

**PROGRAM ENVIRONMENTAL IMPACT REPORT
FOR THE
KAISER PERMANENTE MEDICAL CENTER
SCH # 2025010666**

Prepared for:

City of Redlands



City of Redlands

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APPENDICES

- **Appendix A – Initial Study, Notices and Distribution**
 - o Appendix A1 – Initial Study
 - o Appendix A2 – Filing with County Clerk
 - o Appendix A3 – NOP
 - o Appendix A4 – Notice of Preparation filed with Office of Planning and Research
 - o Appendix A5 – Distribution List
- **Appendix B – Scoping Meeting Information and Public Comments**
 - o Appendix B1 – Reserved
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- **Appendix C – Project Plans**
 - o Appendix C1 – Amendment No. 8 to Concept Plan 1
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- **Appendix D – Technical Reports, Studies, and Assessments**
 - o Appendix D1 – Visual Resources Report
 - o Appendix D2 – Air Quality and Greenhouse Gas Emissions Calculations
 - o Appendix D3 – Health Risk Assessment
 - o Appendix D4 – Biological Resources Technical Report
 - o Appendix D5 – Cultural Resources Report
 - o Appendix D6 – Energy Calculations
 - o Appendix D7 – Geotechnical Investigative Report
 - o Appendix D8 – Paleontological Resources Records Search
 - o Appendix D9 – Hazardous Materials Records Search
 - o Appendix D10 – Preliminary Water Quality Management Plan
 - o Appendix D11 – Water Supply Assessment
 - o Appendix D12 – VMT Assessment
 - o Appendix D13 – Draft Traffic Study



1.0 EXECUTIVE SUMMARY

This section has been prepared pursuant to the California Environmental Quality Act (CEQA) for the proposed Kaiser Permanente Medical Center Project (project). In accordance with State CEQA Guidelines Section (§) 15123, this chapter provides a brief project description; identifies significant effects and proposed mitigation measures or alternatives that would reduce or avoid those effects; describes areas of controversy known to the Lead Agency and issues to be resolved; summarizes alternatives; and summarizes environmental impacts.

1.1 Purpose of this Draft Program EIR

As described in § 15123(a) and § 15362 of the CEQA Guidelines, an EIR is an informational document that will inform public agency decision-makers and the public of the significant environmental effects of a project, identify possible ways to minimize any significant effects, and describe reasonable project alternatives. Therefore, the purpose of this Draft Program EIR (Draft PEIR) is to focus the discussion on the project's potential environmental effects that the City of Redlands, as the Lead Agency, has determined to be, or potentially may be significant. In addition, feasible mitigation measures are recommended, when applicable, that could reduce or avoid the project's significant environmental impacts.

This Draft PEIR serves as an environmental document for all actions associated with the project. This EIR is a "Program EIR" as defined by §15168 of the CEQA Guidelines. Furthermore, this Draft PEIR complies with §15064 of the CEQA Guidelines which discusses determining the significance of the environmental effects caused by a project.

1.2 Draft EIR Focus and Effects Found Not to Be Significant

In accordance with State CEQA Guidelines § 15128, the EIR shall contain a brief statement indicating reasons the various possible significant effects of a project were determined not to be significant and not discussed in detail in the Draft PEIR. The Initial Study and comment letters are included as **Appendix A**. The CEQA notices for the project are also included in **Appendix A**. The Initial Study provides a detailed discussion of the potential environmental impacts of the project and the reasons that each environmental topic is or is not analyzed in this Draft PEIR. The Initial Study found the potential for significant impacts in the following environmental issue areas:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Noise
- Public Services
- Transportation
- Tribal Cultural Resources
- Utilities and Service Systems

The threshold questions that were not screened out in the Initial Study prepared for the project are analyzed in this Draft EIR and are from the current iteration of the CEQA Guidelines, as of January 1, 2025. The results of the Initial Study found that the project would not have the potential to result in significant impacts related to: Agriculture and Forestry Resources, Land Use and Planning, Mineral Resources, Population and Housing, Recreation, and Wildfire. Therefore, these environmental areas



were not analyzed in this Draft PEIR. The Initial Study which details that no significant impacts would occur for these issue areas is included as **Appendix A1** of this Draft PEIR.

Additional environmental studies will be conducted if required consistent with the California Code of Regulations (CCR), specifically 14 CCR § 15152 (Tiering), 14 CCR § 15153(d) {Use of an EIR from an Earlier Project}, 14 CCR § 15162 (Subsequent EIRs and Negative Declarations), and 14 CCR § 15168 (Program EIR).

1.3 Draft PEIR Organization

This Draft PEIR comprises the following sections:

1.0 Executive Summary. This section describes the purpose of this Draft PEIR, Draft PEIR focus, and effects found not to be significant, Draft PEIR organization, project summary, areas of controversy and issues to be resolved, public review process, summary of alternatives, and summary of environmental impacts and mitigation measures.

2.0 Project Description. This section describes the project location, existing conditions, project objectives, and characteristics of the project.

3.0 Environmental Setting. This section contains a description of the existing physical and built environment, and a list of related projects anticipated to be built in the vicinity of the project site.

4.0 Environmental Impact Analysis. This section contains the project and cumulative impact analyses, mitigation measures (as necessary), and conclusions regarding the level of significance after mitigation for the following environmental issue areas: aesthetics, air quality, biological resources, cultural resources, energy, geology and soils/paleontological resources, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, noise, public services, transportation, tribal cultural resources, and utilities and service systems.

5.0 Alternatives. This section analyzes a reasonable range of project alternatives, including Alternative 1: No Project/No Development Alternative, Alternative 2: No Project/General Plan Buildout Alternative, Alternative 3: Reduced Intensity Alternative, and Alternative 4: Dispersed Facilities Alternative.

6.0 Other CEQA Considerations. This section describes significant unavoidable project impacts, and the reasons why the project is being proposed notwithstanding the significant unavoidable impacts. An analysis of the significant irreversible changes in the environmental and potential secondary effects of the project are also included. Additionally, this section analyzes potential growth-inducing impacts of the project and potential secondary effects caused by the implementation of mitigation measures for the project. This section also contains a discussion of the possible effects of the project that were determined not to be significant within the Initial Study prepared for the project.

7.0 References. Identifies the references cited in the Draft PEIR including the documents (printed references) and individuals (personal communications) consulted in preparing this document.



8.0 Acronyms and Abbreviations. Includes a list of acronyms and abbreviations used in different sections of this Draft PEIR document.

9.0 List of Preparers. Identifies the agencies, consultants, and individuals involved in preparing this Draft PEIR.

10.0 Consultation and Coordination. Provides a list of federal, state, and local agencies and organizations contacted during preparation of the Draft PEIR.

11.0 Mitigation Monitoring and Reporting Program. Identifies the potentially significant environmental impacts, the mitigation measures, the level of significance after mitigation, the responsible parties and monitoring parties, and the phase in which mitigation is to be implemented.

12.0 Recipients of Draft PEIR. Includes a list of agencies, organizations, and individuals to whom notification of preparation (NOP) of the Draft PEIR was sent.

Appendices. Presents data supporting the analysis and contents of this Draft PEIR.

This Draft PEIR includes the following appendices:

- **Appendix A – Initial Study, Notices and Distribution**
 - Appendix A1 – Initial Study
 - Appendix A2 – Filing with County Clerk
 - Appendix A3 – NOP
 - Appendix A4 – Notice of Preparation filed with Office of Planning and Research
 - Appendix A5 – Distribution List
- **Appendix B – Scoping Meeting Information and Public Comments**
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 - Appendix D5 – Cultural Resources Report
 - Appendix D6 – Energy Calculations
 - Appendix D7 – Geotechnical Investigative Report



- o Appendix D8 – Paleontological Resources Records Search
- o Appendix D9 – Hazardous Materials Records Search
- o Appendix D10 – Preliminary Water Quality Management Plan
- o Appendix D11 – Water Supply Assessment
- o Appendix D12 – VMT Assessment
- o Appendix D13 – Draft Traffic Study

1.4 Existing Project Site Conditions

The proposed Redlands – Kaiser Permanente Medical Center project is located at 1301 California Street in the city of Redlands, California, on an approximately 37-acre site. Refer to **Figure 1.0-1**, which shows the project's location in a regional context. Local surface streets adjacent to the site include Almond Avenue to the north, California Street to the east, and West Lugonia Avenue to the south. **Figure 1.0-2** depicts an aerial photo of the project site and the surrounding land.

The project site comprises one parcel, APN 0167-441-07-000, and contains a medical office building, parking lot, and vacant land. The proposed project would develop the vacant portion of the project site with two medical office buildings, a hospital, a central utilities plant, parking lot and improvements to driveways, utilities, and landscaping. Topography within the project site is relatively flat (Google Earth, 2024).

The General Plan land use designation for the project site is Commercial Industrial, and the zoning designation is "Concept Plan 1 (CP-1)", Medical Facilities District (City of Redlands, 2025a). This was originally created under the provisions of the East Valley Corridor Specific Plan (Specific Plan No. 40) (City of Redlands, 2017b).

1.5 Brief Description of the Proposed Project

1.5.1 Project Overview

The proposed project consists of two elements; (1) Amendment No. 8 to Concept Plan 1; and (2) Planned Development No. 6, which would consist of a Development Plan divided into four phases as described below.

- Phase 1: Ambulatory Services Center/Medical Office Building No. 2 (four stories, 165,000 square feet, 864 surface parking spaces).
- Phase 2: Hospital with associated support buildings, including central utility plant (CUP) and parking structure:
 - o Hospital: Seven stories plus basement; 213 beds; 400,000 square feet.
 - o CUP: .Two stories plus basement; 35,000 square feet.
 - o Parking garage: 1,288 parking spaces, 464,000 square feet.



❖ SECTION 1.0 – EXECUTIVE SUMMARY ❖

**Figure 1.0-1
REGIONAL LOCATION**



Path: \\G:\work\214\Redlands_Kaiser_MedCenter_EIR\214_Kaiser_2.0_Regional_Location_2023_10_25.mxd
Service Layer Credits: Sources: Esri, DeLorme, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community; Los Angeles County, 2021; UltraSystems Environmental, Inc., 2023

October 25, 2023

Scale: 1:633,600



Legend



Project Location

**Kaiser Permanente
Medical Center**

Regional Location

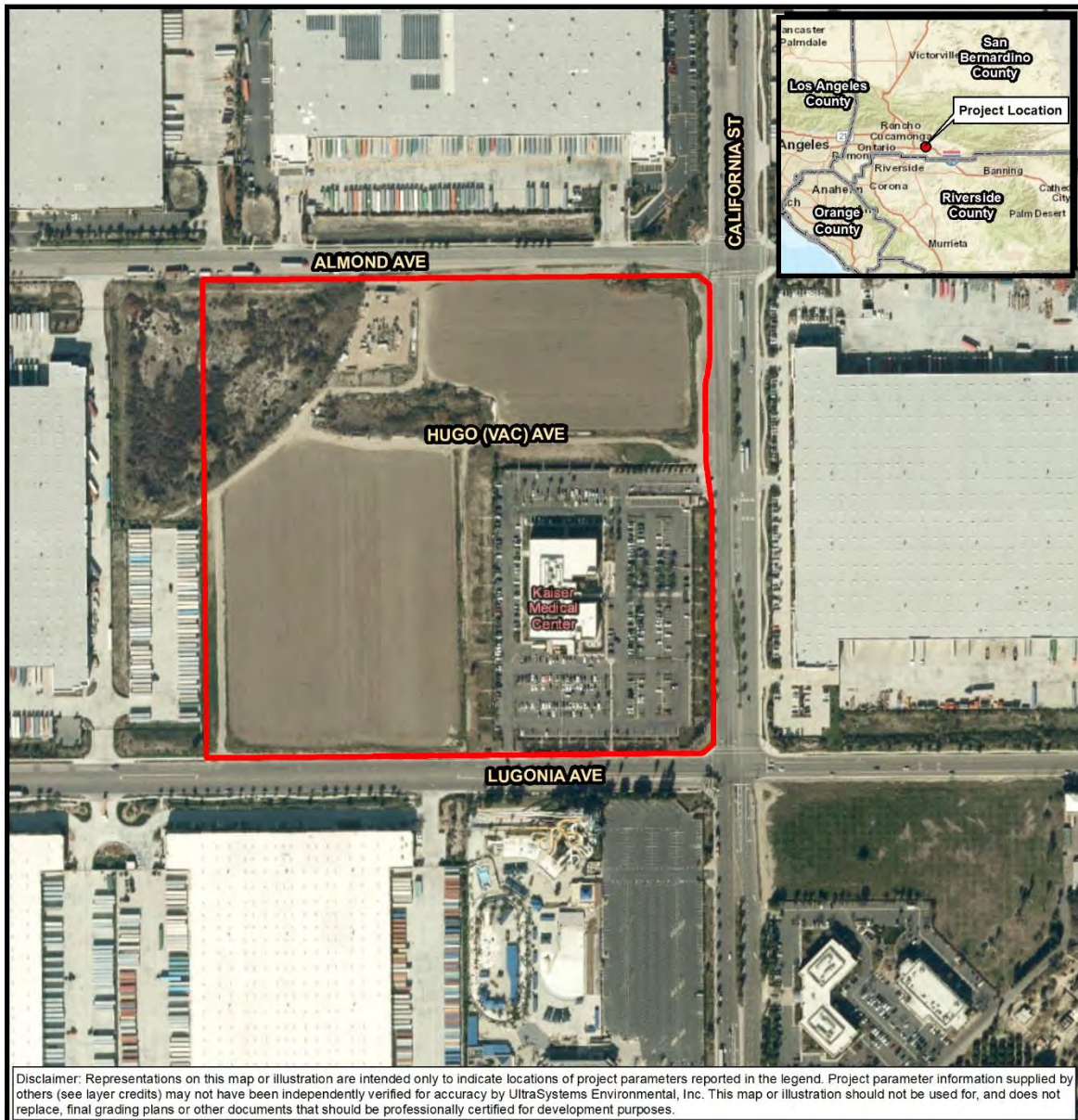
0 5 10 Miles

0 5.5 11 Kilometers



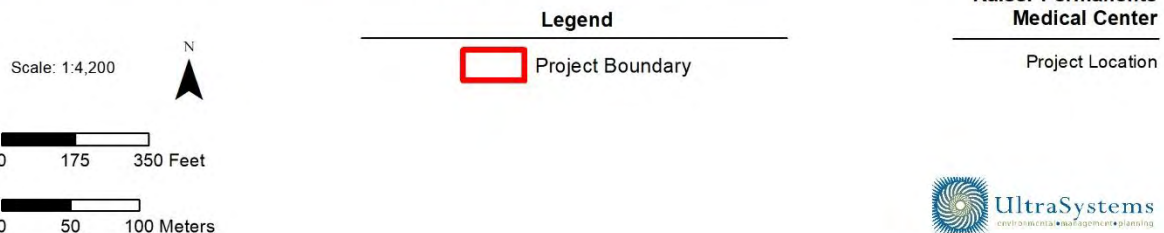


**Figure 1.0-2
PROJECT LOCATION**



Path: \\G:\projects\Projects\7214_Redlands_Kaiser_MedCenter_EIR\MXD\7214_Kaiser_3_0_Project_Location_2023_05_25.mxd
Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community UltraSystems Environmental, Inc., 2022

May 25, 2023





- Phase 3: Medical Office Building No. 3 (four stories, 83,000 square feet, 333 surface parking spaces).
- Phase 4: Expansion of Hospital (five stories plus basement; 108 beds; 180,000 square feet).

The project, at completion, would include 580,000 square feet of hospital space containing 321 beds and 248,000 square feet of medical office space. At project completion the project would provide a total of 2,803 parking spaces (including existing) consisting of a parking structure with 1,288 spaces and 1,515 surface spaces, including 226 Americans with Disabilities Act (ADA) spaces. At completion of Phase 4 the project would include 563,000 square feet of landscaping including 102,000 square feet of parking lot landscaping. The project also includes onsite and offsite utility connections and improvements to Almond Avenue and Lugonia Avenue.

Discretionary Permits

The proposed project will require the City of Redlands Planning Commission and City Council approval of:

- (1): Amendment No. 8 to Concept Plan 1, which would amend the permitting procedure in Concept Plan No. 1, Section IV, Part A (Discretionary Actions) under the East Valley Corridor Specific Plan; and
- (2): Planned Development No. 6, which would establish a multi-phased development plan for the expansion of the existing onsite medical facility.

Each phase of the development will require a subsequent development permit from the City of Redlands Planning Commission, pursuant to East Valley Corridor Specific Plan section EV1.0405(c), and in accordance with the City's Commission Review and Approval Process set forth in City of Redlands Municipal Code chapter 18.12 (amlegal.com, 2025).

Project Objectives

The following are the project objectives.

1. Provide health care capacity for Kaiser Permanente members in the San Bernardino-Redlands region.
2. Incorporate numerous sustainability features such as vegetated swales, tree-based infiltration, and inert bioswales; high-performance building enclosure systems, external shading, energy efficient and carbon neutral building systems and equipment selections, and solar panels. The buildings will meet or exceed Leadership in Energy and Environmental Design (LEED) Gold certification.
3. Develop the project site in accordance with the Medical Facilities designation in Redlands Business Center Concept Plan No. 1.
4. Phase development over 25 years to keep pace with projected increase in Kaiser Permanente membership in the facility's service area over that period.



Project Construction

The proposed project would be constructed in four phases described above. Each of the four phases would include site preparation, utilities trenching and installation, grading, building construction, architectural coatings, paving, and landscaping. Although construction timing is indeterminate, construction of each of the four major phases would take between two and four years. Phase 1 construction is expected to occur from 2027 to 2029, Phase 2 from 2035 to 2039, Phase 3 from 2043 to 2045, and Phase 4 construction from 2048 to 2050.

1.6 Public Review Process

The Initial Study for the project was distributed for public review from January 22 to February 21, 2025, for 30 days, as part of the Notice of Preparation (NOP) process. Below is a summary of the public notification and scoping process for the project. The NOP includes information regarding the project, notice of availability of the Initial Study, the public comment period, and notice regarding the public scoping meeting. Refer to **Appendix A**, which includes a copy of the NOP, the agency distribution list and the public mailing list. A copy of the NOP, which included notice for the scoping meeting, was sent to owners adjacent to the project site.

On January 22, 2025, the following documents were submitted to the State Clearinghouse CEQA Submit database: one signed copy of the NOC, a copy of the NOP, and an electronic version of the Initial Study and Initial Study appendices. A public scoping meeting for the project was held at 4:30 p.m. on February 12, 2025. As part of the public distribution process for the Initial Study for the proposed project, Native American tribal contacts were sent a copy of the NOP and a CD with the Initial Study and Initial Study appendices. Refer to **Appendix A** (Agency Distribution List) for a list of tribes to whom these documents were sent.

1.7 Areas of Controversy

No comments were received from the public. Three comment letters were submitted by public agencies: the Native American Heritage Commission; South Coast AQMD; and San Bernardino County. Based on the NOP comment letters provided in Appendix B of this Draft PEIR, issues raised include project impacts on: air quality, cultural resources, greenhouse gas emissions, hydrology and water quality, transportation, and tribal cultural resources. No comments were made by the public or received during the public scoping meeting for the PEIR.

Refer to **Appendix B** for all comments received during the public review period, including a comment tracking matrix that provides a summary of the comments received during the public review period and where those comments are addressed in the PEIR. It should be noted that CEQA does not require the lead agency to respond individually to all comments received during the public scoping period.

1.8 Summary of Environmental Impacts

Table 1.0-1 below provides a summary of the environmental impacts of the project evaluated in this Draft PEIR. Thresholds screened out in the Initial Study (included in **Appendix A**) as having no impact or a less than significant impact and thus are not analyzed in this PEIR, are also included in this table.



**Table 1.0-1
SUMMARY OF IMPACTS UNDER THE PROJECT**

Environmental Threshold	Project Impact
1. AESTHETICS	
Threshold A (scenic vistas)	Less than Significant
Threshold B (scenic resources state highway)	No Impact (Initial Study)
Threshold C (scenic quality)	Less than Significant
Threshold D (light & glare)	Less than Significant (Initial Study)
2. AGRICULTURE AND FORESTRY RESOURCES	
Threshold A (convert mapped farmland)	Less than Significant (Initial Study)
Threshold B (zoning/Williamson Act)	No Impact (Initial Study)
Threshold C (forestland/timber zoning)	No Impact (Initial Study)
Threshold D (convert forest land)	No Impact (Initial Study)
Threshold E (other changes)	No Impact (Initial Study)
3. AIR QUALITY	
Threshold A (applicable air quality plan)	Less than Significant
Threshold B (net increase of any criteria pollutant)	Less than Significant w/Mitigation Incorporated
Threshold C (Expose sensitive receptors)	Less than Significant
Threshold D (other emissions)	Less than Significant (Initial Study)
4. BIOLOGICAL RESOURCES	
Threshold A (special status species)	Less than Significant w/Mitigation Incorporated
Threshold B (sensitive natural community)	Less than Significant w/Mitigation Incorporated
Threshold C (protected wetlands)	Less than Significant w/Mitigation Incorporated
Threshold D (wildlife corridors)	Less than Significant w/Mitigation Incorporated
Threshold E (tree preservation)	No Impact
Threshold F (habitat conservation plan)	No Impact (Initial Study)
5. CULTURAL RESOURCES	
Threshold A (historical resources)	Less than Significant w/Mitigation Incorporated
Threshold B (archaeological resources)	Less than Significant w/Mitigation Incorporated
Threshold C (human remains)	Less than Significant w/Mitigation Incorporated
6. ENERGY	
Threshold A (energy resources)	Less than Significant
Threshold B (renewable & efficiency)	Less than Significant
7. GEOLOGY AND SOILS	
Threshold A	
i. Rupture of a known earthquake fault	Less than Significant
ii. Strong seismic ground shaking	Less than Significant
iii. Seismic-related ground failure	Less than Significant
iv. Landslides	Less than Significant
Threshold B (soil erosion)	Less than Significant
Threshold C (unstable soil)	Less than Significant
Threshold D (expansive soil)	Less than Significant
Threshold E (supporting septic tank)	No Impact (Initial Study)
Threshold F (paleontological resource)	Less than Significant w/Mitigation Incorporated
8. GREENHOUSE GAS EMISSIONS	
Threshold A (GHG emissions)	Significant and Unavoidable
Threshold B (reducing emissions)	Less than Significant w/Mitigation Incorporated
9. HAZARDS AND HAZARDOUS MATERIALS	
Threshold A (routine transport)	Less than Significant
Threshold B (accident conditions)	Less than Significant
Threshold C (existing or proposed school)	No Impact (Initial Study)



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Environmental Threshold	Project Impact
Threshold D (hazardous materials sites)	Less than Significant
Threshold E (airport: safety hazard/noise)	No Impact (Initial Study)
Threshold F (emergency response)	Less than Significant (Initial Study)
Threshold G (wildland fires)	Less than Significant (Initial Study)
10. HYDROLOGY AND WATER QUALITY	
Threshold A (water quality standard)	Less than Significant (Initial Study)
Threshold B (groundwater)	Less than Significant
Threshold C (i. erosion/siltation)	Less than Significant (Initial Study)
Threshold C (ii. runoff/flooding)	Less than Significant (Initial Study)
Threshold C (iii. stormwater drainage systems)	Less than Significant (Initial Study)
Threshold C (iv. flood flows)	Less than Significant (Initial Study)
Threshold D (flood, tsunami, seiche zones)	No Impact (Initial Study)
Threshold E (groundwater management plan)	Less than Significant
11. LAND USE AND PLANNING	
Threshold A (divide established community)	No Impact (Initial Study)
Threshold B (land use plan, policy, regulation)	No Impact (Initial Study)
12. MINERAL RESOURCES	
Threshold A (loss of known resource)	No Impact (Initial Study)
Threshold B (locally important resource)	No Impact (Initial Study)
13. NOISE	
Threshold A (ambient noise level)	Less than Significant
Threshold B (groundborne vibration/noise)	Less than Significant
Threshold C (airport noise)	No Impact (Initial Study)
14. POPULATION AND HOUSING	
Threshold A (population growth)	Less than Significant (Initial Study)
Threshold B (displace people)	No Impact (Initial Study)
15. PUBLIC SERVICES	
Threshold A (fire protection)	Less than Significant
Threshold B (Police protection)	Less than Significant
Threshold C (schools)	No Impact (Initial Study)
Threshold D (parks)	No Impact (Initial Study)
Threshold E (other facilities/libraries)	No Impact (Initial Study)
16. RECREATION	
Threshold A (increased use of parks)	No Impact (Initial Study)
Threshold B (park add/expansion)	No Impact (Initial Study)
17. TRANSPORTATION	
Threshold A (program/plan, circulation system)	Less than Significant (Initial Study)
Threshold B (<i>CEQA Guidelines § 15064.3(b)</i>)	Significant and Unavoidable
Threshold C (<i>geometric design feature</i>)	Less than Significant (Initial Study)
Threshold D (<i>emergency access</i>)	Less than Significant (Initial Study)
18. TRIBAL CULTURAL RESOURCES	
Threshold A	
I. Public Resources Code § 5020.1(k)	Less than Significant w/Mitigation Incorporated
ii. Public Resource Code § 5024.1(c)	Less than Significant w/Mitigation Incorporated
19. UTILITIES AND SERVICE SYSTEMS	
Threshold A (relocation or new construction)	Less than Significant
Threshold B (sufficient water supply)	Less than Significant
Threshold C (sufficient wastewater treatment)	Less than Significant (Initial Study)
Threshold D (solid waste disposal)	Less than Significant (Initial Study)
Threshold E (regulations: solid waste diversion)	Less than Significant (Initial Study)



Environmental Threshold	Project Impact
20. WILDFIRE	
Threshold A (emergency response plan)	No Impact (Initial Study)
Threshold B (pollutant concentrations)	No Impact (Initial Study)
Threshold C (associated infrastructure)	No Impact (Initial Study)
Threshold D (downstream flooding/ landslide)	No Impact (Initial Study)

1.8.1 Less Than Significant with Mitigation

1.8.1.1 Air Quality

Threshold B: Would the project 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?

All construction emissions associated with the project would be below the regional significance thresholds. Therefore, impacts related to air quality during project construction would be less than significant.

Operational emissions at project buildout (that is, completion of Phase 4) would be significant without mitigation for reactive organic gases. Mitigation measures AQ-1, AQ-2, and TRANS-1 through TRANS-4 are required; impacts would be less than significant after implementation of mitigation.

1.8.1.2 Biological Resources

Threshold A: Would the project 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?

Plants

Based on literature review of publicly available databases, 32 special-status plant species (nine listed and 23 sensitive) were identified and recorded within a 10-mile radius of the BSA. The special-status plant species were evaluated as to their potential to occur in the BSA based on habitat, geographic and elevated range and site conditions. Due to biological and physical disturbances within the BSA, it was determined that there is a lack of suitable habitat to support the majority of the special-status plant species. Additionally, there is a significant coverage of the project site by impermeable surface (developed areas) that cannot support vegetation that is necessary to create suitable habitat. Impacts to special-status plant species is not anticipated as a result of the project. No mitigation is required.

Wildlife

Based on literature review of publicly available databases, there were 46 sensitive wildlife species reported in and near the BSA. The majority of the special-status wildlife species evaluated in the wildlife inventory are not expected to occur due to the following factors: urbanization of the area, lack of suitable habitat, and/or the site is outside of the known elevation, and/or general distribution of the target species.



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Based on the habitats documented within the project site, the following 13 species have a low to high likelihood of occurrence:

- Crotch's bumble bee (*Bombus crotchii*)/State Candidate Endangered (SCE) - foraging and nesting, low potential
- Burrowing owl (*Athene cunicularia*)/State Species of Special Concern (SSC) - foraging, refugia and nesting, moderate potential.
- Loggerhead shrike (*Lanius ludovicianus*)/SSC – foraging, moderate potential
- White-tailed kite (*Elanus leucurus*)/State Fully Protected (SFP) – foraging, moderate potential
- Golden eagle (*Aquila chrysaetos*)/ California Watch List (CWL), SFP – foraging, low potential
- Cooper's hawk (*Accipiter cooperii*)/SSC – foraging, low potential
- Sharp-shinned hawk (*Accipiter striatus*)/CWL – foraging, high potential
- Northern harrier (*Circus cyaneus*)/SSC – foraging, low potential
- California horned lark (*Eremophila alpestris actia*)/CWL- foraging and nesting, moderate potential
- Merlin (*Falco columbarius*)/CWL – foraging, low potential
- Prairie falcon (*Falco mexicanus*)/CWL – foraging, low potential
- Long-eared owl (*Asio otus*)/SCC – foraging, low potential
- Western yellow bat (*Lasiurus xanthinus*)/SSC - foraging and roosting (palm trees), moderate potential

The 0.18-acre patch of California buckwheat scrub documented in the northwest detention basin is suitable foraging habitat for the Crotch's bumble bee. To ensure that potential adverse effects to Crotch's bumble bee are reduced to a less than significant level, focused assessments and surveys, as warranted will be required during phases 1 and 2 of the project including impact analysis prior to approval of development within each area, as described in mitigation measure (MM) **BIO-1**.¹

Burrows suitable for burrowing owl potentially utilized for refugia and/or nesting and foraging habitat were documented throughout the vacant areas of the site. To ensure that potential adverse effects to burrowing owl are reduced to a less than significant level, focused assessments and surveys and impact analysis, as warranted, will be required during phases 1 and 2 of the project prior to approval of development within each respective area, as detailed in **MM BIO-2**.

Suitable foraging habitat for nine sensitive species including loggerhead shrike, white-tailed kite, golden eagle, Cooper's hawk, sharp-shinned hawk, northern harrier, merlin, prairie falcon, and long-eared owl was documented within the project site. However, it was determined that development of the proposed project is not expected to result in a significant impact to regional foraging resources for these species and thus no mitigation is proposed for these species.

Suitable foraging and nesting habitat for one sensitive species, California horned lark, was identified within the project site. To ensure that potential impacts to California horned lark are reduced to a less than significant level, a focused nesting survey and impact analysis will be required during phases 1 and 2 of the project prior to approval of development within each phase area to be developed, as summarized in **MM BIO-3**.

The project site also contains suitable foraging and roosting habitat (palms) for the yellow bat. To ensure that potential impacts to yellow bat are reduced to a less than significant level,

¹ Grading for phases 2, 3, and 4 of the project will be done in Phase 2.



preconstruction surveys and impact analysis, as warranted, will be required during each of the four phases of the project prior to approval of development within reach respective region, as summarized in **MM BIO-4**.

Threshold B: Would the project 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?

The entire project site would be fully developed at completion of Phase 4. A total of 36.60-acres of developed and natural vegetation communities within the project site would be directly and permanently impacted as a result of project development (Phases 1 to 4). No sensitive habitat identified in local or regional plans, policies, regulations, or by CDFW or USFWS will be impacted as a result of project implementation. A total of 0.51-acre of mule fat scrub (riparian habitat) was documented within Basin 2. To ensure that potential impacts to jurisdictional resources including riparian habitat are reduced to less than significant, **MM BIO-5** will require a formal jurisdictional delineation and impact analysis to be conducted for the entire project site for all project phases prior to approval of Phase 1. If present, and prior to issuance of a grading permit, the project applicant may be required to obtain a 1602 LSAA from CDFW for impacts to regulated features including riparian habitat, as warranted in **MM BIO-5**.

Threshold C: Would the project 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?

The project site was assessed for the potential presence or absence of resources under the jurisdiction of USACE, CDFW, and RWQCB. Impacts to potentially jurisdictional areas would be significant. To ensure that potential impacts to jurisdictional resources are reduced to a less than significant level, **MM BIO-5** requires a formal jurisdictional delineation and impacts analysis be conducted for the entire project site covering all project phases prior to approval of Phase I development. If present, and prior to issuance of a grading permit, the project applicant may be required to obtain a, CWA Section 404 permit from the USACE, a 1602 LSAA from CDFW, and a CWA Section 401 or Waste Discharge Requirements (WDR) permit from the RWQCB pursuant to the California Water Code Section 13260, as described in **MM BIO-5**.

Threshold D: Would the project 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?

The project site has vegetation including trees and shrubs that could provide nesting habitat for raptors and migratory birds protected under the MBTA and the California Fish and Game Code §§ 3503, 3503.5, and 3513. In order to avoid violation of the MBTA and the California Fish and Game Code, site preparation activities (ground disturbance, construction activities, staging equipment, and/or removal of trees and vegetation) for the project shall be avoided, to the greatest extent possible, during the nesting season of potentially occurring native and migratory bird species (generally September 15 to February 15 for songbirds; September 1 to January 14 for raptors, although the nesting season may be extended due to weather and drought conditions) (Cadre Environmental, 2025, p. 47).

Construction outside the raptor nesting season (between September 15 and January 14) does not require preconstruction nesting bird surveys. However, if construction is proposed between January



14 and September 15, a qualified biologist will conduct a preconstruction nesting bird and raptor survey(s) no more than three days prior to initiation of grading to document the presence or absence of nesting birds or raptors within or directly adjacent to the project site. Loss of an active nest would be considered a potentially significant impact. Impacts to raptor foraging and potential nesting bird habitat would be reduced to less than significant with the implementation of **MM BIO-3**.

1.8.1.3 Cultural Resources

Threshold A: Would the project cause a substantial adverse change to the significance of a historical resource pursuant to § 15064.5?

It was determined that the Kaiser Permanente Medical Center Project site had two historic era cultural resources that were previously recorded within the project site boundary. Within the one-half-mile buffer zone there are an additional five recorded historic-era cultural resources. The two historic sites, both related to the Mayfair Dairy farm, were situated in the northeast area of the project site. These were recorded as the Mayfair Dairy farm complex (CA-BSR-7139H) and an associated barn (P-36-6875). The related report stated that the site recording would be sufficient documentation of the resource, and both structures were subsequently demolished. However, because of the obscured ground surface during the pedestrian survey there is the potential for the presence of historic artifacts and/or features to be present. Also, grading activities associated with project construction would cause subsurface disturbance and could result in the unanticipated discovery of unique archaeological resources. Therefore, mitigation measures **CUL-1** and **CUL-2** are recommended.

Threshold B: Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?

Based on the cultural resources records search conducted by the SCCIC, it was determined there have been no prehistoric resources recorded within the project boundary or the half mile-buffer area. The cultural resources study findings suggest that there is a low potential for the presence of prehistoric cultural resources. The search result of the NAHC SLF was positive. Letters and emails sent to the 38 contacts representing 21 tribes on October 2, 2023; follow up telephone calls made November 6, 2023. There was no response to inquiry concerning the unidentified potential SLF site. However, the San Manuel Band of Mission Indians did note the nearby presence of the Mill Creek Zanja, significant to the Serrano due to their association with its construction. This historic site, however, is not in the immediate vicinity of the project parcel and would not be affected by the project. The project site is disturbed by several decades of agricultural use. A prior survey of the property resulted in negative findings for prehistoric resources. Grading and other ground disturbing activities associated with development of the project would cause new subsurface disturbance and could result in the unanticipated discovery of unique archaeological resources. Therefore, mitigation measures **CUL-1** and **CUL-2** are recommended.

Threshold C: Would the project disturb any human remains, including those interred outside of formal cemeteries?

No human remains have been previously identified or recorded on the Kaiser Permanente Medical Center Project site. Grading and trenching activities associated with installation of infrastructure including water, sewer, and utility lines; and for construction of proposed buildings of the project. Grading would involve new subsurface disturbance and could result in the unanticipated discovery of unknown human remains, including those interred outside of formal cemeteries. The potential for



encountering human remains during ground disturbance is low. However, in the case that human remains are encountered, mitigation measure **CUL-3** is recommended.

1.8.1.4 Geology and Soils

Threshold F: Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

The likelihood of encountering fossil material is minimal; however, if excavation activities disrupt deeper sediment layers that correspond to the early Holocene or Late Pleistocene epochs, such findings could have considerable scientific importance. If excavation activity disturbs deeper sediments dating to the earliest parts of the Holocene or Late Pleistocene periods, the material would be scientifically significant. Implementation of Project Design Feature (PDF) **PDF-GEO-1** and **MM-GEO-1** would reduce the potential impacts on paleontological resources to less than significant.

1.8.1.5 Greenhouse Gas Emissions

Threshold B: Would the Project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

The project would be consistent with 2022 Title 24 standards in terms of energy efficient design features, such as the construction of the CUP. Since the project's operational GHG emissions exceed the SCAQMD significance threshold, it must incorporate GHG reduction mitigation measures in attempt to avoid conflicting with the city's CAP and General Plan. These mitigation measures are **MM GHG-1** through **GHG-5** and **TRANS-1** through **TRANS-4**, and **AQ-1** through **AQ-2**. If the project implements all feasible GHG reducing mitigation measures listed below and in the General Plan, then it will not conflict with the plan. The project will therefore have a less than significant impact with these mitigation measures.

1.8.1.6 Tribal Cultural Resources

Threshold A: Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

- (i) ***Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code § 5020.1(k); or***
- (ii) ***A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resource Code § 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.***

Previous cultural resources surveys within the 0.5-mile buffer zone resulted in two historic archaeological sites that have been previously recorded within the project site boundary and an



additional eight archaeological sites within the surrounding 0.5-mile buffer. No prehistoric resources were recorded within the project boundary or the 0.5-mile buffer area. (refer to Sections 4.1 and 4.3 in **Appendix D1**). The NAHC's SLF search had a positive response for a traditional resource in the project area. A pedestrian survey conducted resulted in no prehistoric or historic features or isolate artifacts being observed, although given the extremely poor surface visibility it cannot be ruled out that cultural resources may be present.

A prior survey of the property resulted in negative findings for prehistoric resources. However given that the prior agricultural use within the project might have masked archaeological deposits, the close proximity of fresh water source (the Santa Ana River) which would have been attractive to Native American use, that one of the contacted tribes did recommend tribal and archaeological monitoring based on the historic presence of local indigenous people along the nearby Santa Ana River, the presence of an adjacent associated farm complex dating back to approximately 1915, and that the present vegetation coverage did not allow for full observation of the project area ground surface, there is the potential that buried archaeological deposits may be present within the project boundary. Therefore, it is recommended that an archaeological monitor be present during ground-disturbing activities. If prehistoric and/or historic items are observed during subsurface activities, work should be stopped in that area and a qualified archaeologist and Native American monitor be retained to assess the finding(s) and retrieve the material.

Based on the Phase I Cultural Resources Inventory report (**Appendix D1**) which includes a records search at the SCCIC of survey reports and site records, the results of an SLF search by the NAHC, and outreach to locally affiliated bands suggested by the NAHC, it was determined that the probability for significant impacts to TCRs is high at the project site. Implementation of mitigation measures **MM-TCR-1** through **TCR-3** would reduce impacts to less than significant.

1.8.2 Significant and Unavoidable

1.8.2.1 Greenhouse Gas Emissions

Threshold A: Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Project operational GHG emissions, without mitigation and with construction GHG emissions amortized over a 30-year period, are estimated at 14,327 metric tons of CO_{2e} annually. That amount is substantially greater than the 3,000 MTCO_{2e} significance threshold used by the SCAQMD. This impact would thus be significant without mitigation. Mitigation measures GHG-1 through GHG-5, TRANS-1 through TRANS-4, and AQ-1 and AQ-2 are required to reduce GHG emissions impacts. Project GHG emissions after mitigation are estimated at 14,306 MTCO_{2e} annually, still over the significance threshold. Therefore, GHG emissions impacts would be significant and unavoidable.

1.8.2.2 Transportation

Threshold B: Would the Project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

CEQA Guidelines § 15064.3(b) pertains to the use of Vehicle Miles Traveled (VMT) as a method of determining the significance of transportation impacts.



Project operation is estimated to generate 16,093 trips per day. VMT in the study area was modeled using the latest version of the San Bernardino Transportation Analysis Model, SBTAM+. VMT was estimated in two scenarios: future year 2050 no project, and future year 2050 plus project. The City's threshold for project VMT impacts is per capita VMT greater than 15 percent below the San Bernardino County Baseline VMT. As shown below in **Table 4.12-1**, estimated project VMT in 2050 is 22.7, that is, 12 percent higher than the City's threshold. Mitigation measures **MM-TRANS-1** through **MM-TRANS-4** are required to reduce the VMT impact. The VMT impact would remain significant after implementation of the mitigation measures and would thus be significant and unavoidable.

1.9 Project Design Features

The following project design features (PDFs) would be implemented by the project.

1.9.1 Geology and Soils

PDF-GEO-1: The project would implement all geotechnical recommendations for the development of the site, including earthwork, seismic design, retaining walls, shoring, and foundation design as specified in the Geotechnical Investigation Report prepared for the Medical Office Building 2 (MOB 2) project at the Kaiser Redlands site located at 1301 California Street in Redlands. Prepared by Twining, dated March 31, 2023; provided in **Appendix D7** of this PEIR.

1.9.2 Greenhouse Gas Emissions

The Project would comply with the 2022 California Green Building Standards Code (CalGreen) (Part 11 of Title 24, California Code of Regulations). The following are proposed energy conservation measures that are beyond the minimum requirements of CalGreen. Please note that only GHG-PDF-1 and GHG-PDF-9 were taken into account in the emission calculations.

Energy Conservation and Efficiency

GHG-PDF-1: Project design will provide energy efficiency exceeding Title 24, Part 6, California Energy Code baseline standard requirements by 10 percent, based on the 2022 Building Energy Efficiency Standards requirements

GHG-PDF-2: Use of natural heating and cooling features.

GHG-PDF-3: Use of improved insulation.

GHG-PDF-4: Installation of PV panels.

GHG-PDF-5: Use of efficient and durable roofing materials and exterior finishes.

GHG-PDF-6: Use of efficient interior finishes.

Water Conservation

GHG-PDF-7: Water-efficient plumbing fixtures (17 to 31 percent of GHG emissions associated with non-residential indoor water use).

Solid Waste Conservation

GHG-PDF-8: Use of recycled foundation materials.



Other

GHG-PDF-9: No combustion of natural gas (100 percent reduction in emissions from natural gas use).

1.10 Mitigation Measures

Environmental factors that require mitigation along with brief summaries of proposed mitigation measures are provided below. Detailed mitigation measures are provided in **Section 4.0** of this Draft PEIR. The environmental factors requiring mitigation are listed below.

- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils/Paleontological Resources
- Greenhouse Gas Emissions
- Transportation
- Tribal Cultural Resources

1.10.1 Air Quality

MM AQ-1: For operational emissions to remain below significance thresholds, the project must integrate measures to reduce VMT and VOC emissions. The following measures are based on methodologies outlined in the California Air Pollution Control Officers Association's (CAPCOA) Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity, and were tailored to the site's context and land use constraints.

To reduce VOC and ROG emissions, the emissions calculations assumed the measure to replace gas-powered landscape equipment with zero-emission landscape equipment. This measure is listed at A-1 in the aforementioned CAPCOA Handbook. To help reduce VMT-related emissions, the project includes several targeted mitigation strategies, evaluated and quantified by Fehr & Peers in the traffic impact study (Fehr & Peers, 2025). A multiplicative dampening factor was applied to account for overlap among measures addressing the same trip types. The following measures and corresponding VMT reductions are proposed:

- Implement Commute Trip Reduction Marketing – Develop and promote employer-based programs that encourage alternatives to driving, such as carpooling, biking, transit use, and walking.
 - Estimated Reduction: 4% of Home-Based Work (HBW) VMT
- Provide Employee Rideshare Program – Establish and fund ridesharing initiatives for employees with similar commutes, utilizing existing platforms like IE Commuter.
 - Estimated Reduction: 4% of HBW VMT
- Provide End-of-Trip Bicycle Facilities – Install and maintain bicycle infrastructure such as secure bike parking, lockers, and showers to support cycling as a commuting option.



- Estimated Reduction: 0.3% of HBW VMT
- Provide Employer-Sponsored Vanpool – Implement a vanpool service for employees commuting long distances, reducing the number of single-occupancy vehicle trips.
- Estimated Reduction: 1.6% of HBW VMT
- Multiplicative Dampening Adjustment – Reduction adjustment applied to account for overlap among strategies targeting the same trip type.
- Adjustment: -0.6%

Total Potential VMT Reduction: 9.9% of HBW VMT

Implementation of these measures will be outlined and monitored through the Project's Mitigation Monitoring and Reporting Plan (MMRP). These mitigation measures are the most feasible and applicable options that were considered for the project in the Traffic Study. Although these measures provide a substantial reduction described above, the project's HBW VMT is projected to remain approximately 12 percent above the City's VMT threshold, and therefore, the VMT impact (but not the air quality impact) would remain significant and unavoidable even with mitigation (Fehr & Peers, 2025, p. 39).

1.10.2 Biological Resources

To ensure that potential adverse effects to sensitive species and resources are reduced to a less than significant level, focused biological surveys and impacts analyses of the project site will be required prior to approval of Phase I development. In addition to completing CEQA review, focused surveys and required mitigation measures shall be implemented prior to project approval and initiation of construction, as described in **MM BIO-1** through **MM BIO-5**. The measures presented below are based on the measures in the BRTR (Cadre Environmental, 2025) in **Appendix D3**.

MM BIO-1: Crotch's Bumble Bee Surveys

To ensure the proposed project does not result in direct or indirect impacts to the Crotch's bumble bee, focused presence/absence surveys shall be conducted based on the *CDFW Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species Guidelines (June 6th, 2023)*, (CDFW, 2023). Focused surveys shall be started during the colony active period and when floral resources are present for the species by a qualified entomologist. Specifically, three surveys shall be conducted with at least two weeks between surveys from April to June. All regions within the project site where suitable floral resources are present shall be surveyed by walking meandering transects at least one hour after sunrise and/or at least two hours before sunset (ideally between 9am and 1pm) on warm sunny days with winds below eight miles per hour.

Focused surveys shall be conducted for a minimum of one person-hour of searching per three acres of suitable habitat. Bumble bees shall be captured with a net from blooms, avoiding destruction of the flower when possible. Each bee shall be carefully transferred into a sterile vial and moved to a cooler with only one bee per vial to avoid disease spread. The bee shall be kept in the vial for no more than 10 minutes in ambient temperature before being placed in a cooler as they have a tendency to over-heat (the amount of time will be decreased on hotter days). The vial shall be placed in a cooler at a temperature above 25 degrees Fahrenheit, as lower temperatures could freeze and kill the bee.



The results of the focused surveys shall be summarized in a letter report including graphics and recommendations.

If the species is detected onsite, the CDFW shall be contacted to determine appropriate conservation measures to prevent direct/indirect impacts to the species, or acquisition of an Incidental Take Permit (ITP). To initiate the ITP process, the applicant or representative shall contact the appropriate CDFW Regional Office and submit a completed ITP application.

MM BIO-2: Focused and Preconstruction Burrowing Owl Surveys

To ensure the proposed project does not result in direct or indirect impacts to the burrowing owl, focused surveys shall be conducted in accordance with the March 7, 2012, *Staff Report on Burrowing Owl Mitigation* (CDFG, 2012) which recommends both a breeding and non-breeding season survey. Specifically, a total of four surveys shall be conducted by a qualified avian biologist during the breeding season: 1) at least one site visit between February 15 and April 15, and 2) a minimum of three surveys, at least three weeks apart, between April 15 and July 15, with at least one visit after June 15. Non-breeding season surveys shall include four surveys spread out evenly from July 15 to February 15. A report of the findings prepared by a qualified biologist shall be submitted to the City of Redlands prior to any permit or approval for ground disturbing activities.

Regardless of the findings of the focused surveys, a burrowing owl preconstruction survey shall be conducted no less than 14 days prior to the initiation of ground-disturbing activities to ensure protection for this species including a survey conducted with 24 hours of start of work. The preconstruction surveys shall be conducted in compliance with CDFW guidelines (CDFG, 2012). A report of the findings prepared by a qualified biologist shall be submitted to the City of Redlands prior to any permit or approval for ground disturbing activities. If burrowing owls are not detected onsite, the proposed project may proceed. However, if project initiation is delayed more than 14 days, updated preconstruction surveys may be required.

If burrowing owls are detected onsite during the focused or preconstruction surveys, a burrowing owl monitoring and/or relocation plan shall be developed and approved by the City of Redlands, CDFW and USFWS prior to any permit or approval for ground disturbing activities. At a minimum, the plan shall include the following:

1. Burrowing owl status, distribution and habitat utilization within and adjacent to the project site.
2. Conservation objectives and goals developed in cooperation with CDFW and USFWS.
3. Results of burrowing owl monitoring activities.
 - a. 350-foot minimum protective (no work) zone shall be designated around each of the occupied burrow sites and delineated by orange silt fencing. The installation of the fencing shall be monitored by a qualified biologist to ensure owls are not directly or indirectly impacted as a result of fence installation. The monitoring biologist will also be responsible for directing where the fencing shall be installed.
 - b. A qualified monitoring biologist shall monitor the owls weekly during the non-breeding season to determine if the 350-foot protective zone is adequate for their protection. The weekly monitoring events will also provide critical information regarding the status of the species onsite for purposes of developing a relocation plan.



- c. A qualified monitoring biologist shall conduct an initial environmental briefing with any contractors which will be working onsite. The briefing shall include a discussion of burrowing owl natural history, identification of burrowing owl non-breeding season protection zones, and summary of penalties for directly and/or indirectly impacting the species.
 - d. A qualified monitoring biologist shall be authorized to stop all work activities in the event potential direct and/or indirect impacts to burrowing owl may occur as a result of proposed staging activities.
 - e. Monthly updates on the monitoring efforts including recommendations, as warranted, shall be submitted to the City of Redlands, CDFW and USFWS.
4. Passive and/or active relocation activities.
 5. Burrowing owl management activities for active relocation sites.

Based on the candidacy or listing status of the species at the time of surveys, if detected, acquisition of an Incidental Take Permit may also be required.

MM BIO-3: Pre-Construction Breeding Bird Survey

To maintain compliance with the MBTA and California Fish and Game Code §§ 3503, 3503.5, and 3513, and to avoid impacts or take of migratory non-game breeding birds and other native birds, their nests, young, and eggs, the following measures shall be implemented.

Site preparation activities (ground disturbance, construction activities, staging equipment, and/or removal of trees and vegetation) for the project shall be avoided, to the greatest extent possible, during the nesting season of potentially occurring native and migratory bird species (generally September 15 to February 15 for songbirds; September 1 to January 14 for raptors, although the nesting season may be extended due to weather and drought conditions).

If site preparation activities are proposed during the nesting/breeding season, the project proponent shall retain a qualified avian biologist to conduct a pre-activity field survey prior to the issuance of grading permits for the project to determine if active nests of species protected by the MBTA or the California Fish and Game Codes are present in the construction zone. The nest surveys shall include the project site where project activities have the potential to cause nest failure. The survey results shall be provided to the City of Redlands for review and approval. The project applicant shall adhere to the following:

1. The project applicant shall retain a qualified biologist experienced in: identifying local and migratory bird species of special concern; conducting bird surveys using appropriate survey methodology; nesting surveying techniques, recognizing breeding and nesting behaviors, locating nests and breeding territories, and identifying nesting stages and nest success; determining/establishing appropriate avoidance and minimization measures; and monitoring the efficacy of implemented avoidance and minimization measures.
2. Pre-activity field surveys shall be conducted at the appropriate time of day/night, during appropriate weather conditions, no more than three days prior to the initiation of project activities. Surveys shall encompass all suitable areas including trees, shrubs, bare ground,



burrows, cavities, and structures. Survey duration shall take into consideration the size of the property; density, and complexity of the habitat; number of survey participants; survey techniques employed; and shall be sufficient to ensure the data collected is complete and accurate.

If no nesting birds are observed during the survey, site preparation and construction activities may begin. However, if active nests (including nesting raptors) are located, then avoidance or minimization measures shall be undertaken in consultation with the City of Redlands, CDFW and USFW, as warranted. Measures shall include immediate establishment of an appropriate buffer zone to be established by a qualified biologist based on their best professional judgement and experience. The buffer around the nest shall be delineated and flagged, and no construction activity shall occur within the buffer area until a qualified biologist determines nesting species have fledged and the nest is no longer active, or the nest has failed. The biologist shall monitor the nest at the onset of project activities and at the onset of any changes in such project activities (e.g., increase in number or type of equipment, change in equipment usage, etc.) to determine the efficacy of the buffer. If the biologist determines that such project activities may be causing an adverse reaction, the biologist shall adjust the buffer accordingly or implement alternative avoidance and minimization measures, such as redirecting or rescheduling construction or erecting sound barriers. All work within these buffers will be halted until the nesting effort is finished (i.e., the juveniles are surviving independent from the nest). The onsite biologist shall review and verify compliance with these nesting avoidance buffers and shall verify the nesting effort has finished. Work can resume within these avoidance areas when no other active nests are found.

Birds or their active nests will not be disturbed, captured, handled or moved. Active nests cannot be removed or disturbed; however, nests can be removed or disturbed if determined inactive by a qualified biologist.

If listed bird species are observed within a project site during the preconstruction survey, the biologist will immediately map the area and notify the appropriate resource agency to determine suitable protection measures and/or mitigation measures and to determine if additional mitigation is necessary. Project activities may begin within the area only when concurrence is received from the appropriate resource agency.

Upon completion of the survey and nesting bird monitoring, a report shall be prepared and submitted to City of Redlands for review and approval prior to initiation of construction activities.

MM BIO-4: Preconstruction Bat Survey

Prior to implementation of project activities, a qualified bat biologist shall be retained to determine whether potential roosting sites for yellow bats may be affected. For large ornamental trees and palms suitable for bat roosting/nursery, exit counts and acoustic surveys shall be performed prior to initial ground disturbance, vegetation or structure removal to determine whether the project site and a 300-foot buffer supports a nursery or roost. This work will occur between late -spring and late summer and/or in the fall (generally mid-March through late October).

If the results of the bat survey find a total of a single roosting individual of a special status bat species or 25 or more individuals of a non-special status bat species with potential to be present in the project site, a Bat Management Plan shall be developed by a qualified bat biologist to ensure mortality to bats does not occur. For each location confirmed to be occupied by bats, the Bat Management Plan must provide details both in text and graphically where exclusion devices/and or staged tree/palm



removal will need to occur, the timing for exclusion work and the timeline and methodology needed to exclude the bats. The plan will need to be reviewed and approved by the City of Redlands and CDFW prior to disturbance of the roosts.

MM BIO-5: Jurisdictional Delineation and Permitting

Prior to approval of grading permits and initiation of project activities, a qualified biologist shall conduct a formal jurisdictional delineation on the project site to determine the presence/absence of jurisdictional resources, extent of jurisdictional areas, and impacts to resources regulated by the USACE, RWQCB, and CDFW. The delineation shall be conducted using the current USACE methods and definition of “waters of the U.S.” (most current as of this writing is March 2025 notice and data sheets) and the methods and wetland definitions specified in the *California State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State* (Procedures) (SWRCB, 2019) to delineate waters of the state.

Upon completion of the jurisdictional delineation survey, a jurisdictional delineation report shall be prepared according to the *Minimum Standards for Acceptance of Aquatic Resources Delineation Reports for the USACE, Los Angeles Regulatory District* (USACE-LA, 2017). This report shall be submitted to City of Redlands for review.

If jurisdictional areas are present on the project site, the project applicant shall obtain a Clean Water Act Section 404 permit, California Fish and Game Code Section 1602 Lake or Streambed Alteration Agreement from CDFW and a CWA 401 or WDR permit issued by the RWQCB (Santa Ana RWQCB-Region 8) pursuant to the California Water Code § 13260, as warranted. If required, these permits shall be obtained prior to issuance of a grading permit. Construction activities (including but not limited to fencing, staging, and clearing) will not commence unless all requirements of the USACE, CDFW, RWQCB have been met and the RWQCB has issued a WDR permit, letter of permission, or other project-specific approval. All conditions of these permits shall be adhered to during project development.

1.10.3 Cultural Resources

MM CUL-1: The project applicant shall retain an archaeologist who meets the Secretary of the Interior’s Professional Qualifications Standards for Archaeology to conduct monitoring of subsurface ground disturbance during construction activities. The archaeologist shall also take the opportunity to re-survey the parcel’s ground surface as the vegetation is cleared for construction work. If unanticipated cultural resource discoveries are made the archaeologist will be afforded the necessary time to recover, analyze, and curate the find(s). The qualified archaeologist will recommend the extent of archaeological monitoring necessary to ensure the protection of any other resources that may be in the area. Any identified cultural resources shall be recorded on the appropriate DPR 523 (A-L) form and filed with the Eastern Information Center.

MM CUL-2: If historical or unique archaeological resources are discovered during construction activities, the contractor shall halt construction activities in a 50-foot radius and notify the project proponent and the City of Redlands. A Secretary of the Interior qualified archaeologist (Principal Archaeologist) shall be notified and afforded the necessary time to recover, analyze, and curate the find(s). The Principal Archaeologist shall recommend the extent of archaeological monitoring necessary to ensure the protection of any other resources that may be in the area. Construction activities may



continue on other parts of the project site while evaluation and treatment of historical or unique archaeological resources takes place.

The Principal Archaeologist, depending on the type and extent of the finds, may prepare an Archaeological Resources Treatment Plan (ARTP) to guide future monitoring, the recovery of cultural resources, analysis and reporting of the finds, and curation of the finds. The ARTP shall be submitted to the City and the project proponent for approval.

- MM CUL-3:** If human remains are encountered during excavations associated with this project, all work shall stop within a 30-foot radius of the discovery, and the San Bernardino County Coroner will be notified (§ 5097.98 of the Public Resources Code). The Coroner will determine whether the remains are recent human origin or older Native American ancestry. If the coroner, with the aid of the supervising archaeologist, determines that the remains are prehistoric, they will contact the Native American Heritage Commission (NAHC). The NAHC will be responsible for designating the Most Likely Descendant (MLD). The MLDS (either an individual or sometimes a committee) will be responsible for the ultimate disposition of the remains, as required by § 7050.5 of the California Health and Safety Code. The MLD will make recommendations within 24 hours of their notification by the NAHC. These recommendations may include scientific removal and nondestructive analysis of human remains and items associated with Native American burials (§ 7050.5 of the Health and Safety Code).

1.10.4 Geology and Soils

- MM-GEO-1:** A qualified paleontologist, approved by the City of Redlands and the Western Science Center, must be retained prior to excavation and grading activities at the project site.
2. Prior to the earth-moving activities, the paleontologist shall develop a site-specific Paleontological Resources Impact Mitigation Program (PRIMP) to be implemented in support of the Project in order to mitigate potential adverse impacts to paleontological resources. The PRIMP shall follow guidelines developed by the Society for Vertebrate Paleontology and include monitoring of ground disturbance activities in sediments that are likely to include paleontological resources, specimen recovery, and screen washing; preparation of any collected specimens to the point of identification; curation of any collected specimens to a museum repository with permanent, retrievable storage; and preparation of a final paleontological survey report that would provide details of monitoring, fossil identification, and repository arrangements. The Project Applicant shall then comply with the recommendations of the Project Paleontologist and requirements of the PRIMP.
 3. Before the mitigation program begins, the paleontologist or monitor must coordinate with the appropriate construction contractor personnel to provide information regarding the requirements of the City or Redlands, as applicable, for the protection of paleontological resources. Contractor personnel shall be briefed on the procedures to follow in the event that fossil remains, and a previously unrecorded fossil site are encountered by earth-moving activities, particularly when the monitor is not on site.



4. The qualified paleontologist shall perform periodic inspections of excavation and grading activities at the project site to determine the presence of fossiliferous soils. The frequency and location of inspections shall be specified in the PRIMF and will depend on the depth of excavation and grading activities and the materials being excavated. If paleontological materials are encountered, the paleontologist must temporarily divert or redirect the grading and excavation activities in the area of the exposed material to facilitate evaluation and, if necessary, salvage. The authority of the paleontologist to temporarily halt construction in part of the project site must be included in the project grading and construction plans. A copy of the report of the paleontological survey is submitted to the Western Science Center. Any fossils recovered during mitigation shall be deposited in an accredited and permanent scientific institution for the benefit of current and future generations.

1.10.5 Greenhouse Gas Emissions

Impacts associated with significance threshold A would be significant and unavoidable even with mitigation measures. Impacts associated with significance threshold B would be less than significant with mitigation measures. In both cases, the following mitigation measures would be required to minimize impacts related to greenhouse gas emissions.

As discussed in **Section 4.7.5**, the project must incorporate mitigation measures during the construction and operational phases. CAPCOA has developed a method of quantifying GHG reducing measures that may be incorporated into potentially significant projects. These quantifiable construction mitigation measures and range of potential GHG reductions in parentheses are listed below (CAPCOA, 2010, P. 410-488):

- MM GHG-1** Using alternative fuels for construction equipment (0 to 22 percent).
- MM GHG-2** Using electric or hybrid construction equipment (2.5 to 80 percent of GHG emissions from equipment that is electric or hybrid if used 100 percent of the time).
- MM GHG-3** Limiting construction equipment idling beyond regulation requirements (varies with the amount of project idling occurring and the amount reduced).
- MM GHG-4** Instituting a heavy-duty offroad vehicle plan (range of effectiveness is not applicable because it only ensures compliances with other mitigation measures).
- MM GHG-5** Implementing a construction vehicle inventory tracking system (range of effectiveness does not reduce GHG emissions in and of itself; it only ensures compliance with other mitigation measures).

During the project's operational phase, the majority of GHG emissions will result from mobile sources such as employee and visitor trips. The traffic study provides the most effective GHG reduction measures that can be implemented to reduce VMT. **MM TRANS-4**, **MM AQ-1** and **MM AQ-2** below were taken into account in emissions calculations and must be considered by the project. These measures and their estimated potential VMT reductions are detailed in **Appendix D13** and are summarized below.



MM TRANS-1 Implement Commute Trip Reduction Marketing (4 percent of Home-Based Work (HBW) VMT).

MM TRANS-2 Provide Employee Rideshare Program (4 percent of HBW VMT).

MM TRANS-3 Provide End-of-Trip Bicycle Facilities (0.3 percent of HBW VMT).

MM TRANS-4 Provide Employer-Sponsored Vanpool, (1.6 percent of HBW VMT) (listed as T-11 in CalEEMod).

MM AQ-1 Replace Gas Powered Landscape Equipment with Zero-Emission Landscape Equipment (listed as LL-1 in CalEEMod).

MM AQ-2 Provide Electric Vehicle Charging Infrastructure (listed as T-14 in CalEEMod).

1.10.6 Transportation

Impacts associated with significance threshold B would be potentially significant without mitigation. Therefore, the following mitigation measures would be required to minimize potential impacts related to traffic and transportation.

MM TRANS-1 Prior to issuance of a Certificate of Occupancy for Phase 1 of the project, the project proponent will implement a commute trip reduction program consisting of information sharing and marketing to promote and educate employees about their travel choices to the project site beyond driving such as carpooling, taking transit, walking, and biking, thereby reducing VMT and GHG emissions.

MM TRANS-2 Prior to issuance of a certificate of occupancy for each phase of the project, the project proponent will implement a ridesharing program for employees with similar commutes with funding requirements for employers. Ridesharing encourages carpooled vehicle trips in place of single-occupied vehicle trips, thereby reducing the number of trips, VMT, and GHG emissions. Existing programs including IE Commuter can be leveraged for this measure.

MM TRANS-3 Prior to issuance of a certificate of occupancy for each phase of the project, the project proponent will install and maintain end-of-trip facilities for employee use. End-of-trip facilities include bike parking, bike lockers, showers, and personal lockers. The provision and maintenance of secure bike parking and related facilities encourages commuting by bicycle, thereby reducing VMT and GHG emissions.

MM TRANS-4 Prior to issuance of a certificate of occupancy for each phase of the project, the project proponent will implement an employer-sponsored vanpool service. Vanpooling is a flexible form of public transportation that provides groups of 5 to 15 people with a cost-effective and convenient rideshare option for commuting. The mode shift from long-distance, single-occupied vehicles to shared vehicles reduces overall commute VMT, thereby reducing GHG emissions. It was assumed that up to 2% of employees would participate in the vanpool program.



1.10.7 Tribal Cultural Resources

MM-TCR-1: Retain a Native American Monitor Prior to Commencement of Ground-Disturbing Activities

- A. The project applicant shall retain a Native American Monitor(s) from one or more Consulting Tribe(s). Monitors from more than one tribe may coordinate and utilize a rotating schedule at their discretion. The monitor(s) shall be retained prior to the commencement of any “ground-disturbing activity” for the subject project at all project locations (i.e., both on-site and any off-site locations that are included in the project description/definition and/or required in connection with the project, such as public improvement work). “Ground-disturbing activity” shall include, but is not limited to, demolition, pavement removal, potholing, auguring, grubbing, tree removal, boring, grading, excavation, drilling, and trenching.
- B. A copy of the executed monitoring agreement with each monitoring Consulting Tribe(s) shall be submitted to the lead agency prior to the earlier of the commencement of any ground-disturbing activity, or the issuance of any permit necessary to commence a ground-disturbing activity.
- C. The monitor(s) will complete daily monitoring logs that will provide descriptions of the relevant ground-disturbing activities, the type of construction activities performed, locations of ground-disturbing activities, soil types, cultural-related materials, and any other facts, conditions, materials, or discoveries of significance to the Tribe. Monitor logs will identify and describe any discovered TCRs, including but not limited to, Native American cultural and historical artifacts, remains, places of significance, etc., (collectively, tribal cultural resources, or “TCR”), as well as any discovered Native American (ancestral) human remains and burial goods. Copies of monitor logs will be provided to the project applicant/lead agency upon written request to the Tribe.
- D. On-site tribal monitoring shall conclude upon the latter of the following (1) written confirmation to the Consulting Tribe(s) from a designated point of contact for the project applicant that all ground-disturbing activities and phases that may involve ground-disturbing activities on the project site or in connection with the project are complete; or (2) a determination and written notification by the Consulting Tribe(s) to the project applicant and lead agency that no future, planned construction activity and/or development/construction phase at the project site possesses the potential to impact TCRs.

MM-TCR-2: Unanticipated Discovery of Tribal Cultural Resource Objects (Non-Funerary/Non-Ceremonial)

- A. Upon discovery of any TCRs, all construction activities in the immediate vicinity of the discovery shall cease (i.e. not less than the surrounding 50 feet) and shall not resume until the discovered TCR has been fully assessed by the Consulting Tribe(s)’ monitor(s) and/or archaeologist(s).

MM-TCR-3: Unanticipated Discovery of Human Remains and Associated Funerary or Ceremonial Objects



- A. Native American human remains are defined in PRC 5097.98 (d)(1) as an inhumation or cremation, and in any state of decomposition or skeletal completeness. Funerary objects, called associated grave goods in Public Resources Code Section 5097.98, are also to be treated according to this statute.
- B. If Native American human remains and/or grave goods are discovered or recognized on the project site, then Public Resource Code 5097.9 as well as Health and Safety Code Section 7050.5 shall be followed.
- C. Human remains and grave/burial goods shall be treated alike per California Public Resources Code section 5097.98(d)(1) and (2).
- D. Preservation in place (i.e., avoidance) is the preferred manner of treatment for discovered human remains and/or burial goods.
- E. Any discovery of human remains/burial goods shall be kept confidential to prevent further disturbance.

1.11 Summary of Alternatives

This Draft PEIR examines in detail four alternatives to the project: Alternative 1: No Project Alternative, Alternative 2: No Project/General Plan Buildout Alternative, Alternative 3: Reduced Intensity Alternative, and Alternative 4: Dispersed Facilities Alternative. A general description of these alternatives is provided below. Refer to **Section 5.0** of this Draft EIR for a more detailed description of the alternatives, a comparative analysis of the impacts of these alternatives to those of the proposed project, and a description of the alternatives that were considered but rejected as infeasible.

1.11.1 Alternative 1 – No Project/No Development Alternative

In accordance with the CEQA Guidelines, the No Project Alternative for a development project on an identifiable property consists of the circumstances under which the project does not proceed. Section 15126.6(e)(3)(B) of the CEQA Guidelines states in part that, “in certain circumstances, the No project Alternative mean ‘no build’ wherein the existing environmental setting is maintained.” Accordingly, for the purposes of this analysis, Alternative 1, the No project Alternative, assumes that the project would not be approved. The existing medical office building onsite would remain and would remain in operation. The balance of the site would remain vacant. Kaiser Permanente members in the service area of the proposed facility would continue traveling to Kaiser Permanente facilities in the cities of Fontana and Ontario.

The No Project Alternative would eliminate the project’s significant and unavoidable construction transportation impact. The No Project Alternative would have similar impacts as the project for wildfire hazards. Impacts associated with the remaining environmental issues would be less than those of the project. This alternative would have no impacts considered to be substantially more significant when compared to the proposed project.

Under the No Project Alternative, no new development would occur. Therefore, this alternative would not meet any of the project’s objectives of developing a medical center serving Kaiser Permanente members in the San Bernardino-Redlands region.



1.11.2 Alternative 2 – No Project/General Plan Buildout Alternative

In this alternative the proposed project is not developed. The existing medical office building remains present and in operation. This alternative assumes that the balance of the project site (28.15 acres) would be built out in accordance with the existing General Plan land use designation for the site, which is Commercial Industrial. The Commercial/Industrial land use category permits the development of certain types of commercial and light industrial uses. It includes flex commercial space as well as business parks. Uses permitted in this category include auto services, commercial retail and services, and manufacturing (City of Redlands, 2017, p. 4-11). The maximum floor area ratio in the Concept Plan No.1 zoning designation is 0.6 (City of Redlands, 2017, p. 4-11). Thus, this alternative supposes development of the vacant part of the site with about 552,000 square feet of commercial and/or industrial uses.² The maximum building height would be 150 feet (Urban Environs, 2004). The EVCSP requires that at least 15 percent of industrial development are landscaping (City of Redlands, 2017, p. D4-70). This alternative, if developed with industrial uses, would include at least 183,932 square feet of landscaping (28.15 acres x 43,560 square feet per acre x 15%). The proposed project, at buildout, would include 563,000 square feet of landscaping. Construction effort would be reduced in this alternative (552,000 square feet) compared to the proposed project (863,000 square feet plus six-level, 456,000-square-foot parking structure, or 1,319,000 square feet total).³

The No Project/General Plan Buildout Alternative would reduce the project's significant and unavoidable greenhouse gas emissions impacts; impacts of this alternative are conservatively assumed to remain significant and unavoidable. This alternative would also reduce the following impacts of the proposed project: aesthetics, air quality, energy, hazards and hazardous materials, noise, transportation, and utilities. This alternative would not avoid any of the significant and unavoidable impacts of the proposed project as the project site is still planned for development. Impacts of this alternative would be similar to those of the proposed project for biological resources, cultural resources, geology and soils, hydrology and water quality, and tribal cultural resources. Impacts on land use and planning of this alternative would be greater than those of the proposed project.

Under Alternative 2, the No Project/General Plan Buildout Alternative, the project site would be developed with 552,000 square feet of commercial and/or industrial uses rather than the proposed hospital and medical office uses. Therefore, this alternative would not meet any of the following project objectives (objectives 1 and 3).

- Provide health care capacity for Kaiser Permanente members in the San Bernardino-Redlands region (objective 1).
- Develop the project site in accordance with the Medical Facilities designation in Redlands Business Center Concept Plan No. 1 (objective 3).

This alternative would partially meet the following project objectives (objectives 2 and 4):

² In calculating potential land use intensity, the maximum intensity per the permitted floor area ratio, 735,728 square feet, was multiplied by 0.75; land is rarely built out to the maximum intensity permitted under General Plan and zoning policies.

³ The estimate of 456,000 square feet for the parking structure is based on footprint of 76,000 square feet (380 feet x 200 feet) x 6 levels.



