhibit A of the WQMP Guidance Document) with the left column of Table 2-3 in Chapter 2 to determine the minimum area of Effective Irrigated Area per Tributary Impervious Area (EIATIA).

Enter your EIATIA factor:

Step 4: Multiply the unit value obtained from Step 3 by the total of impervious areas from Step 2 to develop the minimum irrigated area that would be required.

Minimum required irrigated area: Acres

Step 5: Determine if harvesting stormwater runoff for irrigation use is feasible for the project by comparing the total area of irrigated landscape (Step 1) to the minimum required irrigated area (Step 4).

Minimum required irrigated area (Step 4)	Available Irrigated Landscape (Step 1)

Toilet Use Feasibility

Complete the following steps to determine the feasibility of harvesting stormwater runoff for toilet flushing uses on your site:

Step 1: Identify the projected total number of daily toilet users during the wet season, and account for any periodic shut downs or other lapses in occupancy:

Projected Number of Daily Toilet Users:

Project Type:

Step 2: Identify the planned total of all impervious areas on the proposed project from which runoff might be feasibly captured and stored for toilet use. Depending on the configuration of buildings and other impervious areas on the site, you may consider the site as a whole, or parts of the site, to evaluate reasonable scenarios for capturing and storing runoff and directing the stored runoff to the potential use(s) identified in Step 1 above.

Total Area of Impervious Surfaces: Acres

Step 3: Enter the Design Storm depth for the project site (see Exhibit A) into the left column of Table 2-2 in Chapter 2 to determine the minimum number or toilet users per tributary impervious acre (TUTIA).

Enter your TUTIA factor:

Step 4: Multiply the unit value obtained from Step 3 by the total of impervious areas from Step 2 to develop the minimum number of toilet users that would be required.

Minimum number of toilet users:

Step 5: Determine if harvesting stormwater runoff for toilet flushing use is feasible for the project by comparing the Number of Daily Toilet Users (Step 1) to the minimum required number of toilet users (Step 4).

Minimum required Toilet Users (Step 4)	**Projected number of toilet users (Step 1)**

Other Non-Potable Use Feasibility

Are there other non-potable uses for stormwater runoff on the site (e.g. industrial use)? See Chapter 2 of the Guidance for further information. If yes, describe below. If no, write N/A.

Step 1: Identify the projected average daily non-potable demand, in gallons per day, during the wet season and accounting for any periodic shut downs or other lapses in occupancy or operation.

Average Daily Demand:

Step 2: Identify the planned total of all impervious areas on the proposed project from which runoff might be feasibly captured and stored for the identified non-potable use. Depending on the configuration of buildings and other impervious areas on the site, you may consider the site as a whole, or parts of the site, to evaluate reasonable scenarios for capturing and storing runoff and directing the stored runoff to the potential use(s) identified in Step 1 above.

Total Area of Impervious Surfaces: Acres

Step 3: Enter the Design Storm depth for the project site (see Exhibit A) into the left column of Table 2-4 in Chapter 2 to determine the minimum demand for non-potable uses per tributary impervious acre.

Enter the factor from Table 2-4: gpd

Step 4: Multiply the unit value obtained from Step 3 by the total of impervious areas from Step 2 to develop the minimum number of gallons per day of non-potable use that would be required.

Minimum required use:

Step 5: Determine if harvesting stormwater runoff for other non-potable use is feasible for the project by comparing the projected average daily use (Step 1) to the minimum required non-potable use (Step 4).

Minimum required non-potable use (Step 4)	**Projected average daily use (Step 1)**

If Irrigation, Toilet and Other Use feasibility anticipated demands are less than the applicable minimum values, Harvest and Use BMPs are not required and you should proceed to utilize LID Bioretention and Biotreatment per Section 3.4.2 of the WQMP Guidance Document.

D.3 Bioretention and Biotreatment Assessment

Other LID Bioretention and Biotreatment BMPs as described in Chapter 2.4.7 of the WQMP Guidance Document are feasible on nearly all development sites with sufficient advance planning.

For the project, following applies:

X LID Bioretention BMPs will be used for some, or all DMAs of the project as noted below in Section D.4

☐ A site-specific analysis demonstrating the technical infeasibility of all LID BMPs has been performed and is included in Appendix 5.

D.4 Feasibility Assessment Summaries

Table D.2 LID Prioritization Summary Matrix

R-1	☐	☐	☒	☐	☐
H-2	☐	☐	☒	☐	☐
	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐

For those DMAs where LID BMPs are not feasible, provide a brief narrative below summarizing why they are not feasible, include your technical infeasibility criteria in Appendix 5, and proceed to Section E below to document Alternative Compliance measures for those DMAs. Recall that each proposed DMA must pass through the LID BMP hierarchy before alternative compliance measures may be considered.

Runoffs from building roofs and parking are treated with the use of bioretention and gravel areas that also treats storm water runoff as it is slowly conveyed into the ground. These areas have very shallow slopes to allow maximum contact time with the gravel. Landscape and irrigated areas are treated as self-treating LID BMP's.

D.5 LID BMP Sizing

Table D.3 DCV Calculations for LID BMPs

DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type	Effective Impervious Fraction, I_f	DMA Runoff Factor	DMA Areas x Runoff Factor	*Enter BMP A / Building Roof, Parking and Trash Enclosure and Landscaping* *Bioretention LID*		
	[A]		[B]	[C]	[A] x [C]	*Design Storm Depth (in)* [E]	*Design Capture Volume, V_{BMP} (cubic feet)* [F]= *DXE/12*	*Proposed Volume on Plans (cubic feet)* [G]
R - 1	*11,975*	*Roof*	*1*	*0.892*	*10,682*			
H - 2	*87872*	*Concrete or Asphalt*	*1*	*0.892*	*71,424*			
L - 3	*29,919*	*Landscaping*	*0.1*	*0.11*	*3,291*			
TOTAL	*129,766*				85,397	0.65	4,824	***8,308***

[B], [C] is obtained as described in Section 2.3.1 of the WQMP Guidance Document
[E] is obtained from Exhibit A in the WQMP Guidance Document
[G] is obtained from LID BMP design procedure sheet, placed in Appendix 6

Table D.4 DCV Calculations for LID BMPs

DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type	Effective Impervious Fraction, I_f	DMA Runoff Factor	DMA Areas x Runoff Factor	*Enter BMP B / Parking, Trash Enclosure* *Infiltration Trench B*		
	[A]		[B]	[C]	[A] x [C]	*Design Storm Depth (in)* [E]	*Design Capture Volume, V_{BMP} (cubic feet)* [F]= *DXE/12*	*Proposed Volume on Plans (cubic feet)* [G]
TOTAL								

[B], [C] is obtained as described in Section 2.3.1 of the WQMP Guidance Document
[E] is obtained from Exhibit A in the WQMP Guidance Document
[G] is obtained from LID BMP design procedure sheet, placed in Appendix 6

Table D.5 DCV Calculations for LID BMPs

DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type	Effective Impervious Fraction, I_f	DMA Runoff Factor	DMA Areas x Runoff Factor	*Enter BMP Landscape / Self-Retaining* *Vegetated Landscape*		
	[A]		[B]	[C]	[A] x [C]	*Design Storm Depth (in)* [E]	*Design Capture Volume,* $\mathbf{V_{BMP}}$ *(cubic feet)* [F]= *DXE/12*	*Proposed Volume on Plans (cubic feet)* [G]
TOTAL								

[B], [C] is obtained as described in Section 2.3.1 of the WQMP Guidance Document

[E] is obtained from Exhibit A in the WQMP Guidance Document

[G] is obtained from LID BMP design procedure sheet, placed in Appendix 6

Table D.6 DCV Calculations for LID BMPs

DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type	Effective Impervious Fraction, I_f	DMA Runoff Factor	DMA Areas x Runoff Factor	*Enter BMP Name / Identifier Here* *Vegetated Channel (TC-30)*		
	[A]		[B]	[C]	[A] x [C]	*Design Storm Depth (in)* [E]	*Design Capture Volume,* $\mathbf{V_{BMP}}$ *(cubic feet)* [F]= *DXE/12*	*Proposed Volume on Plans (cubic feet)* [G]

[B], [C] is obtained as described in Section 2.3.1 of the WQMP Guidance Document
[E] is obtained from Exhibit A in the WQMP Guidance Document
[G] is obtained from LID BMP design procedure sheet, placed in Appendix

Section E: Alternative Compliance (LID Waiver Program)

LID BMPs are expected to be feasible on virtually all projects. Where LID BMPs have been demonstrated to be infeasible as documented in Section D, other Treatment Control BMPs must be used (subject to LID waiver approval by the Co-permittee). Check one of the following Boxes:

☒ LID Principles and LID BMPs have been incorporated into the site design to fully address all Drainage Management Areas. No alternative compliance measures are required for this project and thus this Section is not required to be completed.

- *Or* -

☐ The following Drainage Management Areas are unable to be addressed using LID BMPs. A site-specific analysis demonstrating technical infeasibility of LID BMPs has been approved by the Co-Permittee and included in Appendix 5. Additionally, no downstream regional and/or sub-regional LID BMPs exist or are available for use by the project. The following alternative compliance measures on the following pages are being implemented to ensure that any pollutant loads expected to be discharged by not incorporating LID BMPs, are fully mitigated.

None

E.1 Identify Pollutants of Concern

Utilizing Table A.1 from Section A above which noted your project's receiving waters and their associated EPA approved 303(d) listed impairments, cross reference this information with that of your selected Priority Development Project Category in Table E.1 below. If the identified General Pollutant Categories are the same as those listed for your receiving waters, then these will be your Pollutants of Concern and the appropriate box or boxes will be checked on the last row. The purpose of this is to document compliance and to help you appropriately plan for mitigating your Pollutants of Concern in lieu of implementing LID BMPs.

Table E.1 Potential Pollutants by Land Use Type

Priority Development Project Categories and/or Project Features (check those that apply)	General Pollutant Categories							
	Bacterial Indicators	Metals	Nutrients	Pesticides	Toxic Organic Compounds	Sediments	Trash & Debris	Oil & Grease
☐ Detached Residential Development	P	N	P	P	N	P	P	P
☐ Attached Residential Development	P	N	P	P	N	P	P	P[(2)]
☒ Commercial/Industrial Development	P[(3)]	P	P[(1)]	P[(1)]	P[(5)]	P[(1)]	P	P
☐ Automotive Repair Shops	N	P	N	N	P[(4, 5)]	N	P	P
☐ Restaurants (>5,000 ft^2)	P	N	N	N	N	N	P	P
☐ Hillside Development (>5,000 ft^2)	P	N	P	P	N	P	P	P
☐ Parking Lots (>5,000 ft^2)	P[(6)]	P	P[(1)]	P[(1)]	P[(4)]	P[(1)]	P	P
☐ Retail Gasoline Outlets	N	P	N	N	P	N	P	P
Project Priority Pollutant(s) of Concern	☐	☒	☐	☐	☒	☐	☒	☒

P = Potential

N = Not Potential

(1) A potential Pollutant if non-native landscaping exists or is proposed onsite; otherwise not expected

(2) A potential Pollutant if the project includes uncovered parking areas; otherwise not expected

(3) A potential Pollutant is land use involving animal waste

(4) Specifically petroleum hydrocarbons

(5) Specifically solvents

(6) Bacterial indicators are routinely detected in pavement runoff

E.2 Stormwater Credits

Projects that cannot implement LID BMPs but nevertheless implement smart growth principles are potentially eligible for Stormwater Credits. Utilize Table 3-8 within the WQMP Guidance Document to identify your Project Category and its associated Water Quality Credit. If not applicable, write N/A.

Table E.2 Water Quality Credits

Qualifying Project Categories	Credit Percentage[2]
N/A	
Total Credit Percentage[1]	

[1]*Cannot Exceed 50%*
[2]*Obtain corresponding data from Table 3-8 in the WQMP Guidance Document*

E.3 Sizing Criteria

After you appropriately considered Stormwater Credits for your project, utilize Table E.3 below to appropriately size them to the DCV, or Design Flow Rate, as applicable. Please reference Chapter 3.5.2 of the WQMP Guidance Document for further information.

Table E.3 Treatment Control BMP Sizing

DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type	Effective Impervious Fraction, I_f	DMA Runoff Factor	DMA Area x Runoff Factor		*Enter BMP Name / Identifier Here*		
	[A]		[B]	[C]	[A] x [C]				
N/A						*Design Storm Depth (in)*	*Minimum Design Capture Volume or Design Flow Rate (cubic feet or cfs)*	*Total Storm Water Credit % Reduction*	*Proposed Volume or Flow on Plans (cubic feet or cfs)*

[B], [C] is obtained as described in Section 2.3.1 from the WQMP Guidance Document
[E] is obtained from Exhibit A in the WQMP Guidance Document
[G] is for Flow-Based Treatment Control BMPs [G] = 43,560, for Volume-Based Control Treatment BMPs, [G] = 12
[H] is from the Total Credit Percentage as Calculated from Table E.2 above
[I] as obtained from a design procedure sheet from the BMP manufacturer and should be included in Appendix 6

E.4 Treatment Control BMP Selection

Treatment Control BMPs typically provide proprietary treatment mechanisms to treat potential pollutants in runoff, but do not sustain significant biological processes. Treatment Control BMPs must have a removal efficiency of a medium or high effectiveness as quantified below:

- **High**: equal to or greater than 80% removal efficiency
- **Medium**: between 40% and 80% removal efficiency

Such removal efficiency documentation (e.g., studies, reports, etc.) as further discussed in Chapter 3.5.2 of the WQMP Guidance Document, must be included in Appendix 6. In addition, ensure that proposed Treatment Control BMPs are properly identified on the WQMP Site Plan in Appendix 1.

Table E.4 Treatment Control BMP Selection

Selected Treatment Control BMP Name or ID[1]	Priority Pollutant(s) of Concern to Mitigate[2]	Removal Efficiency Percentage[3]
N/A		

[1] Treatment Control BMPs must not be constructed within Receiving Waters. In addition, a proposed Treatment Control BMP may be listed more than once if they possess more than one qualifying pollutant removal efficiency.

[2] Cross Reference Table E.1 above to populate this column.

[3] As documented in a Co-Permittee Approved Study and provided in Appendix 6.

Section F: Hydromodification

F.1 Hydrologic Conditions of Concern (HCOC) Analysis

Once you have determined that the LID design is adequate to address water quality requirements, you will need to assess if the proposed LID Design may still create a HCOC. Review Chapters 2 and 3 (including Figure 3-7) of the WQMP Guidance Document to determine if your project must mitigate for Hydromodification impacts. If your project meets one of the following criteria which will be indicated by the check boxes below, you do not need to address Hydromodification at this time. However, if the project does not qualify for Exemptions 1, 2 or 3, then additional measures must be added to the design to comply with HCOC criteria. This is discussed in further detail below in Section F.2.

The project does not create a Hydrologic Condition of Concern (HCOC), meeting the criteria for HCOC Exemption as shown below:

HCOC EXEMPTION 1: The Priority Development Project disturbs less than one acre. The Co-permittee has the discretion to require a Project-Specific WQMP to address HCOCs on projects less than one acre on a case by case basis. The disturbed area calculation should include all disturbances associated with larger common plans of development.

Does the project qualify for this HCOC Exemption? ☐ Y ☒ N

If Yes, HCOC criteria do not apply.

HCOC EXEMPTION 2: The volume and time of concentration[1] of storm water runoff for the post-development condition is not significantly different from the pre-development condition for a 2-year return frequency storm (a difference of 5% or less is considered insignificant) using one of the following methods to calculate:

- Riverside County Hydrology Manual
- Technical Release 55 (TR-55): Urban Hydrology for Small Watersheds (NRCS 1986), or derivatives thereof, such as the Santa Barbara Urban Hydrograph Method
- Other methods acceptable to the Co-Permittee

Does the project qualify for this HCOC Exemption? ☒ Y ☐ N

The proximity of the proposed development of approximately 5 feet to the nearest discharge area is very small which makes the time of concentration negligible.

If Yes, report results in Table F.1 below and provide your substantiated hydrologic analysis in Appendix 7.

Table F.1 Hydrologic Conditions of Concern Summary

	2 year – 24 hour		
	Pre-condition	**Post-condition**	**% Difference**
Time of Concentration	5 MINUTES	6 MINUTES	1.20%
Volume (Cubic Feet)	0.249 AC FT	0.382 AC FT	1.53%

[1] Time of concentration is defined as the time after the beginning of the rainfall when all portions of the drainage basin are contributing to flow at the outlet.

HCOC EXEMPTION 3: All downstream conveyance channels to an adequate sump (for example, Prado Dam, Lake Elsinore, Canyon Lake, Santa Ana River, or other lake, reservoir or naturally erosion resistant feature) that will receive runoff from the project are engineered and regularly maintained to ensure design flow capacity; no sensitive stream habitat areas will be adversely affected; or are not identified on the Co-Permittees Hydromodification Susceptibility Maps.

Does the project qualify for this HCOC Exemption? ☐ Y ☒ N

If Yes, HCOC criteria do not apply and note below which adequate sump applies to this HCOC qualifier:

Lake Elsinore will receive runoff from the project.

F.2 HCOC Mitigation

If none of the above HCOC Exemption Criteria are applicable, HCOC criteria is considered mitigated if they meet one of the following conditions:

a. Additional LID BMPS are implemented onsite or offsite to mitigate potential erosion or habitat impacts as a result of HCOCs. This can be conducted by an evaluation of site-specific conditions utilizing accepted professional methodologies published by entities such as the California Stormwater Quality Association (CASQA), the Southern California Coastal Water Research Project (SCCRWP), or other Co-Permittee approved methodologies for site-specific HCOC analysis.

b. The project is developed consistent with an approved Watershed Action Plan that addresses HCOC in Receiving Waters.

c. Mimicking the pre-development hydrograph with the post-development hydrograph, for a 2-year return frequency storm. Generally, the hydrologic conditions of concern are not significant, if the post-development hydrograph is no more than 10% greater than pre-development hydrograph. In cases where excess volume cannot be infiltrated or captured and reused, discharge from the site must be limited to a flow rate no greater than 110% of the pre-development 2-year peak flow.

X d. None

Be sure to include all pertinent documentation used in your analysis of the items a, b or c in Appendix 7.

Section G: Source Control BMPs

Source control BMPs include permanent, structural features that may be required in your project plans — such as roofs over and berms around trash and recycling areas — and Operational BMPs, such as regular sweeping and "housekeeping", that must be implemented by the site's occupant or user. The MEP standard typically requires both types of BMPs. In general, Operational BMPs cannot be substituted for a feasible and effective permanent BMP. Using the Pollutant Sources/Source Control Checklist in Appendix 8, review the following procedure to specify Source Control BMPs for your site:

1. ***Identify Pollutant Sources*:** Review Column 1 in the Pollutant Sources/Source Control Checklist. Check off the potential sources of Pollutants that apply to your site.

2. ***Note Locations on Project-Specific WQMP Exhibit*:** Note the corresponding requirements listed in Column 2 of the Pollutant Sources/Source Control Checklist. Show the location of each Pollutant source and each permanent Source Control BMP in your Project-Specific WQMP Exhibit located in Appendix 1.

3. ***Prepare a Table and Narrative*:** Check off the corresponding requirements listed in Column 3 in the Pollutant Sources/Source Control Checklist. In the left column of Table G.1 below, list each potential source of runoff Pollutants on your site (from those that you checked in the Pollutant Sources/Source Control Checklist). In the middle column, list the corresponding permanent, Structural Source Control BMPs (from Columns 2 and 3 of the Pollutant Sources/Source Control Checklist) used to prevent Pollutants from entering runoff. **Add additional narrative** in this column that explains any special features, materials or methods of construction that will be used to implement these permanent, Structural Source Control BMPs.

4. ***Identify Operational Source Control BMPs:*** To complete your table, refer once again to the Pollutant Sources/Source Control Checklist. List in the right column of your table the Operational BMPs that should be implemented as long as the anticipated activities continue at the site. Copermittee stormwater ordinances require that applicable Source Control BMPs be implemented; the same BMPs may also be required as a condition of a use permit or other revocable Discretionary Approval for use of the site.