- Incorporate numerous sustainability features such as vegetated swales, tree-based infiltration, and inert bioswales; high-performance building enclosure systems, external shading, energy efficient and carbon neutral building systems and equipment selections, and solar panels. The buildings will meet or exceed Leadership in Energy and Environmental Design (LEED) Gold certification (objective 2).
- Phase development over 25 years to keep pace with projected increase in Kaiser Permanente membership in the facility's service area over that period (objective 4).

1.11.3 Alternative 3 – Reduced Intensity Alternative

This alternative consists of reducing the intensity of the proposed project by deleting phases 3 and 4 from the project (see **Table 5.7-1** below); and reducing the capacity of the proposed parking structure by 572 spaces; the number of spaces allocated to phases 3 and 4. Thus, the parking structure capacity would be reduced by about half, from 1,288 to 716 spaces. This alternative is intended to reduce the significant and unavoidable vehicle miles traveled impact of the proposed project. This analysis assumes that the parking structure would be reduced from seven levels in the proposed project (including one basement level) to four levels in this alternative (one at-grade level and three above-ground levels). Total square footage onsite at completion of this alternative would be 720,000 square feet compared to 983,000 square feet for the proposed project. In this alternative project trip generation would be reduced to 10,694 from 16,093 for the proposed project (see **Table 1.11-1** below). In this alternative the footprints of phases 3 and 4 of the proposed project, which total 121,000 square feet, would be landscaped with native drought-tolerant vegetation.

Table 1.11-1
SUMMARY, REDUCED INTENSITY ALTERNATIVE
All areas in square feet

Phase	Description	Total Development Area	Building Area (per phase)	Total Building Coverage	Total Landscaping
Reduced Intensity Alternative					
Existing	MOB 1 (medical office)	407,000	120,000	42,600	Not available
1	ASC/MOB 2	1,194,000	165,000	76,000	411,000
2	Hospital (213 beds) and Central Utilities	1,513,000	435,000	213,000	602,000
Total, medical office	Not applicable	building area, square feet: 285,000 (165,000 SF proposed + 120,000 SF existing)			
Total	Not applicable	building area, square feet: 720,000 (600,000 proposed + 120,000 existing)			

The Reduced Intensity Alternative, compared to the project, would reduce impacts on air quality, energy, greenhouse gas emissions, hydrology and water quality, noise, transportation, and utilities and service systems. Impacts on aesthetics, biological resources, cultural resources, geology and soils, land use and planning, and tribal cultural resources would be similar to those of the proposed project. No impacts would be increased by this alternative compared to the proposed project.

Under the Alternative 3, Reduced Intensity Alternative, the following project objective (objective 2) would be fully met:



- Incorporate numerous sustainability features such as vegetated swales, tree-based infiltration, and inert bioswales; high-performance building enclosure systems, external shading, energy efficient and carbon neutral building systems and equipment selections, and solar panels. The buildings will meet or exceed Leadership in Energy and Environmental Design (LEED) Gold certification (objective 2).

The following objectives (objectives 1, 3, and 4) would be partially met:

- Provide health care capacity for Kaiser Permanente members in the San Bernardino-Redlands region (objective 1).
- Develop the project site in accordance with the Medical Facilities designation in Redlands Business Center Concept Plan No. 1 (objective 3).
- Phase development over 25 years to keep pace with projected increase in Kaiser Permanente membership in the facility's service area over that period (objective 4).

1.11.4 Alternative 4 – Dispersed Facilities Alternative

This alternative consists of development of approximately six small medical office facilities in the San Bernardino-Redlands region (the service area for the proposed project). The alternative was devised to reduce the significant and unavoidable transportation (vehicle miles traveled, or VMT) impact of the proposed project by distributing outpatient care across multiple locations. For comparison, existing Kaiser Permanente medical office facilities are located in Redlands (at the proposed project site), San Bernardino, and Colton. Additional small facilities under this alternative would be located within the region, including the cities of San Bernardino, Redlands, Highland, Colton, and Yucaipa, as well as surrounding unincorporated areas of San Bernardino County. In-patient care, including surgeries, intensive care, and critical care, would continue to be provided at existing Kaiser Permanente hospitals in Ontario and Fontana.

Although use of multiple smaller facilities could result in increased VMT for Kaiser Permanente staff traveling between sites, it is anticipated that overall VMT reductions would result from shorter average patient travel distances. Thus, reductions in patient travel are the principal means by which this alternative could reduce VMT compared to the proposed project.

The total building area of the six small facilities would be somewhat less than the approximately 1.32 million square feet of the proposed project (including a 456,000-square-foot parking structure). Excluding the parking structure, the proposed project would contain 863,000 square feet of building space. This alternative assumes the six small facilities would collectively total about 75 percent of that building area—approximately 650,000 square feet. Each small facility would therefore be expected to be about 100,000 to 125,000 square feet, not including any required parking.

It is assumed that most of the small facilities would involve redevelopment or reuse of existing buildings, and that no greenfield development (i.e., development on currently vacant land) would occur. Facility sites would likely be located in areas already developed with medical, medical office, and/or commercial uses.

The Dispersed Facilities Alternative, compared to the project, would reduce impacts related to aesthetics, air quality, biological resources, cultural resources, energy, noise, transportation, and utilities and service systems. Impacts on geology and soils, hazards and hazardous materials,



hydrology and water quality, and land use and planning would be similar to those of the proposed project. No impacts would be increased by this alternative compared to impacts of the proposed project.

Under the Alternative 4 - Dispersed Facilities Alternative, the following project objectives (objectives 1 and 2) would be fully met:

- Provide health care capacity for Kaiser Permanente members in the San Bernardino-Redlands region (objective 1).
- Incorporate numerous sustainability features such as vegetated swales, tree-based infiltration, and inert bioswales; high-performance building enclosure systems, external shading, energy efficient and carbon neutral building systems and equipment selections, and solar panels. The buildings will meet or exceed Leadership in Energy and Environmental Design (LEED) Gold certification (objective 2).

The following objective (objective 4) would be partially met:

- Phase development over 25 years to keep pace with projected increase in Kaiser Permanente membership in the facility's service area over that period (objective 4).

The following objective (objective 3) would not be met:

- Develop the project site in accordance with the Medical Facilities designation in Redlands Business Center Concept Plan No. 1 (objective 3).

1.11.5 Environmentally Superior Alternative

Section 15126.6(e)(2) of the CEQA Guidelines indicates that an analysis of alternatives to a project shall identify an Environmentally Superior Alternative among the alternatives evaluated in an EIR. The CEQA Guidelines also state that should it be determined that the No Project/No Build Alternative is the Environmentally Superior Alternative, the EIR shall identify another Environmentally Superior Alternative among the remaining alternatives.

With respect to identifying an Environmentally Superior Alternative among those analyzed in this Draft PEIR, the range of feasible alternatives includes the No Project Alternative; the No Project/General Plan Buildout Alternative; the Reduced Intensity Alternative; and the Dispersed Facilities Alternative. **Table 5.4-1** provides a summary of the description of alternatives and a comparison of the different project components. **Table 5.4-2** provides a summary comparison, by environmental topic, of the project impacts and the impacts of each of the alternatives. **Table 5.4-3** provides a summary comparison of each of the alternatives' ability to meet the objectives of the project. A more detailed description of the potential impacts associated with each alternative is provided above. Pursuant to § 15126.6(c) of the CEQA Guidelines, the analysis below addresses the ability of the alternatives to "avoid or substantially lessen one or more of the significant effects" of the project.

Of the alternatives analyzed in this Draft PEIR, Alternative 1, the No Project Alternative would avoid all the project's significant environmental impacts, including the project's significant and unavoidable construction noise impacts. Although Alternative 1 would reduce most of the project's



less-than-significant and less-than-significant-with-mitigation impacts it would not meet any of the project's objectives.

In accordance with the CEQA Guidelines requirement to identify an Environmentally Superior Alternative other than the No Project/No Build Alternative, a comparative evaluation of the remaining alternatives indicates that Alternative 3, the Reduced Intensity Alternative, would be the Environmentally Superior Alternative. The Reduced Intensity Alternative would reduce impacts of the project related to construction and operational toxic air contaminants; operational regional air pollutant emissions; construction noise and vibration; and operational noise impacts. All other impacts of this alternative would be similar to those of the proposed project. Alternative 3 would comparatively reduce the significant and unavoidable impacts of the proposed project (GHG emissions and VMT). Alternative 3's GHG and VMT impacts would remain significant and unavoidable. None of the impacts of Alternative 3 would be greater than those of the proposed project.

Alternative 3 would fully meet only one of the four objectives (objective 2) for the project:

- Incorporate numerous sustainability features such as vegetated swales, tree-based infiltration, and inert bioswales; high-performance building enclosure systems, external shading, energy efficient and carbon neutral building systems and equipment selections, and solar panels. The buildings will meet or exceed Leadership in Energy and Environmental Design (LEED) Gold certification (objective 2).

Alternative 3 would only partially meet three of the four objectives (objectives 1, 3, and 4) for the project:

- Provide health care capacity for Kaiser Permanente members in the San Bernardino-Redlands region (objective 1).
- Develop the project site in accordance with the Medical Facilities designation in Redlands Business Center Concept Plan No. 1 (objective 3).
- Phase development over 25 years to keep pace with projected increase in Kaiser Permanente membership in the facility's service area over that period (objective 4).

Note that Alternative 4, the Dispersed Facilities Alternative, would reduce more impacts than Alternative 3 including those on aesthetics, biological resources, cultural resources, operational noise, and tribal cultural resources. Alternative 4 was not chosen as the Environmentally Superior Alternative because it would not meet one of the project's objectives (Develop the project site in accordance with the Medical Facilities designation in Redlands Business Center Concept Plan No. 1); and would partially meet two other objectives (incorporating sustainability features; and phasing development to keep pace with projected increase in Kaiser Permanente membership in the region).



2.0 PROJECT DESCRIPTION

2.1 Project Location

The project site is part of an approximately 37-acre campus located at 1301 California Street (APN 0167-441-07-000) within Concept Plan No. 1 of the City of Redlands' East Valley Corridor Specific Plan. The site, located in the northwest area of Redlands in the East Valley Corridor area of the Redlands General Plan, currently contains a 120,000-square-foot building and parking for Kaiser Permanente Redlands medical offices on a portion of the site. The remaining portion of the site is vacant land. The campus is bounded by Almond Avenue on the north, California Avenue on the east and West Lugonia Avenue on the south; a trailer parking area associated with the Ashley Furniture Distribution Center is on the western boundary near the southwest corner of the campus property. Interstate 10 is approximately 0.25 mile to the south, and the runways of San Bernardino International Airport are approximately 1.4 miles to the northwest.

2.2 Project Background

The City of Redlands is processing a request to implement a series of discretionary actions that would ultimately allow for the development of the vacant portion of the site under a new Development Plan procedure. The steps involve: ((1) **Amendment No. 8 to Concept Plan 1** (see **Appendix C** for draft text of the amendment), which would add a Development Plan application procedure in Concept Plan No. 1, Section IV, Part A (Discretionary Actions); and (2) **Planned Development No. 6**, which would establish a development plan for the expansion of the existing Kaiser Permanente Redlands Medical Offices site in multiple phases.

The City's General Plan Land Use designation for the site is Commercial Industrial, and zoning for the site (under the East Valley Corridor Specific Plan) is Concept Plan 1 (CP-1) Medical Facilities District. The proposed project is an allowed use in this district.

The City of Redlands is the Lead Agency for the purposes of the California Environmental Quality Act (CEQA).

2.3 Project Overview

The proposed project would consist of the two elements summarized above: (1) Amendment No. 8 to Concept Plan 1; and (2) Planned Development No. 6, which would consist of:

- Ambulatory Services Center/Medical Office Building No. 2 (Phase 1).
- Hospital with associated support buildings, including central utility plant and parking structure (Phase 2).
- Medical Office Building No. 3 (Phase 3).
- Possible expansion of Hospital (Phase 4).

2.4 Project Objectives

The following are the project objectives.



1. Provide health care capacity for Kaiser Permanente members in the San Bernardino-Redlands region.
2. Incorporate numerous sustainability features such as vegetated swales, tree-based infiltration, and inert bioswales; high-performance building enclosure systems, external shading, energy efficient and carbon neutral building systems and equipment selections, and solar panels. The buildings will meet or exceed Leadership in Energy and Environmental Design (LEED) Gold certification.
3. Develop the project site in accordance with the Medical Facilities designation in Redlands Business Center Concept Plan No. 1.
4. Phase development over 25 years to keep pace with projected increase in Kaiser Permanente membership in the facility's service area over that period.

2.5 Proposed Project Features

2.5.1 New Buildings

The proposed project will be implemented in four phases. **Table 2.4-1** summarizes the proposed key project features in each phase of development. Estimated completion dates for the four phases are: Phase 1, 2029; Phase 2, 2039; Phase 3, 2045; and Phase 4, 2050 (Beery, 2024).

Table 2.4-1
PROJECT SUMMARY

Phase	Description	Purpose	Building Sq. Ft.	Footprint Sq. Ft.	Building Height to Roof	Levels	Rooftop Equipment Screen
Existing	MOB 1	Medical Office	120,000	40,000	Existing	3	6'-6"
1	ASC/MOB 2	Ambulatory Surgery/ Medical Office	165,000	36,000	62'	4	8'-1"
2	Hospital	213 Bed Acute Care Hospital	400,000	122,000	107'	7+base-ment	15'0"
2	Central Utilities	Mechanical & Electrical Utilities	35,000	15,000	18'	2+base-ment	TBD
3	MOB 3	Medical Office	83,000	20,000	62'	4	7'-6"
4	Hospital Addition	108 Bed Hospital Addition	180,000	30,000	77'	5+base-ment	15'-0"

Source: Development Plan Submittal, July 24, 2024 (CO Architects, 2024, **Appendix C**).

Figure 2.4-1 is a site plan depicting the current state of the development, while **Figures 2.4-2** through **2.4-5** show the layout of the campus at the end of each of the four planned phases of new development. , while **Figures 2.4-6** through **2.4-11** show elevations of buildings in all phases. . The project Development Plan is included in **Appendix C**. Eight acres of surface parking would be

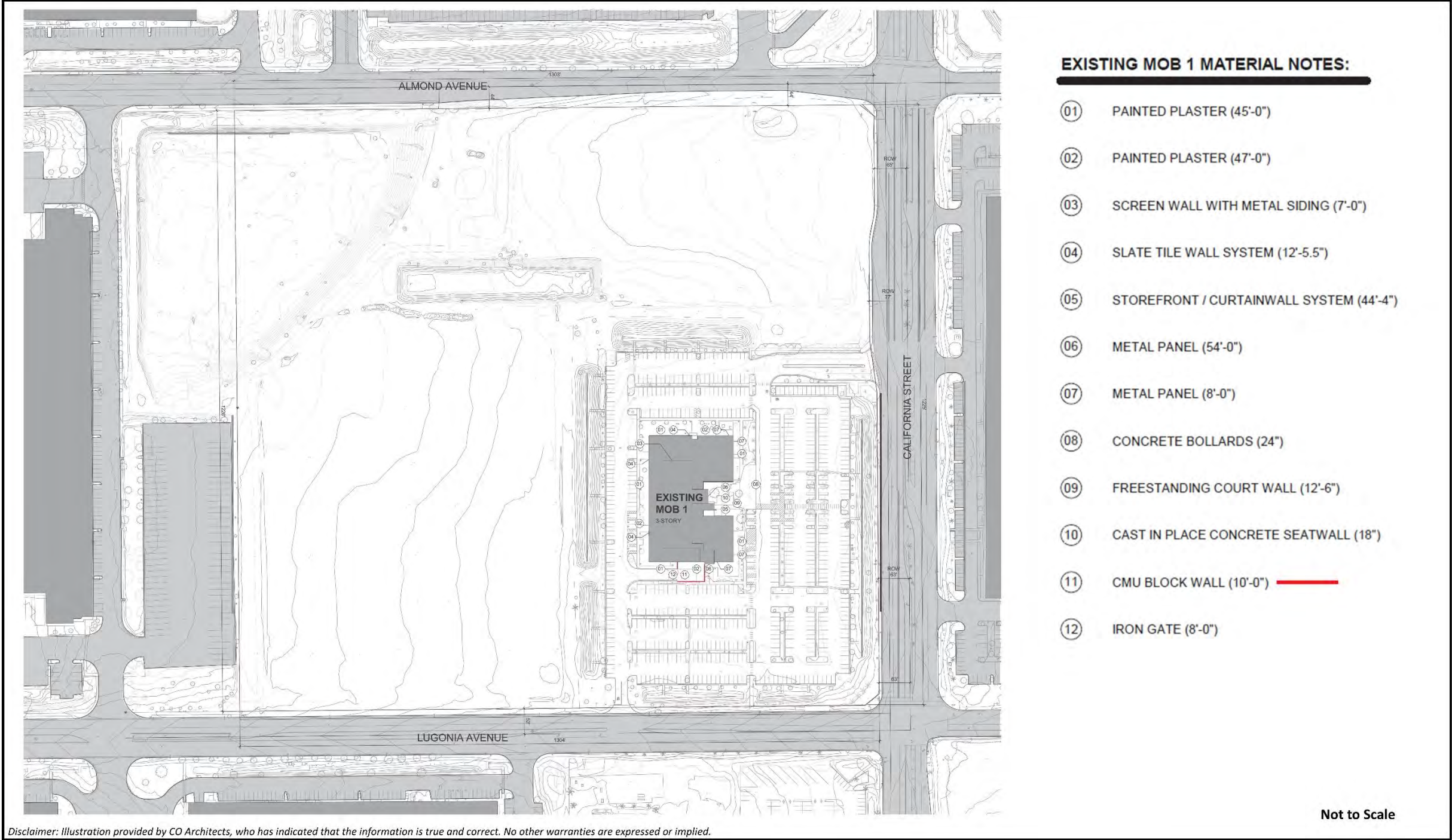


❖ SECTION 2.0 - PROJECT DESCRIPTION ❖

demolished during Phase 1 to make space for construction of the hospital building, parking structure, and central utility plant, all of which would be built in Phase 2.



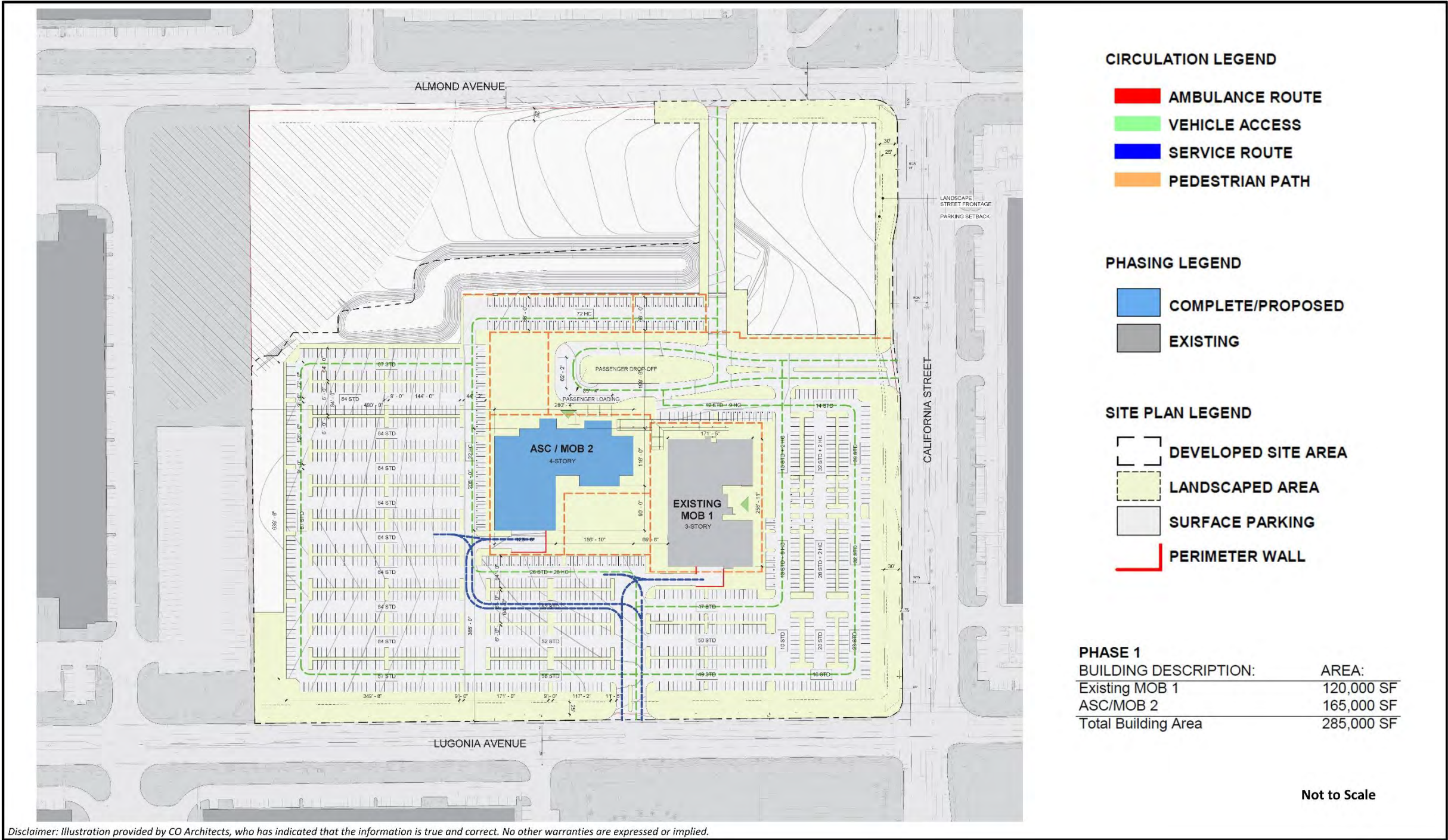
Figure 2.4-1
EXISTING SITE PLAN



**Kaiser Permanente
Redlands Medical Center**
Existing Site Plan



Figure 2.4-2
PHASE 1 SITE PLAN



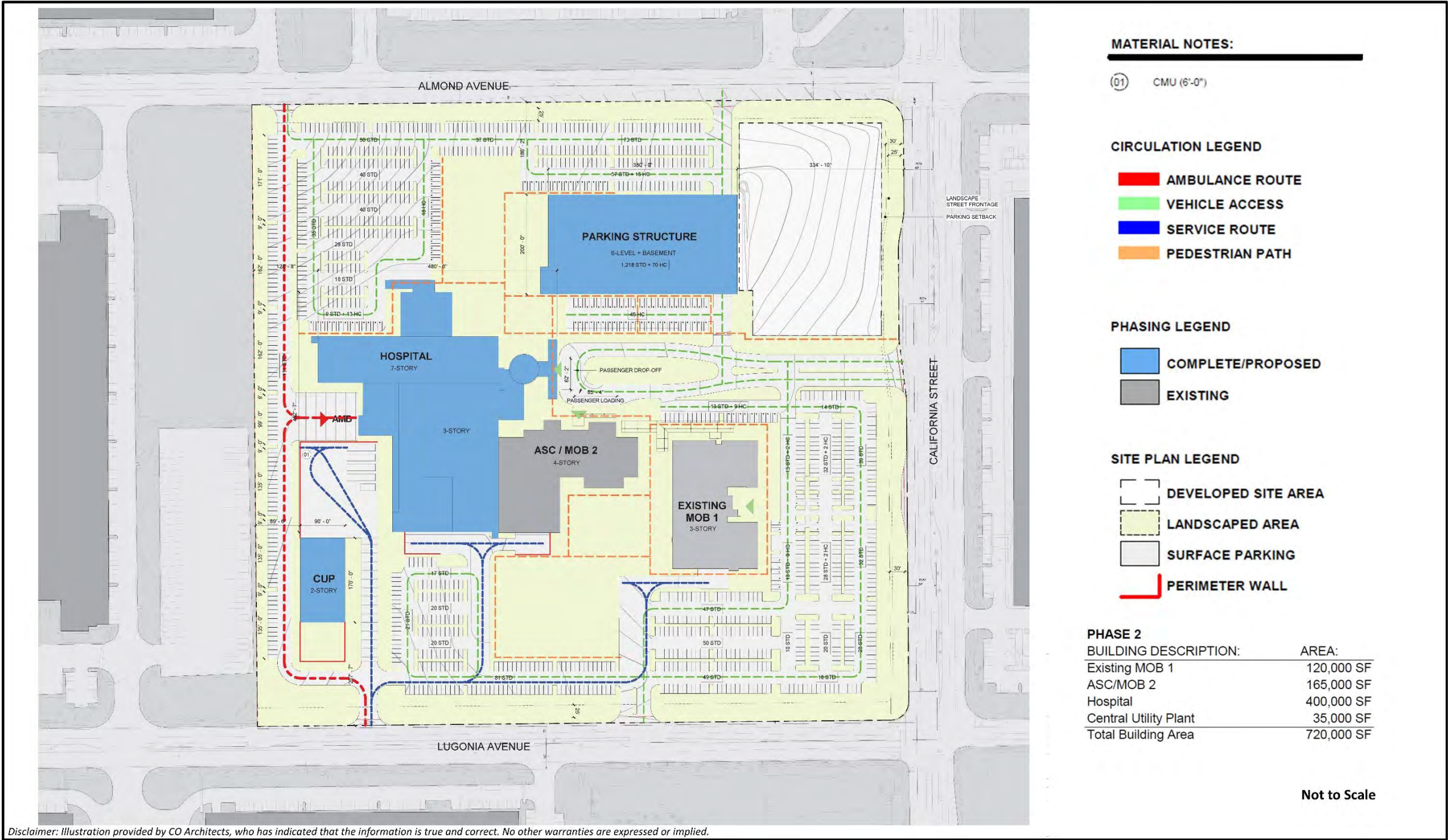
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Source: CO Architects, July 24, 2024.



Kaiser Permanente
Redlands Medical Center
Phase 1 Site Plan



Figure 2.4-3
PHASE 2 SITE PLAN



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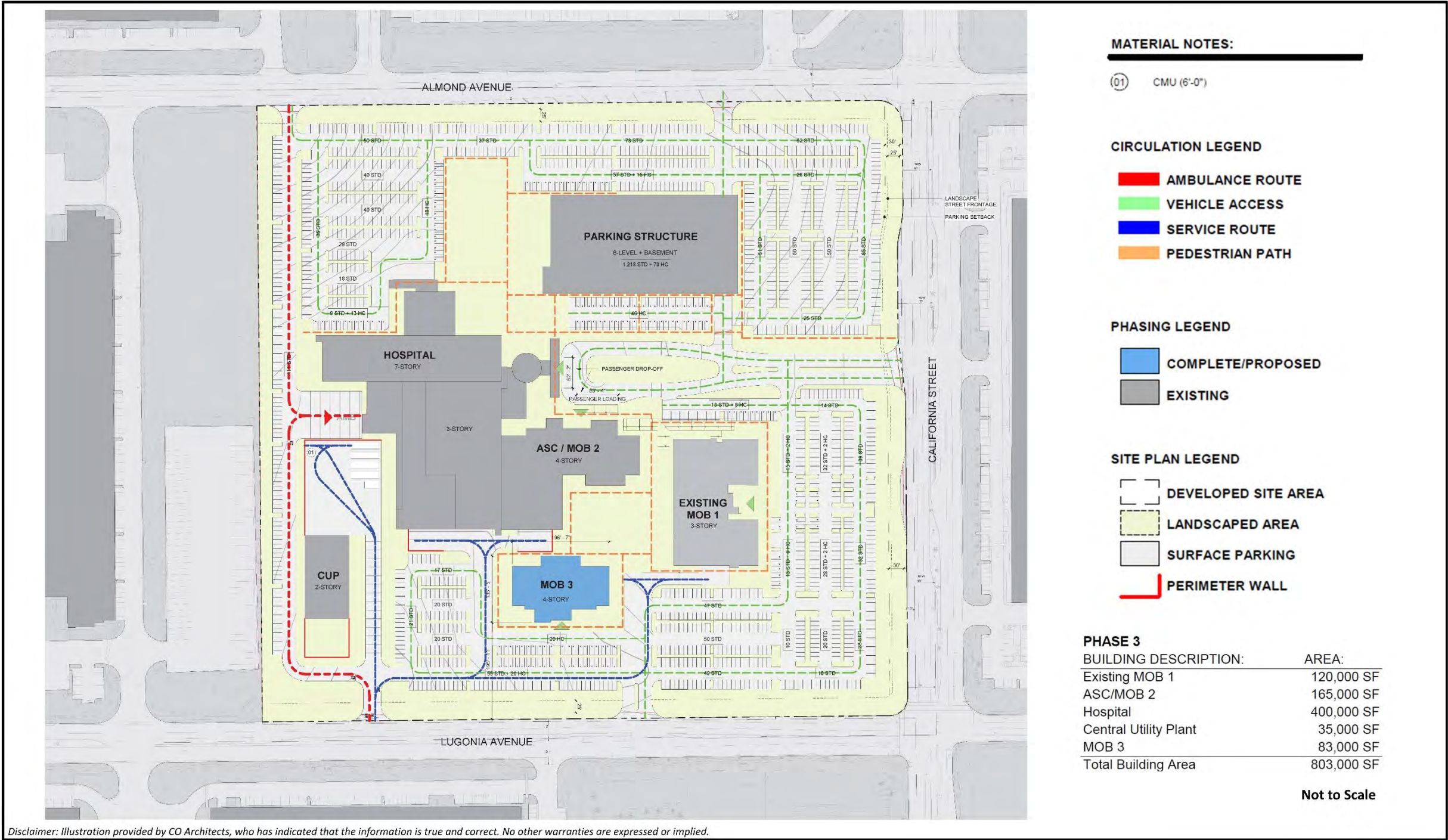
Source: CO Architects, July 24, 2024



Kaiser Permanente
Redlands Medical Center
Phase 2 Site Plan



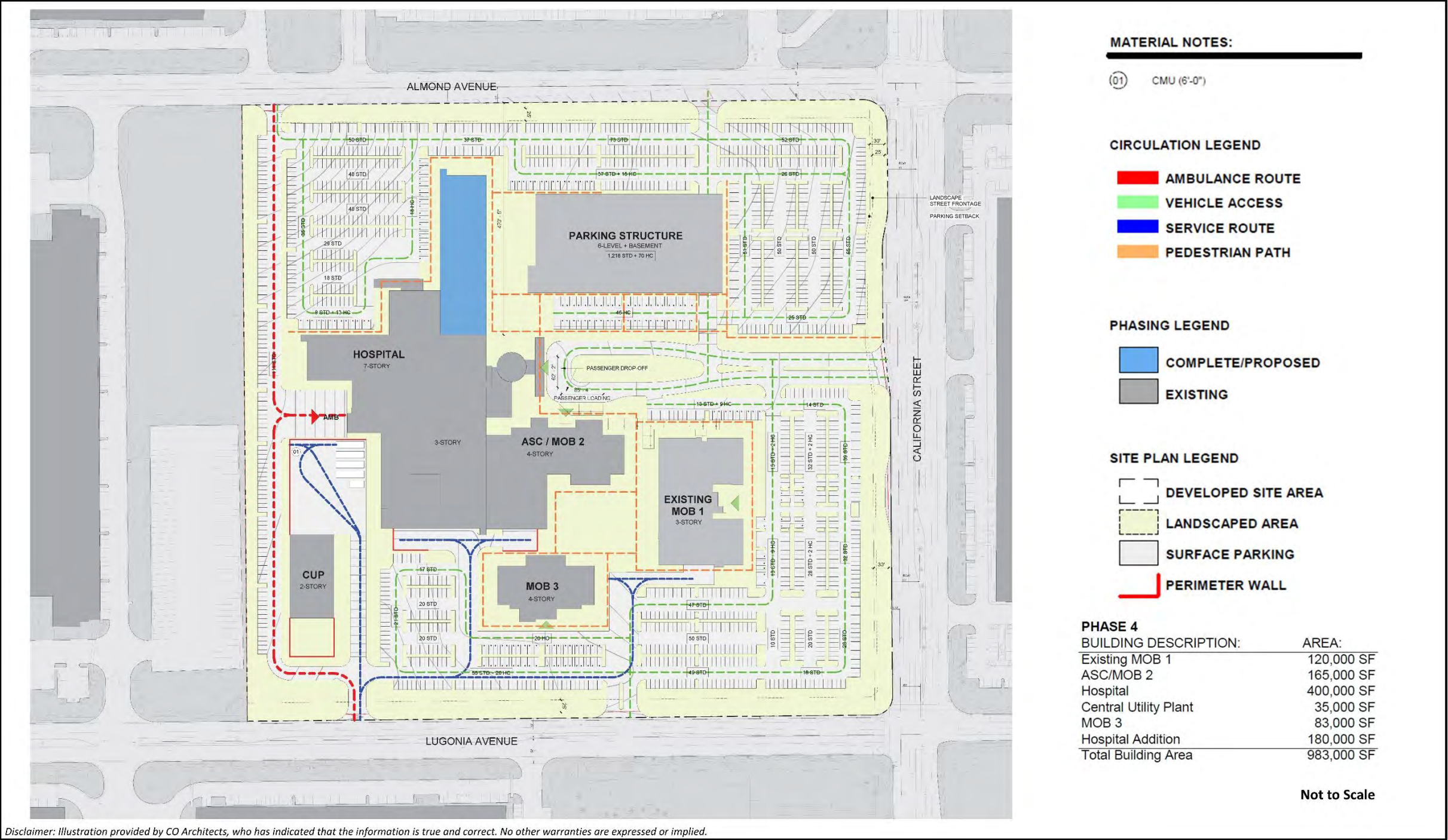
Figure 2.4-4
PHASE 3 SITE PLAN



Kaiser Permanente
Redlands Medical Center
Phase 3 Site Plan



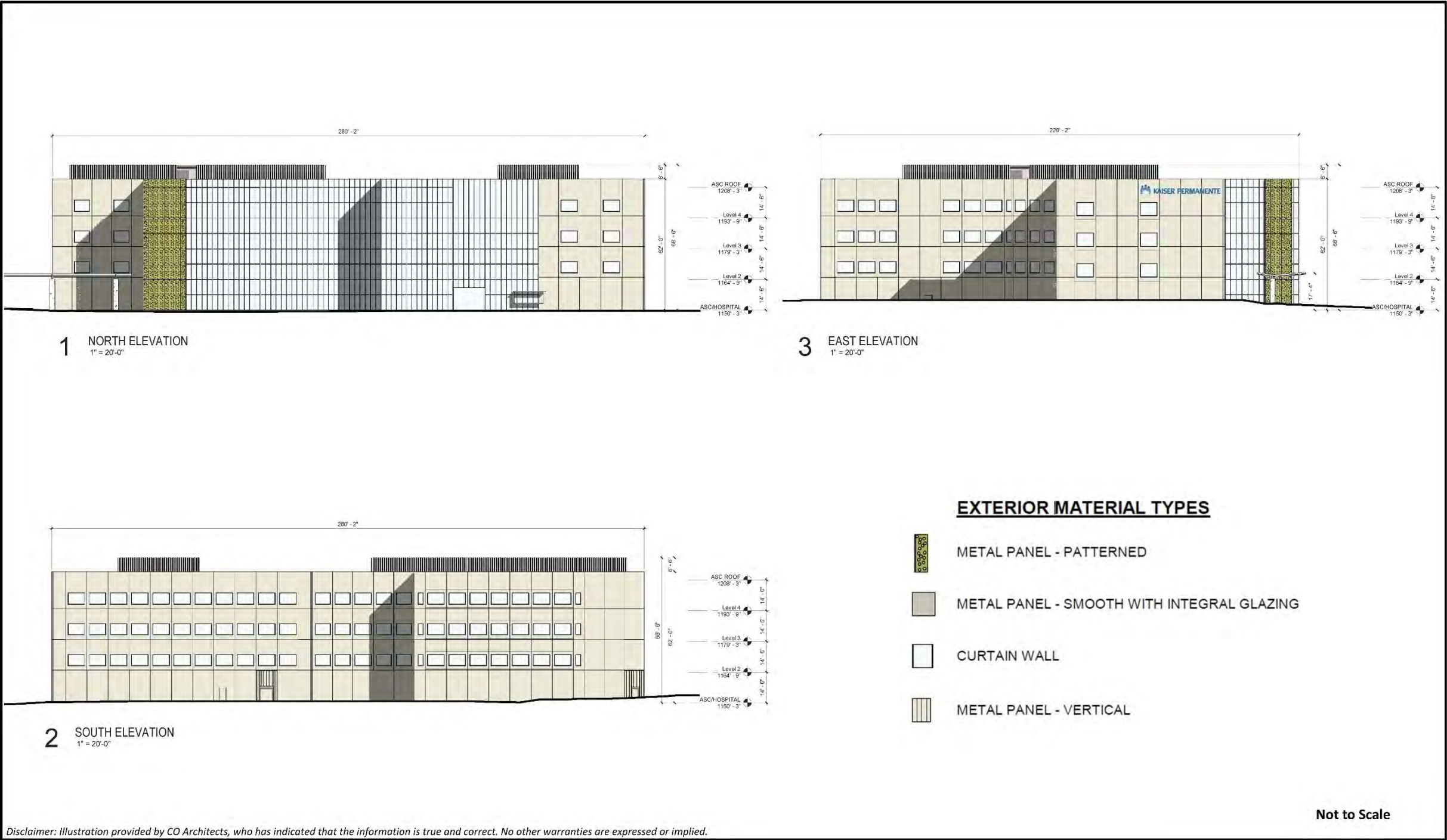
Figure 2.4-5
PHASE 4 SITE PLAN



**Kaiser Permanente
Redlands Medical Center**
Phase 4 Site Plan



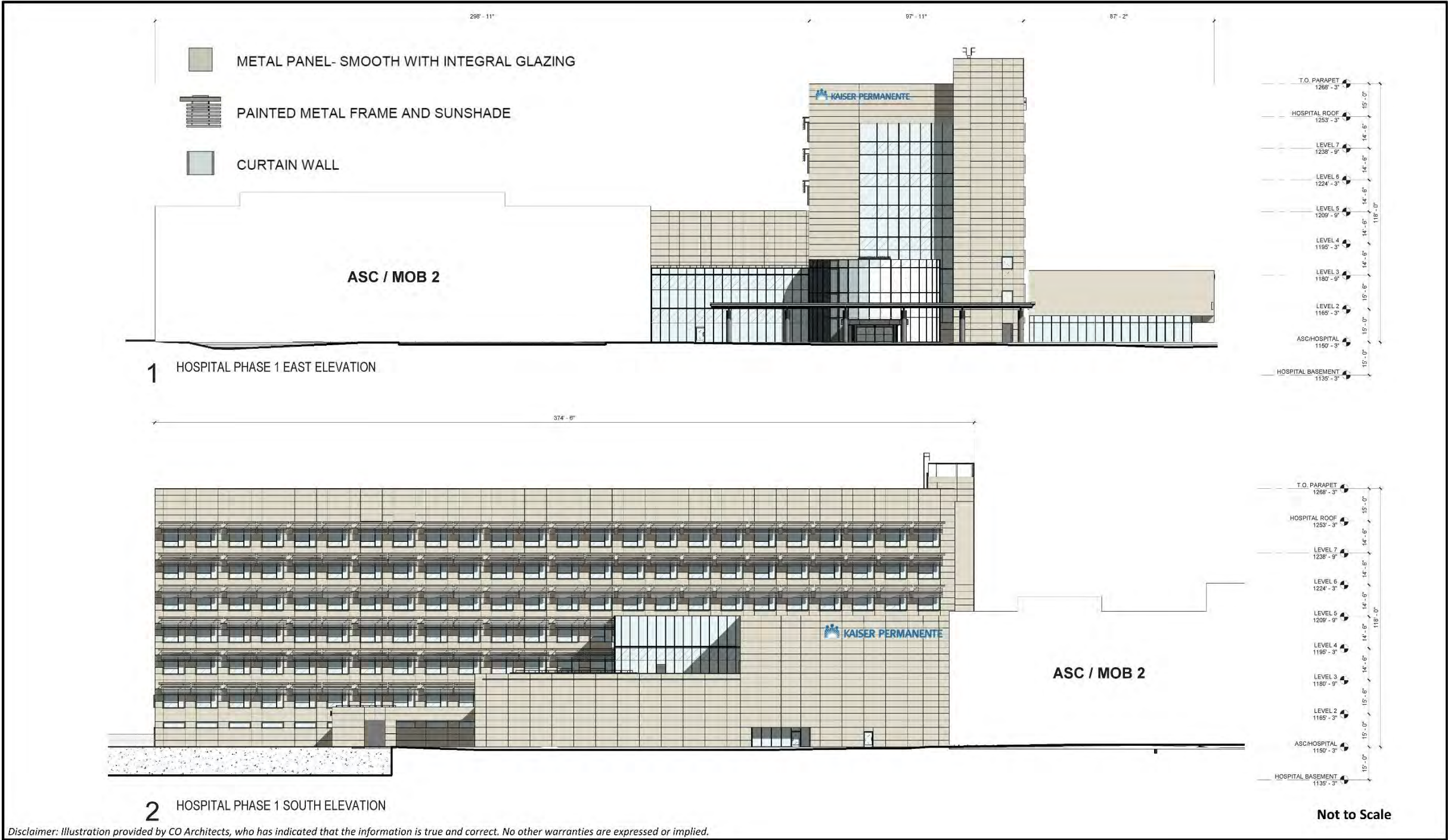
Figure 2.4-6
ASC/MOB 2 ELEVATIONS



**Kaiser Permanente
Redlands Medical Center**
ASC/MOB 2 Elevations



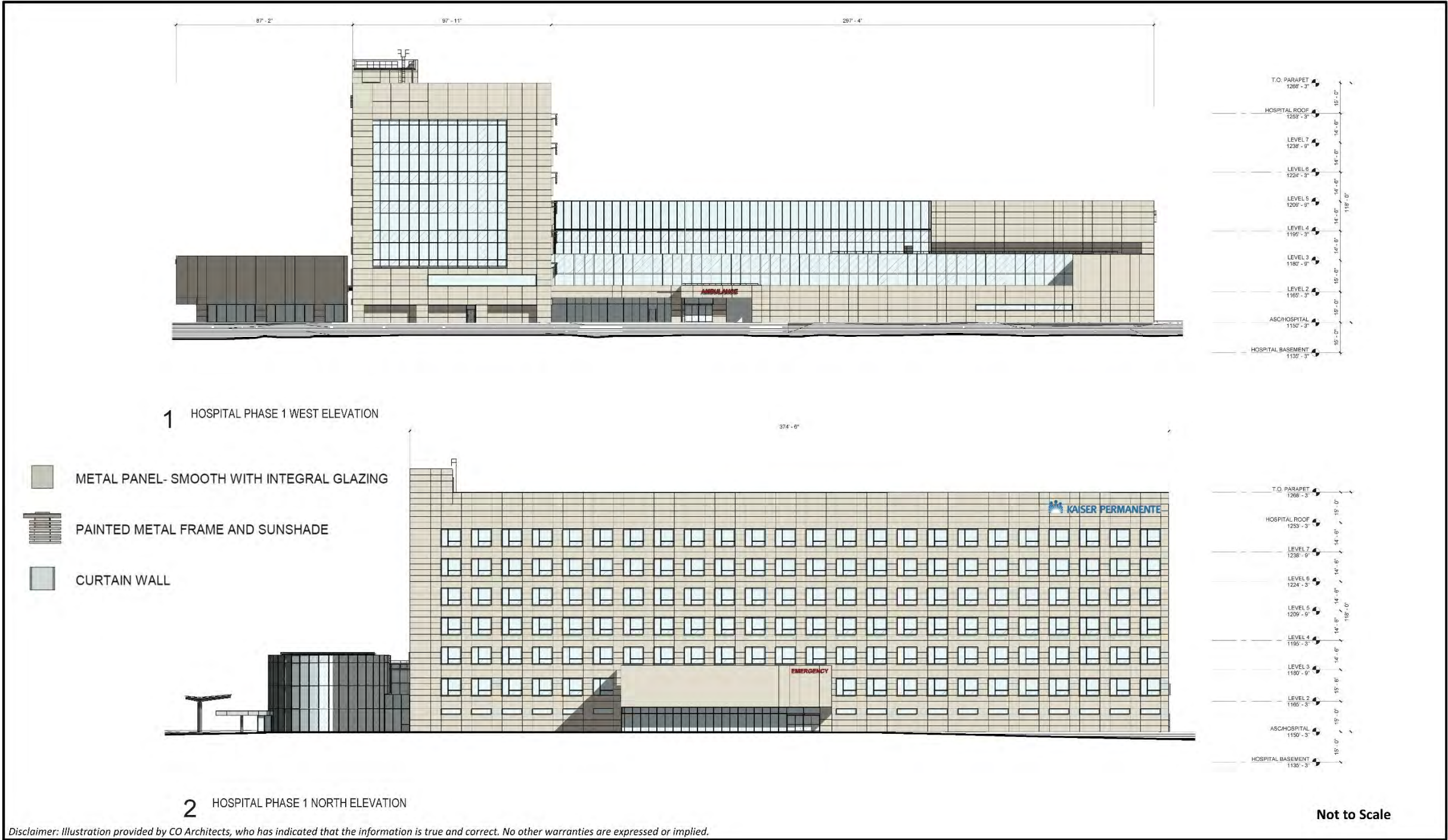
Figure 2.4-7
HOSPITAL ELEVATIONS (1 of 2)



Kaiser Permanente
Redlands Medical Center
Hospital Phase 2 Elevations (1 of 2)



Figure 2.4-8
HOSPITAL ELEVATIONS (2 of 2)



Kaiser Permanente
Redlands Medical Center
Hospital Phase 2 Elevations (2 of 2)



Figure 2.4-9
PARKING STRUCTURE ELEVATIONS



**Kaiser Permanente
Redlands Medical Center**
Parking Structure Elevations



Figure 2.4-10
MOB 3 ELEVATIONS



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Source: CO Architects, July 24, 2024.



Kaiser Permanente
Redlands Medical Center
Mob 3 Elevations



Figure 2.4-11
HOSPITAL ADDITION ELEVATIONS



Kaiser Permanente
Redlands Medical Center
Hospital Phase 4 Elevations



2.5.2 Parking

Under the City's parking requirements, the full development of four phases would require 2,711 parking spaces; the proposed project will provide 2,803 spaces (including 226 ADA spaces) upon completion of Phase 4. **Table 2.4-2** shows specific requirements and parking provided for each phase. **Table 2.4-3** shows numbers of surface and structured parking spaces per phase.

Table 2.4-2
PARKING SUMMARY

Parking Provision	Parking Requirement	Parking Demand Factor	Parking Required	Parking Provided	ADA Spaces (included in total)
Existing MOB 1	5 per 1,000 sf	120,000 sf	600	600	60
ASC/MOB 2	5 per 1,000 sf	165,000 sf	825	825	83
Hospital	1 per bed + 1 per peak staff	213 beds / 501 staff	714	714	16
Central Utility Plant	NA	0	0	0	NA
MOB 3	5 per 1,000 sf	83,000 sf	415	415	42
Hospital Addition	1 per bed + 1 per peak staff	108 beds/ 49 staff	157	157	4
Excess				92	21
TOTALS			2,711	2,803	226

Source: Development Plan Submittal, July 24, 2024 (CO Architects, 2024, **Appendix C**).

Table 2.4-3
SURFACE AND STRUCTURED PARKING PER PHASE

Phase	Surface Parking		Structured Parking		Total
	Per phase	total	Per phase	total	
Existing	600	600	0	0	600
1	864	1,464	0	0	1,464
2	-282	1,182	1,288	1,288	2,470
3	0	1,182	0	1,288	2,470
4	333	1,515	0	1,288	2,803

Source: Development Plan Submittal, July 24, 2024 (CO Architects, 2024, **Appendix C**).

2.5.3 Landscaping

The site currently is developed with a 120,000 square-foot medical office building, which has a footprint of 40,000 square feet and is surrounded by a surface parking lot. Landscaping in the existing parking lot includes 148 trees, with 24 evergreen trees (16 percent of trees) and 124 deciduous trees (84 percent). When the four planned phases are complete, there will be 1,037 trees, of which 710 (68 percent) will be evergreen and 327 (32 percent) will be deciduous.

Total landscaped areas and parking lot landscaped areas per phase, in square feet, are listed below in **Table 2.4-4**.



Table 2.4-4
DEVELOPMENT AREA PER PHASE, SQUARE FEET

Phase	Total Developed Site Area	Building Coverage	Total Landscaped Area	Total Surface Parking Area	Total Parking Area Landscape
Existing MOB 1	407,000	42,600	N/A	N/A	N/A
1: ASC/MOB 2	1,194,000	76,000	411,000	601,000	85,000
2: Hospital and Central Utility Plant	1,513,000	213,000	602,000	557,000	85,000
3: MOB 3	1,632,000	233,000	593,000	685,000	102,000
4: Hospital Addition	1,632,000	263,000	563,000	685,000	102,000

Source: Masterplan Development Permit Submittal, July 24, 2024 (CO Architects, 2024, **Appendix C**).

Landscaping will be provided in each phase of the planned four-phase development. **Figure 2.4-11** shows the landscaping plan for the fully developed project (four phases). The full project landscaping palette is shown in **Figure 2.4-12**.

2.5.4 Site Access, Circulation and Parking

Primary site ingress and egress through all phases of the project, including the existing medical office building, is via a single driveway off California Street; the driveway will be expanded to approximately 60 feet wide starting with Phase 1, including a single inbound lane and a single outbound lane, separated by a median. Additional access will be from Lugonia Avenue (approximately 50 feet wide, with a median) and Almond Avenue (approximately 30 feet wide, with no median). Passenger loading and drop-off for Phase 1 (the ASC/MOB 2 building) will be at the southwest edge of an elongated traffic oval entrance via the California Street entrance.

As noted earlier, upon completion of Phase 4 the project proposes 2,803 parking spaces (compared to 2,711 required), including 226 ADA spaces.



Figure 2.4-11
FULL PROJECT (4 PHASES) CONCEPTUAL LANDSCAPE PLAN

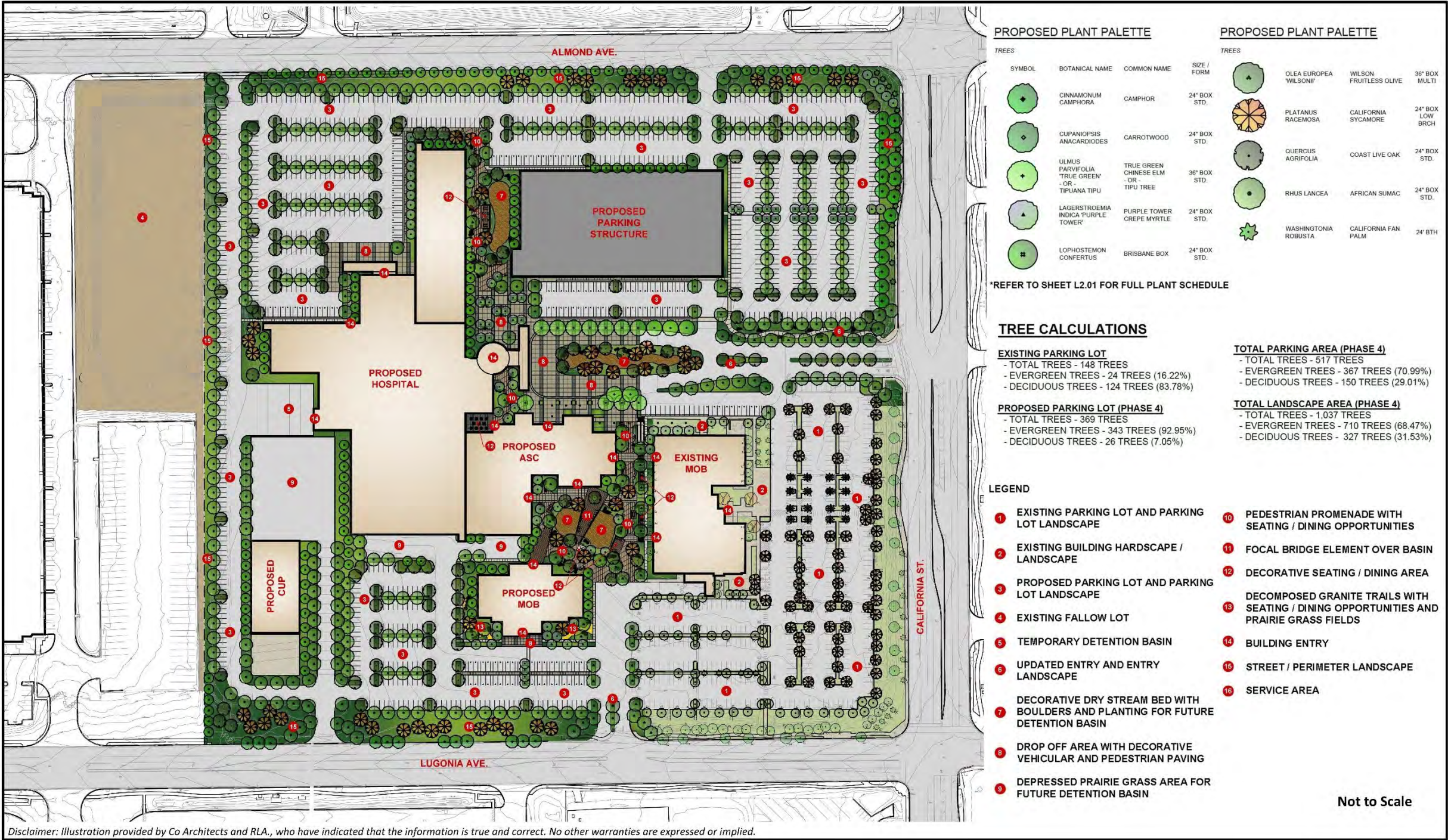




Figure 2.4-12
PRELIMINARY LANDSCAPE PALETTE

PROPOSED PLANT PALETTE							
TREES							
SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE / FORM	INSTALL SIZE	WATER USE	DESCRIPTION	MATURE SIZE (AT 15 YEARS)
	CINNAMONUM CAMPHORA	CAMPHOR	24" BOX STD.	8'H X 4'W X 1-1/4" CAL.	M	CALIFORNIA STREET TREE	22'H X 20'W X 4" CAL.
	CUPANIOPSIS ANACARDIODES	CARROTWOOD	24" BOX STD.	6'H X 3'W X 1-1/4" CAL.	M	LUGONIA STREET TREE	24'H X 20'W X 4" CAL.
	ULMUS PARVIFOLIA 'TRUE GREEN' - OR - TIPUANA TIPU	TRUE GREEN CHINESE ELM - OR - TIPU TREE	36" BOX STD.	10'H X 5'W X 2" CAL.	M	CANOPY SHADE TREE	25'H X 25'W X 4" CAL.
	LAGERSTROEMIA INDICA 'PURPLE TOWER'	PURPLE TOWER CREPE MYRTLE	24" BOX STD.	6'H X 3'W X 1-1/4" CAL.	L	SMALL DECIDUOUS ACCENT	14'H X 12'W X 3" CAL.
	LOPHOSTEMON CONFERTUS	BRISBANE BOX	24" BOX STD.	8'H X 3'W X 1-1/4" CAL.	M	PERIMETER EDGE	25'H X 10'W X 4" CAL.
	OLEA EUROPEA 'WILSONII'	WILSON FRUITLESS OLIVE	36" BOX MULTI	8'H X 5'W X (3) 1.5" CAL.	VL	EVERGREEN MULTI TRUNK FOCAL TREE	20'H X 24'W X (3) 3" CAL.
	PLATANUS RACEMOSA	CALIFORNIA SYCAMORE	24" BOX LOW BRCH	8'H X 3'W X 1-1/4" CAL.	M	CONIFEROUS SCREEN	25'H X 18'W X 4" CAL.
	QUERCUS AGRIFOLIA	COAST LIVE OAK	24" BOX STD.	6'H X 3'W X 1-1/4" CAL.	L	EVERGREEN CANOPY	24'H X 20'W X 4" CAL.
	RHUS LANCEA	AFRICAN SUMAC	24" BOX STD.	6'H X 3'W X 1-1/4" CAL.	L	PARKING AREA SHADE CANOPY	20'H X 24'W X 4" CAL.
	WASHINGTONIA ROBUSTA	CALIFORNIA FAN PALM	24' BTH	24'H X 8'W X 18" CAL.	L	CALIFORNIA STREET SKYLINE PALM	35'H X 8'W X 30" CAL.
BACKGROUND SHRUBS							
SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	WATER USE	DESCRIPTION	
	FURCRAEA MACDOUGALLII	MACDOUGALLS CENTURY PLANT	5 GAL.	60" O.C.	L	SUCCULENT ACCENT	
	OLEA X MONTRA 'LITTLE OLLIE'	LITTLE OLLIE	5 GAL.	36" O.C.	L	HEDGE	
	LEUCOPHYLLUM F. 'GREEN CLOUD'	TEXAS RANGER	5 GAL.	48" O.C.	L	LARGE FLOWERING	
	WESTRINGIA FRUTICOSA 'WYNYABBIE GEM'	WYNYABBIE GEM COAST ROSEMARY	5 GAL.	42" O.C.	L	HEDGE	
MIDGROUND SHRUBS							
SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	WATER USE	DESCRIPTION	
	AGAVE OVATIFOLIA	WHALE'S TONGUE AGAVE	5 GAL.	48" O.C.	L	SUCCULENT ACCENT	
	MUHLENBERGIA EMERSLEYI 'EL TORO'	BULL GRASS	1 GAL.	36" O.C.	L	ORNAMENTAL GRASS	
	RHAPHIOLEPIS UMBELLATA 'MINOR'	DWARF YEDDO HAWTHORN	5 GAL.	36" O.C.	M	FLOWERING ACCENT	
	CALLISTEMON 'LITTLE JOHN'	LITTLE JOHN DWARF BOTTLE BRUSH	5 GAL.	36" O.C.	L	FLOWERING ACCENT	
	BACCHARIS PILULARIS 'TWIN PEAKS'	TWIN PEAKS COYOTE BRUSH	5 GAL.	36" O.C.	L	CALIFORNIA NATIVE	
FOREGROUND SHRUBS							
SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	WATER USE	DESCRIPTION	
	DIANELLA 'LITTLE REV'	LITTLE REV FLAX LILY	1 GAL.	24" O.C.	L	STRAPPY ACCENT	
	CAREX DIVULSA	BERKELEY SEDGE	1 GAL.	30" O.C.	L	ORNAMENTAL GRASS	
	FESTUCA MAIREI	ATLAS FESCUE	1 GAL.	30" O.C.	L	ORNAMENTAL GRASS	
	HESPERALOE PARVIFLORA	RED YUCCA	1 GAL.	36" O.C.	L	FLOWERING ACCENT	
	LOMANDRA LONGIFOLIA 'LOMLON'	LOMLON MOOR GRASS	1 GAL.	36" O.C.	M	ORNAMENTAL GRASS	
GROUNDCOVERS							
SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	WATER USE	DESCRIPTION	
	ACACIA REDOLENS 'LOW BOY'	PROSTRATE ACACIA	1 GAL.	8" O.C.	VL	EVERGREEN GROUNDCOVER	
	BACCHARIS P. 'PIGEON POINT'	DWARF COYOTE BRUSH	1 GAL.	48" O.C.	L	EVERGREEN GROUNDCOVER	
	LANTANA 'NEW GOLD'	NEW GOLD LANTANA	1 GAL.	36" O.C.	L	FLOWERING GROUNDCOVER	
	SESLERIA AUTUMNALIS 'GREENLEE'	GREENLEE MOOR GRASS	1 GAL.	18" O.C.	M	FLOWERING GROUNDCOVER	
	ROSMARINUS O. 'PROSTRATUS'	PROSTRATE ROSEMARY	FLATS	12" O.C.	L	EVERGREEN GROUNDCOVER	
BIOSWALE GRASSES							
SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	WATER USE	DESCRIPTION	
	CAREX DIVULSA	BERKELEY SEDGE	1 GAL.	24" O.C.	L	BIOSWALE GRASS	
	CHONDROPETALUM TECTORUM	CAPE RUSH	5 GAL.	36" O.C.	M	BIOSWALE GRASS	
	JUNCUS PATENS	CALIFORNIA GRAY RUSH	1 GAL.	18" O.C.	L	BIOSWALE GRASS	
VINES							
SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	WATER USE	DESCRIPTION	
	DISTICTIS BUCCINATORIA	BLOOD-RED TRUMPET VINE	1 GAL / STAKED	PER PLAN	M	FLOWERING VINE	
WATER USE KEY: VL = VERY LOW WATER USE, L = LOW WATER USE, M = MODERATE WATER USE, H = HIGH WATER USE. WATER USE STATED IS PER 'WATER USE CLASSIFICATION OF LANDSCAPE SPECIES' (ALSO REFERRED TO AS WUCOLS IV) FOR THE CITY OF REDLANDS							

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Sources: CO Architects and RLA, July 24, 2024.



**Kaiser Permanente
Redlands Medical Center**

Landscape Palette



2.5.5 Exterior Lighting

The proposed project includes area lighting throughout the project site. Lighting for the project would comply with the requirements of the City's Municipal Code and East Valley Corridor Specific Plan. Specifically, the project will provide for the following lighting requirements:

- Security lighting shall be shielded, and exterior wall-mounted flood lights are prohibited.
- All light fixtures shall be concealed source fixtures.
- Pedestrian walkway fixtures/poles shall be 12-foot-high maximum.
- Parking lot fixtures/poles shall be 30-foot-high maximum.
- Pedestrian walkways and plazas, building entries, driveway entries, drop-offs and stairways and grade changes shall be lighted.
- Parking and driveway lighting shall provide 0.5 foot-candle minimum uniform lighting.

2.5.6 Utilities

The proposed project includes a two-story central utility plant (CUP) in Phase 2 because it is needed for the acute care center; it is not needed for Phase 1. The building footprint is approximately 15,300 square feet, with 35,000 square feet of floor area and a height of 18 feet. The CUP will provide heating, hot water and chilled water for space thermal control, domestic hot water, and normal and emergency power. The CUP will use fuel cells on a micro-grid that will allow the facility to operate autonomously of the electrical grid. The proposed project also includes photovoltaic solar arrays that will power the CUP. The proposed function and operation of the CUP will also be considered as part of the City of Redlands' review and approval of any subsequent land use entitlement and permit for phases 2-4 of the project as described herein. Therefore, additional environmental analyses regarding the CUP will be undertaken if required consistent with applicable law and regulations, including CEQA Guidelines sections 15152 (*Tiering*), 15153(d) (*Use of EIR from Earlier Project*), 15162 (*Subsequent EIRs and Negative Declarations*), and 15168 (*Program EIR*)."

Proposed utility connections are listed below in **Table 2.4-5** and are shown in the project utilities plans included in the Development Plan submittal dated July 24, 2024, included as **Appendix A**.

Table 2.4-5
PROPOSED UTILITIES CONNECTIONS

Utility	Phase 1	Phase 2	Phase 3	Phase 4
Water	Offsite: Connection to existing water main in Lugonia Avenue	Offsite: Water connection to main in Lugonia Ave.	Connection to onsite water main	Connection to onsite water main
Fire Water	Connection to onsite water main	Offsite: Connections to existing mains in California Street and Lugonia Avenue	Connection to onsite water main	Connection to onsite water main
Sewer	Connection to onsite sewer main	Offsite: Sewer connections to mains	Connection to onsite sewer main	Connection to onsite sewer main



Utility	Phase 1	Phase 2	Phase 3	Phase 4
		in Lugonia Ave. and Almond Ave.		
Storm Drainage	Offsite: Storm drain connecting to existing storm drain in Lugonia Avenue	Proposed storm drains within project site	Proposed storm drains within project site	Proposed storm drains within project site

Source: CO Architects, 2024

2.5.7 General Development Provisions

The proposed project will be developed in accordance with the applicable provisions of Concept Plan No. 1 and the East Valley Corridor Specific Plan (EVCSP), which serve as the primary land use and design regulatory frameworks for the site. The City of Redlands will use these documents to guide its review and approval of all project phases, ensuring consistency with established planning objectives and development standards. General development provisions outlined in the project include requirements for underground utility installation, screening of service and refuse areas, dimensional standards for parking and loading areas, and accommodations for alternative transportation such as bicycle racks and designated rideshare parking. These provisions are intended to promote orderly, functional, and visually integrated site development that aligns with both Concept Plan No. 1 and the EVCSP. Compliance with these standards will be verified during the City's discretionary review process for each phase.

2.5.8 Sustainability

The proposed project includes photovoltaic solar arrays and a fuel cell micro-grid CUP that will enable the project to operate independently of the electric grid; the project is expected to include a connection to the Southern California Edison electrical grid for backup electric power.

Low Impact Development (LID) features such as vegetated swales, tree-based infiltration, and inert bioswales are included throughout the project site to protect water quality. The buildings will meet or exceed Leadership in Energy and Environmental Design (LEED) Gold certification (at the applicant's discretion). This is achieved through the combinations of high-performance building enclosure systems, external shading, energy efficient and carbon neutral building systems and equipment selections, and solar panels.

2.6 Offsite Improvements

Almond Avenue will be expanded as part of implementation of Phase 1 of the proposed project. The south (eastbound) side of Almond Avenue currently narrows from two lanes to one lane over a length of about 850 feet extending westward from its intersection with California Street. This segment of Almond Avenue will be widened to include two through-lanes. Signage and striping modifications will be made in Almond Avenue and Lugonia Avenue for new driveways, in accordance with City engineering design requirements.

Offsite utilities improvements are described above in **Section 2.4.6**.

2.7 Construction Activities

For safety reasons, temporary barricades would be used to limit access to the site during project construction and to maintain safe access for construction workers. Unless an exception permit is



❖ SECTION 2.0 - PROJECT DESCRIPTION ❖

granted, construction would occur during daylight and during regular business hours. Lighting for the construction site would be limited to the minimum amount of light needed for safety and security.

The construction contractor would use heavy equipment during grading and building construction. For the full project, which will be developed in four phases, site grading would be conducted in Phase 2 to create building pads for buildings and other improvements in phases 2, 3, and 4. Eight acres of surface parking would be demolished during Phase 1 to make space for construction of buildings to be constructed in Phase 2. Grading would involve raw cut of 79,000 cubic yards (cy); raw fill of 105,000 cy, including net fill (and thus, soil import) of approximately 26,000 cy. In each phase, after site preparation is completed, infrastructure such as sewer laterals and storm drains would be installed and/or connected to existing facilities. The building foundations would be poured and framing of the buildings would begin. The final steps of construction would involve interior furnishings, detail work, and completion of common areas and outside landscaping. All construction staging, including construction worker parking, will be conducted onsite.

The 1,589,940 square foot (36.5-acre) site is currently a combination of developed impervious surfaces, pervious landscaping, and vacant land. Upon completion of all four phases of development, the total building footprint would be 263,000 square feet, surface parking area would be 685,000 square feet, and landscaped area would be 563,000 square feet. The project would result in a total of 948,000 square feet (60 percent) of impervious surface on the project site.

Construction Schedule

An estimated construction schedule for the project by phase is set forth below in **Table 2.6-1**.

Table 2.6-1
CONCEPTUAL CONSTRUCTION SCHEDULE

Construction Activity (phase and subphase)	Beginning (month)	Ending (month)	Duration, months
Phase 1			
Site Preparation	October 2027	November 2027	1.0
Utilities Trenching and Installation	November 2027	December 2027	1.5
Grading	December 2027	January 2028	1.0
Building Construction	January 2028	February 2029	13.5
Architectural Coatings	February 2029	March 2029	1.0
Paving	March 2029	May 2029	2.0
Landscaping	May 2029	July 2029	2.0
Phase 2			
Site Preparation	November 2035	January 2036	2.1
Utilities Trenching and Installation	January 2036	April 2036	3.1
Grading	April 2036	July 2036	3.1
Building Construction	July 2036	February 2039	32.0
Architectural Coatings	February 2039	April 2039	2.1
Paving	April 2039	August 2039	4.0
Landscaping	August 2039	November 2039	3.0
Phase 3			
Site Preparation	December 2043	January 2044	1.0
Utilities Trenching and Installation	January 2044	February 2044	1.6
Grading	February 2044	March 2044	1.0
Building Construction	March 2044	February 2045	11.4
Architectural Coatings	February 2045	March 2045	1.0



❖ SECTION 2.0 - PROJECT DESCRIPTION ❖

Construction Activity (phase and subphase)	Beginning (month)	Ending (month)	Duration, months
Paving	March 2045	April 2045	1.0
Landscaping	April 2045	May 2045	1.0
Phase 4			
Site Preparation	November 2047	January 2048	2.0
Utilities Trenching and Installation	January 2048	February 2048	1.5
Grading	February 2048	March 2048	1.0
Building Construction	March 2048	November 2049	20.7
Architectural Coatings	November 2049	January 2050	2.1
Paving	January 2050	February 2050	1.0
Landscaping	February 2050	March 2050	1.0

Source: Beery, 2024

2.8 Discretionary Actions

The proposed project will require the City of Redlands Planning Commission and City Council approval of:

- (1) Amendment No. 8 to Concept Plan 1, which would amend the permitting procedure in Concept Plan No. 1, Section IV, Part A (Discretionary Actions) under the East Valley Corridor Specific Plan; and
- (2) Planned Development No. 6.

All mitigation measures identified for earlier phases of the project must be fully implemented to the satisfaction of the City of Redlands Planning Division prior to Planning Commission consideration or approval of any subsequent phases.

Each phase of the project will require a development permit from the City of Redlands Planning Commission, pursuant to East Valley Corridor Specific Plan § EV1.0405(c), and in accordance with the City's Commission Review and Approval Process set forth in City of Redlands Municipal Code chapter 18.12 (amlegal.com, 2025). In addition, any work within the public right-of-way, including required off-site improvements, will require issuance of an encroachment permit by the City of Redlands Municipal Utilities & Engineering Department. Further, prior to approval of subsequent project phases, the City will evaluate whether additional environmental analysis is required under CEQA to address project changes, updated conditions, or new information; such review would occur in compliance with CEQA Guidelines §§ 15162–15164.

Other Permits and Approvals

Following the City's approval of the PEIR, the following permits/approvals, as shown in **Table 2.7-1**, would be required prior to the start of construction.



**Table 2.7-1
PERMITS AND APPROVALS**

Agency	Permit or Approval
City of Redlands	Grading Permit, Building Permits, and Encroachment Permits
City of Redlands and/or Caltrans	Street closure(s)/traffic controls
California Department of Health Care Access and Information (HCAI)	Hospital permitting
SCAQMD	Permit to Construct and Permit to Operate central utility plant under Rule 203 and other SCAQMD rules
Santa Ana Regional Water Quality Control Board	<i>Will be determined through a jurisdictional delineation conducted in accordance with applicable mitigation measures.</i>
United States Army Corps of Engineers	<i>Will be determined through a jurisdictional delineation conducted in accordance with applicable mitigation measures.</i>
California Department of Fish and Wildlife	<i>Will be determined through a jurisdictional delineation conducted in accordance with applicable mitigation measures.</i>
Southern California Edison Co.	Approval of application for interconnection and operation of microgrid



3.0 ENVIRONMENTAL SETTING

3.1 Overview of Environmental Setting

This section describes the existing conditions within the study area for applicable environmental resources, as required under CEQA. For purposes of analysis, the study area includes the proposed project site and the immediate surroundings and may vary depending on the environmental issue being analyzed.

Details regarding existing conditions and resources in the study area are described briefly below for each environmental topic in **Sections 4.1** through **4.14**. Refer to each of the respective topical sections for additional information. General existing conditions are described first, followed by specific descriptions for existing environmental resources within and near the project site.

Some environmental resources (such as air quality) cannot be described specifically for the project site alone. To analyze existing conditions for these types of resources, a general description is provided for the environmental topic being discussed. For example, the baseline setting description for air quality includes a general description of existing air quality within the air basin where the project is located.