The following table identifies the potential sources of runoff pollutants for this project and specifies how they are addressed through permanent controls and operational BMP's:

Table G.1 Permanent and Operational Source Control Measures

Potential Sources of Runoff pollutants	Permanent Structural Source Control BMPs	Operational Source Control BMPs
A. Landscape/Outdoor Pesticide Use	The final landscape shall be designed to accomplish all of the following: Design landscape to minimize irrigation and runoff, to promote surface infiltration where appropriate and to minimize the use of fertilizers and pesticides that can contribute to stormwater pollution. Where landscaped areas are used to retain or detain stormwater, specify plants that are tolerant of saturated soil conditions.	Maintain landscaping using minimum or no pesticides. See applicable operational BMP's in "What you should know for Landscape and Gardening" at http://rcflood.org/stormwater and Appendix 10, Provide IPM information to new owners, lessees and operators. Landscape maintenance should include

	Consider using pest-resistant plants, especially adjacent to hardscape. To insure successful establishments, select plants appropriate to site, soils, slopes, climate, sun, wind, rain, land use, air movement, ecological consistency and plant interactions. Pesticide usage should be at a necessary minimum and be consistent with the instructions contained on product labels and the regulations administered by the State Department of Pesticide Regulation. Pesticides should be used at an absolute minimum or not at all in the retention/infiltration basin. If used it should not be applied in close proximity to the rainy season.	mowing, weeding, trimming, removal of trash and debris, repair of erosion, revegetation, and removal of cut and dead vegetation. Irrigation maintenance should include the repair of leaky or broken sprinkler heads, the maintaining of timing apparatus accuracy, and the maintaining of shut-off valves in good working order.
B. Refuse Trash Storage Areas	Trash container storage areas shall be paved with and impervious surface, designed not to allow run-on from adjoining areas, designed to divert drainage from adjoining roofs and pavements from the surrounding area, and screened or walled to prevent off-site transport of trash. Trash dumpsters (containers) shall be roofed per City of Perris standards and details on the Appendix 1. See CASQA SD-32 BMP Fact Sheets in Appendix 10 for additional information. Signs shall be posted on or near dumpsters with the words "Do not dump hazardous materials here" or similar	Adequate number of receptacles shall be provided. Inspect receptacles regularly; repair or replace leaky receptacle. Keep receptacles covered. Prohibit/prevent dumping of liquid or hazardous wasted. Post "No hazardous materials" signs. Inspect and pickup litter daily and clean up spills immediately. Keep spill control materials available onsite. See Fact Sheet SC-34, in Appendix 10, "Waste Handling and Disposal" in the CASQA Stormwater Quality Handbook at www.cabmphandbooks.com
C. Parking Lots and walkways	Spill kits are to be kept on-site at all times per SC-11	Sweep sidewalks and parking lots regularly to prevent accumulation of litter and debris.
D. Bioretention Area	See Fact Sheet TC-32, in Appendix 10, "Bioretention" in the CASQA Stormwater Quality Handbook at www.cabmphandbooks.com	Remove trash, debris, sediment and other collected materials, as needed to maintain the original condition and capacity of the bioretention area.

Section H: Construction Plan Checklist

Populate Table H.1 below to assist the plan checker in an expeditious review of your project. The first two columns will contain information that was prepared in previous steps, while the last column will be populated with the corresponding plan sheets. This table is to be completed with the submittal of your final Project-Specific WQMP.

Table H.1 Construction Plan Cross-reference

BMP No. or ID	BMP Identifier and Description	Corresponding Plan Sheet(s)	LATITUDE/LONGITUDE

Note that the updated table — or Construction Plan WQMP Checklist — is **only a reference tool** to facilitate an easy comparison of the construction plans to your Project-Specific WQMP. Co-Permittee staff can advise you regarding the process required to propose changes to the approved Project-Specific WQMP.

Note: This section will be completed during Final Engineering.

Section I: Operation, Maintenance and Funding

The Co-permittee will periodically verify that Stormwater BMPs on your site are maintained and continue to operate as designed. To make this possible, your Co-permittee will require that you include in Appendix 9 of this Project-Specific WQMP:

1. A means to finance and implement facility maintenance in perpetuity, including replacement cost.
2. Acceptance of responsibility for maintenance from the time the BMPs are constructed until responsibility for operation and maintenance is legally transferred. A warranty covering a period following construction may also be required.
3. An outline of general maintenance requirements for the Stormwater BMPs you have selected.
4. Figures delineating and designating pervious and impervious areas, location, and type of Stormwater BMP, and tables of pervious and impervious areas served by each facility. Geo-locating the BMPs using a coordinate system of latitude and longitude is recommended to help facilitate a future statewide database system.
5. A separate list and location of self-retaining areas or areas addressed by LID Principles that do not require specialized O&M or inspections but will require typical landscape maintenance as noted in Chapter 5, pages 85-86, in the WQMP Guidance. Include a brief description of typical landscape maintenance for these areas.

Your local Co-Permittee will also require that you prepare and submit a detailed Stormwater BMP Operation and Maintenance Plan that sets forth a maintenance schedule for each of the Stormwater BMPs built on your site. An agreement assigning responsibility for maintenance and providing for inspections and certification may also be required.

Details of these requirements and instructions for preparing a Stormwater BMP Operation and Maintenance Plan are in Chapter 5 of the WQMP Guidance Document.

Maintenance Mechanism:

Will the proposed BMPs be maintained by a Home Owners' Association (HOA) or Property Owners Association (POA)?

☐ Y ☒ N

Include your Operation and Maintenance Plan and Maintenance Mechanism in Appendix 9. Additionally, include all pertinent forms of educational materials for those personnel that will be maintaining the proposed BMPs within this Project-Specific WQMP in Appendix 10.

As required by the City of Perris, the following Operation, Maintenance and Funding details are provided as summarized.

6. A means to finance and implement facility maintenance in perpetuity, including replacement cost.
7. Acceptance of responsibility for maintenance from the time the BMPs are constructed until responsibility for operation and maintenance is legally transferred.
8. An outline of general maintenance requirements for the Stormwater BMPs selected.

9. Figures delineating and designating pervious and impervious areas, location, and type of Stormwater BMP, and tables of pervious and impervious areas served by each facility.

10. A separate list and location of self-retaining areas or areas addressed by LID Principles that do not require specialized O&M or inspections but will require typical landscape maintenance as noted in Chapter 5, pages 85-86, in the WQMP Guidance.

See Appendix 9 a detailed Stormwater BMP Operation and Maintenance Plan that sets forth a maintenance schedule for each of the Stormwater BMPs built onsite and an agreement assigning responsibility for maintenance and providing for inspections and certification.

Educational materials for those personnel that will be maintaining the proposed BMPs within this Project-Specific WQMP are included in Appendix 10.

Note: This section will be completed during Final Engineering.

Appendix 1: Maps and Site Plans

Location Map, WQMP Site Plan and Receiving Waters Map



VICINITY MAP/N.T.S.

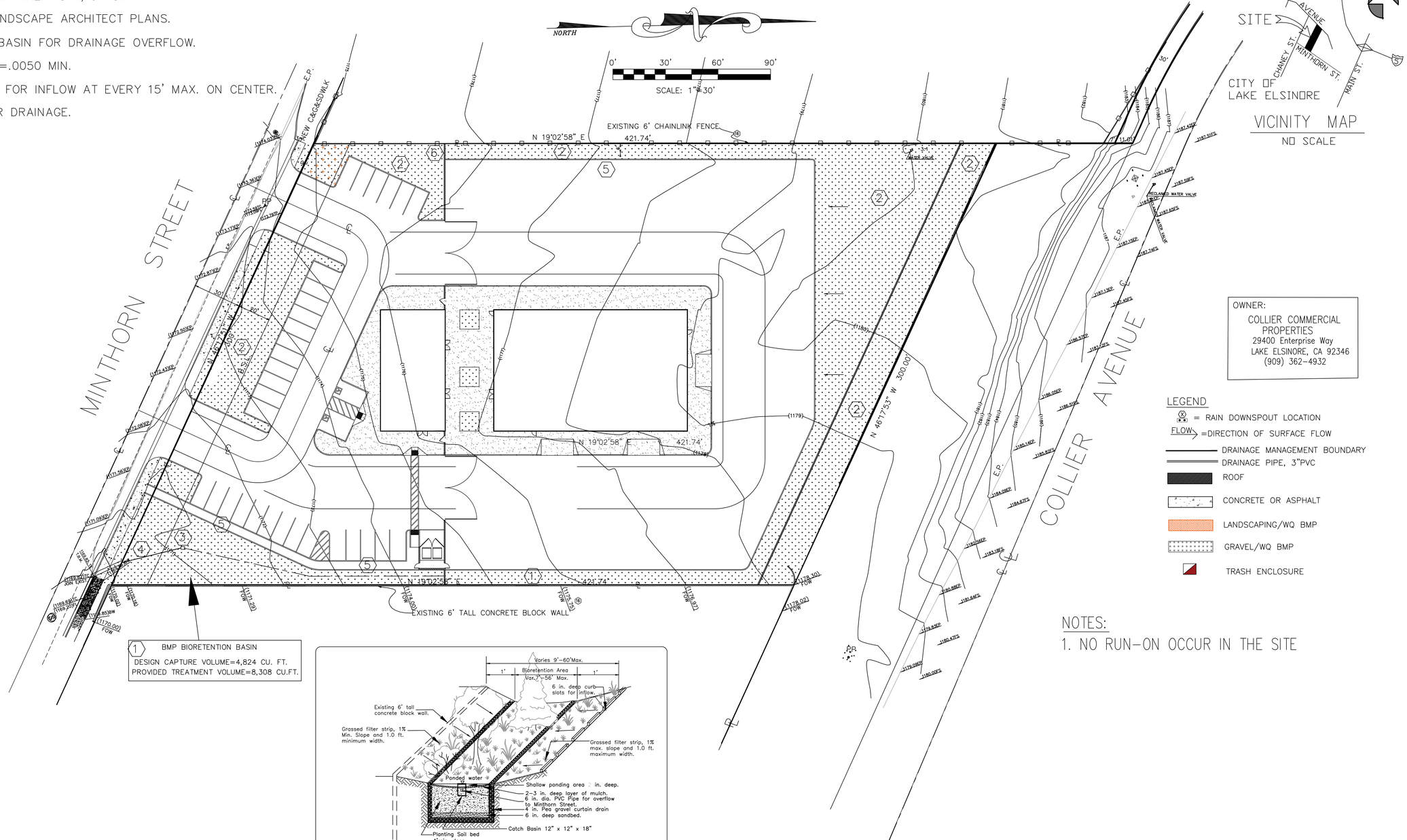
Appendix 2: Construction Plans

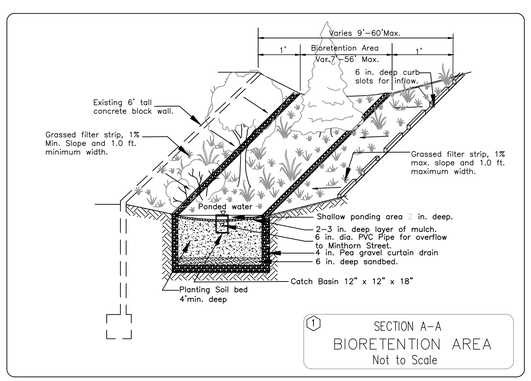
Grading and Drainage Plans Attached

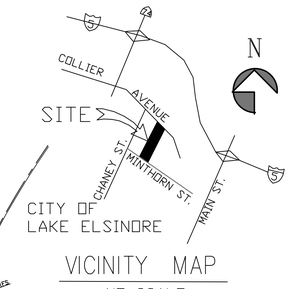
PRELIMINARY PLANS

CONSTRUCTION NOTES:

1. CONSTRUCT BIORETENTION BASIN AREA IS 4,154 S.F.
2. PROVIDE LANDSCAPING PER LANDSCAPE ARCHITECT PLANS.
3. CONSTRUCT 12" X 12" CATCH BASIN FOR DRAINAGE OVERFLOW.
4. CONSTRUCT 6" PVC PIPE AT S=.0050 MIN.
5. PROVIDE 6" DEEP CURB SLOTS FOR INFLOW AT EVERY 15' MAX. ON CENTER.
6. PROVIDE 6" WALL OPENING FOR DRAINAGE.







OWNER:
COLLIER COMMERCIAL PROPERTIES
29400 Enterprise Way
LAKE ELSINORE, CA 92346
(909) 362-4932

LEGEND
- = RAIN DOWNSPOUT LOCATION
- FLOW = DIRECTION OF SURFACE FLOW
- DRAINAGE MANAGEMENT BOUNDARY
- DRAINAGE PIPE, 3"PVC
- ROOF
- CONCRETE OR ASPHALT
- LANDSCAPING/WQ BMP
- GRAVEL/WQ BMP
- TRASH ENCLOSURE

NOTES:
1. NO RUN-ON OCCUR IN THE SITE

PA-2021-22

MARK	REVISIONS	APPR.	DATE

THESE PLANS HAVE BEEN REVIEWED FOR COMPLIANCE WITH THE APPROPRIATE CONDITIONS OF DEVELOPMENT AND/OR CITY AND STATE LAWS AND HAVE BEEN FOUND ACCEPTABLE

REMON HABIB, RCE No. 83156
CITY ENGINEER
CITY OF LAKE ELSINORE

DATE

PREPARED BY:

1-20-2023
DATE

SEAL: REGISTERED PROFESSIONAL ENGINEER — Nelson M. Manlolo — No. C 36838 — Exp. 06-30-24 — CIVIL — STATE OF CALIFORNIA

NM Civil Engineering, Inc.
22880 Van Buren Street
Grand Terrace, CA 92313
(951)712-0623
NM.PE@manlolo.com

SCALE: 1' = 30'

DATE: JUNE 2021

BENCH MARK: E 307
1.9 miles north along Hwy 74 from the AT&SF Railway station at Elsinore, Riv. Co., at the junction of Hwy 74 station in the triangle formed by the junction on the AT& SF Railway R/W.
Date: 1935 ELEV.= 1174.889

CITY OF LAKE ELSINORE

Post-Construction BMP Site Plan & Details For Collier Properties

PA-2021-22

APN: 377-190-002,-003,-004

SHEET 1 OF 2 SHEETS

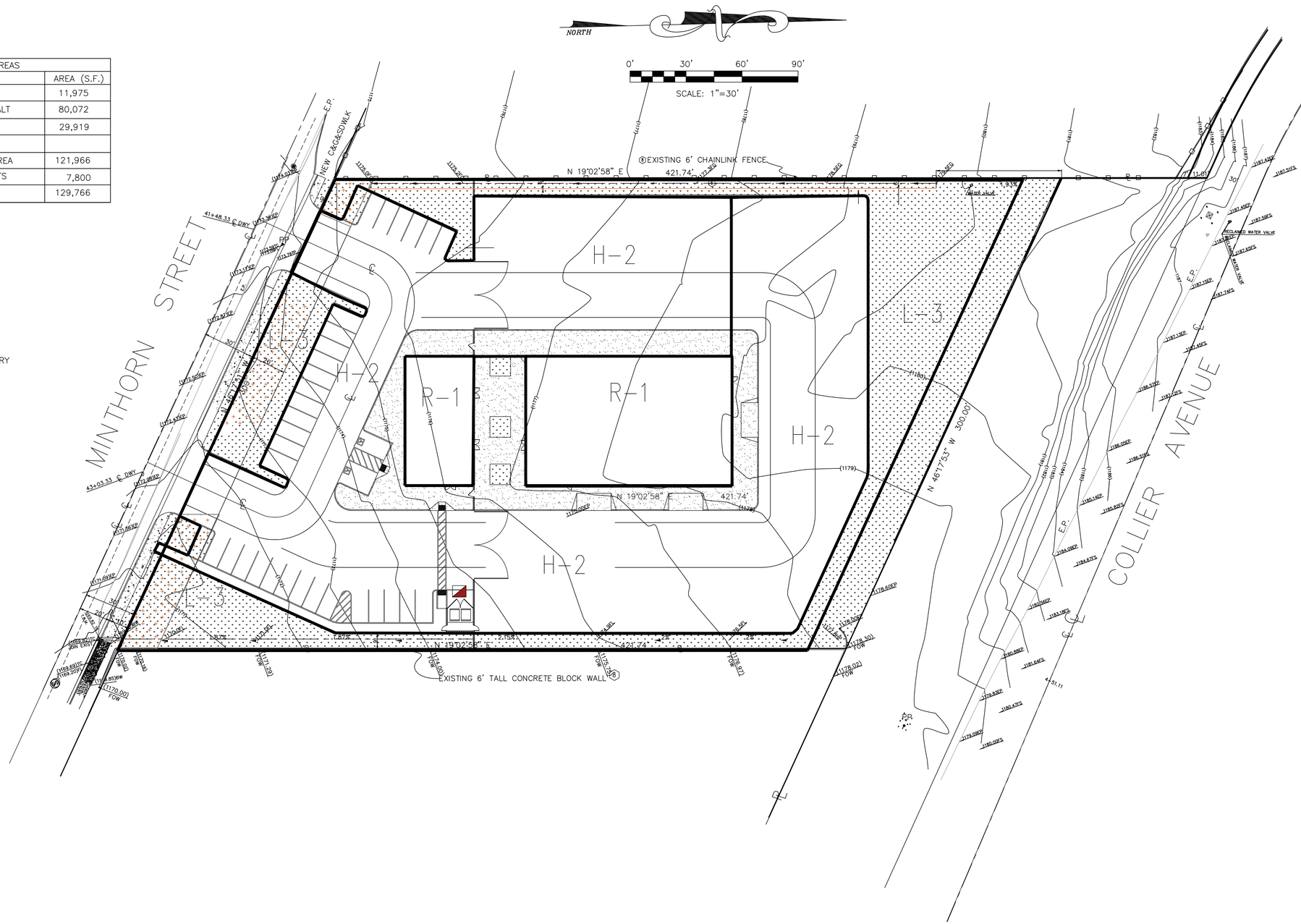
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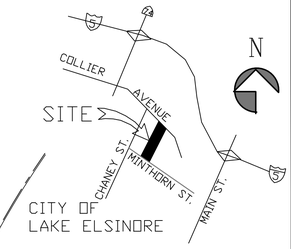
DRAINAGE MANAGEMENT AREA PLAN FOR COLLIER COMMERCIAL PROPERTIES, LAKE ELSINORE, CA.

DRAINAGE MANAGEMENT AREAS			
LEGEND	DMA ID	TYPE	AREA (S.F.)
	R-1	ROOF	11,975
	H-2	CONCRETE OR ASPHALT	80,072
	L-3	LANDSCAPE	29,919
TOTAL ON-SITE AREA			121,966
	H-2	STREET IMPROVEMENTS	7,800
TOTAL			129,766

LEGEND

- = RAIN DOWNSPOUT LOCATION
- FLOW = DIRECTION OF SURFACE FLOW
- DRAINAGE MANAGEMENT BOUNDARY
- DRAINAGE PIPE, 3"PVC
- ROOF
- CONCRETE OR ASPHALT
- LANDSCAPING/WQ BMP
- TRASH ENCLOSURE





VICINITY MAP
NO SCALE

PA-2021-22

MARK	REVISIONS	APPR.	DATE

THESE PLANS HAVE BEEN REVIEWED FOR COMPLIANCE WITH THE APPROPRIATE CONDITIONS OF DEVELOPMENT AND/OR CITY AND STATE LAWS AND HAVE BEEN FOUND ACCEPTABLE

REMON HABIB, RCE No. 83156
CITY ENGINEER
CITY OF LAKE ELSINORE

DATE

PREPARED BY:

1-18-2023
DATE

SEAL

REGISTERED PROFESSIONAL ENGINEER
Nelson M. Manlolo
No. C 36838
Exp. 06-30-24
CIVIL
STATE OF CALIFORNIA

NM Civil Engineering, Inc.
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1.9 miles north along Hwy 74 from the AT&SF Railway station at Elsinore, Riv. Co. at the junction of Hwy 74 station in the triangle formed by the junction on the AT& SF Railway R/W.
Date: 1935 ELEV.= 1174.889

CITY OF LAKE ELSINORE

Post-Construction DMA Site Plan & Details For Lake Elsinore Rentals

PA-2021-22

APN: 377-190-002,-003,-004

SHEET 2 OF 2 SHEETS

FILE No.