The following methodology and resources were used for collecting the baseline setting information:

- Review of existing literature and data available on various public agency websites, including but not limited to the Southern California Association of Governments (SCAG) and City of Redlands Planning and Development Services.
- Data collected during site visits conducted by UltraSystems staff members.
- Technical reports that have been prepared to analyze potential project impacts.

3.2 Project Location and Surrounding Uses

The project site is located in the city of Redlands within the Upper Santa Ana River Valley in San Bernardino County. **Figure 3.2-1** shows the regional location of the project site. The project site spans approximately 37 acres and is located at 1301 California Street, (APNs 0167-441-07-000), as shown on **Figure 3.2-2**. Regional access to the site is from the Interstate 10 (I-10) freeway via California Avenue, as shown on **Figure 3.2-2** below. It is surrounded primarily by industrial land uses; the San Bernardino County Museum is southeast of the site diagonally across the intersection of California Street and Lugonia Avenue (Google Earth Pro, 2023). **Figure 3.2-3** shows photographs of the project site.



The map displays the project location in Southern California, specifically in the San Bernardino County area. The map shows the following details:

- Counties:** San Bernardino County, Los Angeles County, Orange County, Riverside County, and San Diego County.
- Major Highways:** I-15, I-215, I-78, I-805, SR-18, SR-210, SR-60, SR-78, SR-52, SR-54, SR-56, SR-78, SR-94, SR-163, SR-167, SR-169, SR-170, SR-171, SR-172, SR-173, SR-174, SR-175, SR-176, SR-177, SR-178, SR-179, SR-180, SR-181, SR-182, SR-183, SR-184, SR-185, SR-186, SR-187, SR-188, SR-189, SR-190, SR-191, SR-192, SR-193, SR-194, SR-195, SR-196, SR-197, SR-198, SR-199, SR-200, SR-201, SR-202, SR-203, SR-204, SR-205, SR-206, SR-207, SR-208, SR-209, SR-210, SR-211, SR-212, SR-213, SR-214, SR-215, SR-216, SR-217, SR-218, SR-219, SR-220, SR-221, SR-222, SR-223, SR-224, SR-225, SR-226, SR-227, SR-228, SR-229, SR-230, SR-231, SR-232, SR-233, SR-234, SR-235, SR-236, SR-237, SR-238, SR-239, SR-240, SR-241, SR-242, SR-243, SR-244, SR-245, SR-246, SR-247, SR-248, SR-249, SR-250, SR-251, SR-252, SR-253, SR-254, SR-255, SR-256, SR-257, SR-258, SR-259, SR-260, SR-261, SR-262, SR-263, SR-264, SR-265, SR-266, SR-267, SR-268, SR-269, SR-270, SR-271, SR-272, SR-273, SR-274, SR-275, SR-276, SR-277, 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SR-403, SR-404, SR-405, SR-406, SR-407, SR-408, SR-409, SR-410, SR-411, SR-412, SR-413, SR-414, SR-415, SR-416, SR-417, SR-418, SR-419, SR-420, SR-421, SR-422, SR-423, SR-424, SR-425, SR-426, SR-427, SR-428, SR-429, SR-430, SR-431, SR-432, SR-433, SR-434, SR-435, SR-436, SR-437, SR-438, SR-439, SR-440, SR-441, SR-442, SR-443, SR-444, SR-445, SR-446, SR-447, SR-448, SR-449, SR-450, SR-451, SR-452, SR-453, SR-454, SR-455, SR-456, SR-457, SR-458, SR-459, SR-460, SR-461, SR-462, SR-463, SR-464, SR-465, SR-466, SR-467, SR-468, SR-469, SR-470, SR-471, SR-472, SR-473, SR-474, SR-475, SR-476, SR-477, SR-478, SR-479, SR-480, SR-481, SR-482, SR-483, SR-484, SR-485, SR-486, SR-487, SR-488, SR-489, SR-490, SR-491, SR-492, SR-493, SR-494, SR-495, SR-496, SR-497, SR-498, SR-499, SR-500, SR-501, SR-502, SR-503, SR-504, SR-505, SR-506, SR-507, SR-508, SR-509, SR-510, SR-511, SR-512, SR-513, SR-514, SR-515, SR-516, SR-517, SR-518, SR-519, SR-520, SR-521, SR-522, SR-523, SR-524, SR-525, SR-526, SR-527, 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Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Los Angeles County, 2021, UltraSystems Environmental, Inc., 2023

October 25, 2023

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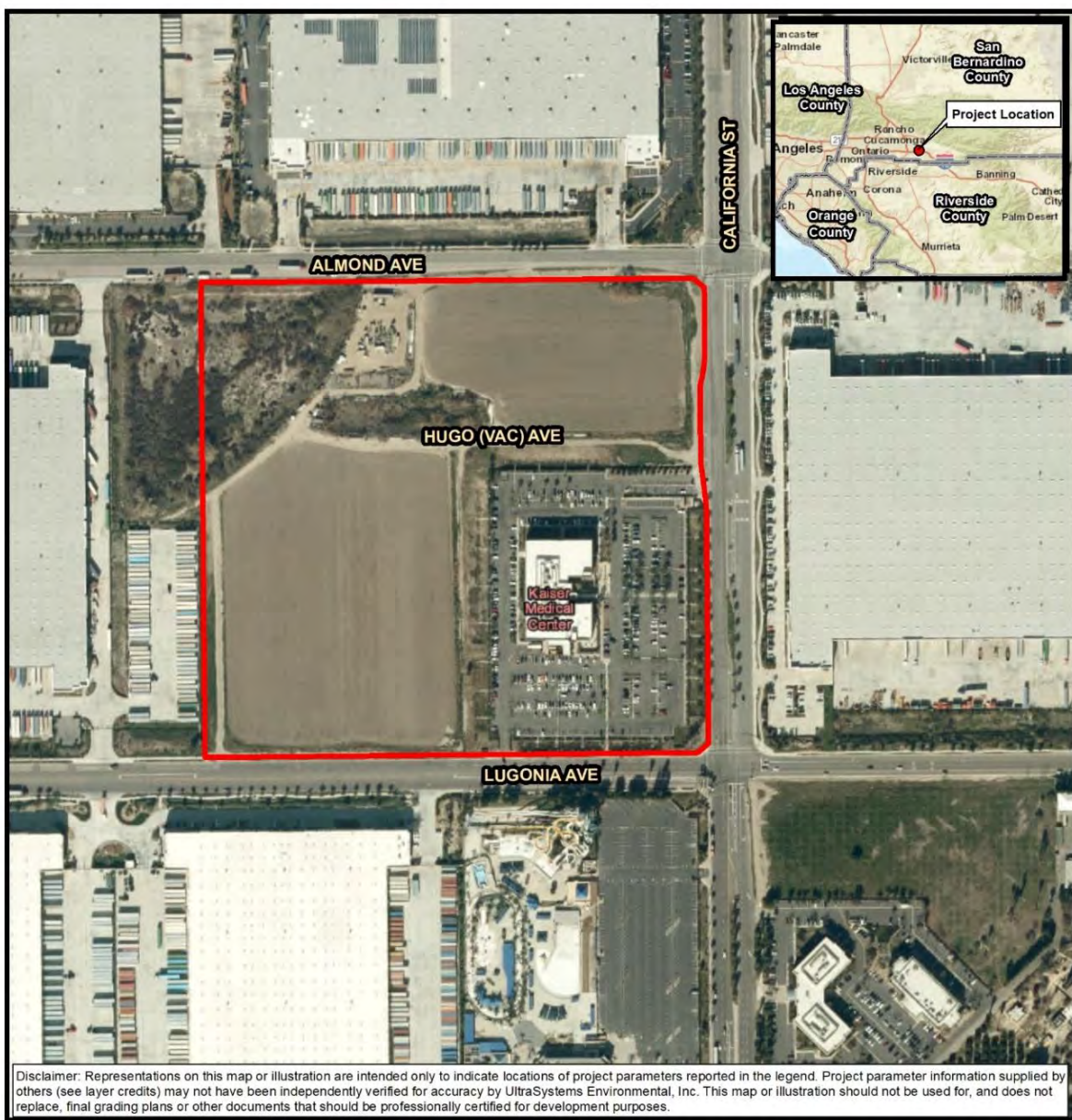
Project Location

**Kaiser Permanente
Medical Center**
Regional Location





**Figure 3.2-2
PROJECT LOCATION**



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Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community UltraSystems Environmental, Inc., 2022

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Scale: 1:4,200



0 175 350 Feet

0 50 100 Meters

Legend



Project Boundary

**Kaiser Permanente
Medical Center**

Project Location





Figure 3.2-3
PROJECT SITE PHOTOGRAPHS



PHOTO 1: View looking at the northern portion of the project site along Almond Avenue.



PHOTO 2: View looking at the eastern portion of the project site along California Street.



PHOTO 3: View looking at the southern portion of the project site along West Lugonia Avenue.



PHOTO 4: View looking at the western portion of the project site along West Lugonia Avenue.

Source: Google Earth, 2023



3.3 Existing Project Site Conditions

The project site is located in the northwestern portion of the City of Redlands, at the northwest corner of the intersection of California Street and Lugonia Avenue. The project site consists of an existing medical office building, a surface parking lot and vacant land, and is in a built-out portion of the city developed mostly with industrial uses. Topography within the project site is relatively flat, as shown above on **Figure 3.2-3**.

3.3.1 Aesthetics

The project site consists mostly of vacant land vegetated with shrubs. The existing medical office building and surface parking occupy about 8.5 acres at the southeast corner of the site. The site is surrounded by industrial land uses. The San Bernardino Mountains to the north and the San Timoteo Badlands to the south are both visible from parts of the project site.

3.3.2 Air Quality

The project site is located within the South Coast Air Basin (SCAB), a 6,600-square-mile area that includes the non-desert portion of San Bernardino County. A persistent high-pressure area that commonly resides over the eastern Pacific Ocean largely dominates regional meteorology. The distinctive climate of this area is determined primarily by its terrain and geographic location. Local climate is characterized by warm summers, mild winters, infrequent rainfall, moderate daytime onshore breezes, and moderate humidity. Ozone (O₃) and pollutant concentrations tend to be lower along the coast, where the onshore breeze disperses pollutants toward the inland valley of the SCAB and adjacent deserts. However, as a whole, the SCAB fails to meet National Ambient Air Quality Standards (NAAQS) for O₃ and fine particulate matter (PM_{2.5}) and is classified as a “nonattainment area” for those pollutants (SCAB, 2023).

3.3.3 Biological Resources

The project site is located in an urbanized area, which provides low habitat value for special-status plant and wildlife species; however, there are some areas of undeveloped habitat within the biological survey area (BSA) that could contain vegetation and soil conditions that could support special-status species.

3.3.4 Cultural and Historic Resources

UltraSystems completed a Phase I Cultural Resources Inventory for the project site on December 11, 2024; it is included as **Appendix D1** to this PEIR. Buildings on the Marigold Farms complex, which included the project site, are listed as two recorded cultural resources. Both resources, the farm complex and a barn, were demolished after it was determined that site recording would be sufficient documentation of the resource.



Scale: 1:24,000

Legend

- Project Boundary
- Half-Mile Radius
- Quadrangle Boundary
- Township Boundary
- Section Boundary

Scale: 0 1,000 2,000 Feet
0 250 500 Meters

Disclaimer: Representations on this map or illustration are intended only to indicate locations of project parameters reported in the legend. Project parameter information supplied by others (see layer credits) may not have been independently verified for accuracy by UltraSystems Environmental, Inc. This map or illustration should not be used for, and does not replace, final grading plans or other documents that should be professionally certified for development purposes.

Path: I:\GIS\Projects\7214_Redlands_Kaiser_MedCenter_ERM\7214_Kaiser_4_5_Topo_2022_05_25.mxd

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NOAA, Swisstopo, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community. Sources: Esri, HERE, Garmin, Intermap, INCREMENT P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community. Copyright © 2013 National Geographic Society, (c)byed, CA Dept. of Conservation, May 2019; UltraSystems Environmental, Inc., 2022

Kaiser Permanente Medical Center

Topographic Map
USGS Quadrangle: Redlands
Township: 1S Range: 3W
Section: 15

UltraSystems



Energy

Electricity is provided to the project site by Southern California Edison (SCE) (CEC, 2021a). Natural Gas is provided to the project site by the Southern California Gas Company (SCGC) (CEC, 2021b). In addition, Phase 2 of the project includes construction of an onsite utility plant that will allow the facility to operate autonomously of the public utility.

3.3.5 Geology and Soils

The project site is located in the Upper Santa Ana River Valley. The site is nearly level; elevations onsite range from 1,146 feet above mean sea level (amsl) to 1,155 feet amsl (Twining, 2024, p. 2). The nearest mapped active fault to the project site is the San Jacinto Fault, about 2.9 miles to the southwest (Twining, 2024, Figure 6).

3.3.6 Greenhouse Gas Emissions

Part of the project site is developed with a medical office building; the remainder of the site is vacant. Greenhouse gas (GHG) emissions are currently generated by the use of on-road motor vehicles, energy (electricity and natural gas), water, and generation of solid waste and wastewater.

3.3.7 Hazards and Hazardous Materials

Part of the project site is developed with a medical office building. The Kaiser Redlands Medical Center is listed as a large quantity generator of hazardous wastes (LGQ) on the US Environmental Protection Agency's RCRA Info database.

3.3.8 Land Use and Zoning

The land use, zoning, and specific plan designations of the project site and its immediate vicinity are listed in **Table 3.3-1** below. The project site has a General Plan land use designation of Commercial Industrial and a zoning designation of Concept Plan 1 (CP-1) under the East Valley Corridor Specific Plan (City of Redlands, 2022a; City of Redlands, 2022b).

Table 3.3-1
SUMMARY OF EXISTING LAND USE, ZONING AND SPECIFIC PLAN DESIGNATIONS

Location	General Plan Designation	Zoning Designation	Existing Development
Project Site	Commercial Industrial	Concept Plan 1 (CP-1) under the East Valley Corridor Specific Plan	Medical office building, parking lot and vacant land
North	Commercial Industrial	Concept Plan 1 (CP-1) under the East Valley Corridor Specific Plan	Distribution building
South	Commercial Industrial	Planned Development 3(PD3) and Planned Development 7 (PD7)	Distribution buildings
East	Commercial Industrial	Planned Development 1(PD1 and Special Development (EV/SD) under the East Valley Corridor Specific Plan	Distribution building
West	Commercial Industrial	Concept Plan 1 (CP-1) under the East Valley Corridor Specific Plan	Distribution building, parking lot, and vacant land

Source: City of Redlands, 2022a; City of Redlands, 2022b; Google Earth Pro, 2023



3.3.9 Noise

The major noise sources on and near the project site are traffic noise on Lugonia Avenue and California Street, motor vehicle noise in driveways onsite, and noise from mechanical systems on the building.

3.3.10 Public Services, Parks and Recreation

Fire protection services are provided to the project site by the Redlands Fire Department. Police protection services are provided to the project site by Redlands Police Department. School services are provided by the Redlands Unified School District (RUSD) (City of Redlands, 2017b, p. 3.13-9 to 3.13-14).

3.3.11 Transportation

Lugonia Avenue, which abuts the southern project site boundary, is a four-lane roadway with a striped (“double-double”) median; sidewalks are present along the northern side of the roadway abutting the eastern part of the project site, and next to the south side of the roadway the along entire length of the site. California Street, next to the eastern site boundary, is a four-lane roadway with a raised median and sidewalks along both sides of the roadway. Almond Avenue, which passes along the northern site boundary, is a three-lane roadway (two westbound lanes and one eastbound lane) with a sidewalk adjacent to the north side of the roadway, across from the project site.

Omnitrans provides transit bus service in the project region. The nearest Omnitrans route to the proposed project site is Route 8, which extends east-west from the city of San Bernardino to the city of Yucaipa (Omnitrans, 2023a). Route 8 operates on Redlands Boulevard south of the project site, seven days per week, at an hourly frequency (Omnitrans, 2023b).

3.3.12 Tribal Cultural Resources

The Native American Heritage Commission (NAHC) conducted a search of their Sacred Lands File and provided a list of Native American contacts for the project area in the City of Redlands, San Bernardino County. The search of Sacred Lands File at the NAHC determined that sites of traditional, cultural, or religious value to the Native American community are present within the 0.5-mile-radius Area of Potential Effect (APE) surrounding the project site (Vela, 2024) (refer to **Attachment C in Appendix F**).

In October 2023, letters and emails were sent by UltraSystems to 38 Native American contacts representing 16 tribes and bands on the list as part of its cultural resources study outreach. This is separate from the lead agency’s SB 18 and AB 52 consultation mailings to tribes, which occurred on February 23, 2023 and March 8, 2023. The outreach letter described the project and requested information about any traditional cultural properties, sites, or resources about which they may be concerned. Subsequent to the letters, telephone calls were made to 20 tribal contacts who had not already responded to UEI’s mailings and emails. There were eight email responses and nine responses to phone calls by the Native American contacts during the course of the Phase I Cultural Inventory Investigation. Refer to **the Tribal Cultural Resources section** of this PEIR for a more detailed description of existing conditions and onsite conditions related to tribal cultural resources in the project area.



3.3.13 Utilities

The City of Redlands provides water to the project site. Sewer service in the city is provided by the City of Redlands. Waste collection services are provided by the City of Redlands. (City of Redlands, 2017b, p. 3.14-1 to 3.14-11).

Wildfire

The project site and project area are characterized as urban developed with ornamental vegetation on portions of the developed part of the site. The project site is not located within or adjacent to a wildland urban interface (WUI), or a Very High Fire Hazard Severity Zone (VHFHSV) in a State Responsibility Area (SRA) or Local Responsibility Area (LRA). The nearest VHFHSZ in a LRA to the project site is about 2.3 miles to the south, within the City of Redlands.

3.4 Approach to Cumulative Impacts Analysis

CEQA Guidelines § 15130(a) requires that an EIR discuss the cumulative impacts of a proposed project, when the project's incremental effect is "cumulatively considerable." Per § 15065(a)(3) of the CEQA Guidelines, cumulatively considerable "means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects." As detailed in CEQA Guidelines § 15130(a)(3), a project's contribution is less than cumulatively considerable "if the project is required to implement or fund its fair share of a mitigation measure or measures designed to alleviate the cumulative impact. The lead agency shall identify facts and analysis supporting its conclusion that the contribution will be rendered less than cumulatively considerable."

CEQA Guidelines § 15130(b) states "The discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. The discussion should be guided by the standards of practicality and reasonableness and should focus on the cumulative impacts to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact."

CEQA Guidelines § 15130(b) further states that the following elements are necessary for an adequate discussion of significant cumulative impacts:

(1) Either:

- (A) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency, or
- (B) A summary of projections contained in an adopted local, regional, or statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect. Such plans may include: a general plan, regional transportation plan, or plans for the reduction of greenhouse gas emissions. A summary of projections may also be contained in an adopted or certified prior environmental document for such a plan. Such projections may be supplemented with additional information such as a regional modeling program. Any such documents shall be referenced and made available to the public at a location specified by the lead agency.



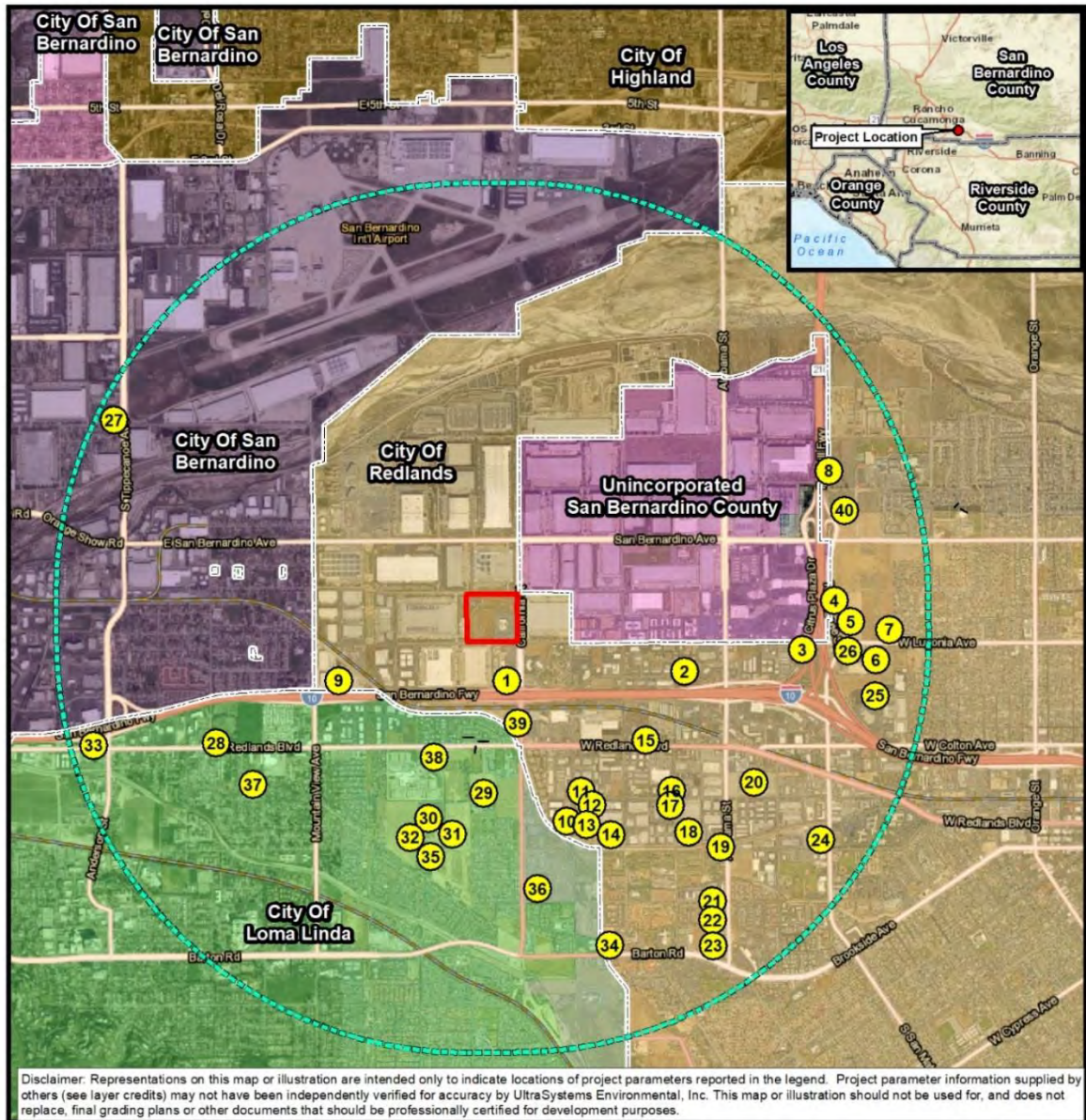
Cumulative impacts are analyzed in terms of cumulative study areas, which can vary depending on the separate environmental impact of each environmental issue area. For example, air quality or greenhouse gas impacts would be viewed on a larger scale (such as the Southern California Air Basin), as opposed to site-specific impacts for localized mineral resources and aesthetics.

3.4.1 Cumulative Projects

Based on a review of data regarding planned projects obtained from the cities of Redlands, Loma Linda, and San Bernardino, and the County of San Bernardino, planned and probable future projects within a two-mile radius area around the project site were included in the cumulative analysis. The locations of the area projects are depicted in **Figure 3.4-1**, and **Table 3.4-1** provides the related projects that were identified within the cities of Redlands, San Bernardino and Loma Linda. As shown on **Figure 3.4-1**, an island of unincorporated San Bernardino County (the East Valley Area Plan area) is present in the northwest part of the City of Redlands near the project site. The San Bernardino County Planning Division was contacted via phone April 14, 2025, then again via phone, email, and County Land Use Services Department contact form October 29, 2025. No information was provided or readily available for the unincorporated San Bernardino County area shown on the map and thus is not included on the map and table. An updated cumulative projects analysis will be undertaken with each phase of development.



Figure 3.4-1
CUMULATIVE PROJECTS LOCATIONS



Path: \\G:\gis\Projects\7214_Redlands_Kaiser_MedCenter_EIR\MD\7214_Kaiser_Cumulative_Projects_2025_10_28.mxd
Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community, County of San Bernardino, 2024, UltraSystems Environmental, Inc., 2025.

October 28, 2025

Scale: 1:42,000



0 1,750 3,500 Feet

0 300 600 Meters

Legend

- Project Boundary
- 2-mile Radius
- Cumulative Project Location
- City Boundary
- City Of Loma Linda
- City Of Redlands
- City Of San Bernardino
- Unincorporated San Bernardino County
- City Of Highland

**Kaiser Permanente
Medical Center**
Cumulative Projects





**Table 3.4-1
CUMULATIVE PROJECTS LIST**

Map ID	Address	Land Use Type	Square Feet		Residential Units
			Industrial	Commercial	
City of Redlands					
1	1101 California St	warehouse/distribution	357,610		
2	1700 Orange Tree Ln	Woodspring Suites Hotel: 123 rooms			
3	1301 Lugonia Avenue	Fast-food restaurant with drive through:		3,860	
4	1234-1528 Tennessee St	Commercial and Multifamily residential		18,000	460
5	1110-1130 W Lugonia Ave	Tennessee Shopping Center: Retail/Restaurant		60,385	
6	1005 W Lugonia Ave	retail and restaurant		22,047	
7	1305-1499 Karon St	Multifamily residential			511
8	Pioneer Av east of SR-210	Motorcourt residential			75
9	Mountain View Av at I-10	Planned Development No. 4: two warehouse/distribution buildings	420,937		
10	10796 New Jersey St.	manufacturing	28,000		
11	1980 Park Av	Industrial	48,079		
12	1941 Park Av	Industrial	38,740		
13	10843 New Jersey Street	Industrial	179,400		
14	10756 Nevada St.	Industrial	87,771		
15	Redlands Blvd east of Nevada St	2 medical office buildings		16,714	
16	1702 W Park Av	Industrial	7,198		
17	Iowa St at Park Av	Manufacturing	25,000		
18	350 Iowa St	Warehouse/distribution	185,000		
19	Alabama St at Citrus Dr	Medical and medical office		8,853	
20	10616 Kansas St. and 27314 W. Park Ave.	Warehouse	83,875		
21	Alabama St at Orange Ave	apartments			328
22	Orange Av west of Alabama St	apartments			164
23	27240 Alabama St	Commercial		8,015	



❖ SECTION 3.0 – ENVIRONMENTAL SETTING ❖

Map ID	Address	Land Use Type	Square Feet		Residential Units
			Industrial	Commercial	
24	301 Tennessee St.	Warehouse/distribution	197,397		
25	New York St at Brockton Av	Auto sales/service		53,800	
26	Tennessee St at Lugonia Av	retail		4,100	
City of San Bernardino					
27	Central Av west of Tippecanoe	Compressed natural gas fueling facility			
City of Loma Linda					
28	Redlands Blvd at Richardson St	Medical office and retail		30,382	
29	Heirloom Way at Park Av	apartments			213
30	Southeast of Park Av at Bryn Mawr	Community Park: 15 acres			
31	Southeast of Park Av at Bryn Mawr	Community Center: 6,000 sf			
32	Southeast of Park Av at Bryn Mawr	Fire Station, 3,690 sf			
33	24850 Redlands Blvd	Motel, 25 rooms			
34	Barton Rd and Nevada St	Single-family residential			126
35	North of Citrus Ave, west of Bryn Mawr Ave	Condominiums			103
36	California St and Orange Ave	Single-family residential			126
37	25450 Park Ave	Single-family residential			18
38	East of Bryn Mawr Ave, north of Park Ave, south of Redlands	Mixed use (multifamily residential and retail)		100,000	219
39	913 California Street, The Commons at CA Project	Business Hotel		60,224	
40	E of Hwy 210 between Pioneer & San Bernardino Ave	Single-family residential and apartments			263
Total			1,659,007	386,380	2,606

Note: An island of unincorporated San Bernardino County (the East Valley Area Plan area) is present in the northwest part of the City of Redlands near the project site. The San Bernardino County Planning Division was contacted via phone April 14, 2025, then again via phone, email, and County Land Use Services Department contact form October 29, 2025. No information was provided or readily available for the unincorporated San Bernardino County area shown on the map and thus not included on the map and table.

Source: City of Redlands 2024; City of Loma Linda 2024; City of San Bernardino 2024



3.4.2 Forecasts of Population and Employment for City of Redlands

The population of the City of Redlands is forecast to increase between 2023 and 2045 by 11,410, or approximately 25.4 percent of its 2023 population. The number of households in the city is forecast to increase by 4,541, or about 38.5 percent of the number of households in 2023. Employment in the city is forecast to increase by approximately 18,812, or about 40.1 percent of the 2023 figure (California Department of Finance E-5, 2023; US Census Longitudinal Employer- Household Dynamics, 2023; SCAG 2023.). **Table 3.4-2** provides a demographic forecast for the city.

Table 3.4-2
CITY OF REDLANDS DEMOGRAPHIC FORECAST

	2023	2045	Difference, 2023 - 2045	Percent Difference, 2023 - 2045
Population	44,890	56,300	11,410	25.4%
Households	26,259	38,800	4,541	38.5%
Employment	37,488	56,300	18,812	40.1%

Sources: California Department of Finance E-5, 2023; US Census Longitudinal Employer- Household Dynamics, 2023; SCAG 2023.



4.0 ENVIRONMENTAL IMPACT ANALYSIS

In accordance with CEQA Guidelines §§15126–15126.4, this section analyzes potential direct, indirect, and cumulatively considerable impacts that could occur from planning, constructing, and operating the proposed project.

In accordance with State CEQA Guidelines § 15128, the EIR shall contain a brief statement indicating reasons the various possible significant effects of a project were determined not to be significant and not discussed in detail in the Draft EIR. The Initial Study and comment letters are included as **Appendix A**. The CEQA notices for the project are also included in **Appendix A**. The Initial Study provides a detailed discussion of the potential environmental impacts of the project and the reasons that each environmental topic is or is not analyzed in this Draft PEIR. The Initial Study found the potential for significant impacts in the following environmental issue areas:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Noise
- Public Services
- Transportation
- Tribal Cultural Resources
- Utilities and Service Systems

The threshold questions that were not screened out in the Initial Study prepared for the project are analyzed in this Draft PEIR and are from the 2025 CEQA Guidelines. The results of the Initial Study found that the project would not have the potential to result in significant impacts related to: Agriculture and Forestry Resources, Land Use and Planning, Mineral Resources, Population and Housing, Recreation, and Wildfire. Therefore, these environmental areas were not analyzed in this Draft PEIR. The Initial Study which details that no significant impacts would occur for these issue areas is included as **Appendix A1** of this Draft PEIR.

To assist the reader with comparing information between environmental issues, each section is organized generally under these major headings:

- Introduction
- Regulatory Framework
- Methodology
- Existing Conditions
- Environmental Impact Analysis
- Cumulative Impact Analysis
- Mitigation Measures
- Level of Significance After Mitigation

In addition, Section 1.0, Executive Summary, summarizes all impacts by environmental issue. That section also includes Project Design Features (PDFs) and Mitigation Measures (MMs) as appropriate.

If a project includes within its project scope features or construction techniques that minimize environmental impacts, those features can be incorporated into the project description as project design features (PDFs). PDFs incorporated into the project do not constitute mitigation measures.



❖ SECTION 4.0 – ENVIRONMENTAL IMPACT ANALYSIS ❖

CEQA Guidelines, Section 15370 defines “mitigation” as:

- Avoiding the impact altogether,
- Minimizing the impact by limiting its degree or magnitude,
- Rectifying the impact by repairing, rehabilitating, or restoring the impacted environmental resource,
- Reducing or eliminating the impact over time, through actions that preserve or maintain the resource, and
- Compensating for the impact by replacing or providing substitute resources or environmental conditions, including through permanent protection of such resources in the form of conservation easements.

By definition, mitigation measures are not part of the original project design. Rather, mitigation measures are actions required by the City to reduce impacts to the environment resulting from the original project design. Mitigation measures are identified by the City after the project has undergone environmental review and are above and beyond PDFs, to further reduce environmental impacts.

The level of significance is identified for each impact in this PEIR. Although the criteria for determining significance are different for each topic area, the environmental analysis applies a uniform classification of the impacts based on definitions consistent with CEQA and the CEQA Guidelines:

- **No impact.** The project would not change the environment.
- **Less than significant.** The project would not cause any substantial, adverse change in the environment.
- **Significant impact.** A substantial or potentially substantial adverse change in the physical environment would occur and would exceed the threshold(s) of significance presented in this PEIR, requiring the consideration of mitigation measures.

Each subsection also includes a discussion or listing of the applicable laws and regulations that the project is required to comply with (if any). If impacts are identified as significant after mandatory compliance with laws and regulations, feasible mitigation measures are presented that would either avoid the impact or reduce the magnitude of the impact. The following terms are used to describe the level of significance following the application of recommended mitigation measures:

- **Less than significant with mitigation incorporated.** A substantial or potentially substantial adverse change in the physical environment would occur that would exceed the threshold(s) of significance presented in this PEIR; however, the impact can be avoided or reduced to a less-than-significant level through the application of feasible mitigation measure(s).
- **Significant and unavoidable.** A substantial or potentially substantial adverse change in the physical environment would occur that would exceed the threshold(s) of significance presented in this PEIR. Feasible and enforceable mitigation measure(s) that have a proportional nexus to the project’s impacts are either not available or would not be fully effective in avoiding or reducing the impact to below a level of significance.



4.1 Aesthetics

4.1.1 Introduction

The Initial Study, included as **Appendix A** to this PEIR, determined that impacts under **Threshold B**⁴ discussing designated state scenic highways, and **Threshold D**⁵ discussing light and glare would be less than significant. Therefore, those impacts are not addressed in this section.

4.1.2 Regulatory Framework

Federal

There are no federal regulations that pertain to this issue area.

State

There are no state regulations that pertain to this issue area.

Local

City of Redlands Municipal Code Chapter 2.24, Historic and Scenic Preservation Commission

Chapter 2.24 of the Redlands Municipal Code establishes the City's Historic and Resource Preservation Commission. The Commission is responsible for making a recommendation to the City Council on the formation of a Historic District, defined as a geographical area that has a significant architectural enclave of historic buildings or scenic vistas. Properties of scenic significance, as defined by the Municipal Code, may include landscaping, light standards, trees, curbing, and signs that contribute aesthetically to the scenic heritage of the city.

City of Redlands Architectural Guidelines

Pursuant to § 18.12.170 of the City of Redlands Municipal Code, the City established architectural guidelines for non-residential development located outside of the city's Downtown area. These guidelines are intended to provide design professionals, property owners, residents, staff, and decision makers with a clear and common understanding of the City's expectations for the planning, design, and review of development proposals. The guide contains examples of architectural design that is sensitive to the cultural and historic character of Redlands. Topics covered in the guide include building articulation, windows, the pedestrian realm, entryways, building materials, contextual design, signage, energy efficient design, adaptive reuse of structures, public art, site design, and landscaping, among others.

Scenic Routes

The City contains the Emerald Necklace Trail and Scenic Route, which serves to connect to open space, travels along the eastern and northern portion of the City (City of Redlands, 2017b, p. 3.13-

⁴ Threshold B was found to have no impact because the nearest official state scenic highway, State Route-243, is approximately 23 miles from the project site.

⁵ Threshold D was found to have less than significant impacts because the project would adhere to Section EV4.2015, Site Lighting, of the East Valley Corridor Specific Plan, which would ensure that light and glare from project construction and operation would not cause significant spillover to adjacent rights-of-way or adjacent properties.



11). The City has goals to complete the Emerald Necklace system of scenic routes and trails, including the Orange Blossom Trail, Zanja Trail, Santa Ana River Trail, San Timoteo Trail, and other trails linking parks, regional trails, and open space areas. A portion of this route is along the southern border of the project site along Lugonia Avenue.

Specific Plans

The City uses specific plans to coordinate development and infrastructure improvements on large sites or series of parcels. Specific plans must be consistent with the General Plan and are typically used to establish development plans and standards to achieve the design and development objectives for a particular area. The proposed project is located within the East Valley Corridor Specific Plan, which is described below.

East Valley Corridor Specific Plan, 1989 (Revised 2010)

The East Valley Corridor Specific Plan (EVCSP) aims to strengthen the local economy, attract major businesses, and result in the orderly and aesthetic development of industrial, commercial, and residential areas. The EVCSP area comprises 4,350 acres (6.8 square miles) adjacent to I-10 freeway and Highway-210. At the time that the plan was adopted, over half of the plan area in agricultural production and part of the balance of the plan area was vacant. The EVCSP provides a plan for future growth and development within the EVCSP; includes components such as planning, financing, infrastructure construction and maintenance, marketing, and coordination; and sets development standards. The EVCSP was envisioned to feature the county's largest regional shopping center east of Ontario and to create approximately 90,000 jobs at build-out by 2028, while reducing the potential demand for retail, office, and industrial space elsewhere in the Planning Area. Today, the EVCSP area is mostly developed, mainly with large-scale warehousing and distribution uses, as well as the Citrus Plaza and Mountain Grove shopping centers. The construction of Citrus Valley High School on a key site within an area planned in the EVCSP as a scientific research park, in the east part of the EVCSP area, has dramatically changed the character of the neighborhood. The City has acknowledged a need to update the EVCSP to reflect this change.

Redlands Business Center Concept Plan No. 1

The Project is located within Concept Plan No. 1, also known as the Redlands Business Center. The plan mentions that the site is a unique location and provides a western entrance into the City of Redlands along the I-10 Corridor. Through attractive site planning, architectural design, and the incorporation of abundant open space and landscaping, the plan aims to establish an aesthetically appealing business park. The Project site is within the Medical Facilities District, as established by Redlands Business Center Concept Plan No. 1 (City of Redlands 2004). The Redlands Business Center Concept Plan No. 1 aims to develop the property into a cohesive business park that aligns with the EVCSP. The plan focuses on creating an aesthetically pleasing, job and revenue-generating environment that addresses physical, environmental, and economic factors. Key goals include integrating a mix of retail, office, medical, and industrial uses, enhancing the site's appeal as the western entrance to Redlands, ensuring compatibility with surrounding areas through thoughtful design, providing adequate public services, and incorporating abundant open space and landscaping.



4.1.3 Existing Conditions

Overview

A “visual environment” includes the built environment (development patterns, buildings, parking areas, and circulation elements) and natural environment (such as hills, vegetation, rock outcroppings, drainage pathways, and soils) features. Visual quality, viewer groups and sensitivity, duration, and visual resources characterize views.

- Visual quality refers to the general aesthetic quality of a view, such as vividness, intactness, and unity.
- Viewer groups identify who is most likely to experience the view.
- High-sensitivity land uses include residences, schools, playgrounds, religious institutions, and passive outdoor spaces such as parks, playgrounds, and recreation areas.
- Duration of a view is the amount of time that a particular view can be seen by a specific viewer group.
- Visual resources refer to unique views, and views identified in local plans, from scenic highways, or of specific unique structures or landscape features.

Scenic vistas generally include extensive panoramic views of natural features, unusual terrain, or unique urban or historic features, for which the field of view can be wide and extend into the distance, and focal views that focus on a particular object, scene or feature of interest.

Characteristics

The project site currently contains a medical office building, a surface parking lot and vacant land. The project site is surrounded by industrial developments on all sides. See **Figures 4.1-1** and **4.1-2**, which depict photos of the project site and surrounding area.



Figure 4.1-1
PHOTOS OF THE PROJECT SITE



PHOTO 1: View looking at the northern portion of the project site along Almond Avenue.



PHOTO 2: View looking at the eastern portion of the project site along California Street.



PHOTO 3: View looking at the southern portion of the project site along West Lugonia Avenue.



PHOTO 4: View looking at the western portion of the project site along West Lugonia Avenue.



Figure 4.1-2
PHOTOS OF THE SURROUNDING AREA



PHOTO 1: View looking north of the project site at an industrial building along Almond Avenue.



PHOTO 2: View looking east of the project site at an industrial building along California Street.



PHOTO 3: View looking south of the project site at an industrial building along West Lugonia Avenue.



PHOTO 4: View looking west of the project site at an industrial building along West Lugonia Avenue.



4.1.4 Environmental Impact Analysis

4.1.4.1 Thresholds of Significance

CEQA Guidelines Appendix G, *Environmental Checklist*, sets forth the following significance thresholds criteria for aesthetics impacts (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. Substantially degrade the existing visual character or quality of public views of the site and its surroundings. (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?
- D. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

The Initial Study, included as **Appendix A** to this DEIR, determined that impacts associated with **Thresholds B** would have no impact and **D** would be less than significant and are not further discussed in the PEIR. Threshold B was found to have no impact because the nearest official state scenic highway, State Route 243, is approximately 23 miles from the project site. Threshold D was found to have less than significant impacts because the project would adhere to Section EV4.2015, Site Lighting, of the East Valley Corridor Specific Plan, which would ensure that light and glare from project construction and operation would not cause significant spillover to adjacent rights-of-way or adjacent properties.

4.1.4.2 Analysis of Project Impacts

Threshold A: Would the project have a substantial adverse effect on a scenic vista?

Less than Significant Impact

As detailed in the city's General Plan EIR, scenic vistas in the city consist of the scenic corridors and views to and from the open spaces, canyonlands, hillsides, groves, and the San Bernardino Mountains. Scenic views are also found in the urbanized part of the city, including along scenic and historic drives (City of Redlands, 2017b, p. 3.1-9). There are no specific scenic vistas in the East Valley Corridor Specific Plan (City of Redlands, 2017c). As depicted earlier in **Figures 4.1-1** and **4.1-2**, the project site is located in a highly urbanized portion of the city with industrial buildings developed on all sides. The project site itself does not contain a scenic view, open spaces, canyonlands, hillsides, or groves. However, there are distant views of the San Bernardino Mountains from the project site, and the Emerald Necklace Trail and Scenic Route abuts the southern portion of the project site along West Lugonia Avenue (City of Redlands, 2017b, p. 3.13-3).

The proposed project would have a maximum height of approximately 107 feet. The project site is surrounded with industrial buildings that partially block views of the distant San Bernardino Mountains. The buildings surrounding the project site are approximately 40 feet tall. The height of

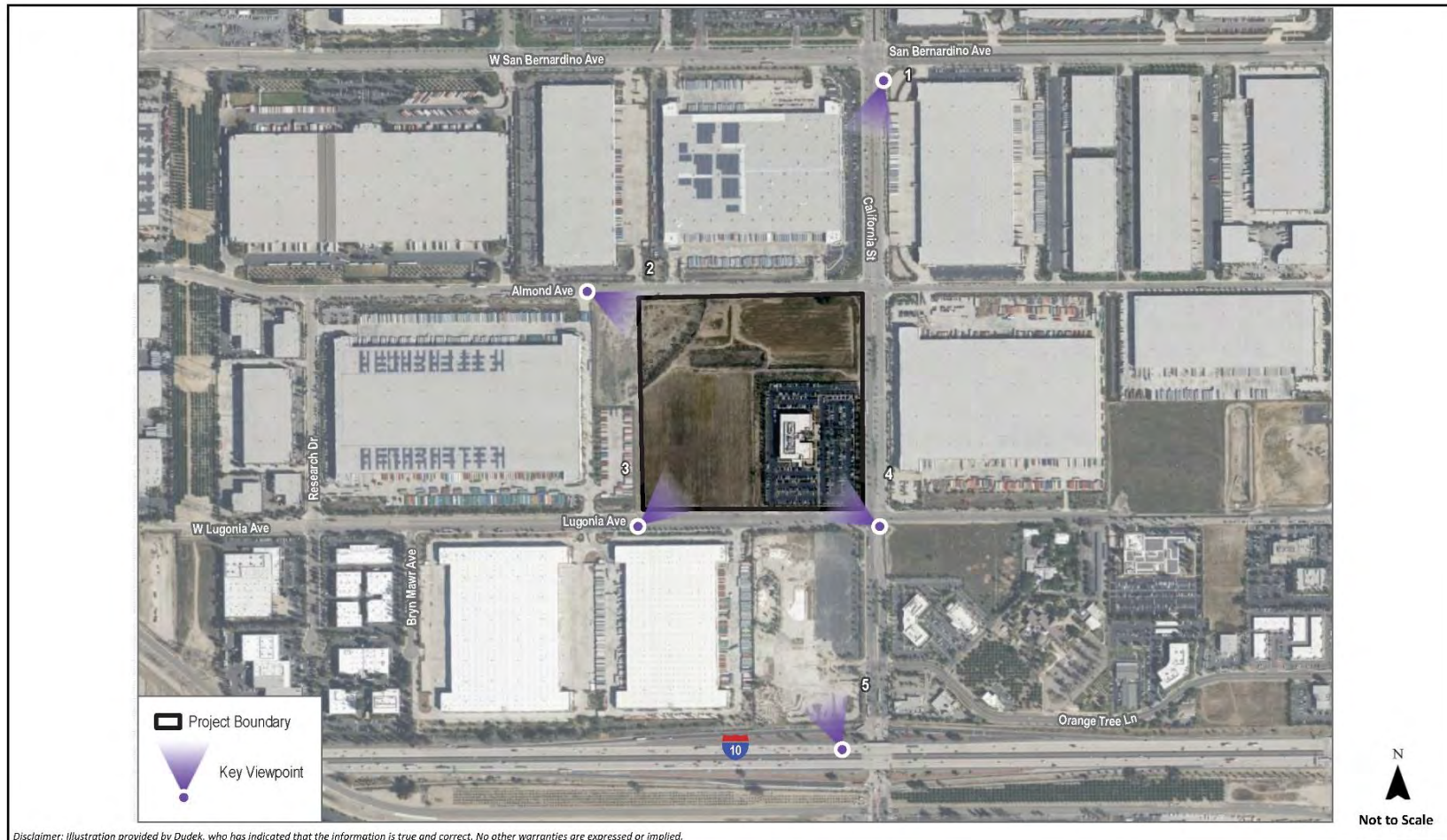


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the proposed medical building is taller than the surrounding urban development, which could pose potentially significant impacts regarding scenic quality. A Visual Report was conducted by Dudek for the proposed project to analyze the visual impact of the project (**Appendix D1**). A photographic inventory was conducted to document the visual setting and to help illustrate the existing visual character of the project area. Existing views from selected public vantage points (i.e., Key Observation Points or KOPs) were documented and photographed. Five public views towards the project site were selected as representative views towards the project site available to viewers in the surrounding area. KOPs represent the various distance zones, viewing angles, and landscape context of locations in the surrounding area from which views towards the project site are available. The location of selected KOPs is shown in **Figure 4.1-3** below. Visual simulations are included and used in this analysis to represent the relative scale and extent of change to the existing visual environment anticipated to result from Project implementation. Visual simulations were prepared from representative KOPs in the surrounding area and depict the Project at full build-out. Photo simulations include existing site photographs as background images and true-scale 3D models of the Project provided by the Project design team rendered onto the existing photographs. Existing conditions, photographs, and visual simulations are presented in **Figures 4.1-4a to 4.1-8b**.



**Figure 4.1-3
KEY OBSERVATION POINT LOCATIONS**



Kaiser Permanente
Redlands Medical Center
Viewpoint Locations



Figure 4.1-4a
KOP 1 EXISTING CONDITIONS



KOP 1: Existing conditions view to the southwest from California Street, 34.077189, -117.225957

Disclaimer: Illustration provided by Dudek, who has indicated that the information is true and correct. No other warranties are expressed or implied.
Source: Dudek, May 2025.



**Kaiser Permanente
Redlands Medical Center**
KOP 1 (Existing Conditions)



Figure 4.1-4b
KOP 1 SIMULATION



Kaiser Permanente
Redlands Medical Center
KOP 1 (Simulation 3D Redline)



Figure 4.1-5a
KOP 2 EXISTING CONDITIONS



KOP 2: Existing conditions view to the southeast from Almond Avenue, 34.073924, -117.23156

Disclaimer: Illustration provided by Dudek, who has indicated that the information is true and correct. No other warranties are expressed or implied.
Source: Dudek, May 2025.



**Kaiser Permanente
Redlands Medical Center**
KOP 2 (Existing Conditions)



**Figure 4.1-5b
KOP 2 SIMULATION**



KOP 2: Simulation 3D view to the southeast from Almond Avenue, 34.073924, -117.23156
Simulation depicts full buildout of the Project

Disclaimer: Illustration provided by Dudek, who has indicated that the information is true and correct. No other warranties are expressed or implied.
Source: Dudek, May 2025.



**Kaiser Permanente
Redlands Medical Center**
KOP 2 (Simulation 3D)



Figure 4.1-6a
KOP 3 EXISTING CONDITIONS



KOP 3: Existing conditions view to the northeast from Lugonia Avenue, 34.070241, -117.230639

Disclaimer: Illustration provided by Dudek, who has indicated that the information is true and correct. No other warranties are expressed or implied.
Source: Dudek, May 2025.



**Kaiser Permanente
Redlands Medical Center**
KOP 3 (Existing Conditions)



Figure 4.1-6b
KOP 3 SIMULATION



Disclaimer: Illustration provided by Dudek, who has indicated that the information is true and correct. No other warranties are expressed or implied.
Source: Dudek, May 2025.



**Kaiser Permanente
Redlands Medical Center**
KOP 3 (Simulation 3D)



Figure 4.1-7a
KOP 4 EXISTING CONDITIONS



KOP 4: Existing conditions view to the northwest from California Street, 34.070211, -117.226094

Disclaimer: Illustration provided by Dudek, who has indicated that the information is true and correct. No other warranties are expressed or implied.
Source: Dudek, May 2025.



**Kaiser Permanente
Redlands Medical Center**
KOP 4 (Existing Conditions)



Figure 4.1-7b
KOP 4 SIMULATION



KOP 4: Simulation 3D view to the northwest from California Street, 34.070211, -117.226094
Simulation depicts full buildout of the Project

Disclaimer: Illustration provided by Dudek, who has indicated that the information is true and correct. No other warranties are expressed or implied.
Source: Dudek, May 2025.



**Kaiser Permanente
Redlands Medical Center**
KOP 4 (Simulation 3D)



Figure 4.1-8a
KOP 5 EXISTING CONDITIONS



KOP 5: Existing conditions view to the northwest from Interstate 10, 34.066724, -117.226832

Disclaimer: Illustration provided by Dudek, who has indicated that the information is true and correct. No other warranties are expressed or implied.

Source: Dudek, May 2025.



**Kaiser Permanente
Redlands Medical Center**
KOP 5 (Existing Conditions)



Figure 4.1-8b
KOP 5 SIMULATION



KOP 5: Simulation 3D Redline view to the northwest from Interstate 10, 34.066724, -117.226832
Redline indicates Project Building Envelope/Profile (Project development would not be visible from KOP 5)

Disclaimer: Illustration provided by Dudek, who has indicated that the information is true and correct. No other warranties are expressed or implied.
Source: Dudek, May 2025.



**Kaiser Permanente
Redlands Medical Center**
KOP 5 (Simulation 3D Redline)



Project structures would not be visible from KOPs 1 and 5, but would be visible from adjacent roadways including at KOPs 2, 3, and 4 and from more distant, elevated vantage points outside of the immediate surrounding area. While none of the selected KOPs have been designated by the City as scenic viewpoints (or vistas) and are not located on a City-designated scenic roadway (see Figure 16), consideration of view effects from KOPs are provided below in **Table 4.1-1** to inform overall potential for visual impacts and more specifically, impacts to views of scenic vistas.

Table 4.1-1
VISUAL SIMULATION ANALYSIS

View	Viewers	View Obstruction	Visual Impact
KOP 1 – California Street	Represents views of local pedestrians and motorists located outside of the immediate area (i.e., nearly one block north of the project site)	- Rating: No Impact - Project site and phased development completely blocked from view by intervening industrial development and street trees in the foreground.	- Rating: No Impact - Project site and project are not visible from this particular vantage point.
KOP 2 – Almond Avenue	Represents views of passing eastbound motorists as they travel adjacent to the project site	- Rating: Less than Significant - Partial views to distant hillsides to the south of the project site and Interstate 10 are visible under existing conditions; mountainous terrain is visible to the east - The six- and seven-story scale and broad form of the medical center (Phase 4 and Phase 2) would be evident; however, due to the partial and mostly blocked view to hillsides to the south under existing conditions, Almond Avenue is not a City-designated scenic road. Further, phased development on the project site would incorporate similar setbacks from Almond Avenue and landscaping concepts along Almond Avenue as existing industrial and commercial uses lining the roadway. - Neither the proposed medical center nor the 6-story parking structure (Phase 2; the structure is visible but partially blocked in the KOP 2 simulation; block views to distant mountainous terrain to the east at KOP 2	- Rating: Less than Significant - Given the relatively brief duration the proposed ASC/MOB 2 (Phase 1), medical center and parking structure (Phase 2) would be present within the views of transient motorists and pedestrians on Almond Avenue (the road parallels the site for approximately 1,300 feet), lack of scenic roadway designation for Almond Avenue, and the near continuous presence of large and broad, multistory industrial and commercial development along the corridor, the phased introduction of multi-story structures on the project site would not result in a substantially adverse effect on a scenic vista. - Building scale and development footprint would be softened by the phased introduction of landscaping (interior and perimeter) across the site.



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View	Viewers	View Obstruction	Visual Impact
KOP 3 – Lugonia Avenue	Represents views of passing motorists as they travel adjacent to the project site	- Rating: Less than Significant - Gradual buildout of the project site as a medical center would result in blocked views to mountainous terrain to the northeast; visually prominent, pyramidal form of San Geronio Mountain and other prominent peaks to the northeast/east would remain visible. - Noticeable view blockage of distant terrain to the north would begin with Phase 1 development of the 4-story ASC/MOB 2 that would be located near the center of the site (see Figure 3). Additional view blockage would occur with Phase 2 development (primarily, the introduction of the 7-story medical center that would initially stretch west to east across the western portion of the site (see Figure 5). Lastly, the introduction of the 4-story MOB 3 in Phase 3 (MOB 3 would be constructed south of the proposed ASC/MOB 2) would further result in noticeable blockage of views to distant terrain to the north and northeast beyond the site.	- Rating: Less than Significant - Due to the relatively brief duration the proposed ASC/MOB 2 (Phase 1), medical center (Phase 2), and MOB 3 (Phase 3) would be present within the views of transient motorists and pedestrians on Lugonia Avenue (the road parallels the site for approximately 1,300 feet), lack of scenic roadway designation for Lugonia Avenue, and the near continuous presence of large and broad, multistory industrial and commercial development (and associated dense landscaping) along the corridor, the phased introduction of multi-story structures on the project site would not result in a substantially adverse effect on a scenic vista. - Similar to proposed development on the project site, the development of adjacent parcels along Lugonia Avenue has resulted in impaired views from the corridor to the north (views to the mountain terrain north across sites are rarely available) - Proposed development on the project site would implement similar setbacks and landscaping concepts as other developed parcels along Lugonia Avenue - The site is designated for Medical Facilities and a medical center with medical center was envisioned for the site in the Redlands Business Plan Concept Plan No. 1
KOP 4 – California Street/Lugonia Avenue	Represents views of passing motorists as they travel near the project site (near existing MOB 1)	- Rating: Less than Significant - Under existing conditions, Screened views to distant mountainous terrain to the northwest are available through project site landscaping at KOP 4; views to broad and dark mountain terrain also available to the north along the California Street corridor	Rating: Less than Significant



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View	Viewers	View Obstruction	Visual Impact
		- Implementation of the project and specifically, the phased introduction of multi-story buildings near the center and western portions of the project site in Phases 2 through 4 would gradually block the distant mountain terrain to the northwest from view - Views of mountain terrain to the north would largely remain unchanged during development of the project site.	- Due to the relatively brief duration that proposed development would be present within the views of transient motorists and pedestrians at the California Street/Lugonia intersection, lack of scenic roadway designation for California Street and Lugonia Avenue, and the near continuous presence of large and broad, multistory industrial and commercial development (and associated dense landscaping) along the corridor, the phased introduction of multi-story structures on the project site would not result in a substantially adverse effect on a scenic vista. - The baseline/existing conditions image was taken in early spring when deciduous trees on the project site still have not regrown their foliage. Therefore, during late spring and summer months when trees are full and leaves have returned, views to distant mountain terrain to the northwest at KOP 4 would be partially blocked (and this blockage would be continued by phased future development on the project site). - Proposed development on the project site would implement similar setbacks and landscaping concepts as other developed parcels along California Street and Lugonia Avenue
KOP 5 – Interstate 10	Represents views of interstate motorists near the project site	- Rating: No Impact - Project site and phased development completely blocked from view by intervening industrial development in the immediate foreground.	- Rating: No Impact - Project site and proposed buildings are not visible from this particular vantage point.

Source: Dudek, 2025

As described above, the proposed project would not significantly impact scenic vistas. Therefore, there would be less than significant impacts regarding scenic vistas.

Threshold C: Would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? 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

The project site is located in an urbanized area. Therefore, the project should be evaluated to determine if it would conflict with applicable zoning and other regulations governing scenic quality. **Table 4.1-2** lists the applicable policies governing scenic quality under the City's General Plan, East Valley Corridor Specific Plan, and Redlands Business Plan Concept Plan No. 1, and how the proposed project would adhere to them.

Table 4.1-2
CONSISTENCY WITH THE CITY OF REDLANDS
APPLICABLE REGULATIONS GOVERNING SCENIC QUALITY

Regulations	Compliance
City of Redlands General Plan	
2-P.1 Embrace the unique identities of individual neighborhoods in Redlands and encourage the celebration and enhancement of characteristics that make each neighborhood distinct.	Consistent. The proposed project would develop a medical center that would be built with high-quality materials that would adhere to the City's design guidelines to strengthen the distinctive characteristics of the project area compared to the existing undeveloped/underutilized lot. Therefore, the project would be compliant with this regulation.
2-P.13 Encourage preservation of and public access to defined and established significant scenic vistas, viewpoints, and view corridors.	Consistent. Implementation and development of the project as proposed would not conflict with City plans to preserve defined and established significant scenic vistas, viewpoints, and view corridors. There are no established or designated significant scenic vistas, viewpoints, or view corridors in the immediate project area. Therefore, the project would be compliant with this regulation.
4-P.5 Maintain a land use pattern of various uses designed and arranged to protect and enhance Redlands' unique character	Consistent. The proposed project would develop a medical center in an area with other commercial and industrial land uses that would provide a variety of land uses and enhance the City's unique character compared to existing conditions where the project site is disturbed and undeveloped land. Therefore, the project would be compliant with this regulation.
4-A.47 Promote high quality development in the East Valley Corridor by protecting and enhancing existing amenities in the area, creating an identifiable community character, and adopting development standards and guidelines to ensure aesthetically pleasing design and maximum land use compatibility.	Consistent. The proposed project would develop a medical center that would be built with high-quality materials that would adhere to the City's design guidelines to strengthen the distinctive characteristics of the project area compared to the existing undeveloped/underutilized lot. Therefore, the project would be compliant with this regulation.
4-A.55 Enhance the beauty of the East Valley Corridor and the overall quality of life for users and residents of the area.	Consistent. The project would develop the undeveloped/underutilized lot with a new medical center that would enhance the beauty of the East Valley Corridor compared to existing conditions. Therefore, the project would be compliant with this regulation.
4-P.28 Preserve, maintain, and, where possible, enhance the perception of the signature features of canyon areas and hillsides.	Consistent. As detailed in threshold a) in this section, the proposed project would have less than significant



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Regulations	Compliance
	impacts to distant views of mountains. Therefore, the project would be compliant with this regulation.
East Valley Corridor Specific Plan	
Section EV2.0225 Community Design	
(2) Policy: Establish design themes to unify the corridor area and provide a recognizable community character within the area	Consistent. Please refer to consistency analysis for Redlands General Plan Policy 2.1.3, above.
(3) Policy: Create a visually aesthetic appearance for the EVC from the freeways as well as from within the planning area	Consistent. While KOP 5 shows that the Project would not be visible from the freeway, visual simulations depict implementation of a robust landscape and phased development of an aesthetically, pleasing, modern medical center.
(4) Policy: Encourage effective use of landscaping within the East Valley Corridor.	Consistent. The Project includes a landscape plan that would be implemented alongside phased development. At maturity, landscaping would partially block the Project from view at select nearby locations to the north of the Project site but would not be effective at fully screening the Project and other components from view along adjacent roadways. Native and drought tolerant plantings are included in the phased preliminary landscape plans for the project.
(5) Policy: Ensure compatibility between adjacent land use types within the Corridor area.	Consistent. As detailed in Section 4.11 Land Use and Planning of the Initial Study (Appendix A), the proposed project would be consistent with the project site's General Plan land use and zoning designations, resulting in consistent height, materials and character with the designations. While development would entail the construction and operation of mostly 4-story buildings that would generally be consistent with the scale of existing industrial development (warehouses) in the immediate surrounding area, the Project includes the development of a seven-story medical center (Phase 2 and 4) and six-story parking structure (Phase 2). The scale and visibility of these taller buildings would be dissimilar from the scale and visibility of nearby development along the Lugonia Avenue and Almond Avenue corridors. Further, the specified uses on the project site (including MOB's and medical center) would incorporate building materials and more generally, an architectural character, that would be different than that of nearby industrial warehouses that include concrete tilt-up walled structures with long exterior expanses featuring limited windows. However, the scale and character of the proposed development on the project site would be consistent with that of a modern medical center featuring a medical center with over 200 beds. In addition, the underlying land use designation for the project site (Medical Facility) differs from that of adjacent lands



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Regulations	Compliance
	and difference in specified use (and future occupancy of the medical center campus) requires a more thoughtful approach to exterior and interior design, for both health care workers and patients alike.
(2) Policy: Establish design themes to unify the corridor area and provide a recognizable community character within the area	Consistent. Please refer to consistency analysis for Redlands General Plan Policy 2.1.3, above.
Section EV4.0215 Site Lighting	
(a) Lighting shall be required on all new development for the purpose of providing illumination to ensure public safety and security. Lighting fixtures shall be functional, coordinated and visually attractive. Lighting shall be required at the following locations: - o (1) Pedestrian walkways and plazas. - o (2) Building entries, driveway entries and parking - o (3) Hazardous locations, such as changes of grade and stairways, shall be well-lit with lower-level supplemental lighting or additional overhead units.	Consistent. Appropriate lighting would be installed at the project site and would be provided to ensure adequate illumination of development phases for safety and security.
(b) Lights shall be placed so as not to cause glare or excessive light spillage on neighboring sites.	Consistent. All installed exterior light fixtures would be concealed source fixtures. Security lighting would be shielded, and exterior wall-mounted flood lights would not be used. Parking lots would include fixtures and poles that are to be up to 30-feet high and would be designed to project downward.
(c) All parking lot and driveway lighting shall provide uniform illumination at a minimum level of 0.5 foot candle.	Consistent. Adequate lighting would be provided in parking lots and along driveways on the project site to ensure compliance with the minimum foot-candle requirement and provide appropriate illumination for healthcare workers, patients, and visitors.
(d) All light fixtures are to be concealed source fixtures except for pedestrian oriented accent lights.	Consistent. All installed exterior light fixtures would be concealed source fixtures.
(e) Security lighting fixtures are not to project above the fences or roof line of the building and are to be shielded. The shields shall be painted to match the surface to which they are attached. Security lighting fixtures are not to be substituted for parking lot or walkway lighting fixtures and are restricted to lighting only loading and storage locations, or other similar service areas.	Consistent. Security lighting fixtures would not project above the fences or roof line of the building and would be shielded.
(f) Exterior wall-mounted floodlights are expressly prohibited except for security lighting in areas as noted above.	Consistent. Security lighting would be shielded, and exterior wall-mounted flood lights would not be used.
(g) All illuminated signs are to be internally illuminated.	Consistent. Where installed on the project site, illuminated signs would be internally illuminated.



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Regulations	Compliance
(i) The design of all lighting fixtures and their structural support shall be architecturally compatible with the surrounding buildings.	Consistent. While specific details have not been developed at this time, proposed site lighting would be architecturally compatible with and be thoughtfully integrated into new building design.
(j) Walkway lighting fixtures shall have an overall height not to exceed twelve (12) feet.	Consistent. Walkway lighting would comply with the overall height requirement of twelve feet or less.
(k) Parking lot fixtures shall have an overall height not to exceed thirty (30) feet with the exception of property north of Palmetto Avenue and west of California Street, which parking lot fixtures located within these boundaries may have an overall height not to exceed forty (40) feet and shall meet the following: (1) the photometric level shall not exceed "zero" at the property line and, (2) no lighting shall be directed northerly toward the Santa Ana Wash. (l) When walkway lighting is provided primarily by low fixtures, there shall be sufficient peripheral lighting to illuminate the immediate surroundings to ensure public safety. Shatter-proof coverings are recommended on low-level fixtures.	Consistent. Parking lots would include fixtures and poles that are to be up to 30-feet high and would be designed to project downward. As is typical with development projects, development-specific photometrics would be prepared during the construction documents to be submitted to the City for review and approval. The future photometrics prepared for the Project would be required to ensure adherence to City standards concerning site lighting.
Section EV4.0240 Architectural Guidelines	
(c) The following guidelines shall apply to site design: - o (1) Developments should be designed to maximize any existing views of mountain ranges, open space, palm rows, or other view amenities. - o (2) Building placement should vary to include both parallel and skewed angles to the street plane in order to provide diversity and discourage continuous building facades along street frontage.	Consistent. Taller development on the project site (primarily, the seven-story medical center) would be provided with views of mountains located to the north. As proposed, building placement and layout would vary to avoid a monotonous appearance and reduce potential for continuous building facades along street frontages.
(d) The following guidelines shall apply to building design: - o (1) Building construction and design shall be used to create a structure with equally attractive sides of high quality, rather than placing all emphasis on the front elevation of the structure. Architectural facade treatments will be required on all portions of the building(s) exposed to public views. Extra treatment may be given to the street frontages as long as the basic facade treatments are carried around the structure. - o (2) Any accessory buildings and enclosures, whether attached to or detached from the main building,	Consistent. Elevations of phased development proposed on the project site, and simulations of the phased development proposed on the project site, have been prepared and are presented in this report. As shown on Figures 4 and 9, the design of proposed ASC/MOB 2 and MOB 3 buildings incorporates exteriors of somewhat varied metallic finishes and varying planes. Also, the north elevation of the proposed medical center presents a broad exterior that is occasionally interrupted by large projections and greyish metal paneling is accented by painted metal frames and sunshades around windows. Further, the medical center's mostly flat roofline is broken by a noticeable vertical projection (parapet) and by the step-down in scale between initial (Phase 2) and final (Phase 4) stages of medical center development.



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Regulations	Compliance
shall be of similar compatible design and materials as the main building. - o (3) Large, continuous surface treatments of a single material shall be minimized. Changes in texture, relief or materials, and use of decorative features such as planters, varied roof lines, decorative windows and accent panel treatment should be encouraged. - o (4) Pre-engineered metal buildings with corrugated exteriors are prohibited and other predominantly painted metal facade treatments are strongly discouraged.	
(f) Rooftop Treatment - o (1) Buildings shall be designed so that the architecture of the building adequately screens rooftop equipment from taller surrounding structures as well as residential uses by use of rooftop wells, parapet walls, or other means. Where possible, ground-mounted equipment shall be used in lieu of roof-mounted equipment. - o (2) All roof mounted equipment, including but not limited to ducts, fans, and vents, must be painted to match the roof color. - o (3) Rooftop solar collectors, skylights and other potentially reflective elements shall be designed and installed so as to prevent glare and obstruction of views from surrounding uses and structures. If equipment projects above building mass, it shall be screened with an enclosure which is compatible with the building design. - o (4) Rooftop radio, TV and microwave antennae and towers are prohibited unless approved by the Planning Commission. - o (5) Where large, flat rooftops are located near taller surrounding structures, they shall be designed and landscaped to be visually	Consistent. Where possible, new buildings constructed on the project site would incorporate wells, walls, or other methods to screen rooftop equipment from view. As proposed, the six-story parking structure would feature solar panels on the roof. The proposed system would be installed so as to prevent glare and obstruction of views from surrounding uses and structures to the extent feasible. The project site is generally surrounded by 2-3 story industrial and commercial developments; larger structures are not located adjacent to the project site.



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Regulations	Compliance
attractive. The use of colored gravel (earthtones, arranged in patterns) and/or planter boxes is encouraged for this purpose.	
Section EV4.02500 General Guidelines (Landscaping)	
The Landscape Plan required for submission by the applicant should exhibit a design concept. Plant materials should be used in a logical, orderly manner, helping to define spaces and complement adjacent architecture. A landscape plan showing the proposed landscaped areas, placement of landscape materials by type, number, and size to include a depiction of the anticipated drip line of mature trees, irrigation system and use of the property shall be prepared by a landscape architect or a licensed nurseryman and shall be submitted to the Community Development Department. The same plot plan submitted for the project which shows the parking layout or other requirements for the issuance of a building permit or planning approval may be used, provided all proposed landscaping is adequately detailed on the plot plan. Plans shall be submitted for approval to the Community Development Director or the Planning Commission, for approval whenever required under the provisions of this specific plan.	Consistent. Phased, preliminary landscape plans have been prepared for the project.
Landscape designs should be coordinated between the areas of a development. However, all areas within a project need not be identical. Different landscape themes may be utilized in larger developments to distinguish spaces from one another, yet these themes should be consistent with a unifying concept which establishes a cohesive design throughout the project.	Consistent. As outlined in the Landscape Plans, a native and climate-appropriate plant palette is proposed to be incorporated throughout the project site. In addition, landscaping would be implemented with development at each phase of the Project, to ensure cohesive landscaping while Project development is underway. Furthermore, the landscape plan includes perimeter plantings would provide for partial screening of development from adjacent roadways.
In addition to the selection and distribution of plant materials, landscape plans should incorporate various site furnishings and features. Lighting, seating, paving, fountains, etc., should be considered integral components of the landscape plan and therefore included in the overall landscape concept.	Consistent. Furnishings, including temporary detention basins, decorative dry stream beds, pedestrian promenades, seating, bridges, and decomposed granite trails are provided in the Landscape Plan.
The scale and character of the landscape materials to be selected should be appropriate to the site and/or architecture. Large-scale buildings or projects require large-scale landscaping treatments.	Consistent. Proposed landscaping would be incorporated throughout the project site. In addition, landscaping will be done at each phase of the Project, to accommodate for the changing landscaping needs of the site.
Existing landscaping elements, such as mature trees, should be incorporated into landscape plans. Specimen trees or groupings of existing trees can provide a new development with immediate	Consistent. Existing mature trees and landscaping elements associated with the existing MOB 1 would remain in place and be incorporated into the overall landscape plan for the project site.



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character. They should be viewed as design determinants.	
Landscaping incorporated into the building design through trellises, arbors, planters, atriums, etc., is encouraged and can often enhance the quality of a building.	Consistent. Landscaping features, such as decorative dry stream beds, promenades, decorative seating, granite trails, prairie grass fields, and focal bridges are included in the Landscape Plan.
The plant palette should be relatively limited and applied in groupings of similar species rather than a few plants of many different species planted together. The use of water conserving plantings, such as California natives and drought tolerant trees, shrubs and turfs is encouraged.	Consistent. A plant palette is included in the Landscape Plan and includes drought tolerant plants and native plants, such as agave and oak trees.
Live plant materials should be used in all landscaped areas. The use of gravel, colored rock, bark, and other similar materials are not acceptable as a sole ground cover material. {These materials may be used, however, in place of paving materials in functional activity areas such as patios or rear entry walks, or as groundcover for up to twenty percent (20%) of the total landscaped area}.	Consistent. Live plants are proposed and included in the Landscape Plan and would cover the majority of landscape areas, as opposed to gravel, rock, and bark.
New plant materials should be supplied in a variety of container sizes: for shrubs - five gallon sizes, and for trees - fifteen gallon containers, are preferred. The variety of tree sizes for the overall site landscaping shall adhere to the criteria established in EV4.0255(A)(9).	Consistent. Consistent with landscape plans for the project, new plant materials would be supplied in various container sizes.
Irrigation is required for all landscaped areas. Automatic systems are required. Plants should be watered and maintained on a regular basis. Irrigation systems should be designed so as not to overspray walks, buildings, fences, etc. The use of water conserving systems such as drip irrigation or moisture sensors for shrubs and tree planting is encouraged.	Consistent. Irrigation systems would be determined at a later date, closer to the project Phase 1 buildout. However, irrigation systems would be automatic to avoid overspray.
Landscape installation, in accordance with the approved plan, must occur prior to building occupancy. Where a development occurs in phases, all landscaping for each phase must be installed prior to occupancy of that phase.	Consistent. Landscaping is to be constructed throughout the phases of the project, in congruency with each phases beginning and end date.
Redlands Business Center Concept Plan No. 1	
Minimum lot area shall be twenty thousand square feet.	Consistent. The existing lot area is considerably larger than the minimum lot area as established in the Redlands Business Center Concept Plan No. 1.
Minimum lot width shall be one hundred feet; minimum lot depth shall be one hundred-fifty feet.	Consistent. The proposed lot width is greater than one hundred feet, and the depth is greater than one hundred-fifty feet.
Maximum structure height is one hundred-fifty feet. In addition, height limits shall be determined in accordance with Part 77 of the FAA regulations and Section EV4.0240 (a) of the East Valley Corridor Specific Plan pertaining to the Floor Area Ratio. For purposes of this District, the maximum FAR shall be 0.60.	Consistent. The tallest building on the project site, the proposed medical center, would feature a seven-story tower that would measure approximately 118 from ground level to top of parapet. The proposed maximum height of development on the project site is less than the maximum permitted structure height of 150 feet.



Regulations	Compliance
Furthermore, building heights shall be limited so that there are clear northerly views showing the full height of the mountains from the freeway through fifty percent of the entire project site. Sightline studies are needed at time of submission to the Planning Commission to assure project compliance.	
Minimum building/parking setbacks shall be as follows: • Front yard - The District shall have a minimum front yard landscape setback extending around the entire street perimeter of twenty-five feet. • For buildings over two stories in height, special consideration shall be given to increased street side setbacks, increased landscaped setbacks and architectural enhancement to protect the streetscape from visually over-powering buildings. For requirements on landscaping, walls, access, parking, loading, trash enclosures, lighting and storage, the provisions of Division 4 of the EVCSP shall apply. For the purposes of landscaping requirements, a minimum of twenty percent of the site shall be provided.	Consistent. As shown in the Preliminary Landscape Plans, a perimeter landscape setback of twenty-five feet or greater is proposed for the Project. Further, the project would comply with site landscaping requirements established in the Redlands Business Center Concept Plan No. 1.

Source: City of Redlands, 2017a; City of Redlands, 2017b; City of Redlands, 2004

As detailed in the table above, the proposed project would adhere to regulations governing scenic quality. The project would adhere to all development and design guidelines of the East Valley Corridor Specific Plan. Therefore, the proposed project would have less than significant impacts.

4.1.5 Cumulative Impacts

The proposed project would not significantly impact aesthetic resources. Therefore, there would be no cumulative aesthetics impacts associated with the development of the proposed project.

4.1.6 Mitigation Measures

No mitigation measures are required.

4.1.7 Level of Significance After Mitigation

Impacts would be less than significant, and no mitigation measures are required.



4.2 Air Quality

4.2.1 Introduction

This section addresses the proposed project's impacts on regional and local air quality. After discussing the factors that influence air quality in the South Coast Air Basin (SCAB or Basin), it identifies air pollutants of concern and summarizes their health effects. The section identifies and describes relevant federal, state, regional, and municipal air quality regulations, standards, policies, and plans; characterizes ambient air quality near the project site and defines criteria for the significance of impacts. Emissions are estimated for both construction and project operations and compared with significance thresholds. Inputs to and outputs from CalEEMod, the emissions model used for this analysis, are provided in **Appendix D2**.

4.2.2 Air Quality Background

Air quality is affected by both the rate and location of pollutant emissions and by meteorological conditions that influence the movement and dispersal of pollutants. Atmospheric conditions such as wind speed, wind direction, and air temperature gradients, along with local topography, provide the link between air pollutant emissions and air quality.

The project site is in the City of Redlands, which is in the SCAB. The Basin includes all of Orange County and the non-desert portions of Los Angeles County, most of Riverside County, and the western portion of San Bernardino County, including some portions of what was previously known as the Southeast Desert Air Basin. The distinctive climate of the Basin is determined by its terrain and geographic location. The Basin is a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean to the southwest and high mountains around its remaining perimeter. The general region lies in the semi-permanent high-pressure zone of the eastern Pacific, resulting in a mild climate tempered by cool sea breezes with light average wind speeds. The usually mild climatological pattern is interrupted occasionally by periods of extremely hot weather, winter storms, or Santa Ana winds.

The vertical dispersion of air pollutants in the Basin is hampered by the presence of persistent temperature inversions. An upper layer of dry air that warms as it descends characterizes high-pressure systems, such as the semi-permanent high-pressure zone in which the Basin is located. This upper layer restricts the mobility of cooler marine-influenced air near the ground surface and results in the formation of subsidence inversions. Such inversions restrict the vertical dispersion of air pollutants released into the marine layer and, together with strong sunlight, can produce worst-case conditions for the formation of photochemical smog.

The atmospheric pollution potential of an area is largely dependent on winds, atmospheric stability, solar radiation, and terrain. The combination of low wind speeds and low inversions produces the greatest concentration of air pollutants. On days without inversions, or on days of winds averaging over 15 miles per hour (mph), smog potential is greatly reduced (SCAQMD, 1993).

The nearest National Weather Service station to the project site is in Redlands, approximately three miles southeast of the project site, at 34.05°N, -117.183°W. At the Redlands, California (047306) station (WRCC, 2016), the National Climatic Data Center period of record is 1898 through 2016. During the period of record, the average annual rainfall measured 13.56 inches, which occurs mostly during the winter and relatively infrequently during the summer. Monthly precipitation averages approximately 2.40 inches during the winter (December, January, and February), approximately 1.31



inches during the spring (March, April, and May), approximately 0.70 inch during the fall (September, October, and November), and approximately 0.11 inch during the summer (June, July, and August).

The average maximum and minimum monthly temperatures during the period of record were 78.1 degrees Fahrenheit (°F) and 49.2°F, respectively. Average winter (December, January, and February) high and low temperatures are approximately 65.6°F and 40.1°F, respectively and average summer (June, July, and August) high and low temperatures are approximately 91.9°F and 58.7°F, respectively (WRCC, 2016).

Winds in the Basin are generally light, tempered by afternoon sea breezes. Severe weather is uncommon in the Basin, but strong easterly winds known as the Santa Ana winds can reach 25 to 35 miles per hour below the passes and canyons. During the spring and summer months, air pollution is carried out of the region through mountain passes in wind currents or is lifted by the warm vertical currents produced by the heating of the mountain slopes. From the late summer through the winter months, because of the average lower wind speeds and temperatures in the proposed project area and its vicinity, air contaminants do not readily disperse, thus trapping air pollution in the area.

4.2.2.1 Air Pollution and Potential Health Effects

Short- and/or long-term exposure to air pollution has been associated with a wide range of human health effects, including increased respiratory symptoms, hospitalization for heart or lung diseases, and even premature death (USEPA, 2018a). Hazardous (or toxic) air pollutants may cause cancer or other serious health effects, such as reproductive effects or birth defects. Specific groups within the general population may have a greater risk of pollution effects due to a variety of factors. For example, children are often more vulnerable to pollutants. The following are summaries of the health effects of the air pollutants typically emitted during the construction and operation of commercial developments.

Criteria pollutants are air pollutants for which acceptable levels of exposure can be determined and an ambient air quality standard (AAQS) has been established by the U.S. Environmental Protection Agency (USEPA) and/or the California Air Resources Board (ARB). The national and California AAQS have both been set at levels determined by the USEPA and CARB to protect public health. The criteria air pollutants of concern are nitrogen dioxide (NO₂), carbon monoxide (CO), particulate matter (PM), sulfur dioxide (SO₂), lead, and ozone (O₃), and their precursors. Since the proposed project would not generate appreciable SO₂ or lead emissions,⁶ it is not necessary for the analysis to include those two pollutants. Federal and state AAQS are listed in **Table 4.2-1**. Presented below is a description of the air pollutants of concern and their known health effects.

⁶ Sulfur dioxide emissions will be about 0.02 pound per day during construction and about 0.59 pound per day during operations.



Table 4.2-1
AMBIENT AIR QUALITY STANDARDS FOR CRITERIA AIR POLLUTANTS

Pollutant	Averaging Time	California Standards ¹		National Standards ²		
		Concentration ³	Method ⁴	Primary ^{3,5}	Secondary ^{3,6}	Method ⁷
Ozone (O ₃) ⁸	1 Hour	0.09 ppm (180 µg/ m ³)	Ultraviolet Photometry	---	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/ m ³)		0.070 ppm (137 µg/ m ³)		
Respirable Particulate Matter (PM ₁₀) ⁹	24 Hour	50 µg/ m ³	Gravimetric or Beta Attenuation	150 µg/ m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/ m ³		---		
Fine Particulate Matter (PM _{2.5}) ⁹	24 Hour	No Separate State Standard		35 µg/ m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/ m ³	Gravimetric or Beta Attenuation	12 µg/ m ³	15 µg/ m ³	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/ m ³)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/ m ³)	---	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10 mg/ m ³)		9 ppm (10 mg/ m ³)		
Nitrogen Dioxide (NO ₂) ¹⁰	1 Hour	0.18 ppm (339 µg/ m ³)	Gas Phase Chemiluminescence	100 ppm (188 µg/ m ³)	---	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/ m ³)		0.053 ppm (100 µg/ m ³)	Same as Primary Standard	
Sulfur Dioxide (SO ₂) ¹¹	1 Hour	0.25 ppm (655 µg/ m ³)	Ultraviolet Fluorescence	75 ppm (196 µg/ m ³)	---	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method)
	3 Hour	---		---	0.5 ppm (1300 µg/ m ³)	
	24 Hour	0.04 ppm (105 µg/ m ³)		0.14 ppm (for certain areas) ¹¹	---	
	Annual Arithmetic Mean	---		0.030 ppm (for certain areas) ¹¹	---	
Lead ^{12,13}	30 Day Average	1.5 µg/ m ³	Atomic Absorption	---	---	---
	Calendar Quarter	---		1.5 µg/ m ³ (for certain areas) ¹²	Same as Primary Standard	High Volume Sampler and Atomic Absorption
	Rolling 3-Month Average	---		0.15 µg/ m ³		
Visibility Reducing						
Visibility Reducing Particles ¹⁴	8 Hour	See footnote 14	Beta Attenuation & Transmittance through Filter Tape	No National Standards		
Sulfates	24 Hour	25 µg/ m ³	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/ m ³)	Ultraviolet Fluorescence			
Vinyl Chloride ¹²	24 Hour	0.01 ppm (26 µg/ m ³)	Gas Chromatography			

1. California Standards for ozone, carbon monoxide, sulfur dioxide (1 and 24 hour), nitrogen dioxide, suspended particulate matter–PM₁₀, PM_{2.5}, and visibility reduction particles, are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in § 70200 of Title 17 of the California Code of Regulations.

2. National Standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration in a year, averaged over 3 years, is equal to or less than the standard. For PM₁₀, the 24-hour standard is attained when the expected number of days per calendar with a 24-hour average concentration above 150 µg/ m³ is equal to or less than one. For PM_{2.5}, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over 3 years, are equal to or less than the standard.

3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

4. Any equivalent procedure which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.

5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect public health.

6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

7. Reference method as described by the EPA. An “equivalent method” of measurement may be used but must have a “consistent relationship to the reference method” and must be approved by EPA.

8. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.

9. As of December 14, 2012, the annual primary PM_{2.5} standard changed from 15 µg/ m³ to 12 µg/ m³. The existing national 24-hour PM_{2.5} standards (primary and secondary) were retained at 35 µg/ m³, as was the annual secondary standard of 15 µg/ m³. The existing 24-hour PM₁₀ standards (primary and secondary) of 150 µg/ m³ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

10. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

11. On June 2, 2010, a new 1-hour SO₂ standard was established, and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO₂ national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

* Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

12. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

13. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 µg/ m³ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

14. In 1989, the ARB converted the general statewide 10-mile visibility standard to instrumental equivalents, which are “extinction of 0.23 per kilometer”



4.2.2.2 Criteria Pollutants Ozone (O₃)

Ozone is a secondary pollutant produced through a series of photochemical reactions involving ROG and NO_x. Ozone creation requires ROG and NO_x to be available for approximately three hours in a stable atmosphere with strong sunlight. Because of the long reaction time, peak ozone concentrations frequently occur downwind of the sites where the precursor pollutants are emitted. Thus, ozone is considered a regional, rather than a local, pollutant.

Individuals working outdoors, children (including teenagers), older adults, people with preexisting lung disease, such as asthma, and individuals with certain nutritional deficiencies are considered to be the subgroups most susceptible to ozone effects. Short-term exposures (lasting for a few hours) to ozone at levels typically observed in Southern California can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes. Elevated ozone levels are associated with increased school absences and daily hospital admission rates, as well as increased mortality. An increased risk for asthma has been found in children who participate in multiple sports and live in high-ozone communities. Ozone exposure under exercising conditions is known to increase the severity of respiratory symptoms. Although lung volume and airway resistance changes observed after a single exposure diminish with repeated exposures, biochemical and cellular changes appear to persist, which can lead to subsequent lung structural changes (SCAQMD, 2017, p. 2-17).

4.2.2.3 Particulate Matter (PM₁₀ and PM_{2.5})

PM is a general term used to describe a complex group of airborne solid, liquid, or semi-volatile materials of various sizes and composition. Primary PM is emitted directly into the atmosphere from activities such as agricultural operations, industrial processes, construction and demolition activities, and entrainment of road dust into the air. Secondary PM is formed in the atmosphere from predominantly gaseous combustion by-product precursors, such as sulfur oxides, NO_x, and ROG.

Particle size is a critical characteristic of PM that primarily determines the location of PM deposition along the respiratory system (and associated health effects) as well as the degradation of visibility through light scattering. In the United States, federal and state agencies have established two types of PM air quality standards, as shown in **Table 4.2-1**. PM₁₀ corresponds to the fraction of PM no greater than 10 micrometers in aerodynamic diameter and is commonly called respirable PM, while PM_{2.5} refers to the subset of PM₁₀ of aerodynamic diameter smaller than 2.5 micrometers, and is commonly called fine PM.

PM₁₀ and PM_{2.5} deposition in the lungs results in irritation that triggers a range of inflammation responses, such as mucus secretion and bronchoconstriction, and exacerbates pulmonary dysfunctions, such as asthma, emphysema, and chronic bronchitis. Sufficiently small particles may penetrate the bloodstream and impact functions such as blood coagulation, cardiac autonomic control, and mobilization of inflammatory cells from the bone marrow. Individuals susceptible to higher health risks from exposure to PM₁₀ airborne pollution include children, the elderly, smokers, and people of all ages with low pulmonary/cardiovascular function. For these individuals, adverse health effects of PM₁₀ pollution include coughing, wheezing, shortness of breath, phlegm, bronchitis, and aggravation of lung or heart disease, leading for example to increased risks of hospitalization and mortality from asthma attacks and heart attacks.



Carbon Monoxide (CO)

CO is a colorless and odorless gas formed by the incomplete combustion of fossil fuels. It is emitted almost exclusively from motor vehicles, power plants, refineries, industrial boilers, ships, aircraft, and trains. In urban areas, such as the project location, automobile exhaust accounts for most CO emissions. CO is a non-reactive air pollutant that dissipates relatively quickly; therefore, ambient CO concentrations generally follow the spatial and temporal distributions of vehicular traffic. Local meteorological conditions, primarily wind speed, topography, and atmospheric stability, influence CO concentrations. CO from motor vehicle exhaust can become locally concentrated when surface-based temperature inversions are combined with calm atmospheric conditions, a typical situation at dusk in urban areas between November and February. The highest levels of CO typically occur during the colder months of the year when inversion conditions are more frequent.

Individuals with a deficient blood supply to the heart are the most susceptible to the adverse effects of CO exposure. (SCAQMD, 2017, p. 2-38) The effects observed include earlier onset of chest pain with exercise, and electrocardiograph changes indicative of worsening oxygen supply delivery to the heart. Inhaled CO has no known direct toxic effect on the lungs but exerts its effect on tissues by interfering with oxygen transport, by competing with oxygen to combine with hemoglobin present in the blood to form carboxyhemoglobin (COHb). Hence, people with conditions requiring an increased oxygen supply can be adversely affected by exposure to CO. Individuals most at risk include patients with diseases involving heart and blood vessels, fetuses, and patients with chronic hypoxemia (oxygen deficiency), such as is seen at high altitudes.

Reductions in birth weight and impaired neurobehavioral development have been observed in animals chronically exposed to CO resulting in COHb levels similar to those observed in smokers. Recent studies have found increased risks for adverse birth outcomes with exposure to elevated CO levels, including preterm births and heart abnormalities.

Nitrogen Dioxide (NO₂)

Nitrogen oxides (NO_x) serve as integral participants in the process of photochemical smog production. The two major forms of NO_x are nitric oxide (NO) and NO₂. NO is a colorless, odorless gas formed from atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure. NO₂ is a reddish-brown irritating gas formed by the combination of NO and oxygen. NO_x is an ozone precursor. A precursor is a directly emitted air contaminant that, when released into the atmosphere, forms, causes to be formed, or contributes to the formation of a secondary air contaminant for which an AAQS has been adopted or whose presence in the atmosphere will contribute to the violation of one or more AAQS. When NO_x and reactive organic gases (ROG) are released in the atmosphere, they can chemically react with one another in the presence of sunlight to form ozone.

Experimental studies have found that NO₂ exposures increase responsiveness of airways, pulmonary inflammation, and oxidative stress, and can lead to the development of allergic responses. (SCAQMD, 2017, p. 2-43). These biological responses provide evidence of a plausible mechanism for NO₂ to cause asthma. Additionally, results from controlled exposure studies of asthmatics demonstrate an increase in the tendency of airways to contract in response to a chemical stimulus (airway responsiveness) or after inhaled allergens. Animal studies also provide evidence that NO₂ exposure has negative effects on the immune system, thereby increasing the host's susceptibility to respiratory infections. Epidemiological studies showing associations between NO₂ levels and hospital admissions for respiratory infections support such a link, although the studies examining respiratory infections in children are less consistent.



4.2.2.4 Volatile Organic Compounds (VOCs)

The term *reactive organic gases* (ROG) is used by the California ARB for this air quality analysis and is defined the same as the federal term “volatile organic compound” (VOC). ROGs are defined as any compound of carbon, excluding CO, carbon dioxide (CO₂), carbonic acid, metallic carbides or carbonates, and ammonium carbonate, which participate in atmospheric photochemical reactions. It should be noted that there are no state or national AAQS for ROG because ROGs are not classified as criteria pollutants. They are regulated, however, because a reduction in ROG emissions reduces certain chemical reactions that contribute to the formation of ozone. ROGs are also transformed in the atmosphere into organic aerosols, which contribute to higher PM₁₀ and lower visibility.

4.2.3 Regulatory Framework

Federal Clean Air Act

The Federal Clean Air Act (FCAA), passed in 1970, established the national air pollution control program. The basic elements of the FCAA are the NAAQS for criteria air pollutants, hazardous air pollutants standards, state attainment plans, motor vehicle emissions standards, stationary source emissions standards and permits, acid rain control measures, stratospheric ozone protection, and enforcement provisions.

The NAAQS are the maximum allowable concentrations of criteria pollutants, over specified averaging periods, to protect human health. The FCAA requires that the USEPA establish NAAQS and reassess, at least every five years, whether they are adequate to protect public health, based on current scientific evidence. The NAAQS are divided into primary and secondary standards; the former standards are set to protect human health within an adequate margin of safety, and the latter to protect environmental values, such as plant and animal life.

Data collected at permanent monitoring stations are used by the USEPA to classify regions as “attainment” or “nonattainment,” depending on whether the regions have met the requirements stated in the primary NAAQS. Nonattainment areas are subject to additional restrictions, as required by the USEPA.

The FCAA Amendments in 1990 substantially revised the planning provisions for those areas not currently meeting NAAQS. The Amendments identify specific emission reduction goals that both require a demonstration of reasonable further progress and attainment and incorporate more stringent sanctions for failure to attain the NAAQS or to meet interim attainment milestones.

State

California Clean Air Act (CCAA)

The State of California began to set CAAQS in 1969 under the mandate of the Mulford-Carrell Act. There were no attainment deadlines for the CAAQS originally. However, the State Legislature passed the California Clean Air Act (CCAA) in 1988 to establish air quality goals, planning mechanisms, regulatory strategies, and standards of progress to promote their attainment. The ARB, which became part of the California Environmental Protection Agency (CalEPA) in 1991, is responsible for ensuring implementation of the CCAA, responding to the federal CAA, and for regulating emissions from motor vehicles and consumer products.



The CCAA requires attainment of CAAQS by the earliest practicable date. The state standards are generally more stringent than the corresponding federal standards. Attainment plans are required for air basins in violation of the State ozone, PM₁₀, CO, SO₂, or NO₂ standards. Responsibility for achieving state standards is placed on the ARB and local air pollution control districts. District plans for nonattainment areas must be designed to achieve a 5% annual reduction in emissions. Preparation of and adherence to attainment plans are the responsibility of the local air pollution districts or air quality management districts.

California Code of Regulations

The California Code of Regulations (CCR) is the official compilation and publication of regulations adopted, amended or repealed by the state agencies pursuant to the Administrative Procedure Act (APA). The CCR includes regulations that pertain to air quality emissions. Specifically, § 2485 in Title 13 of the CCR states that the idling of all diesel-fueled commercial vehicles (weighing over 10,000 pounds) during construction shall be limited to five minutes at any location. In addition, § 93115 in Title 17 of the CCR states that operation of any stationary, diesel-fueled, compression-ignition engines shall meet specified fuel and fuel additive requirements and emission standards.

Local

South Coast Air Quality Management District

The South Coast Air Quality Management District (SCAQMD) is responsible for maintaining and improving air quality in all of Orange County and the urbanized portions of Los Angeles, Riverside and San Bernardino Counties. Through its regulations and rules, it implements state and federal laws and regulations within its geographic distribution.

The SCAQMD is required to produce plans to show how air quality will be improved in the region. The CCAA requires that these plans be updated triennially to incorporate the most recent available technical information. A multi-level partnership of governmental agencies, at the federal, state, regional, and local levels, implements the programs contained in these plans. Agencies involved include the USEPA, the ARB, local governments, Southern California Association of Governments (SCAG), and the SCAQMD. The SCAQMD and the SCAG are responsible for formulating and implementing the Air Quality Management Plan (AQMP) for the Basin. The SCAQMD updates its AQMP every three years. Previously adopted plans include the 2016 AQMP and 2022 AQMP.

The 2016 AQMP was adopted by the SCAQMD Board on March 3, 2017, and was submitted to the ARB on March 10, 2017 to become part of the State Implementation Plan (SIP) (SCAQMD, 2017). The 2016 AQMP focused largely on reducing NO_x emissions as a means of attaining the 1979 1-hour ozone standard by 2022, the 1997 8-hour ozone standard by 2023, and the 2008 8-hour standard by 2031 (SCAQMD, 2017).

The 2022 AQMP (SCAQMD, 2022b) was adopted by the SCAQMD Board on December 2, 2022. It focuses on reducing ozone by limiting the emissions of NO_x, a key reactant in ozone formation. The NO_x reductions are through extensive use of zero emission technologies across all stationary and mobile sources categories. The majority of NO_x emissions are from heavy-duty trucks, ships and other state and federally regulated mobile sources that are mostly beyond the SCAQMD's control. The SCAQMD's primary authority is over stationary sources, which account for approximately 20 percent of the SCAB's NO_x emissions.



All projects that release contaminants into the air are subject to SCAQMD rules and regulations in effect at the time of construction and afterwards. Specific rules applicable to the construction of the project may include, but are not limited to, the following:

Rule 402 – Nuisance

This Rule prohibits 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. The provisions of this rule do 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 is intended to reduce the amount of PM entrained in the ambient air from anthropogenic (man-made) fugitive dust sources by requiring actions to prevent, reduce, or mitigate fugitive dust emissions. Rule 403 applies to any activity or man-made condition capable of generating fugitive dust. Some specific requirements of Rule 403 that apply to all construction projects, regardless of the size of their disturbed areas, are addressed below:⁷

- No person shall cause or allow emissions of fugitive dust to remain visible in the atmosphere beyond the property line of the emission source or to exceed 20% opacity if the dust emission is a result of a moving motorized vehicle.
- Apply applicable Best Available Control Measures in Table 1 of Rule 403 to minimize fugitive dust emissions during active operation. This project requires watering of exposed surfaces at frequencies of three times per 8-hour workday.
- No person shall cause or allow PM₁₀ levels to exceed 50 micrograms per cubic meter when determined as the difference between upwind and downwind samples collected on high-volume PM samplers or other USEPA approved equivalent method for PM₁₀ monitoring at the project limits for a five-hour period during the time of Active Operations. Sampling will only occur if a complaint is reported to the SCAQMD, in which case the decision to conduct sampling will be made by SCAQMD, and SCAQMD will conduct sampling.
- No person shall allow track-out to extend 25 feet or more in cumulative length from the point of origin from an active operation, and all track-out from an active operation shall be removed at the end of each workday or evening shift.
- No person shall conduct an active operation with a disturbed surface area of five or more acres, or with a daily import or export of 100 cubic yards or more of bulk material without at least one of the measures listed under subparagraph (d)(5) of Rule 403 at each vehicle egress.

Rule 1113 – Architectural Coatings

The purpose of this rule is to limit the VOC content of architectural coatings used in the District and applies to any person who supplies, sells, markets, offers for sale, or manufactures any architectural

⁷ SCAQMD Rule 403(d), as Amended June 3, 2005.



coating that is intended to be field applied within the District and any person who applies, stores at a worksite, or solicits the application of any architectural coating within the District.⁸

4.2.3.1 Southern California Association of Governments

The Southern California Association of Governments (SCAG) is the federally-designated metropolitan planning agency for Ventura, Los Angeles, Riverside, San Bernardino and Imperial Counties. It works together with the SCAQMD to prepare the above-described AQMP. One of SCAG's major responsibilities is to prepare and periodically update the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), which is required for the region to receive federal and state transportation funding for public transit, streets and roads, and bicycle and pedestrian improvements. The SCS, which is required by the Sustainable Communities and Climate Protection Act (SB 375), has as its primary goal the reduction of per capita passenger vehicle-generated GHG emissions.

The most recent update, Connect SoCal 2024 Amendment #1 (2024-2050 RTP/SCS), was adopted by SCAG on September 5, 2024 (SCAG, 2025). Connect SoCal 2024 is described in general terms in **Section 4.7.2**.

4.2.4 Methodology

The California Emissions Estimator Model® (CalEEMod) Version 2022.1.1.29 (CAPCOA, 2022), which incorporates onroad emission factors from EMFAC2021 (v1.01) for applicable calendar years in the San Bernardino portion of the SCAB, was used to estimate construction emissions for offroad equipment exhaust; onroad exhaust emissions from construction employee commute and vendor activity; and onroad exhaust emissions from hauling activity. CalEEMod outputs are presented in **Appendix D2**. It should be noted that an initial emissions calculation using CalEEMod defaults resulted in emissions that would exceed SCAQMD significance thresholds for the construction and operational phase. The addition of energy and VOC reducing mitigation measures, and trip data provided by the traffic study resulted in conditions without air pollutant exceedances. Modifications to default CalEEMod data are further detailed under Threshold B of the impact analysis.

It was assumed that construction activities will be divided into four phases, each of which is divided into six or seven subphases. **Table 4.2-1** shows the offroad equipment uses in each phase. The "load factor" in the rightmost column is the fraction of total rated horsepower that is actually used by the equipment type.

Table 4.2-1
CONSTRUCTION EQUIPMENT BY PHASE

Subphase	Equipment Type	No. of Pieces	Hours/Day	Horsepower	Load Factor
Phase 1					
Demolition	Concrete/Industrial Saws	1	0.5	33	0.73
	Tractors/Loaders/Backhoes	1	0.5	84	0.37
	Off-Highway Trucks	1	0.5	376	0.38
Site Preparation	Rubber Tired Dozers	3	8	367	0.4
	Tractors/Loaders/Backhoes	4	8	84	0.37
Grading	Excavators	1	8	36	0.38
	Graders	1	8	148	0.41

⁸ SCAQMD Rule 1113, as Amended February 5, 2016.



❖ SECTION 4.2 – AIR QUALITY ❖

Subphase	Equipment Type	No. of Pieces	Hours/Day	Horse-power	Load Factor
	Rubber Tired Dozers	1	8	367	0.4
	Tractors/Loaders/Backhoes	3	8	84	0.37
Building Construction	Cranes	1	7	367	0.29
	Forklifts	3	8	82	0.2
	Generator Sets	1	8	14	0.74
	Tractors/Loaders/Backhoes	3	7	84	0.37
	Welders	1	8	46	0.45
Paving + Landscaping	Pavers	2	8	81	0.42
	Paving Equipment	2	8	89	0.36
	Rollers	2	8	36	0.38
Architectural Coating	Air Compressors	1	6	37	0.48
Utilities Trenching & Installation	Trenchers	1	8	40	0.5
Phase 2					
Site Preparation	Rubber Tired Dozers	3	8	367	0.4
	Tractors/Loaders/Backhoes	4	8	84	0.37
Pad Grading	Graders	1	8	148	0.41
	Excavators	2	8	36	0.38
	Tractors/Loaders/Backhoes	2	8	84	0.37
	Rubber Tired Dozers	1	8	367	0.4
	Scrapers	2	8	423	0.48
Building Construction	Forklifts	3	8	82	0.2
	Generator Sets	1	8	14	0.74
	Cranes	1	7	367	0.29
	Welders	1	8	46	0.45
	Tractors/Loaders/Backhoes	3	7	84	0.37
Paving + Landscaping	Pavers	2	8	81	0.42
	Paving Equipment	2	8	89	0.36
	Rollers	2	8	36	0.38
Architectural Coating	Air Compressors	1	6	37	0.48
Utilities Trenching & Installation	Trenchers	1	8	40	0.5
Phase 3					
Site Preparation	Rubber Tired Dozers	3	8	367	0.4
	Tractors/Loaders/Backhoes	4	8	84	0.37
Fine Grading	Excavators	1	8	36	0.38
	Graders	1	8	148	0.41
	Rubber Tired Dozers	1	8	367	0.4
	Tractors/Loaders/Backhoes	3	8	84	0.37
Building Construction	Cranes	1	7	367	0.29
	Forklifts	3	8	82	0.2
	Generator Sets	1	8	14	0.74
	Tractors/Loaders/Backhoes	3	7	84	0.37
	Welders	1	8	46	0.45
Paving + Landscaping	Cement and Mortar Mixers	2	6	10	0.56
	Pavers	1	8	81	0.42
	Paving Equipment	2	6	89	0.36
	Rollers	2	6	36	0.38
	Tractors/Loaders/Backhoes	1	8	84	0.37
Architectural Coating	Air Compressors	1	6	37	0.48



Subphase	Equipment Type	No. of Pieces	Hours/Day	Horse-power	Load Factor
Utilities Trenching & Installation	Trenchers	1	8	40	0.5
Phase 4					
Site Preparation	Graders	1	8	148	0.41
	Scrapers	1	8	423	0.48
	Tractors/Loaders/Backhoes	1	7	84	0.37
Pad Grading	Graders	1	8	148	0.41
	Rubber Tired Dozers	1	8	367	0.4
	Tractors/Loaders/Backhoes	2	7	84	0.37
Fine Grading	Graders	1	8	148	0.41
	Rubber Tired Dozers	1	8	367	0.4
	Tractors/Loaders/Backhoes	2	7	84	0.37
Building Construction	Cranes	1	8	367	0.29
	Forklifts	2	7	82	0.2
	Generator Sets	1	8	14	0.74
	Tractors/Loaders/Backhoes	1	6	84	0.37
	Welders	3	8	46	0.45
Paving + Landscaping	Tractors/Loaders/Backhoes	1	8	84	0.37
	Pavers	1	8	81	0.42
	Paving Equipment	1	8	89	0.36
	Rollers	2	8	36	0.38
	Cement and Mortar Mixers	1	8	10	0.56
Architectural Coating	Air Compressors	1	6	37	0.48
Utilities Trenching and Installation	Trenchers	1	8	40	0.5

4.2.5 Existing Conditions

4.2.5.1 Regional Air Quality

Table 4.2-2 shows the attainment status of the SCAB for each criteria pollutant for both the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS). The entire SCAB is currently nonattainment for ozone and PM_{2.5} federal standards, and ozone, PM_{2.5}, and PM₁₀ for state standards.

**Table 4.2-2
FEDERAL AND STATE ATTAINMENT STATUS**

Pollutants	Federal Classification	State Classification
Ozone (O ₃) – 1-hour standard	Nonattainment (Extreme)	Nonattainment
Ozone (O ₃) – 8-hour standard	Nonattainment (Extreme)	
Particulate Matter (PM ₁₀)	Maintenance (Serious)	Nonattainment
Fine Particulate Matter (PM _{2.5})	Nonattainment (Serious)	Nonattainment
Carbon Monoxide (CO)	Maintenance (Serious)	Attainment
Nitrogen Dioxide (NO ₂)	Maintenance (Primary)	Attainment
Sulfur Dioxide (SO ₂)	Unclassified	Attainment
Sulfates	No Federal Standards	Attainment
Lead (Pb)		Attainment
Hydrogen Sulfide (H ₂ S)	Unclassified	
Visibility Reducing Particles		

Sources: ARB, 2020, USEPA, 2022a.



4.2.5.2 Local Air Quality

Existing Pollutant Levels at Nearby Monitoring Stations

The SCAQMD has divided the Basin into source-receptor areas (SRAs) based on distinctive meteorological and topographical features. The proposed project site is located in the East San Bernardino Valley (SRA 35). The station most representative of the site is the San Bernardino station, which is 3.40 miles southwest of the project site. This station monitors O₃, PM₁₀, PM_{2.5}, and NO₂. The ambient air quality data recorded at these stations for the proposed project vicinity from 2021 to 2023, along with the applicable federal and state standards, are shown in **Table 4.2-3**.

Table 4.2-3
AMBIENT AIR QUALITY MONITORING DATA

Air Pollutant	Standard/Exceedance	Year		
		2021	2022	2023
Ozone (O ₃)	Max. 1-hour Concentration (ppm)	0.142	0.128	0.143
	Max. 8-hour Concentration (ppm)	0.113	0.105	0.118
	# Days > Federal 8-hour Std. of 0.075 ppm	74	70	66
	# Days > Federal 8-hour Std. of 0.070 ppm	98	96	84
	# Days > State 1-hour Std. of 0.09 ppm	66	60	58
	# Days > State 8-hour Std. of 0.070 ppm	101	103	87
Respirable Particulate Matter (PM ₁₀)	State Max. 24-hour Concentration (µg/m ³)	71.2	ND	ND
	# Days > Fed. 24-hour Std. of 150 µg/ m ³	1.0	1.0	ND
	# Estimated Days > State 24-hour Std. of 50 µg/ m ³	25.8	ND	ND
	State Annual Average (µg/ m ³)	31.7	ND	ND
Fine Particulate Matter (PM _{2.5})	Federal Max. 24-hour Concentration (µg/ m ³)	57.9	40.1	52.9
	State Annual Average (µg/ m ³)	11.8	11.2	10.5
	# Measured Days > Fed. 24-hour Std. of 35 µg/ m ³	3.0	6.4	3.1
	Federal Annual Average (µg/ m ³)	11.8	11.2	10.5
Nitrogen Dioxide (NO ₂)	Federal Max. 1-hour Concentration (ppm)	0.048	0.046	0.046
	Annual Average (ppm)	0.015	0.015	0.013
	# Days > Federal 1-hour Std. of 100 ppm	0	0	0
	# Days > State 1-hour Std. of 0.18 ppm	0	0	0

Source: ARB, 2024. Accessed March 3, 2025. ND – There were insufficient (or no) data available to determine the value.

Sensitive Receptors

Some people, such as individuals with respiratory illnesses or impaired lung function because of other illnesses, persons over 65 years of age, and children under 14, are particularly sensitive to certain pollutants. A sensitive receptor means any residence, including private homes, condominiums, apartments, and living quarters; schools and preschools; daycare centers; and health facilities such as hospitals or retirement and nursing homes, long term care hospitals, hospices; prisons; and dormitories or similar live-in housing (SCAQMD, 1993). Commercial and industrial facilities are not included in the definition of sensitive receptor, because employees typically are present for shorter periods of time, such as eight hours. Therefore, applying a 24-hour standard for PM₁₀ is appropriate not only because the averaging period for the state standard is 24 hours, but because the sensitive receptor would be present at the location for the full 24 hours.



The nearest sensitive receptor to the project site is the existing, onsite Kaiser Medical Center building, less than 25 feet from proposed construction activity. This health care facility is considered a sensitive receptor because it is a location where those who are susceptible to health impacts due to air pollutants may receive care. As each phase is completed, it becomes a new onsite sensitive receptor.

4.2.6 Localized Significance Analysis for Criteria Pollutants

The purpose of this analysis is to estimate whether ambient air quality standards for NO₂, CO, PM₁₀ or PM_{2.5} would be violated near the project. To facilitate impact analysis, the SCAQMD developed a methodology for modeling for many combinations of project footprint area, source-receptor distance, and local meteorology in the SCAB (Chico and Koizumi, 2008). From the results of the analysis, SCAQMD developed mass rate look-up tables that can be used to determine whether a project's emissions may generate significant localized air quality impacts on offsite and onsite receptors (including sensitive receptors). Based on the SRA number, the distance to the receptor and the site area, the output of the modeling is a set of pollutant-specific emission thresholds.

4.2.6.1 Operation

For the operational emissions calculations, CalEEMod's default assumptions were used, with the following exceptions:

- No natural gas or electricity-related emissions were included for Phases 2, 3, and 4, as the new onsite utility plant, which will not burn fossil fuels, will be constructed during Phase 2. The utility plant may use backup grid power from SCE as needed, but impacts from this will be minimal given the infrequency such backup power is anticipated to be engaged.
- Vehicle miles traveled (VMT) estimates are based on the traffic study analysis.

4.2.6.2 Health Risk Assessment

After reviewing the Notice of Preparation for this project, a SCAQMD representative notified UltraSystems that "if implementation of the Proposed Project would require the use of new stationary or portable sources—such as emergency generators, fire water pumps, or boilers—air permits from South Coast AQMD will be required, and an evaluation of the associated air quality, health risk, and greenhouse gas impacts should be included in your CEQA document" (Wang, 2025). The only permitted sources likely to emit toxic air contaminants will be diesel-powered emergency generators that are typically required for health care facilities. The generators would emit diesel particulate matter (DPM), a known carcinogen, during operations. The SCAQMD has established CEQA significance levels for cancer and noncancer risk. These are (SCAQMD, 2023b):

- Maximum incremental cancer risk (MICR) ≥ 10 in 1 million.
- Cancer burden > 0.5 excess cancer cases (in areas ≥ 1 in 1 million).
- Chronic and acute hazard index ≥ 1.0 (project increment).

A screening analysis was performed to determine whether a full, formal health risk assessment (HRA) under SCAQMD guidelines would be necessary. Emergency generators at the proposed Kaiser facility would be subject to SCAQMD Rule 1401 (New Source Review of Toxic Air Contaminants), as



last amended on September 1, 2017. Pursuant to Rule 1401(e), the SCAQMD has published guidelines for reviewing permit applications for equipment subject to this rule. The latest guidelines are Risk Assessment Procedures for Rules 1401, 1401.1 and 212. The procedures cover four “tiers” of analysis (SCAQMD, 2024, p. 4).

- Tier 1 HRA: Screening Emission Levels.
- Tier 2 HRA: Screening Risk Assessment.
- Tier 3 HRA: Screening Dispersion Modeling.
- Tier 4 HRA: Detailed Health Risk Assessment.

The tiers are designed to be used in order of increasing complexity with each higher tier providing a more refined estimate of risk than the lower tier. If compliance cannot be demonstrated using one tier, the permit applicant may proceed to the next tier or limit the emissions so that compliance can be demonstrated. A permit applicant who can show compliance by using a lower tier does not need to perform an analysis for the higher tiers (SCAQMD, 2024, p. 4).

The SCAQMD has recently made available an online “HRA Tool,”⁹ which does the calculations required for Tiers 1 through 3. As the project “screened out” at Level 2, only Tiers 1 and 2 will be discussed. Tier 1 requires estimates the project’s annual generator DPM emissions. Emission rates were obtained from SCAQMD permit data for an existing Kaiser facility. It was assumed that the proposed project would have five diesel 2,206-horsepower generators with Tier 4 Final engines and that all would operate for a maximum of 50 hours per year, which is a typical permit condition for this type of emission source. The HRA Tool uses the worst-case air pollutant dispersion from a non-buoyant source anywhere in the South Coast Basin and calculates toxic air contaminant (TAC) concentrations at 25, 50 and 100 meters. The concentrations are then divided by a pollutant-specific Annual Pollutant Screening Level (PSLTAC, Annual) to obtain the Pollutant Screening Index (PSITAC). If the PSI is less than or equal to one, then no further risk assessment is needed. If the PSI exceeds one, then the analysis moves to Tier 2.

For the Tier 2 screening analysis, the HRA Tool does simplified, but more project-specific, dispersion modeling and then calculates carcinogenic risk and chronic and acute noncancer risk. Since no acute risk criteria have been developed for DPM, the tool only calculates chronic noncancer risk for that TAC. HRA Tool inputs include:

- Maximum annual emissions of the TAC.
- The distance from the source to the nearest offsite or onsite residential and worker receptor(s). For a point source, such as a diesel generator, the distance is from the center of the generator stack to the property line of the nearest receptor location.
- Certain source characteristics such as stack height and building dimensions. For certain types of emissions sources, including diesel-fueled emergency generators, the HRA Tool has default values for several of these source characteristics.
- Operating schedule of the source.

⁹ Health Risk Assessment Tool and AERMOD-Ready Meteorological Data Files for Use in South Coast Air Quality AQMD permit Applications and CEQA Purposes. South Coast Air Quality Management District, Diamond Bar, CA. Available online at https://www.aqmd.gov/assets/aermet/AERMET_files_And_HRA_Tool.html. Last accessed May 2, 2025.



- Geographic location of the source; this determines the local meteorology.

Three types of risk calculation results are reported:

- Maximum individual cancer risk: number in one million.
- Cancer burden: number of cases per million population.
- Noncancer hazard index: average annual exposure divided by pollutant-specific reference exposure level (REL); both values are in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$).

4.2.7 Environmental Impact Analysis

4.2.7.1 Thresholds of Significance

In accordance with *State CEQA Guidelines* Appendix G, implementation of the project would result in a potentially significant impact related to air quality if it were to:

- A. Conflict with or obstruct implementation of the applicable air quality plan; or
- 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; or
- C. Expose sensitive receptors to substantial pollutant concentrations; or
- D. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

The Initial Study determined that the impact of Threshold D would be less than significant because the project involves no industrial elements, so no long-term operational objectionable odors are anticipated. This analysis, therefore, evaluates impacts only for Appendix G Thresholds A through C.

4.2.7.2 SCAQMD's CEQA Air Quality Handbook

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make significance determinations. As will be discussed in the next section, the SCAQMD has developed a *CEQA Air Quality Handbook* to provide a protocol for air quality analyses that are prepared under the requirements of CEQA.

To assist in implementing the air quality plans, the SCAQMD developed criteria for determining whether emissions from a project are regionally significant. They are useful for estimating whether a project is likely to result in a violation of the NAAQS and/or whether the project is in conformity with plans to achieve attainment. The SCAQMD no longer has “indirect source” rules, e.g., rules that place restrictions on housing or commercial development, or require reductions in trip generation and/or VMT to developed commercial or industrial sites. Instead, the District has published guidance on conducting air quality analyses under CEQA (SCAQMD, 1993).

4.2.7.3 Emission Thresholds for Regional Air Quality Impacts

SCAQMD's significance thresholds are summarized in **Table 4.2-5** for criteria pollutant emissions during construction activities and project operation. A project is considered to have a regional air



quality impact if emissions from its construction and/or operational activities exceed the corresponding SCAQMD significance thresholds.

Table 4.2-4
SCAQMD EMISSIONS THRESHOLDS FOR SIGNIFICANT REGIONAL IMPACTS

Pollutant	Mass Daily Thresholds (Pounds/Day)	
	Construction	Operation
Nitrogen Oxides (NOX)	100	55
Volatile Organic Compounds (VOC)	75	55
Respirable Particulate Matter (PM10)	150	150
Fine Particulate Matter (PM2.5)	55	55
Sulfur Oxides (SOx)	150	150
Carbon Monoxide (CO)	550	550
Lead	3	3

Source: SCAQMD, 2023. Accessed December 21, 2024.

Impacts of Carbon Monoxide Hotspots

Increased local vehicle traffic may contribute to offsite air quality impacts. The traffic increases in nearby intersections may contribute to traffic congestion, which may create “pockets” of CO called hotspots. These pockets have the potential to exceed the state 1-hour standard of 20 parts per million (ppm) and/or the 8-hour standard of 9.0 ppm, thus affecting sensitive receptors that are close to these roadways or intersections. CO hotspots historically were found at busy intersections but could also occur along congested major arterials and freeways. They occurred mostly in the early morning hours when winds are stagnant and ambient CO concentrations are elevated.

It has long been recognized that CO exceedances are caused by vehicular emissions, primarily when vehicles are idling at intersections (USEPA, 2000; SCAQMD, 1993, Section 4.5; SCAQMD, 2003). Accordingly, vehicle emissions standards have become increasingly more stringent. Before the first vehicle emission regulations, cars in the 1950s were typically emitting about 87 grams of CO per mile (USEPA, 2000). Currently, the CO standard in California is a maximum of 3.4 grams/mile for passenger cars (with provisions for certain cars to emit even less)(ARB, 2021). With the turnover of older vehicles, introduction of cleaner fuels and implementation of control technology on industrial facilities, CO concentrations in the Air Basin have steadily declined.

An analysis prepared for CO attainment in the SCAB by the SCAQMD can be used to assist in evaluating the potential for CO exceedances due to development projects. CO attainment was thoroughly analyzed as part of the SCAQMD’s 2003 Air Quality Management Plan (2003 AQMP) and the 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan)(SCAQMD, 2005). In the 1992 CO Plan, a CO hot spot analysis was conducted for the four worst-case scenario intersections in Los Angeles County at 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). These analyses did not predict a violation of CO standards. The peak modeled CO concentrations due to vehicle emissions occurred at the intersection of Wilshire Boulevard and Veteran Avenue, which had a daily traffic volume of approximately 100,000 vehicles. The 2003 AQMP estimated that the 1-hour concentration for this intersection was 4.6 ppm, which indicates that the most stringent 1-hour CO standard (20.0 ppm) would likely not be



exceeded until the daily traffic at the intersection exceeded more than 400,000 vehicles per day.¹⁰ The AQMP CO hotspots modeling also considered worst-case meteorological conditions and background CO concentrations. The Los Angeles County Metropolitan Transportation Authority (Metro) evaluated the level of service (LOS) in the vicinity of the Wilshire Boulevard and Veteran Avenue intersection and found it to be Level E for peak morning traffic and Level F for peak afternoon traffic (MTA, 2004).¹¹ If a project intersection does not exceed 400,000 vehicles per day, then the project does not need to prepare a detailed CO hotspots analysis using California LINE Source Dispersion Model, version 4 (CALINE4), which is a model used to assess air quality impacts near transportation facilities (i.e., roadways, intersections, street canyons, and parking facilities).

Asbestos

The threshold of significance for asbestos is the presence of the material in friable form. The concrete structures to be demolished will not likely contain asbestos contaminated materials. It is possible that paving materials may contain them. If they do, the owner or operator of any demolition activity must comply with SCAQMD Rule 1403. Compliance must include a facility survey for the presence of asbestos prior to any demolition activity; notification of the SCAQMD of the intent to conduct any demolition activity; and, if asbestos is discovered, removal of the asbestos according to an asbestos removal schedule.

4.2.7.4 Analysis of Project Impacts

Threshold A: Would the Project conflict with or obstruct implementation of the applicable air quality plan?

Less Than Significant

The 2022 AQMP (SCAQMD, 2022) was adopted by the SCAQMD Board on December 2, 2022. It focuses on reducing ozone by limiting the emissions of NO_x, which is a key reactant in ozone formation. The NO_x reductions are achieved through the extensive use of zero-emission technologies across all stationary and mobile source categories. The majority of NO_x emissions are from heavy-duty trucks, ships and other state and federally regulated mobile sources that are mostly beyond the SCAQMD's control. The SCAQMD's primary authority is over stationary sources, which account for approximately 20 percent of the SCAB's NO_x emissions.

The AQMP incorporates land use assumptions from local general plans and regional growth projections developed by SCAG to estimate stationary and mobile air emissions associated with projected population and planned land uses. If the proposed land use is consistent with the local general plan, then the impact of the project is presumed to have been accounted for in the AQMP. This is because the land use and transportation control sections of the AQMP are based on the SCAG regional growth forecasts, which incorporate projections from local general plans.

The proposed project is consistent with the City's General Plan and Zoning designations. The project site has a General Plan land use designation of Park/Open Space (P-OS) and has a zoning designation of Commercial Industrial, while the zoning (under the East Valley Corridor Specific Plan) is Concept Plan 1 (CP-1). The proposed project is an allowed use within these designations. Therefore, no

¹⁰ The ratio of the CO standard (20.0 ppm) and the modeled value (4.6 ppm).

¹¹ The Los Angeles County Metropolitan Transportation Authority measured traffic volumes and calculated the level of service (LOS) for the intersection of Wilshire Boulevard/Sepulveda Boulevard, which is east of Interstate 405.



General Plan amendment or Zone Change is required for project implementation. The land use would continue to be consistent with the local plans, and the impacts of the project are still accounted for in the AQMP.

Another measurement tool in evaluating consistency with the AQMP is to determine whether a project would generate population and employment growth and, if so, whether that growth would exceed the growth rates forecasted in the AQMP and how the project would accommodate the expected increase in population or employment. The project would create a minimal increase in population and overall vehicle miles traveled (VMT), which would be included in the growth rates forecasted in the AQMP.

The AQMP incorporates updated emission inventory methodologies for various source categories and incorporates the 2024-2050 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), Amendment #1 prepared by SCAG (2024). The 2024-2050 RTP/SCS was determined to conform to the federally mandated State Implementation Plan for the attainment and maintenance of the NAAQS.

Additionally, to assist the implementation of the AQMP, projects must not create regionally significant emissions of regulated pollutants from either short-term construction or long-term operations. The SCAQMD has developed criteria in the form of emissions thresholds for determining whether emissions from a project are regionally significant (SCAQMD, 2023). They are useful for estimating whether a project is likely to result in a violation of the NAAQS and/or whether the project is in conformity with plans to achieve attainment. SCAQMD's significance thresholds for criteria pollutant emissions during construction activities and project operation are summarized in **Table 4.2-5**. A project is considered to have a regional air quality impact if emissions from its construction and/or operational activities exceed the corresponding SCAQMD significance thresholds. As demonstrated under Threshold (b) below, neither short-term (construction) nor long-term (operational) emissions would exceed the significance thresholds established by the SCAQMD.

Based on the discussion above, project impacts related to consistency with applicable air quality plans would be less than significant.

Threshold B: Would the project 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 with Mitigation Incorporated

The SCAB portion of San Bernardino County is currently in nonattainment for federal ozone and PM_{2.5} AAQS, and the state ozone, PM_{2.5}, and PM₁₀ AAQS, but it is in attainment for the remaining federal and state AAQS (USEPA, 2023). The proposed project may exceed an air quality standard or contribute to an existing or projected air quality exceedance. The project would result in an increase in air pollutants during short-term construction and long-term operation. Construction-related air pollution would be from worker vehicle trips and construction equipment. During project operations, air pollutants would be primarily generated from motor vehicle travel and area sources such as architectural coatings.



Short-Term Construction

The project will be built in four phases. Construction activities are proposed to begin in September 2027 and end in March 2050. A tentative construction schedule is shown in **Table 4.2-5**.

Table 4.2-5
CONSTRUCTION SCHEDULE

Construction Activity (phase and subphase)	Beginning (month)	Ending (month)	Duration, months
Phase 1			
Demolition	September 1, 2027	September 30, 2027	1
Site Preparation	October 1, 2027	November 1, 2027	1
Utilities Trenching and Installation	November 2, 2027	December 15, 2027	1.5
Pad Grading	December 16, 2027	January 15, 2028	1
Building Construction	January 16, 2028	February 15, 2029	13.5
Architectural Coatings	February 16, 2029	March 28, 2029	1.5
Paving+ Landscaping	March 29, 2029	July 15, 2029	2.5
Phase 2			
Site Preparation	November 1, 2035	January 8, 2036	2.1
Utilities Trenching and Installation	January 9, 2036	April 16, 2036	3.1
Pad Grading	April 17, 2036	July 24, 2036	3.1
Building Construction	July 25, 2036	February 25, 2039	32
Architectural Coatings	February 26, 2039	April 29, 2039	2
Paving + landscaping	April 30, 2039	November 28, 2039	4
Phase 3			
Site Preparation	December 1, 2043	January 3, 2044	1
Utilities Trenching and Installation	January 4, 2044	February 13, 2044	1.6
Fine Grading	February 14, 2044	March 28, 2044	1.5
Building Construction	March 29, 2044	February 15, 2045	11.4
Architectural Coatings	February 16, 2045	March 16, 2045	1
Paving + Landscaping	March 17, 2045	May 17, 2045	2
Phase 4			
Site Preparation	November 1, 2047	January 1, 2048	2
Utilities Trenching and Installation	January 2, 2048	February 14, 2048	1.5
Fine Grading	February 15, 2048	March 30, 2048	1.5
Building Construction	March 31, 2048	November 15, 2049	20.7
Architectural Coatings	November 16, 2049	January 3, 2050	1
Paving + Landscaping	January 4, 2050	March 4, 2050	2

CalEEMod defaults were used throughout, with the following major exceptions:

- Because the project will not require natural gas service, natural gas-based emissions were excluded from the model.



- Because the project will be constructing a fuel cell micro-grid central utility plant (CUP) in Phase 2 that will enable the project to operate independently of the electric grid, onsite electricity usage was removed from CalEEMod following Phase 1 operations. No energy usage from Phases 2 through 4 is generated from direct or indirect fossil fuel combustion.
- Daily trip rates were modified based on the project's traffic study (Fehr & Peers, 2025).
- Modified dust control strategies, specifically increasing daily watering to a minimum of three times per day to be consistent with SCAQMD Rule 403.
- Modified architectural coating limits and area source limits to be consistent with SCAQMD Rules 1113. Since these limitations are mandatory for all projects in the SCAQMD's jurisdiction, they are not mitigation measures.
- One quantitative measure was considered for area sources, LL-1 to replace gas powered landscape equipment with zero-emission landscape equipment (CAPCOA, 2025).
- Two qualitative CalEEMod transportation mitigation measures were considered: T-11 providing an employer-sponsored vanpool, and T-14 providing electric vehicle charging infrastructure.

As shown in **Tables 4.2-6** through **4.2-9**, all construction emissions associated with the project would be below the regional significance thresholds. Therefore, impacts related to air quality during project construction would be less than significant.

Table 4.2-6
ESTIMATED CONSTRUCTION EMISSIONS FOR PHASE 1

Construction Phase	Maximum Daily Emissions (lbs)				
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
Demolition	0.71	4.88	6.7	3.25	0.49
Site Preparation	3.05	27.97	28.28	5.11	2.63
Utilities Trenching and Installation	0.16	1.22	1.41	0.04	0.04
Pad Grading - 2027	1.59	14.23	17.27	1.84	0.89
Pad Grading - 2028	1.56	13.79	17.32	1.84	0.89
Building Construction - 2028	0.99	8.92	12.94	0.30	0.28
Building Construction - 2029	0.97	8.58	12.90	0.28	0.25
Architectural Coatings	29.48	0.79	1.11	0.01	0.01
Paving + Landscaping	0.67	6.46	9.92	0.24	0.22
<i>SCAQMD Daily Regional Threshold</i>	<i>75</i>	<i>100</i>	<i>550</i>	<i>150</i>	<i>55</i>
Exceed Thresholds?	No	No	No	No	No

Source: Calculated by UltraSystems with CalEEMod (Version 2022.1.1.30) (CAPCOA, 2022). SCAQMD, 2023.



Table 4.2-7
ESTIMATED CONSTRUCTION EMISSIONS FOR PHASE 2

Construction Phase	Maximum Daily Emissions (lbs)				
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
Site Preparation - 2035	2.46	19.19	22.89	8.40	4.62
Site Preparation - 2036	2.35	18.00	21.71	8.34	4.56
Utilities Trenching and Installation	0.11	1.12	1.34	0.02	0.02
Pad Grading	2.28	15.86	24.10	4.17	1.96
Building Construction - 2036	0.83	7.12	12.60	0.169	0.15
Building Construction - 2037	0.89	6.99	12.50	0.16	0.14
Building Construction - 2038	0.81	6.90	12.47	0.15	0.14
Building Construction - 2039	0.80	6.78	12.40	0.15	0.13
Architectural Coatings	49.33	0.74	1.09	0.004	0.003
Paving + landscaping	0.69	5.31	9.75	0.11	0.10
<i>SCAQMD Daily Regional Threshold</i>	<i>75</i>	<i>100</i>	<i>550</i>	<i>150</i>	<i>55</i>
<i>Exceed Thresholds?</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>

Source: Calculated by UltraSystems with CalEEMod (Version 2022.1.1.29) (CAPCOA, 2022). SCAQMD, 2023.

Table 4.2-8
ESTIMATED CONSTRUCTION EMISSIONS FOR PHASE 3

Construction Phase	Maximum Daily Emissions (lbs)				
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
Site Preparation - 2043	2.01	14.47	18.62	5.11	2.63
Site Preparation - 2044	1.91	13.36	17.91	5.11	2.62
Utilities Trenching and Installation	0.09	1.07	1.32	0.011	0.010
Fine Grading	1.03	7.54	13.75	1.84	0.89
Building Construction - 2044	0.77	6.48	12.23	0.12	0.11
Building Construction - 2045	0.77	6.42	12.15	0.12	0.11
Architectural Coatings	20.57	0.74	1.09	0.003	0.003
Paving + Landscaping	0.45	4.75	8.66	0.08	0.07
<i>SCAQMD Daily Regional Threshold</i>	<i>75</i>	<i>100</i>	<i>550</i>	<i>150</i>	<i>55</i>
<i>Exceed Thresholds?</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>

Source: Calculated by UltraSystems with CalEEMod (Version 2022.1.1.29) (CAPCOA, 2022). SCAQMD, 2023.



Table 4.2-9
ESTIMATED CONSTRUCTION EMISSIONS FOR PHASE 4

Construction Phase	Maximum Daily Emissions (lbs)				
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
Site Preparation - 2047	0.71	3.55	9.22	0.75	0.19
Site Preparation - 2048	0.69	3.39	9.07	0.75	0.18
Utilities Trenching and Installation	0.09	1.06	1.31	0.01	0.01
Fine Grading	0.81	4.99	9.93	2.92	1.48
Building Construction - 2048	0.83	6.65	10.51	0.11	0.10
Building Construction - 2049	0.82	6.62	10.50	0.10	0.10
Architectural Coatings - 2049	24.71	0.74	1.09	<0.005	<0.005
Architectural Coatings - 2050	24.71	0.74	1.09	<0.05	<0.005
Paving + Landscaping	0.54	4.37	7.98	0.06	0.06
SCAQMD Daily Regional Threshold	75	100	550	150	55
Exceed Thresholds?	No	No	No	No	No

Source: Calculated by UltraSystems with CalEEMod (Version 2022.1.1.29) (CAPCOA, 2022). SCAQMD, 2023.

Long-Term Operational Emissions

Long-term operational emissions are primarily attributed to vehicle exhaust from project-generated trips, referred to as “mobile source emissions.” Additional operational emissions include “energy source emissions,” resulting from the use of energy for water heating, space heating, and cooking, and “area source emissions,” which stem from activities such as building maintenance, landscaping, and the use of consumer products.

For Phases 2, 3, and 4, natural gas and electricity consumption are assumed to be zero, as a utility plant with renewable energy sources will be constructed onsite during Phase 2 to support energy needs. Area source emissions are modeled in compliance with SCAQMD Rule 1113, which governs the use of architectural coatings. Mobile source emissions are based on vehicle miles traveled (VMT), as determined by the project’s traffic study analysis (see **Appendix D-14**) .

An initial emissions calculation without CalEEMod mitigation measures resulted in ROG emissions that would exceed SCAQMD significance thresholds for the operational phase. Results of these initial calculations are shown in **Table 4.2-10**.



Table 4.2-10
MAXIMUM UNMITIGATED DAILY PROJECT OPERATIONAL EMISSIONS FOR ALL PHASES

Emission Source	Pollutant (lbs/day)				
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
Phase 1					
Mobile Sources	11.99	11.57	102.2	25.2	6.51
Area Sources	4.97	0.06	7.17	0.01	0.01
Energy Sources	0.07	1.22	1.02	0.09	0.09
Total Emissions	17.03	12.85	110.39	25.3	6.61
Phase 2					
Mobile Sources	10.89	9.6	102.5	32.4	8.3
Area Sources	15.7	0.35	41.3	0.07	0.05
Total Emissions	26.59	9.95	143.8	32.47	8.35
Phase 3					
Mobile Sources	6.04	5.59	60.8	20.37	5.22
Area Sources	2.5	0.03	3.61	0.01	0.00
Total Emissions	8.54	5.62	64.41	20.38	5.22
Phase 4					
Mobile Sources	4.79	6.44	48.9	16.69	4.31
Area Sources	5.09	0.06	7.83	0.01	0.01
Total Emissions	9.88	6.5	56.73	16.7	4.32
Total Project Emissions	62.04	34.92	375.33	94.85	24.5
<i>SCAQMD Significance Thresholds</i>	<i>55</i>	<i>55</i>	<i>550</i>	<i>150</i>	<i>55</i>
Significant (Yes or No)	Yes	No	No	No	No

Source: Calculated by UltraSystems with CalEEMod (Version 2022.1.1.29) (CAPCOA, 2022)(SCAQMD, 2023).

The addition of the following transportation and area source mitigation measures resulted in emissions of all pollutants below their respective significance levels:

- **MM TRANS-4:** Provide Employer-Sponsored Vanpool.
- **MM AQ-2:** Provide Electric Vehicle Charging Infrastructure.



- **MM AQ-1:** Replace Gas Powered Landscape Equipment with Zero-Emission Landscape Equipment.

The CalEEMod-predicted area source, energy source, and mobile source emissions from the operation of the proposed project with mitigation are presented in **Tables 4.2-11** through **4.2-14**. Total mitigated operational emissions at full buildout are shown in **Table 4.2-15**. Detailed output sheets are provided in **Appendix D2**.

As seen in the following tables, for each criteria pollutant, net emissions would be below the pollutant's SCAQMD significance threshold. Therefore, operational criteria pollutant emissions would be less than significant with mitigation.

Table 4.2-11
MAXIMUM DAILY PROJECT OPERATIONAL EMISSIONS FOR PHASE 1, WITH MITIGATION

Emission Source	Pollutant (lbs/day)				
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
Area Sources	3.53	0.00	0.00	0.00	0.00
Energy Sources	0.07	1.22	1.02	0.09	0.09
Mobile Sources	11.99	11.04	102.20	25.20	6.51
Project Total Emissions	15.59	12.26	103.22	25.29	6.60
<i>SCAQMD Significance Thresholds</i>	<i>55</i>	<i>55</i>	<i>550</i>	<i>150</i>	<i>55</i>
Significant (Yes or No)	No	No	No	No	No

Source: Calculated by UltraSystems with CalEEMod (Version 2022.1.1.29) (CAPCOA, 2022). SCAQMD, 2023.

Table 4.2-12
MAXIMUM DAILY PROJECT OPERATIONAL EMISSIONS FOR PHASE 2, WITH MITIGATION

Emission Source	Pollutant (lbs/day)				
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
Area Sources	8.96	0	0	0	0
Mobile Sources	10.89	9.63	102.49	32.42	8.33
Project Total Emissions	19.85	9.63	102.49	32.42	8.33
<i>SCAQMD Significance Thresholds</i>	<i>55</i>	<i>55</i>	<i>550</i>	<i>150</i>	<i>55</i>
Significant (Yes or No)	No	No	No	No	No

Source: Calculated by UltraSystems with CalEEMod (Version 2022.1.1.29) (CAPCOA, 2022). SCAQMD, 2023.



Table 4.2-13
MAXIMUM DAILY PROJECT OPERATIONAL EMISSIONS FOR PHASE 3, WITH MITIGATION

Emission Source	Pollutant (lbs/day)				
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
Area Sources	1.77	0	0	0	0
Mobile Sources	6.04	5.59	60.77	20.37	5.22
Project Total Emissions	7.81	5.59	60.77	20.37	5.22
<i>SCAQMD Significance Thresholds</i>	<i>55</i>	<i>55</i>	<i>550</i>	<i>150</i>	<i>55</i>
Significant (Yes or No)	No	No	No	No	No

Source: Calculated by UltraSystems with CalEEMod (Version 2022.1.1.29) (CAPCOA, 2022). SCAQMD, 2023.

Table 4.2-14
MAXIMUM DAILY PROJECT OPERATIONAL EMISSIONS FOR PHASE 4, WITH MITIGATION

Emission Source	Pollutant (lbs/day)				
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
Area Sources	3.81	0	0	0	0
Mobile Sources	4.79	6.45	48.93	16.69	4.32
Project Total Emissions	8.6	6.45	48.93	16.69	4.32
<i>SCAQMD Significance Thresholds</i>	<i>55</i>	<i>55</i>	<i>550</i>	<i>150</i>	<i>55</i>
Significant (Yes or No)	No	No	No	No	No

Source: Calculated by UltraSystems with CalEEMod (Version 2022.1.1.29) (CAPCOA, 2022). SCAQMD, 2023.

Table 4.2-15
MAXIMUM DAILY PROJECT OPERATIONAL EMISSIONS FOR ALL PHASES, WITH MITIGATION

Emission Source	Pollutant (lbs/day)				
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
Area Sources	18.07	0	0	0	0
Energy Source (only Phase 1)	0.07	1.22	1.02	0.09	0.09
Mobile Sources	33.71	32.71	314.39	94.68	24.38
Project Total Emissions	51.85	33.93	315.41	94.77	24.47
<i>SCAQMD Significance Thresholds</i>	<i>55</i>	<i>55</i>	<i>550</i>	<i>150</i>	<i>55</i>
Significant (Yes or No)	No	No	No	No	No

Source: Calculated by UltraSystems with CalEEMod (Version 2022.1.1.29) (CAPCOA, 2022). SCAQMD, 2023.



According to the CEQA Guidelines Section 15064(h)(3), a lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project complies with the requirements of a previously approved air quality attainment or maintenance plan. As described above, each individual phase of the proposed project (Phases 1, 2, 3, and 4) would not exceed the SCAQMD's daily criteria pollutant thresholds on its own, nor would their combined emissions exceed the thresholds when considered collectively. Once all phases are built the cumulative operational emissions will remain below significance thresholds for ROG, NO_x, CO and PM₁₀.

Generally, cumulative regional air quality impacts from construction and operation of multiple projects within the South Coast Air Basin (SCAB) are addressed in the Air Quality Management Plan (AQMP). Since the proposed project is consistent with the AQMP, its incremental contribution to cumulative regional impacts would generally not be considered cumulatively considerable.

Threshold C: Would the project expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant

Localized Significance Analysis of Onsite Construction Emissions

The project would have the potential to create localized short-term air quality impacts from construction, which may potentially exceed the localized significance thresholds for criteria pollutants established by the SCAQMD for construction sites. A significant impact may occur if a project were to generate pollutant concentrations to a degree that would significantly affect sensitive receptors. Land uses such as primary and secondary schools, hospitals, and convalescent homes are considered to be sensitive to poor air quality because the very young, the old, and the infirm are more susceptible to respiratory infections and other air quality-related health problems than the general public.

Construction of the project would generate short-term and intermittent emissions. Following the SCAQMD's *Final Localized Significance Threshold Methodology* (Chico and Koizumi, 2008), only onsite construction emissions were considered in the localized significance analysis. The nearest sensitive receptor to the project site during each of the four phases of construction includes the existing Kaiser Medical Center on the project site and each previously completed phase.¹² Even as each phase is built and becomes a new onsite receptor for the following phases, the minimum distance to be analyzed using the SCAQMD's *Final Localized Significance Threshold Methodology* is 25 meters, or approximately 82 feet. Localized significance thresholds (LSTs) for projects in Source Receptor Area 35 (East San Bernardino Valley) were obtained from tables in Appendix C of the aforementioned methodology.

Table 4.2-16 shows the results of the localized significance analysis for the project. It takes into account that the nearest sensitive receptors during each construction phase, (Phase 1, Phase 2, Phase 3 and Phase 4), of the project are the existing onsite Kaiser Medical Center and components of each

¹² According to SCAQMD guidance, if the project site is less than one acre, it may be assumed to be one acre as a worst-case scenario and if a receptor closer than 25 meters to the source may be assumed to be 25 meters away (Chico and Koizumi, 2008, p. 3-3). The project fits these criteria.



previously completed phase. Localized short-term air quality impacts from the project's construction would be less than significant for all criteria pollutants.

Table 4.2-16
RESULTS OF UNMITIGATED LOCALIZED SIGNIFICANCE ANALYSIS

Construction Phase	Maximum Onsite Construction Emissions (pounds/day)			
	NO _x	CO	PM ₁₀	PM _{2.5}
Maximum daily unmitigated emissions Phase 1	28.00	28.30	5.11	2.63
<i>SCAQMD LST for 1.5 acres @25 meters</i>	144	974.5	5.5	4.5
Maximum daily unmitigated emissions Phase 2	19.2	24.2	7.67	3.94
<i>SCAQMD LST for 3 acres @ 25 meters</i>	203.3	1,474.3	9.3	6.3
Maximum daily unmitigated emissions Phase 3	14.50	18.60	5.11	2.63
<i>SCAQMD LST for 2 acres @ 25 meters</i>	170	1,174	7	5
Maximum daily unmitigated emissions Phase 4	6.65	10.50	2.76	1.34
<i>SCAQMD LST for 1.5 acres @ 25 meters</i>	144	974.5	5.5	4.5
Significant (Yes or No)	No	No	No	No

Source: Calculated by UltraSystems with CalEEMod (Version 2022.1.1.29) (CAPCOA, 2022). Chico and Koizumi, 2008.

Asbestos

Many structures built before the late 1990s contain asbestos. Asbestos was widely used in the construction industry in thousands of materials. Some asbestos-containing materials (ACM) are judged to be more dangerous than others due to the species of asbestos, the amount of ACM, and the material's friable nature. Sprayed coatings, pipe insulation, and asbestos insulating board are thought to be the most dangerous due to their high content of amphibole asbestos and friable nature. If asbestos is subsequently found, it would have to be abated to comply with SCAQMD Rule 1403. To comply with this Rule, the contractor is required to have an asbestos survey performed by a Cal/OSHA Certified Asbestos Consultant (CA Department of Industrial Relations, 2018) and to submit an asbestos notification form with a fee to the SCAQMD at least 10 working days before any demolition activity.¹³ Compliance will result in a minimal effect from asbestos exposure.