CITY OF LAKE ELSINORE

COLLIER COMMERCIAL PROPERTIES

GENERAL NOTES

1. All work shall be done in accordance with the City of Lake Elsinore Ordinances No. 801 and 882 and applicable standards and specifications and the latest edition of the U.B.C., Chapter 33
2. A permit shall be obtained from the Engineering Department, City of Lake Elsinore, prior to any operation.
3. The developer and/or contractor shall notify all utility companies and U.S.A. ALERT (1-800-227-2600) 48 hours prior to grading.
4. The contractor shall notify the City Engineering Department as least 24 hours in advance of beginning grading operations.
5. Dust shall be controlled by watering or other methods approved by the City Engineer.
6. Cut slopes shall be no steeper than 2 horizontal to 1 vertical, unless otherwise approved, and shall be shown on the plan.
7. Fill slopes shall be no steeper than 2 horizontal to 1 vertical, unless otherwise approved, shall be shown on plan, and shall not have less than 90% compaction out to the finished surface.
8. Fills shall be compacted throughout to 90% density as determined by modified three layer A.S.T.M. D-1557-70 test method.
9. Fill areas shall be cleaned of all vegetation and debris, scarified, and inspected by the grading inspector and approved by soils testing agency prior to the placement of fill.
10. All fill material shall be clean earth. No fill shall be placed until preparation of ground is approved by the soils engineer.
11. Finish grade shall be sloped away from all exterior walls at not less than 1/4" per foot for a minimum of 3', then % (minimum) to flowline of earth swale.
12. Minimum building pad and drainage swale slope shall be % if cut slope is less than 10', and 2% if cut or fill is greater than 10'. Drainage s shall be a minimum of 0.5' deep and constructed a minimum of 2' from top of cut or fill slopes.
13. Provide 5' wide by 1' high berm or equivalent along the top of all fill slope over 5' high.
14. Provide a brow ditch, designed to handle 100 year storm flows along the top of cut slopes.
15. No obstruction of flood plains or natural water courses shall be permitted
16. A soils engineer shall be retained by the developer, to supervise grading and provide a final soils report, which includes foundation requirements (subdivisions) and expansive characteristics of the soil.
17. Grading certification by the developer's civil engineer and a final compaction report by a soils engineer shall be submitted to the building and engineering departments prior to issuance of building permits.
18. The soils engineering investigation dated_____prepared by _____ and the engineering geotechnical investigation dated _____ prepared by _____ shall be considered a part of this grading plan, and shall be complied with.
19. A registered civil engineer or licensed land surveyor shall submit certification of building pad elevation. Where specific elevations are required, the elevation (with respect to mean sea level) shall be given. If an elevation with respect to adjacent ground surface is required, the actual distance above the adjacent ground shall be given.
20. All property corners shall be clearly delineated in the field prior to commencement of any construction/grading.
21. Stability calculations with a factor of at least 1.5 shall be submitted by a soils engineer to the Building and Engineering Departments for cut and fill slopes over 30' in vertical height.
22. A final compaction report will be required for all fills greater than one foot.
23. If steep sloping terrain occurs upon which fill is to be place, it must be cleared, keyed, and benched into firm natural soil for full support. Preparation shall be approved by a registered soils engineer prior to placement of fill material. Slopes greater than 5:1 are required to be keyed and benched.
24. The soil engineer should inspect the construction in the following stages:
    - A. Upon completion of clearing and during excavation and before backfill of alluvial, colluvial and terraced areas and any substructures.
    - B. During all rough grading and operations including pre-compaction, benching and filling operations.
    - C. During installation of buttress and canyon sub-drains and filter material.
    - D. When any unusual grading conditions are encountered during construction.
25. Erosion Control: All graded slopes shall be planted with rosea ice plant at 12" on centers or another approved ground cover. Slopes over 15' in vertical height, in addition to ground cover, shall be planted with approved trees, shrubs or combinations thereof. Shrubs shall be planted at 10' on centers; trees 20' on center; combinations, 15' on centers. Slopes over 3' in vertical height shall have permanent irrigation systems with backflow prevention devices per U.B.C., Chapter 70.
26. Approved protective measures and temporary drainage provisions must be used to protect adjoining properties during the grading project.
27. Approved erosion preventative devices shall be provided and maintained during the rainy season and shall be in place at the end of each day's work.
28. All work shall conform to the City and State construction safety orders.
29. The location and protection of all utilities is the responsibility of the permittee.
30. An approved set of grading plans shall be on the job site at all times.
31. Sanitary facilities shall be maintained on the site from beginning to completion of grading operation.
32. All slopes shall be planted and irrigation facilities shall be provided for all slopes in excess of 3 feet vertical height within 90 days after completion of the rough grading and shall be in accordance with ordinance No. 882 prior to the approval of final inspection.
33. Any contractor performing work on this project shall familiarize himself with the site and be solely responsible for any damage to existing facilities resulting, directly or indirectly from his operations, whether or not such facilities are shown on these plans.
34. The design engineer shall provide a minimum of one blue top per finished pad, prior to rough grade approval.
35. Approximate date of: Beginning operation: _____ Completion :_____
36. No rock or other irreducible material with a maximum dimension greater than 3" will be placed in fills within roadbed areas or 3' of finish grades, unless the location, materials, and disposal methods are specifically approved by the soils engineer.
37. The engineer must set grade stakes for all drainage devices and obtain inspection before approval.
38. Grading plans will not be approved until all retaining walls are approved by the Building Department.
39. This site has obtained a National Pollution Prevention Elimination System (NPDES) permit to regulate municipal and industrial storm water discharges.
    NPDES WDID #_____ DATE PERMIT ISSUED: _____
40. Drainage easements will be kept clear of all obstructions. No buildings or walls shall be placed within easement limits. Temporary improvements are subject to removal at owner's expense.

PAVING NOTES:

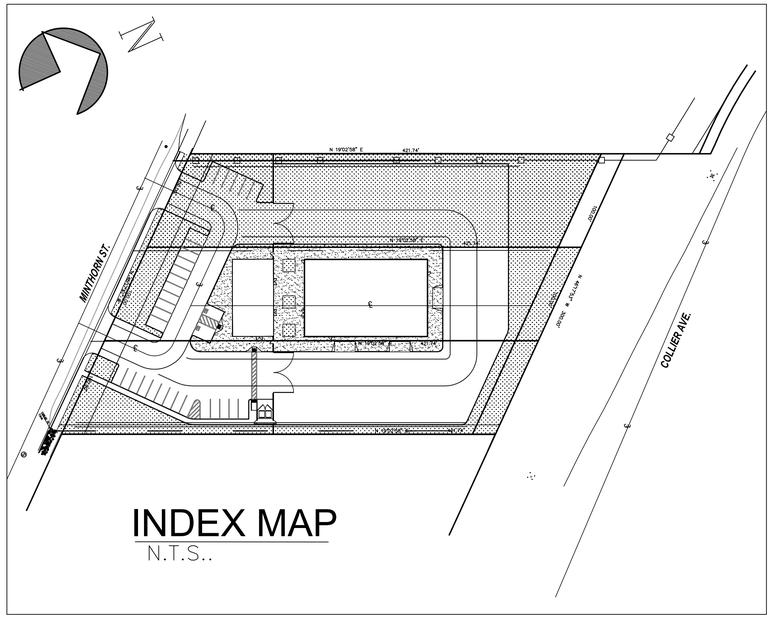
1. MININUM PARKING LOT GRADE SHALL BE 1
2. MINIMUM GRADE FOR RIBBON DRAINS SHALL BE 0.35 %.
3. AN APPROVED SOIL STERILIZER SHALL BE USED ON ALL SUBRADE SURFACES PRIOR TO PLACEMENT OF PAVING.
4. ASPHALTIC EMULSION (FOG SEAL) SHALL BE APPLIED NOT LESS THAN FOURTEEN DAYS FOLLOWING PLACEMENT OF THE ASPHALTIC SURFACING AND SHALL BE APPLIED AT A RATE OF 0.05 GALLONS PER SQUARE YARD. ASPHALT EMULSION SHALL CONFORM TO SECTION 37, 39 AND 94 OF THE STATE STANDARD SPECIFICATIONS.
5. THE SUBDIVIDER OR CONTRACTOR SHALL APPLY TO THE CITY ENGINEERING DEPARTMENT FOR AN ENCROACHMENT PERMIT FOR ALL WORK WITHIN THE RIGHT-OF-WAY.
6. A COMPACTION REPORT BY A SOILS ENGINEER SHALL CERTIFY 95% COMPACTION OF BASE PRIOR TO CALLING FOR SECOND INSPECTION AND PLACEMENT OF ASPHALT PAVING.
7. TWO SPECIAL INSPECTIONS ARE REQUIRED BY THE CITY ENGINEERING DEPARTMENT. ONE INSPECTION AT THE TIME THE BASE IS PLACED AND THE SECOND WHEN A.C. HAS BEEN PLACED.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CLEARING OF THE PROPOSED WORK AREA, AND RELOCATION AND COST OF ALL EXISTING UTILITIES. THE CITY SHALL BE INFORMED 48 HOURS PRIOR TO BEGINNING OF CONSTRUCTION AT (909) 674-3124.

APPROXIMATE EARTHWORK QUANTITIES:

CUT: 280 CU. YDS. FILL : 1,000 CU.YDS.

IMPORT=720 CU. YDS.

The above quantities do not reflect any shrinkage, swelling, subsidence, over excavation or any special conditions that maybe specified in the preliminary soils report and are for reference and fee purposes only. Since the engineer cannot control the exact method or means used by the contractor during grading operations, nor can the engineer guarantee the exact soil condition over the entire site, the engineer assumes no responsibility for final earth work quantities. The contractor shall be responsible for determining his own earthwork quantities for contract and construction purposes. If it appears there will be an excess or shortage of material, the contractor may notify the engineer to determine if possible grade adjustments can be made to alleviate said material excess or shortage.

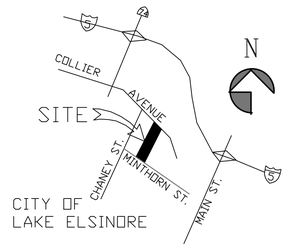


INDEX MAP

N.T.S..

CONSTRUCTION NOTES AND ESTIMATED QUANTITIES:

		QUANTITY	UNIT
1	CONSTRUCT BIORETENTION AREA = 4,154 S.F. X 2' DEPTH	4,154	S.F.
2	CONST 6" CURB TYPE "D" PER COUNTY STD. NO. 204	600	L.F.
3	CONST. 4" A/C W/ SEAL COAT OVER 8" AGGREGATE BASE CLASS 2 (SECTION MAYBE ALTERED BY SOILS ENGINEER AFTER ROUGH GRADING)	44,760	S.F.
4	RELOCATE EXISTING POWER POLE.	1	E.A.
5	CONSTRUCT 8' HIGH BLOCKWALL FENCE BY OTHERS AND SEPARATE PERMIT.	450	L.F.
6	INSTALL LANDSCAPING PER LANDSCAPE ARCHITECT'S PLAN	19,805	S.F.
7	CONSTRUCT TRASH ENCLOSURE PER ARCHITECT'S PLAN.	1	E.A.
8	PROTECT EXISTING BLOCKWALL, CHAINLINK FENCE AND WATER VALVE.	LUMP SUM	
9	INSTALL 4" WIDE STRIPPED PARKING STALLS PER CITY STD. AND ARCHITECT'S PLAN.	460	L.F.
10	INSTALL 4" WIDE 45 DEGREE STRIPPING AT 36" O.C. TO DENOTE HANDICAPPED PARKING AISLE AND ACCESS FROM WALK TO BUILDING . SEE ARCHITECT DRAWINGS FOR DETAILS.	1	E.A.
11	INSTALL HANDICAPPED PARKING SIGNS PER CITY STD. AND ARCHITECT'S PLAN.	1	E.A.
12	INSTALL 40' POWER GATES BY OTHERS.	3	E.A.
13	REFER TO ARCHITECT'S PLAN FOR BUILDING AND OTHER DETAILS	LUMP SUM	
14	CONSTRUCT 4" PCC CONCRETE APRON OVER PREPARED BASE.	10,125	S.F.
15	CONSTRUCT 12" X 12" CATCH BASIN FOR DRAINAGE OVERFLOW.	1	E.A.
16	CONSTRUCT 6" PVC PIPE AT S=.0050 MIN.	35	L.F.
17	PROVIDE 6" DEEP CURB SLOTS FOR INFLOW AT EVERY 15' MAX. ON CENTER.	LUMP SUM	



VICINITY MAP

NO SCALE

SHEET INDEX

TITLE SHEET	SHEET 1
PRECISE GRADING PLAN	SHEET 2

OWNER:	TOPOGRAPHIC SURVEY BY:
COLLIER COMMERCIAL PROPERTIES 29400 Enterprise Way LAKE ELSINORE, CA 92346 (909) 362-4932	JAMES WILLIAMS, L.S.7432 9965 Walnut Tree Lane YUCAIPA, CA 92399 (909) 709-8131 Date: JUNE, 2021

LEGEND

T.C.	Top of Curb	C.F.	
F.L.	Flowline	T.P.	
F.S.	Finished Surface	P.P.	
G.B.	Grade Break	F.G.	
T.W.	Top Wall	T.G.	
T.B.	Top of Berm	C.M.U.	
C.F.	Curb Face		
T.P.	Top of Pavement		
P.P.	Power Pole		
F.G.	Finished Grade		
T.G.	Top of Grate		
C.M.U.	Cement Mortar Units		
L.P.	Low Point		
H.P.	High Point		
E.P.	Edge of Pavement		

CONCRETE

ASHALT

PA-2021-22

MARK	REVISIONS	APPR.	DATE

THESE PLANS HAVE BEEN REVIEWED FOR COMPLIANCE WITH THE APPROPRIATE CONDITIONS OF DEVELOPMENT AND/OR CITY AND STATE LAWS AND HAVE BEEN FOUND ACCEPTABLE

REMON HABIB, RCE No. 83156
CITY ENGINEER
CITY OF LAKE ELSINORE

DATE

PREPARED BY:

1-20-2023
DATE

SEAL

REGISTERED PROFESSIONAL ENGINEER
Nelson M. Manlolo
No. C 36838
Exp. 06-30-24
CIVIL
STATE OF CALIFORNIA

NM Civil Engineering, Inc.
22880 Van Buren Street
Grand Terrace, CA 92313
(951)712-0623
NM.PE@manlolo.com

SCALE: 1' = 30'

DATE: DECEMBER 2021

BENCH MARK: E 307
1.9 miles north along Hwy 74 from the AT&SF Railway station at Elsinore, Riv. Co., at the junction of Hwy 74 station in the triangle formed by the junction on the AT& SF Railway R/W.
Date: 1935 ELEV.= 1174.889

CITY OF LAKE ELSINORE

PRECISE GRADING PLAN

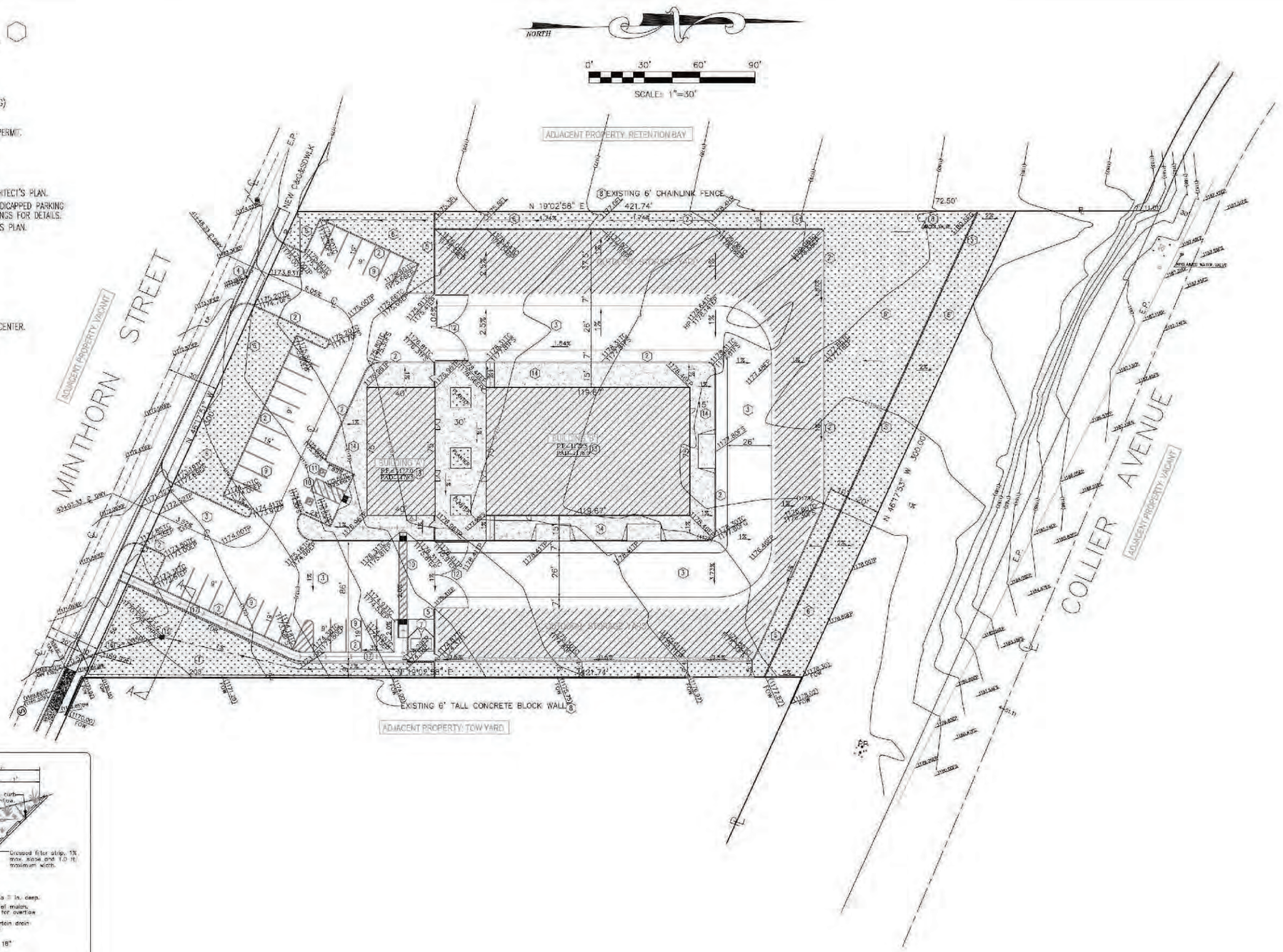
TITLE SHEET

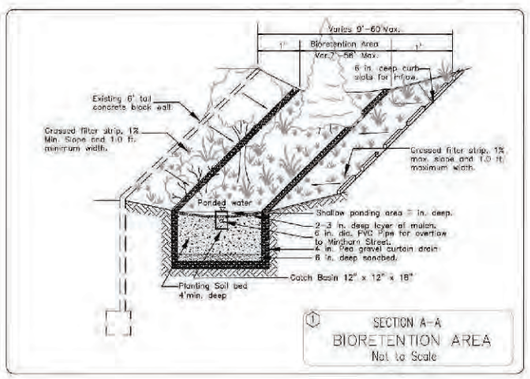
SHEET 1 OF 2 SHEETS

FILE No.

CONSTRUCTION NOTES AND ESTIMATED QUANTITIES:

1. CONSTRUCT BIORETENTION AREA = 4,154 S.F. X 2' DEPTH
2. CONST 6" CURB TYPE "D" PER COUNTY STD. NO. 204
3. CONST. 4" A/C W/ SEAL COAT OVER 8" AGGREGATE BASE CLASS 2 (SECTION MAYBE ALTERED BY SOILS ENGINEER AFTER ROUGH GRADING)
4. RELOCATE EXISTING POWER POLE.
5. CONSTRUCT 8' HIGH BLOCKWALL FENCE BY OTHERS AND SEPARATE PERMIT.
6. INSTALL LANDSCAPING PER LANDSCAPE ARCHITECT'S PLAN
7. CONSTRUCT TRASH ENCLOSURE PER ARCHITECT'S PLAN.
8. PROTECT EXISTING BLOCKWALL, CHAINLINK FENCE AND WATER VALVE.
9. INSTALL 4" WIDE STRIPPED PARKING STALLS PER CITY STD. AND ARCHITECT'S PLAN.
10. INSTALL 4" WIDE 45 DEGREE STRIPPING AT 36" O.C. TO DENOTE HANDICAPPED PARKING AISLE AND ACCESS FROM WALK TO BUILDING . SEE ARCHITECT DRAWINGS FOR DETAILS.
11. INSTALL HANDICAPPED PARKING SIGNS PER CITY STD. AND ARCHITECT'S PLAN.
12. INSTALL 40' POWER GATES BY OTHERS.
13. REFER TO ARCHITECT'S PLAN FOR BUILDING AND OTHER DETAILS
14. CONSTRUCT 4" PCC CONCRETE APRON OVER PREPARED BASE.
15. CONSTRUCT 12" X 12" CATCH BASIN FOR DRAINAGE OVERFLOW.
16. CONSTRUCT 6" PVC PIPE AT S=.0050 MIN.
17. PROVIDE 6" DEEP CURB SLOTS FOR INFLOW AT EVERY 15' MAX. ON CENTER.





① SECTION A-A
BIORETENTION AREA
Not to Scale

PA-2021-22

MARK	REVISIONS	APPR.	DATE

THESE PLANS HAVE BEEN REVIEWED FOR COMPLIANCE WITH THE APPROPRIATE CONDITIONS OF DEVELOPMENT AND/OR CITY AND STATE LAWS AND HAVE BEEN FOUND ACCEPTABLE.

REMON HABIB, RCE No. 83156
CITY ENGINEER
CITY OF LAKE ELSINORE

DATE

PREPARED BY:

1-20-2023
DATE

SEAL: REGISTERED PROFESSIONAL ENGINEER — Nelson M. Manlolo — No. C 36838 — 06-30-22 — CIVIL — STATE OF CALIFORNIA

NM Civil Engineering, Inc.
22880 Von Buren Street
Grand Terrace, CA 92313
(951)712-0623
NM.PE@manlolo.com

SCALE: 1" = 30'

DATE: DECEMBER 2021

BENCH MARK: E 307
1.9 miles north along Hwy 74 from the AT&SF Railway station at Elsinore, Riv. Co., at the junction of Hwy 74 station in the triangle formed by the junction of the AT& SF Railway R/W.
Date: 1935 ELEV.= 1174.669

CITY OF LAKE ELSINORE

PRECISE GRADING PLAN
COLLIER COMMERCIAL PROPERTIES

PLANS AND DETAILS

SHEET 2 OF 2 SHEETS

FILE No.