CO Hotspots

As discussed in **Section 4.2.6**, a project does not require detailed carbon monoxide (CO) hotspot analysis if no intersection affected by the project exceeds 400,000 vehicles per day. This threshold was established based on modeling conducted in the South Coast Air Basin (SCAB) and documented in the 2003 Air Quality Management Plan (AQMP), which found no violations of CO standards at

¹³ Additional compliance information was published in a SCAQMD Advisory Notice dated March 27, 2019 and titled "Important Notice to all Facility Owners and Contractors Performing Renovations or Demolitions Re: Asbestos." <http://www.aqmd.gov/docs/default-source/compliance/Asbestos-Demolition-/rule-1403-compliance-advisory.pdf?sfvrsn=8>.



intersections with traffic volumes well below that level, even under worst-case meteorological conditions.

The intersections studied for the Project include:

- California Street and San Bernardino Avenue.
- California Street and Almond Avenue.
- California Street and Lugonia Avenue.
- California Street and Orange Tree Lane.
- California Street and I-10 Westbound Ramps.
- California Street and I-10 Eastbound Ramps.
- California Street and Redlands Boulevard.
- Mountain View Avenue and Almond Avenue.
- Mountain View Avenue and I-10 Westbound Ramps.
- Mountain View Avenue and I-10 Eastbound Ramps.

The project traffic study reported that the highest average daily traffic (ADT) occurs along Interstate 10 near California Street, with a maximum of approximately 191,000 vehicles per day (Segment L) (see **Table 4.10-9**). This is less than half the 400,000-vehicle threshold that would require a detailed CO hotspots analysis using models such as CALINE4. Other segments and intersections in the Project area experience significantly lower traffic volumes, with most local streets carrying fewer than 10,000 vehicles per day even after full project buildout.

Since no project-affected intersection is projected to exceed the 400,000 ADT threshold, and regional modeling demonstrates no CO exceedances at much higher volumes, the Project would not cause or contribute to CO hotspots. Therefore, impacts related to localized mobile-source CO emissions would be less than significant.

Air Toxics Health Risk Assessment

Inputs and results for the Tier 1 screening are provided in **Appendix D3**. The nearest residential receptor is located 740 meters (2,428 feet) away. The screening index for cancer or chronic noncancer risk is **2.43** for one engine, and **12.15** for five engines. Thus, the project “fails” the Tier 1 screening, and it is necessary to go to Tier 2. Note that no result was calculated for acute (maximum hourly) exposure, because no acute pollutant screening level for DPM has been established.

Table 4.2-17 shows the results of the Tier 2 air toxics health risk assessment. Both cancer and noncancer risk values would be less than their respective significance thresholds.



Table 4.2-17
RESULTS OF TIER 2 AIR TOXICS HEALTH RISK ASSESSMENT

Receptor	Maximum Incremental Cancer Risk (per million)		Chronic Hazard Index Target Organ: Respiratory System	
	Per Engine	Facility	Per Engine	Facility
Residential	0.231	1.2	0.000062	0.00031
School	0.217	1.1	0.000058	0.00029
Worker	0.402	2.0	0.00041	0.0021

Source: UltraSystems Environmental, 2025 (Appendix D3).

4.2.8 Cumulative Impacts

The project site is located within San Bernardino County, California, in the SCAB, which is under the jurisdiction of the SCAQMD. Criteria air pollutants of concern in the SCAB include O₃, PM₁₀, and PM_{2.5}, as concentrations of these pollutants are above state and/or national ambient air quality standards. When establishing significance thresholds for air pollutants, air districts consider the emissions levels at which a project's individual emissions would be cumulatively considerable. Construction and operation of the Redlands Kaiser Permanente Medical Center would introduce new structures and development in the city, potentially generating emissions of criteria pollutants that are currently in nonattainment or other emissions that create odors resulting in significant adverse impacts on the region's existing air quality. These impacts could occur in both the short term (during construction) and long term (through operation and maintenance of new facilities), potentially resulting in cumulatively significant effects.

Construction activities would include demolition, site preparation, trenching, grading, building construction, paving and application of architectural coatings that would result in temporary emissions that are regulated by applicable air quality plans. However, given the temporary nature of these activities, the relatively low emission levels, and the limited exposure risk to nearby sensitive receptors, health risks from diesel particulate matter during construction are expected to be minimal. Additionally, construction would not produce odorous emissions that would adversely affect a substantial number of people. Therefore, construction-related emissions would not conflict with or hinder implementation of SCAQMD air quality plans.

As discussed in the Initial Study, a significant impact may potentially occur if a project were to generate obnoxious odors. The project involves the construction and operation of commercial uses, such as medical offices and facilities, that are not typically associated with odor complaints. The largest potential source of odors during construction is equipment exhaust. Odors from these sources would be localized and generally confined to the immediate project area. The project would use typical construction techniques, and the odors would be typical of most construction sites, would be temporary in nature, and would not be sufficient to impact a substantial number of people or result in a nuisance per SCAQMD Rule 402. According to the SCAQMD *CEQA Air Quality Handbook* (SCAQMD, 1993), land uses and industrial operations that are associated with odor complaints include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies and fiberglass molding. The project involves no industrial elements, so no long-term operational objectionable odors are anticipated (UltraSystems, 2025, p. 4.3-2).



Operational emissions from the new medical facility are expected to be similar to those of the existing nearby Kaiser facility, primarily resulting from employee vehicle trips. Although there will be an increase in mobile and area source emissions, implementation of mitigation strategies would ensure that the project does not conflict with applicable air quality plans, significantly increase criteria pollutants beyond SCAQMD thresholds, or expose sensitive receptors to substantial pollutant concentrations.

To mitigate potential impacts, dust control measures will be implemented in compliance with SCAQMD Rule 403 to limit fugitive dust during construction, particularly watering the project site at least three times a day. Mitigation Measures MM AQ-1, MM AQ-2, and MM TRANS-4 will ensure that reactive organic gas (ROG) and mobile source emissions during operations remain below SCAQMD thresholds. Further reductions in mobile-source emissions during operations would be achieved through MM TRANS-1, MM TRANS-2 and MM TRANS-3. With these mitigation strategies in place, the project's contribution to cumulative air quality impacts would be reduced to less-than-significant levels.

4.2.9 Mitigation Measures

The impact analysis under **Threshold B** was determined to be less than significant with mitigation, and the mitigation measures that the project must consider under this threshold are summarized below. For operational emissions to remain below significance thresholds, the project must integrate measures to reduce VMT and VOC emissions. The following measures are based on methodologies outlined in the California Air Pollution Control Officers Association's (CAPCOA) Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity, and were tailored to the site's context and land use constraints. Kaiser will first determine if implementing these measures are feasible before they can commit to enforcing them. If deemed feasible, the measures may be enforced by incorporating them into the implementation of a sustainability plan or corporate social responsibility policy regarding energy efficiency or carbon footprint reduction.

Impacts associated with significance threshold B would be potentially significant without mitigation. Therefore, the following mitigation measures would be required, if feasible, to minimize potential impacts related to air quality emissions:

MM AQ-1: Include in a Plan or Policy that Gas Powered Landscape Equipment must be replaced with Zero-Emission Landscape Equipment (listed at A-1 in the aforementioned CAPCOA Handbook, and LL-1 in CalEEMod). If feasible, landscape and maintenance contracts shall require only Zero-Emission Landscape Equipment be used.

MM AQ-2: Provide Electric Vehicle Charging Infrastructure (listed as T-14 in CalEEMod).

MM TRANS-4: Provide Employer-Sponsored Vanpool, see **section 4.12.5** for more details (listed as T-11 in CalEEMod).

Additional measures that were not incorporated in the emissions calculations but further reduce VMT-related emissions are listed below. The project includes several targeted mitigation strategies, evaluated and quantified by Fehr & Peers in the traffic impact study (Fehr & Peers, 2025). A multiplicative dampening factor was applied to account for overlap among measures addressing the same trip types. The following measures and corresponding VMT reductions are proposed and further discussed in **Section 4.12.5**:



MM TRANS-1: Implement Commute Trip Reduction Marketing.

MM TRANS-2: Provide Employee Rideshare Program.

MM TRANS-3: Provide End-of-Trip Bicycle Facilities.

Implementation of these measures will be outlined and monitored through the Project's Mitigation Monitoring and Reporting Plan (MMRP). These mitigation measures are the most feasible and applicable options that were considered for the project in the Traffic Study. Although these measures provide a substantial (9.9 percent) reduction, the project's HBW VMT is projected to remain approximately 12 percent above the City's VMT threshold, and therefore, the VMT impact (but not the air quality impact) would remain significant and unavoidable even with mitigation (Fehr & Peers, 2025, p. 39). See **Section 4.12.5**.

4.2.10 Level of Significance After Mitigation

Impacts would be less than significant with mitigation.



4.3 Biological Resources

4.3.1 Introduction

This section of the PEIR provides an analysis of the project's potential impacts with regard to biological resources. The analysis is based on a habitat assessment prepared by Cadre Environmental (2025) for the proposed project (see **Appendix D2**).

4.3.2 Regulatory Framework

Federal

Federal Endangered Species Act (ESA)

The Federal Endangered Species Act (ESA) of 1973 (Title 16, United States Code [U.S.C.] §§ 1531-1543), as amended, designates and provides for protection of listed threatened and endangered plant and animal species, and their critical habitat. The United States Fish and Wildlife Service (USFWS), in the Department of the Interior, and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NMFS), in the Department of Commerce, share responsibility for administration of the ESA. These responsibilities include listing and delisting species, designating critical habitat, and formulating recovery plans. The USFWS has primary responsibility for terrestrial and freshwater organisms, while the responsibilities of NMFS are mainly marine wildlife.

Migratory Bird Treaty Act (MBTA)

The Migratory Bird Treaty Act (MBTA) of 1918 (Title 16, U.S.C. §§703-712), as amended, includes provisions for protection of migratory birds, including basic prohibitions against any take not authorized by federal regulation. The administering agency for the above authority is the USFWS. The law contains no requirement to prove intent to violate any of its provisions. Wording in the MBTA makes it clear that most actions that result in "take" or possession (permanent or temporary) of a protected species can be a violation of the act. The word "take" is defined as "pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to pursue, hunt, shoot, wound, kill, trap, capture, or collect (including nests, eggs, and feathers)." The provisions of the MBTA are nearly absolute; "except as permitted by regulations" is the only exception.

Clean Water Act: Section 401

Section 401 of the Clean Water Act (CWA) requires project owners or proponents to obtain a Water Quality Certification which requires their project to prevent the discharge or dredge and fill material in quantities that would violate federal water quality standards. In the State of California, the State Water Resources Control Board (SWRCB) and its nine Regional Water Quality Control Boards (RWQCBs) have been given the authority to issue Section 401 Water Quality Certifications (WQCs). The Santa Ana Regional Water Quality Control Board (Region 8) would provide review and water quality certification services for this project if required. The CWA Section 401 is required if a CWA Section 404 permit is required.



Clean Water Act: Section 404

Waters of the U.S. including wetlands, are subject to U.S. Army Corps of Engineers (USACE) jurisdiction under Section 404 of the CWA. A Section 404 permit is required for the discharge of dredged or fill material into waters of the U.S. The Los Angeles District of the USACE would provide review and permitting services for this project if it's required.

Wetlands and other waters that do not meet the definition of waters of the U.S. (as amended on September 8, 2023; 88 FR 61964) are not covered by the CWA; however, they are regulated by the State of California through the Porter-Cologne Water Quality Control Act (Porter-Cologne) and SWRCB Resolution No. 2019-0015.

State

Porter-Cologne Water Quality Control Act

Porter-Cologne defines water quality objectives as the allowable “limits or levels of water quality constituents or characteristics which are established for the reasonable protection of beneficial uses of water or the prevention of nuisances within a specific area.” Thus, water quality objectives are intended to protect the public health and welfare, and to maintain or enhance water quality in relation to the existing and/or potential beneficial uses of the water. Water quality objectives apply to both waters of the U.S. and waters of the State. In the State of California, Porter-Cologne is administered in concurrence with Section 401 CWA Water Quality Certification.

SWRCB Resolution No. 2019-0015

This resolution amended the state's Water Quality Control Plans and adopted the "State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State" to establish a statewide wetland definition, a framework for determining jurisdiction over wetlands and waters of the state, wetland delineation procedures, and processes for reviewing and approving Water Quality Certifications and Waste Discharge Requirements permits for dredge or fill activities. It also adopted and formalized these procedures and their application to all waters within the state (SWRCB, 2019a, 2019b, and 2019c).

California Endangered Species Act (CESA) of 1984, California Fish and Game Code Sections 2050-2098

This act includes provisions for the protection and management of wildlife species listed by the State of California as endangered or threatened or designated as candidates for such listings. This act includes a requirement for consultation “to ensure that any action authorized by a state lead agency is not likely to jeopardize the continued existence of any endangered or threatened species...or result in the destruction or adverse modification of habitat essential to the continued existence of the species” (Section 2090). Plants of California declared to be endangered, threatened, or rare are listed under 14 CCR § 670.2. Animals of California declared to be endangered, threatened, or rare (also referred to as “sensitive” wildlife species) are listed under 14 CCR § 670.5. The administering agency for the above authority is the California Department of Fish and Wildlife (CDFW).



Native Plant Protection Act of 1977: California Fish and Game Code Section 1900 et. seq.

The Native Plant Protection Act prohibits import of rare and endangered plants into California, take of rare or endangered plants, and sale of rare and endangered plants. CESA defers to the California Native Plant Protection Act (CNPPA), which ensures that plant species listed by the State as endangered, threatened, or rare (“sensitive” plant species) are protected when state agencies are involved in projects or activities subject to CEQA. In this instance, plants listed as rare under the CNPPA are not protected under CESA, but rather under CEQA.

California Fish and Game Code Section 3503 and Section 3503.5

This act provides for the protection and enhancement of birds by declaring “It is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto (Section 3503), and that “It is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto (Section 3503.5).

Lake or Streambed Alteration Agreement (LSAA)

Sections 1600-1617 of the California Fish and Game Code protect the natural flow and the bed, channel, and bank of any river, stream, or lake designated by the CDFW which is at any time an existing fish or wildlife resource, or a waterbody from which these resources derive benefit. General project plans must be submitted to CDFW in sufficient detail to indicate the nature of the project proposed for construction. A project would require a Lake or Streambed Alteration Agreement (LSAA) if the project would: divert, obstruct, or change a streambed; use material from the streambeds; or result in the disposal or deposition of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into a stream.

The Inland Deserts Region (Region 6) of the CDFW serves San Bernardino County and would provide LSAA Notification Review and Agreement services for this project if required.

Regional

Upper Santa Ana River Habitat Conservation Plan (Stakeholder Review Draft)

The Upper Santa Ana River (SAR) Habitat Conservation Plan (HCP) (Stakeholder Review Draft) was prepared by ICF in October 2020 (ICF, 2020b) for the San Bernardino Valley Municipal Water District (SBVMWD). The Upper SAR HCP is a regional, comprehensive program that was developed to address the potential effects of water agency activities on the sensitive species and habitats in the upper SAR watershed, provide a framework to protect, enhance, and restore the habitat for covered species, while streamlining permitting for covered activities under Section 10 of the ESA. The Planning Area encompasses approximately 862,966 acres in southern San Bernardino County and northwestern Riverside County.



Local

Upper Santa Ana River Wash Habitat Conservation Plan (Wash Plan)

The Upper Santa Ana River Wash Habitat Conservation Plan (Wash Plan) was prepared by ICF in April 2020 (ICF, 2020a) for the San Bernardino Valley Water Conservation District (SBVWCD). The primary goal of the Wash Plan is to balance ground-disturbing activities of water conservation, aggregate mining, recreational activities, and other public services in the HCP plan area with the conservation of natural communities and populations of special-status plant and animal species. It provides for the coordination and accommodation of existing and anticipated future activities in the wash area. The Wash Plan proposes land use designations for the entire wash area in Redlands, including land for habitat conservation, aggregate mining, flood control, and water conservation. It will also have detailed mapping of habitats and a specific plan for the management of sensitive species and habitats in the Santa Ana River Wash. Activities within the Planning Area that are adjacent to the Santa Ana River would need to be consistent with any adopted Wash Plan and HCP policies at the time activities are proposed.

Upper Santa Ana River Wash Habitat Conservation Plan/Natural Resource Management Plan

The Upper Santa Ana River Wash Habitat Conservation Plan/Natural Resource Management Plan (NRMP) (SBVWCD, 2023) was prepared for the implementation of the Wash Plan. Consistent with the Wash Plan, the NRMP will support and document the development and implementation of an effective approach to monitoring and managing the protected natural resources within the Wash Plan Preserve.

City of Redlands General Plan

The City of Redlands General Plan 2035 (City of Redlands, 2017a) includes Chapter 6, *Vital Environment*. The purpose of this chapter is to promote an open space plan that conserves the natural areas such as hillsides and canyons, Santa Ana River, and agricultural lands. It also serves to allow agriculture and citrus production, and conservation of open space and trails to continue around the city, especially at the city's edges where a linked greenbelt called the "Emerald Necklace" is integrated with the regional open space system (City of Redlands, 2017a, p. 1). This chapter includes policies and actions for the protection and preservation of biological resources and open space conservation.

City of Redlands Ordinance for Trees and Tree Protection along Streets and in Public Places

Chapter 12.52 of the City of Redlands Municipal Code addresses the use and maintenance of trees along streets and in public places. The ordinance is intended to preserve and grow the tree canopy by protecting landmark, native and specimen, and public trees, as well as street trees and trees on public property; and providing for the regulation of the protection, planting, maintenance, and removal of public trees. The ordinance provides for the designation of landmark and specimen trees, which are, respectively, public trees designated as a historic resource as a tree of historic or cultural significance, or public trees that meet species and size criteria established by the City Council to be outstanding specimens of a desirable species. Abuse or mutilation of public trees is prohibited, and procedures are established regarding tree maintenance and protection of trees during improvements.



City of Redlands Street Tree Policy

The Street Tree Policy and Protection Guidelines Manual (City of Redlands, 2013) was established in accordance with Chapter 12.52 of the Municipal Code in 2013. The guidelines are intended to define and illustrate the policies and procedures that shall be utilized by City staff in the management and care of all public trees. They also provide guidance to residents for the planting and care of street trees.

4.3.3 Methodology

The analysis is based on the Biological Resources Technical Report (BRTR) prepared by Cadre Environmental, dated March 7, 2025, which is included in **Appendix D2** of this Draft PEIR.

Relevant literature, maps, databases, agency web sites, Geographic Information System (GIS) data, and aerial imagery were obtained to: (1) assess habitats, special-status plant and wildlife species, jurisdictional waters, critical habitats, and wildlife corridors that potentially may occur on and near the project site; and (2) identify local or regional plans, policies, and regulations that may apply to the project.

A reconnaissance-level habitat assessment of the project site was conducted by Cadre Environmental on February 6, 2025 (see **Appendix D2**). The purposes of the assessment were to evaluate the results of the literature review, to characterize and identify potential sensitive plant and wildlife habitats, and to establish the accuracy of the data identified in the literature search. Geologic and soil maps were examined to identify local soil types that may support sensitive taxa. Aerial photographs, topographic maps, vegetation and rare plant maps prepared for previous studies in the region were used to determine community types and other physical features that may support sensitive plants/wildlife, uncommon taxa, or rare communities that occur within or adjacent to the project site (Cadre Environmental, 2025, p. 4). Prior to the habitat assessment, a search of the California Natural Diversity Database (CNDDB) was conducted to determine which special-status wildlife and special-status plants have the potential to occur in the vicinity of and within the project site based on distribution and elevation range.

The project site was also assessed for the potential presence/absence of United States Army Corps of Engineers (USACE), CDFW, and RWQCB jurisdictional resources through review of pertinent scientific literature and industry standard databases (Cadre Environmental, 2025, p. 5).

4.3.4 Existing Conditions

The project site is in the city of Redlands in the Upper Santa Ana River Valley in San Bernardino County. It is located in an urbanized area developed mostly with industrial uses. The site is surrounded by high-traffic roads and warehouse/industrial buildings on all sides, including one currently under construction to the south.

The project site is characterized primarily as agricultural, developed, disturbed, and ruderal vegetation. It contains an existing 120,000-square-foot medical office building (Kaiser Permanente Redlands Medical Offices) and associated parking lot in the southeast portion of the site, and vacant land. The vacant land is currently used as agriculture (dry croplands) and water retention in the two existing water detention basins (Cadre Environmental, 2025, p. 1).



❖ SECTION 4.3 – BIOLOGICAL RESOURCES ❖

The site's elevation ranges from 1,146 feet amsl to 1,155 feet amsl (Twining, 2024, p. 2). The Soil Survey of the San Bernardino County Area has the project site mapped as Hanford sandy loam as (HbA), 0 to 2 percent slopes (USDA, 2025). It has a General Plan land use designation of Commercial Industrial and a zoning designation of Concept Plan 1 (CP-1) under the East Valley Corridor Specific Plan (City of Redlands, 2022a; City of Redlands, 2022b).

4.3.4.1 Land Cover Types

This section describes the land cover types present within the project site as determined by the literature review and habitat assessment. Land cover types are shown on **Figure 4.3-1** and listed in **Table 4.3-1** below.



Figure 4.3-1
LAND COVER TYPES



Disclaimer: Illustration provided by Cadre Environmental, who has indicated that the information is true and correct. No other warranties are expressed or implied.
Source: Cadre Environmental, 2025.

**Kaiser Permanente
Redlands Medical Center**
Land Cover Types





Table 4.3-1
LAND COVER TYPES

Land Cover Type	Acres
Agriculture	17.54
Developed (Kaiser Permanente Redlands Medical Offices)	9.69
Disturbed/Ruderal	7.15
Disturbed	1.43
Mule Fat Scrub	0.51
California Buckwheat Scrub	0.18
Ornamental	0.10
TOTAL	36.60

Source: Cadre Environmental 2025

Agriculture

The project site includes a total of 17.54 acres of agricultural land cover type. These upland undeveloped areas of the project site were historically cultivated and currently appear to be annually disked and dominated by ruderal and non-native species including but not limited to wild oat (*Avena fatua*), foxtail barley (*Hordeum murinum*), Mediterranean schismus (*Schismus barbatus*), ripgut brome (*Bromus diandrus*), Russian thistle (*Salsola tragus*), prostate knotweed (*Polygonum aviculare*), stinknet (*Oncosiphon pilulifer*), Australian saltbush (*Atriplex semibaccata*), and black mustard (*Brassica nigra*) (Cadre Environmental, 2025, p. 6).

Developed

A total of 9.69 acres of the project site is currently developed. The developed regions are localized in the southeast corner of the project site including facilities and ornamental landscaping associated with the Kaiser Permanente Redlands Medical Offices (Cadre Environmental, 2025, p. 6).

The developed land cover type is not considered a sensitive natural community in local or regional plans, policies, and regulations, or by CDFW and USFWS. The plants within this land cover type are not considered rare by the CNDDB. The Developed land cover type is dominated by non-native species; it is widespread in the project vicinity; it is considered common and not to be of concern; and/or it exhibits a moderate level of disturbance rendering this land cover type less valuable as habitat to support wildlife diversity or special-status species.

Developed lands are either non-vegetated features that are occupied by man-made structures or other impermeable surfaces that cannot support vegetation (e.g., streets and buildings), or are vegetated by ornamental or landscape vegetation. These developed areas provide virtually no habitat for wildlife species; however, birds could use the ornamental vegetation for foraging and nesting. Developed lands and ornamental vegetation do not have a global or state rank and are not considered sensitive communities.

Disturbed/Ruderal

The project site includes a total of 7.15 acres of disturbed/ruderal land cover type. These areas of the project site include several detention basins and areas utilized as staging areas in support of past agricultural activities. Dominant plants documented within this vegetation community include ruderal non-native species as well as native species common in disturbed areas including but not



limited to horseweed (*Erigeron canadensis*), Russian thistle, prostate knotweed, red-stemmed filaree (*Erodium cicutarium*), prickly lettuce (*Lactuca serriola*), golden crown beard (*Verbesina encelioides*), tumbling pigweed (*Amaranthus albus*), salt cedar (*Tamarisk ramosissima*), tree tobacco (*Nicotiana glauca*), black mustard, brittlebush (*Encelia farinosa*), telegraph weed (*Heterotheca grandiflora*), annual bursage (*Ambrosia acanthicarpa*), turkey-mullein (*Croton setiger*), desert croton (*Croton californicus*), tocalote (*Centaurea melitensis*), London rocket (*Sisymbrium irio*), stinknet, Australian saltbush, annual beard-grass (*Polypogon monspeliensis*), California cottonrose (*Logfia filaginoides*), common sandaster (*Corethrogyne filaginifolia*), bedstraw (*Galium* sp.) common sow thistle (*Sonchus oleraceus*), scarlet pimpernel (*Lysimachia arvensis*), henbit (*Lamium amplexicaule*), dwarf nettle (*Urtica urens*), umbrella plant (*Cyperus involucratus*), bull thistle (*Cirsium vulgare*), annual yellow sweetclover (*Melilotus indicus*), shepherd's purse (*Capsella bursa-pastoris*), and Mexican fan palm (*Washingtonia robusta*) (Cadre Environmental, 2025, p. 7).

Disturbed

A total of 1.43 acres of disturbed land cover type was documented on the project site. These regions of the project site include those areas generally devoid of vegetation, including dirt roads (Cadre Environmental, 2025, p. 7).

Mule Fat Scrub

A total of 0.51 acre of mule fat scrub vegetation was documented onsite. Specifically, several small patches of mule fat scrub are located within the existing detention basin located in the northwest corner of the project site. This vegetation community is dominated by mule fat (*Baccharis salicifolia*) with an understory of ruderal and native species commonly occurring within disturbed habitats, as described above (Cadre Environmental, 2025, p. 7).

California Buckwheat Scrub

A single small 0.18-acre-patch of California buckwheat scrub is located within the existing detention basin located in the northwest corner of the project site. This vegetation community is dominated by California buckwheat (*Eriogonum fasciculatum*) with an understory of ruderal and native species commonly occurring within disturbed habitats, as described above (Cadre Environmental, 2025, p. 7).

Ornamental

A single mature chinaberry tree (*Melia azedarach*) with a 0.10-acre (74.47-foot-diameter) canopy is located in the northeast corner of the project site (Cadre Environmental, 2025, p. 7).

4.3.4.2 Sensitive Species

Based on a review of the CNDDB (CDFW, 2025), Redlands General Plan and existing conditions within and adjacent to the project site, a total of 18 sensitive plant species have potential to occur within the vicinity of the project site. See Table 2, *Sensitive Plant Species Assessment*, in the BRTR in **Appendix D2** (Cadre Environmental, 2025, p. 27). No suitable habitat for sensitive plant species, including those listed as federal or state threatened/endangered, was documented within the project site. No sensitive plant species listed in the BRTR, or undisturbed habitats or soils were documented or expected to occur within the project site. The project site is primarily characterized as heavily disturbed agricultural field, detention basins, and development (Cadre Environmental, 2025, p. 30).



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Based on a review of the CNDDDB, Redlands General Plan and existing site conditions, a total of 46 sensitive invertebrate and wildlife species have the potential of occurring within the vicinity of the project site. See Table 3, *Sensitive Wildlife Species Assessment*, in the BRTR in **Appendix D2** (Cadre Environmental, 2025, p. 30). None of the sensitive wildlife species listed in the BRTR were identified during surveys. Based on the habitats documented within the project site, there is only one species with a high potential to occur, five species with a moderate potential to occur, and seven species with a low potential to occur. These species are listed below.

- Crotch's bumble bee (*Bombus crotchii*)/State Candidate Endangered (SCE) - foraging and nesting, low potential
- Burrowing owl (*Athene cunicularia*)/State Species of Special Concern (SSC) - foraging, refugia and nesting, moderate potential.
- Loggerhead shrike (*Lanius ludovicianus*)/SSC – foraging, moderate potential
- White-tailed kite (*Elanus leucurus*)/State Fully Protected (SFP) – foraging, moderate potential
- Golden eagle (*Aquila chrysaetos*)/ California Watch List (CWL), SFP – foraging, low potential
- Cooper's hawk (*Accipiter cooperii*)/SSC – foraging, low potential
- Sharp-shinned hawk (*Accipiter striatus*)/CWL – foraging, high potential
- Northern harrier (*Circus cyaneus*)/SSC – foraging, low potential
- California horned lark (*Eremophila alpestris actia*)/CWL- foraging and nesting, moderate potential
- Merlin (*Falco columbarius*)/CWL – foraging, low potential
- Prairie falcon (*Falco mexicanus*)/CWL – foraging, low potential
- Long-eared owl (*Asio otus*)/SCC – foraging, low potential
- Western yellow bat (*Lasiurus xanthinus*)/SSC - foraging and roosting (palm trees), moderate potential

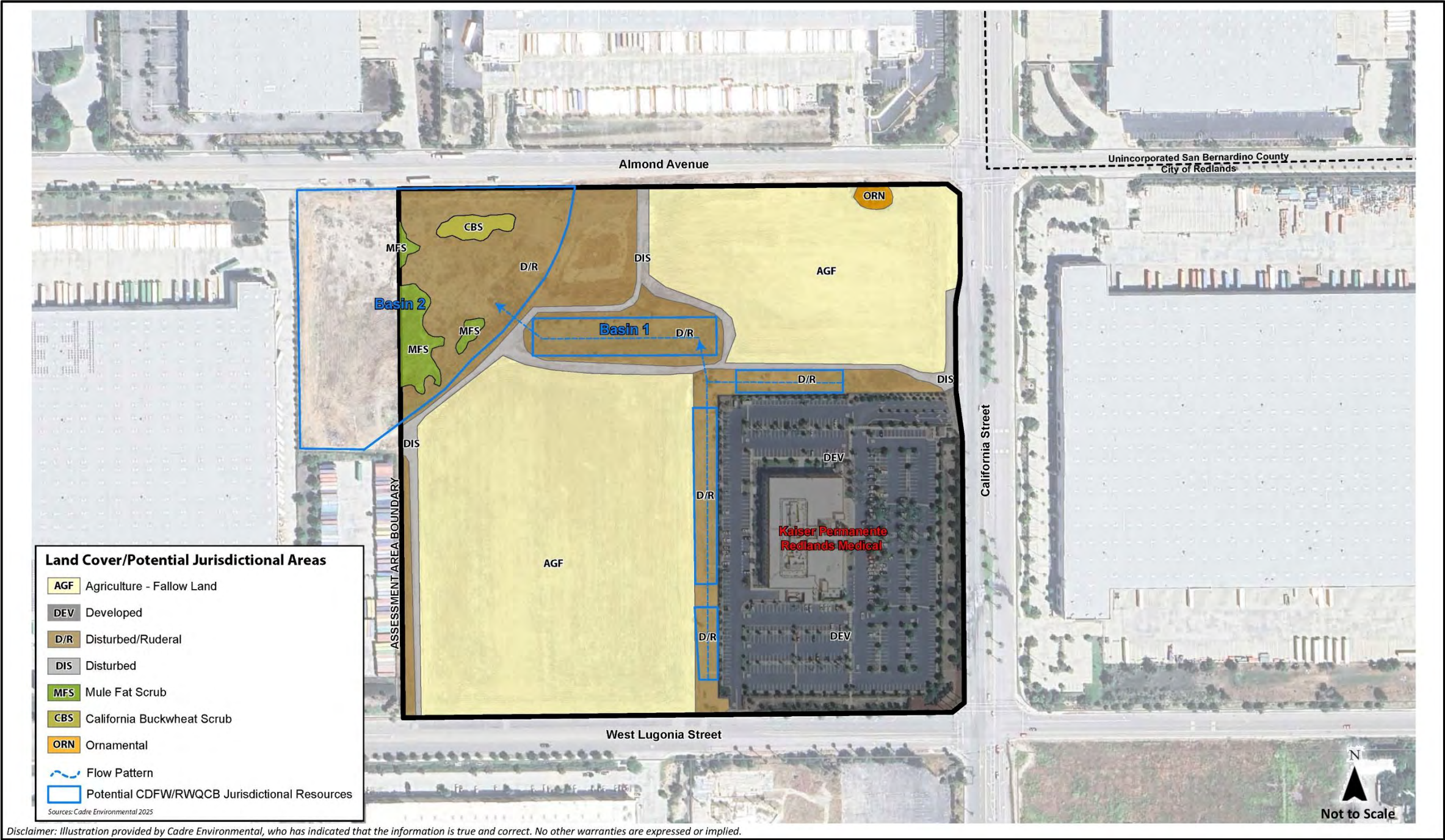
The project site does not occur within or adjacent to a USFWS-designated critical habitat for any federally listed threatened or endangered species (Cadre Environmental, 2025, p. 41).

4.3.4.3 Potential Jurisdictional Areas

The project site was assessed for the potential presence/absence of areas under the jurisdiction of USACE, CDFW, and RWQCB. **Figure 4.3-2, *Jurisdictional Resources Assessment***, shows potential jurisdictional resources identified during the field survey. To ensure that potential adverse effects to jurisdictional resources are reduced to a less than significant level, a formal jurisdictional delineation and regulatory permit(s) will be required for the entire project site for each phase prior to development approval.



Figure 4.3-2
JURISDICTIONAL RESOURCES ASSESSMENT



**Kaiser Permanente
Redlands Medical Center**
Potential Jurisdictional Areas





4.3.5 Environmental Impact Analysis

4.3.5.1 Thresholds of Significance

In accordance with Appendix G of the State CEQA Guidelines, the project would have a significant impact related to biological resources if it would:

- 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; or
- 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; or
- 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; or
- 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; or
- E. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- 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.

For this analysis, the CEQA Appendix G Thresholds listed above are relied upon. Section 4.4 of the Initial Study prepared for this project determined that the project would have a less than significant impact under Threshold D because the project site does not contain native wildlife nursery sites or wildlife corridors and would not impede established ones. There would also be no impact under Threshold F because the project site is not within adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan (UltraSystems, 2025). The Initial Study also stated that these thresholds will not be discussed further in the PEIR. However, Threshold D was analyzed and mitigation included for it in the BRTR in **Appendix D2**. Therefore, Threshold D is included in this analysis with measures to ensure impacts will be less than significant under this threshold.

4.3.5.2 Analysis of Project Impacts

Threshold A: Would the Project 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

Development of the proposed project would not have a substantial adverse effect, either directly or through habitat modifications, on any plant species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by CDFW or USFWS. No native undisturbed suitable habitat, soils or sensitive plant species were observed or expected to occur within the project site. Therefore, no mitigation is required for sensitive plant species or habitats (Cadre Environmental, 2025, p. 44).

The proposed project may result in an adverse impact, either directly or through habitat modifications, on wildlife species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS. The habitats documented within the project site have a low to high likelihood of occurrence for the 13 species listed above (Cadre Environmental, 2025, p. 44).

The 0.18-acre patch of California buckwheat scrub documented in the northwest detention basin is suitable foraging habitat for the Crotch's bumble bee. Suitable nesting habitat was also documented in the region of this food source. To ensure that potential adverse effects to Crotch's bumble bee are reduced to a less than significant level, focused assessments and surveys, as warranted will be required during phases 1 and 2 of the project including impact analysis prior to approval of development within each area, as described in mitigation measure **(MM) BIO-1** presented in **Section 4.3.7** below (Cadre Environmental, 2025, p. 44).¹⁴

Burrows suitable for burrowing owl potentially utilized for refugia and/or nesting and foraging habitat were documented throughout the undeveloped areas of the project site. To ensure that potential adverse effects to burrowing owl are reduced to a less than significant level, focused assessments and surveys and impact analysis, as warranted, will be required during phases 1 and 2 of the project prior to approval of development within each respective area, as detailed in **MM BIO-2** in **Section 4.3.7** below (Cadre Environmental, 2025, p. 44).

Suitable foraging habitat for nine sensitive species including loggerhead shrike, white-tailed kite, golden eagle, Cooper's hawk, sharp-shinned hawk, northern harrier, merlin, prairie falcon, and long-eared owl was documented within the project site. However, it was determined that development of the proposed project is not expected to result in a significant impact to regional foraging resources for these species and thus no mitigation is proposed for these species (Cadre Environmental, 2025, p. 44).

Suitable foraging and nesting habitat for one sensitive species, California horned lark, was identified within the project site. To ensure that potential impacts to California horned lark are reduced to a less than significant level, a focused nesting survey and impact analysis will be required during phases 1 and 2 of the project prior to approval of development within each phase area to be developed, as summarized in **MM BIO-3** in **Section 4.3.7** below (Cadre Environmental, 2025, p. 44).

The project site also contains suitable foraging and roosting habitat (palms) for the yellow bat. To ensure that potential impacts to yellow bat are reduced to a less than significant level, preconstruction surveys will be required during each of the four phases of the project prior to

¹⁴ Grading for phases 2, 3, and 4 of the project will be done in Phase 2.



approval of development within reach respective region, as summarized in **MM BIO-4** presented in **Section 4.3.7** below (Cadre Environmental, 2025, p. 45).

Threshold B: Would the Project 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?

Less than Significant with Mitigation

A total of 26.91-acres of developed and natural vegetation communities within the project site would be directly and permanently impacted as a result of project development (Phases 1 to 4), as summarized in **Table 4.3-1** above.¹⁵ No sensitive habitat identified in local or regional plans, policies, regulations, or by CDFW or USFWS will be impacted as a result of project implementation. A total of 0.51-acre of mule fat scrub (riparian habitat) was documented within Basin 2. To ensure that potential impacts to jurisdictional resources including riparian habitat are reduced to less than significant, **MM BIO-5** will require a formal jurisdictional delineation and impact analysis to be conducted for the entire project site for all project phases prior to approval of Phase 1. If present, and prior to issuance of a grading permit, the project applicant may be required to obtain a 1602 LSAA from CDFW for impacts to regulated features including riparian habitat, as warranted in **MM BIO-5** and presented in **Section 4.3.7** below (Cadre Environmental, 2025, p. 45).

Threshold C: Would the Project 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?

Less Than Significant with Mitigation

The project site was assessed for the potential presence or absence of resources under the jurisdiction of USACE, CDFW, and RWQCB. The assessment identified potentially jurisdictional areas shown in **Figure 4.3-2**. Impacts to potentially jurisdictional areas would be significant. To ensure that potential impacts to jurisdictional resources are reduced to a less than significant level, **MM BIO-5** requires a formal jurisdictional delineation and impacts analysis be conducted for the entire project site covering all project phases prior to approval of Phase I development. If present, and prior to issuance of a grading permit, the project applicant may be required to obtain a CWA Section 404 permit from the USACE, a 1602 LSAA from CDFW, and a CWA Section 401 or Waste Discharge Requirements (WDR) permit from the RWQCB pursuant to the California Water Code Section 13260, as described in **MM BIO-5** and presented in **Section 4.3.7** below (Cadre Environmental, 2025, p. 47).

Threshold D: Would the Project 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

The Initial Study had determined that the project would result in a less than significant impact under this threshold. The project site does not contain native wildlife nursery sites. The project would not interfere substantially with or impede: (1) the movement of any resident or migratory fish or wildlife

¹⁵ Table 4.3-1 describes a total of 36.60 acres including 9.69 acres developed with the existing medical office building; thus, the acreage of impacts for this project is 26.91 acres.



❖ SECTION 4.3 – BIOLOGICAL RESOURCES ❖

species; (2) established resident or migratory wildlife corridors; or (3) the use of wildlife nursery sites. However, this threshold was analyzed in the BRTR (**Appendix D2**) and mitigation included to ensure impacts would be less than significant, and thus it is discussed below.

The project site has vegetation including trees and shrubs that could provide nesting habitat for raptors and migratory birds protected under the MBTA and the California Fish and Game Code §§ 3503, 3503.5, and 3513. In order to avoid violation of the MBTA and the California Fish and Game Codes, site preparation activities (ground disturbance, construction activities, staging equipment, and/or removal of trees and vegetation) for the project shall be avoided, to the greatest extent possible, during the nesting season of potentially occurring native and migratory bird species (generally September 15 to February 15 for songbirds; September 1 to January 14 for raptors, although the nesting season may be extended due to weather and drought conditions) (Cadre Environmental, 2025, p. 47).

Construction outside the raptor nesting season (between September 15 and January 14) does not require preconstruction nesting bird surveys. However, if construction is proposed between January 14 and September 15, a qualified biologist will conduct a preconstruction nesting bird and raptor survey(s) no more than three days prior to initiation of grading to document the presence or absence of nesting birds or raptors within or directly adjacent to the project site. Loss of an active nest would be considered a potentially significant impact. Impacts to raptor foraging and potential nesting bird habitat would be reduced to less than significant with the implementation of **MM BIO-3**, presented in **Section 4.3.7** below (Cadre Environmental, 2025, p. 47).

The project site is surrounded by high-traffic roads and commercial/industrial development and does not serve as a local or regional wildlife movement corridor. Therefore, no impacts would occur with regards to wildlife movement corridors, and no mitigation is required (Cadre Environmental, 2025, p. 47).

Threshold E: Would the Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact

City of Redlands General Plan

The City of Redlands General Plan 2035, Chapter 6, *Vital Environment*, includes policies and actions for the protection and preservation of biological resources and open space conservation (City of Redlands, 2017a). Below in **Table 4.3-2** is a list of these policies and actions and discussions addressing each one with regard to the proposed project.

Table 4.3-2
GENERAL PLAN CHAPTER 6 CONSISTENCY ANALYSIS

General Plan Policy or Action	Consistency Analysis
General Plan Open Space for Conservation – Section 6.1 (City of Redlands, 2017a, p. 6-3)	
Section 6.1 Policies - Principles	
6-P.1 Develop a balanced and integrated open space system that reflects a variety of considerations, including resource conservation, production of agriculture, recreation, aesthetics, and community identity.	The site is not appropriate for open space or conservation because of the surrounding roads and commercial/industrial uses. No open space or conservation is proposed onsite. The project site is completely surrounded by high traffic roads and



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General Plan Policy or Action	Consistency Analysis
	commercial/industrial development and does not contribute to recreation, aesthetics or community identity. The proposed project would not conflict with Principle 6-P.1.
6-P.2 Designate and develop the Emerald Necklace around the city, consisting of open spaces and conserved lands, that showcase and link unique resources both within and surrounding the Planning Area and serve as a distinct boundary for urban development within Redlands.	The site is not appropriate for open space or conservation because of the surrounding roads and commercial/industrial uses. No open space or conservation is proposed onsite and the project would not include, add, or remove areas in the Emerald Necklace. The project site is completely surrounded by high traffic roads and commercial/industrial development and does not possess or contribute to unique resources. The proposed project would not conflict with Principle 6-P.2.
6-P.3 Seek to link the various elements of the Emerald Necklace through a system of open spaces, waterways, parks, and trails.	The site is not appropriate for open space or conservation because of the surrounding roads and commercial/industrial uses. No open space conservation is proposed onsite and would not provide or remove a link to the Emerald Necklace. The project site is completely surrounded by high traffic roads and commercial/industrial development and does not contribute to open spaces, waterways, parks, and trails. The proposed project would not conflict with Principle 6-P.3.
6-P.4 Preserve and enhance open space and agricultural land to define the Mentone and Crafton areas as distinct from Redlands.	The site is not appropriate for open space or conservation because of the surrounding roads and commercial/industrial uses. No open space conservation is proposed onsite. The project site is completely surrounded by high traffic roads and commercial/industrial development and does not contribute to the Mentone and Crafton regions. The proposed project would not conflict with Principle 6-P.4.
6-P.5 Encourage the preservation of natural habitat areas as open space.	The site is not appropriate for open space or conservation because of the surrounding roads and commercial/industrial uses. No open space or conservation is proposed onsite. The project site is completely surrounded by high traffic roads and commercial/industrial development and does not contribute to regional open space conservation. The proposed project would not conflict with Principle 6-P.5.
6-P.6 Promote access to and views of conservation areas in a manner consistent with good land resource stewardship.	The site is not appropriate for open space or conservation because of the surrounding roads and commercial/industrial uses. No open space or conservation is proposed onsite. The project site is completely surrounded by high traffic roads and commercial/industrial development and does not contribute to regional open space conservation. The proposed project would not conflict with Principle 6-P.6.



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Section 6.1 Polices - Actions	
6-A.1 Preserve as open space those areas that contain unique habitats, natural resources, and visual amenities such as citrus groves, hillsides, canyons, and waterways. These areas provide natural contrast with the urban cityscape.	The site is not appropriate for open space or conservation because of the surrounding roads and commercial/industrial uses. No open space or conservation is proposed onsite. The project site is completely surrounded by high traffic roads and commercial/industrial development and would not include, add, or remove unique habitats, natural resources, or visual amenities such as citrus groves, hillsides, canyons, and waterways. The proposed project would not conflict with Action 6-A.1.
6-A.2 Identify gaps in the Emerald Necklace and work with San Bernardino County and neighboring cities, conservation organizations, and willing landowners to prioritize land acquisition or other resource preservation strategies in those areas.	The site is not appropriate for open space or conservation/preservation for the Emerald Necklace because of the surrounding roads and commercial/industrial uses. No open space or conservation is proposed onsite. The project site is completely surrounded by high traffic roads and commercial/industrial development and does not include or result in removal of areas in the Emerald Necklace. The proposed project would not conflict with Action 6-A.2.
6-A.3 Identify portions of the Emerald Necklace that are not in public ownership and work with conservation organizations and landowners to ensure that the land is dedicated or otherwise conserved.	The site is not appropriate for open space or conservation because of the surrounding roads and commercial/industrial uses. No open space or conservation is proposed onsite. The project site is completely surrounded by high traffic roads and commercial/industrial development and does not include, add, or remove areas in the Emerald Necklace. The proposed project would not conflict with Action 6-A.3.
6-A.4 Develop standards for planning, design, management, and maintenance of trails and pathways within parks, preserves, open space, and rights-of-way.	The site is not appropriate for open space or conservation because of the surrounding roads and commercial/industrial uses. No open space or conservation is proposed onsite. The project site is completely surrounded by high traffic roads and commercial/industrial development and does not contribute to trails and pathways within parks, preserves, and open space. The proposed project would not conflict with Action 6-A.4.
6-A.5 Develop a long-term plan for the maintenance of open space areas held by the City which may include non-profits, public-private partnerships, and volunteer organizations.	The site is not appropriate for open space or conservation because of the surrounding roads and commercial/industrial uses. No open space or conservation is proposed onsite. Therefore, the proposed project would not conflict with Action 6-A.5.
6-A.6 Designate and map open space, recreation areas, and trails contained in the Emerald Necklace.	The site is not appropriate for open space, recreation areas, or trails because of the surrounding roads and commercial/industrial uses. No open space, recreation areas, or trails are proposed onsite. The project site is completely surrounded by high traffic roads and commercial/industrial development and would not



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	add to or remove areas in the Emerald Necklace. The proposed project would not conflict with Action 6-A.6.
6-A.7 Work with San Bernardino County, neighboring cities, conservation organizations, and landowners to maintain and enhance the trails, roadways, and lands within the Emerald Necklace, and to ensure that sensitive resources in these areas are not disturbed or degraded.	The site is not appropriate for open space or conservation because of the surrounding roads and commercial/industrial uses. No open space or conservation is proposed onsite. The project site is completely surrounded by high traffic roads and commercial/industrial development and does not include or result in removal of areas in the Emerald Necklace. The proposed project would not conflict with Action 6-A.7.
6-A.8 Provide sufficient resources for the maintenance of trails and conservation areas through both volunteer and City mechanisms.	The site is not appropriate for open space, trails, or conservation because of the surrounding roads and commercial/industrial uses. No open space or conservation is proposed onsite and thus the applicant would not be responsible for providing trail maintenance resources. The project site is completely surrounded by high traffic roads and commercial/industrial development and does not contribute trails or conservation areas. The proposed project would not conflict with Action 6-A.8.
6-A.9 Develop and implement a wayfinding program along the Emerald Necklace to identify sites of interest and provide directions along trails and roadways. Ensure that any signs are consistently designed and visually compatible with the surroundings.	The site is not appropriate for open space or conservation because of the surrounding roads and commercial/industrial uses. No open space or conservation is proposed onsite. The project site is completely surrounded by high traffic roads and commercial/industrial development and does not include or result in removal of areas in the Emerald Necklace. The proposed project would not conflict with Action 6-A.6.
6-A.10 Maintain and enhance Redlands' network of urban forest and street trees.	No trees regulated by the City of Redland's Trees and Tree Protection Along Street and Public Places Ordinance (Chapter 12.52) were documented onsite. No Impact. The proposed project would not conflict with Action 6-A.10.
General Plan Biological Resources – Section 6.2 (City of Redlands, 2017a, p. 6-12)	
Section 6.2 Policies - Principles	
6-P.7 Protect environmentally sensitive lands, wildlife habitats, and rare, threatened, or endangered plant and animal communities.	To ensure that potential adverse effects to sensitive species and resources are reduced to a less than significant level, focused biological resources assessments will be required during each of the four phases of the project including impact analysis prior to approval of development within reach respective region. In addition to completing CEQA review, any focused surveys and required conservation measures shall be implemented prior to project approval and initiation of construction, as warranted and summarized in MM BIO-1 to MM BIO-5 .
6-P.8 Minimize disruption of wildlife and valued habitat throughout the Planning Area and emphasize	The site is not appropriate for open space or conservation because of the surrounding roads and



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that open space is for more than just human use, but also serves as habitat for biological resources.	commercial/industrial uses. No open space or conservation is proposed onsite. The project site is completely surrounded by high traffic roads and commercial/industrial development and does not contribute to regional open space conservation. The proposed project would not conflict with Principle 6-P.8.
6-P.9 Preserve, protect, and enhance wildlife corridors, including natural watercourses, connecting the San Bernardino National Forest, Santa Ana River Wash, Crafton Hills, San Timoteo and Live Oak Canyons, the Badlands, and other open space areas.	The site is not appropriate for open space, corridors, or conservation because of the surrounding roads and commercial/industrial uses. No open space or conservation is proposed onsite. The project site is completely surrounded by high traffic roads and commercial/industrial development and does not include or result in removal of areas in the San Bernardino National Forest, Santa Ana River Wash, Crafton Hills, San Timoteo and Live Oak Canyons, the Badlands, and other open space areas. The proposed project would not conflict with Principle 6-P.9.
6-P.10 Landscape public areas using native vegetation where practical.	The site is not appropriate for open space or public areas because of the surrounding roads and commercial/industrial uses. No public areas are proposed onsite. The proposed project would not conflict with Principle 6-P.10.
Section 6.2 Policies - Actions	
6-A.11 Require a biological assessment of any proposed project site within the Planning Area where species that are State or federally listed as rare, threatened, or endangered are identified as potentially present.	To ensure that potential adverse effects to sensitive species and resources are reduced to a less than significant level, focused biological resources assessments will be required during each of the four phases of the project including impact analysis prior to approval of development within reach respective region. In addition to completing CEQA review, any focused surveys and required conservation measures shall be implemented prior to project approval and initiation of construction, as warranted and summarized in MM BIO-1 to MM BIO-4 .
6-A.12 Require that proposed projects adjacent to, surrounding, or containing wetlands, riparian corridors, or wildlife corridors be subject to a site-specific analysis that will determine the appropriate size and configuration of a buffer zone.	To ensure that potential adverse effects to sensitive species and resources are reduced to a less than significant level, focused biological resources assessments will be required during each of the four phases of the project including impact analysis prior to approval of development within reach respective region. In addition to completing CEQA review, any focused surveys and required conservation measures shall be implemented prior to project approval and initiation of construction, as warranted and summarized in MM BIO-1 to MM BIO-5 .
6-A.13 Utilize conservation easements and preserves as means to conserve natural habitats.	No open space or conservation easements are proposed onsite. The project site is completely surrounded by high traffic roads and commercial/industrial development and would not add to or remove areas in the San Bernardino



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	National Forest, Santa Ana River Wash, Crafton Hills, San Timoteo and Live Oak Canyons, the Badlands, and other open space areas. The proposed project would not conflict with Action 6-A.13.
6-A.14 Construct freeway and arterial street undercrossing or overpasses where necessary to establish and preserve identified wildlife corridors.	No undercrossing or overpasses are proposed. The project site is completely surrounded by high traffic roads and commercial/industrial development and does represent a local or regional wildlife movement corridor. The proposed project would not conflict with Action 6-A.14.
6-A.15 Enhance the Mill Creek Zanja and Morey Arroyo and tributary drainages as riparian corridors, where feasible, to provide habitat as well as recreational and aesthetic value consistent with an overall master plan for habitat preservation.	The project site is completely surrounded by high traffic roads and commercial/industrial development and does not include or result in removal of areas in Mill Creek Zanja and Morey Arroyo and tributary drainages. The proposed project would not conflict with Action 6-A.15.
6-A.16 Work with the Crafton Hills Open Space Conservancy to preserve, enhance, and maintain the Crafton Hills as an ecosystem.	The project site is completely surrounded by high traffic roads and commercial/industrial development and does not include or result in removal of areas in the Crafton Hills Open Space Conservancy. The proposed project would not conflict with Action 6-A.16.
6-A.17 Coordinate open space and habitat preservation in the Crafton Hills with the City of Yucaipa.	The project site is completely surrounded by high traffic roads and commercial/industrial development and does not include or result in removal of areas in Crafton Hills Open Space Conservancy. The proposed project would not conflict with Action 6-A.17.
6-A.18 Coordinate open space and habitat preservation in San Timoteo and Live Oak canyons with Riverside County.	The project site is completely surrounded by high traffic roads and commercial/industrial development and does not include or result in removal of areas in the San Timoteo or Live Oak Canyons. The proposed project would not conflict with Action 6-A.18.
6-A.19 Continue participation in regional planning efforts to protect habitat and environmentally sensitive species, including efforts by the City of Yucaipa on habitat preservation along Yucaipa Creek and in Live Oak Canyon throughout its length.	The project site is completely surrounded by high traffic roads and commercial/industrial development and does not include or result in removal of areas in Yucaipa Creek and Live Oak Canyons. The proposed project would not conflict with Action 6-A.19.
6-A.20 Work with State and County agencies in developing recovery and restoration plans after natural or manmade disasters to restore natural landscapes, habitats, and functioning ecosystems. As part of the recovery and restoration plans, include evaluation processes and implementation actions. Where appropriate, incorporate the use of native species.	No recovery or restoration plans are proposed or warranted. The proposed project would not conflict with Action 6-A.20.
6-A.21 Ensure that future activities in the Santa Ana River Wash are consistent with the habitat conservation policies of the Upper Santa Ana River	The project site is completely surrounded by high traffic roads and commercial/industrial development and does not include or result in removal of areas in the Santa Ana River Wash or



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Land Management Habitat Conservation Plan (Wash Plan).	Upper Santa Ana River Land Management Habitat Conservation Plan. The proposed project would not conflict with Action 6-A.21.

Sources: City of Redlands, 2017a. Cadre Environmental, 2025.

Redlands Municipal Code - Regulated Trees

All public trees meeting the definition of native or specimen trees in § 12.52.020 of Chapter 12.52 (City Tree Ordinance) are subject to the protections of the Chapter. Code of Ordinances, Chapter 12.52.020 § 12.52.020 *Definitions* defines *landmark trees* in the City Tree Ordinance (City of Redlands, 2004) as:

“a public tree designated as a historic resource under chapter 2.62 of this code as a tree of historic or cultural significance and of importance to the community due to any of the following factors: it is one of the largest or oldest public trees of the species located in the city, it has historical significance due to an association with a historic building, site, street, person or event, or it is a significant outstanding feature of a neighborhood. ”

Native tree is defined as:

Any tree, identified by a certified arborist as native to the local area, with a trunk more than eight inches (8") in diameter at a height of four and one-half feet (4 ½') above natural grade that is identified on a list of native trees approved by the city council.

Specimen tree is defined as:

“Any tree, identified by a certified arborist as native to the local area, with a trunk more than eight inches (8") in diameter at a height of four and one-half feet (4 ½') above natural grade that is identified on a list of native trees approved by the city council.”

No trees regulated by the City of Redland’s *Trees and Tree Protection Along Street and Public Places Ordinance* (Chapter 12.52) were documented onsite during the biological surveys. Therefore, no impact on trees regulated by the City of Redlands would occur (Cadre Environmental, 2025, p. 48).

Based on the analysis above, the project would not conflict with any local policies or ordinances protecting biological resources, such as the City’s General Plan and City Tree Ordinance, thus no impacts would occur.

4.3.6 Cumulative Impacts

The project site is already partially developed as a medical facility. It is surrounded by high traffic roads and warehouse/industrial buildings on all sides, including one currently under construction to the south. The direct and/or indirect impacts of the project would not result in significant cumulative impacts (CEQA § 15310) to environmental resources within the region of the project site. Cumulative impacts refer to incremental effects of an individual project when assessed with the effects of past, current, and proposed projects. The project represents the development of 36.60 acres of primarily agricultural, developed, disturbed and disturbed/ruderal habitat surrounded by commercial, high traffic roads, and therefore will not result in an adverse cumulative impact to sensitive resources. Impacts related to buildout of the City of Redlands are anticipated to be less than significant if



projects comply with the City of Redlands General Plan 2035 policies principles/actions. With implementation of the following mitigation measures, the proposed project would not conflict with the general plan policies for the protection of sensitive resources (Cadre Environmental, 2025, p. 49).

4.3.7 Mitigation Measures

To ensure that potential adverse effects to sensitive species and resources are reduced to a less than significant level, focused biological surveys and impacts analyses of the project site will be required prior to approval of Phase I development and each subsequent development phase. In addition to completing CEQA review, focused surveys and required mitigation measures shall be implemented prior to project approval and initiation of construction at each phase of the project, as described in **MM BIO-1** through **MM BIO-5**. The measures presented below are based on the measures in the BRTR (Cadre Environmental, 2025) in **Appendix D2**.

MM BIO-1: Crotch's Bumble Bee Surveys

To ensure the proposed project does not result in direct or indirect impacts to the Crotch's bumble bee, focused presence/absence surveys shall be conducted based on the CDFW *Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species Guidelines (June 6th, 2023)*, (CDFW, 2023). Focused surveys shall be started during the colony active period and when floral resources are present for the species by a qualified entomologist. Specifically, three surveys shall be conducted with at least two weeks between surveys from April to June. All regions within the project site where suitable floral resources are present shall be surveyed by walking meandering transects at least one hour after sunrise and/or at least two hours before sunset (ideally between 9am and 1pm) on warm sunny days with winds below eight miles per hour.

Focused surveys shall be conducted for a minimum of one person-hour of searching per three acres of suitable habitat. Bumble bees shall be captured with a net from blooms, avoiding destruction of the flower when possible. Each bee shall be carefully transferred into a sterile vial and moved to a cooler with only one bee per vial to avoid disease spread. The bee shall be kept in the vial for no more than 10 minutes in ambient temperature before being placed in a cooler as they have a tendency to over-heat (the amount of time will be decreased on hotter days). The vial shall be placed in a cooler at a temperature above 25 degrees Fahrenheit, as lower temperatures could freeze and kill the bee. The results of the focused surveys shall be summarized in a letter report including graphics and recommendations. At a minimum, the survey letter report shall provide the following:

1. A description and map of the survey area, focusing on areas that could provide suitable habitat for Crotch's bumble bee.
2. Field survey conditions that shall include name(s) of qualified entomologist(s) and brief qualifications; date and time of survey; survey duration; general weather conditions; survey goals, and species searched.
3. Map(s) showing the location of nests/colonies; and,
4. A description of physical (e.g., soil, moisture, slope) and biological (e.g., plant composition) conditions where each nest/colony is found. A sufficient description of biological conditions, primarily impacted habitat, shall include native plant composition (e.g., density, cover, and abundance) within impacted habitat (e.g., species list separated by vegetation class; density, cover, and abundance of each species).



If the species is detected onsite, the CDFW shall be contacted to determine appropriate conservation measures to prevent direct/indirect impacts to the species, or acquisition of an Incidental Take Permit (ITP). To initiate the ITP process, the applicant or representative shall contact the appropriate CDFW Regional Office and submit a completed ITP application.

MM BIO-2: Focused and Preconstruction Burrowing Owl Surveys

To ensure the proposed project does not result in direct or indirect impacts to the burrowing owl, focused surveys shall be conducted in accordance with the March 7, 2012, *Staff Report on Burrowing Owl Mitigation* (CDFG, 2012) which recommends both a breeding and non-breeding season survey. Specifically, a total of four surveys shall be conducted by a qualified avian biologist during the breeding season: 1) at least one site visit between February 15 and April 15, and 2) a minimum of three surveys, at least three weeks apart, between April 15 and July 15, with at least one visit after June 15. Non-breeding season surveys shall include four surveys spread out evenly from July 15 to February 15. A report of the findings prepared by a qualified biologist shall be submitted to the City of Redlands prior to any permit or approval for ground disturbing activities.

Regardless of the findings of the focused surveys, a burrowing owl preconstruction survey shall be conducted no less than 14 days prior to the initiation of ground-disturbing activities to ensure protection for this species including a survey conducted with 24 hours of start of work. The preconstruction surveys shall be conducted in compliance with CDFW guidelines (CDFG, 2012). A report of the findings prepared by a qualified biologist shall be submitted to the City of Redlands prior to any permit or approval for ground disturbing activities. If burrowing owls are not detected onsite, the proposed project may proceed. However, if project initiation is delayed more than 14 days, updated preconstruction surveys may be required.

If burrowing owls are detected onsite during the focused or preconstruction surveys, a burrowing owl monitoring and/or relocation plan shall be developed and approved by the City of Redlands, CDFW and USFWS prior to any permit or approval for ground disturbing activities. At a minimum, the plan shall include the following:

1. Burrowing owl status, distribution and habitat utilization within and adjacent to the project site.
2. Conservation objectives and goals developed in cooperation with CDFW and USFWS.
3. Results of burrowing owl monitoring activities.
 - a. 350-foot minimum protective (no work) zone shall be designated around each of the occupied burrow sites and delineated by orange silt fencing. The installation of the fencing shall be monitored by a qualified biologist to ensure owls are not directly or indirectly impacted as a result of fence installation. The monitoring biologist will also be responsible for directing where the fencing shall be installed.
 - b. A qualified monitoring biologist shall monitor the owls weekly during the non-breeding season to determine if the 350-foot protective zone is adequate for their protection. The weekly monitoring events will also provide critical information regarding the status of the species onsite for purposes of developing a relocation plan.
 - c. A qualified monitoring biologist shall conduct an initial environmental briefing with any contractors which will be working onsite. The briefing shall include a discussion



of burrowing owl natural history, identification of burrowing owl non-breeding season protection zones, and summary of penalties for directly and/or indirectly impacting the species.

- d. A qualified monitoring biologist shall be authorized to stop all work activities in the event potential direct and/or indirect impacts to burrowing owl may occur as a result of proposed staging activities.
 - e. Monthly updates on the monitoring efforts including recommendations, as warranted, shall be submitted to the City of Redlands, CDFW and USFWS.
4. Passive and/or active relocation activities.
 5. Burrowing owl management activities for active relocation sites.

Based on the candidacy or listing status of the species at the time of surveys, if detected, acquisition of an Incidental Take Permit may also be required.

MM BIO-3: Pre-Construction Breeding Bird Survey

To maintain compliance with the MBTA and California Fish and Game Code §§ 3503, 3503.5, and 3513, and to avoid impacts or take of migratory non-game breeding birds and other native birds, their nests, young, and eggs, the following measures shall be implemented.

Site preparation activities (ground disturbance, construction activities, staging equipment, and/or removal of trees and vegetation) for the project shall be avoided, to the greatest extent possible, during the nesting season of potentially occurring native and migratory bird species (generally September 15 to February 15 for songbirds; September 1 to January 14 for raptors, although the nesting season may be extended due to weather and drought conditions).

If site preparation activities are proposed during the nesting/breeding season, the project proponent shall retain a qualified avian biologist to conduct a pre-activity field survey prior to the issuance of grading permits for the project to determine if active nests of species protected by the MBTA or the California Fish and Game Codes are present in the construction zone. The nest surveys shall include the project site where project activities have the potential to cause nest failure. The survey results shall be provided to the City of Redlands for review and approval. The project applicant shall adhere to the following:

1. The project applicant shall retain a qualified biologist experienced in: identifying local and migratory bird species of special concern; conducting bird surveys using appropriate survey methodology; nesting surveying techniques, recognizing breeding and nesting behaviors, locating nests and breeding territories, and identifying nesting stages and nest success; determining/establishing appropriate avoidance and minimization measures; and monitoring the efficacy of implemented avoidance and minimization measures.
2. Pre-activity field surveys shall be conducted at the appropriate time of day/night, during appropriate weather conditions, no more than three days prior to the initiation of project activities. Surveys shall encompass all suitable areas including trees, shrubs, bare ground, burrows, cavities, and structures. Survey duration shall take into consideration the size of the property; density, and complexity of the habitat; number of survey participants; survey techniques employed; and shall be sufficient to ensure the data collected is complete and accurate.



If no nesting birds are observed during the survey, site preparation and construction activities may begin. However, if active nests (including nesting raptors) are located, then avoidance or minimization measures shall be undertaken in consultation with the City of Redlands, CDFW and USFW, as warranted. Measures shall include immediate establishment of an appropriate buffer zone to be established by a qualified biologist based on their best professional judgement and experience. The buffer around the nest shall be delineated and flagged, and no construction activity shall occur within the buffer area until a qualified biologist determines nesting species have fledged and the nest is no longer active, or the nest has failed. The biologist shall monitor the nest at the onset of project activities and at the onset of any changes in such project activities (e.g., increase in number or type of equipment, change in equipment usage, etc.) to determine the efficacy of the buffer. If the biologist determines that such project activities may be causing an adverse reaction, the biologist shall adjust the buffer accordingly or implement alternative avoidance and minimization measures, such as redirecting or rescheduling construction or erecting sound barriers. All work within these buffers will be halted until the nesting effort is finished (i.e., the juveniles are surviving independent from the nest). The onsite biologist shall review and verify compliance with these nesting avoidance buffers and shall verify the nesting effort has finished. Work can resume within these avoidance areas when no other active nests are found.

Birds or their active nests will not be disturbed, captured, handled or moved. Active nests cannot be removed or disturbed; however, nests can be removed or disturbed if determined inactive by a qualified biologist.

If listed bird species are observed within a project site during the preconstruction survey, the biologist will immediately map the area and notify the appropriate resource agency to determine suitable protection measures and/or mitigation measures and to determine if additional mitigation is necessary. Project activities may begin within the area only when concurrence is received from the appropriate resource agency.

Upon completion of the survey and nesting bird monitoring, a report shall be prepared and submitted to City of Redlands for review and approval prior to initiation of construction activities.

MM BIO-4: Preconstruction Bat Survey

Prior to implementation of project activities, a qualified bat biologist shall be retained to determine whether potential roosting sites for yellow bats may be affected. For large ornamental trees and palms suitable for bat roosting/nursery, exit counts and acoustic surveys shall be performed prior to initial ground disturbance, vegetation or structure removal to determine whether the project site and a 300-foot buffer supports a nursery or roost. This work will occur between late -spring and late summer and/or in the fall (generally mid-March through late October).

If the results of the bat survey find a total of a single roosting individual of a special status bat species or 25 or more individuals of a non-special status bat species with potential to be present in the project site, a Bat Management Plan shall be developed by a qualified bat biologist to ensure mortality to bats does not occur. For each location confirmed to be occupied by bats, the Bat Management Plan must provide details both in text and graphically where exclusion devices/and or staged tree/palm removal will need to occur, the timing for exclusion work and the timeline and methodology needed to exclude the bats. The plan will need to be reviewed and approved by the City of Redlands and CDFW prior to disturbance of the roosts. The Bat Management Plan shall include:

1. Bat status, distribution and habitat information within and adjacent to the project site.



2. Results of the bat surveys.
3. Project-specific measures for noise attenuation devices, acoustic and visual monitoring during high-vibration and sound activities (such as saw cutting, jackhammering, and pile driving), visual disturbance buffers, and the installation of bat exclusion devices to safely and humanely evict bats outside of the maternity season, in the event they are needed.
4. Exclusion methods may include use of one-way doors at roost entrances (bats may leave, but not re enter), or sealing roost entrances when the site can be confirmed to contain no bats. Exclusion efforts may be restricted during periods of sensitive activity (e.g., during hibernation or while females in maternity colonies are nursing young).
5. If roosts cannot be avoided or it is determined that construction activities may cause roost abandonment, such activities may not commence until permanent, elevated bat houses have been installed outside of, but near the construction area. Placement and height will be determined by a qualified wildlife biologist, but the height of bat house will be at least 15 feet. Bat houses will be multi-chambered and be purchased or constructed in accordance with CDFW standards. The number of bat houses required will be dependent upon the size and number of colonies found, but at least one bat house will be installed for each pair of bats (if occurring individually), or of sufficient number to accommodate each colony of bats to be relocated.
6. Consultation with the California Department of Fish and Wildlife would occur to finalize preparation of the Bat Management Plan for inclusion in other permits that are required from the CDFW, such as a Lake or Streambed Alteration Agreement (LSAA) under Section 1600-1616 of the Fish and Game Code. Each LSAA usually contains a section titled Measures to Protect Fish and Wildlife Resources, for which this plan would be incorporated.
7. A description of incidental monitoring and reporting that will take place during construction.
8. Details for post-construction monitoring.
9. Note that the Bat Management Plan is triggered only if the project requires high-vibration and sound activities causing shaking or vibration, generally resulting from saw cutting, jackhammering, pile driving, or similar activities (within 150 feet of a bat colony).

MM BIO-5: Jurisdictional Delineation and Permitting

Prior to approval of grading permits and initiation of project activities, a qualified biologist shall conduct a formal jurisdictional delineation on the project site to determine the presence/absence of jurisdictional resources, extent of jurisdictional areas, and impacts to resources regulated by the USACE, RWQCB, and CDFW. The delineation shall be conducted using the current USACE methods and definition of “waters of the U.S.” (most current as of this writing is March 2025 notice and data sheets) and the methods and wetland definitions specified in the *California State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State* (Procedures) (SWRCB, 2019) to delineate waters of the state.



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Upon completion of the jurisdictional delineation survey, a jurisdictional delineation report shall be prepared according to the *Minimum Standards for Acceptance of Aquatic Resources Delineation Reports for the USACE, Los Angeles Regulatory District* (USACE-LA, 2017). This report shall be submitted to City of Redlands for review and approval.

If jurisdictional areas are present on the project site, the project applicant shall obtain a Clean Water Act Section 404 permit, California Fish and Game Code Section 1602 Lake or Streambed Alteration Agreement from CDFW and a CWA 401 or WDR permit issued by the RWQCB (Santa Ana RWQCB-Region 8) pursuant to the California Water Code § 13260, as warranted. If required, these permits shall be obtained prior to issuance of a grading permit. Construction activities (including but not limited to fencing, staging, and clearing) will not commence unless all requirements of the USACE, CDFW, RWQCB have been met and the RWQCB has issued a WDR permit, letter of permission, or other project-specific approval. All conditions of these permits shall be adhered to during project development.

4.3.8 Level of Significance After Mitigation

Impacts would be less than significant with mitigation.



4.4 Cultural Resources

4.4.1 Introduction

This section provides an overview of cultural resources that may be present within the study area. Cultural resources are artifacts of human activity, occupation, or use (see **Appendix D1** for UltraSystems' Cultural Resources Inventory report). They include expressions of human culture and history in the physical environment, such as archaeological sites, historic buildings and structures, or other culturally significant places. This section also provides an analysis of the project's potential impacts on historic resources that could result from development of the proposed project. The analysis is based on investigations of the project site by cultural resources and historical resources specialists. This section is based on record searches and other investigation methods provided in **Appendix D1**.

Historic buildings and structures generally must be 50 years or older and are typically identified through archival and library research, followed by field reconnaissance and recordation. Historic buildings and structures are architecturally, historically, or artistically important individual and groups of residential, commercial, industrial, and transportation properties.

Archaeological resources refer to surface or buried material remains, buried structures, or other items used or modified by people. Prehistoric archaeological resources predate European presence in the Riverside County region, and can include villages or campsites, food remains, basketry fragments, shell and stone tools and tool-making debris. Ethnohistoric or protohistoric archaeological resources are those that can be attributed to native cultures, but include evidence of European contact, such as trade beads or other goods in a site that otherwise appears to be prehistoric. Historic archaeological sites are those deposits that post-date European contact.

Traditional cultural properties (TCPs) are places associated with the cultural practices or beliefs of a living community. The significance of these places is derived from the role the property plays in a community's cultural identity, as defined by its beliefs, practices, history, and social institutions. Examples include natural landscape features, plant gathering places, sacred sites, and Native American burial locations.

4.4.2 Regulatory Framework

The treatment of cultural resources is governed by federal, state, and local laws and guidelines. There are specific criteria for determining whether prehistoric sites or objects are significant and thus protected by law. Federal and state significance criteria generally focus on the integrity and uniqueness of the resource, its relationship to similar resources, and its potential to contribute information that is important to scholarly research. Some resources that do not meet federal significance criteria may be considered significant by state criteria. The laws and regulations seek to mitigate project impacts on significant prehistoric and historical-period resources.

Federal

National Historic Preservation Act (NHPA) of 1966

The NHPA of 1966 authorized the National Register of Historic Places (NRHP) and coordinates public and private efforts to identify, evaluate, and protect the Nation's historic and archaeological resources. The NRHP includes districts, sites, buildings, structures, and objects that are significant in



American history, architecture, archaeology, engineering, and culture. Section 106 (Protection of Historic Properties) of the NHPA requires federal agencies to take into account the effects of projects on historic properties.

National Register of Historic Places

The National Register is “an authoritative guide to be used by Federal, State, and local governments, private groups and citizens to identify the Nation’s cultural resources and to indicate what properties should be considered for protection from destruction or impairment.” (Title 36 Code of Federal Regulations, Part 60.2)

Criteria

The National Historic Preservation Act, enacted in 1966, established the National Register of Historic Places program under the Secretary of the Interior. The National Register established four criteria to evaluate significance and eligibility for listing. They are:

1. Property is associated with events that have made a significant contribution to the broad patterns of our history.
2. Property is associated with the lives of persons significant in our past.
3. Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
4. Property has yielded, or is likely to yield, information important in prehistory or history. (NPS 1997).

Context

To qualify for the National Register, “a property must be significant; that is, it must represent a significant part of the history, architecture, archaeology, engineering, or culture of an area, and it must have the characteristics that make it a good representative of properties associated with that aspect of the past.” (NPS 1997:7). Additionally, National Register Bulletin #15 states that the significance of a historic property can be judged and explained only when it is evaluated within its historic context. The Bulletin defines Historic contexts as: “...historical patterns that can be identified through consideration of the history of the property and the history of the surrounding area” (NPS 1997:7).

a) Integrity

In addition to context, a property must have integrity, which is defined as: “...the ability of a property to convey its significance” (NPS 1997:44). The seven aspects of integrity include; location, design, setting, materials, workmanship, feeling, and association. “To retain historic integrity a property will always possess several, and usually most, of the aspects” (NPS 1997:44).



b) Historic Districts

A Historic District “...possesses a significant concentration, linkage, or continuity of sites, buildings, structures, or objects united historically or aesthetically by plan or physical development. A district derives its importance from being a unified entity, even though it is often composed of a wide variety of resources. The identity of a district results from the interrelationship of its resources, which can convey a visual sense of the overall historic environment or be an arrangement of historically or functionally related properties” (NPS 1997:5).

As detailed in Title 36 of the Code of Federal Regulations Part 60.3(d): A District is a geographically definable area, urban or rural, possessing a significant concentration, linkage, or continuity of sites, buildings, structures, or objects united by past events or aesthetically by plan or physical development. A district may also comprise individual elements separated geographically but linked by association or history.

The Secretary of the Interior's Standards for the Treatment of Historic Properties (36 CFR Part 68)

The Secretary of the Interior’s Standards for the Treatment of Historic Properties (Standards) apply to all grants-in-aid projects assisted through the Historic Preservation Fund (authorized by the NHPA) and are meant to be applied to a range of resource types, including buildings, sites, structures, objects, and districts. These Standards address four treatments: preservation, rehabilitation, restoration, and reconstruction. The purpose of Standards is to provide guidance to historic building owners and building managers, preservation consultants, architects, contractors, and project reviewers prior to beginning work. These regulations focus on “certified historic structures” as defined by the IRS Code of 1986 and are used in the Preservation Tax Incentives Program. Guidelines, were developed to assist with applying the Standards to specific types of historic resources including historic buildings, cultural landscapes, historic lighthouses, historic vessels, historic furnished interiors, and historic bridges. The guidelines focus on four treatment Standards: Preservation, Rehabilitation, Restoration, and Reconstruction. Each section includes one set of Standards with accompanying Guidelines that are to be used throughout the course of a project (Grimmer, Anne E., 2017).

State

California Register of Historical Resources (Public Resource Code § 5024.10 et seq.)

State law protects cultural resources by requiring evaluations of the significance of historical resources in CEQA documents. A cultural resource is an important historical resource if it meets any of the criteria found in § 15064.5(a) of the *State CEQA Guidelines*. These criteria are similar to those used in federal law. The California Register of Historical Resources (CRHR) is maintained by the state Office of Historic Preservation. Properties listed, or formally designated eligible for listing, on the NRHP are automatically listed on the CRHR, as are state historical landmarks and points of interest. The CRHR also includes properties designated under local ordinances or identified through local historical resource surveys.

As detailed in Public Resources Code § 5024.1, the California Register is an authoritative guide in California to be used by state and local agencies, private groups, and citizens to identify the state’s



historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change.

For purposes of CEQA, a historical resource is any object, building, structure, site, area, place, record, or manuscript listed in or eligible for listing in the CRHR (PRC § 21084.1). A resource is eligible for listing in the CRHR if it meets any of the following criteria:

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

Properties formally determined eligible for the NRHP are automatically listed in the CRHR.

The California Code of Regulations (CCR) further provides that cultural resources of local significance are CRHR-eligible (Title 14 CCR, § 4852).

California Environmental Quality Act (CEQA)

CEQA requires the lead agency to consider whether the Project will have a significant effect on unique archaeological resources and to avoid unique archaeological resources when feasible or mitigate any effects to less-than-significant levels per California Public Resources Code (PRC) § 21083.2. CEQA (PRC § 21083.2(g)) defines a unique archaeological resource as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

5. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
6. Has a special and particular quality such as being the oldest of its type or the best available example of its type.
7. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

CEQA Guidelines (Title 14 of the California Code of Regulations § 15064.5) states that historical resources include:

8. A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (Public Resources Code § 5024.1, Title 14 CCR, Section 4850 et seq.);
9. A resource included in a local register of historical resources, as defined in section 5020.1(k) of the Public Resources Code or identified as significant in an historical



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resource survey meeting the requirements of section 5024.1(g) of the Public Resources Code; and

10. Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historic resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record.

The fact that a resource is not listed in or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources, or identified in an historical resources survey does not preclude a lead agency from determining that the resource may be an historical resource as defined in Public Resources Code §§ 5020.12(j) or 5024.1.

A significant impact would occur under CEQA if the project results in a substantial adverse change in the significance of a historical resource as defined in § 15064.5(a). A substantial adverse change in the significance of a historical resource, per CEQA Guidelines, means: "...physical demolition, destruction, relocation, or alternation of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired. "

The significance of an historical resource is materially impaired when a project:

- (A) *Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources; or*
- (B) *Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to section 5020.1(k) of the Public Resources Code or its identification in an historical resources survey meeting the requirements of section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or*
- (C) *Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA*

Section 15064.5(b)(3) of CEQA states that: "Generally, a project that follows the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings or the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (1995), Weeks and Grimmer, shall be considered as mitigated to a level of less than a significant impact on the historical resource."

Human Remains

According to § 15064.5 of the *State CEQA Guidelines*, all human remains are a significant resource. § 15064.5 of the *State CEQA Guidelines* also assigns special importance to human remains and



specifies procedures to be used when Native American remains are discovered. These procedures are discussed within PRC § 5097. Per PRC § 5.97.98(a): Whenever the commission receives notification of a discovery of Native American human remains from a county coroner pursuant to subdivision (c) of § 7050.5 of the Health and Safety Code, it shall immediately notify those persons it believes to be most likely descended from the deceased Native American. The decedents may, with the permission of the owner of the land, or his or her authorized representative, inspect the site of the discovery of the Native American remains and may recommend to the owner or the person responsible for the excavation work means for treating or disposing, with appropriate dignity, the human remains and any associated grave goods. The descendants shall complete their inspection and make their recommendation within 24 hours of their notification by the Native American Heritage Commission. The recommendation may include the scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

California Public Resources Code § 5097.98

California Senate Bill 297 (1982) addresses the disposition of Native American burials in archaeological sites and protects such remains from disturbance, vandalism, or inadvertent destruction; establishes procedures to be implemented if Native American skeletal remains are discovered during construction of a project; and establishes the Native American Heritage Commission to resolve disputes regarding the disposition of such remains. It has been incorporated into § 15064.5(e) of the *State CEQA Guidelines*.

California Health and Safety Code

The California Health and Safety Code § 7050.5 states that if human remains are discovered during construction on a project's site, no further disturbance shall occur until a county coroner makes a determination of origin and disposition of the remains. If the county coroner determines the remains are not subject to his or her authority and recognizes the remains to be those of Native American, the county coroner must contact the Native American Heritage Commission within 24 hours.

Local

City of Redlands Historical Resources

The City of Redlands has taken an active interest in preserving its historic resources. The Historic and Scenic Preservation Commission, established in 1976, advises the City Council regarding designation and protection of historic resources. Resources are designated through a nomination process in which a nominated resource is reviewed by the Historic and Scenic Preservation Commission and approved by the Redlands City Council. City-designated historic resources are identified in the City of Redlands Development Services Department List of Historic Resources. Local, State, and national historic resources mapped in the city include the area surrounding Downtown and Colony, where the city's historic resources are more highly concentrated.

Historic and Scenic Preservation Ordinance

The City of Redlands adopted a Historic and Scenic Preservation Ordinance in 1986 to strengthen historic resource protection in Redlands. The ordinance is included as Chapter 2.62 of the Municipal Code. The ordinance gives authority to the Historic and Scenic Preservation Commission to make recommendations, decisions, and determinations regarding the designation, preservation, protection, and enhancement of historic resources. The Commission also has the authority to deny



demolition, except in cases of proven hardship, and to designate without owner consent. In addition, the provisions of Redlands' design guidelines apply to any kind of alteration, enhancement, or demolition to historic landmarks, historic properties, and historic and/or scenic districts and are subject to the review of the City in accordance with the ordinance.

Scenic Corridors

The City Council has designated a number of streets within the city as scenic highways, drives, and historic streets. Special development standards have been adopted by resolution for these streets.

4.4.3 Methodology

UltraSystems searched for the presence of historic properties within the Area of Potential Effects (APE) through background research, desktop visual inspections of the APE, pedestrian survey and tribal consultation. Specific identification efforts for this undertaking are discussed below. The APE (**Figure 4.4-1**) includes the project footprint. Ground disturbance would occur in areas that were previously disturbed by farming and related activities.

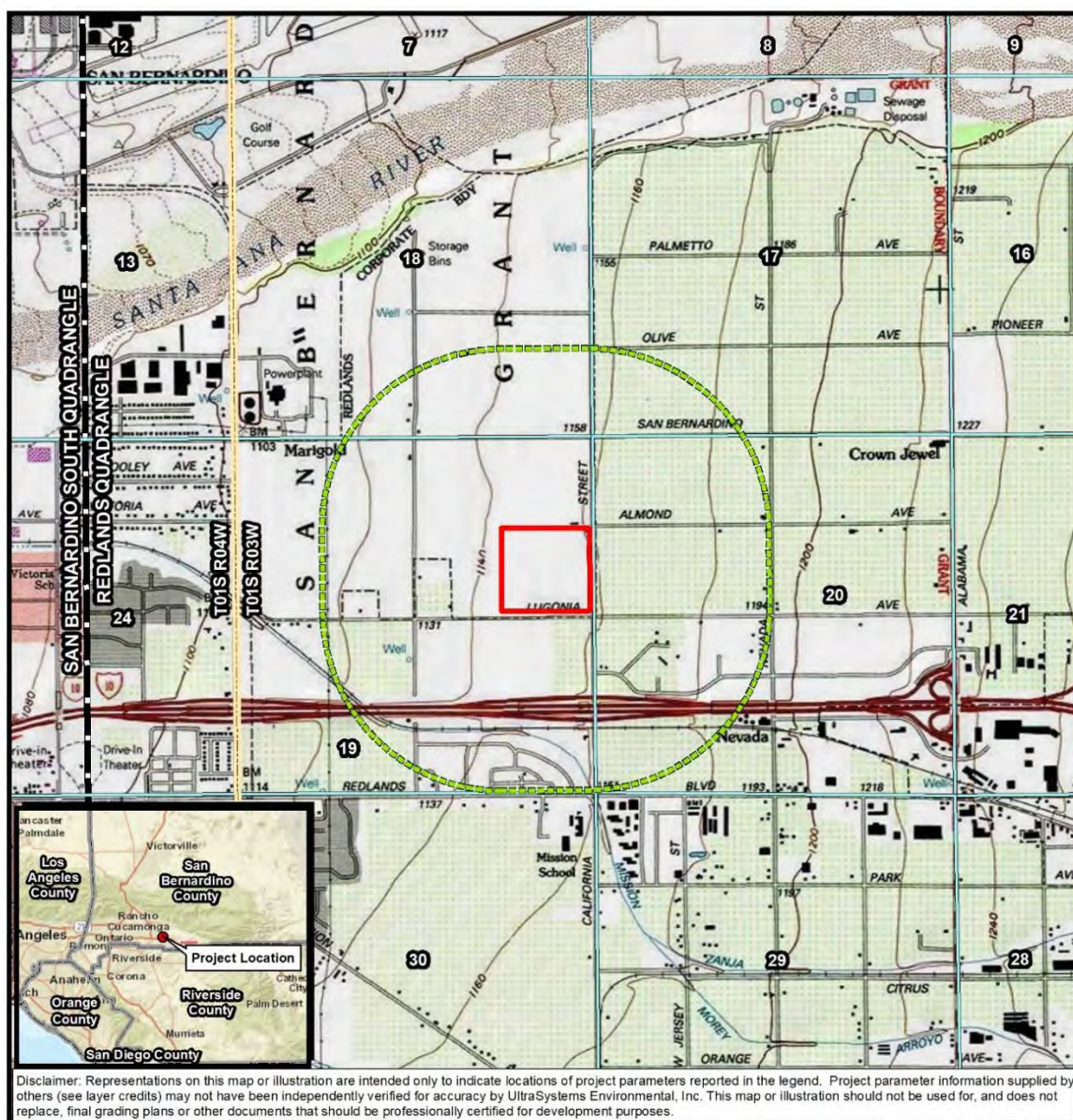
The Cultural Resources Inventory Report for the City of Redlands Kaiser Permanente Medical Center Project site includes background information gathered from the CHRIS records and literature search at the SCCIC located at the California University Fullerton that includes the APE encompassing the project boundary, as well as a 0.5-mile buffer surrounding the APE.

A request was made to the Native American Heritage Commission (NAHC) on June 8, 2023 to conduct a search of their Sacred Lands File (SLF) for potential traditional cultural properties as well as to provide a list of local Native American tribal organizations to contact, following which outreach letters were sent to the listed tribes. The NAHC replied on July 13, 2023 noting a positive response to the SLF search and with a list of 38 Tribes and Native American contacts to contact. Outreach letters were sent to the tribes on October 3, 2023. None of the tribal responses indicated the presence of known cultural resources at or near the project site or provided information on the SLF site. Three of the tribes did express concerns regarding potential nearby traditional cultural resources. The San Manuel Band of Serrano Indians stated that they consider the project site to be sensitive to the tribe due to its proximity to the footprint of the Mill Creek Zanja, an historic waterway listed on the NRHP which had been built using Serrano labor; also, the Soboba Band of Luiseño Indians noted they had concerns for the project area. The Gabrielino-Tongva San Gabriel Band of Mission Indians stated that there are known prehistoric archaeological sites in the project area and that the I-10 freeway (one mile to the south) stems from a traditional transportation route. The Morongo Band of Mission Indians consider the project area to be highly sensitive for cultural resources and will be requesting government-to-government AB 52 consultation. Also, the Gabrielino Tongva Indians of California Tribal Council recommended the presence of a Native American monitor during ground disturbing construction activities. (See Section 4.2 and Attachment C in **Appendix D1**).

A pedestrian survey was conducted on November 6, 2023. The survey consisted of walking, visually inspecting, and photographing the exposed ground surface and landscaped areas throughout the project site using standard archaeological procedures and techniques.



Figure 4.4-1
USGS TOPOGRAPHIC MAP OF THE STUDY AREA



Disclaimer: Representations on this map or illustration are intended only to indicate locations of project parameters reported in the legend. Project parameter information supplied by others (see layer credits) may not have been independently verified for accuracy by UltraSystems Environmental, Inc. This map or illustration should not be used for, and does not replace, final grading plans or other documents that should be professionally certified for development purposes.

Path: \\Gissrvr\GIS\Projects\7214_Redlands_Kaiser_MedCenter_EIR\MXDs\7214_Kaiser_4_5_Topo_2022_05_25.mxd

May 25, 2023

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community. Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community. Copyright © 2013 National Geographic Society, i-cubed; CA Dept. of Conservation, May 2019; UltraSystems Environmental, Inc., 2022

Scale: 1:24,000



0 1,000 2,000 Feet

0 250 500 Meters

Legend

-  Project Boundary
-  Half-Mile Radius
-  Quadrangle Boundary
-  Township Boundary
-  Section Boundary

Kaiser Permanente Medical Center

Topographic Map
USGS Quadrangle: Redlands
Township: 1S Range: 3W
Section: 19





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The vacant portion of the project parcel is L-shaped and consists of open flat land except for a water retention basin approximately 10 feet deep in the northwest corner. A current Kaiser Medical Center building occupies the southeast corner of the larger lot surrounded by the L-shaped parcel to the north and west. The parcel is bordered by Almond Avenue along the north edge, California Street along the east, West Lugonia Avenue along the south boundary, and a warehouse building to the west.

The survey consisted of walking north/south transects at 15-meter intervals. In the north half the transects started in the northeast corner and progressed to the west. In the south half of the parcel the transects started in the southeast corner and progressed to the west. The basin in the northwest corner was observed by walking the semi-circular periphery.

The northern half of the parcel was covered by dense vegetation consisting of tumble weeds, aka Russian thistle (*Salsola tragus*), along the north and east edges and in large patches scattered throughout, as well as large areas covered by both dead and living black and tansy mustard (*Brassica nigra* and *Desurainia pinnata*), cheeseweed (*Malva parviflora*), various *Chenopod* family and other ground-cover plants as well as various shrubs, consisting predominantly of non-native invasive species. Also, there were areas that had been covered by chipped wood. It is estimated that the visible ground surface in this north half is approximately 15 percent. It was observed that the entire area had been disked within the past year or so along the east/west axis for managing the vegetation.

The southern half of the parcel was also covered by dense vegetation consisting of tumble weeds along the east, south and west edges that covered up to one-third of the surface, as well as large areas covered by mustard, various *Chenopod* plants, portulaca (*Portulaca oleracea*) and other non-native groundcover, and various shrubs. It is estimated that the visible ground surface in the southern half is approximately five percent. It was observed that the entire area had been disked within the past year or so along the north/south axis for managing vegetation.

Along with the herbaceous plants, the shrubs here consisted of scattered mule fat (*Baccharis salicifolia*), tree tobacco (*Nicotiana glauca*), tamarisk (*Tamarix* sp.), and a single willow (*Salix* sp.). Numerous signs of coyote (*Canis latrans*) were observed throughout the parcel; there was, however, no direct sign of rabbits or hares. The soil was observed to be of silty greyish-tan consistency with little or no gravel or rocks. This is consistent with the known local geology (see Section 2.1 in **Appendix D1**).

No prehistoric or historic features or isolate artifacts were observed. Given the extremely poor surface visibility it cannot be ruled out that cultural resources may be present. However, the features of the Marigold Farms complex, recorded in 1991 and 2012 (see Section 4.1.1 in **Appendix D1**) were located in what is now Almond Avenue and parcel to the north west of California Street (Section 2.2.3 in **Appendix D1**), and so would have been demolished when Almond Avenue and the intersection was expanded between 2002 and 2005 and when the warehouse was built on the lot to the north. Nonetheless it is believed that any building foundations, if remaining, would have been apparent during the survey and none were observed. A large, apparently old Chinaberry tree (*Melia azedarach*) (aka white cedar), an ornamental, is present in the northeast corner along Almond Avenue; this tree can be seen in aerial photos at the south edge of the Marigold Farms complex from at least 1938 onward (Section 2.2.3.3 in **Appendix D1**).

It is recommended that the parcel be resurveyed when brush is removed from this portion of the construction area for construction and the ground surface is made visible.



4.4.4 Existing Conditions

4.4.4.1 Natural Setting

The City of Redlands is located in the southwest portion of the San Bernardino Valley. This is a broad inland valley defined by the San Gabriel and San Bernardino Mountain Ranges to the north and is ringed by a series of low rocky hills to the south. The region's environment is characterized by a temperate Mediterranean climate, with the average maximum temperature in July reaching 89 degrees Fahrenheit (°F) and the average minimum temperature in January at around 42°F. Rainfall is typically less than 15 inches annually, most of which occurs between November and March.

The project site boundary is underlain by Surficial Sediments (Qa) (Dibblee, 2004), consisting of Alluvial and clay in valley areas covered with grey soil, including alluvia pebbly sand adjacent to mountain terrain. These soils date to the Holocene (11,650 years before present [ybp]) (Dibblee, 2004). The project site is at an elevation ranging from approximately 1,145 to 1,160 feet above mean sea level (AMSL) with a gentle slope to the west.

The city of Redlands encompasses 36.24 square miles. It is bordered by the cities of Highland to the north, San Bernardino to the northwest, Loma Linda to the southwest, Yucaipa to the east, and unincorporated San Bernardino County lands to the north and northeast, as well as by Riverside County to the south. At the 2020 census the population was 73,170; by mid-2022 the population had grown to an estimated 73,849 (U.S. Census 2023). (See Section 2.1 in **Appendix D1** for references.)

4.4.4.2 Archaeological Setting

Prehistoric Overview

The earliest evidence of human occupation in the Inland Empire region (consisting of the southwestern corner of San Bernardino and western Riverside counties) was discovered below the surface of an alluvial fan in the northern portion of the Lakeview Mountains, overlooking the San Jacinto Valley, dating to around 9,500 radiocarbon years (rcy) before present (B.P.) (before present = A.D. 1950) (Horne and McDougall, 2008). Another prehistoric archaeological site found near the shoreline of Lake Elsinore, close to the confluence of Temescal Wash and the San Jacinto River, dates between 8,000 and 9,000 B.P. (Grenda, 1997). Additional sites with isolated Archaic dart points, bifaces, and other associated flaked stone artifacts are considered to be from the same age range and have been found in the Cajon Pass area, typically atop knolls with good viewsheds (Basgall and True, 1985; Goodman, 2002; Goodman and McDonald, 2001). (See Section 2.2.1 in **Appendix D1** for references.)

The regional prehistory of Southern California has been characterized by various cultural chronologies, including those developed by Chartkoff and Chartkoff (1984), Warren (1984), and others. Specifically, the prehistory of the Inland Empire region has been addressed by O'Connell et al., (1974), Keller et al., (1989), Grenda (1993), and Horne and McDougall (2008). Although the beginning and ending dates of different cultural periods vary, the regional framework can be generally broken into four primary periods:

Paleoindian and Lake Mojave (Terminal Pleistocene and Early Holocene) (ca. 11000 to 6000 calibrated years [cal] B.C.). This time period is characterized by highly mobile foraging strategies and a broad spectrum of subsistence pursuits. These earliest expressions of aboriginal occupation in America were marked by the use of large projectile points (Fluted



and Concave Base Points) that are an element of the Western Clovis expression. Following the earliest portions of this time span there was a change in climate coincident with the retreat of glaciers. Large bodies of water existed, and lakeside aboriginal adaptations were common. Large, stemmed points (Western Stemmed – Lake Mojave and Silver Lake) accompanied by a wide variety of formalized stone tools were employed with the aid of atlatls (dart throwers) and are representative of an adaptation that was in part focused on lacustrine environments.

Millingstone Horizon (ca. 6000 cal B.C. to cal A.D. 1000), during which time mobile hunter-gatherers became more sedentary and plant foods and small game animals came into more use. This prehistoric cultural expression is often characterized by a large number of millingstones (especially well-made, deep basin metates) and formalized, portable handstones (manos). Additionally, the cultural assemblage is dominated by an abundance of scraping tools (including scraper planes and pounding/pulping implements), and only a slight representation of dart-tipped projectile points (Pinto, Elko and Gypsum types).

Late Prehistoric Period (ca. cal A.D. 1000 to 1500), during which a more complex social organization, more diversified subsistence base and an extensive use of the bow and arrow is evidenced. Small, light arrow points, expedient millingstones and, later, pottery mark this period along with the full development of regional Native cultures and tribal territories.

Protohistoric Period (ca. cal A.D. 1500 to 1700s) ushered in long-distance contacts with Europeans, and thereby led to the Historic Period (ca. cal A.D. 1700 to contemporary times). Small arrow points are recognized as a hallmark of this time period.

Geospatial analyses of known prehistoric sites in inland Southern California suggest that longer-term residential settlements of the Native population were more likely to occur in sheltered areas. Such locations were near the base of hills and/or on elevated terraces, hills, and finger ridges. Further, these favored locations were near permanent or reliable sources of water. These were areas that were largely level encampments situated on the unprotected valley floor. The residential sites were used for resource procurement and travel. The use of such geographical settings is supported by the ethnographic literature. These reports identify the foothills as preferred areas for settlement (Bean and Smith, 1978a; 1978b).

4.4.4.3 Ethnohistoric Overview

Prior to European contact, the indigenous peoples who resided in modern-day San Bernardino County were the Tongva (Gabrielino), and Taaqtam (Serrano) peoples who lived in the San Bernardino Valley and the San Bernardino Mountains. Bean and Smith (1978a:538; 1978b:570) and Johnston (1962) indicate that “...the historic-era border between the Gabrielino and Serrano at San Bernardino [town]. It is likely that both groups used the territories within the project area during the sixteenth to nineteenth centuries...” (Foster et al. 1991:11). (See Section 2.2.2 in **Appendix D1** for references.)

Gabrielino/Tongva

The project lies within the territory of the Gabrielino (Tongva) ethnolinguistic group (Bean and Smith, 1978a:538), who speak a language classified as a member of the Uto-Aztecan language family. This language is further affiliated as an element of the Northern Takic Branch of that linguistic group (Golla, 2011).



The Gabrielino, with the Chumash, were considered the most populous, wealthiest, and therefore most powerful ethnic nationalities in aboriginal Southern California (Bean and Smith, 1978a:538). Unfortunately, most Gabrielino cultural practices had declined before systematic ethnographic studies were instituted. Today, the leading sources on Gabrielino culture are Bean and Smith (1978a), Johnston (1962), and McCawley (1996).

According to recent research, Takic groups were not the first inhabitants of the region. Archeologists suggest that a Takic in-migration may have occurred as early as 2,000 years ago, resulting in the Takic groups replacing or intermarrying with a more ancient indigenous people represented by speakers of a Hokan language (Howard and Raab, 1993; Porcasi, 1998). By the time of European contact, the Gabrielino territory included the southern Channel Islands and the entire Los Angeles Basin. Their territory reached to the west along the Pacific Coast to Malibu, north and east to the foothills of the San Gabriel Mountains, to the southeast into the present-day San Bernardino-Riverside area and south to the San Joaquin Hills in central Orange County.

Different groups of Gabrielino adopted several subsistence strategies, based on gathering, hunting, and fishing. Because of the similarities to other Southern California tribes in economic activities, inland Gabrielino groups' industrial arts, exemplified by basket weaving, exhibited an affinity with those of their neighbors (Kroeber, 1925). Coastal Gabrielino material culture, on the other hand, reflected an elaborately developed artisanship most recognized through the medium of steatite, which was rivaled by few other groups in Southern California.

The intricacies of Gabrielino social organization are not well known. There appeared to have been at least three hierarchically ordered social classes, topped with an elite consisting of the chiefs, their immediate families, and other ceremonial specialists (Bean and Smith, 1978a). Clans owned land, and property boundaries were marked by the clan's personalized symbol. Villages were politically autonomous, composed of non-localized lineages, each with its own leader. The dominant lineage's leader was usually the village chief, whose office was generally hereditary through the male line. Occasionally several villages were allied under the leadership of a single chief. The villages frequently engaged in warfare against one another, resulting in what some consider to be a state of constant enmity between coastal and inland groups.

The City of Redlands is situated within the eastern periphery of the Tongva culture area. The central Tongva land was the Los Angeles Basin; however, it extended east to include portions of the San Bernardino Valley. In the San Bernardino Valley, the Tongva's neighbors were the Serrano on the north and the Cahuilla farther east. Away from the Santa Ana River this area was not well watered. Therefore, this portion of the territory was not as densely populated as the coastal territory.

The San Bernardino Valley contains the northeastern region of Gabrielino territory, with upwards of eight major communities located throughout (McCawley 1996:48). The village of *Wa'aachnga*, also spelled *Kaawchama*, was somewhat west of Redlands (McCawley, 1996:50). It is also the site of the San Bernardino Asistencia of Mission San Gabriel built in 1820 (Engelhardt 1931) in what was later called Old San Bernardino. Somewhat to the southwest of Redlands, "southeast of Colton between the southerly bank of the Santa Ana River and the base of the foothills" (Shinn 1941, cited in McCawley 1996:50) was the native community of *Homhoa*. Both of these villages were located either along the Santa Ana River (*Wa'aachnga*) or a tributary to it (*Homhoa*). In the late Mission Period or just thereafter, much of the region was populated by the Serrano (Bean and Smith, 1978b), who migrated into the area following the removal of the Gabrielino to Mission San Gabriel.



The first Franciscan establishment in Gabrielino territory and the broader region was Mission San Gabriel, founded in A.D. 1772. Priests from the mission proselytized the Tongva throughout the Los Angeles Basin. As early as 1542, however, the Gabrielino were in peripheral contact with the Spanish even during the historic expedition of Juan Rodríguez Cabrillo. However, it was not until 1769 that the Spaniards took steps to colonize the territory of aboriginal Californians. Within a few decades, most of the Gabrielino were incorporated into Mission San Gabriel and other missions in Southern California (Engelhardt, 1931). Due to introduced diseases, dietary deficiencies, and forceful *reducción* (removal of non-agrarian Native populations to the mission compound), Gabrielino population dwindled rapidly from these impacts. By 1900, the Gabrielino community had almost ceased to exist as a culturally identifiable group. In the late 20th century, however, a renaissance of Native American activism and cultural revitalization of Gabrielino descendants took place. Among the results of this movement has been a return to a traditional name for the tribe, the Tongva, which is employed by several of the bands and organizations representing tribal members. Many of the Tongva bands focus on maintaining and teaching traditional knowledge, with special emphasis on language, place names and natural resources, and preservation of ancestral sites.

Serrano

The City of Redlands is also situated within the southeastern periphery of the Serrano culture area. Research by Earle (1990, 1997, 2004a, 2004b, 2005a, 2005b), King (2003), and Johnson and Lorenz (2006) have helped to clarify the ethnic identification of the San Gabriel / San Bernardino mountains and Mojave Desert Native American groups. Their work with the John Peabody Harrington notes, combined with analysis of the Franciscan sacramental registries, confirm ethnographic records (Benedict 1924, Kroeber 1925, Strong 1929) that the inhabitants of the project area were speakers of a dialect of Serrano. It has been determined that Native groups occupying villages in the San Bernardino Mountains and adjacent Moreno Valley region maintained marriage ties to surrounding region and the foothills extending into the San Bernardino and San Jacinto Valleys inhabited by Cahuilla and Luiseno were also Serrano in ethnic and linguistic affiliation.

Earle (1990, 1997) supports King's revisions of earlier territorial boundaries asserting that Serrano territory included the San Bernardino Mountains and the northern slopes of the San Gabriel Mountains, the Mojave River, and Antelope Valley. It also appears from their research that both the south and north slopes of the San Gabriel Mountains were "owned" and occupied by Serrano speakers.

Early 20th century ethnographic fieldwork among the Serrano was conducted by Kroeber (1925), Gifford (1918), Strong (1929), Benedict (1924), and Harrington (1986). More recent research by Bean (1972), Bean and Smith (1978b), and Bean, et al. (1981) has helped to focus attention on key research questions in an attempt to clarify the relationship of Serrano land use patterns, territorial attributions, subsistence-settlement patterns, and social, ceremonial, and political organization.

The economic resource base of the Serrano was determined in part by the seasonal availability of key animals and plants exploited for basic subsistence (Earle 1992). Hunting activities supplemented a diet mainly emphasizing plants. Hunting excursions were usually an individual affair but also sometimes incorporated communal drives, and trap lines to snare small animals (e.g., rabbits, squirrels and rodents). Some desert hunting areas to the north in the Mojave Desert and in the vicinity of the Mojave River may have been shared with adjacent groups (e.g., Chemehuevi and/or Mojave).



Mule deer were available in the San Gabriel Mountains. Deer would migrate to lower elevations during the winter and would be available in the lower foothill region at that time. Pronghorn frequented the valley floors year-round but were not consistently abundant and were hunted only occasionally using communal surrounds and group drives. The latter communal drive technique was also used to ensnare large numbers of jackrabbits during the fall when the rabbits were especially abundant. Mountain sheep were available in the higher mountains but would only have been rarely procured. Waterfowl could be captured using bows and arrows and special nets. Ducks, quail, geese, and grebes would have been available in considerable numbers during their breeding seasons and in association with riparian settings.

Abundant stands of acorns, juniper, mesquite, and piñon were available to extended gathering expeditions into the mountains. These might involve several lineages collaborating under one leader's authority and would have entailed accessing the resource base of surrounding groups (Bean and Smith 1978; Benedict 1924:391-392; Drucker 1937). Cattail / bulrush seeds (*Typha* spp. and *Scirpus* spp.), various roots, shoots, bulbs, and other hard seeds were all principal plant foods. The most likely plant resources that were of significant economic importance that have been identified paleobotanically or noted in the immediate vicinity of the Project were grasses (*Poa* spp.), chia (*Salvia columbariae*), and goosefoot (*Chenopodium* spp.).

Various groundstone tools, including manos and metates, mortars and pestles used for grinding food were made by grinding granite, quartzite and other suitable rocks. Flaked tools including knives, spear and arrow points, and scrapers were made from crystalline lithics. Bone and antler were used to fashion other tools. Baskets were woven for use in gathering, storing and preparing foods, as well as hats for women. Other plant material was woven into bags, storage pouches, mats, nets and sandals.

Serrano houses were circular domes made of brush that had a central fire pit. Ramadas and ceremonial enclosures were also built. Granaries were woven, often of willow. Houses of several families tended to be clustered in small communities and located near springs or creeks, and often were centrally located at the nexus of several environments.

Edward W. Gifford conducted a detailed study of the marriage practices and sociopolitical organization of native southern California Native Americans during from 1916 through 1917 (Gifford 1918). Based on these studies, he developed a model of Serrano social organization (Earle 2004a, 2004b). William Duncan Strong (1929: 5-35) conducted additional extensive social organization studies among the Serrano, Cahuilla, Luiseño, and Cupeño in 1925. Strong indicated that the Serrano were an unusual California group in that they possessed true patrilineal clans. Patrilineal clans are patterned such that all males, their descendants, and their wives were part of a single group. Clans may be segmented into subclans or lineages. A woman retained her own lineage name but upon marriage was incorporated into the clan of her husband. The transfer of women from one ceremonial affiliation with one clan to another, upon marriage, was characteristic of all southern California Takic (a linguistic subfamily of Northern Uto-Aztecan) groups. The Serrano maintained an active moiety system -- their society was divided into two parts identified with either Coyote or Wildcat. The Coyote moiety had the most important political leaders. Moiety out-marriage excluded partners from half the neighboring Serrano settlements. Hence, only settlements of opposing moieties were interrelated through marriage.

Serrano villages in the mountain settings were generally less dispersed than in the desert. This nearer pattern resulted in marriages linking together very large areas. Many of the settlements had marriage ties with villages 10 - 20 miles away and counter intuitive was the fact that the closest relationships



were not with the nearest villages – but rather with settlements affiliated with opposing moieties further distant.

King's study of the Franciscan mission registers indicates that there were numerous important hereditary positions among the Serrano. Each village contained a chief, a ceremonial manager, two messengers, as well as various shamans, diviners, and other ritual specialists. Each of these leaders oversaw different elements of Serrano life involving festivals, dances, and warfare.

Ethnographic data attests that a major native trade and travel corridor facilitated a long-distance exchange system. Recent research has supported the importance of long-distance trade linking coastal southern Californian Tongva clans/villages with inland groups including the coastal Tongva and Luiseño/Acjachemen tribes in a route along the Santa Ana River (Earle 2005a, Strong 1929). Shell bead trade was one of the mediums of exchange and was used as a kind of currency or money. This system was significant since it involved trade, travel, and exchange covering hundreds of miles and was a system of exchange of native goods that linked various ethnic groups politically and economically.

Their primary trading partners were the Mojaves to the east and the Tongva to the west, but they also traded with their close neighbors, the Cahuilla and Chemehuevi. The Serrano were, in fact, a major nexus in a trade and exchange network that brought goods from the Southwest to the coast. This trade and travel route ran from the American Southwest (principally the Hopi territory in Arizona), along the Colorado River to the Mojave River thence through the central Mojave Desert into the Antelope Valley and west to the Pacific Coast (Davis 1961; Farmer 1935; Sample 1950). These circuits of exchange cut across political and cultural boundaries. A number of researchers have argued that such an exchange system may have been an influential factor in facilitating semi-sedentary settlement and complex sociopolitical organization for the Serrano (Earle 2005a; Robinson 1977; Sutton 1980).

The Maringa (Mariña) Serrano, who occupied the south-easternmost area of their tribe's territory, were the most visible of Serrano groups in the later historical period after many Serrano who lived in the valleys were removed to Mission San Gabriel in 1811.

Nearby Serrano habitations in the foothills above the San Jacinto Valley, are recorded by Strong at yūhavetam, above Highland and upwards from there into the San Bernardino Mountains' foothills, wa'atcem, in the mountains foothills between the Santa Ana River and Mill Creek, yucaipaïem, Yucaipa Valley, and the Marina clan at yumisēval, along upper Mission Creek above the San Gorgonio Pass (Strong 1929: Map1 page 7, and Table 1 page 11). These are all noted as occupied by members of Coyote moiety clans.

In 1770, the Gaspar de Portolá Expedition passed along the Southern California coast to the west through Luiseño territory, while the de Anza expeditions of 1774 and 1776 took a route through the San Jacinto Valley bordering Serrano territory. During the next two decades several missions were established in the region and made contact with the Serrano. Natives were recruited to these missions that included San Gabriel, San Luis Rey, and San Fernando. Kroeber (1925:617) estimated only 1,500 people for the total population; Bean and Smith (1978), however, did not speculate on the population. Upon contact, European interactions and introduced diseases led to dramatic population declines.

Eventually, a reservation system was developed, and members of the Serrano tribe are currently enrolled in the San Manuel Band of Mission Indians (now the Yahaaviatam of San Manuel) (located



adjacent to the town of Highland; 5.5 miles to the northwest of the project), and with members of the Cahuilla tribe at Morongo Band of Mission Indians (adjacent to and east of Banning, 28 miles to the east of the project). These two groups are federally recognized. There is also one non-federally recognized Serrano band, the Serrano Nation of Mission Indians.

4.4.4.4 Historic-Period Overview

Spanish/Mexican Era

Spanish Missionaries from Mission San Gabriel Arcángel established an asistencia and ranch near the village of *Guachama* in 1810 near Lytle Creek just west of the current city of San Bernardino, naming the new Gabrielino and Serrano neophyte Politana. Father Francisco Dumetz named the asistencia San Bernardino on May 20, 1810, after the feast day of St. Bernardino of Siena. In 1819, they established the San Bernardino de Siena Estancia, a mission farm in what is now Redlands. (Sparkman 1908). (See Section 2.2.3 in **Appendix D1** for references.)

By the early 1820s California came under Mexico's rule, and in 1834 the missions were secularized. Since the primary purpose of the Missions was Indian control, this secularization led to an increase in the number of natives participating in the reservation system. Many were kept forcefully and assimilated into Hispanic society if they had been converted to Catholicism.

Following Mexican independence from Spain in 1821, select Mexican citizens were awarded land grants to establish ranchos in the area of the county. Rancho Jurupa in 1838, Rancho Cucamonga and El Rincon in 1839, Rancho Santa Ana del Chino in 1841, Rancho San Bernardino in 1842 and Rancho Muscupiabe in 1844. Agua Mansa was the first town in what became San Bernardino County, settled by immigrants from New Mexico in the 1830s on land donated from the Rancho Jurupa in 1841 near what is now Colton. (Van De Grift Sanchez, 1914.) In 1842, several years after the secularization of the missions by Mexico, Governor Juan Bautista Alvarado, made a large land grant to Don Antonio Maria Lugo and his three sons. The Lugo family's Rancho San Bernardino encompassed land in both the San Bernardino and Yucaipa valleys, extending from present-day Colton to Calimesa.

Wartime alliances developed among three groups, the Mexicans, Anglos, and Indians, and the turmoil, or war, had a profound effect on Native Americans resulting in the Cahuilla massacre of Luiseno near Temecula. The signing of the Treaty of Guadalupe Hidalgo on February 2, 1848, ended the Mexican-American War and marked the beginning of the American Period when California became a territory of the United States, and a state in 1850.

The American Period

The discovery of gold the same year as the treaty initiated the 1848 Gold Rush, bringing thousands of miners and settlers to California. Gold was discovered in San Bernardino County by William Francis "Bill" Holcomb in the Holcomb and Bear Valleys in 1860. The boomtown of Belleville briefly threatened to take the county seat away from San Bernardino. San Bernardino won by one vote. However, for those settlers who chose to come to Southern California, their fortunes were more closely tied to cattle and farming than gold. (Cleland 1941)

When severe drought and flooding came to southern California and the 1860's, many ranchos were put into bankruptcy. The Great Flood of 1862 largely destroyed the earlier settlement of Agua Mansa. The Catholic Church there was rebuilt in downtown San Bernardino in 1865. The flood caused severe



damage along the Santa Ana River's tributaries, particularly Lytle Creek. (Castillo 1978; Cleland 1941.)

While California remained in the Union during the Civil War, there were many Confederate sympathizers in the area. A brief skirmish between Unionists and Confederate sympathizers erupted in the local mountains (Kupfer 1979).

The stagecoaches of Phineas Banning had a stop in downtown San Bernardino during the 1860s. A young Wyatt Earp and his family traveled to San Bernardino by wagon train, arriving in 1864. Virgil Earp later settled in Colton, California, where he became town marshal. Late in life, in the 1920s, Wyatt became a ceremonial San Bernardino County Deputy Sheriff (Hinckley 1956).

San Bernardino County

At the beginning of California statehood in 1850, what is now San Bernardino was part of Los Angeles County. In the spring of 1851, 437 Mormon settlers, who had come in wagons from Salt Lake City, settled in the San Bernardino Valley. Amasa Lyman and Charles C. Rich, acting as representatives of the Latter-Day Saints, bought a large portion of Rancho San Bernardino from the Lugos and established what would become the city of San Bernardino.

San Bernardino County was formed in 1853 from parts of Los Angeles County. Some of the southern portions of the county's territory were used in part to form Riverside County in 1893 (Van De Grift Sanchez 1914).

Agriculture and ranching played a prominent role in the socioeconomic development of San Bernardino County from the latter half of the nineteenth century. The earliest agricultural activity in the San Geronimo Pass-San Timoteo Canyon area was cattle ranching, with Mission San Gabriel creating the Rancho San Bernardino as a cattle ranch to support the Mission. Following the increased population in the project area of Anglo-American settlement, grain production (including barley, oats, and wheat) emerged as a primary crop for many farmers.

The California Gold Rush and concomitant increase in population created a large market for dairy products. Due to the limits of early transportation systems, most dairy production was located close to cities. Construction of railroads in the 1870s allowed the dairies to function farther from population centers, which was desirable due to the lower cost of land in more remote locations. During the railroad boom of the 1880s and beyond, the dairy business in the San Bernardino Valley region was an important early industry that provided milk products to the growing cities of Redlands and San Bernardino.

The presence of the railroad also allowed for transport of hay, grain, and cattle. Fruit trees were first grown in the project vicinity in the late 1840s, ushering in the emphasis on citriculture in southern California. By the 1880s, grain farming was surpassed by citriculture as the dominant agricultural pursuit in western San Bernardino County. In the 1900s, citrus farming was promoted locally and resulted in a second "Gold [orange] Rush". Agricultural enterprises, which had served the area well for over 100 years, were to change forever with the advent of World War II. The overwhelming need for housing engendered by the GI Bill and the postwar building boom initiated the transition into residential development that continues to this day.



City of Redlands

In 1881, the development firm of Judson and Brown, (E.C. Judson and Frank E. Brown), purchased 4,000 acres along the southern edge of the alluvial plains of the San Bernardino Valley. Their intent was to subdivide the land into 5- and 10-acre parcels which would then be sold to “working class” investors of moderate means. The Judson and Brown partnership was also instrumental in bringing water into the area. Water for domestic and agricultural purposes was brought in by construction of an irrigation canal which was dug to the Santa Ana River, some five miles distant. The introduction of a reliable water supply paved the way for successful farming as well as the continuing development of residential tracts. Soon it was discovered that the soil could support a variety of profitable crops. However, it was only a short time before citrus became the preferred crop.

“Agriculture included grapes, peaches, apricot orchards and a number of fruit drying operations... Backers of early Redlands townsites were actively promoting citrus cultivation in the area. Planters were encouraged to border their groves with Mexican fan palm trees to make them more attractive to prospective citrus investors from the east. By the end of the 1880’s people were uprooting their other fruit orchards in favor of oranges. The navel orange soon became Redlands main economic source (Moore 1983).” (URS Consultants, Inc. 1988).

The City of Redlands was incorporated on November 26, 1888 (Burgess 1981; Hinckley 1951). Establishing itself as the business center of the region with a thriving community at Orange and State Streets, the community grew to encompass several thousand acres. By 1889 the boom decade had passed. That same year the brothers Alfred H. and Albert K Smiley move into the Redlands area. The Smiley brothers, who were land development investors, bought Canyon Crest Park and developed it into one of this region’s botanical show spots--Smiley Heights (Robinson 1958:59).

In the 1890’s, the Santa Fe Railroad constructed a loop rail service line through the entire citrus belt of the San Bernardino Valley. This loop was referred to as the “Redlands loop” and was a digression from the Old Kite Route which was in service from the 1890s-1930s (Donovan and Horton 1943:16). In 1891, the Atchison Topeka and Santa Fe Railway completed the loop line which connected Redlands, East Highlands, Highland, and West Highlands with San Bernardino - a major railroad shipping point. This loop facilitated the shipping and marketing of fruit and also resulted in the construction of a number of stations and packing houses along the railway route. Most notable of these was the Drew Ranch packing house which was later sold to Vice President Fairbanks (Theodore Roosevelt administration). Other houses included the Allen Break, the Randolph house, the M.H. Whittier house, the A.P. Dallas house, and the Nevada Street Packing Company (Anderson 1979). At the height of its citrus industry, Redlands had 32 packing houses. Of that number, only two remain in operation.

In 1903, Henry Huntington, nephew of Collis Huntington (President of the Southern Pacific), formed a new traction company called the Los Angeles Inter-Urban Railway as a result of an attempted take-over of the Pacific Electric by the Southern Pacific (Crump 1965:74). Huntington expanded his Los Angeles Inter-Urban line into San Bernardino and Riverside counties where he acquired major interests in existing traction companies. One such company was the San Bernardino Valley Traction Company (SBVT). However, by 1910, Huntington, seeking a more esoteric lifestyle, had turned control of both the Pacific Electric and Los Angeles Inter-Urban railways over to the Southern Pacific.

The onset of World War II brought about considerable change in the Redlands economy, particularly with the citrus industry. In the late 1940s, large grove properties became more valuable as



subdivisions for housing developments than for the growing of citrus. As a result, most of the packing houses were forced to relocate or close (Moore 1983). Southern Pacific continued to serve the citrus packing houses in the Redlands/Lugonia area until sometime following the end of WW II. By the close of the war, trucks had become the choice in the transportation of fruit to market. They were more flexible in load hauling capability and could be more directly routed (Moore 1987:185).

The nearby community of Gladysta was platted by businessman Henry L. Williams in 1887 when he attempted to predict the route of the San Bernardino-Redlands Railroad. Williams named it after his daughter Gladys (Redland Daily Facts 2011). See mention below of its presence approximately 0.5 mile to the southeast of the project site on the 1901 USGS topo map.

Since the 1950s, many thousands of acres of orange trees have given way to residential and commercial development. As its citrus agriculture gradually fades into history, Redlands continues to prosper while maintaining its downtown core and surrounding neighborhoods reminiscent of a small early twentieth century city.

4.4.4.5 History of the Project Site

Aerial Photographs

Historic aerial photographs are available for this area of Redlands, the earliest dating to 1938 (NETROnline, 2023). This photo shows that the project area is predominantly orchards. The project parcel itself is open land apparently used for hay fields, while to the north and east across California Street and to the south all is in orchards – likely citrus. There is a large farm complex on the northeast corner of the parcel and extending north of the California/Almond streets intersection consisting of five buildings to the north of the first road extension west from Almond, possibly a barn and a residence, while to the south (on the project parcel) are five smaller out-buildings with a reservoir, all surrounded by trees. This can be associated with the Marigold Farms dairy.

The next available aerial photo comes from 1959 (NETROnline, 2023), when the general land use remained the same throughout the area; the farm complex is reduced in size with only two structures north of the “Almond” dirt road; the south side remains the same. In 1966 (NETROnline, 2023) there is now just one structure north of the first road while the buildings to the south are unchanged from 1959 as is the agricultural use of the surrounding land. The land use and number of buildings remain unchanged in the 1968 and 1980 aerial photos (NETROnline, 2023) of this location.

The only apparent alterations in the 1984 aerial view are that by now Lugonia Avenue is paved, as is California Street from south of Lugonia, northward to Almond Avenue. This then remains unchanged in the 1985 and 1994 (NETROnline, 2023) aerial views. Three years later (NETROnline, 2023) the basin in the northwest corner of the parcel is now present, and the parcel is still open field. At this time, Almond Avenue has been pushed through past California Street, and the remaining aspects of the farm complex are gone, though an orchard still remains east of California Street.

The Kaiser Medical Center occupies the southwest quarter of the project parcel by 2009, with the remaining space possibly agricultural fields; the surrounding parcels remain the same. There are no further changes visible in 2010 and 2012 (NETROnline, 2023). In 2014 (NETROnline, 2023) the open land around the medical center remains open and while the southern half appears fallow, the northern portion may still be in active agricultural use; there is now a warehouse north of Almond, and to the east of California the orchard is gone, and the land is fallow. Within two years, however, (NETROnline, 2023) the land on all four sides of the project parcel has been built up with commercial



and warehouse structures. The aerial photos from 2018 and 2020 (NETROnline, 2023) are the same, though in 2020 it can be seen there is now a large ditch running east/west between the north and south field in the parcel (the situation found during the present field survey).

USGS Topo Maps

The available U.S. Geological Survey (USGS) topographic maps for this area start with 1901. Maps from 1901 through 1951 (USGS, 1901, 1905, 1909, 1913, 1924, 1929, 1939, 1946 and 1951) are the same, showing the presence of the current main roads of California Street bordering the east edge of the project site, Lugonia Avenue along the south and Almond Avenue to the north, all dirt roads. There is a rail line approximately 0.5 mile to the south (this is the Atchison Topeka and Santa Fe [AT&SF] rail line which is still present) with a small community at the siding; roads are present in the surrounding area. A label on the map approximately 0.5 mile to the east indicates that the area is called Gladysta, though no structures are present. The land is shown as open with no agriculture present, though orchards were likely already present but simply not yet shown on the map. There is a wash indicated flowing from the northwest of the project site 0.5 to 0.75 mile to the southwest; this parallels the rail line east/west for about 0.5 mile directly south of the project site, and then turns south. The 1955 (USGS, 1955) map now shows Lugonia Avenue as a paved primary road and the other surrounding streets of California and Almond as smaller paved roads. There are orchards stretching out east of California and south of Lugonia from the project site, which is still open land; there is a water reservoir and four structures indicated in the north corner, across from the Almond intersection – this would be the Mayfair Dairy farm. These are all located immediately west of the intersection of California and Almond streets. The rail line 0.25 mile to the south is now identified as the AT&SF and there is now another rail line also going east/west 0.25 mile to the north identified as the San Bernardino Electric line.

The 1960 topo map shows the region as essentially the same as in 1955 but now only three structures are shown in the northeast corner (the Dairy), while the reservoir remains (USGS, 1960). The 1963 USGS map is the same as the 1955 version, while the 1964 map is the same as the 1960 version (USGS, 1963 and 1964).

The I-10 Freeway is not present in the 1964 USGS topo map, but is shown in the 1969 version, 0.25 mile to the south following the rail line, with an on/off ramp at California Street. At that time there is still agriculture (orchards) to the north of the freeway and to the south of the AT&SF Rail line with the land between, including the project site, “vacant” (though the site was occupied by the dairy farm which would have been growing hay). In 1969 the USGS topo (USGS, 1969) map still shows little change in the immediate project area from the 1955 version – orchards remain to the east across California Street and south across Lugonia Avenue with the project site as open space, though the orchard along the southwest edge has been reduced in size. The dairy complex also continues to be reduced in size and is now shown as one structure, and the reservoir is now gone. The 1973 map (USGS, 1973) shows the same configuration as in 1960. By the time of the 1979 topo map (USGS, 1979), while the general setting and structures remain the same as in 1969, in the 1980 version (USGS, 1980) the surrounding area is the same as seen in 1969, but the dairy farm presence has been expanded to now include a large long building situated on the west side of the intersection of California and Almond, at the extreme northeast corner of the project parcel. The 1986 USGS map shows much the same situation as in 1980 except the orchards to the south of Lugonia are now nearly gone. The 1988 and 1999 USGS topo maps show the same configuration as in 1986 (USGS, 1986, 1988 and 1999).



The 2012, 2015, 2018 and 2021 topo maps (USGS, 2012, 2015, 2018 and 2021) use the new standard of only showing roadways, with the exception that on the 2015 map the waterway to the south is now named “The Mission Zanja.” The 2018 map shows a “Nevada” label immediately southeast of the project area, in the same location as “Gladysta” appeared in 1901. Nevada is identified as a “populated place located within the City of Redlands” (HomeTownLocator.com, n.d.).

4.4.4.6 Identified Cultural Resources

Recorded Archaeological Sites

Based on the cultural resources records search conducted at the South Central Coastal Information Center (SCCIC) (see **Table 4.4-1** below and Section 4.1 in **Appendix D1**), it was determined that two historic era cultural resources have been previously recorded within the project site boundary. Within the 0.5-mile buffer zone there are an additional six recorded historic era cultural resources. There have been no prehistoric resources recorded within the project boundary or the buffer area.

The Marigold Farms historic site, CA-SBr-7139H, was a dairy, farming, and ranching operation dating from 1915 through approximately 1991 (Swope, Slatter and Cardoza 1991). This farm complex occupied the block from Lugonia Avenue on the south to San Bernardino Avenue on the north, and California Street on the east to Mountain View Avenue on the west (which includes the Kaiser Medical Center property in the southeast corner of the farm). As described by Swope, et al. (1991:1) from their survey of the farm complex, on the southern portion of the site there was a historic milking barn (recorded previously as CA-SBr-6857H; see below) and a presumed modern equipment storage shed. Other historical features associated with Marigold Farms (domestic structure, hammer mill, silos, etc.) were located north of San Bernardino Avenue, outside the boundaries of the property under investigation, and were not formally recorded during this research. A historic resources inventory record of the north portion of the site was prepared. A cluster of residences was once located west of the barn. Wooden structures located at the south-central portion of the property are thought to postdate the historical period. A red fired-brick standpipe was located approximately 10 meters southwest of the southwest corner of the barn. Reservoirs were once present on the property. The Marigold railroad siding was located near the north central portion of the property.

All of these Marigold Farms features were located north of the current project site, around the intersection of Almond Avenue and California Street. The area of the current project site was open land used for cultivating alfalfa and is not shown to have contained any structures (Swope et al. 1991:1, 7). The survey report of the project that the site record derived from concluded that the site record produced mitigated potential impacts of development to the farm (Swope and Lerch 1992:ii).

The barn associated with the Marigold Farms complex was recorded separately as CA-SBr-6857H by Romani, Head and Webb (1990). This was described at the time as an abandoned barn of concrete and wood plank, rectangular in configuration. It was also noted at the time that there were alfalfa fields to the south of the structure which would have encompassed the current project site (Romani, et al. 1990:4). It was located at the southwest corner of California Street and Almond Avenue, which is the northeast corner of the current project site. At the time of the Marigold Farms operations, Almond Avenue ended at California Street; the road has since been extended west of California and this road work would have demolished the barn and any subsurface components.

There were six other historic resources outside of the project APE but within a 0.5-mile radius of it. There was a set of four large metal tanks (P-36-009992, CA-SBr-9992H) located on the northwest corner of Olive Avenue and California Street, approximately 3,000 feet to the north of the project site.



❖ SECTION 4.4 – CULTURAL RESOURCES ❖

Once used for the storage of smudge oil, one was on a platform with the other three situated directly on the ground (Tang 2000:1). No construction date is suggested, though it is known that at least three of the tanks were present by 1938 (Tang 2000:2).

There are three utility-related properties recorded within the project buffer zone. The Southern California Edison's Mira Loma-Vista 220kV transmission line, also known as the Hayfield-Chino 220kV (line) (P-36-026051) runs east/west to the north of the project site along San Bernardino Avenue. This was recorded in 2018 by Cunningham, O'Conner and Wintergerst as CA-SBr-17229H. There is also the San Bernardino-Redlands-Timoteo and San Bernardino-Redlands-Tennessee Subtransmission Lines (P-36-026224). Southern California Edison constructed these lines between 1966 and 1967, running east/west through San Bernardino County. They were "historically constructed on lattice poles, single wood poles, or in an H-frame wood pole configuration" (Williams 2014:2); the line in the current project area runs north/south approximately 2,500 feet to the west of the project site. Site P-36-26219 is the San Bernardino Substation, an historic-age electrical substation built in the 1940s, located 2,750 feet to the northwest of the current project site. "It consists of the typical components of a substation, including circuit switches, regulators and reclosers. There is one small concrete control structure located near the center of the substation" (LSA Associates 2013:1).

There is one transportation-associated historic site in the 0.5-mile zone, an abandoned line of the Southern California Railroad (P-36-02619) (ICF 2018). This was constructed in 1882 to provide a direct rail line between San Diego and Colton in San Bernardino County. The remaining abandoned grade is 12 feet across and is associated with six scatters of historic artifacts (ICF 2018:2). It is located approximately 2,100 feet southwest of the current project site.

The San Bernardino County Museum located at 2024 Orange Tree Lane is recorded as P-36-015135 and is noted as a California Department of Parks and Recreation Point of Historic Interest (Anonymous 1969). It is located approximately 1,000 feet southwest of the current project site. Originally dedicated in 1957, the original structures have since been replaced.

Table 4.4-1
KNOWN CULTURAL RESOURCES WITHIN A 0.5 MILE RADIUS OF THE PROJECT BOUNDARY

Site Number	Author(s)	Date	Type	Description
P-36-06847	ICF	2018	Historic	The resource consists of a segment of the historic alignment of The Southern California Railroad, a consolidation of California Southern Railroad Company, the California Central Railway Company, and the Redondo Beach Railway Company. "The California Southern Railroad was built in 1882 to provide the first direct route from San Diego to Colton. In November, 1885, the [California Southern Railroad] was officially opened between San Bernardino and Barstow. Only the 0.54-mile-long segment within the current project area is recorded. The grade has been affected by blading,



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Site Number	Author(s)	Date	Type	Description
				flood, and removal of ties and rail after an apparent flood even in the mid-1980s.
P-36-06857	Roman, Gwendolyn, Genevieve Head, and Tricia Webb	1990	Historic	Historical structure. Abandoned barn of concrete and wood plank; rectangular in configuration. Time period unknown. There were alfalfa fields to north, west, and south, and a citrus orchard across California street to east.
P-36-007139 CA-SBr-7139H	Fulton, P. (LSA); Swope, K., K. Slater and B. Cardoza	2012; 1991	Historic	The Marigold Farms was a dairy, farming, and ranching operation dating from 1915 through approximately 1991. A dirt road once extended into the property from the east. This road may have been an extension of Almond Avenue, or Hugo Avenue, parallel to and south of Almond. Bryn Mawr Avenue, another dirt road, bisected the center of the property from north to south. A railroad siding named Marigold was located at the north center of the property on the San Bernardino Valley Traction Company line. On the southern portion of the site are a historic milking barn and a presumed modern equipment storage shed. Other historical features associated with Marigold Farms (domestic structure, hammer mill, silos, etc.) were located north of San Bernardino Avenue, outside the boundaries of the property under investigation, and were not formally recorded during this research. A historic resources inventory record of the north portion of the site was prepared. A cluster of residences was once located west of the barn. Wooden structures located at the south-central portion of the property are thought to postdate the historical period. A red fired-brick standpipe was located approximately 10 meters southwest of the southwest corner of the barn. Reservoirs were once present on the property. The Marigold railroad siding was located near the north central portion of the property.



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Site Number	Author(s)	Date	Type	Description
P-36-09992 CA-SBr-9992H	Tang, Bai “Tom”	2000	Historic	Consists of four large metal tanks once used for storage of smudge oil, and the largest with a capacity of 25,000 gallons. Cylindrical in shape, made of galvanized corrugated steel sheets. One on a wooden platform, the other three on the ground surface. Unknown date, but three of the tanks were known to be present in 1938. On the northeast corner of Olive Avenue and California Street.
P-36-0015135	Anon.	1975	Historic	The San Bernardino County Museum recorded as a Point of Historic Interest by the California Department of Parks and Recreation in 1969 and was recommended in 1975. A 1953 Progress Report indicate several buildings present for storage of collections. Museum dedicated in 1957. (No further information is provided in the record but it is known to have been greatly expanded into modern facilities as a comprehensive natural history museum.) Located on Orange Tree Lane, in the City of Redlands.
P-36-026051 CA-SBr-17229H	Cunningham, Robert, John O'Connor, and Steve Wintergerst	2018	Historic	The resource is a segment of the Chino-Hayfield 220kV transmission line. The Chino-Hayfield transmission line was originally recorded by Davidson, Goodwin, and Smith in 2012. It was described as an approximately 43-mile-long transmission line associated with the development of the San Bernardino to Desert Hot Springs corridor through San Geronio Pass and San Timoteo Canyon. The transmission line was evaluated for NRHP/CRHR eligibility by Wendy L. Tinsley Becker in 2014 and was recommended as not eligible. A segment of the resource crossing Reche Canyon was revisited by ECORP archaeologists in 2018 as part of a cultural resources survey. The condition of the segment was found to be consistent with previous site records.
P-36-026219	Williams, Audry LSA	2014 2013	Historic	The San Bernardino Substation recorded as a historical resource. The San Bernardino Substation is an



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Site Number	Author(s)	Date	Type	Description
				existing 220/66/12kV substation location north of San Bernardino Avenue and east of Mountain view Avenue in the City of Redlands. The San Bernardino Substation was built in the 1960s by SCE to support the San Bernardino Steam Plant.
P-36-026224	Williams, Audry	2014	Historic	The resource recorded consists of portions of the San Bernardino-Redlands-Timoteo and San Bernardino-Redlands-Tennessee 66kV Subtransmission Lines. SCE constructed the San Bernardino-Redlands-Timoteo 66kV and the San Bernardino-Redlands-Tennessee 66kV subtransmission lines between 1966 and 1967. The lines run parallel to the Devers-San Bernardino No. 1 220kV transmission line from the San Bernardino Substation to Barton Road. The lines consist of lattice steel towers from San Bernardino Substation to Redland Boulevard, and transitions to wood poles to its terminus at Barton Road. The construction of the San Bernardino-Redlands-Timoteo 66kV and the San Bernardino-Redlands-Tennessee 66kV subtransmission lines is associated with post-World War II housing developments expanding into Loma Linda area and the concurrent need for more power.

Previous Archaeological Investigations

Records at the SCCIC indicate there have been 17 previous cultural resource studies within portions of the 0.5-mile buffer of the project. Two of the surveys included the project site (SB-2625 and SB-4809), while four other surveys touched upon the boundaries of the project site (SB-2853, - 4600, - 8038, and -8199). The remaining 11 prior studies are located outside of the project boundary. Four of these 11 surveys identified cultural resources, but none were in the 0.5-mile radius of this project. (See Table 4.4-2, and Attachment D in **Appendix D1**.)

The current project parcel was originally surveyed by Michael K. Lerch & Associates in 1992 consisting of 35 acres for the approved Kaiser Medical Center, part of a larger planned development of the Barton Center of Redlands, a 306-acre subdivision (SB-2625). No prehistoric resources and a single historical resource, being the Marigold Farms buildings, were discovered during this investigation. They recorded the Marigold Farms complex and its milking barn (CA-SBR-7139H) – see description in Recorded Archaeological Sites above. The report concluded that the site record produced mitigated potential impacts of development to the farm (Swope and Lerch 1992:ii).



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In 2006, W&S Consultants undertook an archaeological survey of the Kaiser Redlands medical office building project site that encompasses the same footprint as the current project (SB-4809). At that time, the archival research showed the prior presence of two historic sites related to the Marigold Farms that had been present in the northeast corner of the project parcel and that they had subsequently been demolished (W&S Consultants 2006:7). These were the concrete milk barn (CA-SBR-6857) and a portion of the Marigold Farms complex (CA-SBR-7139H) (see Recorded Archaeological Sites above for a description of these resources).

Adjacent surveys consisted of the Inland Feeder project for the Metropolitan Water District of Southern California (SB-2853) that surveyed a water utility line along California Street; a cultural resources survey for a development (SB-4600) across the northeast corner from the project suite at California Street and Almond Avenue; SB-8038, a paleontological assessment of a parcel that would be developed for the Hillwood Commercial Center on the east side of California Street from the project area; and finally there is a report documenting monitoring during ground disturbing activities for the construction of the Redlands Commercial Center buildings (SB-8199) immediately south of the project site on the south side of Lugonia Avenue.

An archaeological investigation may have taken place at the project site as indicated by the notation of “SB-06633” on the *Redlands, California* USGS map at the SCCIC. The SCCIC staff indicated that this report was no longer in their system and was likely removed by staff. Its potential appearance between reports dating to 2007 and 2015 indicates it may be associated with the site record P-36-007139 recorded by P. Fulton in 2012 at this location.

**Table 4.4-2
KNOWN CULTURAL RESOURCE STUDIES WITHIN A 0.5-MILE RADIUS
OF THE PROJECT BOUNDARY**

Report Number	Author(s)	Date	Title	Resources
SB-00557	Hearn, Joseph E.	1977	Archaeological - historical resources assessment of project site located on the north side of Redlands Boulevard and west of California street in the Bryn Mawr area	N/A
SB-00600	Hearn, Joseph E.	1978	Archaeological - historical resources assessment of approximately eight acres at the northeast corner of Redlands Boulevard and Bryn Mawr avenue; Loma Linda area	N/A
SB-00647	Hearn, Joseph E.	1978	Archaeological - historical resources assessment of 63 acre parcel of land located on the north side of Redlands Boulevard between Mountain View Avenue and Bryn Mawr Avenue, Loma Linda-Redlands area	N/A



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Report Number	Author(s)	Date	Title	Resources
SB-00931	Smith, Gerald A.	1980	Cultural resources assessment of the west portion of assessor's parcel number 292-061-11, Redlands area	N/A
SB-02486	Hathaway, Roger G., John Romani, and Joanne SanFelippo	1991	An architectural determination of eligibility/significance report and an archaeological survey for the Marigold Business Park	N/A
SB-02625	Swope, Karen K., and Michael K. Lerch	1992	Cultural resources assessment of the Barton Center of Redlands, Narigold Farms, city of Redlands, San Bernardino County, California	36-006857, 36-007139
SB-02853	Foster, John M., James J. Schmidt, Carmen A. Weber, Gwendolyn R. Romani, and Roberta S. Greenwood	1991	Cultural resource investigation: Inland Feeder Project, MWD of Southern Ca	36-006086, 36-006354, 36-006847, 36-006848, 36-006849, 36-006850, 36-006851, 36-006852, 36-006853, 36-006854, 36-006855, 36-006856, 36-006857, 36-006858, 36-006859, 36-006860, 36-006861, 36-006862, 36-006863, 36-006864, 36-006865, 36-006866, 36-006867, 36-006868, 36-006869, 36-006870, 36-006871, 36-006872, 36-006940, 36-007021, 36-007050, 36-007051, 36-007053, 36-007054, 36-007055, 36-007702
SB-03750	Love, Bruce	2000	Westside Landfill expansion project. 29pp	36-009990, 36-009991, 36-009992
SB-04048	Love, Bruce	2001	Identification and evaluation of historic properties: city of Redlands recycled water project in the city of Redlands, San Bernardino County, Ca. 27pp	36-007139, 36-009991, 36-009992



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Report Number	Author(s)	Date	Title	Resources
SB-04600	Dice, Michael	2004	Phase I Cultural Resources Survey of a 73.45 Acre Property in Unincorporated San Bernardino County, APN: 0292-052-01, -03, -04, -06, -08, -10, -11, -12, -16 near Nevada Street/Almond Avenue, Section 13 of Township 1 North Range 6 West, County of San Bernardino, California.	N/A
SB-04809	W & S Consultants	2006	Phase 1 archaeological survey of the Kaiser Redlands mob study area, Redlands, San Bernardino County, California	N/A
SB-04812	Dice, Michael	2004	Records Search Results and Site Visit for Sprint Telecommunications Facility SB38XC919E (City Grove), California Street and I-10, Redlands, San Bernardino County, California.	N/A
SB-05805	Crull, Scott	2007	An Archaeological and Paleontological Mitigation-Monitoring Report for Tentative Parcel Map 17815, with APNs: 167-401-02, 03; 167-511-08 and 167-451-05, 06, 07- a 40 Acre Parcel Located in the City of Redlands, San Bernardino County, California.	N/A
SB-06633	[unknown]	[unknown]	[unknown]	[unknown]
SB-07964	DeCarlo, Matthew M. and Diane L. Winslow	2015	Cultural Resources Impact Assessment and Evaluation Status Report for Southern California Edison Company's West of Devers Upgrade Project, Riverside and San Bernardino Counties, California	36-002311, 36-006847, 36-006855, 36-026030
SB-08038	Brunzell, David	2013	Cultural Resources Assessment Hillwood Commerce Center Project, City of Redlands, San Bernardino County, California	36-009991
SB-08199	Abdo-Hintzman, Kholood, and Josh Smallwood	2015	Cultural resources monitoring report for the Redlands Commerce Center buildings 1 and 2 project City of Redlands, San Bernardino County, California	36-028815



Pedestrian Survey

A pedestrian field survey to look for the presence of cultural resources was conducted November 6, 2023. Survey transects were conducted in an opportunistic manner in conformity with the available exposed ground surface and layout of the landscaping.