Appendix 3: Soils Information

Geotechnical Study and Other Infiltration Testing Data.

To be provided during Final Engineering

Appendix 4: Historical Site Conditions

Phase I Environmental Site Assessment or Other Information on Past Site Use

N/A

Appendix 5: LID Infeasibility

LID Technical Infeasibility Analysis

There are no constraints that will make the site LID infeasible.

Appendix 6: BMP Design Details

BMP Sizing, Design Details and other Supporting Documentation

Attached

Santa Ana Watershed - BMP Design Volume, V_{BMP}

(Rev. 10-2011)

Legend: Required Entries / Calculated Cells

*(Note this worksheet shall **only** be used in conjunction with BMP designs from the **LID BMP Design Handbook**)*

Company Name	NM Civil Engineering Inc.	Date	1/16/2023
Designed by	Nelson M Manlolo	Case No	PA No, 2021-22
Company Project Number/Name	Collier Commercial Properties		

BMP Identification

BMP NAME / ID: DMA 1

Must match Name/ID used on BMP Design Calculation Sheet

Design Rainfall Depth

85th Percentile, 24-hour Rainfall Depth, from the Isohyetal Map in Handbook Appendix E

D_{85}= 0.65 inches

Drainage Management Area Tabulation

Insert additional rows if needed to accommodate all DMAs draining to the BMP

DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type	Effective Imperivous Fraction, I_f	DMA Runoff Factor	DMA Areas x Runoff Factor	*Design Storm Depth (in)*	*Design Capture Volume, V_{BMP} (cubic feet)*	*Proposed Volume on Plans (cubic feet)*
R-1	*11,975*	*Roofs*	*1*	*0.89*	*10681.7*			
H-2	*87,872*	*Concrete or Asphalt*	*1*	*0.89*	*78381.8*			
	99847		***Total***		**89063.5**	**0.65**	***4824.3***	***8,308***

Notes:

Bioretention Facility - Design Procedure	BMP ID	Legend:	Required Entries	
			Calculated Cells	

Company Name:	NM Civil Engineering Inc.	Date:	
Designed by:	Nelson Manlolo	County/City Case No.:	PA2021-22

Design Volume

Enter the area tributary to this feature	A_T=	2.11	acres
Enter V_{BMP} determined from Section 2.1 of this Handbook	V_{BMP}=	4,824	ft^3

Type of Bioretention Facility Design

○ Side slopes required (parallel to parking spaces or adjacent to walkways)

◉ No side slopes required (perpendicular to parking space or Planter Boxes)

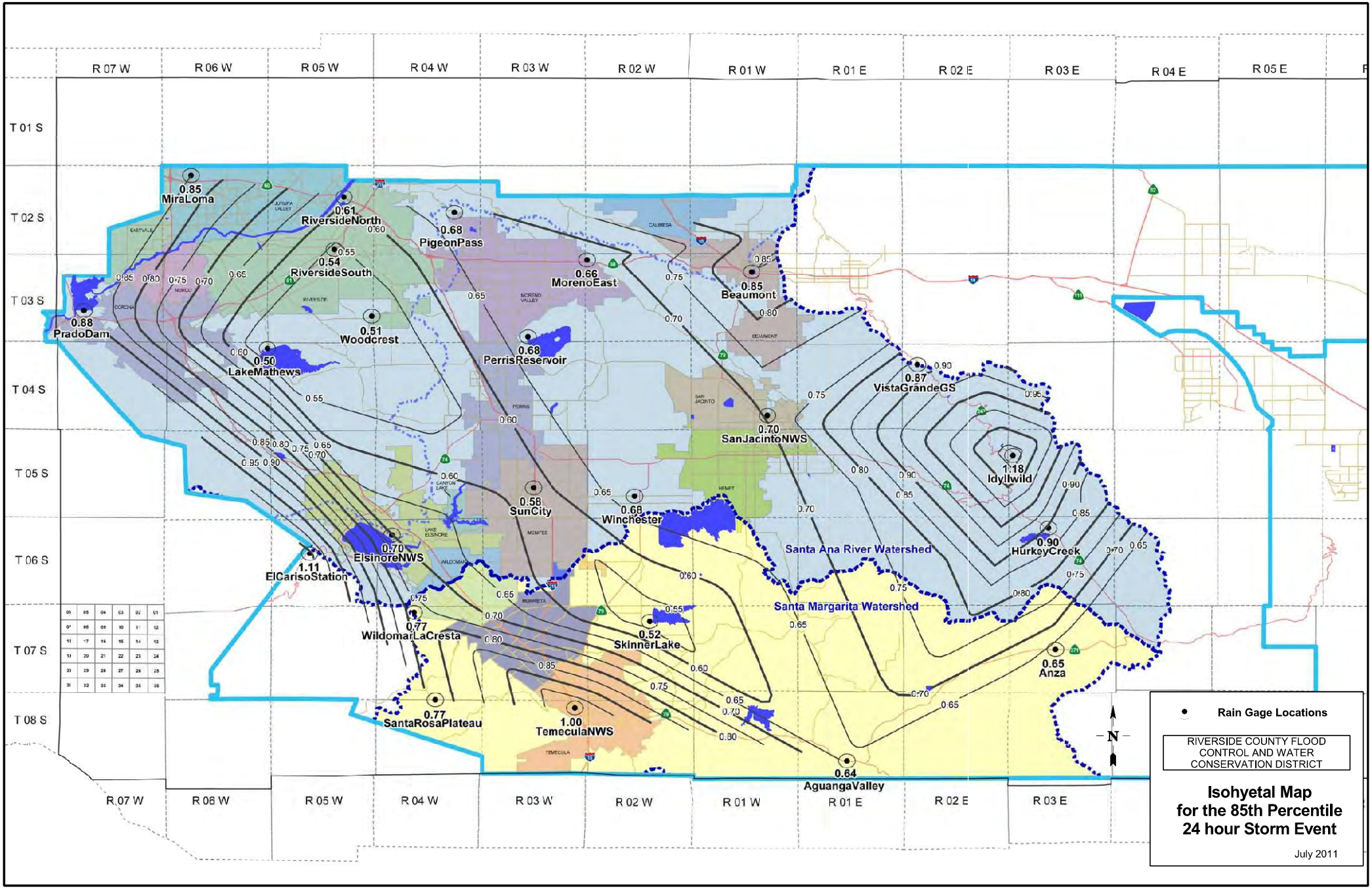
Bioretention Facility Surface Area

Depth of Soil Filter Media Layer	d_S =	2.0	ft
Top Width of Bioretention Facility, excluding curb	w_T =	40.0	ft
Total Effective Depth, d_E			
$d_E = [(0.3) \times d_S + (0.4) \times 1] + 0.5$	d_E =	1.50	ft
Minimum Surface Area, A_m			
$A_M\ (ft^2) = \frac{V_{BMP}\ (ft^3)}{d_E\ (ft)}$	A_M =	3,216	ft^2
Proposed Surface Area	A=	4,154	ft^2
Minimum Required Length of Bioretention Facility, L	L =	80.4	ft

Bioretention Facility Properties

Side Slopes in Bioretention Facility	z =	0	:1
Diameter of Underdrain		6	inches
Longitudinal Slope of Site (3% maximum)		1	%
6" Check Dam Spacing		25	feet
Describe Vegetation:		Natural Grasses	

Notes:


R 07 W
R 06 W
R 05 W
R 04 W
R 03 W
R 02 W
R 01 W
R 01 E
R 02 E
R 03 E
R 04 E
R 05 E
T 01 S
T 02 S
T 03 S
T 04 S
T 05 S
T 06 S
T 07 S
T 08 S
0.85 MiraLoma
0.61 RiversideNorth
0.68 PigeonPass
0.54 RiversideSouth
0.66 MorenoEast
0.85 Beaumont
0.88 PradoDam
0.51 Woodcrest
0.68 PerrisReservoir
0.50 LakeMathews
0.87 VistaGrandeGS
0.70 SanJacintoNWS
1.18 Idyllwild
0.58 SunCity
0.68 Winchester
0.70 ElsinoreNWS
1.11 ElCarisoStation
0.90 HurkeyCreek
Santa Ana River Watershed
Santa Margarita Watershed
0.77 WildomarLaCresta
0.52 SkinnerLake
0.65 Anza
0.77 SantaRosaPlateau
1.00 TemeculaNWS
0.64 AguangaValley
N
Rain Gage Locations
RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
Isohyetal Map for the 85th Percentile 24 hour Storm Event
July 2011

Appendix 7: Hydromodification

Supporting Detail Relating to Hydrologic Conditions of Concern

Calculations Attached

Appendix 8: Source Control

Pollutant Sources/Source Control Checklist

To be provided during Final Engineering

Appendix 9: O&M

Operation and Maintenance Plan and Documentation of Finance, Maintenance and Recording Mechanisms

Operation and Maintenance Plan

BMP & Start Up Date	ReponsibleParty(s)	Inspection/ Maintenance Activities Required	Minimum Frequency of Activities
Education for Property Owners, Tenants and Occupants Start Date: Building Occupancy and move in of new tenants	Edward & Leslie Hamud or current owner	Owner shall familiarize himself with the contents of this WQMP and the BMP Educational materials in Section 6.4 and shall use these materials to inform occupants and employees on methods to reduce pollutants in stormwater and non-stormwater runoff from this site including: 1. Posting quick reference guide at the office to reinforce educational seminars and training. 2. Educate how to reduce or avoid human errors that lead to accidental releases and 3. Provide necessary tools to immediately stop and begin cleanup should an emergency occur.	Repeat Annually or as often as necessary.
Activity Restrictions Start Date: Upon Project Completion	Edward & Leslie Hamud or current owner	1. Pesticide application in common areas must be performed by an applicator certified by the California Department of Pesticide Regulation. 2. Prohibition of outdoor storage of materials and chemicals 3. Prohibition of Outdoor manufacturing processes. 4. Prohibition of outdoor equipment repair and storage. 5. Prohibition of outdoor equipment and vehicle cleaning	Repeat Annually or as often as necessary.
Employee Training/Educa-tion Program Start Date: Upon Permit Issuance	Edward & Leslie Hamud or current owner	Owner will provide staff and employees training on Stormwater BMP's and methods to identify non-stormwater discharges and report discharges to the appropriate Agency. Also training in identifying and documenting illegal dumping incidents is required	Repeat Semi Annually or as often as necessary.
Sweeping Concrete Apron and Parking Lot SC-41 Start Date: Upon Project Completion	Edward & Leslie Hamud or current owner	Sweep by hand or vacuum sweep parking lots, drive and walkways area. No hosing down of area with water is allowed. Properly dispose of debris offsite. Keep log of sweeping activities.	After heavy storms and repeated monthly at a minimum.

Operation and Maintenance Plan

BMP & Start Up Date	ReponsibleParty(s)	Inspection/ Maintenance Activities Required	Minimum Frequency of Activities
Landscaping Planning and Installation SD-10 Start Date: Upon Project Design and after landscaping are installed.	Edward & Leslie Hamud or current owner	Landscape planning will couple consideration of land suitability for urban uses with consideration of community goals and projected growth. Project plan designs will conserve natural areas to the extent possible, maximize natural water storage and infiltration opportunities, and protect slopes and channels. Plants will be grouped with similar water requirements in order to reduce excess irrigation runoff and promote surface filtration. Landscaping will correlate to the climate, soil, related natural resources and existing vegetation of the site, as well as the type of development proposed. Ongoing maintenance consistent with County Administrative Design Guidelines (available at: http://www.co.sanbernardino.ca.us/landuseservices/Informational%20Handouts/Administative%20Design%20Guidelines-Jan%202002.pdf) or local equivalent, plus fertilizer and pesticide usage consistent with the instructions contained on product labels and with the regulations administered by the State Department of Pesticide Regulation shall be implemented.Check for landscape to be in healthy condition. Replace dead or barren areas with plants consistent with the original type of plants.	Rpeate annually as needed.
Efficient Irrigation and installation SD-12 Start Date: Upon Project Design and after installation	Edward & Leslie Hamud or current owner	Install irrigation timers to minimize runoff of excess irrigation water across impervious surfaces. Used rain triggered shutoff devises to eliminate or reduce irrigation during and immediately after precipitation, using mulches such as wood chips to minimize sediments in runoff and to maintain soil infiltration capacity and coordinating design of the irrigation system and landscape to minimize overspray and runoff. Use flow reducers and shutoff valves triggered by a pressure drop to control water loss in the event of broken sprinkler heads or water supply lines. Use water conservation devices such programmable irrigation timers and soil moisture sensors. Inspect siltation or debris washing out of planters. Sweep silt to planters and check amount of irrigations used and for properly functioning irrigation. Check irrigation system for leaks and over spray, provide necessary maintenance as needed.	Repeate monthly or as needed.

Operation and Maintenance Plan			
BMP & Start up Date	ReponsibleParty(s)	Inspection/ Maintenance Activities Required	Minimum Frequency of Activities
Trash Storage Area and Litter Control SD-32 Start Date: At Permit Issuance	Edward & Leslie Hamud or current owner	Trash enclosures areas shall be constructed with a permanent roof over them and the container (dumpster) areas shall have drainage from adjoining roofs and pavements diverted around the area(s). Dumpsters shall be leak proof and have attached permanent roof structures. Trash compactors will be roofed and set on a concrete pad. The pad shall be a minimum of one foot larger all around than the trash compactor and sloped to drain to a sanitary sewer line. Inspect trash enclosure area and bins for spill contamination and debris Keep log of inspection activities.	Repeate monthly or after trash pick-up.
Bioretention Area and Catch Basin Inspection and Maintenance Start Date: Upon Project Completion	Edward & Leslie Hamud or current owner	Maintain adjacent landscape and remove trash, debris, sediment and other collected materials in the bioretention area and catch basin areas.	Before and after heavy storms and repeated quarterly at a minimum.

Appendix 10: Educational Materials

BMP Fact Sheets, Maintenance Guidelines

To be provided during Final Engineering

Appendix 11:

Appendix H

Noise Impact Assessment,
Collier Commercial Properties

Noise Impact Assessment

Collier Commercial Properties

Lake Elsinore, California

Prepared For:

Ed & Leslie Hamud
Collier Commercial Properties
43 Golfview Drive
Dove Canyon, CA 92679

Prepared By:

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS
55 Hanover Lane, Suite A
Chico, California 95973

April 2022
(Revised August 2024)

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2.0 ENVIRONMENTAL NOISE AND GROUNDBORNE VIBRATION ANALYSIS 2
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Attachment B – Highway Noise Prediction Model (FHWA-RD-77-108) Outputs – Existing Traffic Noise
Attachment C- Federal Highway Administration Roadway Construction Noise Model Outputs – Project Construction
Attachment D- SoundPLAN Outputs – Onsite Project Noise

LIST OF ACRONYMS AND ABBREVIATIONS

Term	Description
City	City of Lake Elsinore
CNEL	Community Noise Equivalent Level
County	Riverside County
dB	Decibel
dBA	Decibel is A-weighted

LIST OF ACRONYMS AND ABBREVIATIONS

Term	Description
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
I-15	Interstate 15
ITE	Institute of Transportation Engineers
L_{eq}	Measure of ambient noise
OPR	Office of Planning and Research
OSHA	Federal Occupational Safety and Health Administration
PPV	Peak particle velocity
Project	Collier Commercial Properties Project
RMS	Root mean square

1.0 INTRODUCTION

This report documents the results of a Noise Impact Assessment completed for the Collier Commercial Properties Project (Project), which proposes the construction of two new buildings to accommodate a construction equipment rental facility in Lake Elsinore, California. This assessment was prepared as a comparison of predicted Project noise levels to noise standards promulgated by the City of Lake Elsinore General Plan Public Safety and Welfare Chapter and the City of Lake Elsinore Municipal Code. The purpose of this report is to estimate Project-generated noise levels and to determine the level of impact the Project would have on the environment.

1.1 Project Location and Description

The Project Site is located in the City of Lake Elsinore (City), located in western Riverside County. The irregular shaped site positioned between Collier Avenue and Minthorn Street spans three parcels and totals 2.8 acres. It is currently vacant, undeveloped land and is generally bound by undeveloped land to the north with Collier Avenue and Interstate 15 beyond, Steve's Towing Services to the east with Collier Avenue beyond, West Minthorn Street to the south with a corporation yard beyond, and West Minthorn Street to the west with the City Department of Public Social Services beyond.

The Project is proposing the construction and operation of two new buildings totaling 11,975 square feet to accommodate a construction rental facility with associated features. "Building A" is proposed to span 3,000 square feet and "Building B" would span 8,975 square feet. The Project also proposes to construct 24 parking spaces and a block wall along the southern and western Project Site boundary.

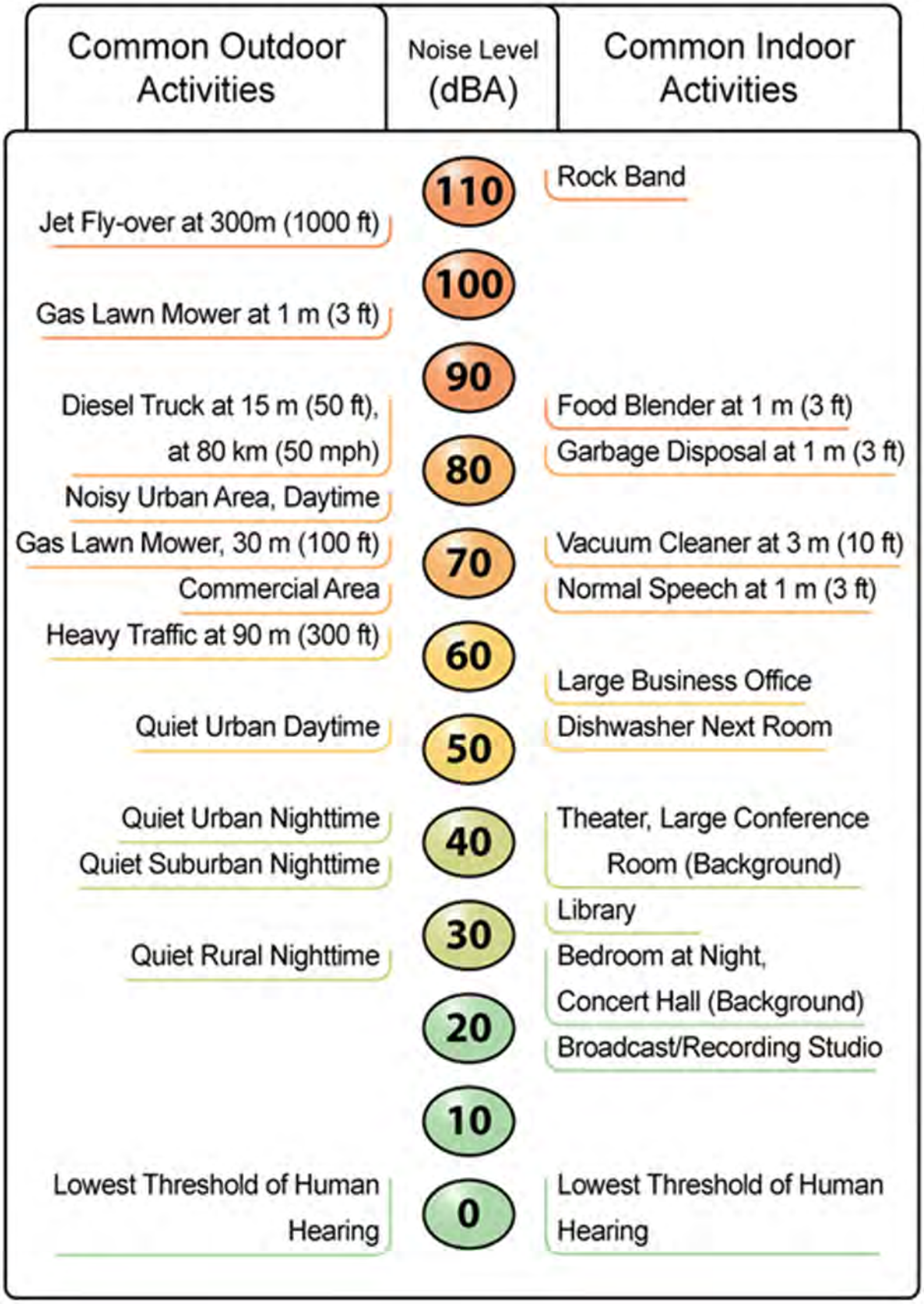
2.0 ENVIRONMENTAL NOISE AND GROUNDBORNE VIBRATION ANALYSIS

2.1 Fundamentals of Noise and Environmental Sound

2.1.1 Addition of Decibels

The decibel (dB) scale is logarithmic, not linear, and therefore sound levels cannot be added or subtracted through ordinary arithmetic. Two sound levels 10 dB apart differ in acoustic energy by a factor of 10. When the standard logarithmic decibel is A-weighted (dBA), an increase of 10 dBA is generally perceived as a doubling in loudness. For example, a 70-dBA sound is half as loud as an 80-dBA sound and twice as loud as a 60-dBA sound. When two identical sources are each producing sound of the same loudness, the resulting sound level at a given distance would be three dB higher than one source under the same conditions (Federal Transit Administration [FTA] 2018). For example, a 65-dB source of sound, such as a truck, when joined by another 65 dB source results in a sound amplitude of 68 dB, not 130 dB (i.e., doubling the source strength increases the sound pressure by three dB). Under the decibel scale, three sources of equal loudness together would produce an increase of five dB.