The result of the pedestrian survey was negative for both prehistoric and historic archaeological sites, features and isolates.

Native American Outreach

On June 8, 2023, Ms. Doukakis contacted the NAHC via email notifying them of the project, requesting a search of their SLF and asking for a list of local tribal organizations and individuals to contact for project outreach. The results of the search request were received from Cameron Vela, Cultural Resources Analyst, on July 13, 2023. The NAHC letter stated that “A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were positive [emphasis in the original]. Please contact the San Manuel Band of Mission Indians on the attached list for information.” (See **Attachment C in Appendix D1.**)

UEI prepared letters to each of the 38 tribal contacts representing 21 tribal organizations describing the project and included a map showing the project's location, asking if they have knowledge of cultural resources in the area, as well as if they had any questions or concerns regarding the project. On October 3, 2023, Ms. Doukakis mailed these letters with accompanying maps to all 38 tribal contacts, and also emailed identical letters and maps to each of the 37 tribal contacts for which email addresses were known.

Eight email responses were received.

- The Gabrieleno Band of Mission Indians – Kizh Nation Administration responded on behalf of Chairperson Andrew Salas and Christina Swindell Martinez, Secretary on October 3, 2023 requesting the lead agency's contact information. That information was provided by Ms. Doukakis on October 4, 2023.
- Christina Conley, Cultural Resource Administrator for the Gabrielino Tongva Indians of California Tribal Council on behalf of Chairperson Robert Dorame responded on October 3, 2023, indicating that the project would need to have a Native American monitor and suggested calling Sandonne Goad, Chairperson of the Gabrielino/Tongva Nation for this area.
- Chairperson Charles Alvarez of the Gabrielino-Tongva Tribe on behalf of San Dunlap, Cultural Resources Director, responded on October 4, 2023, stating that the tribe would look into this matter and respond accordingly. No further response has been received to date.
- Paul Macarro, Cultural Resources Coordinator for the Pechanga Band of Indians on behalf of Chairperson Mark Macarro responded on October 3, 2023 indicating that the project area is outside the ancestral lands of their tribe and the tribe will defer to the appropriate tribes.
- Xitaley Madrigal, Cultural Resources Analyst for the Agua Caliente Band of Cahuilla Indians (ACBCI) on behalf of Chairperson Reid Milanovich and Director Patricia Garcia-Plotkin responded on October 11, 2023 indicating that the project area is not located within the



boundaries of the ACBCI reservation but it is within the Tribe's Traditional Use Area and recommends a cultural resources inventory of the project area, documentation of CHRIS cultural resources, a copy of the records received on the project, the presence of cultural resource monitors if any ground disturbance takes place, including a Secretary of the Interior-qualified archeologist. Mr. O'Neil responded to Ms. Madrigal, stating that a cultural resources inventory report would be completed and could be requested from the City of Redlands when completed. As for the other requests recommended, Mr. O'Neil stated that they are best made to the City of Redlands during AB 52 consultation.

- Ana Rios, Administrative Assistant for the Augustine Band of Cahuilla Mission Indians sent an email response on October 9, 2023 on behalf of Chairperson Amanda Vance; an attached letter from Tribal Secretary Geramy Martin indicated that the tribe is unaware of specific cultural resources that may be affected by the proposed project; however, in the event that resources are encountered during the development of this project the tribe asks to be contacted. Mr. O'Neil responded to Ms. Rios, stating that a cultural resources inventory report would be completed and could be requested from the City of Redlands when completed as part of the outreach process; Mr. O'Neil also stated that the City of Redlands, per AB 52, would conduct consultation and the tribe could make any recommendations then.
- Alexandra McCleary, Cultural Lands Manager for the San Manuel Band of Mission Indians, responded on November 2, 2023 indicating that the proposed project site is considered sensitive by the Tribe, as it is close to the historic footprint of the Mill Creek Zanja, a historic waterway listed on the National Register which had been built using Serrano labor; there was no specific mention of a Sacred Lands File site. The tribe would like to engage in government-to-government consultation pursuant to AB 52 with the Lead Agency for the project; Mr. O'Neil indicated on the same day that the Lead Agency is the City of Redland's Planning Department and UEI will let them know that the tribe wishes to engage in AB 52 consultation.
- Laura Chatterton, Cultural Resource Specialist for the Morongo Band of Mission Indians on behalf of Chairperson Robert Martin and Tribal Historic Preservation Officer Ann Brierty provided a response on November 14, 2023 indicating that the tribe considers the project area to be highly sensitive for cultural resources and will be requesting government-to-government AB 52 consultation; Mr. O'Neil indicated on the same day that the Lead Agency is the City of Redlands and UEI will let them know that the Band wishes to participate in consultation.

Following up on the initial letter and email contacts, telephone calls were conducted by Ms. Doukakos on November 3, 2023 and November 6, 2023, to complete the outreach process. These calls were to the 20 tribal contacts (representing eight additional tribes) who had not already responded to UEI's mailings and emails. Nine telephone calls were placed with no answer and messages were left describing the project and requesting a response. These were to Doug Welmas, Chairperson of the Cabazon Band of Mission Indians; Sandonne Goad, Chairperson of the Gabrielino-Tongva Nation; Robert Martin, Chairperson of the Morongo Band of Mission Indians; Ann Brierty, Tribal Historic Preservation Officer of the Morongo Band of Mission Indians; Shasta Gaughen, THPO of the Pala Band of Mission Indians; Alexis Wallick, Assistant Tribal Historic Preservation Officer of the Pala Band of Mission Indians; Wayne Walker, Co-Chairperson of the Serrano Nation of Mission Indians; the Cultural Committee for the Torres-Martinez Desert Cahuilla Indians; and BobbyRay Esparza, Cultural Director of the Cahuilla Band of Indians.



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- In the call to Chairperson Daniel Salgado, and Tribal Historic Preservation Officer Anthony Madrigal, of the Cahuilla Band of Indians the tribal receptionist indicated that Chairperson Salgado and Mr. Madrigal were not in the office and to leave a message on Mr. Esparza's voicemail, which was done.
- In the call to John Gomez, Environmental Coordinator for the Ramona Band of Cahuilla Indians on behalf of Chairperson Joseph Hamilton, the tribal receptionist indicated that Mr. Gomez was in the field and provided his cell phone number; that number was called -- there was no answer and a message was left.
- In the call to Lovina Redner, Tribal Chair for the Santa Rosa Band of Cahuilla Indians, the tribal receptionist indicated that Ms. Redner was not in the office at the time and asked that UEI leave our call back number which was done.
- In the call to Mark Cochrane, Co-Chairperson of the Serrano Nation of Mission Indians, the phone line was disconnected, and no message could be left. There has been no response to date for any of these calls.
- During the call to Anthony Morales, Chairperson of the Gabrieleno-Tongva San Gabriel Band of Missions Indians, he indicated that he does not have any specific concerns but there are known archaeological sites in the area and freeways like the I-10 that would have been used for traditional transportation routes. Chairperson Morales recommended Native American and archaeological monitoring and would like his tribe to be involved.
- In the call to Manfred Scott, Acting Chairman for the Quechan Tribe of the Fort Yuma Reservation on behalf of President Jordan Joaquin, and Jill McCormick, Historic Preservation Officer indicated that the tribe will defer to more local tribes.
- In the call to Joseph Ontiveros, Cultural Resource Department for the Soboba Band of Luiseño Indians on behalf of Chairperson Isaiah Vivanco indicated that this area is of moderate concern for the tribe and further information will be provided to the lead agency during AB 52 consultation.
- In the call to Dorothy Willis with the EPA Department for the Los Coyotes Band of Cahuilla and Cupeño Indians on behalf of Chairperson Ray Chapparosa, indicated that she was on the other line and to email her our question. This email was sent November 6, 2023.
- In the call to Cheryl Madrigal, Tribal Historic Preservation Officer of the Rincon Band of Luiseño Indians representing Tribal Council Member Joseph Linton, Tribal Council Member Laurie Gonzalez, and Attorney General Denise Turner Walsh, Ms. Madrigal indicated that she will take a look at our email and get back to us with a response.
- A phone call was received from Deneen Pelton, Cultural Resources Coordinator with the Rincon Band, on the same day indicating that they sent an email response for this project on October 27, 2023. Ms. Pelton provided the email response, and it indicated that the project location is not within the Band's specific Area of Historic Interest (AHI) and the tribe has no additional information to provide; Ms. Pelton recommended that we directly contact a Tribe that is closer to the project and may have pertinent information. (See **Attachment C.**) There have been no further responses from these tribes to date.



4.4.5 Environmental Impact Analysis

4.4.5.1 Thresholds of Significance

In accordance with **Appendix G** of the State CEQA Guidelines, the project would have a significant impact related to cultural resources if it would:

- Threshold A. Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5; or
- Threshold B. Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5; or
- Threshold C. Disturb human remains, including those interred outside of dedicated cemeteries.

4.4.5.2 Analysis of Project Impacts

Threshold A: Would the Project cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?

Less than Significant Impact with Mitigation Incorporated

A historical resource is defined in § 15064.5(a)(3) of the *CEQA Guidelines* as any object, building, structure, site, area, place, record, or manuscript determined to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California. Historical resources are further defined as being associated with significant events, important persons, or distinctive characteristics of a type, period or method of construction; representing the work of an important creative individual; or possessing high artistic values. Resources listed in or determined eligible for the California Register, included in a local register, or identified as significant in a historic resource survey are also considered as historical resources under CEQA.

Similarly, the National Register criteria (contained in Code of Federal Regulations Title 36 Section 60.4) are used to evaluate resources when complying with Section 106 of the National Historic Preservation Act. Specifically, the National Register criteria state that eligible resources comprise districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and that (a) are associated with events that have made a significant contribution to the broad patterns of our history; or (b) that are associated with the lives of persons significant in our past; or (c) that embody the distinctive characteristics of a type, period, or method of construction, or that possess high artistic values, or that represent a significant distinguishable entity whose components may lack individual distinction; or (d) that have yielded or may be likely to yield, information important to history or prehistory.

A substantial adverse change in the significance of a historical resource, as a result of a project or development, is considered a significant impact on the environment. Substantial adverse change is defined as physical demolition, relocation, or alteration of a resource or its immediate surroundings such that the significance of the historical resource would be materially impaired. Direct impacts are those that cause substantial adverse physical change to a historic property. Indirect impacts are those



that cause substantial adverse change to the immediate surroundings of a historic property, such that the significance of a historical resource would be materially impaired.

It was determined that the Kaiser Permanente Medical Center Project site had two historic era cultural resources that were previously recorded within the project site boundary. Within the 0.5-mile buffer zone there are an additional five recorded historic-era cultural resources.

The two historic sites, both related to the Mayfair Dairy farm, were situated in the northeast area of the project site. These were recorded as the Mayfair Dairy farm complex (CA-BSR-7139H) and an associated barn (P-36-6875). The related report stated that the site recording would be sufficient documentation of the resource (Swope and Lerch 1992 cited in Section 4.1.1 and 4.1.2 in **Appendix D1**), and both structures were subsequently demolished. However, because of the obscured ground surface during the pedestrian survey there is the potential for the presence of historic artifacts and/or features to be present. Also, grading activities associated with project construction would cause subsurface disturbance and could result in the unanticipated discovery of unique archaeological resources.

Therefore, mitigation measures **CUL-1** and **CUL-2**, described in Section 4.6, will be implemented to reduce potential impacts to less than significant. Mitigation measure **CUL-1** requires the project applicant to retain an archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards for Archaeology to conduct monitoring of subsurface ground disturbance during construction activities. Mitigation measure **CUL-2** requires an Archaeological Resources Treatment Plan (ARTP) to be prepared if historical or unique archaeological resources are discovered during construction activities.

Threshold B: Would the Project cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?

Less than Significant Impact with Mitigation Incorporated

An archaeological resource is defined in § 15064.5(c) of the CEQA Guidelines as a site, area or place determined to be historically significant as defined in § 15064(a) of the CEQA Guidelines, or as a unique archaeological resource defined in § 21083.2 of the Public Resources Code as an artifact, object, or site that contains information needed to answer important scientific research questions of public interest or that has a special and particular quality such as being the oldest or best example of its type, or that is directly associated with a scientifically-recognized important prehistoric or historic event or person.

Based on the cultural resources records search conducted by the Eastern Information Center, it was determined there have been no prehistoric resources recorded within the project boundary or the half mile-buffer area.

Results of the NAHC SLF were positive. Letters and emails were sent to the 38 contacts representing 21 tribes on October 2, 2023; follow up telephone calls were made November 6, 2023 (see above for detailed description of Outreach responses). There was no response to inquiries concerning the unidentified potential SLF site. However, the San Manuel Band of Mission Indians did note the nearby presence of the Mill Creek Zanja, significant to the Serrano due to their association with its construction. This historic site, however, is not in the immediate vicinity of the project parcel and would not be affected by the project.



The cultural resources study findings suggest that there is a low potential for the presence of prehistoric cultural resources. The project site is disturbed by several decades of agricultural use. A prior survey of the property also resulted in negative findings for prehistoric resources.

Grading and other ground disturbing activities associated with development of the project would cause new subsurface disturbance and could result in the unanticipated discovery of unique archaeological resources. Therefore, mitigation measures **CUL-1** and **CUL-2** that are listed in **Section 4.4.6** are recommended.

Threshold C: Would the Project disturb human remains, including those interred outside of dedicated cemeteries?

Less than Significant Impact with Mitigation Incorporated

Previous ground disturbing activities on the project site have not encountered human remains. The SCCIC records search did not show the presence of archaeological sites or prior studies of surveys or construction monitoring that reported the presence of prehistoric sites or human remains in the 0.5-mile zone surrounding the APE.

California Health and Safety Code § 7050.5 identifies procedures for the unlikely discovery of human remains. CEQA § 15064.5 indicates the process for determining the significance of impacts to archeological and historical resources. California Public Resources Code § 5097.98 stipulates the notification process during the discovery of Native American human remains, descendants, disposition of human remains, and associated artifacts.

The potential for encountering human remains during ground disturbance is low. However, in the case that human remains are encountered, mitigation measure **CUL-3**, listed in **Section 4.4.7**, would require contacting the coroner and contacting the Native American Heritage Commission (NAHC) to make recommendations for removal and nondestructive analysis. CUL-3 would reduce impacts to human remains to less than significant.

No human remains have been previously identified or recorded on the Kaiser Permanente Medical Center Project site.

Grading and trenching activities would be associated with installation of infrastructure including water, sewer, and utility lines and construction of proposed buildings of the project. Grading would involve new subsurface disturbance and could result in the unanticipated discovery of unknown human remains, including those interred outside of formal cemeteries.

4.4.6 Cumulative Impacts

No prehistoric or historic archaeological resources were observed during the pedestrian field survey. The previous cultural resources surveys within the 0.5-mile buffer zone resulted in no prehistoric archaeological sites or isolates being recorded at the project site or within the 0.5-mile buffer zone. There were two historic properties recorded in the northeast corner of the project APE which have subsequently been recorded and demolished.

Grading operations could uncover subsurface cultural resources and would have a potentially significant impact to Cultural Resources and mitigation measures have been developed to reduce impacts to less than significant. Impacts to potential archaeological resources and human remains



that may be discovered during subsurface construction activities within the project site with implementation of mitigation measures **CUL-1**, **CUL-2**, and **CUL-3** would reduce these impacts to a less than significant level. Implementation of the proposed project would not create or contribute to a cumulative impact on cultural resources.

Additional projects in the area would also involve grading and excavation activities and could significantly impact historical or archaeological resources that may be on or buried in soil under those project sites. Each project would be evaluated under CEQA for potential impacts to cultural resources. If warranted, each project would be required to implement mitigation measures to reduce potential impacts. Therefore, in combination with past, present, and reasonably foreseeable projects, the project would result in a less than significant cumulative impact with respect to cultural resources.

4.4.7 Mitigation Measures

MM CUL-1: The project applicant shall retain an archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards for Archaeology to conduct monitoring of subsurface ground disturbance during construction activities. The archaeologist shall also take the opportunity to re-survey the parcel's ground surface as the vegetation is cleared for construction work. If unanticipated cultural resource discoveries are made the archaeologist will be afforded the necessary time to recover, analyze, and curate the find(s). The qualified archaeologist will recommend the extent of archaeological monitoring necessary to ensure the protection of any other resources that may be in the area. Any identified cultural resources shall be recorded on the appropriate DPR 523 (A-L) form and filed with the Eastern Information Center.

MM CUL-2: If historical or unique archaeological resources are discovered during construction activities, the contractor shall halt construction activities in a 50-foot radius and notify the project proponent and the City of Redlands. A Secretary of the Interior qualified archaeologist (Principal Archaeologist) shall be notified and afforded the necessary time to recover, analyze, and curate the find(s). The Principal Archaeologist shall recommend the extent of archaeological monitoring necessary to ensure the protection of any other resources that may be in the area. Construction activities may continue on other parts of the project site while evaluation and treatment of historical or unique archaeological resources takes place.

The Principal Archaeologist, depending on the type and extent of the finds, may prepare an Archaeological Resources Treatment Plan (ARTP) to guide future monitoring, the recovery of cultural resources, analysis and reporting of the finds, and curation of the finds. The ARTP shall be submitted to the City and the project proponent for approval. The ARTP shall include the following:

1. Results of the Cultural Resources Inventory: archaeological resources and their condition and threats on the project site.
2. Impact assessment.
3. Mitigation strategies, which may include:
 - a. Potential avoidance measures.



- b. Data recovery steps such as excavation and analysis of an archaeological site to collect information before it is destroyed.
 - c. Conservation measures such as cleaning, conserving, studying, cataloging, and storing recovered archaeological materials and associated records.
4. Procedures for archaeological monitoring during construction to record exposed resources.
5. Protocols for unanticipated discoveries: what construction workers should do if they find cultural resources unexpectedly, including ceasing work and contacting a qualified archaeologist.
6. Consultation with relevant groups, such as Native American tribes, historians, and regulatory agencies, to determine the value of resources and appropriate treatment measures.
7. Documenting and reporting format and procedures.

MM CUL-3: If human remains are encountered during excavations associated with this project, all work shall stop within a 30-foot radius of the discovery, and the San Bernardino County Coroner will be notified (§ 5097.98 of the Public Resources Code). The Coroner will determine whether the remains are recent human origin or older Native American ancestry. If the coroner, with the aid of the supervising archaeologist, determines that the remains are prehistoric, they will contact the Native American Heritage Commission (NAHC). The NAHC will be responsible for designating the Most Likely Descendant (MLD). The MLDS (either an individual or sometimes a committee) will be responsible for the ultimate disposition of the remains, as required by § 7050.5 of the California Health and Safety Code. The MLD will make recommendations within 24 hours of their notification by the NAHC. These recommendations may include scientific removal and nondestructive analysis of human remains and items associated with Native American burials (§ 7050.5 of the Health and Safety Code).

4.4.8 Level of Significance after Mitigation

Historical Resources

Implementation of mitigation measure **CUL-1** would reduce potential impacts to historical and archeological resources to less than significant.

Archaeological Resources

Implementation of mitigation measures **CUL-1** and **CUL-2** would reduce potential impacts to historical and archeological resources to less than significant.

Human Remains

Implementation of mitigation measure **CUL-3** and adherence to all applicable laws and regulations would reduce potential impacts regarding human remains to less than significant.



4.5 Energy

4.5.1 Introduction

The following discussion focuses on the project's energy use impacts. The information in this section is based partially upon the air quality and greenhouse gas emissions analyses discussed in **Section 4.2** and **Section 4.7**, respectively.

4.5.2 Regulatory Framework

Federal

Corporate Average Fuel Economy (CAFE) Standards

Enacted in 1975, the Corporate Average Fuel Economy (CAFE) Standards aim to reduce energy consumption by improving the fuel economy of cars and light trucks. CAFE standards are regulated by the Department of Transportation's National Highway Traffic and Safety Administration (NHTSA). NHTSA sets and enforces CAFE standards under the Energy Policy and Conservation Act (EPCA), and the U.S. Environmental Protection Agency (USEPA) calculates average fuel economy levels and sets GHG standards under the Clean Air Act (US Department of Transportation, 2020). The latest CAFE standards were proposed by the NHTSA in July 2023 and finalized in June 2024 (NHTSA, 2024). Effective August 23, 2024, passenger cars and light trucks will see an increase of two percent annually for passenger cars in model years 2027–31. For light trucks, the increase will be zero percent per year for model years 2027–28 and two percent per year for model years 2029–31. Additionally, NHTSA is setting final fuel efficiency standards for heavy-duty pickup trucks and vans (HDPUVs) with a 10 percent annual increase for model years 2030–32 and further increases for model years 2033–35.

Energy Independence and Security Act

Enacted in 2007, the Energy Independence and Security Act (EISA) reinforces energy reduction goals by aiming to increase the production of clean renewable fuels, improve efficiency of products, and promote research on GHG capture options. Additionally, the EISA aims to protect American consumers by moving the United States toward increased energy independence and security. Three primary provisions of the EISA are (1) the CAFE standards, (2) the Renewable Fuel Standard, and (3) the appliance/lighting efficiency standards (USEPA, 2020).

State

California Code of Regulations (CCR) Title 24, Part 6

CCR Title 24, Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings (Title 24) were first established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. The Title 24 standards are updated on a three-year schedule.

The 2022 Title 24 standards, which went into effect on January 1, 2023, require the installation of insulated hot water pipes, improved window performance, improved wall insulation, and mandatory duct sealing. It also requires roofs to be constructed to be solar ready, with cool roofing shingles, a



minimum one-inch air space between roof material and roof deck, and a minimum of R-22 roof/ceiling insulation. All lighting is required to be high efficiency, and daylight sensors and motion sensors are required for outdoor lighting, bathrooms, utility rooms and other spaces. The forced air systems are required to limit leakage to five percent or less and all heat pump systems must be equipped with liquid line filter driers. Compared to the 2019 version of Title 24, nonresidential buildings will use about 30 percent less energy due mainly to lighting upgrades.

California Code of Regulations (CCR) Title 24, Part 11

CCR Title 24, Part 11: *California Green Building Standards* (Title 24) was developed in response to continued efforts to reduce energy, water, and material consumption. The Title 24 standards are updated on a three-year schedule. The standards that are currently effective are 2022 standards which were adopted in August 2021, but 2025 standards have been adopted by the California Energy Commission (CEC) in September 2024 and will become effective on January 1, 2026.

In December 2021, the 2022 standards were approved by the California Building Standards Commission for inclusion into the California Building Standards Code. The Building Energy Efficiency Standards (Energy Code) apply to newly constructed buildings, additions, and alterations. They are a vital pillar of California's climate action plan. The 2022 Energy Code will produce benefits to support the state's public health, climate, and clean energy goals. The 2022 Energy Code encourages efficient electric heat pumps, establishes electric-ready requirements for new homes, expands solar photovoltaic and battery storage standards, strengthens ventilation standards, and more. Buildings with permit applications applied for on or after January 1, 2023 must comply with the 2022 Energy Code. Public Resources Code §§ 25402 subdivisions (a)-(b) and § 25402.1 emphasize the importance of building design and construction flexibility by requiring the CEC to establish performance standards, in the form of an "energy budget" in terms of the energy consumption per square foot of floor space (CEC, 2022b). The 2025 standards will continue to build upon the 2022 standards and incorporate additional measures that will further reduce energy use and greenhouse gas emissions in a cost-effective manner.

The provisions of Title 24, Part 6 apply to all buildings for which an application for a building permit or renewal of an existing permit is required by law. They regulate design and construction of the building envelope, space-conditioning and water-heating systems, indoor and outdoor lighting systems of buildings, and signs located either indoors or outdoors. Title 24, Part 6 specifies mandatory, prescriptive and performance measures, all designed to optimize energy use in buildings and decrease overall consumption of energy to construct and operate residential and nonresidential buildings. Mandatory measures establish requirements for manufacturing, construction, and installation of certain systems, equipment, and building components that are installed in buildings.

California Renewable Portfolio Standard

Senate Bill 1078 (SB 1078), enacted in 2002, required retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by 2017. In 2006, Senate Bill 107 (SB 107) changed the target date to 2010. Executive Order S-14-08, signed on November 2008, changed the State's Renewable Energy Standard to 33 percent renewable energy by 2020. The executive order was codified by Senate Bill X1-2. Finally, Executive Order S-21-09 directed the ARB to adopt regulations by July 31, 2010 to enforce S-14-08.



Senate Bill 350

Senate Bill 350 (SB 350), the Clean Energy and Pollution Reduction Act, was enacted in 2015 and includes aggressive clean energy goals in an effort to address climate change. The law creates new clean energy, clean air, and GHG reduction goals for 2030. SB 350 adopts a GHG reduction target of 40 percent below 1990 levels by setting targets for efficiency and renewable electricity, primarily in the energy and transportation sectors. The Act is part of a larger effort to reduce GHG emissions to 80 percent below 1990 levels by 2050. To implement SB 350, the Energy Commission is working closely alongside the California Public Utilities Commission (CPUC) and the ARB. Additionally, SB 350 tasks state agencies with studying and identifying barriers to, and opportunities for, utilizing clean, renewable energy in low-income communities (California Energy Commission, 2020a).

Senate Bill 100

Senate Bill 100 (SB 100), officially known as “The 100 Percent Clean Energy Act of 2018,” requires that public utilities, including electric corporations, must design renewable energy portfolios so that all retail sales by 2045 are generated from renewable and zero-carbon energy sources. SB 100 updates the state’s Renewables Portfolio Standard to ensure that by 2030 at least 60 percent of California’s electricity is renewable (CEC, 2021).

Assembly Bill 32

In 2006, the California State Legislature adopted Assembly Bill 32 (AB 32), the California Global Warming Solutions Act of 2006. AB 32 requires ARB to adopt rules and regulations that would achieve GHG emissions equivalent to statewide levels in 1990 by 2020 through an enforceable statewide emission cap which will be phased in starting in 2012. Emission reductions shall include carbon sequestration projects that would remove carbon from the atmosphere and best management practices that are technologically feasible and cost effective.

ARB’s AB 32 Scoping Plan, which was adopted in 2009, proposes a variety of measures including strengthening energy efficiency and building standards; targeted fees on water and energy use; a market-based cap-and-trade system; achieving a 33-percent renewable energy mix; and a fee regulation to fund the program. The 2014 update to the Scoping Plan identifies strategies moving beyond the 2020 targets to 2050. The cap-and-trade program established under Scoping Plan sets a statewide limit on sources responsible for 85 percent of California’s GHG emissions and has established a market for long-term investment in energy efficiency and cleaner fuels since 2012.

Low Carbon Fuel Standard

The Low Carbon Fuel Standard (LCFS), adopted and administered by the ARB in 2009 and implemented in 2011, is designed pursuant to California AB 32 and Executive Order S-01-07. The LCFS is one of nine action measures to reduce California’s GHG emissions and emissions that cause climate change and smog-forming pollutants by improving vehicle technology, improving fuel efficiency, and increasing alternative transportation options. The LCFSs encourage production and use of clean low-carbon fuels across the state and establish a ten-percent reduction in carbon intensity (CI) of fuel products by 2020. Moreover, providers of transportation fuels in the state must meet LCFS carbon intensity standards for each annual compliance period. In 2018, the CI benchmarks were updated to be consistent with the state’s 2030 GHG target enacted through SB 32 (California Air Resources Board, 2025a).



California Air Resources Board (ARB) Advanced Clean Cars Regulation I & II

The Advanced Clean Cars program considers multiple regulations into a single framework, including Low-Emission Vehicle (LEV) standards, greenhouse gas (GHG) emissions requirements and the Zero-Emission Vehicle (ZEV) mandate. The first phase, Advanced Clean Cars I, was adopted by ARB in 2012 followed by Advanced Clean Cars II in 2022. These regulations are designed to significantly reduce emissions from light-duty passenger vehicles, pickup trucks and SUVs while increasing the number of zero-emission vehicles to reach air quality and GHG emission goals. In October 2023, ARB introduced a new initiative to explore potential amendments to the Advanced Clean Cars II regulations including updates to tailpipe GHG standards and targeted revisions to the LEV and ZEV regulations (ARB, 2023a).

ARB - Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling

The ARB Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling was adopted to reduce public exposure to particulate matter and associated toxic air contaminants by establishing restrictions, emissions standards, and other requirements for heavy-duty diesel engines. The regulation applies to any person, business, or agency that operates diesel-fueled vehicles within the State of California. A primary requirement is that drivers may not idle diesel engines for greater than five minutes at any location (California Code of Regulations Title 13 § 2485).

Sustainable Communities and Climate Protection Act of 2008- SB 375

SB 375 promotes the State's climate goals by helping reduce GHG emissions through coordinated transportation, housing, and land use planning. Under SB 375, the ARB creates regional targets for GHG reductions from passenger vehicles for 2020 and 2035 for the 18 metropolitan planning regions. The targets were last updated in 2018. In accordance with SB 375, each MPO must develop a Sustainable Communities Strategy (SCS) that would allow the region to meet the ARB's targets. Additionally, SB 375 provides incentives to encourage sustainable development, including CEQA exemptions (California Air Resources Board, 2020d).

Assembly Bill 758

Assembly Bill 758 (AB 758), adopted in 2009, requires the California Energy Commission (CEC) to develop a comprehensive program to achieve greater energy savings in the state's residential and nonresidential buildings. AB 758 requires publicly-owned electric utilities to implement energy efficiency programs that encourage energy savings in GHG reductions and report its implementation status to the state. Programs may include, but are not limited to, upgrading infrastructure or providing consumers with information on energy usage (California Legislative Information, 2020c).

Senate Bill 1389

Senate Bill 1389 (SB 1389), adopted in 2002, required the CEC to develop an integrated energy policy report on or before November 2003, and every two years thereafter. The bill requires the Commission to conduct assessments and forecasts to evaluate energy supply, production, distribution, demand and price (California Legislative Information, 2020d). The scope in the most recent report, 2025 Integrated Energy Policy Report (IEPR), consists of advancing clean energy development, updating electricity and natural gas forecasts, and revising load-shift goals, with adoption of the final report anticipated in March 2026 (CEC, 2025).



California Environmental Quality Act

Appendix F of the CEQA Guidelines, titled Energy Conservation, identifies the state's goals of conserving energy and presents means of achieving the goal, including decreased per capita energy consumption, decreased reliance on natural gas, and increasing reliance on renewable energy. To ensure that energy implications are considered when assessing proposed projects, CEQA requires that EIRs discuss potential energy impacts with an emphasis on reducing inefficient consumption of energy. Appendix F details the manner in which impacts to energy must be addressed in various parts of an EIR, including, but not limited to, the project description, mitigation measures, and alternatives.

Assembly Bill 1109

California Assembly Bill 1109 (AB 1109), also known as the Lighting Efficiency and Toxics Reduction Act, requires reductions in energy usage for lighting and is structured to reduce lighting electrical consumption by (1) at least 50 percent from 2007 levels for indoor residential lighting, and (2) at least 25 percent from 2007 levels for indoor commercial and all outdoor lighting by 2018.

Senate Bill 1339 (2018)

Senate Bill 1339 (SB 1339), enacted in 2018, requires the CPUC, in consultation with the CEC and California Independent System Operator (CAISO), to set forth actions and policies to facilitate the commercialization of microgrids for customers of large electrical corporations. CAISO and CPUC opened an Order Instituting Rulemaking (OIR), R.19-09-009, to implement key components of SB 1339 which include: (1) the development of appropriate rates, tariffs, and rules; (2) the removal of barriers to deploying microgrids within the service territories of large investor-owned utilities (IOUs); (3) safeguards to prevent cost shifts onto customers who do not benefit; and (4) a strong emphasis on protecting worker safety, public safety, and overall electric system reliability (CPUC, 2024). Electric Rule 21 is a California statewide tariff that governs the interconnection of distributed energy resources (DERs) to the electric grid. As part of CPUC R.19-09-009, Electric Rule 21 was revised to reduce interconnection barriers for microgrids and critical resiliency projects.

Regional

Southern California Edison Rule 21

SCE Rule 21 is the IOU's version of the statewide Electric Rule 21 tariff that governs how DERs, such as solar panels, batteries, and microgrids, connect to the SCE electric grid (SCE, 2025a). Microgrids within SCE jurisdiction are subject to SCE Rule 21 technical, procedural, and safety requirements. This includes submitting an interconnection application, undergoing grid impact screenings or studies, meeting smart inverter standards, and potentially paying for any necessary system upgrades. Whether the microgrid exports power to the grid or operates solely behind-the-meter, it must comply with Rule 21 to ensure it does not compromise grid safety, reliability, or fairness to other ratepayers (SCE, 2025b).

SCAG 2024-2050 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) (Connect SoCal 2024)

In compliance with SB 375, the Southern California Association of Governments (SCAG) adopted its Connect SoCal 2024 (2024-2050 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)) in April 2024. Connect SoCal 2024 Amendment #1 was adopted in September 2024. A



primary goal of the plan is to promote mobility and transportation services across the SCAG region, and in turn, meet goals set by the ARB. The RTP/SCS applies to six counties under SCAG's jurisdiction; Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura. The plan charts a path toward a more mobile, sustainable, and prosperous region by making key connections between transportation networks, between planning strategies and between the people whose collaboration can make plans a reality. The goals of Connect SoCal fall into four core categories: economy, mobility, environment and healthy/complete communities. The plan explicitly lays out goals related to housing, transportation technologies, equity and resilience to adequately reflect the increasing importance of these topics in the region (SCAG, 2025).

Local

City of Redlands Climate Action Plan

The City of Redlands initially approved and adopted its Climate Action Plan (CAP) on December 5, 2017 alongside the city's 2035 General Plan (Dyett & Bhatia, 2017). The latest CAP update, CAP 2050, was approved by the city on July 1, 2025. The CAP supports the City of Redlands' commitment to lowering communitywide GHG emissions and demonstrates how the City will meet California's GHG reduction targets. The CAP will also serve as a guide to a more efficient environmental review process for future development projects in accordance with CEQA. The CAP lists policies and strategies included in the General Plan to promote energy efficiency, waste reduction, and resource conservation and recycling.

Redlands 2035 General Plan

The City of Redlands General Plan 2035, approved in May 2018, includes policies that will guide future development through the Plan's 2035 planning horizon. Within the document's "Sustainable Community" theme are policies for energy and water conservation, and GHG reduction. **Section 4.7.2** lists General Plan emission reduction strategies which include energy conservation and increased communitywide renewable energy.

Additional optional measures and actions detailed in the CAP that would lead to further energy efficiency and are relevant to the proposed project include (Dyett & Bhatia, 2017):

B-1: Adopt a commercial energy conservation ordinance mandating all new nonresidential developments with more than 50 cars parked on open lots or on roofs of parking structures to use Photovoltaic (PV) panels for half or more of the cars (over and above other requirements) (Short-term).

B-2: Adopt an ordinance requiring existing and new nonresidential developments to install PV panels to offset a portion of their energy use (Mid-term).

C-2: Create a citywide "Energy Challenge," to promote cost-effective energy improvements, while having residents and building owners commit to reducing energy consumption (Short-term).

D-1: Promote incentive and rebate programs on the City's website and by other means (Short-term).

D-2: Adopt a commercial and industrial energy conservation ordinance which requires buildings to meet specified energy efficiency measures such as requisite heating, ventilation, and air conditioning



improvements, service water system requirements, and improved refrigeration equipment, during development (as defined by the ordinance) (Short-term).

E-1: Promote commissioning programs on the City of Redlands website for commercial and industrial buildings (Short-term).

I-2: Promote the use of LED or other energy efficient lamps by publicizing rebate programs and information from SCE on the benefits of the use of LED or other energy efficient lighting on the City's webpage (Short-term).

I-3: Evaluate the feasibility of adopting a minimum natural lighting and ventilation standard, developed based on local conditions. Demonstrate natural lighting and ventilation features in future renovations or new construction (Mid-term).

G-5: Adopt requirements for Zero-Emission Vehicle (ZEV) parking for new developments (Short-term).

City of Redlands Municipal Code

City of Redlands Municipal Code Chapter 15.18 designates the California Energy Code, 2022 edition as the city's adopted energy code. All required regulations, provisions, conditions, amendments and terms of the 2022 Energy Code are referred to and are adopted into the city's municipal code.

4.5.3 Methodology

To assess whether the proposed project would result in the inefficient, wasteful, or unnecessary use of energy resources, CEQA Guidelines Appendix F were taken into consideration. Although CEQA Appendix F does not establish specific thresholds of significance, it emphasizes the importance of minimizing energy consumption and promoting efficiency. Its stated goals include reducing per capita energy use, decreasing reliance on fossil fuels and increasing the use of renewable energy sources. In accordance with recommendations included in CEQA Appendix F, the following factors were evaluated for environmental impacts:

1. The anticipated energy demand and efficiency, by fuel type and usage amount, during the project's construction and operational phase. Analysis of the project's construction phase considers offroad equipment fuel use, transportation fuel use, and electricity use. Analysis of the project's operational and maintenance phase considers electricity use, natural gas use, and vehicle fuel use.
2. Potential impacts on local and regional energy supplies, including the need for additional generation or distribution capacity.
3. The project's influence on peak and base period energy demand.
4. Compliance with applicable energy efficiency regulations and standards.
5. Impacts on the availability and sustainability of energy resources.
6. Projected transportation-related energy use and the extent to which the project supports efficient transportation options.



This approach ensures a comprehensive evaluation of the project’s energy impacts, consistent with CEQA’s intent to promote energy conservation and long-term sustainability.

The California Emissions Estimator Model (CalEEMod) was used to calculate natural gas and electricity and vehicle miles traveled after project buildout. Electricity and natural gas was only calculated for Phase 1 project operations since it was assumed that the photovoltaic solar arrays and fuel cell microgrid central utility plant (CUP) built during Phase 2 will enable the project to operate independently of the electrical grid. The CUP is not anticipated to generate natural gas or electricity-related emissions. Calculations are shown in **Appendix D**.

For mobile sources, CalEEMod calculated VMT and vehicle fleet mix for conditions at project buildout. Conversion of results to energy values is shown in **Appendix D**.

4.5.4 Existing Conditions

Electricity

Southern California Edison (SCE) provides electricity to residents and businesses in Redlands. Baseline self-generation energy in SCE’s planning area is forecast to be 16,532 GWh in 2030 and 19,994 GWh in 2040 (CEC, 2024); one GWh is equivalent to one million kilowatt-hours. Sources of SCE electricity in 2022, the latest year for which data are available, were 33 percent renewable, including 17 percent solar and 9.8 percent wind; 3.4 percent large hydroelectric; 24.7 percent natural gas; 8.3 percent nuclear; and 30.3 percent unspecified¹⁶ (SCE, 2022). SCE will provide electricity to the project site from existing electrical service lines.

Natural Gas

More than 90 percent of the natural gas used in California is produced from basins in Texas and New Mexico. Southern California Gas Company (SoCalGas) has a “network of transmission pipelines and four interconnected storage fields to deliver natural gas to nearly six million residential and business customers. The gas transmission system extends from the Colorado River on the east of SoCalGas’ approximately 20,000 square mile service territory, to the Pacific Coast on the west, and from Tulare County to the north, to the United States/Mexico border to the south supporting 21 million consumers in Southern California. SoCalGas operates four storage facilities that interconnect with its gas transmission system. These storage facilities – Aliso Canyon, Honor Rancho, La Goleta, and Playa del Rey – are located near the primary load centers of the SoCalGas system” (SoCalGas, 2019). In 2022, total natural gas consumption by the non-residential sector of San Bernardino County was approximately 295 million therms, equal to approximately 29.5 billion cubic feet of natural gas (CEC, 2023a).

Transportation Energy

According to the CEC, transportation accounted for over 42 percent of California’s total energy consumption in 2022 (EIA, 2022). In 2023, motor vehicles in San Bernardino County consumed 795 million gallons of gasoline and 245 million gallons of diesel fuel (CEC, 2023b). The transportation sector uses about 85 percent of the petroleum consumed in the state. However, as discussed in previous sections of this PEIR, the state has been working for over a decade on developing strategies

¹⁶ “Unspecified power is electricity that has been purchased through open market transactions and is not traceable to a specific generation source” (SCE,2022).



and regulations for reducing petroleum use for transportation, such as use of alternative fuels and reducing vehicle miles traveled (VMT). The CEC predicts that the demand for gasoline will continue to decline over the next ten years, and that there will be an increase in the use of alternative fuels.

4.5.5 Environmental Impact Analysis

4.5.5.1 Thresholds of Significance

Appendix G of the CEQA Guidelines specifies two criteria for evaluating the significance of impacts on energy resources; a project would result in impacts related to energy resources if it would:

- A. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation; or
- B. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

4.5.5.2 Analysis of Project Impacts

Threshold A: *Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?*

or

Threshold B: *Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?*

Less Than Significant Impact

Project construction and operation would consume energy. Sources of energy for these activities would include electricity, natural gas, and transportation fuels, such as diesel and gasoline. During project construction, minimal amounts of energy would be consumed in the form of electricity associated with the conveyance of water used for dust control and, on a limited basis, powering lights, electronic equipment, or other construction activities necessitating electrical power. Construction activities, including the construction of new buildings and facilities, typically do not involve the consumption of natural gas. Project construction would also consume fuels for transportation (delivery and haul truck trips and construction worker commute trips) for off-road construction vehicles and equipment on the project site. During operation of the project, energy use would include, but not be limited to, heating, ventilating, and air conditioning (HVAC); lighting; and the use of appliances and electronics. Energy would also be consumed during project operations related to water usage, solid waste disposal, and vehicle trips. In addition, the project could result in a significant impact to state or local plans for renewable energy or energy efficiency if it failed to meet energy efficiency standards or prevented energy suppliers from meeting renewable energy source targets.

Construction

The following forms of energy (and units of measurement) would be expended during construction:

- Diesel fuel for offroad equipment (gallons).



- Motor vehicle fuel for worker commuting, vendor materials delivery and hauled waste disposal (gallons).

Natural gas is not typically consumed during project construction. It was therefore omitted from the construction energy analysis.

Offroad Equipment Fuel Use

The number of horsepower-hours of each offroad equipment type was calculated using equipment characteristics and scheduling generated by CalEEMod for the air quality and greenhouse gas emissions analyses (see **Section 4.2**). An estimated energy consumption factor for all construction equipment of 18.5 hp-hr/gal was obtained from the California Air Resources Board (ARB, 2005). As shown in **Table 4.5-1**, off-road equipment is estimated to use approximately 258,096 gallons of diesel fuel.

Table 4.5-1
CONSTRUCTION ENERGY USE

Category	Gasoline (Gallons)	Diesel (Gallons)	Total (Gallons)
Off-road Equipment	-	258,096	258,096
Workers	187,643	270	187,913
Vendors	7,238	186,947	194,185
Haulers	-	141	141
Total	194,881	445,454	640,335
Source: On-road Motor Vehicle Fuel Consumption (Workers, Vendors and Haulers) calculated by UltraSystems using EMFAC2021(v1.0.2) emissions inventory web platform tool (ARB, 2022) and CalEEMod (2022.1.1.26) (CAPCOA, 2022); see Appendix D2 .			

Transportation Fuel Use

During construction, petroleum-based fuels (i.e., gasoline and diesel fuel) would be consumed by off-road construction vehicles/equipment; by construction workers' vehicles traveling to and from the project site, as well as by hauling of equipment and building materials to the site. Onroad vehicle miles traveled (VMT) for each construction subphase and each of the three trip types were calculated from results of the CalEEMod modeling. It was assumed that worker commuter trips will consist of light duty passenger vehicles, vendor trips will consist of medium and heavy duty vehicles and hauling trips will consist of only heavy-duty vehicles. Fuel efficiencies (in gallons per year) for gasoline and diesel vehicles in the San Bernardino portion of the South Coast Air Basin were calculated with the EMFAC2021 model, Version 1.0.2. Finally, VMT values were divided by fuel efficiencies to obtain fuel volumes used for construction. Transportation fuel use for workers, vendors, and haulers is shown above in **Table 4.5-1**.

During project construction, trucks and construction equipment would be required to comply with the ARB's anti-idling regulations. The ARB's In-Use Off-Road Diesel-Fueled Fleets regulation would also apply. Vehicles driven to or from the project site (delivery trucks, construction employee vehicles, etc.) are subject to fuel efficiency standards requirements established by the Federal Government (ARB, 2025d). Therefore, project construction activities regarding fuel use would not result in wasteful, inefficient, or unnecessary use of energy.



Electricity Use

During project construction, energy would be consumed in the form of electricity associated with the conveyance and treatment of water used for dust control and, on a limited basis, powering lights, electronic equipment, or other construction activities needing electrical power. Due to the fact that quantity of electricity associated with lighting and construction equipment that utilizes electricity is not easily quantifiable or readily available, the estimated electricity usage during project construction is speculative. Lighting used during project construction would comply with Title 24 standards/requirements (such as wattage limitations). This compliance would ensure that electricity use during project construction would not result in the wasteful, inefficient, or unnecessary use of energy.

Operations

The following forms of energy would be expended during project operation:

- Electricity for the proposed medical offices and hospital buildings, street lighting, space and water heating, and conveyance and treatment of water.
- Gasoline for onroad motor vehicles.

Note that the proposed project includes photovoltaic solar arrays and a fuel cell microgrid central utility plant (CUP) that will enable the project to operate independently of the electric grid. The project is expected to include a connection to the Southern California Edison electrical grid for backup electric power. The CUP will be built in Phase 2, so energy usage was only calculated for Phase 1 operations. Energy would be consumed during project operation for lighting, electric appliance use, space and water heating, water conveyance, landscaping maintenance, solid waste disposal, and vehicle trips from visitors, delivery vehicles and employees. Estimated project operational electricity and natural gas use, vehicle miles traveled per year, and fuel use are estimated below in **Table 4.5-2** and **Table 4.5-3**, respectively. The project's operational electricity use after the development of Phase 1 is approximately 0.02 percent of the projected electricity demand in SCE's planning area in 2030. The project's anticipated increases in gasoline and diesel fuel consumption are less than 1 percent of San Bernardino County's 2023 fuel consumption. The project is not expected to place a substantial demand on regional energy supplies, necessitate significant additional energy infrastructure, or cause a considerable increase in electricity demand during peak or off-peak periods.

Table 4.5-2
PHASE 1 PROJECT OPERATIONAL ELECTRICITY USE

Land Use	Electricity Use (kWh/yr)	Natural Gas (kBtu/yr)
Medical Office Building	2,879,561	4,527,603
Parking Lot	283,327	-
Total	3,162,889	4,527,603

Source: Electricity and Natural Gas use calculated by UltraSystems with CalEEMod (2022.1.1.29).

Table 4.5-3
PROJECT OPERATIONAL VEHICLE MILES TRAVELED PER YEAR

Phase	Vehicle Miles Traveled per Year	Gasoline (gallons/yr)	Diesel (gallons/yr)	Total (gallons/yr)
Phase 1	10,024,528	296,989	53,528	350,517



Phase	Vehicle Miles Traveled per Year	Gasoline (gallons/yr)	Diesel (gallons/yr)	Total (gallons/yr)
Phase 2	13,419,687	395,398	78,848	474,246
Phase 3	7,879,360	231,072	50,214	281,286
Phase 4	6,804,348	198,544	47,036	245,580
Total at Full Buildout	38,127,923	1,122,003	229,626	1,351,629

Source: On-road Motor Vehicle Fuel Consumption calculated by UltraSystems using EMFAC2021(v1.0.2) emissions inventory web platform tool (ARB, 2022) and CalEEMod (2022.1.1.29) (CAPCOA, 2022).

The project would comply with all applicable regulations and codes that require achievement of various levels of energy efficiency in building operation. These include (1) CCR Title 24, Part 6: California’s Energy Efficiency Standards for Nonresidential Buildings (Title 24); (2) the 2022 California Green Building Standards Code (CalGreen; California Code of Regulations Title 24 Part 11); and (3) City of Redlands Municipal Code Chapter 15.18, California Energy Code (CENC).

Continued use of energy resources is consistent with the anticipated growth within the city and the general vicinity and would not result in energy consumption requiring a significant increase in energy production for the energy provider. Therefore, the energy demand by project operation would be less than significant.

Based on the information provided above, the proposed project would have a less than significant impact regarding wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation. The project would also have a less than significant impact regarding conflict with or obstruction of a state or local plan for renewable energy or energy efficiency.

4.5.6 Cumulative Impacts

The area considered for cumulative impacts is the City of Redlands. Energy use in the study area is considered to be proportional to service population (that is, residents plus workers); however, energy use is actually expected to increase less than service population as energy efficiency regulations will grow more stringent in future years. (See the regulatory discussion in **Section 4.5.2.**)

Other projects would be required to comply with federal, state, and local energy efficiency laws and regulations. Energy efficiency requirements grow more stringent with the passing of time; for example, see the descriptions of CCR Title 24 Part 11 (CALGreen) and SB 100 in **Section 4.5.2** above. Other projects would comply with energy conservation requirements in City of Redlands Municipal Code Chapter 15.18 which apply to commercial and public-use buildings.

Therefore, other projects in the City of Redlands combined with the proposed project would not involve wasteful, inefficient, or unnecessary consumption of energy and would not conflict with a state or local plan for energy efficiency or renewable energy. Cumulative impacts would be less than significant, and project impacts would not be cumulatively considerable.

4.5.7 Mitigation Measures

Project-level and cumulative impacts related to energy use have been determined to be less than significant. Therefore, no mitigation measures are required.

4.5.8 Level of Significance after Mitigation

Impacts related to energy use would be less than significant without mitigation.



4.6 Geology and Soils

4.6.1 Introduction

The following discussion addresses existing environmental conditions related to the stability of soils associated with seismic hazards and erosion within the project area. Compliance with existing laws, regulations, and standards would serve to reduce or avoid geology and soils impacts that could occur with implementation of the proposed project.

The information presented in this section and used for this analysis is based on the Geotechnical Investigation Report for the proposed project, prepared by Twining on March 31, 2023; a complete copy of the report is included as **Appendix D7**. As discussed in **Section 2.0**, Project Description, the project would consist of the following two elements: (1) Amendment No. 8 to Concept Plan 1; and (2) Planned Development No. 6. Planned Development No. 6 would consist of:

- Phase 1: Ambulatory Services Center/Medical Office Building No. 2
- Phase 2: Hospital with various support buildings, including a Central Utility Plant
- Phase 3: Medical Office Building No. 3
- Phase 4: Possible expansion of the hospital

The Geotechnical Investigation Report outlines various geotechnical engineering recommendations focused on geological hazards and seismic design considerations applicable to the project. All project activities shall conform to the guidelines and recommendations described in the report, ensuring compliance with the specified geotechnical standards.

4.6.2 Regulatory Framework

Federal Regulations

Earthquake Hazards Reduction Act of 1977 (Public Law [PL] 95 – 124), as amended.

The Earthquake Hazards Reduction Act was passed by Congress in 1977 to “...reduce the risks of life and property from future earthquakes in the United States through the establishment and maintenance of an effective earthquake hazards reduction program.” This Act led to the establishment of the National Earthquake Hazard Reduction Program (NEHRP). In establishing the NEHRP, Congress recognized that earthquake-related losses could be reduced through improved design and construction methods and practices, land use controls and redevelopment, prediction techniques and early warning systems, coordinated emergency preparedness plans, and public education and participation programs. Congress reviewed and updated the Act in 2004, resulting in the NEHRP Reauthorization Act of 2004, PL 108–360, which was signed into law the same year. The four primary agencies involved in the NEHRP are:

- Federal Emergency Management Agency (FEMA) of the Department of Homeland Security.
- The National Institute of Standards & Technology (NIST) of the U.S. Department of Commerce.
- National Science Foundation (NSF).
- United States Geological Survey (USGS).



U.S. Geological Survey Landslide Hazard Program

The USGS created the Landslide Hazard Program in the mid-1970s; the primary objective of the program is to reduce long-term losses from landslide hazards by improving our understanding of the causes of ground failure and suggesting mitigation strategies. The federal government plays the lead role in funding and conducting this research, while the reduction of losses due to geologic hazards is primarily a state and local responsibility. The City of Redlands Local Hazard Mitigation Plan (LHMP) outlines a mitigation strategy to help reduce and/or eliminate impacts from landslides within the city (City of Redlands, 2021).

Disaster Mitigation Act of 2000

The Disaster Mitigation Act of 2000 (DMA2K) (Public Law 106-390) amended the Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1988 to establish a Pre-Disaster Mitigation (PDM) program and new requirements for the federal post-disaster Hazard Mitigation Grant Program (HMGP). DMA2K encourages and rewards local and state pre-disaster planning. Promote sustainability and seek to integrate state and local planning with the overall goal of strengthening statewide hazard mitigation. This enhanced planning approach enables local, tribal and state governments to identify specific strategies to reduce the probable impacts of natural hazards such as floods, fires, and earthquakes. To be eligible for hazard mitigation funding after November 1, 2004, local governments must develop a Hazard Mitigation Plan that incorporates specific program elements of the DMA2K law. The City of Redlands Local Hazard Mitigation Plan (LHMP) outlines the disaster mitigation strategies for the city (City of Redlands, 2021).

State Regulations

Alquist Priolo Earthquake Fault Zoning Act (Public Resources Code 2, Division 2, Chapter 7.5 §§ 2625 2630)

The Alquist-Priolo Earthquake Fault Zoning Act was enacted in 1972 to mitigate the hazard of surface faulting to structures for human occupancy. The main purpose of Alquist-Priolo is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. Before a new project is permitted, cities and counties require a geological investigation to demonstrate that proposed buildings will not be constructed on active faults. The act addresses only the hazard of surface fault rupture and is not directed at other earthquake hazards, such as liquefaction or seismically induced landslides. The law requires the State of California geologist to establish regulatory zones around the surface traces of active faults and to issue appropriate maps. Maps are distributed to all affected cities, counties, and state agencies for use in planning and controlling new or renovated construction. Local agencies must regulate most development projects within zones. Projects regulated by the Alquist-Priolo Act generally include new structures for human occupancy and subdivisions of land that will eventually include structures for human occupancy (CGS 2018a, p. 24).

California Multi-Hazard Mitigation Plan

The California State Multi-Hazard Mitigation Plan, also known as the State Hazard Mitigation Plan (SHMP), was approved by FEMA in 2013. The SHMP describes the current and planned activities to address natural hazards. Adopting the SHMP qualifies the State of California for federal funds in the event of a disaster. The State is required, under the Disaster Mitigation Act of 2000, described above, to review and update its SHMP and resubmit to FEMA approval at least once every five years to ensure continued eligibility for federal funding. SHMP provides goals and strategies to minimize risks



associated with natural hazards and respond to disaster situations. The SHMP notes that the primary sources of losses in the State of California are fire and flooding.

Hospital Facilities Seismic Safety Act of 1973

The Alfred E. Alquist Hospital Facilities Seismic Safety Act (HSSA) was passed in 1973 to ensure that hospitals in California comply with high construction standards and are reasonably capable of providing services to the public after a disaster. HSSA requires the establishment of seismic design regulations for hospital buildings and requires that new hospitals and additions to hospitals have the capacity, as far as is practical, to remain functional after a major earthquake. State law requires that all existing hospital buildings that provide general acute care licensed under the provisions of § 1250 of the California Health and Safety Code comply with the intention of the HSSA by 2030.

Seismic Safety Act of 1975

The Seismic Safety Act (CCR §§ 8870 – 8870.95) created a Seismic Safety Commission whose purpose was to report annually to the Governor on the findings, progress, and recommendations of the Commission related to the reduction of earthquake hazards. The Commission was to include individuals intended to represent the professions of architecture, planning, fire protection, public utilities, electrical engineering, mechanical engineering, structural engineering, soil engineering, geology, seismology, local government, insurance, social services, emergency services, and the state legislature. In 2006, the name of the Seismic Safety Commission was changed to the Alfred E. Alquist Safety Commission. Much of the Commission's work is carried out by special committees, including:

- Planning & Budget Committee: Provides guidance to the executive director regarding planning, administrative, policy, and fiscal issues, and makes recommendations to the full commission.
- Strong Motion Instrumentation Advisory Committee: Established by law to advise the CGS in the long-term operation and goals of the strong motion instrumentation program, including:
 - Modification and upgrading of existing instrumentation and addition of new recording devices
 - General use and dissemination of data collected by the Strong Motion Instrumentation Program
 - Cooperative efforts with other strong motion programs including the USGS
- Direct application of data for use by engineers in the design of structures and modification of building codes (SSC, 2021).

California Earthquake Hazard Reduction Act of 1986

The California Earthquake Hazards Reduction Act (CCR Title 2 § 8871.1 - 8871.5 et seq.; 1986 Act) is similar in purpose to the federal Earthquake Hazards Reduction Act of 1977 and was enacted by the State of California with the goal of reducing the earthquake hazard within California to "acceptable levels" through a significant reduction in the number of hazardous buildings and the expansion of scientific and engineering studies. The 1986 Act established a coordinated program that was assigned the task of specifying priorities, funding sources and amounts, schedules, and other resources needed to significantly reduce earthquake hazards across the state by January 1, 2000. As part of this program, the State Office of Emergency Services was to:

- Establish an interim state operations center in southern California to coordinate response to a major earthquake. The office shall also develop an operational communications plan for the center based on an inventory of current communication capabilities and an assessment of



structural vulnerabilities (7 CCR § 8871.3 [a]).

- Undertake a design analysis for the construction of a permanent state operations center in southern California, including an evaluation of telecommunication and information technology systems for emergency management functions (7 CCR § 8871.3[b]); and
- Integrate and coordinate the California Emergency Services Act (Chapter 7 [commencing with § 8550]), the Disaster Assistance Act (Chapter 7.5 [commencing with § 8680]), the Economic Disaster Act of 1984 (Chapter 7.6 [commencing with § 8695]), the Planning and Zoning Law (Title 7 [commencing with § 65000]), the Community Redevelopment Law (Part 1 [commencing with § 33000] of Division 24 of the Health and Safety Code), and the Community Development Financial Assistance and Disaster Project Law (Part 1.5 [commencing with § 34000] of Division 24 of the Health and Safety Code) (7 CCR § 8871.5[e]).

Seismic Hazards Mapping Act of 1990

The Seismic Hazards Mapping Act of 1990 (Public Resources Code, Chapter 7.8, §§ 2690 2699.6) directs the California Department of Conservation (DOC), CGS, to identify and map areas prone to earthquake hazards of liquefaction, earthquake-induced landslides, and amplified ground shaking. The purpose of the Seismic Hazards Mapping Act is to reduce the threat to public safety and minimize the loss of life and property by identifying and mitigating these seismic hazards.

The geologists of the Seismic Hazard Mapping Program collect geological, geophysical, and geotechnical data from numerous sources to compile the Seismic Hazard Zone Maps. They integrate and interpret these data regionally to assess the severity of seismic hazards and designate required investigation zones for areas prone to liquefaction and earthquake-induced landslides. Cities and counties are required to use seismic hazards zone maps in land use planning and building permit processes.

Zones of Required Investigation include, in addition to Alquist-Priolo Earthquake Fault Zones, areas of liquefaction and earthquake-induced landslides (CGS, 2021).

California State Building Code

The California Building Code (CBC; 24 CCR) contains the regulations that govern the construction of buildings in California. The CBC contains general building design and construction requirements related to fire and life safety, structural safety, and access compliance. The CBC provides minimum standards to protect life or limb, health, property, and public welfare by regulating and controlling the design, construction, quality of materials, use and occupancy, location, and maintenance of all buildings and structures, and certain equipment. Part 2 is pre-assembled with the International Building Code with the necessary California amendments. The 2022 CBC, Title 24 Part 2, Volume 2, Chapter 16 § 1613 contains specific seismic design criteria required for “Every structure, and portion thereof, including nonstructural components that are permanently attached to structures and their supports and attachments, shall be designed and constructed to resist the effects of earthquake motions according to ASCE 7 “(American Society of Civil Engineers “Minimum Design Loads and Associated Criteria for Buildings and Other Structures”) with few exceptions (California Building Standards Commission [CBSC], 2022).

The 2022 CBC, Part 2, Volume 2, Chapter 18 §§ 1801 – 1803.7 specifically requires soil investigations, geotechnical reports, and geohazard reports conducted on soils that can be classified as questionable, critically expansive subjected to seismic hazards, including expansive soils, or prone to other seismic



hazards. The purpose of the subsequent geological technical report is to identify geological and seismic conditions that may require project mitigations. The reports shall contain data that assess the nature of the site and the potential for earthquake damage based on appropriate investigations of the geology of the region and site, the foundation conditions of the project and the potential seismic shaking at the site (CBC § 1803.7).

Local Regulations

City of Redlands Municipal Code

In accordance with § 50022.1 to § 50022.8 and § 50022.10 of the California Government Code, the City of Redlands, adopted the Redlands Municipal Code. This code has been updated and includes all ordinances up to and including Ordinance 2986, which was enacted on July 15, 2025.

City of Redlands General Plan

The current General Plan of the City is a policy document, or “blueprint” for future development, adopted by the City Council to guide future growth in Redlands. The 2035 General Plan is organized around chapters that include policies and actions to guide future development. The seven themes of the 2035 General Plan are as follows.

1. Distinctive City	5. Vital Environment
2. Prosperous Economy	6. Healthy Community
3. Livable Community	7. Sustainable Community
4. Connected City	

The State-mandated elements of Land Use, Circulation, Open Space, Conservation, Health & Safety, Noise, and Housing are all integrated within the chapters noted above.

City of Redlands Local Hazards Mitigation Plan

In the year 2000, the Federal Emergency Management Agency (FEMA) implemented significant revisions to Title 44 of the Code of Federal Regulations (44 CFR). This set of amendments is officially recognized as the "Disaster Mitigation Act (DMA) 2000." In particular, § 322 (a-d) of the DMA 2000 stipulates that local governments must possess an approved and adopted Hazard Mitigation Plan (HMP) in order to qualify for federal disaster mitigation funding.

The Hazard Mitigation Plan must comprehensively outline the methodology for assessing potential hazards, evaluating risks and vulnerabilities, identifying and prioritizing mitigation strategies, and actively engaging the community - including the public, key stakeholders, and neighboring authorities or agencies - throughout the process.

In compliance with these requirements, the City of Redlands has updated its Local Hazard Mitigation Plan (LHMP), which was reviewed and subsequently adopted by the City Council on November 16, 2021, through Resolution 8268.

East Valley Corridor Specific Plan

The East Valley Corridor is the main gateway to the communities of the East San Bernardino Valley, including Redlands, Loma Linda, and San Bernardino. The area is largely undeveloped, and more than



half of the planning area is agricultural production. The proposed project is located within the East Valley Corridor Specific Plan area.

The purpose of this effort was to plan for the large areas of undeveloped land located along Interstate 10 in the Redlands-Loma Linda area to facilitate future industrial, commercial and residential development in an orderly and aesthetic way. The objectives of the plan are to provide a well-planned community that will attract major businesses to the area to provide a job base for the East Valley and strengthen the local economy, while ensuring high quality development through design guidelines and standards.

Paleontological Resources

A search of paleontological resource records by the Western Science Center for the Kaiser Permanente Medical Center Project located in the City of Redlands (included as **Appendix D8**) determined that the presence of any fossil material is unlikely at the project site.

The geological formations underlying the proposed project site are characterized by an assemblage of alluvial sand and gravel deposits from the Holocene epoch. These Holocene alluvial units are recognized for their high preservation value; however, the likelihood of encountering fossilized materials is minimal, attributed to the relatively recent geological age of these deposits.

If the development process requires significant excavation or disturbance at greater depths, the probability of encountering Pleistocene alluvial sediments increases. These sediments, being older, are more likely to contain fossil material. However, the Western Science Center has no recorded localities within the project area or within a radius of one mile, suggesting a lower probability of encountering significant paleontological resources in the vicinity (Western Science Center, 2023).

Methodology

The Geotechnical Investigation Report comprised a detailed analysis that involves the drilling, testing, sampling and logging of 13 exploration hollow stem auger bores, designated as B-1 through B-13. The holes that extended beyond five feet below ground surface (bgs) were executed using a CME-75 truck mounted drill rig, fitted with an 8-inch diameter hollow stem auger. Specifically, holes B-1 through B-4 were advanced to a depth of approximately five feet bgs, located within the boundaries of the proposed parking lot areas. On the contrary, wells B-5 through B-13 reached depths ranging from approximately 31.5 to 51.5 feet bgs, located within the intended footprint of the proposed building structure.

In the initial phase, all the holes were advanced to a depth of five feet bgs using a 5-inch diameter hand auger. This approach was implemented to mitigate the risk of inadvertently damaging existing underground utilities. The approximate locations of each boring are detailed in Figure 2 of the Geotechnical Investigation Report (Twining, 2023, p. 2).

Geotechnical Engineering Recommendations

Based on the results of the literature review and field exploration, laboratory testing, and engineering analyses, the Geotechnical Investigation Report concluded that the proposed construction is feasible from a geotechnical point of view, provided that the recommendations in the report are incorporated into the design plans and are implemented during construction.

Project Design Features



PDF-GEO-1: The project would implement all geotechnical recommendations for the development of the site, including earthwork, seismic design, retaining walls, shoring, and foundation design as specified in the Geotechnical Engineering Investigation prepared for the project; completed by Twining on March 31, 2023, and provided in **Appendix D7** of this PEIR.

4.6.3 Existing Conditions

The project site encompasses an approximate 37-acre campus located at 1301 California Street (APN 0167-441-07-000) and is located within Concept Plan No. 1 of the East Valley Corridor Specific Plan. Presently, the site features a 120,000 square foot building that serves as the Kaiser Permanente Redlands Medical Offices, along with associated parking facilities. A substantial portion of the site remains undeveloped and vacant.

Geology and Soils

The City of Redlands, in which the project site is located, is located north of the geomorphic province of the Peninsular Range, which features mountains and valleys in the northwest that are composed of granite and older metamorphic rock. The City of Redlands is located within the Redlands Valley, directly south of the Redlands Mountains, which serve as the eastern extension of the Transverse Ranges. Topographically, the land generally descends toward the southwest (City of Redlands, 2017b, p. 3.6-1).

The surrounding area features a variety of surficial deposits categorized by age: very young, young, old, and very old. Very young deposits consist of recently transported sediments located in channels, washes, alluvial fans, plains, and hill slopes, incorporating very young wash deposits, alluvial-fan deposits, axial-valley deposits, and landslide deposits. Young deposits exhibit slight to moderate consolidation and are minimally dissected, consisting of young alluvial fan, axial valley, and landslide deposits. The old deposits are moderately consolidated and show slight to moderate dissection, including old alluvial fans, axial valley, and landslide deposits. Very old deposits demonstrate moderate to well consolidation or lithification along with moderate to well dissection; these include very old alluvial fan and axial valley deposits (City of Redlands, 2017b, pp. 3.6-2).

The predominant soil series within the project site is the Hanford soil series. This series is prevalent in the East Valley Corridor Specific Plan area and along the Zanja and San Timoteo creeks. Hanford soils are characterized by deep and well-drained profiles formed in moderately coarse alluvium, mainly derived from granite. These soils typically develop on streambeds, floodplains, and alluvial fans, prevailing in areas with lower slopes (City of Redlands, 2017b, pp. 3.6-5).

The current surface elevation of the site is approximately 1,148 feet above mean sea level (AMSL). Within the site, several notable elevation points correspond to existing basins. Specifically, the bottom of the large basin located in the northwest corner of the site is recorded at approximately 1,132 feet AMSL. Adjacent to this, the elevation at the base of the basin located in the northwest corner of the existing building measures approximately 1,140 feet AMSL. Furthermore, the basin that extends north-south to the west of the existing medical office building has a bottom elevation of approximately 1,143 feet AMSL (Twining, 2023).

According to the Geotechnical Investigation Report for the project site, it is underlain by Holocene-aged alluvial deposits consisting of “*alluvial sand and clay of valley areas*” (Twining, 2023, p. 4).

Artificial Fill

The subsurface conditions encountered in the Geotechnical Investigation Report and previous other borings consisted of approximately five feet of artificial fill on the eastern edge of the building to approximately three feet of artificial fill on the western edge of the building. The fill in the proposed



building area and other areas consisted of silty sand with some sandy silt. The fill is generally dark brown to reddish brown, slightly moist, and consists mainly of fine sand.

It appears that the fill was associated with previous grading operations performed at the site; however, no documentation was available for the placement and compaction of the fill was available. It is recommended in the Geotechnical Investigation Report that any compact reports related to the fill placement be provided for an evaluation; if no documents are available, the fill materials will require removal and replacement as part of the grading for the Medical Office Building pad (Twining, 2023,p. 4).

Alluvial Fan Deposits

Holocene-aged old alluvial deposits underlie the site to the maximum depth of exploration. The deposits in the proposed building area and most other areas consist predominantly of medium-to-very-dense silty sand with some sandy silt that varied primarily from stiff to very stiff.

The subsurface is characterized by alluvial deposits from the Holocene epoch, which extend down to the maximum depth reached during exploration. The geological composition of the project site is mainly medium dense to very dense silty sand, indicating a stable substrate that has the structural integrity for construction applications (Twining, 2023, p. 4).

4.6.3.1 Corrosive Soils

The potential for near-surface on-site materials to corrode buried steel and concrete improvements was evaluated in the Geotechnical Investigation Report. Laboratory tests were performed on a selected near-surface soil sample to evaluate pH and electrical resistivity, as well as chloride and sulfate contents. pH and electrical resistivity tests were performed according to California Test 643, and sulfate and chloride tests were performed according to California Tests 417 and 422. Laboratory test results are presented in Appendix B of the Geotechnical Investigation Report (Twining, 2023, p. 13).

The Geotechnical Investigation Report recommends that Type II cement and a water cement ratio of no more than 0.50 be used in the project. The test results indicate that the potential for chloride attack of reinforcing steel is low in concrete structures and pipes in contact with subsurface materials. However, if necessary, a corrosion specialist may be consulted for protection against chloride attack. After such compliance, project development would not cause substantial hazards to people or structures arising from corrosive soils (Twining, 2023, p. 13).

A factor to evaluate the corrosivity of buried metal is electrical resistivity. The electrical resistivity of a soil is a measure of resistance to electrical current. The corrosion of the buried metal is directly proportional to the flow of electrical current from the metal into the soil. As the resistivity of the soil decreases, the corrosivity generally increases. The test results indicate that the site soils have a minimum electrical resistivity value of 2,200-ohm centimeters. Soil is not considered to be corrosive to buried metals. Corrosion correlations between resistivity and corrosion potential published by the National Association of Corrosion Engineers indicate that soils are mildly corrosive to buried metals. On the basis of that, corrosion protection should be considered for metals in contact with soils at the site. Corrosion protection may include the use of epoxy or asphalt coatings. A corrosion specialist should be consulted on appropriate protection for buried metals and suitable types of piping (Twining, 2023, p. 14).



4.6.3.2 Faults and Seismic Hazards

Earthquake Faults

The City of Redlands is delineated by the San Andreas fault zone in the northeast and the San Jacinto fault zone in the southwest. In addition, it is traversed by the Crafton Hills fault zone, which extends through southern Redlands, Crafton, and Mentone. Portions of these fault zones are designated as Alquist-Priolo Earthquake Fault Zone (EFZ) (City of Redlands, 2017b, p. 3.6-2).

The project site is not located within an Alquist-Priolo EFZ or within any regional fault zones as mapped by the City of Redlands. The nearest Alquist-Priolo EFZ is located approximately two miles northeast of the site (see **Figure 4.6-1**). The closest known active fault is the San Jacinto fault system, which includes the Redlands South fault system and is about 2.5 miles to the northeast (see **Figure 4.6-2**).