Typical noise levels associated with common noise sources are depicted in Figure 2-1.



Source: California Department of Transportation (Caltrans) 2020a

Figure 2-1. Common Noise Levels

2.1.2 Sound Propagation and Attenuation

Noise can be generated by a number of sources, including mobile sources such as automobiles, trucks and airplanes, and stationary sources such as construction sites, machinery, and industrial operations. Sound spreads (propagates) uniformly outward in a spherical pattern, and the sound level decreases (attenuates) at a rate of approximately six dB for each doubling of distance from a stationary or point source. Sound from a line source, such as a highway, propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of approximately three dB for each doubling of distance from a line source, such as a roadway, depending on ground surface characteristics (Federal Highway Administration [FHWA] 2011). No excess attenuation is assumed for hard surfaces like a parking lot or a body of water. Soft surfaces, such as soft dirt or grass, can absorb sound, so an excess ground-attenuation value of 1.5 dB per doubling of distance is normally assumed. For line sources, an overall attenuation rate of three dB per doubling of distance is assumed (FHWA 2011).

Noise levels may also be reduced by intervening structures; generally, a single row of detached buildings between the receptor and the noise source reduces the noise level by about five dBA (FHWA 2006), while a solid wall or berm generally reduces noise levels by 10 to 20 dBA (FHWA 2011). However, noise barriers or enclosures specifically designed to reduce site-specific construction noise can provide a sound reduction 35 dBA or greater (Western Electro-Acoustic Laboratory, Inc. 2000). To achieve the most potent noise-reducing effect, a noise enclosure/barrier must physically fit in the available space, must completely break the “line of sight” between the noise source and the receptors, must be free of degrading holes or gaps, and must not be flanked by nearby reflective surfaces. Noise barriers must be sizable enough to cover the entire noise source and extend lengthwise and vertically as far as feasibly possible to be most effective. The limiting factor for a noise barrier is not the component of noise transmitted through the material, but rather the amount of noise flanking around and over the barrier. In general, barriers contribute to decreasing noise levels only when the structure breaks the "line of sight" between the source and the receiver.

The manner in which older homes in California were constructed generally provides a reduction of exterior-to-interior noise levels of about 20 to 25 dBA with closed windows (Caltrans 2002). The exterior-to-interior reduction of newer residential units is generally 30 dBA or more (Harris Miller, Miller & Hanson Inc. 2006). Generally, in exterior noise environments ranging from 60 dBA Community Noise Equivalent Level (CNEL) to 65 dBA CNEL, interior noise levels can typically be maintained below 45 dBA, a typically residential interior noise standard, with the incorporation of an adequate forced air mechanical ventilation system in each residential building, and standard thermal-pane residential windows/doors with a minimum rating of Sound Transmission Class (STC) 28. (STC is an integer rating of how well a building partition attenuates airborne sound. In the U.S., it is widely used to rate interior partitions, ceilings, floors, doors, windows, and exterior wall configurations.) In exterior noise environments of 65 dBA CNEL or greater, a combination of forced-air mechanical ventilation and sound-rated construction methods is often required to meet the interior noise level limit. Attaining the necessary noise reduction from exterior to interior spaces is readily achievable in noise environments less than 75 dBA CNEL with proper wall construction techniques following California Building Code methods, the selections of proper windows and doors, and the incorporation of forced-air mechanical ventilation systems.

2.1.3 Noise Descriptors

The decibel scale alone does not adequately characterize how humans perceive noise. The dominant frequencies of a sound have a substantial effect on the human response to that sound. Several rating scales have been developed to analyze the adverse effect of community noise on people. Because environmental noise fluctuates over time, these scales consider that the effect of noise on people is largely dependent on the total acoustical energy content of the noise, as well as the time of day when the noise occurs. The L_{eq} is a measure of ambient noise, while the L_{dn} and CNEL (Community Noise Equivalent Level) are measures of community noise. Each is applicable to this analysis and defined in Table 2-1.

Table 2-1. Common Acoustical Descriptors

Descriptor	Definition
Decibel, dB	A unit describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure. The reference pressure for air is 20.
Sound Pressure Level	Sound pressure is the sound force per unit area, usually expressed in micropascals (or 20 micronewtons per square meter), where 1 pascal is the pressure resulting from a force of 1 newton exerted over an area of 1 square meter. The sound pressure level is expressed in decibels as 20 times the logarithm to the base 10 of the ratio between the pressures exerted by the sound to a reference sound pressure (e.g., 20 micropascals). Sound pressure level is the quantity that is directly measured by a sound level meter.
Frequency, Hz	The number of complete pressure fluctuations per second above and below atmospheric pressure. Normal human hearing is between 20 Hz and 20,000 Hz. Infrasonic sound are below 20 Hz and ultrasonic sounds are above 20,000 Hz.
A-Weighted Sound Level, dBA	The sound pressure level in decibels as measured on a sound level meter using the A weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise.
Equivalent Noise Level, L_{eq}	The average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.
L_{max}, L_{min}	The maximum and minimum A-weighted noise level during the measurement period.
L_{01}, L_{10}, L_{50}, L_{90}	The A-weighted noise levels that are exceeded 1%, 10%, 50%, and 90% of the time during the measurement period.
Day/Night Noise Level, L_{dn} or DNL	A 24-hour average L_{eq} with a 10 dBA "weighting" added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the nighttime. The logarithmic effect of these additions is that a 60 dBA 24-hour L_{eq} would result in a measurement of 66.4 dBA L_{dn}.
Community Noise Equivalent Level, CNEL	A 24-hour average L_{eq} with a 5 dBA "weighting" during the hours of 7:00 p.m. to 10:00 p.m. and a 10 dBA "weighting" added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the evening and nighttime, respectively. The logarithmic effect of these additions is that a 60 dBA 24-hour L_{eq} would result in a measurement of 66.7 dBA CNEL.
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
Decibel, dB	A unit describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure. The reference pressure for air is 20.

The A weighted decibel sound level scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. Because sound levels can vary markedly over a short period of time, a

method for describing either the average character of the sound or the statistical behavior of the variations must be utilized. Most commonly, environmental sounds are described in terms of an average level that has the same acoustical energy as the summation of all the time-varying events.

The scientific instrument used to measure noise is the sound level meter. Sound level meters can accurately measure environmental noise levels to within about ±1 dBA. Various computer models are used to predict environmental noise levels from sources, such as roadways and airports. The accuracy of the predicted models depends on the distance between the receptor and the noise source. Close to the noise source, the models are accurate to within about ±1 to 2 dBA.

2.1.4 Human Response to Noise

The human response to environmental noise is subjective and varies considerably from individual to individual. Noise in the community has often been cited as a health problem, not in terms of actual physiological damage, such as hearing impairment, but in terms of inhibiting general well-being and contributing to undue stress and annoyance. The health effects of noise in the community arise from interference with human activities, including sleep, speech, recreation, and tasks that demand concentration or coordination. Hearing loss can occur at the highest noise intensity levels.

Noise environments and consequences of human activities are usually well represented by median noise levels during the day or night or over a 24-hour period. Environmental noise levels are generally considered low when the CNEL is below 60 dBA, moderate in the 60 to 70 dBA range, and high above 70 dBA. Examples of low daytime levels are isolated, natural settings with noise levels as low as 20 dBA and quiet, suburban, residential streets with noise levels around 40 dBA. Noise levels above 45 dBA at night can disrupt sleep. Examples of moderate-level noise environments are urban residential or semi-commercial areas (typically 55 to 60 dBA) and commercial locations (typically 60 dBA). People may consider louder environments adverse, but most will accept the higher levels associated with noisier urban residential or residential-commercial areas (60 to 75 dBA) or dense urban or industrial areas (65 to 80 dBA). Regarding increases in A-weighted noise levels (dBA), the following relationships should be noted in understanding this analysis:

- Except in carefully controlled laboratory experiments, a change of 1 dBA cannot be perceived by humans.
- Outside of the laboratory, a 3-dBA change is considered a just-perceivable difference.
- A change in level of at least 5 dBA is required before any noticeable change in community response would be expected. An increase of 5 dBA is typically considered substantial.
- A 10-dBA change is subjectively heard as an approximate doubling in loudness and would almost certainly cause an adverse change in community response.

2.1.5 Effects of Noise on People

2.1.5.1 Hearing Loss

While physical damage to the ear from an intense noise impulse is rare, a degradation of auditory acuity can occur even within a community noise environment. Hearing loss occurs mainly due to chronic exposure to excessive noise but may be due to a single event such as an explosion. Natural hearing loss associated with aging may also be accelerated from chronic exposure to loud noise.

The Occupational Safety and Health Administration (OSHA) has a noise exposure standard that is set at the noise threshold where hearing loss may occur from long-term exposures. The maximum allowable level is 90 dBA averaged over eight hours. If the noise is above 90 dBA, the allowable exposure time is correspondingly shorter.

2.1.5.2 Annoyance

Attitude surveys are used for measuring the annoyance felt in a community for noises intruding into homes or affecting outdoor activity areas. In these surveys, it was determined that causes for annoyance include interference with speech, radio and television, house vibrations, and interference with sleep and rest. The L_{dn} as a measure of noise has been found to provide a valid correlation of noise level and the percentage of people annoyed. People have been asked to judge the annoyance caused by aircraft noise and ground transportation noise. There continues to be disagreement about the relative annoyance of these different sources.

2.2 Fundamentals of Environmental Groundborne Vibration

2.2.1 Vibration Sources and Characteristics

Sources of earthborne vibrations include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) or manmade causes (explosions, machinery, traffic, trains, construction equipment, etc.). Vibration sources may be continuous (e.g., factory machinery) or transient (e.g., explosions).

Ground vibration consists of rapidly fluctuating motions or waves with an average motion of zero. Several different methods are typically used to quantify vibration amplitude. One is the peak particle velocity (PPV); another is the root mean square (RMS) velocity. The PPV is defined as the maximum instantaneous positive or negative peak of the vibration wave. The RMS velocity is defined as the average of the squared amplitude of the signal. The PPV and RMS vibration velocity amplitudes are used to evaluate human response to vibration.

PPV is generally accepted as the most appropriate descriptor for evaluating the potential for building damage. For human response, however, an average vibration amplitude is more appropriate because it takes time for the human body to respond to the excitation (the human body responds to an average vibration amplitude, not a peak amplitude). Because the average particle velocity over time is zero, the RMS amplitude is typically used to assess human response. The RMS value is the average of the amplitude squared over time, typically a 1- sec. period (FTA 2018).

Table 2-2 displays the reactions of people and the effects on buildings produced by continuous vibration levels. The annoyance levels shown in the table should be interpreted with care since vibration may be found to be annoying at much lower levels than those listed, depending on the level of activity or the sensitivity of the individual. To sensitive individuals, vibrations approaching the threshold of perception can be annoying. Low-level vibrations frequently cause irritating secondary vibration, such as a slight rattling of windows, doors, or stacked dishes. The rattling sound can give rise to exaggerated vibration complaints, even though there is very little risk of actual structural damage. In high-noise environments, which are more prevalent where groundborne vibration approaches perceptible levels, this rattling phenomenon may also be produced by loud airborne environmental noise causing induced vibration in exterior doors and windows.

Ground vibration can be a concern in instances where buildings shake, and substantial rumblings occur. However, it is unusual for vibration from typical urban sources such as buses and heavy trucks to be perceptible. For instance, heavy-duty trucks generally generate groundborne vibration velocity levels of 0.006 PPV at 50 feet under typical circumstances, which as identified in Table 2-2 is considered very unlikely to cause damage to buildings of any type. Common sources for groundborne vibration are planes, trains, and construction activities such as earth-moving which requires the use of heavy-duty earth moving equipment.

Table 2-2. Human Reaction and Damage to Buildings for Continuous or Frequent Intermittent Vibration Levels

Peak Particle Velocity (inches/second)	Approximate Vibration Velocity Level (VdB)	Human Reaction	Effect on Buildings
0.006–0.019	64–74	Range of threshold of perception	Vibrations unlikely to cause damage of any type
0.08	87	Vibrations readily perceptible	Recommended upper level to which ruins and ancient monuments should be subjected
0.1	92	Level at which continuous vibrations may begin to annoy people, particularly those involved in vibration sensitive activities	Virtually no risk of architectural damage to normal buildings
0.2	94	Vibrations may begin to annoy people in buildings	Threshold at which there is a risk of architectural damage to normal dwellings
0.4–0.6	98–104	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Architectural damage and possibly minor structural damage

Source: Caltrans 2020b

3.0 EXISTING ENVIRONMENTAL NOISE SETTING

3.1 Noise Sensitive Land Uses

Noise-sensitive land uses are generally considered to include those uses where noise exposure could result in health-related risks to individuals, as well as places where quiet is an essential element of their intended purpose. Residential dwellings are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels. Additional land uses such as hospitals, historic sites, cemeteries, and certain recreation areas are considered sensitive to increases in exterior noise levels. Schools, churches, hotels, libraries, and other places where low interior noise levels are essential are also considered noise-sensitive land uses.

The nearest existing noise-sensitive land uses to the Project Site is a residential property located approximately 700 feet distant from the northern Project Site boundary, fronting Collier Avenue.

3.2 Existing Ambient Noise Environment

The most common and significant source of noise in the City of Lake Elsinore is mobile noise generated by transportation-related sources. Other sources of noise are the various land uses (i.e., residential and commercial) that generate stationary-source noise. The Project Site is currently undeveloped and bound by Collier Avenue and undeveloped land to the north, Steve's Towing Services to the east, West Minthorn Street and a corporation yard to the south, and West Minthorn Street the City Department of Public Social Services to the west. As shown in Table 3-1 below, the ambient recorded daytime noise levels range from 54.5 to 68.6 dBA L_{eq} near the Project Site.

Interstate 15 (I-15) is located approximately 250 feet east of the Project Site and is a major noise source within the Project Area. Per the California Department of Transportation (Caltrans) traffic counts, the segment of I-15 traversing the Project Area (I-15 between North of Main and State Route 74) accommodates an average daily traffic count of 125,000 vehicles (Caltrans 2021). According to the FHWA Highway Traffic Noise Prediction Model (FHWA-RD-77-108), which calculates the average noise level at specific locations based on traffic volumes, average speeds, roadway geometry, and site environmental conditions; roadway traffic on I-15 generates an ambient noise level of 78.0 dBA L_{dn} at 100 feet from the centerline. Vehicular noise varies with the volume, speed, and type of traffic. Slower traffic produces less noise than fast-moving traffic. Trucks typically generate more noise than cars. Infrequent or intermittent noise also is associated with vehicles including sirens, vehicle alarms, slamming of doors, garbage and construction vehicle activity, and honking of horns. These noises add to urban noise and are regulated by a variety of agencies.

3.2.1 Existing Ambient Noise Measurements

The Project Site is currently undeveloped land surrounded mainly by industrial and commercial land uses. In order to quantify existing ambient noise levels in the Project Area, ECORP Consulting, Inc. conducted three short-term noise measurements on the afternoon of February 3, 2022. These short-term noise measurements are representative of typical existing noise exposure within and immediately adjacent to the Project Site during the daytime (see Attachment A). The 15-minute measurements were taken

between 12:05 p.m. and 1:06 p.m. The average noise levels of noise measured at each location are listed in Table 3-1.

Table 3-1. Existing (Baseline) Noise Measurements

Location Number	Location	L_{eq} dBA	L_{min} dBA	L_{max} dBA	Time
1	North shoulder of Collier Avenue adjacent to Project Site.	**67.6 dBA**	59.0 dBA	79.3 dBA	12:50 p.m. – 1:06 p.m.
2	Along walking trail south of storage facility off West Minthorn Street.	**54.5 dBA**	46.1 dBA	64.3 dBA	12:28 p.m. – 12:43 p.m.
3	Along Chaney Avenue.	**68.6 dBA**	49.2 dBA	92.9 dBA	12:05 p.m. – 12:20 p.m.

Source: Measurements were taken by ECORP with a Larson Davis SoundExpert LxT precision sound level meter, which satisfies the American National Standards Institute for general environmental noise measurement instrumentation. Prior to the measurements, the SoundExpert LxT sound level meter was calibrated according to manufacturer specifications with a Larson Davis CAL200 Class I Calibrator. See Attachment A for noise measurement outputs.

Notes: L_{eq} is the average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. L_{min} is the minimum noise level during the measurement period and L_{max} is the maximum noise level during the measurement period.

As shown in Table 3-1, the ambient recorded daytime noise levels range from 54.5 to 68.6 dBA L_{eq} over the course of the three short-term noise measurements taken in the Project vicinity. The most common noise in the Project vicinity is produced by automotive vehicles (e.g., cars, trucks, buses, motorcycles) on area roadways.

4.0 REGULATORY FRAMEWORK

4.1 Federal

4.1.1 Occupational Safety and Health Act of 1970

OSHA regulates onsite noise levels and protects workers from occupational noise exposure. To protect hearing, worker noise exposure is limited to 90 decibels with A-weighting (dBA) over an eight-hour work shift (29 Code of Regulations 1910.95). Employers are required to develop a hearing conservation program when employees are exposed to noise levels exceeding 85 dBA. These programs include provision of hearing protection devices and testing employees for hearing loss on a periodic basis.

4.1.2 U.S. Environmental Protection Agency Office of Noise Abatement and Control

The U.S. Environmental Protection Agency (EPA) Office of Noise Abatement and Control was originally established to coordinate Federal noise control activities. In 1981, USEPA administrators determined that subjective issues such as noise would be better addressed at more local levels of government. Consequently, in 1982 responsibilities for regulating noise control policies were transferred to State and local governments. However, documents and research completed by the EPA Office of Noise Abatement and Control continue to provide value in the analysis of noise effects.

4.1.3 National Institute of Occupational Safety and Health

A division of the US Department of Health and Human Services, the National Institute for Occupational Safety and Health (NIOSH) has established a construction-related noise level threshold as identified in the Criteria for a Recommended Standard: Occupational Noise Exposure prepared in 1998. NIOSH identifies a noise level threshold based on the duration of exposure to the source. The NIOSH construction-related noise level threshold starts at 85 dBA for more than 8 hours per day; for every 3-dBA increase, the exposure time is cut in half. This reduction results in noise level thresholds of 88 dBA for more than 4 hours per day, 92 dBA for more than 1 hour per day, 96 dBA for more than 30 minutes per day, and up to 100 dBA for more than 15 minutes per day. The intention of these thresholds is to protect people from hearing losses resulting from occupational noise exposure.

4.2 State

4.2.1 State of California General Plan Guidelines

The State of California regulates vehicular and freeway noise affecting classrooms, sets standards for sound transmission and occupational noise control, and identifies noise insulation standards and airport noise/land-use compatibility criteria. The State of California General Plan Guidelines (State of California 2003), published by the Governor's Office of Planning and Research (OPR), also provides guidance for the acceptability of projects within specific CNEL/L_{dn} contours. The guidelines also present adjustment factors that may be used in order to arrive at noise acceptability standards that reflect the noise control goals of the community, the particular community's sensitivity to noise, and the community's assessment of the relative importance of noise pollution.

4.2.2 State Office of Planning and Research Noise Element Guidelines

The State OPR Noise Element Guidelines include recommended exterior and interior noise level standards for local jurisdictions to identify and prevent the creation of incompatible land uses due to noise. The Noise Element Guidelines contain a land use compatibility table that describes the compatibility of various land uses with a range of environmental noise levels in terms of the CNEL.

4.2.3 California Department of Transportation

In 2020, the California Department of Transportation (Caltrans) published the Transportation and Construction Vibration Manual (Caltrans 2020b). The manual provides general guidance on vibration issues associated with the construction and operation of projects concerning human perception and structural damage. Table 2 presents recommendations for levels of vibration that could result in damage to structures exposed to continuous vibration.

4.3 Local

4.3.1 City of Lake Elsinore General Plan

The Public Safety and Welfare Chapter of the General Plan provides policy direction for minimizing noise impacts on the community and for coordinating with surrounding jurisdictions and other entities regarding noise control. By identifying noise-sensitive land uses and establishing compatibility guidelines for land use and noises, noise considerations will influence the general distribution, location, and intensity of future land uses. The result is that effective land use planning and mitigation can alleviate the majority of noise problems.

The Public Safety and Welfare Chapter contains goals and policies that are intended to achieve the vision of the Public Safety and Welfare Chapter and guide the City's efforts to protect noise sensitive land uses and support the health and serenity of its citizens. The General Plan goals and policies applicable to the Proposed Project are listed below.

- **Goal 7- Maintain and environment for all City residents and visitors free of unhealthy, obtrusive, or otherwise excessive noise.**
    - *Policy 7.1:* Apply the noise standards set forth in the Lake Elsinore Noise and Land Use Compatibility Matrix and Interior and Exterior Noise Standards when considering all new development and redevelopment proposed within the City.

      [*The Proposed Project would be considered "Compatible" at any level below 70 dB L_{dn} and considered "Normally Compatible" at any level 70 dB L_{dn} and above.*]
    - *Policy 7.2:* Require that mixed-use structures and areas being designated to prevent transfer of noise and vibration from commercial areas to residential areas.

4.3.2 City of Lake Elsinore Municipal Code

The City regulations with respect to noise are also included in Chapter 17.176, *Noise Control*, of the City's Municipal Code. Section 17.176.060, *Exterior Noise Limits*, includes exterior noise levels for the receiving land uses and are presented in Table 4-1.

Table 4-1. Exterior Noise Limits

Receiving Land Use Category	Time Period	Noise Level (dBA)
Single Family Residential	10:00 p.m. – 7:00 a.m. 7:00 a.m. – 10:00 p.m.	40 50
Multiple Dwelling Residential	10:00 p.m. – 7:00 a.m. 7:00 a.m. – 10:00 p.m.	45 50
Limited Commercial and Office	10:00 p.m. – 7:00 a.m. 7:00 a.m. – 10:00 p.m.	55 60
General Commercial	10:00 p.m. – 7:00 a.m. 7:00 a.m. – 10:00 p.m.	60 65
Light Industrial	Anytime	70
Heavy Industrial	Anytime	75

Source: City of Lake Elsinore Municipal Code 2021

Additionally, the City's regulations pertaining to construction are included in Section 17.176.080 and presented in Table 4-2.

Table 4-2. Construction Noise Standards			
Residential Properties Mobile Equipment			
Time Period	**Single-Family Residential**	**Multifamily Residential**	**Semi-Residential/Commercial**
7:00 a.m. – 7:00 p.m. (except Sundays and Legal Holidays)	75 dBA	80 dBA	85 dBA
7:00 p.m. – 7:00 a.m. (including Sundays and Legal Holidays)	60 dBA	65 dBA	70 dBA
Residential Properties Stationary Equipment			
Time Period	**Single-Family Residential**	**Multifamily Residential**	**Semi-Residential/Commercial**
7:00 a.m. – 7:00 p.m. (except Sundays and Legal Holidays)	60 dBA	65 dBA	70 dBA
7:00 p.m. – 7:00 a.m. (including Sundays and Legal Holidays)	50 dBA	55 dBA	60 dBA
Commercial Properties Mobile Equipment			
Time Period	**Maximum Noise Level**		
7:00 a.m. – 7:00 p.m. (including Sundays and Legal Holidays)	85 dBA		
Commercial Properties Stationary Equipment			
7:00 a.m. – 7:00 p.m. (including Sundays and Legal Holidays)	75 dBA		

Source: City of Lake Elsinore Municipal Code 2021

5.0 IMPACT ASSESSMENT

5.1 Thresholds of Significance

The impact analysis provided below is based on the following California Environmental Quality Act Guidelines Appendix G thresholds of significance. The Project would result in a significant noise-related impact if it would produce:

1) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

2) Generation of excessive groundborne vibration or groundborne noise levels.

3) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels.

For purposes of this analysis, the City noise standards were used for evaluation of Project-related noise impacts.

5.2 Methodology

This analysis of the existing and future noise environments is based on noise-prediction modeling. In order to estimate the construction noise levels that may occur at the nearest noise-sensitive receptors in the Project vicinity, predicted construction noise levels were calculated utilizing the FHWA's Roadway Construction Noise Model (2006). For the purposes of a conservative analysis, the estimations of the Roadway Construction Noise Model account for all pieces of equipment being used simultaneously. Groundborne vibration levels associated with construction-related activities for the Project were evaluated utilizing typical groundborne vibration levels associated with construction equipment, obtained from the Caltrans guidelines set forth in Table 2-2 above. Potential groundborne vibration impacts related to structural damage and human annoyance were evaluated, taking into account the distance from construction activities to nearby structures.

An assessment of the Project's impact on the existing noise environment was completed by conducting existing ambient baseline noise measurements around the Project Site with the use of a Larson Davis SoundExpert LxT precision sound level meter, which satisfies the American National Standards Institute standard for general environmental noise measurement instrumentation. Prior to the measurements, the SoundExpert LxT sound level meter was calibrated according to manufacturer specifications with a Larson Davis CAL200 Class I Calibrator. Additionally, onsite stationary source noise levels have been calculated with the SoundPLAN 3D noise model, which predicts noise propagation from a noise source based on the location, noise level, and frequency spectra of the noise sources as well as the geometry and reflective properties of the local terrain, buildings and barriers. The size, location and noise producing level of each source is discussed in detail below. The Project's contribution to roadway noise levels is discussed qualitatively with operational daily trips counts provided by K2 Traffic Engineering, Inc. (2022).

5.3 Impact Analysis

5.3.1 Project Construction Noise

Would the Project Result in Short-Term Construction-Generated Noise in Excess of Standards?

Onsite Construction Noise

Construction noise associated with the Proposed Project would be temporary and would vary depending on the nature of the activities being performed. Noise generated would primarily be associated with the operation of off-road equipment for onsite construction activities as well as construction vehicle traffic on area roadways. Construction noise typically occurs intermittently and varies depending on the nature or phase of construction (e.g., land clearing, grading, excavation, building construction, paving). Noise generated by construction equipment, including earth movers, material handlers, and portable generators, can reach high levels. Typical operating cycles for these types of construction equipment may involve one or two minutes of full power operation followed by three to four minutes at lower power settings. Other primary sources of acoustical disturbance would be random incidents, which would last less than one minute (such as dropping large pieces of equipment or the hydraulic movement of machinery lifts). During construction, exterior noise levels could negatively affect sensitive land uses in the vicinity of the construction site.

As previously described in Table 4-2, the City's Municipal Code has mobile and stationary construction noise standards for residential and commercial land uses. It is noted that in the case of the Proposed Project, all phases of construction would employ stationary equipment only, as the city defines mobile equipment standards as nonscheduled, intermittent, short-term operations (less than 10 days) while defining stationary equipment as repetitively scheduled and relatively long-term operation (period of 10 days or more). The Project would require use of stationary equipment through all phases. The nearest residential land use is located to the northwest of the Project Site boundary, fronting Collier Avenue. The nearest commercial land use is Steve's Towing located directly east of the Project Site. It is acknowledged that the majority of construction equipment is not situated at any one location during construction activities, but rather spread throughout the Project Site and at various distances from sensitive receptors. Therefore, this analysis employs the Federal Transit Administration (FTA) guidance for calculating construction noise, which recommends measuring construction noise produced by all construction equipment operating simultaneously from the center of the Project Site (FTA 2018). The anticipated short-term construction noise levels generated for the necessary equipment during each phase for the nearest residential and commercial land uses are summarized in Table 5-1.

Table 5-1. Construction Average (dBA) Noise Levels at Nearest Receptor- Project Site					
Equipment	**Estimated Exterior Construction Noise Level at Nearest Receptor**	**Construction Noise Standards (dBA L_{eq})**		**Exceed Standards?**	
		Daytime	**Nighttime**	**Daytime**	**Nighttime**
Residential Land Use (approximately 820 feet from Project Site Center)					
Site Preparation	**59.5 dBA**	*60 dBA*	*50 dBA*	**No**	**Yes**
Grading	**59.3 dBA**	*60 dBA*	*50 dBA*	**No**	**Yes**
Building Construction, Paving and Painting	**59.6 dBA**	*60 dBA*	*50 dBA*	**No**	**Yes**
Commercial Land Use (approximately 175 feet from Project Site center)					
Site Preparation	**72.9 dBA**	*75 dBA*	-	**No**	**N/A**
Grading	**72.8 dBA**	*75 dBA*	-	**No**	**N/A**
Building Construction, Paving and Painting	**73.1 dBA**	*75 dBA*	-	**No**	**N/A**

Source: Construction noise levels were calculated by ECORP Consulting using the FHWA Roadway Noise Construction Model (FHWA 2006). Refer to Attachment C for Model Data Outputs.

Notes: Construction equipment used during construction derived from the California Emissions Estimator Model (CalEEMod). CalEEMod is designed to calculate air pollutant emissions from construction activity and contains default construction equipment and usage parameters for typical construction projects based on several construction surveys conducted in order to identify such parameters. Consistent with FTA recommendations for calculating construction noise, construction noise was measured from the center of the Project Site (FTA 2018), which is 820 feet from the nearest residential land use and 175 feet from the nearest commercial land use. Construction is considered to be a stationary equipment source, and therefore only stationary equipment thresholds apply. Construction, paving and painting are assumed to occur simultaneously.

L_{eq} = The equivalent energy noise level, is the average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.

As shown in Table 5-1, construction activities would not exceed the City's daytime residential standard at the nearest residences, or the City standard for commercial land uses. However, Project construction would exceed the City's nighttime standard for residential uses. As such the following mitigation is recommended.

Mitigation Measure

NOI-1: Construction Noise-Reducing Measures

The Project improvement and building plans will include the following requirements for construction activities:

- Project construction shall be limited to the daytime hours of 7:00 a.m. to 7:00 p.m. Monday through Saturday. All construction on Sundays and legal holidays shall be prohibited.

Implementation of mitigation measure NOI-1 would ensure that City noise standards are not surpassed during Project construction.

Offsite Construction Worker Traffic Noise

Project construction would result in additional traffic on adjacent roadways over the period that construction occurs. According to the California Emissions Estimator Model, which is used to predict the number of worker commute trips, the maximum number of construction workers traveling to and from the Project Site during a single construction phase would not be expected to exceed 23 trips in total (21 construction worker trips and 2 vendor trips). According to the California Department of Transportation (Caltrans) *Technical Noise Supplement to the Traffic Noise Analysis Protocol* (2013), doubling of traffic on a roadway is required to result in an increase of 3 dB (outside of the laboratory, a 3-dBA change is considered a just-perceivable difference). The Project Site is mainly accessible from Collier Avenue. According to the City of Lake Elsinore General Plan Draft Environmental Impact Report (2011b), Collier Avenue is a Major Roadway within the City and has a traffic volume capacity of 34,100 average daily trips. Thus, the Project construction would not result in a doubling of traffic, and therefore its contribution to existing traffic noise would not be perceptible. Additionally, it is noted that construction is temporary, and these trips would cease upon completion of the Project.

5.3.2 Project Operational Noise

Would the Project Result in a Substantial Permanent Increase in Ambient Noise Levels in Excess of City Standards During Operations?

As previously described, noise-sensitive land uses are locations where people reside or where the presence of unwanted sound could adversely affect the use of the land. Residences, schools, hospitals, guest lodging, libraries, and some passive recreation areas would each be considered noise-sensitive and may warrant unique measures for protection from intruding noise.

Project Operations

As previously described, noise-sensitive land uses are locations where people reside or where the presence of unwanted sound could adversely affect the use of the land. Residences, schools, hospitals, guest lodging, libraries, and some passive recreation areas would each be considered noise-sensitive and may warrant unique measures for protection from intruding noise. The nearest existing noise-sensitive land uses to the Project Site is a residential property located approximately 700 feet distant from the northern Project Site boundary, fronting Collier Avenue.

Operational noise sources associated with the Proposed Project include mobile and stationary (i.e., people talking, car door opening and closing, the loading of equipment, stereo music and internal circulation) sources.

Operational Offsite Traffic Noise

Project operation would also result in additional traffic on adjacent roadways, thereby increasing vehicular noise in the Project vicinity. The Project Site is mainly accessible from Collier Avenue. According to the General Plan Environmental Impact Report (2011b), Collier Avenue is a Major Roadway within the City and has a traffic volume capacity of 34,100 average daily trips. According to the Caltrans *Technical Noise Supplement to the Traffic Noise Analysis Protocol* (2013), doubling of traffic on a roadway would result in an increase of 3 dB (a barely perceptible increase). Per the Trip Generation and VMT Screening Memo prepared by K2 Traffic Engineering, Inc. (2022), the Project is anticipated to generate 119 average daily trips. The Project would not result in a doubling of traffic, thus its contribution to existing traffic noise would not be perceptible.

Operational Onsite Stationary Noise

The Project is proposing the development of the Site for an equipment rental facility. The main stationary operational noise associated with the Project would be activities occurring on the Project Site. Such activity would include internal circulation/ parking lot activity (i.e., people talking, car door opening and closing, the loading of equipment, stereo music and internal circulation). On-site Project operations have been calculated using the SoundPLAN 3D noise model. The results of this model can be found in Attachment D. Table 5-2 shows the predicted Project noise levels at four locations in the Project vicinity, as predicted by SoundPLAN. These four locations represent the three nearest commercial/ industrial land uses and nearest residence to the Project Site. Additionally, a noise contour graphic (see Figure 5-1) has been prepared to provide a visual depiction of the predicted noise levels in the Project vicinity from Project operations.

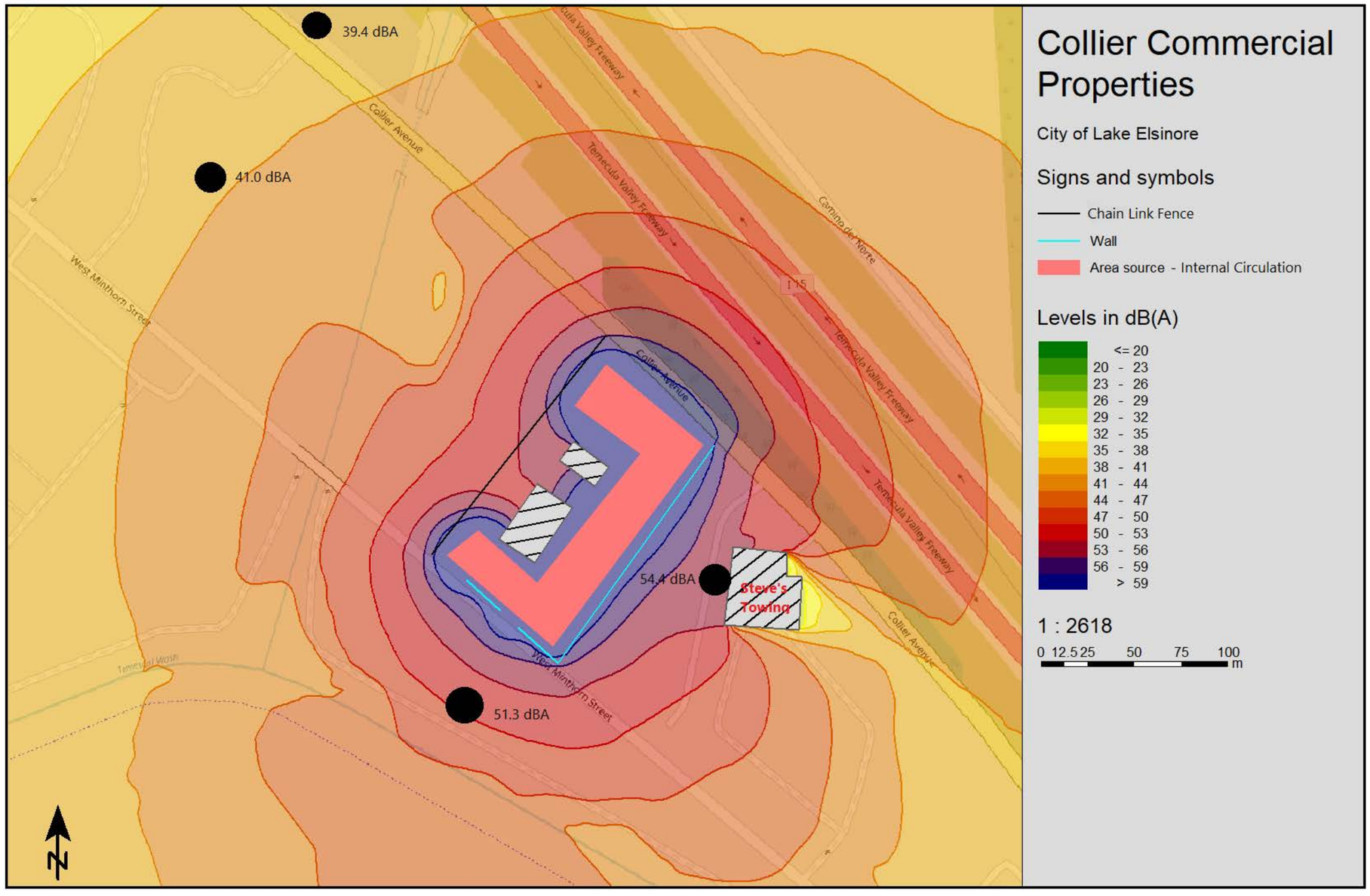
Table 5-2. Modeled Operational Noise Levels

Location	Land Use	Modeled Operational Noise Attributed to Project (L_{eq} dBA)	City Noise Standard Day/Night (L_{eq} dBA)
Residential property north of the Project Site.	Residential	39.4 dBA	*50 dBA / 40 dBA*
Steve's Towing (south of Project Site)	Commercial	54.4 dBA	*65 dBA / 60 dBA*
RightWay Temporary Power (north of Project Site)	Commercial	41.0 dBA	*65 dBA / 60 dBA*
DC Pantry (across West Minthorn Street)	Commercial	51.3 dBA	*65 dBA / 60 dBA*

Source: Stationary source noise levels were modeled by ECORP Consulting using SoundPLAN 3D noise model. Refer to Attachment D for noise modeling assumptions and results.

As shown in Table 5-2, the modeled operational noise levels as a result of operational activities on the Project Site would not exceed the daytime or nighttime noise standards for the commercial/industrial or residential land uses as presented in Table 4-2. Additionally, as shown Table 3-1 above, which depicts

existing average noise levels of noise measured in the Project vicinity, the Project Area currently experiences noise levels above those modeled as a result of Project operations. Furthermore, it is noted that the modeled noise levels identified are a conservative scenario. Not all events taking place on the Project Site would generate as much noise as predicted.



Map Date: 4/25/2022
Photo (or Base) Source: *SoundPLAN*

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Figure 5-1. Modeled Operational Noise Levels

2022-020

5.3.3 Project Groundborne Vibration

Would the Project Expose Structures to Substantial Groundborne Vibration During Construction?

Excessive groundborne vibration impacts result from continuously occurring vibration levels. Increases in groundborne vibration levels attributable to the Project would be primarily associated with short-term construction-related activities. Construction on the Project Site would have the potential to result in varying degrees of temporary groundborne vibration, depending on the specific construction equipment used and the operations involved. Ground vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance.

Construction-related ground vibration is normally associated with impact equipment such as pile drivers, jackhammers, and the operation of some heavy-duty construction equipment, such as dozers and trucks. It is noted that pile drivers would not be necessary during Project construction. Vibration decreases rapidly with distance, and it is acknowledged that construction activities would occur throughout the Project Site and would not be concentrated at the point closest to sensitive receptors. Groundborne vibration levels associated with standard construction equipment at 25 feet distant are summarized in Table 5-3.

Table 5-3. Representative Vibration Source Levels for Construction Equipment

Equipment Type	Peak Particle Velocity at 25 Feet (inches per second)
Large Bulldozer	0.089
Caisson Drilling	0.089
Loaded Trucks	0.076
Hoe Ram	0.089
Jackhammer	0.035
Small Bulldozer/Tractor	0.003
Vibratory Roller	0.210

Source: FTA 2018; Caltrans 2020b

The City does not have a numeric threshold associated with construction vibrations. However, a discussion of construction vibration is included for full disclosure purposes. For comparison purposes, the Caltrans (2020b) recommended standard of 0.2 inches per second PPV with respect to the prevention of structural damage for older residential buildings is used as a threshold. This is also the level at which vibrations may begin to annoy people in buildings. Consistent with FTA recommendations for calculating vibration generated from construction equipment, construction vibration was measured from the center of the Project Site (FTA 2018). The nearest structure of concern to the construction site is Steve's Towing located approximately 150 feet south of the Project Site center.

Based on the representative vibration levels presented for various construction equipment types in Table 5-3 and the construction vibration assessment methodology published by the FTA (2018), it is possible to estimate the potential Project construction vibration levels. The FTA provides the following equation:

$$[PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}].$$

Table 5-4 presents the expected Project related vibration levels at a distance of 150 feet.

Table 5-4. Onsite Construction Vibration Levels at 150 Feet

Receiver PPV Levels (in/sec)[1]					Peak Vibration	Threshold	Exceed Threshold
Large Bulldozer, Caisson Drilling, & Hoe Ram	Loaded Trucks	Jackhammer	Small Bulldozer	Vibratory Roller			
0.0060	0.0051	0.0023	0.0002	0.0142	**0.0142**	0.2	**No**

Notes: [1]Based on the Vibration Source Levels of Construction Equipment included on Table 5-3 (FTA 2018). Distance to the nearest structure of concern is approximately 150 feet measured from Project Site center.

As shown in Table 5-4, vibration as a result of onsite construction activities on the Project Site would not exceed 0.2 PPV at the nearest structure. Thus, onsite Project construction would not exceed the recommended threshold.

Would the Project Expose Structures to Substantial Groundborne Vibration During Operations?

Project operations would not include the use of any stationary equipment that would result in excessive vibration levels. Therefore, the Project would not result in groundborne vibration impacts during operations.

5.3.4 Excess Airport Noise

Would the Project Expose People Residing or Working in the Project area to Excessive Airport Noise?

The Project Site is located approximately 8.35 miles northeast of the Perris Valley Airport-L65. According to the City of Perris General Plan Noise Element (2016), the airport is a center for skydiving. Aircraft traffic at the airport typically consist of Twin Otter Turbo Prop, 20-passenger planes equipped with jet engines and propellers. Due to the limited activities occurring at the airport, the lack of commercial flights and distance of more than three miles from the airport to the Site, it can be assumed that those working on the Project Site would not be negatively impacted by airport operations.

6.0 REFERENCES

Caltrans (California Department of Transportation). 2021. Traffic Census Program 2020 Traffic Counts.

_____. 2020a. IS/EA Annotated Outline. http://www.dot.ca.gov/ser/vol1/sec4/ch31ea/chap31ea.htm.

_____. 2020b. Transportation and Construction Vibration Guidance Manual.

_____. 2013. Technical Noise Supplement to the Traffic Noise Analysis Protocol.

_____. 2002. California Airport Land Use Planning Handbook.

FHWA (Federal Highway Administration). 2011. Effective Noise Control During Nighttime Construction. Available online at: http://ops.fhwa.dot.gov/wz/workshops/accessible/schexnayder_paper.htm.

_____. 2006. Roadway Construction Noise Model.

FTA (Federal Transit Administration. 2018. Transit Noise and Vibration Impact Assessment.

Harris Miller, Miller & Hanson Inc.. 2006. Transit Noise and Vibration Impact Assessment, Final Report.

K2 Traffic Engineering, Inc. 2022. Trip Generation and VMT Screening Memo: Construction Equipment Rental Facility 29400 Enterprise Way, Lake Elsinore.

Lake Elsinore, City of. 2021. City of Lake Elsinore Municipal Code.

_____. 2011a. City of Lake Elsinore General Plan.

_____. 2011b. City of Lake Elsinore General Plan Draft Environmental Impact Report.

OPR (Office of Planning and Research). 2003. State of California General Plan Guidelines.

Perris, City of. 2016. City of Perris General Plan Noise Element.

Western Electro-Acoustic Laboratory, Inc. 2000. Sound Transmission Sound Test Laboratory Report No. TL 96-186.

LIST OF ATTACHMENTS

Attachment A - Baseline (Existing) Noise Measurements – Project Vicinity

Attachment B – Highway Noise Prediction Model (FHWA-RD-77-108) Outputs – Existing Traffic Noise

Attachment C – Federal Highway Administration Roadway Construction Noise Model Outputs – Project Construction

Attachment D- SoundPLAN Outputs – Onsite Project Noise

ATTACHMENT A

Baseline (Existing) Noise Measurements –Project Vicinity

Site Number: 1			
Recorded By: Lindsay Liegler			
Job Number: 2022-020			
Date: 2/3/2022			
Time: 12:50 p.m. – 1:06 p.m.			
Location: North shoulder of Collier Avenue adjacent to Project Site.			
Source of Peak Noise: Vehicles on Collier Avenue and I-15.			
Noise Data			
Leq (dB)	Lmin (dB)	Lmax (dB)	Peak (dB)
67.6	59.0	79.3	103.2

Equipment						
Category	Type	Vendor	Model	Serial No.	Cert. Date	Note
Sound	Sound Level Meter	Larson Davis	LxT SE	0006133	02/24/2021	
	Microphone	Larson Davis	377B02	315201	02/24/2021	
	Preamp	Larson Davis	PRMLxT1L	069947	02/24/2021	
	Calibrator	Larson Davis	CAL200	17325	02/25/2021	

Weather Data			
Est.	Duration: 15 min.		Sky: Clear
	Note: dBA Offset = 0.14		Sensor Height (ft): 3.5
	Wind Ave Speed (mph)	Temperature (degrees Fahrenheit)	Barometer Pressure (hPa)
	8	61	30.20

Photo of Measurement Location



Measurement Report

Report Summary

Meter's File Name	LxT_Data.097.s	Computer's File Name	LxT_0006133-20220203 125049-LxT_Data.097.ldbin
Meter	LxT1 0006133		
Firmware	2.404		
User		Location	
Job Description			
Note			
Start Time	2022-02-03 12:50:49	Duration	0:15:31.0
End Time	2022-02-03 13:06:20	Run Time	0:15:31.0
Pause Time	0:00:00.0		

Results

Overall Metrics

LA_{eq}	67.6 dB		
LAE	97.3 dB	SEA	--- dB
EA	592.1 µPa²h		
EA8	18.3 mPa²h		
EA40	91.6 mPa²h		
LZS_{peak}	103.2 dB	2022-02-03 13:00:07	
LAS_{max}	79.3 dB	2022-02-03 13:06:03	
LAS_{min}	59.0 dB	2022-02-03 12:58:25	
LA_{eq}	67.6 dB		
LC_{eq}	76.8 dB	LC_{eq} - LA_{eq}	9.3 dB
LAI_{eq}	68.6 dB	LAI_{eq} - LA_{eq}	1.0 dB

Exceedances

	Count	Duration
LAS > 85.0 dB	0	0:00:00.0
LAS > 115.0 dB	0	0:00:00.0
LZSpeak > 135.0 dB	0	0:00:00.0
LZSpeak > 137.0 dB	0	0:00:00.0
LZSpeak > 140.0 dB	0	0:00:00.0

Community Noise

LDN	LDay	LNight
67.6 dB	67.6 dB	0.0 dB

LDEN	LDay	LEve	LNight
67.6 dB	67.6 dB	--- dB	--- dB

Any Data

	A		C		Z	
	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L_{eq}	67.6 dB		--- dB		--- dB	
$Ls_{(max)}$	79.3 dB	2022-02-03 13:06:03	--- dB		--- dB	
$LS_{(min)}$	59.0 dB	2022-02-03 12:58:25	--- dB		--- dB	
$L_{Peak(max)}$	--- dB		--- dB		103.2 dB	2022-02-03 13:00:07

Overloads

Count	Duration
0	0:00:00.0

Statistics

LAS 5.0	70.7 dB
LAS 10.0	69.7 dB
LAS 33.3	67.9 dB
LAS 50.0	66.9 dB
LAS 66.6	65.9 dB
LAS 90.0	63.8 dB

Site Number: 2			
Recorded By: Lindsay Liegler			
Job Number: 2022-020			
Date: 2/3/2022			
Time: 12:28 p.m. – 12:43 p.m.			
Location: Along walking trail south of storage facility off West Minthorn Street.			
Source of Peak Noise: Vehicles on 1-15.			
Noise Data			
Leq (dB)	Lmin (dB)	Lmax (dB)	Peak (dB)
54.5	46.1	64.3	97.4

Equipment						
Category	Type	Vendor	Model	Serial No.	Cert. Date	Note
Sound	Sound Level Meter	Larson Davis	LxT SE	0006133	02/24/2021	
	Microphone	Larson Davis	377B02	315201	02/24/2021	
	Preamp	Larson Davis	PRMLxT1L	069947	02/24/2021	
	Calibrator	Larson Davis	CAL200	17325	02/25/2021	

Weather Data			
Est.	Duration: 15 min.		Sky: Clear
	Note: dBA Offset = 0.14		Sensor Height (ft): 3.5
	Wind Ave Speed (mph)	Temperature (degrees Fahrenheit)	Barometer Pressure (hPa)
	8	61	30.20

Photo of Measurement Location



Measurement Report

Report Summary

Meter's File Name	LxT_Data.096.s	Computer's File Name	LxT_0006133-20220203 122806-LxT_Data.096.ldbin
Meter	LxT1 0006133		
Firmware	2.404		
User		Location	
Job Description			
Note			
Start Time	2022-02-03 12:28:06	Duration	0:15:00.0
End Time	2022-02-03 12:43:06	Run Time	0:15:00.0
Pause Time	0:00:00.0		

Results

Overall Metrics

LA_{eq}	54.5 dB		
LAE	84.0 dB	SEA	--- dB
EA	28.0 µPa²h		
EA8	894.6 µPa²h		
EA40	4.5 mPa²h		
LZS_{peak}	97.4 dB	2022-02-03 12:28:52	
LAS_{max}	64.3 dB	2022-02-03 12:37:02	
LAS_{min}	46.1 dB	2022-02-03 12:31:01	
LA_{eq}	54.5 dB		
LC_{eq}	65.4 dB	LC_{eq} - LA_{eq}	10.9 dB
LAI_{eq}	57.4 dB	LAI_{eq} - LA_{eq}	3.0 dB

Exceedances

	Count	Duration
LAS > 85.0 dB	0	0:00:00.0
LAS > 115.0 dB	0	0:00:00.0
LZSpeak > 135.0 dB	0	0:00:00.0
LZSpeak > 137.0 dB	0	0:00:00.0
LZSpeak > 140.0 dB	0	0:00:00.0

Community Noise

LDN	LDay	LNight
54.5 dB	54.5 dB	0.0 dB

LDEN	LDay	LEve	LNight
54.5 dB	54.5 dB	--- dB	--- dB

Any Data

	A		C		Z	
	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L_{eq}	54.5 dB		--- dB		--- dB	
$Ls_{(max)}$	64.3 dB	2022-02-03 12:37:02	--- dB		--- dB	
$LS_{(min)}$	46.1 dB	2022-02-03 12:31:01	--- dB		--- dB	
$L_{Peak(max)}$	--- dB		--- dB		97.4 dB	2022-02-03 12:28:52

Overloads

Count	Duration
0	0:00:00.0

Statistics

LAS 5.0	57.9 dB
LAS 10.0	57.4 dB
LAS 33.3	55.3 dB
LAS 50.0	53.4 dB
LAS 66.6	51.3 dB
LAS 90.0	48.8 dB

Site Number: 3			
Recorded By: Lindsay Liegler			
Job Number: 2022-020			
Date: 2/3/2022			
Time: 12:05 p.m. – 12:20 p.m.			
Location: Along Chaney Avenue.			
Source of Peak Noise: Vehicles on Chaney Avenue.			
Noise Data			
Leq (dB)	Lmin (dB)	Lmax (dB)	Peak (dB)
68.6	49.2	92.9	104.7

Equipment						
Category	Type	Vendor	Model	Serial No.	Cert. Date	Note
Sound	Sound Level Meter	Larson Davis	LxT SE	0006133	02/24/2021	
	Microphone	Larson Davis	377B02	315201	02/24/2021	
	Preamp	Larson Davis	PRMLxT1L	069947	02/24/2021	
	Calibrator	Larson Davis	CAL200	17325	02/25/2021	

Weather Data			
Est.	Duration: 15 min.		Sky: Clear
	Note: dBA Offset = 0.14		Sensor Height (ft): 3.5
	Wind Ave Speed (mph)	Temperature (degrees Fahrenheit)	Barometer Pressure (hPa)
	8	61	30.20

Photo of Measurement Location



Measurement Report

Report Summary

Meter's File Name	LxT_Data.095.s	Computer's File Name	LxT_0006133-20220203 120516-LxT_Data.095.ldbin
Meter	LxT1 0006133		
Firmware	2.404		
User		Location	
Job Description			
Note			
Start Time	2022-02-03 12:05:16	Duration	0:15:00.2
End Time	2022-02-03 12:20:16	Run Time	0:15:00.2
Pause Time	0:00:00.0		

Results

Overall Metrics

LA_{eq}	68.6 dB		
LAE	98.2 dB	SEA	--- dB
EA	731.9 µPa²h		
EA8	23.4 mPa²h		
EA40	117.1 mPa²h		
LZS_{peak}	104.7 dB	2022-02-03 12:18:36	
LAS_{max}	92.9 dB	2022-02-03 12:18:36	
LAS_{min}	49.2 dB	2022-02-03 12:10:54	
LA_{eq}	68.6 dB		
LC_{eq}	73.6 dB	LC_{eq} - LA_{eq}	5.0 dB
LAI_{eq}	72.1 dB	LAI_{eq} - LA_{eq}	3.4 dB

Exceedances

	Count	Duration
LAS > 85.0 dB	1	0:00:04.9
LAS > 115.0 dB	0	0:00:00.0
LZSpeak > 135.0 dB	0	0:00:00.0
LZSpeak > 137.0 dB	0	0:00:00.0
LZSpeak > 140.0 dB	0	0:00:00.0

Community Noise

LDN	LDay	LNight
68.6 dB	68.6 dB	0.0 dB

LDEN	LDay	LEve	LNight
68.6 dB	68.6 dB	--- dB	--- dB

Any Data

	A		C		Z	
	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L_{eq}	68.6 dB		--- dB		--- dB	
$Ls_{(max)}$	92.9 dB	2022-02-03 12:18:36	--- dB		--- dB	
$LS_{(min)}$	49.2 dB	2022-02-03 12:10:54	--- dB		--- dB	
$L_{Peak(max)}$	--- dB		--- dB		104.7 dB	2022-02-03 12:18:36

Overloads

Count	Duration
0	0:00:00.0

Statistics

LAS 5.0	68.2 dB
LAS 10.0	66.3 dB
LAS 33.3	61.7 dB
LAS 50.0	59.2 dB
LAS 66.6	56.4 dB
LAS 90.0	52.9 dB

ATTACHMENT B

Highway Noise Prediction Model (FHWA-RD-77-108) Outputs – Existing Traffic Noise

TRAFFIC NOISE LEVELS

Project Number: 2022-020
Project Name: Collier Commercial Properties

Background Information

Model Description:	FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels.			
Analysis Scenario(s):	Existing			
Source of Traffic Volumes:	Caltrans 2017			
Community Noise Descriptor:	L_{dn}: x	CNEL:		

Assumed 24-Hour Traffic Distribution:	Day	Evening	Night
Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

Traffic Noise Levels

Analysis Condition Roadway Segment	Land Use	Lanes	Median Width	Peak Hour Volume	ADT Volume	Design Speed (mph)	Dist. from Center to Receptor[1]	Alpha Factor	Barrier Attn. dB(A)	Vehicle Mix: Medium Trucks	Vehicle Mix: Heavy Trucks	Peak Hour dB(A) L_{eq}	24-Hour dB(A) Ldn
Analysis Condition													
Roadway, Segment	Residential	6	0	0	125,000	65	100	0.5	0	1.8%	0.7%	0.0	78.0

[1] Distance is from the centerline of the roadway segment to the receptor location.

ATTACHMENT C

Federal Highway Administration Roadway Construction Noise Model Outputs – Project Construction

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 8/22/2024
Case Description: Collier Commercial Properties - Site Preparation at Nearest Residence

Description	**Affected Land Use**
Site Preparation	Residential

Description	**Impact Device**	**Usage(%)**	**Equipment Spec Lmax (dBA)**	**Actual Lmax (dBA)**	**Receptor Distance (feet)**	**Estimated Shielding (dBA)**
Grader	No	40	85		820	0
Scraper	No	40		83.6	820	0
Backhoe	No	40		77.6	820	0

Results

Calculated (dBA)

Equipment	***Lmax**	**Leq**
Grader	60.7	56.7
Scraper	59.3	55.3
Backhoe	53.3	49.3
Total	60.7	**59.5**

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 8/22/2024
Case Description: Collier Commercial Properties - Grading at Nearest Residence

Description	**Affected Land Use**
Grading	Residential

Description	**Impact Device**	**Usage(%)**	**Equipment Spec Lmax (dBA)**	**Actual Lmax (dBA)**	**Receptor Distance (feet)**	**Estimated Shielding (dBA)**
Grader	No	40	85		820	0
Dozer	No	40		81.7	820	0
Backhoe	No	40		77.6	820	0
Backhoe	No	40		77.6	820	0

Results

Calculated (dBA)

Equipment	***Lmax**	**Leq**
Grader	60.7	56.7
Dozer	57.4	53.4
Backhoe	53.3	49.3
Backhoe	53.3	49.3
Total	60.7	**59.3**

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 8/22/2024
Case Description: Collier Commercial Properties - Construction, Paving, & Painting at Nearest Reside

Description	**Affected Land Use**
Construction	Residential

Description	**Impact Device**	**Usage(%)**	**Equipment Spec Lmax (dBA)**	**Actual Lmax (dBA)**	**Receptor Distance (feet)**	**Estimated Shielding (dBA)**
Crane	No	16		80.6	820	0
Man Lift	No	20		74.7	820	8
Man Lift	No	20		74.7	820	0
Backhoe	No	40		77.6	820	0
Vibratory Concrete Mixer	No	20		80	820	0
Paver	No	50		77.2	820	0
Roller	No	20		80	820	0
Roller	No	20		80	820	0
Paver	No	50		77.2	820	0
Backhoe	No	40		77.6	820	0
Generator (<25KVA, VMS signs)	No	50		72.8	820	0
Welder / Torch	No	40		74	820	0
Welder / Torch	No	40		74	820	0
Welder / Torch	No	40		74	820	0
Compressor (air)	No	40		77.7	820	0

Results

Calculated (dBA)

Equipment	***Lmax**	**Leq**
Crane	56.3	48.3
Man Lift	42.4	35.4
Man Lift	50.4	43.4
Backhoe	53.3	49.3
Vibratory Concrete Mixer	55.7	48.7
Paver	52.9	49.9
Roller	55.7	48.7
Roller	55.7	48.7
Paver	52.9	49.9
Backhoe	53.3	49.3

Generator (<25KVA, VMS signs)	48.5	45.5
Welder / Torch	49.7	45.7
Welder / Torch	49.7	45.7
Welder / Torch	49.7	45.7
Compressor (air)	53.4	49.4
Total	56.3	**59.6**

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 8/22/2024
Case Description: Collier Commercial Properties - Site Preparation at Nearest Commercial Land Use

Description	**Affected Land Use**
Site Preparation	Commercial

Description	**Impact Device**	**Usage(%)**	**Equipment Spec Lmax (dBA)**	**Actual Lmax (dBA)**	**Receptor Distance (feet)**	**Estimated Shielding (dBA)**
Grader	No	40	85		175	0
Scraper	No	40		83.6	175	0
Backhoe	No	40		77.6	175	0

Results

Calculated (dBA)

Equipment	***Lmax**	**Leq**
Grader	74.1	70.1
Scraper	72.7	68.7
Backhoe	66.7	62.7
Total	74.1	**72.9**

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 8/22/2024
Case Description: Collier Commercial Properties - Grading at Nearest Commercial Land Use

Description	**Affected Land Use**
Grading	Commercial

Description	**Impact Device**	**Usage(%)**	**Equipment Spec Lmax (dBA)**	**Actual Lmax (dBA)**	**Receptor Distance (feet)**	**Estimated Shielding (dBA)**
Grader	No	40	85		175	0
Dozer	No	40		81.7	175	0
Backhoe	No	40		77.6	175	0
Backhoe	No	40		77.6	175	0

Results

Calculated (dBA)

Equipment	***Lmax**	**Leq**
Grader	74.1	70.1
Dozer	70.8	66.8
Backhoe	66.7	62.7
Backhoe	66.7	62.7
Total	74.1	**72.8**

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 8/22/2024
Case Description: Collier Commercial Properties - Construction, Paving, & Painting At Nearest Commerical Land Use

Description	**Affected Land Use**
Construction	Commercial

Description	**Impact Device**	**Usage(%)**	**Equipment Spec Lmax (dBA)**	**Actual Lmax (dBA)**	**Receptor Distance (feet)**	**Estimated Shielding (dBA)**
Crane	No	16		80.6	175	0
Man Lift	No	20		74.7	175	0
Man Lift	No	20		74.7	175	0
Backhoe	No	40		77.6	175	0
Vibratory Concrete Mixer	No	20		80	175	0
Paver	No	50		77.2	175	0
Roller	No	20		80	175	0
Roller	No	20		80	175	0
Paver	No	50		77.2	175	0
Backhoe	No	40		77.6	175	0
Generator (<25KVA, VMS signs)	No	50		72.8	175	0
Welder / Torch	No	40		74	175	0
Welder / Torch	No	40		74	175	0
Welder / Torch	No	40		74	175	0
Compressor (air)	No	40		77.7	175	0

Results

Calculated (dBA)

Equipment	***Lmax**	**Leq**
Crane	69.7	61.7
Man Lift	63.8	56.8
Man Lift	63.8	56.8
Backhoe	66.7	62.7
Vibratory Concrete Mixer	69.1	62.1
Paver	66.3	63.3
Roller	69.1	62.1
Roller	69.1	62.1
Paver	66.3	63.3
Backhoe	66.7	62.7

Generator (<25KVA, VMS signs)	61.9	58.9
Welder / Torch	63.1	59.1
Welder / Torch	63.1	59.1
Welder / Torch	63.1	59.1
Compressor (air)	66.8	62.8
Total	69.7	**73.1**

*Calculated Lmax is the Loudest value.

ATTACHMENT D

SoundPLAN Outputs – Onsite Project Noise

SoundPLAN
Output Source Information

Number	Reciever Name	Location	Level at Ground Floor
1	Residential	Residential property north of the Project Site.	39.4 dBA
2	Industrial/Commercial	Steve's Towing (south of Project Site)	54.4 dBA
3	Industrial/Commercial	RightWay Temporary Power (north of Project Site)	41.0 dBA
4	Industrial/Commercial	DC Pantry (across West Minthorn Street)	51.3 dBA

Number	Noise Source Information	Citation	Level at Source
1	internal circulation/ parking lot & shop activity	ECORP Consultinjg, Inc. Refrence Noise Measurment (Pbig O Tires)	66.3 dBA

Appendix I

Trip Generation and VMT Screening Memo,
Construction Equipment Rental Facility,
29400 Enterprise Way, Lake Elsinore

K2 TRAFFIC ENGINEERING, Inc.
Traffic Control . Signal . Synchronization . Parking . Study

Approved
BB
7/21/2022

March 25, 2022

Ed & Leslie Hamud
Collier Commercial Properties
43 Golfview Drive
Dove Canyon, CA 92679
c/o. Jonathan Zane

Re: Trip Generation and VMT Screening Memo
Construction Equipment Rental Facility
29400 Enterprise Way, Lake Elsinore

Dear Ed & Leslie,

Per your request, we have conducted a trip generation and VMT screening memorandum for the proposed construction equipment rental facility. This letter presents our findings and recommendations.

PROJECT DEVELOPMENT

The project site (APN 377-190-002, 003, 004) is located at 29400 Enterprise Way in the City of Lake Elsinore. The site is currently vacant, unimproved, and adjacent to Collier Avenue, north of Steve's Towing Services. The proposed development plans to operate two new buildings for a construction equipment rental facility. The facility of 11, 975 square feet includes Building A of 3,000 square feet and Building B of 8,975 square feet. Site plan is provided in **Exhibit 1**.

TRIP GENERATION

According to the "*Trip Generation, 11th Edition*," published by the Institute of Transportation Engineers (ITE), the proposed use is defined as a construction equipment rental store, which is a business that specializes in the rental of construction equipment tools and supplies including, but not limited to, electrical and industrial tools, pumps, lawn and garden equipment, paving and earthmoving equipment, and safety equipment. Based on 11,975 square feet of construction equipment rental use, the proposed facility is expected to have a trip generation of

24 trips in the AM peak hour, 12 trips in the PM peak hour, and 119 average daily traffic (ADT) trips. The applicable ITE trip generation rates and project trips associated with the proposed facility are provided in **Table 1**.

Table 1. Trip Generation for Proposed Construction Equipment Rental Facility

Land Use	Unit	Quantity	AM Peak Hour[1]			PM Peak Hour			Daily[2]
			Total	In	Out	Total	In	Out	
ITE Trip Generation Rates									
Construction Equipment Rental Store (811)	1,000 Sq. Ft.	-	1.98	72%	28%	0.99	28%	72%	9.90
Proposed Trip Generation									
Construction Equipment Rental Store (811)	1,000 Sq. Ft.	11.975	24	17	7	12	3	9	119

1. Trip generation rates for the AM peak hour is not provided in the ITE Trip Generation Manual, therefore, it is estimated based on two times the PM peak hour rate
2. The rate for daily trips is estimated to be ten times the PM peak hour rate

According to the City of Lake Elsinore "*Traffic Impact Analysis Preparation Guide*" dated June 2020, projects that generate less than 100 vehicle trips during the AM or PM peak hour are exempt from Traffic Impact Analysis (TIA) requirements. With a projected trip generation of 24 trips during the AM peak hour and 12 trips during the PM peak hour, the proposed project is expected to have no or less than significant impact to nearby roadways and intersections. Therefore, further study of traffic impact is not required.

VMT SCREENING ASSESSMENT

For the purpose of Senate Bill (SB) 743, signed in 2013, and the California Environmental Quality Act (CEQA) compliance, a Vehicle Miles Traveled (VMT) analysis shall be conducted for land use projects as deemed necessary by the City and would apply to projects that have the potential to increase the average VMT per service population compared to the City's baseline threshold. The City's Guide has provided a number of screening steps, based upon recommendations from the Western Riverside Council of Governments (WRCOG) Implementation Pathway

Study, that may be applied to effectively screen projects from conducting a project-level assessment.

Step 1: Transit Priority Area (TPA) Screening

According to the City's Guidelines, projects located within a Transit Priority Area (TPA)[1] may be presumed to have a less than significant impact absent substantial evidence to the contrary. Based on the WRCOG Screening Tool TPA map, shown in **Exhibit 2**, the project is not located within a TPA. The TPA screening is **NOT MET**.

Step 2: Low VMT Area Screening

Residential and office projects located within a low VMT-generating area may be presumed to have a less than significant impact absent substantial evidence to the contrary. Other employment-related and mixed-use projects within a low VMT-generating area may also qualify for this screening if the project can reasonably be expected to generate VMT per service population similar to the existing land uses in the low VMT area.

As shown in the WRCOG Screening Tool Output, provided in **Exhibit 3**, the project site is located within a low VMT-generating area. The low VMT area screening step is **MET**.

Step 3: Project Type Screening

Local serving retail projects generally reduce vehicle travel by providing a more proximate location for shopping close to home. In accordance with the City's

[1] A TPA is defined as a ½ mile area around an existing major transit stop or an existing stop along a high quality transit corridor per the following definitions:

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.

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.

Guidelines, local serving retail projects less than 50,000 square feet may be presumed to have less than significant impact absent substantial evidence to the contrary.

The proposed facility is expected to have a gross floor area of 11,975 square feet, below the threshold of 50,000 square feet. The Project Type screening step is **MET**.

SUMMARY

The proposed construction equipment rental facility is expected to result in no or less than significant impact on nearby roadways and intersections. Further assessment of traffic impact is not required and the project is exempt from the TIA requirements.

The project is screened out from a project-level VMT assessment by meeting the Low VMT and Project Type screening steps. The project can be presumed to have a less than significant VMT impact.

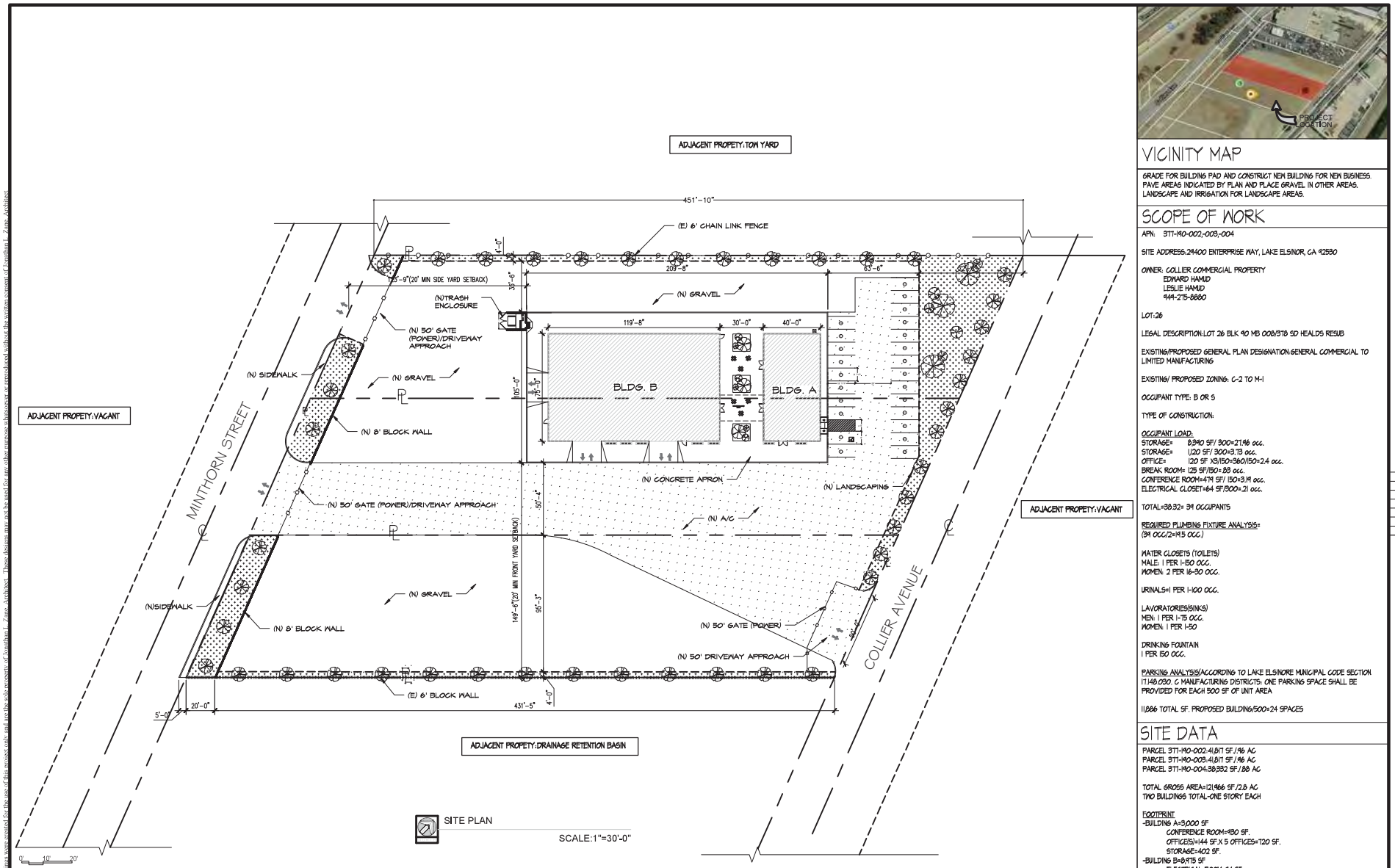
Regards,

K2 Traffic Engineering, Inc.



Jende Kay Hsu, T.E.
California License TR2285





VICINITY MAP

GRADE FOR BUILDING PAD AND CONSTRUCT NEW BUILDING FOR NEW BUSINESS. PAVE AREAS INDICATED BY PLAN AND PLACE GRAVEL IN OTHER AREAS. LANDSCAPE AND IRRIGATION FOR LANDSCAPE AREAS.

SCOPE OF WORK

APN: 377-190-002,-003,-004

SITE ADDRESS:29400 ENTERPRISE WAY, LAKE ELSINOR, CA 92530

OWNER: COLLIER COMMERCIAL PROPERTY
EDWARD HAMID
LESLIE HAMID
949-275-8880

LOT:26

LEGAL DESCRIPTION:LOT 26 BLK 90 MB 008/378 SD HEALDS RESUB

EXISTING/PROPOSED GENERAL PLAN DESIGNATION:GENERAL COMMERCIAL TO LIMITED MANUFACTURING

EXISTING/ PROPOSED ZONING: C-2 TO M-1

OCCUPANT TYPE: B OR S

TYPE OF CONSTRUCTION:

OCCUPANT LOAD:
STORAGE= 8,390 SF/ 300=27.96 occ.
STORAGE= 1,120 SF/ 300=3.73 occ.
OFFICE= 120 SF X3/150=360/150=2.4 occ.
BREAK ROOM= 125 SF/150= 83 occ.
CONFERENCE ROOM=474 SF/ 150=3.14 occ.
ELECTRICAL CLOSET=64 SF/300=.21 occ.

TOTAL=38.32= 39 OCCUPANTS

REQUIRED PLUMBING FIXTURE ANALYSIS=
(39 OCC/2=14.5 OCC.)

WATER CLOSETS (TOILETS)
MALE: 1 PER 1-150 OCC.
WOMEN: 2 PER 16-30 OCC.

URINALS=1 PER 1-100 OCC.

LAVORATORIES(SINKS)
MEN: 1 PER 1-75 OCC.
WOMEN: 1 PER 1-50

DRINKING FOUNTAIN
1 PER 150 OCC.

PARKING ANALYSIS/ACCORDING TO LAKE ELSINORE MUNICIPAL CODE SECTION 17.149.030. C MANUFACTURING DISTRICTS: ONE PARKING SPACE SHALL BE PROVIDED FOR EACH 500 SF OF UNIT AREA

11,886 TOTAL SF. PROPOSED BUILDING/500=24 SPACES

SITE DATA

PARCEL 377-190-002-41,817 SF./.96 AC
PARCEL 377-190-003-41,817 SF./.96 AC
PARCEL 377-190-004-38,332 SF./.88 AC

TOTAL GROSS AREA=121,966 SF./2.8 AC
TWO BUILDINGS TOTAL-ONE STORY EACH

FOOTPRINT
-BUILDING A=3,000 SF
CONFERENCE ROOM=930 SF.
OFFICE(S)=144 SF.X 5 OFFICES=720 SF.
STORAGE=402 SF.
-BUILDING B=8,975 SF
ELECTRICAL ROOM=64 SF.

TOTAL NET SQUARE FEET: 11,975 SF.
LOT COVERAGE:11,975/ 121,966=.09%
FAR: LOT AREA(121,966) x FLOOR AREA RATIO (.45)= BUILDABLE SQ. FT.
DEVELOPMENT RIGHTS=54,884.7 SF. MAX

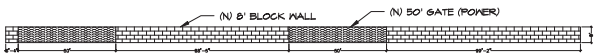
TOTAL BUILDING FLOOR AREA SF.= 11,975 SF.< 54,884.7 SF.

LANDSCAPING
121,966 SF.(TOTAL GROSS AREA) % x.12 (LANDSCAPE STANDARD REQUIRED)
= 14,636 SF. MIN. COVERAGE/ 14,432 SF. PROVIDED

DESIGN CRITERIA

C-1 SITE PLAN
C-1.1 EXISTING WATER AND SEWER
A-1 FLOOR PLAN
A-2 ELEVATIONS

SHEET INDEX



WALL AND FENCE PLAN

(E) 6' CHAINLINK FENCE TO REMAIN
(N) 8'X 50' CORRUGATED STEEL GATE
(N) 8' SMOOTH FACE BLOCK WALL TO BE PAINTED- COLOR MATCH BUILDING
(E) 6' BLOCK WALL

FENCE LEGEND

1. NO EXISTING STRUCTURES OR TREES ON PROPERTY

ADDITIONAL NOTES

CIVIL ENGINEER
• NELSON MANLOLO: NMANLOLO@GMAIL.COM

CONTACTS

NOTICE:
This drawing and ideas indicated by these drawings were created for the use of this project only and are the sole property of Jonathan L. Zane, Architect. These drawings may not be used for any other purpose whatsoever or reproduced without the written consent of Jonathan L. Zane, Architect.

REVISIONS

DATE:	BY:

JONATHAN L. ZANE
ARCHITECTURE
JONATHAN L. ZANE, ARCHITECT – CA. LIC. #C-11,046
905 NORTH LA CADENA DRIVE
COLTON, CA 92324 (909) 825-7500

DATE : 2/ 05 /2020

DATE:	PHASE

A PROJECT FOR:
COLLIER COMMERCIAL PROPERTIES
LOCATED AT:
29400 ENTERPRISE WAY.
LAKE ELSINOR,CA.
A.P.N. 377-190-002,-003,-004

APPLICABLE CODES:
California Building Code: 2019 C.B.C.
California Residential Code: 2019 C.R.C.
California Electrical Code: 2019 C.E.C.
California Mechanical Code: 2019 C.M.C.
California Plumbing Code: 2019 C.P.C.
California Energy Code: 2019 C.E.C.
All new work shall comply with the above codes and local and state ammendments.

DATE : 02/ 05 /2020
SCALE :
DRAWN : --
JOB : job number
SHEET : C-1

EXHIBIT 1. PROPOSED SITE PLAN

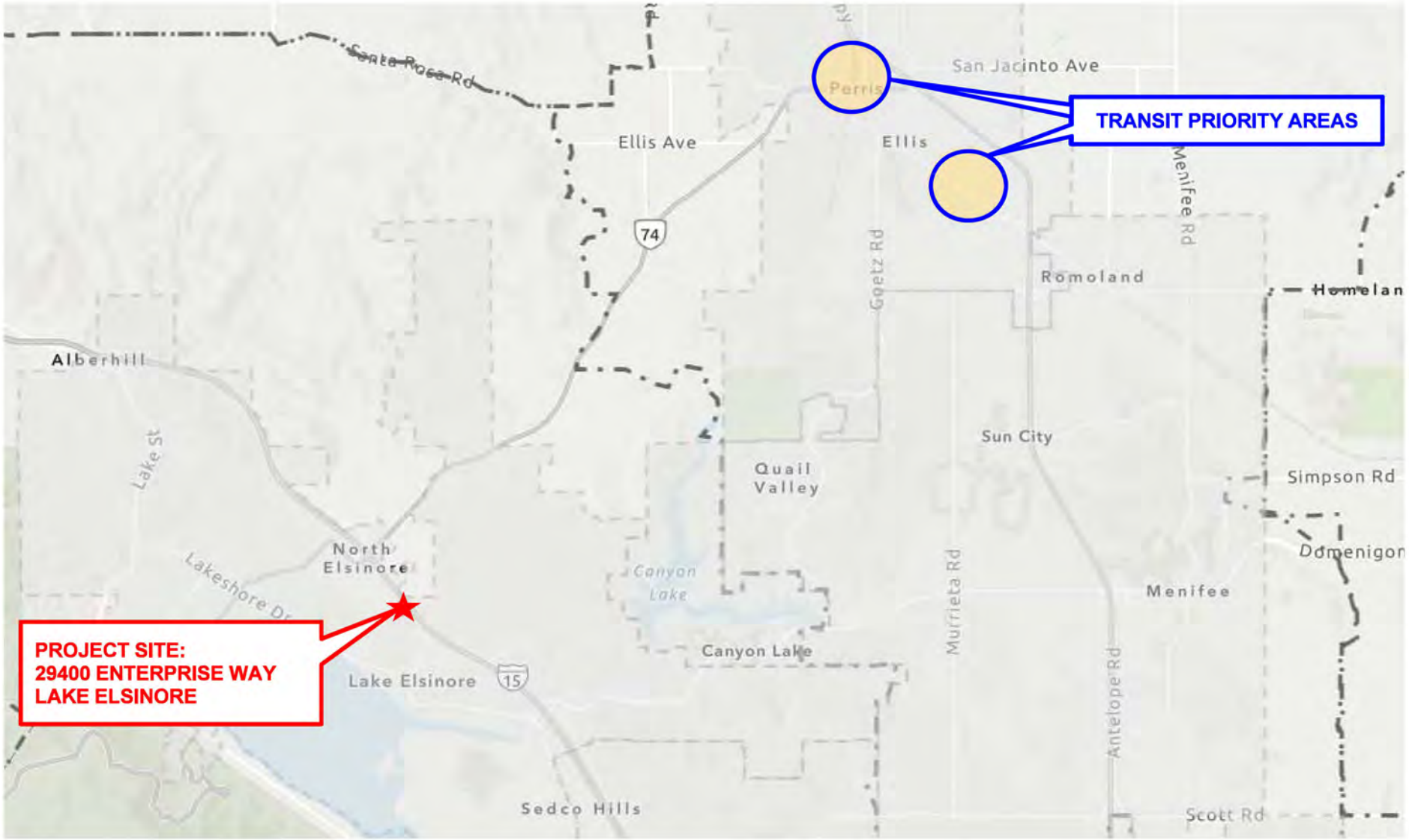


EXHIBIT 2. TRANSIT PRIORITY AREA MAP - WESTERN COUNCIL OF GOVERNMENTS (WCOG)

No Scale

EXHIBIT 3. WRCOG VMT SCREENING TOOL OUTPUT

29400 Enterprise Way, Lake Elsinore, CA 92530

APN: 377190002; 377190003; 377190004; TAZ:3,557

Within a Transit Priority Area (TPA)?

No (Fail)

Within a low VMT generating TAZ based on Total VMT?

Yes (Pass)

Jurisdictional average 2012 daily total VMT per service population = 36.29

Project TAZ 2012 daily total VMT per service population = 30.67

Within a low VMT generating TAZ based on Residential Home-Based VMT?

Yes (Pass)

Jurisdictional average 2012 daily residential home-based VMT per capita = 18.63

Project TAZ 2012 daily residential home-based VMT per capita = 11.98

Within a low VMT generating TAZ based on Home-Based Work VMT?

No (Fail)

Jurisdictional average 2012 daily home-based work VMT per worker = 11.76

Project TAZ 2012 daily home-based work VMT per worker = 13.00

Notes:

- TPA designation is based on October 2018 conditions.
- Screening results are based on location of parcel centroids. If results are desired considering the full parcel, please refer to the associated map layers to visually review parcel and TAZ boundary relationship.
- If VMT screening is desired for current baseline conditions, contact WRCOG for 2012 and 2040 VMT data. Interpolated VMT results can be obtained using the complete data set.
- VMT results do not account for full length of trips that occur beyond the SCAG region.