The San Andreas and San Jacinto faults are classified as right-lateral strike-slip faults, exhibiting a northwest-southeast trend. In contrast, the Crafton Hills fault zone is characterized by a system of normal dip-slip faults. The San Andreas Redlands fault has the potential to generate an earthquake with a maximum moment magnitude (M_w) of 7.5, while the San Jacinto Redlands fault is capable of producing an earthquake with a maximum moment magnitude of 6.7.

Although the Crafton Hills fault zone is recognized as an active fault (i.e., it experienced movement since the Holocene epoch), the California Geological Survey currently refrains from offering a maximum potential magnitude prediction for this fault system (City of Redlands, 2017b, p. 3.6-2). Additional faults close to the City of Redlands include the San Geronio Pass fault zone, located three miles away with estimated magnitudes ranging from M_w 6.0 to 7.0; the Banning fault zone, 14 miles away with probable magnitudes of M_w 6.0 to 7.2; and the Cucamonga fault zone, located 26 miles away with expected magnitudes from M_w 6.0 to 7.0 (City of Redlands, 2017b, p. 3.6-2).

The Geotechnical Investigation Report reviewed active or potentially active faults within 62 miles of the site from the 2008 USGS fault database. Faults within 31 miles of the site are considered to represent the closest and most significant potential hazard to the site with respect to potential ground surface rupture and generate strong ground motion in the event of a moderate to large earthquake. Based on the review of geologic and seismologic literature and site evaluation, the Geotechnical Investigation Report argues that the likelihood of surface fault rupture at the site during the life of the proposed improvements is remote (Twining, 2023, p. 7).

Ground Shaking

The shaking of the ground during an earthquake is influenced by various factors, including the magnitude of the earthquake, the distance from the fault line, the focus of the release of seismic energy, and the characteristics of the geological materials present. Furthermore, the composition of the underlying soils plays a critical role in amplifying the shaking of the ground. Areas with unconsolidated alluvium typically experience more significant ground motion, as these materials are effective in transmitting intense seismic vibrations to the surface. Given that a substantial portion of the project site is composed of alluvial deposits, there exists a greater risk of severe ground shaking during seismic events (City of Redlands, 2017b, p. 3.6-3).

Landslides and Erosion

Slope failure or landslides can be triggered by seismic activity, even in areas considered to have only moderate or low susceptibility to such events. The probability of landslides increases during the wet



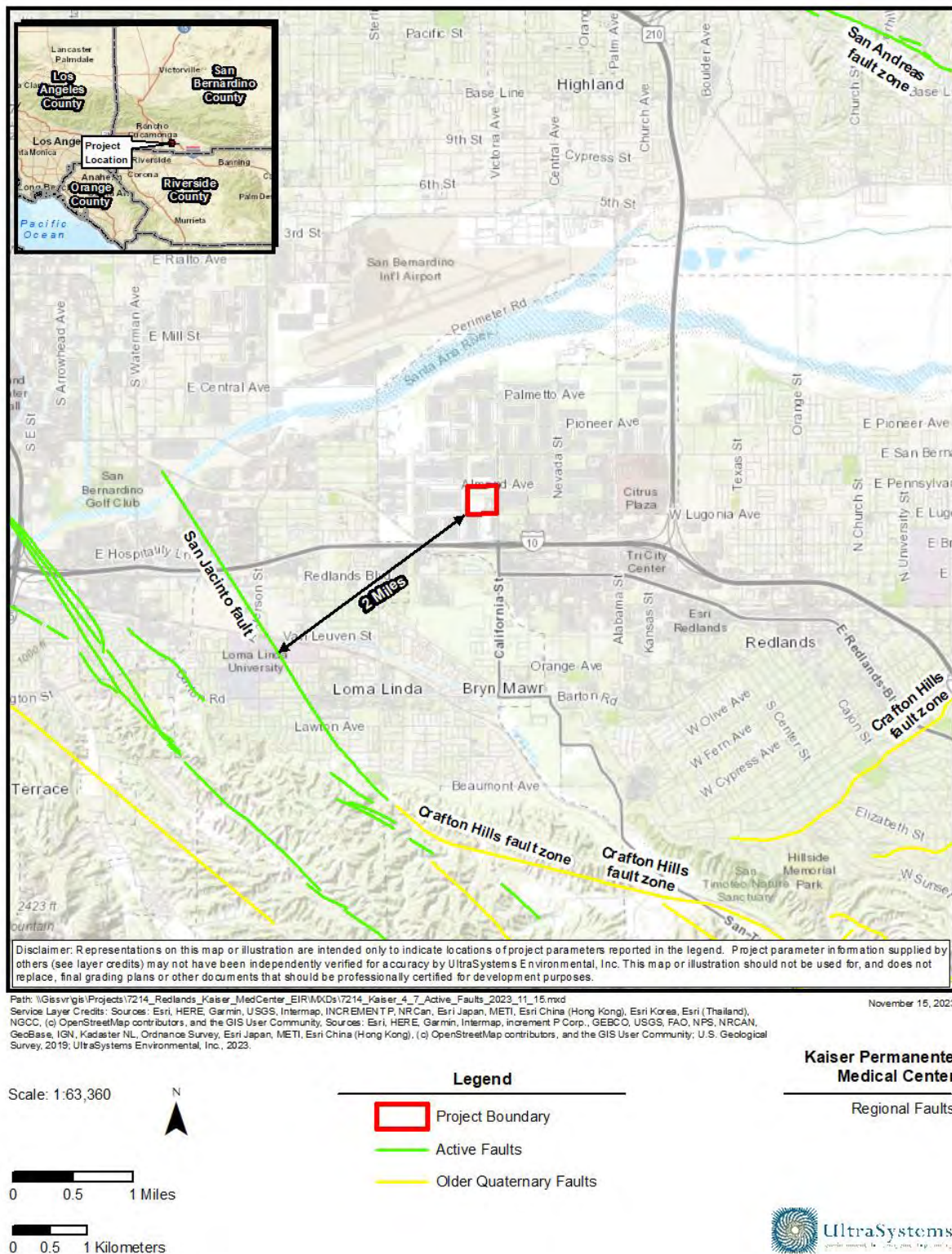
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season and in regions characterized by elevated groundwater levels and saturated soils. Data from the United States Geological Survey identify certain areas of southern Redlands, as well as smaller portions on the eastern side of the city, as having moderate to high potential for landslides (City of Redlands, 2017b, p. 3.6-3).

However, the Flood Hazards Map outlined in the General Plan of the City of Redlands indicates that the site in question is not located within a landslide-prone area. Currently, there are no known landslides that affect the site, nor are they located within the trajectory of any recognized or potential landslide events. In addition, the site is not close to significant slopes. Consequently, the potential for earthquake-induced landslides occurring at this site is assessed to be low (Twining, 2023, p. 10).



**Figure 4.6-1
REGIONALLY ACTIVE FAULTS**





Map of Project Location

The map displays the project location in Redlands, California, situated near the intersection of Alhambra Ave and California St. The project is marked by a red square. A black arrow points from the project location to the San Gabriel Fault, indicating a distance of 2.5 miles. The map also shows the San Bernardino Fault, the Santa Ana River, and major roads including I-10 and I-210. An inset map in the bottom right corner provides a broader view of the Los Angeles basin, showing the project location relative to other major cities and faults.

Disclaimer: Representations on this map or illustration are intended only to indicate locations of project parameters reported in the legend. Project parameter information supplied by others (see layer credits) may not have been independently verified for accuracy by UltraSystems Environmental, Inc. This map or illustration should not be used for, and does not replace, final grading plans or other documents that should be professionally certified for development purposes.

Path: \\GIS\\v\\gis\\Projects\\7214_Redlands_Kaiser_MedCenter_EIR\\MKDS\\7214_Kaiser_4_7_Aquist_Priolo_2023_11_16.mxd

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Seismic Hazards Program, California Geological Survey, California Department of Conservation, Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community; CA Dept. of Conservation, 2017; IGLU Systems Environmental, Inc., 2023.

November 15, 2023

Scale: 1:63,360



Legend

 Alquist Priolo Potentially Active Fault
 Project Boundary
 Alquist Priolo Special Study Zone Boundary

**Kaiser Permanente
Medical Center**

Alquist Priolo Earthquake
Fault Zones

Liquefaction



Liquefaction occurs when vibrations or increased water pressure within the soil cause particles to lose contact with one another and behave like a liquid. Younger soils or recent deposits, such as unconsolidated alluvium, are more susceptible to liquefaction than older, more compacted materials; saturated soils are also especially prone to this hazard. Areas located along waterways tend to have the highest susceptibility to liquefaction as a result of their recent alluvial deposits and high groundwater levels. Liquefaction hazards are delineated in the General Plan EIR. The only portions of the City of Redlands mapped with susceptibility to liquefaction are along the Santa Ana River Wash and in Mentone.

Because most of the City of Redlands is located in alluvial fan deposits, there may be potential impacts related to liquefaction as the result of severe seismic shaking (City of Redlands, 2017b, p. 3.6-4). However, the project site is not located within areas susceptible to liquefaction, as mapped by the City of Redlands (see **Figure 4.6-3**). Furthermore, it is expected that the groundwater level is expected to be deeper than 50 feet. Therefore, it is concluded that the potential for liquefaction at this site is negligible.

Additionally, the potential for related liquefaction effects (i.e., liquefaction-induced bearing capacity failure, surface manifestation, and lateral spread) at the site is considered minor because the site has negligible liquefaction potential (Twining, 2023, p. 10).

4.6.3.3 Groundwater

The Geotechnical Investigation Report indicates two water wells within 1,300 feet of the site. Historically, groundwater levels have exhibited significant fluctuations, reaching a minimum depth of 33 feet below ground surface (bgs) in the 1930s and 1940s, and a maximum depth of 210 feet bgs observed during the 1960s. In 1986, one well recorded a groundwater level at approximately 74 feet bgs. A geotechnical report executed by Woodward-Clyde in 1989 for a larger parcel, which encompasses the current site, identified groundwater at a depth of 50 feet bgs in one of its boreholes. Twining's findings in 2023 confirmed that no groundwater was encountered in any borings reaching depths of up to 60 feet bgs (Twining, 2023, p. 5).

According to the California Department of Water Resources Water Data Library, there are two wells in close proximity to the site:

- State Well Number 01S03W19L001S
 - Site Code: 340686N1172353W001
 - Ground Surface Elevation: 1,130.53' AMSL
 - Location: Approximately 2,200' southwest
- State Well Number 01S03W19G002S
 - Site Code: 340739N1172334W001
 - Ground Surface Elevation: 1,137.52' AMSL
 - Location: Approximately 1,500' northwest

The first well groundwater elevation measurements ranged from 944 feet (AMSL) to 981 feet from 2005 to 2008, corresponding to a groundwater depth of 166 feet bgs to 203 feet bgs. The second well reported groundwater elevations from a peak of 1,122 feet in 1945 to a low of 912 feet in 1966. After a decline from the late 1940s to 1966, groundwater levels began to rise and peak in 1987 at 1,061 feet. From 1991 to 2000 (when monitoring ceased) levels remained relatively stable around 1,018 feet, which translates to approximately 129 feet bgs at the current site (Twining, 2023, p. 5).

During recent drilling operations for the Geotechnical Investigation Report, three borings were carried out at a depth of 51.5 feet bgs. No groundwater was encountered in any of these wells. Based on the data provided by Crandall, the California Water Data Library, and recent borings, it is prudent



to assume that the depth to groundwater is greater than 50 feet bgs for design considerations (Twining, 2023, p. 5).

It was noted in the Geotechnical Investigation Report that groundwater conditions may vary across the site due to various stratigraphic and hydrologic factors. In addition, these conditions are subject to temporal changes arising from seasonal and meteorological variations, as well as human activities in the vicinity. Therefore, continuous monitoring and evaluation are recommended to ensure an accurate understanding of groundwater dynamics at the site (Twining, 2023, p. 5).

4.6.3.4 Flooding, Inundation, Tsunami, and Seiche

Tsunamis are generated by substantial landslides that occur in or near marine environments. Seiches are characterized by the oscillation of standing waves within a confined or partially confined water body, such as a lake, reservoir, or bay, after the initial driving force has subsided. These oscillations can produce waves that reach several heights, potentially causing significant damage along coastal areas. The greatest impact of a seiche can manifest itself as the overtopping and subsequent failure of a dam.

The project site is located inland from coastal regions and does not encompass any enclosed or semi-enclosed water bodies. Based on the flood hazards map outlined in the General Plan of the City of Redlands, the location of the project does not fall within the 100-year or 500-year floodplain, nor does it lie within a dam inundation zone. Consequently, the risks associated with floods, inundations, tsunamis, and seiches at this site are classified as low (Twining, 2023, pp. 10-11).

4.6.4 Environmental Impact Analysis

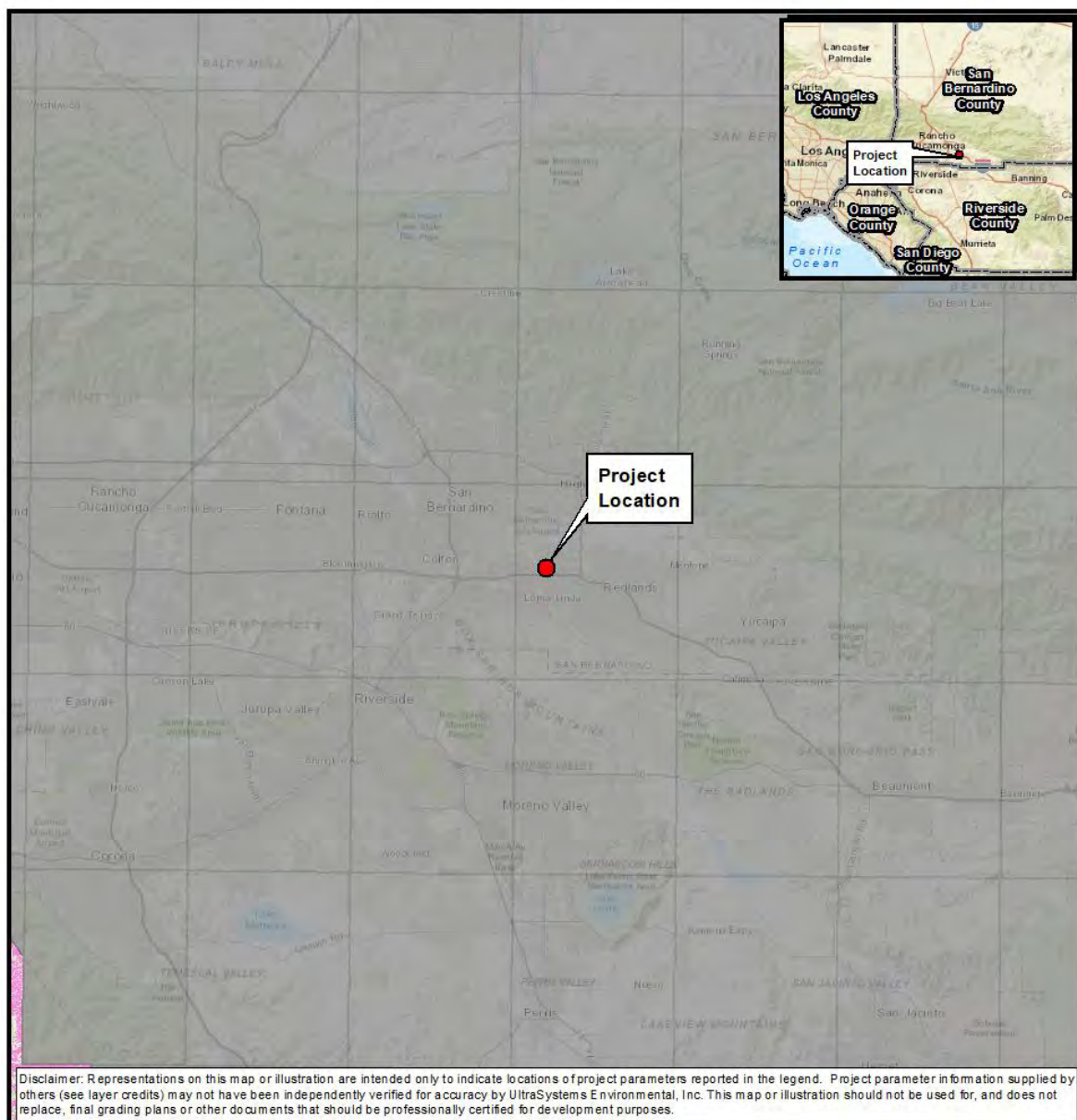
4.6.4.1 Thresholds of Significance

CEQA Guidelines Appendix G, *Environmental Checklist*, sets forth the following significance thresholds criteria; a project would result in impacts related to geology and soils if it would:

- 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?



Figure 4.6-3
LIQUEFACTION AND LANDSLIDES



Path: \\GIS\vr\GIS\Projects\7214_Redlands_Kaiser_MedCenter_ER\IMX\Del7214_Kaiser_4_7_Landslide_Liquefaction_2023_11_17.mxd
Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community. Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community, CA Dept. of Conservation, 2016; UltraSystems Environmental, Inc., 2023

November 17, 2023

Scale: 1:380,160



0 3 6 Miles

0 3 6 Kilometers

Legend

-  Project Location
-  Earthquake-induced Landslides
-  Liquefaction
-  Unevaluated Areas

**Kaiser Permanente
Medical Center**

Landslides and
Liquefaction





- B. Result in substantial soil erosion or the loss of topsoil?
- C. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?
- D. Be located on expansive soil, as defined in Table 18-1 B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?
- E. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?
- F. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

The Initial Study, included as **Appendix A1** to this PEIR, determined that impacts related to Significance Threshold E would result in no impacts because the proposed project would connect to the existing local sewer system and would not rely on septic tanks or alternative wastewater disposal systems.. Therefore, Threshold E will not be analyzed in this EIR.

The information in this section is based on the following technical reports.

- Geotechnical Investigation Report, Medical Office Building 2 (MOB 2) project at the Kaiser Redlands site located at 1301 California Street in Redlands, California, Assessor's Parcel Number (APN): 0167-441-07-000. Prepared by Twining, dated March 31, 2023. A complete copy of this report is included in **Appendix D7**.
- Paleontological Records Search for the Kaiser Permanente Medical Center Project located in the City of Redlands. Prepared by the Western Science Center on October 31, 2023. A complete copy of this report is included in **Appendix D8**.

4.6.4.2 Analysis of Project Impacts

Threshold A: Would the Project expose people or structures to 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 Special Publication 42 of the Division of Mines and Geology.***

Less Than Significant Impact

The Alquist-Priolo Zones Special Studies Act defines active faults as those that have experienced surface displacement or movement during the last 11,000 years. As discussed above, there are no mapped Alquist-Priolo earthquake fault zones, or fault zones mapped by the City of Redlands, that pass through or near the proposed project site. Therefore, there would be a less than significant impact.



ii) Strong seismic ground shaking?

Less Than Significant Impact

Earthquakes in and near the proposed project have the potential to cause significant shaking of the ground. Development consistent with the General Plan may occur in locations where seismic ground shaking is a potential concern. However, the project would be constructed in accordance with the California Building Code (CBC); § 1613 of the CBC requires that all structures be designed and constructed to withstand the effects of earthquake motions according to the minimum design loads for buildings and other structures established by the American Society of Civil Engineers. Therefore, in compliance with the CBC, the proposed project would result in less than significant impacts.

iii) Seismic-related ground failure, including liquefaction?

Less Than Significant Impact

Liquefaction is the phenomenon in which loosely deposited granular soils with silt and clay contents generally less than approximately 35 percent, and non-plastic silts located below the water table undergo rapid loss of shear strength when subjected to strong earthquake-induced ground shaking. Shaking of the ground for a sufficient duration results in loss of grain-to-grain contact due to a rapid rise in the pressure of the pore water and causes the soil to behave as a fluid for a short period of time.

As noted above, the site is not within an area susceptible to liquefaction mapped by the City of Redlands. Furthermore, the groundwater is likely deeper than 50 feet. As discussed above and in Section 5.3 of the Geotechnical Investigation Report (**Appendix D7**), liquefaction occurs when vibrations or increased water pressure within the soil cause particles to lose contact with one another and behave like a liquid. Therefore, the liquefaction potential is less than significant.

iv) Landslides?

Less Than Significant Impact

As shown above, the site is not located within an area susceptible to landslides. There are no known landslides at the site or the site in the path of any known or potential landslides. Furthermore, the site is not adjacent to significant slopes. The potential for earthquake-induced landslides to occur at the site is considered low. Therefore, the impacts would be less than significant.

Threshold B: Would the Project result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact

The project site is particularly susceptible to erosion during the construction phase due to exposure of the soil. To mitigate the risks associated with erosion, the project will adopt best management practices (BMP) in accordance with the 2022 General Construction Permit (GCP) issued by the State Water Resources Control Board.

The 2022 GCP refers to the current permit issued by the California State Water Board, which regulates stormwater runoff from construction sites throughout the state, meaning that most construction projects exceeding a certain land disturbance threshold must comply with its



requirements to discharge stormwater legally and mandates the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP) to manage stormwater runoff during construction activities (SWRCB, 2024).

Compliance with the 2022 GCP and the implementation of BMPs would ensure that the project would not result in substantial soil erosion or the loss of topsoil. The project will not result in substantial soil erosion or loss of topsoil and therefore, impacts would be less than significant.

Threshold C: Would the Project 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 offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?

Less Than Significant Impact

As discussed in detail above, the project site is not located within an Alquist-Priolo Earthquake Fault Zone or other designated area of known geologic instability, and the potential for landslide, lateral spreading, subsidence, liquefaction, or collapse is considered negligible based on site-specific investigations. In addition, compliance with the recommendations of the Geotechnical Investigation Report is a condition of issuance of a grading permit by the City of Redlands, ensuring that any standard design and construction measures are implemented. For these reasons, the project would not be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project. No mitigation is required, and impacts would be less than significant.

Threshold D: Would the Project 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?

Less Than Significant Impact

Expansive soil shrinks and expands with changes in soil moisture. Soil moisture can change from landscape irrigation, rainfall, and utility leakage. According to the Geotechnical Investigation Report, consolidation test results show that the subsurface materials of the site have negligible collapse. One sample (boring B-12 at 5 feet bgs) exhibited 8.3 percent collapse potential when wet, but this result is not considered reliable because of the obvious relatively large sample disturbance observed (Twining, 2023, p. 13).

Based on the results of laboratory potential expansion index tests, surficial soils have a very low expansion potential and would have a less than significant impact.

Threshold F: Would the Project directly or indirectly destroy a unique paleontological resource or site or a unique geologic feature?

Less Than Significant Impact with Mitigation Incorporated

The likelihood of encountering fossil material is minimal; however, if excavation activities disrupt deeper sediment layers that correspond to the early Holocene or Late Pleistocene epochs, such findings could have considerable scientific importance. If excavation activity disturbs deeper sediment dating to the earliest parts of the Holocene or Late Pleistocene periods, the material would be scientifically significant. The project would implement PDF-GEO-1, ensuring that all geotechnical recommendations contained in the Geotechnical Investigation Report (Twining, March 31, 2023;



Appendix D7) are incorporated into site development, including earthwork, seismic design, retaining walls, shoring, and foundation design. Therefore, impacts related to geology and soils would be less than significant with implementation of PDF-GEO-1.

4.6.5 Cumulative Impacts

Geology and soils impacts are site specific and generally do not combine to result in cumulative impacts. Similar to the proposed project, future development projects would be required to comply with applicable state and local building regulations including the CBC and City of Redlands Municipal Code Title 15, Buildings and Construction. Site-specific geologic hazards would be addressed in each project's geotechnical investigation. Therefore, no significant cumulative impact would occur.

4.6.6 Mitigation Measures

MM-GEO-1: A qualified paleontologist, approved by the City of Redlands and the Western Science Center, must be retained prior to excavation and grading activities at the project site.

1. Prior to the earth-moving activities, the paleontologist shall develop a site-specific Paleontological Resources Impact Mitigation Program (PRIMP) to be implemented in support of the Project in order to mitigate potential adverse impacts to paleontological resources. The PRIMP shall follow guidelines developed by the Society for Vertebrate Paleontology and include monitoring of ground disturbance activities in sediments that are likely to include paleontological resources, specimen recovery, and screen washing; preparation of any collected specimens to the point of identification; curation of any collected specimens to a museum repository with permanent, retrievable storage; and preparation of a final paleontological survey report that would provide details of monitoring, fossil identification, and repository arrangements. The Project Applicant shall then comply with the recommendations of the Project Paleontologist and requirements of the PRIMP. At a minimum, the PRIMP shall include the following:
 1. Project and location
 2. Regulatory setting
 3. Geology of the site
 4. Paleontological resources and survey results
 5. Paleontological sensitivity of the site
 6. Paleontological resources mitigation and monitoring measures such as:
 - a. Coordination with construction personnel and training
 - b. Details of training and materials
 - c. Frequency and location of inspections
 - d. When and how grading/excavation activities will be diverted
 - e. Procedures of fossil recovery, removal, treatment, transport, and deposition facility
 - f. Recording, documentation, and reporting procedures
2. Before the mitigation program begins, the paleontologist or monitor must coordinate with the appropriate construction contractor personnel to provide information regarding the requirements of the City or Redlands, as applicable, for the protection of paleontological resources. Contractor personnel shall be briefed on the procedures to follow in the event that fossil remains, and a previously unrecorded fossil site are encountered by earth-moving activities, particularly when the monitor is not on site.
3. The qualified paleontologist shall perform periodic inspections of excavation and grading



activities at the project site to determine the presence of fossiliferous soils. The frequency and location of inspections shall be specified in the PRIMP and will depend on the depth of excavation and grading activities and the materials being excavated. If paleontological materials are encountered, the paleontologist must temporarily divert or redirect the grading and excavation activities in the area of the exposed material to facilitate evaluation and, if necessary, salvage. The authority of the paleontologist to temporarily halt construction in part of the project site must be included in the project grading and construction plans. A copy of the report of the paleontological survey is submitted to the Western Science Center. Any fossils recovered during mitigation shall be deposited in an accredited and permanent scientific institution for the benefit of current and future generations.

4.6.7 Level of Significance after Mitigation

The Geotechnical Investigation Report outlines site-specific geotechnical engineering recommendations focused on geological hazards and seismic design considerations applicable to the project. In accordance with PDF-GEO-1, all project activities must comply with the guidelines and recommendations delineated in the Geotechnical Investigation Report to ensure adherence to applicable geotechnical standards. Additionally, implementation of MM-GEO-1 would reduce the potential impacts on paleontological resources to less than significant.

At the federal level, the U.S. Environmental Protection Agency (USEPA) administers climate change and energy efficiency programs intended to reduce greenhouse gas (GHG) emissions. These include voluntary initiatives such as Energy Star, which encourages energy efficiency in building design, appliances, and equipment. In addition, the federal Mandatory Greenhouse Gas Reporting Rule—updated on September 22, 2022—requires certain large sources and suppliers of GHGs to report emissions data to the USEPA, thereby supporting federal climate policy and emission reduction tracking.

The project is also informed by national energy policy. The Energy Policy Act of 1992 introduced measures to promote alternative fuels, energy efficiency, and renewable energy, while the Energy Policy Act of 2005 expanded these initiatives by providing tax incentives, loan guarantees, and regulatory support for cleaner energy technologies and conservation practices. Together, these policies establish a framework under which projects are expected to incorporate energy-efficient practices and contribute to the broader reduction of GHG emissions.

Accordingly, through compliance with applicable geotechnical recommendations (**PDF-GEO-1**), mitigation measures (**MM-GEO-1**), federal Clean Air Act standards, USEPA climate change and energy efficiency programs, and federal energy policy requirements, the project would reduce potential geotechnical, paleontological, and climate-related impacts to less than significant levels.



4.7 Greenhouse Gas Emissions

4.7.1 Introduction

Gases that trap heat in the atmosphere are called greenhouse gases (GHGs), since they have effects that are analogous to the way in which a greenhouse retains heat. GHGs are emitted by both natural processes and human activities. The accumulation of GHGs in the atmosphere regulates the earth's temperature. The State of California has undertaken initiatives designed to address the effects of GHG emissions, and to establish targets and emission reduction strategies for GHG emissions in California. Activities associated with the project, including construction and operational activities, would have the potential to generate GHG emissions.

This section discusses the main GHG species of interest, regulations pertaining to climate change, the project's consistency with plans for reducing GHG emissions, existing and predicted future GHG emissions from the project site, and their significance under CEQA.

4.7.2 Regulatory Framework

Federal

The U.S. Environmental Protection Agency (USEPA) collects several types of GHG emissions data. These data help policy makers, businesses, and the USEPA track GHG emissions trends and identify opportunities for reducing emissions and increasing efficiency. The USEPA has been maintaining a national inventory of GHG emissions since 1990 and in 2009 established mandatory reporting of GHG emissions from large GHG emissions sources.

Clean Air Act

Before January 20, 2017, the USEPA was implementing regulatory initiatives such as mobile source GHG emission standards and the Clean Power Plan; partnering with the private sector through voluntary energy and climate programs; and reducing USEPA's carbon footprint with the federal GHG requirements and USEPA's Strategic Sustainability Performance Plan. The first Trump administration had a different strategy in relation to climate change and took the USEPA in a new direction (USEPA, 2017). Executive Order on Energy Independence (Federal Register, 2017) (Executive Order 13783) specifically addressed revisions in the Clean Power Plan and standards of performance for GHGs for new stationary sources; CH₄ standards for the oil and gas sector; and light-duty vehicle GHG standards. On January 20, 2021, former President Biden issued Executive Order 13990 (White House, 2021), which rescinded the Executive Order on Energy Independence, along with several other executive orders concerning energy, climate, and environmental protection. Among the stated goals of Executive Order 13990 are "to reduce greenhouse gas emissions" and "to bolster resilience to the impacts of climate change." On January 20, 2025, the current Trump administration issued Executive Order 14154, Unleashing American Energy, which aims to increase domestic energy production by removing regulatory barriers to reduce energy costs for consumers. It revokes Executive Order 11991, directing the Council on Environmental Quality (CEQ) to rescind its National Environmental Policy Act (NEPA) regulations (Federal Register, 2025).

State

Through several pieces of legislation, gubernatorial executive orders, and administrative regulations that relate to GHG emissions and climate change, California has set aggressive goals for GHG



reductions within the state. Per Senate Bill (SB) 97, the California Natural Resources Agency adopted amendments to the CEQA Guidelines which address the specific obligations of public agencies when analyzing GHG emissions under CEQA to determine a project's effects on the environment. However, neither a threshold of significance nor any specific mitigation measures are included or provided in these CEQA Guidelines amendments. The major state provisions for reducing GHG emissions are as follows

Assembly Bill 32 (AB 32)

The California Global Warming Solutions Act of 2006, widely known as AB 32, requires the California Air Resources Board (ARB) to develop and enforce regulations for the reporting and verification of statewide GHG emissions. The ARB is directed to set a statewide GHG emission limit, based on 1990 levels, to be achieved by 2020. The bill set a timeline for adopting a scoping plan for achieving GHG reductions in a technologically and economically feasible manner. The heart of the bill was the requirement that statewide GHG emissions be reduced to 1990 levels by 2020.

The AB 32 Scoping Plan (ARB, 2008) contained the main strategies to achieve the 2020 emissions cap. The plan was developed by the ARB with input from the Climate Action Team and proposes a comprehensive set of actions designed to reduce overall carbon emissions in California, improve the environment, reduce oil dependency, diversify energy sources, and enhance public health while creating new jobs and improving the state's economy. The GHG reduction strategies contained in the AB 32 Scoping Plan include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, and market-based mechanisms such as a cap-and-trade system.

In May 2014, the ARB adopted the First Update to the AB 32 Scoping Plan (ARB, 2014). This update identified the next steps for California's leadership on climate change. The first update to the initial AB 32 Scoping Plan described progress made to meet the near-term objectives of AB 32 and defined California's climate change priorities and activities for the next several years. It also framed activities and issues facing the state as it develops an integrated framework for achieving both air quality and climate goals in California beyond 2020.

In the original AB 32 Scoping Plan, the ARB approved a total statewide GHG 1990 emissions level and 2020 emissions limit of 427 million metric tons (MT) of CO₂e. As part of the update, the ARB revised the 2020 Statewide limit to 431 million MT of CO₂e, an approximately 1 percent increase from the original estimate. The 2020 business-as-usual forecast in the update is 509 million MT of CO₂e. The state would need to reduce those emissions by 15.3 percent to meet the 431 million MT of CO₂e 2020 limit.

In November 2017, the ARB published the 2017 AB 32 Scoping Plan (ARB, 2017), which built upon the former AB 32 Scoping Plan and Update by outlining priorities and recommendations for the state to achieve its 2030 GHG target of a 40 percent reduction in GHGs by 2030, compared to 1990 levels. The major elements of the framework proposed were enhancement of the Renewables Portfolio Standard (RPS) and the Low Carbon Fuel Standard (LCFS); a Mobile Source Strategy, Sustainable Freight Action Plan, Short-Lived Climate Pollutant Reduction Strategy, Sustainable Communities Strategies, and a Post-2020 Cap-and-Trade Program; a 20 percent reduction in GHG emissions from the refinery sector and an Integrated Natural and Working Lands Action Plan.

On November 16, 2022, the ARB circulated its Final 2022 Scoping Plan for Achieving Carbon Neutrality (ARB, 2022). It identifies a technologically feasible, cost-effective path to achieve carbon



neutrality by 2045 or earlier. Through the lens of carbon neutrality, the plan expands the scope to more meaningfully consider how our natural and working lands (NWL) contribute to our long-term climate goal.

Executive Order B-30-15

On April 29, 2015, Governor Edmund G. Brown Jr. issued an executive order to establish a California GHG reduction target of 40 percent below 1990 levels by 2030. This new emission reduction target is a step toward the ultimate goal of reducing emissions by 80 percent below 1990 levels by 2050. The executive order also specifically addresses the need for climate adaptation and directs state government to:

- Incorporate climate change impacts into the state's Five-Year Infrastructure Plan.
- Update the Safeguarding California Plan – the state climate adaption strategy – to identify how climate change will affect California infrastructure and industry, and what actions the state can take to reduce the risks posed by climate change.
- Factor climate change into state agencies' planning and investment decisions.
- Implement measures under existing agency and departmental authority to reduce GHG emissions.

California Senate Bill 32

This bill codifies Executive Order B-30-15 by adding § 38566 to the Health and Safety Code; it mandates the ARB to ensure that statewide greenhouse gas emissions are reduced to at least 40 percent below the statewide greenhouse gas emissions limit no later than December 31, 2030.

California Senate Bills 1078, 107, 2, and 350: Renewables Portfolio Standard

Established in 2002 under California SB 1078 and accelerated in 2006 under California SB 107, California's RPS requires retail suppliers of electric services to increase procurement from eligible renewable energy resources by at least one percent of their retail sales annually, until they reach 20 percent by 2010.

On April 2, 2011, Governor Brown signed California SB 2 to increase California's RPS to 33 percent by 2020. This new standard also requires regulated sellers of electricity to procure 25 percent of their energy supply from certified renewable resources by 2016. In October 2015, Governor Brown signed into legislation SB 350, which requires retail sellers and publicly owned utilities to procure 50 percent of their electricity from eligible renewable energy resources by 2030. Under SB 100, signed by Governor Brown on September 10, 2018, the renewables requirement was increased to 60 percent.

Low Carbon Fuel Standard (LCFS)

California Executive Order S-01-07 (January 18, 2007) requires a 10 percent or greater reduction in the average carbon intensity for transportation fuels in California regulated by the ARB. The ARB identified the LCFS as a Discrete Early Action item under AB 32, and the final resolution (09-31) was



issued on April 23, 2009. The latest amendments to the LCFS were effective July 1, 2020 and further aim to decarbonize the transportation sector (ARB, 2025a).

Sustainable Communities and Climate Protection Act (SB 375)

California's Sustainable Communities and Climate Protection Act, also referred to as SB 375, became effective January 1, 2009. The goal of SB 375 is to help achieve AB 32's GHG emissions reduction goals by aligning the planning processes for regional transportation, housing, and land use. SB 375 requires the ARB to develop regional reduction targets for GHGs and prompts the creation of regional plans to reduce emissions from vehicle use throughout the state. California's 18 metropolitan planning organizations (MPOs) have been tasked with creating sustainable community strategies (SCS) in an effort to reduce the region's vehicle miles traveled (VMT) in order to help meet AB 32 targets through integrated transportation, land use, housing and environmental planning. Pursuant to SB 375, the ARB set per-capita GHG emissions reduction targets from passenger vehicles for each of the state's 18 MPOs. In March 2018, the ARB issued a regional eight percent per capita reduction target for the planning year 2020, and a target of 19 percent for 2035 in the jurisdiction of the Southern California Association of Governments (ARB, 2018).

California Green Building Standards (CALGreen) Code

Although not originally intended to reduce GHGs, California Code of Regulations Title 24 Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings (Title 24), was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption. Since then, Title 24 has been amended with recognition that energy-efficient buildings that require less electricity reduce fuel consumption, which in turn decreases GHG emissions. The current 2022 Title 24 standards (effective as of January 1, 2023) make new development projects constructed within California after January 1, 2023 subject to the mandatory planning and design, energy efficiency, water efficiency and conservation, material conservation and resources efficiency, and environmental quality measures of the California Green Building Standards (CALGreen) Code (California Code of Regulations, Title 24, Part 11).

Regional

South Coast Air Quality Management District

The South Coast Air Quality Management District (SCAQMD) is responsible for regional planning to achieve attainment of ambient air quality standards in the South Coast Air Basin, in which the project is located.¹⁷ It also enforces federal and state emission regulations through a system of source-specific rules and by requiring permits for building and operating facilities that emit criteria pollutants and toxic air contaminants. The SCAQMD does not have rules limiting GHG emissions, nor does it issue permits specifically for emissions of GHG species. However, some of its rules and permit conditions, by limiting fossil fuel combustion, have a side benefit of reducing GHG emissions.

In 2008, the SCAQMD proposed GHG emission thresholds to be used for evaluating significance under CEQA (SCAQMD, 2008). Under the proposal, commercial and/or residential projects that emit less than 3,000 metric tons of CO₂e (MTCO₂e) per year would be assumed to have a less than significant impact on climate change. Although this threshold has never been formally adopted, it is widely used

¹⁷ For more detailed information on the SCAQMD, refer to **Section 4.2**.



in CEQA evaluations.

Southern California Association of Governments

The Southern California Association of Governments (SCAG) is the federally-designated metropolitan planning agency for Ventura, Los Angeles, Orange, Riverside, San Bernardino and Imperial Counties. It works together with the SCAQMD to prepare the triennial Air Quality Management Plan (AQMP). It is also responsible for quadrennial updates of the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), also known as Connect SoCal, the latest of which guides transportation developments between 2024 and 2050 (SCAG, 2025). Connect SoCal 2024 outlines strategies to reach its goal of reducing GHG emissions from passenger vehicles by 19 percent by 2025.

Local

The City of Redlands has taken several actions to address climate change.

City of Redlands Climate Action Plan

The City of Redlands approved its Climate Action Plan (CAP) in 2017, alongside the city's 2035 General Plan (Dyett & Bhatia, 2017). The CAP, originally adopted on December 5, 2017, and updated on July 1, 2025 (CAP Update), supports the City of Redlands commitment to lowering communitywide GHG emissions and outlines how the City will meet California's GHG reduction targets. The 2017 CAP and the 2025 update will also facilitate a more efficient environmental review process for future development projects in accordance with CEQA.

City of Redlands General Plan 2035

The City of Redlands General Plan 2035, approved in May 2018, includes policies that will guide future development through the Plan's 2035 planning horizon. Within the document's "Sustainable Community" theme are policies for energy and water conservation, and GHG reduction

Greenhouse Gas Emission Sources

The CAP reflects guidelines set forth in the 2017 AB 32 Scoping Plan. These guidelines recommend that local government implement achieving GHG reduction targets of 6 MTCO₂e per capita per year by 2030 and 2 MTCO₂e per capita per year in 2050, as established by Executive Order S-3-15 and Senate Bill 32. The CAP has established a goal of 6 MTCO₂e per capita per year by 2030 and 5 MTCO₂e per capita per year by 2035. To achieve these targets, communitywide GHG emissions must be reduced to approximately 359,358 MTCO₂e per year by 2035 (Dyett & Bhatia, 2017, p. 2035). As part of a CAP update, a GHG inventory and progress report was carried out for the year 2022 for the City of Redlands. According to an adjusted business-as-usual forecast,¹⁸ communitywide GHG emissions are anticipated to decrease from 2015 levels by 3 percent by 2030 and by 20 percent in 2050. The City is not anticipated to meet its 2030 goal, but it is forecasted to meet the goal for 2035. A summary of Redlands' communitywide 2015, 2022, 2030, and 2050 actual and forecasted emissions is provided in **Table 4.7-1**.

¹⁸ An adjusted business-as-usual forecast takes into account State GHG reduction actions in addition to GHG reduction measures in the Redlands CAP. These State actions include Renewable Portfolio Standards (RPS), Renewable Gas Standards (RGS), and Title 24 Building Energy Efficiency Standards.



Table 4.7-1
REDLANDS BASELINE AND PROJECTED GHG EMISSIONS WITH STATE ACTION

Emissions Sector	2015 MTCO₂e	2022 MTCO₂e	2030 MTCO₂e	2050 MTCO₂e
Built Environment	190,861	163,753	137,957	65,468
Transportation	274,086	369,041	326,467	399,791
Solid Waste	24,933	7,412	7,718	8,435
Potable Water	3,189	2,975	2,175	0
Wastewater	6,088	13,129	11,159	10,176
Total	499,157	556,310	485,476	399,791
Percent Change from 2015	-	11	(3)	(20)
Per capita emissions	7.1	7.7	6.5	4.9

Notes: CO₂e = carbon dioxide equivalent; MT= metric tons; Source: Dyett & Bhatia, 2024, p.29

Emission Reduction Strategies

City of Redlands General Plan

The General Plan lists principles and actions that make up policies aimed at achieving the city's GHG reduction targets established in the CAP (City of Redlands, 2018). The policies are summarized below:

Greenhouse Gas (GHG) Reduction:

8-P.9: Enhance sustainability through GHG reducing initiative.

8-P.10: Reduce energy and fossil fuel consumption in municipal operations.

8-A.45: Create a Climate Action Plan that complies with State-mandated GHG emissions.

8-A.46: Monitor the city's compliance with state GHG targets per the CAP and adjust policies, as necessary.

8-A.47: Incentivize climate-friendly purchasing.

8-A.48: Explore programs such as Community Choice Aggregation (CCA) that increase the renewable energy supply and maintain the reliability and sustainability of the electrical grid.

4.7.3 Existing Conditions

Greenhouse Gases

The principal GHGs are carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), sulfur hexafluoride, perfluorocarbons, hydrofluorocarbons, and water vapor. CO₂ is the reference gas for climate change because it is the predominant GHG emitted. To account for the varying warming potential of different GHGs, GHG emissions are often quantified and reported as CO₂ equivalent (CO₂e). CO₂e emissions are calculated as the sum of the products of each compound's emissions and its global warming potential (GWP). The GWP is based upon the heat-absorbing ability of a GHG compound relative to that of CO₂, as well as the persistence in the atmosphere relative to that of CO₂. The higher its GWP, the more a given species heats the atmosphere, over a given time.



The 100-year GWP values for CO₂, CH₄ and N₂O were assumed in this evaluation to be 1, 25 and 298, respectively (Forster et al., 2017).

4.7.4 Emission Calculation Methodology

CalEEMod, Version 2022.1.1.29, the same software that was used for the criteria air pollutant analysis, was used to estimate carbon dioxide, methane, and nitrous oxide emissions for project construction and operation. Modeling inputs and results are provided in **Appendix D**. The model calculates the CO₂e emissions from the emissions and global warming potentials of the three aforementioned compounds. In accordance with SCAQMD guidance, total construction emissions were “amortized” over 30 years and added to the operational emissions. Further information about the analytical approach is presented in **Section 4.7.5** and **Appendix D**.

Project Design Features

The Project would comply with the 2022 California Green Building Standards Code (CalGreen) (Part 11 of Title 24, California Code of Regulations). The following are proposed energy conservation measures that are beyond the minimum requirements of CalGreen. Please note that only GHG-PDF-1 and GHG-PDF-9 were taken into account in the emission calculations.

Energy Conservation and Efficiency

- GHG-PDF-1:** Project design will provide energy efficiency exceeding Title 24, Part 6, California Energy Code baseline standard requirements by 10 percent, based on the 2022 Building Energy Efficiency Standards requirements
- GHG-PDF-2:** Use of natural heating and cooling features.
- GHG-PDF-3:** Use of improved insulation.
- GHG-PDF-4:** Installation of PV panels.
- GHG-PDF-5:** Use of efficient and durable roofing materials and exterior finishes.
- GHG-PDF-6:** Use of efficient interior finishes.

Water Conservation

- GHG-PDF-7:** Water-efficient plumbing fixtures (17 to 31 percent of GHG emissions associated with non-residential indoor water use).

Solid Waste Conservation

- GHG-PDF-8:** Use of recycled foundation materials.

Other

- GHG-PDF-9:** No combustion of natural gas (100 percent reduction in emissions from natural gas use).



4.7.5 Environmental Impact Analysis

4.7.5.1 Thresholds of Significance

In accordance with **Appendix G** of the State CEQA Guidelines, the project would have a significant impact related to GHGs if it would:

- A. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or
- B. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

According to the CEQA Guidelines, a lead agency shall have the discretion to determine, for a specific project, whether to quantify GHG emissions and/or to rely on a qualitative analysis or performance-based standards.¹⁹ A lead agency should consider the following factors, among others, when determining the significance of GHG emissions on the environment:²⁰

- The extent to which the project would increase or decrease GHG emission with reference to existing environmental conditions.
- Whether the project's GHG emissions would exceed a numeric threshold of significance that the lead agency determines to apply to the project.
- The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional or local plan for reducing or mitigating GHG emissions.

Neither the State of California, the City of Redlands, nor the SCAQMD has a formally adopted numeric, "bright line" threshold that distinguishes between significant and less than significant GHG emission levels for development projects such as the proposed project. As discussed in **Section 4.7.2**, the SCAQMD has proposed a threshold of 3,000 metric tons per year but has not adopted it as a rule or guideline. Nevertheless, this threshold is in common use for proposed projects in the South Coast Air Basin and was used in the present analysis.

In addition, the project's significance was evaluated by considering the extent to which it complies with regulations or requirements adopted to implement a statewide, regional or local plan for reducing or mitigating GHG emissions. The project was compared with the City of Redlands Climate Action Plan and 2035 General Plan for its consistency therewith.

4.7.5.2 Analysis of Project Impacts

Threshold A: Would the Project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

¹⁹ CEQA Guidelines § 15064.4(a).

²⁰ Op. cit., § 15064.4(b).



Significant and Unavoidable Impact

Direct greenhouse gas emissions (GHG) emissions include emissions from construction activities, stationary sources, and mobile (vehicle) sources. Typically, mobile sources make up the majority of direct emissions. Indirect GHG emissions are generated by incremental electricity consumption and waste generation. Project implementation would increase GHG emissions from mobile sources, electricity usage, natural gas consumption, solid waste generation, and water use.

The estimates for this analysis include the following sources of annual direct and indirect GHG emissions: (1) area sources (e.g., landscaping-related fuel combustion sources); (2) energy use associated with office and restaurant uses; (3) water and wastewater; (4) solid waste; (5) mobile sources (e.g., passenger vehicles and trucks); and (6) construction activity. The ongoing operational emissions consist of the first five categories, while emissions associated with construction are generated only during construction.

Construction emissions are from offroad equipment and onroad vehicles such as worker and vendor commuting and trucks for soil and material hauling. CalEEMod defaults were used for construction activity and equipment usage, except for phase lengths that were supplied by the project proponent. To assess the temporary construction effect on the project's overall lifetime GHG emissions, the SCAQMD developed an Interim Guidance (SCAQMD, 2008) recommending that construction emissions should be amortized over the life of the project, defined in the Guidance as 30 years, which is then added to the operational emissions and compared to the applicable GHG significance threshold.

GHG emissions would also continue to occur every year after buildout. Combustion of any type of fossil fuel emits CO₂ and other GHGs directly into the atmosphere; these emissions are considered direct emissions when associated with buildings. GHGs are also emitted during the generation of electricity from fossil fuels; these emissions are indirect emissions as they occur elsewhere but are attributed to power usage onsite. Indirect GHG emissions also result from the production of electricity used to convey, treat, and distribute water and wastewater. In addition, CalEEMod calculates the indirect GHG emissions associated with waste that is disposed of at a landfill using waste disposal rates by land use and overall composition.

An initial emissions calculation without mitigation measures was performed and the operational phase is shown in **Table 4.7-3**. Construction emissions were the same with and without the selected measures. An emissions calculation with the following measures selected was also performed. Mitigated operational emissions are shown in **Table 4.7-4**. Implementation of these measures removed operational area sources and added slight energy usage in all phases. The net difference is a 0.14 percent decrease. Note that only quantitative measures have an impact on the reported results since qualitative measures are not easily quantifiable:

- One quantitative measure was considered for area sources, to replace gas powered landscape equipment with zero-emission landscape equipment (LL-1).
- Two qualitative CalEEMod transportation mitigation measures were considered: providing an employer-sponsored vanpool (T-11) and providing electric vehicle charging infrastructure (T-14).

The construction and operational emissions presented in **Table 4.7-2** and **Table 4.7-4** are the results of the following model conditions. CalEEMod defaults were used throughout, with the following major exceptions:



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- Because the project will not require natural gas service, natural gas-based GHG emissions were subtracted from the CalEEMod results.
- Because the project will be constructing a fuel cell micro-grid central utility plant (CUP) in Phase 2 that will enable the project to operate independently of the electric grid, onsite electricity usage was removed from CalEEMod following Phase 1 operations. Any energy usage from Phases 2 through 4 is not from generation of building electricity.
- Daily trip rates were modified based on the project's traffic study (Fehr & Peers, 2025).
- The three measures listed above, LL-1, T-11 and T-14.

Table 4.7-2 shows the predicted GHG emissions during each construction year. Phase 2 would result in the most construction GHG construction emissions of any project phase: **3,492.8 metric tons**. Consistent with SCAQMD recommendations (SCAQMD, 2008, p. 3-10) and to ensure that construction emissions are assessed quantitatively, construction GHG emissions have been amortized over a 30-year period. The maximum value of amortized constructions emissions for the proposed project's construction emissions is **179 MTCO₂e**. This amortized value is included in the analysis of operational emissions for the proposed project. Modeling results are in **Appendix D**. Carbon dioxide equivalent emissions from annual operation of the project are shown in **Table 4.7-4**.

Table 4.7-2
PROJECT CONSTRUCTION GHG EMISSIONS

Construction Year	Annual CO ₂ e Emissions (metric tons)			
	CO ₂	CH ₄	N ₂ O	CO ₂ e
Phase 1				
2027	77.6	0.00	0.00	78.0
2028	451.5	0.02	0.02	457.8
2029	119.2	0.00	0.00	120.3
Phase 1 Totals	648.3	0.02	0.02	656.1
Phase 2				
2035	108.5	0.00	0.00	108.9
2036	750.4	0.03	0.03	760.9
2037	1144.8	0.03	0.07	1165.6
2038	1129.1	0.03	0.07	1149.9
2039	304.1	0.01	0.01	307.5
Phase 2 Totals	3,436.9	0.1	0.18	3,492.8
Phase 3				
2043	55.0	0.00	0.00	55.2
2044	316.2	0.01	0.01	318.3
2045	76.5	0.00	0.00	76.9
Phase 3 Totals	447.7	0.01	0.01	450.4
Phase 4				
2047	55.2	0.00	0.00	55.4
2048	337.8	0.01	0.01	341.0
2049	347.2	0.01	0.01	350.7
2050	28.2	0.00	0.00	28.3
Phase 4 Totals	768.4	0.02	0.02	775.4
Maximum 30-Year Amortized Emissions				179



Table 4.7-3
PROJECT OPERATIONAL GHG EMISSIONS PRIOR TO MITIGATION

Emissions Source	Annual Increment in CO ₂ e Emissions(metric tons)				
	Phase 1	Phase 2	Phase 3	Phase 4	Source Totals
Mobile (Motor Vehicles)	3,461	4,020	2,288	1,962	1,731
Area Sources	3.36	19.34	1.69	3.66	28
Energy	1,007	-	-	-	1,007
Water Demand	70.80	88.73	43.59	40.82	244
Solid Waste Generation	556.3	204.3	279.8	98.4	1,139
Maximum Amortized Construction	179				
Total Project Operational GHG Emissions	14,327				

Source: CAPCOA, 2022.

Table 4.7-4
PROJECT OPERATIONAL GHG EMISSIONS AFTER MITIGATION

Emissions Source	Annual Increment in CO ₂ e Emissions (metric tons)				
	Phase 1	Phase 2	Phase 3	Phase 4	Source Totals
Mobile (Motor Vehicles)	3,461	4,020	2,288	1,962	11,731
Energy	1,008	4.42	0.39	0.84	1,014
Water Demand	70.8	88.7	43.6	40.8	244
Solid Waste Generation	556	204	280	98.4	1,138
Maximum Amortized Construction	179				
Total Project Operational GHG Emissions	14,306				

Source: CAPCOA, 2022.

Mitigated GHG emissions from the project's operational phase are estimated to be **14,306 metric tons** per year. This will exceed the SCAQMD significance threshold of 3,000 MTCO₂e per year. Since most of these emissions will come from mobile sources, the traffic study provides mitigation measures targeted at project employees and commuter vehicle miles travelled (VMT) which can be implemented to reduce GHG emissions in addition to the measures already considered. These mitigation measures are discussed in **Section 4.2.7** and **Section 4.7.7**.

Therefore, for **Threshold A**, the project's impacts would be significant and unavoidable even with mitigation measures.

Threshold B: Would the Project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less Than Significant Impact with Mitigation Incorporated

The City of Redlands General Plan 2035 was concurrently prepared with the 2017 Climate Action Plan (CAP). An updated CAP, Climate Action Plan 2050, was recently adopted on July 1, 2025. The goal for the updated CAP is to reduce city-wide GHG emissions to 6.0 MTCO₂e per capita per year and sets forth strategies for working toward that goal (Dyett & Bhatia, 2017). The City of Redlands 2035 General Plan provides principles and actions that make up policies aimed at achieving the city's GHG reduction targets established in the CAP (City of Redlands, 2018). The CAP projects that citywide business-as-usual GHG emissions would be 6.4 MTCO₂e per capita per year in 2030. Implementation of quantifiable GHG reduction measures would allow the City to achieve its GHG reduction targets for both 2030 and 2050.



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The proposed project would be consistent with the transportation goal of the CAP by incorporating measures such as implementing EV charging stations and requiring electric landscaping equipment when feasible. The proposed project would be consistent with the CAP's energy efficiency goals by complying with the latest California Building Code (Title 24), including the latest CALGreen Code standards, and incorporating energy efficient design features, such as the construction of the CUP.

As described above, the CAP projects that GHG emissions in 2030 will reach 6.4 MTCO₂e per capita per year without GHG reduction measures. Implementation of feasible GHG reduction measures have the potential to decrease emissions to 6.0 MTCO₂e per capita per year and achieve the reduction target. Since the project's operational GHG emissions exceed the SCAQMD significance threshold, it must incorporate GHG reduction mitigation measures in attempt to avoid conflicting with the city's CAP and General Plan. These mitigation measures are listed below in **Section 4.7.7**. If the project implements all GHG reducing mitigation measures listed below and in the General Plan, then it will not conflict with the CAP or General Plan. The project will therefore have a less than significant impact with mitigation measures.

4.7.6 Cumulative Impacts

It is widely recognized that no single project could generate enough GHG emissions to noticeably change the global climate. However, the combination of GHG emissions from past, present, and future projects could contribute substantially to global climate change. Thus, project specific GHG emissions should be evaluated in terms of whether they would result in a cumulatively significant impact on global climate change. Climate change impacts may include an increase in extreme heat days, higher concentrations of air pollutants, sea level rise, impacts on water supply and water quality, public health impacts, impacts on ecosystems, impacts on agriculture, and other environmental impacts.

As shown in **Section 4.7.5**, the project must incorporate GHG reduction measures to be consistent with state and local plans and programs that aim to reduce state and regional GHG emissions, including the City of Redland's Climate Action Plan and 2035 General Plan. The project's incremental contribution to GHG emissions and their effects on climate change is estimated to be cumulatively considerable. For these reasons, the project's cumulative contribution to global climate change would be significant and unavoidable.

4.7.7 Mitigation Measures

Impacts associated with significance threshold A would be significant and unavoidable even with mitigation measures. Impacts associated with significance threshold B would be less than significant with mitigation. Regardless of the significant and unavoidable determination for threshold A, the following mitigation measures would be required to minimize impacts related to greenhouse gas emissions.

As discussed in **Section 4.7.5**, the project must incorporate mitigation measures during the construction and operational phases. CAPCOA has developed a method of quantifying GHG reducing measures that may be incorporated into potentially significant projects. These quantifiable construction mitigation measures and range of potential GHG reductions in parentheses are listed below (CAPCOA, 2010, P. 410-488):

MM GHG-1 Using alternative fuels for construction equipment (0 to 22 percent).



- MM GHG-2** Using electric or hybrid construction equipment (2.5 to 80 percent of GHG emissions from equipment that is electric or hybrid if used 100 percent of the time).
- MM GHG-3** Limiting construction equipment idling beyond regulation requirements, which is typically 5 minutes as regulated by the ARB's Heavy-Duty Vehicle Idling Emission Reduction Program (percent reduced is equal to $(1 - \frac{t_m}{t_b})100$, where t_m is the mitigated idling period and t_b is the baseline idling period) (CAPCOA, 2010, p. 429).
- MM GHG-4** Instituting a heavy-duty offroad vehicle plan (range of effectiveness is not applicable because it only ensures compliances with other mitigation measures). At a minimum, the heavy-duty offroad vehicle plan shall include the following:
1. Fleet reporting and labeling: diesel-fueled vehicles operating in California, with engines 25 horsepower or greater, must be reported to the ARB through the online DOORS system and labeled appropriately.
 2. Emission reduction strategies: how you will meet emission reduction requirements by:
 - a. Retiring/Replacing Vehicles: Phase out older, dirtier engines by replacing them with new, cleaner ones or equipment that meets the latest emission standards.
 - b. Engine repowering: plan/schedule to replace older off-road diesel engines with newer, cleaner ones.
 - c. Verified Diesel Emission Control Strategies (VDECS): Install verified diesel emission control strategies (e.g., exhaust retrofits) on existing engines.
 3. Fuel acquisition: fleets must begin (2024) using renewable diesel (R99 or R100).
 4. Idling restrictions: limit idling to five minutes and apply a written idling policy.
 5. Fleet average goals: fleet average emission level standards/balancing emissions from vehicles.
- MM GHG-5** Implementing a construction vehicle inventory tracking system (range of effectiveness does not reduce GHG emissions in and of itself; it only ensures compliance with other mitigation measures).

During the project's operational phase, the majority of GHG emissions will result from mobile sources such as employee and visitor trips. The traffic study provides the most effective GHG reduction measures that can be implemented to reduce VMT. **MM TRANS-4**, **MM AQ-1** and **MM AQ-2** below were taken into account in emissions calculations and must be considered by the project. The Kaiser Permanente Medical Facility may incorporate these measures by reference in any sustainability plan or corporate social responsibility policy regarding energy efficiency or carbon footprint reduction. These measures and their estimated potential VMT reductions are detailed in **Appendix D13** and are summarized below.



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MM TRANS-1 Implement Commute Trip Reduction Marketing (4 percent of Home-Based Work (HBW) VMT).

MM TRANS-2 Provide Employee Rideshare Program (4 percent of HBW VMT).

MM TRANS-3 Provide End-of-Trip Bicycle Facilities (0.3 percent of HBW VMT).

MM TRANS-4 Provide Employer-Sponsored Vanpool, (1.6 percent of HBW VMT) (listed as T-11 in CalEEMod).

MM AQ-1 Replace Gas Powered Landscape Equipment with Zero-Emission Landscape Equipment (listed as LL-1 in CalEEMod).

MM AQ-2 Provide Electric Vehicle Charging Infrastructure (listed as T-14 in CalEEMod).

4.7.8 Level of Significance After Mitigation

As shown above, significant impacts related to GHG emissions during construction and operation of the proposed project are anticipated to occur. The construction mitigation measures would not be effective in reducing annual project emissions because their amortized value is a small fraction of the total.

Compliance with state mandates, other applicable regulatory requirements and mitigation measures mentioned in **Section 4.7.7** would reduce annual GHG emissions, but not enough to meet the 3,000 MTCO₂e per year significance threshold. In conclusion, GHG emissions impacts from the project will be significant and unavoidable. Pursuant to Section 15093 of the State CEQA Guidelines, a Statement of Overriding Consideration will need to be adopted prior to approval of the proposed project.



4.8 Hazards and Hazardous Materials

4.8.1 Introduction

The following discussion focuses on project impacts respecting hazardous materials. The initial study for the proposed project, included as **Appendix A** to this DEIR, concluded that impacts related to Threshold C²¹: hazards within one quarter mile of a school, Threshold E²²: within an airport land use plan, Threshold F²³: impair an emergency response plan, or Threshold G²⁴: risk of wildfires would have no impact or be less than significant and not further discussed in the report.

4.8.2 Regulatory Framework

Federal

The Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act) establishes the programs and processes for the federal government to provide disaster and emergency assistance to states, local governments, tribal nations, individuals, and qualified private nonprofit organizations. The provisions of the Stafford Act cover all hazards including natural disasters and terrorist events.

Section 203 of the Stafford Act, 42 USC, required all state, tribal nations, and local governments (including special districts) to develop comprehensive mitigation plans as a condition of eligibility for future post-disaster mitigation grants (LACCEO, 2014, p. 1).

Medical Wastes Regulation

Federal agencies governing the storage, transport, and disposal of medical wastes include:

- Occupational Safety and Health Administration
- Centers for Disease Control and Prevention

Regulations for packaging of medical wastes for transportation are set forth in Code of Federal Regulations Title 49 §§ 173.197 et seq. (NARA, 2025).

Environmental Protection Agency

The Federal Toxic Substances Control Act (1976) and the Resource Conservation and Recovery Act of 1976 (RCRA) established a program administered by the EPA for the regulation of the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA was amended in 1984 by the Hazardous and Solid Waste Act (HSWA), which affirmed and extended the “cradle to grave” system of regulating hazardous wastes. The use of certain techniques for the disposal of some hazardous wastes was specifically prohibited by the HSWA.

²¹ Threshold C had no impact because the project site was not within one quarter mile of a school.

²² Threshold D has no impact because it is not located within a hazard zone of the San Bernardino International Airport (SBIA).

²³ Threshold F has less than significant impacts because construction and operation of the project would be developed accordingly to development regulations to ensure adequate emergency circulation.

²⁴ Threshold G has less than significant impacts because the project site is not within or adjacent to a Very High Fire Hazard Severity Zone (VHFHSZ).



❖ SECTION 4.8 – HAZARDS AND HAZARDOUS MATERIALS ❖

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund, was enacted by Congress on December 11, 1980. This law provided broad federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. CERCLA established requirements concerning closed and abandoned hazardous waste sites; provided for liability of persons responsible for releases of hazardous waste at these sites; and established a trust fund to provide for clean up when no responsible party could be identified. CERCLA also enabled the revision of the National Contingency Plan (NCP). The NCP provided the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, or contaminants. The NCP also established the National Priorities List, which is a list of contaminated sites warranting further investigation by the EPA. CERCLA was amended by the Superfund Amendments and Reauthorization Act (SARA) on October 17, 1986.

United States Department of Transportation (USDOT)

The USDOT Office of Hazardous Materials Safety prescribes strict regulations for the safe transportation of hazardous materials, as described in Title 40, 42, 45, and 49 of the Code of Federal Regulations, and implemented by Title 17, 19, and 27 of the CCR. The USDOT Hazardous Materials Regulations (HMR) apply to persons who undertake transportation of hazardous materials. The Pipeline and Hazardous Materials Safety Administration (PHMSA) issues the HMR. PHMSA has also issued procedural regulations, including provisions on registration and public sector training and planning grants (49 CFR Parts 105, 106, 107, and 110). PHMSA's regulatory functions include issuing rules and regulations governing the safe transportation of hazardous materials and representing USDOT in international organizations and working to assure the compatibility of domestic regulations with the regulations of bodies such as the Federal Motor Carrier Safety Administration (FMCSA). The FMCSA issues regulations concerning highway routing of hazardous materials, the hazardous materials endorsement for a commercial driver's license, highway hazardous material safety permits, and financial responsibility requirements for motor carriers of hazardous materials.

Federal Emergency Management Agency

The primary mission of the Federal Emergency Management Agency is to reduce the loss of life and property and to protect the nation from all hazards, including natural disasters, acts of terrorism, and other man-made disasters, by leading and supporting a risk-based, comprehensive emergency management system of preparedness, protection, response, recovery, and mitigation.

Disaster Mitigation Act

The Disaster Mitigation Act of 2000 requires a state mitigation plan as a condition of disaster assistance, adding incentives for increased coordination and integration of mitigation activities at the state level through the establishment of requirements for two different levels of state plans: "Standard" and "Enhanced." States that develop an approved Enhanced State Plan can increase the amount of funding available through the Hazard Mitigation Grant Program. The Disaster Mitigation Act also established a new requirement for local mitigation plans.

Emergency Planning and Community Right-To-Know Act

The Emergency Planning and Community Right-to-Know Act (EPCRA) of 1986 was included under the Superfund Amendments and Reauthorization Act (SARA) law and is commonly referred to as SARA Title III. EPCRA was passed in response to concerns regarding the environmental and safety



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hazards proposed by the storage and handling of toxic chemicals. EPCRA establishes requirements for federal, state, and local governments, Indian Tribes, and industry regarding emergency planning and Community Right-to-know reporting on hazardous and toxic chemicals. SARA Title III requires states and local emergency planning groups to develop community emergency response plans for protection from a list of Extremely Hazardous Substances (40 CFR Appendix B). The Community Right-to-Know provisions help increase the public's knowledge of and access to information on chemicals at individual facilities, their uses, and their release into the environment.

Hazardous Materials Transportation Act

The Hazardous Materials Transportation Act (HMTA) of 1975 was created to provide adequate protection from the risks to life and property related to the transportation of hazardous materials in commerce by improving regulatory enforcement authority of the Secretary of Transportation.

Occupational Safety and Health Administration (OSHA)

With the Occupational Safety and Health Act of 1970, Congress created the Occupational Safety and Health Administration (OSHA) to assure safe and healthful working conditions for working men and women by setting and enforcing standards and by providing training, outreach, education and assistance.

State

Governor's Office of Emergency Services (OES)

The Governor's Office of Emergency Services (OES) is responsible for the coordination of overall state agency response to disasters; and assuring the state's readiness to respond to, recover from all hazards and assisting local governments in their emergency preparedness, response, recovery and mitigation.

The State of California Emergency Plan, issued by the Governor's Office of Emergency Services (OES) in 2017, describes the methods for conducting emergency operations, the process for rendering mutual aid, the emergency services of governmental agencies, how resources are mobilized, how the public will be informed, and the process to ensure continuity of government during an emergency or disaster.

The State emergency management system is divided into Operational Areas, each one consisting of a county and all the jurisdictions within that county including cities and special districts.

The State Hazard Mitigation Plan, issued by OES in 2018, contains risk assessments and sets forth mitigation strategies for a wide variety of natural and human-caused hazards. Hazard mitigation is any sustained action taken to reduce or eliminate long-term risk to people and property from natural or human-caused hazards and their effects (CalOES, 2018, p. 1.1-5).

OES divides the state into six Fire and Rescue Mutual Aid regions. San Bernardino County is in Region 6, which extends from San Diego and Imperial counties on the south to Mono County on the north (OES, 2023).



Medical Wastes Regulation

The Medical Waste Management Act (California Health and Safety Code §§ 117600 et seq.) regulates storage, transportation, and treatment of medical wastes. Medical waste generators producing 200 pounds or more of medical waste per month are classified as Large Quantity Generators (LQGs). State regulations governing medical waste are also issued and enforced by the California Division of Occupational Safety and Health (DOSH) and Caltrans.

San Bernardino County

The City of Redlands is the San Bernardino County Operational Area. The existing emergency response plan in San Bernardino County is the San Bernardino County Operational Area Emergency Response Plan (“ERP”) revised in 2018. The ERP identifies County agencies and other agencies that would be involved in emergency responses; threat summaries and assessments; and procedures for responding agencies as well as County agencies that would be involved in coordinating and managing responses. The ERP is focused on emergencies beyond the scope of the daily functions of public safety agencies, such as emergencies requiring multi-agency and/or multi-jurisdictional responses.

Further assessments of potential hazards and County resources available for responding to hazards are contained in the County of San Bernardino Multi-Jurisdictional Hazard Mitigation Plan (MJHMP) updated in 2022. The MJHMP includes a vulnerability analysis for many types of hazards including earthquakes, floods, fires, and manmade hazards including terrorism and civil unrest; goals and objectives for strategies for mitigating hazards; proposed strategies and actions for reducing vulnerability to identified hazards; and lists of facilities and equipment available for responding to disasters.

Medical Wastes Regulation

The San Bernardino County Department of Public Health, Division of Environmental Health Services (EHS) regulates medical waste generators, transporters, transfer stations, and treatment facilities within the County under the authority of the Medical Waste Management Act (California Health and Safety Code §§ 117600 et seq.). Medical waste generators producing 200 pounds or more of medical waste per month are classified as Large Quantity Generators (LQGs), who must obtain a permit from EHS. It is expected that the proposed project would be an LQG by the time the medical office building proposed in Phase 1 (165,000 square feet) was completed and operating. The Medical Waste Management Act sets forth requirements governing containment and storage, transport, and treatment of medical wastes. LQGs, medical waste haulers, and treatment facilities are required to register or obtain permits from EHS (EHS, 2023). Eight medical waste transporters located in San Bernardino County are currently registered with the California Department of Public Health (CDPH, 2023a). The CDPH lists one medical waste transfer station, and one medical waste treatment facility, in San Bernardino County (CDPH, 2023b).

City of Redlands

The City of Redlands adopted its Local Hazard Mitigation Plan (LHMP) in 2021. The LHMP includes assessments of hazards and risks in the city, assesses hazard mitigation capacity in the city, and sets forth mitigation strategies. These strategies include measures such as strengthening critical infrastructure, improving emergency response systems, protecting vulnerable populations, and reducing risks from hazards like flooding, wildfires, and earthquakes (City of Redlands, 2021).



California Code of Regulations Title 22

Hazardous substances are regulated by state and federal agencies to protect public health and the environment. Hazardous materials have certain chemical, physical, or infectious properties that threaten life, health, property, or the environment. The California Code of Regulations (CCR) Title 22 Division 4.5, Environmental Health Standards for the Management of Hazardous Waste, provides the following definition: A hazardous material is a substance or combination of substances which, because of its quantity, concentration or physical, chemical, or infectious characteristics, may either (1) cause or significantly contribute to an increase in mortality or an increase in serious, irreversible or incapacitating irreversible illness; or (2) pose a substantial present or potential hazard to human health and safety, or the environment when improperly treated, stored, transported or disposed of. Hazardous materials include waste that has been abandoned, discarded, or recycled on the property and as a result represents a continuing hazard as the development is proposed. Hazardous materials also include any contaminated soil or groundwater.

4.8.3 Existing Conditions

Hazardous Materials

Three hazardous materials sites were identified within 0.5 mile of the project site and are described below in Table 4.8-1.

Table 4.8-1

HAZARDOUS MATERIALS SITES ON AND WITHIN 0.5 MILE OF THE PROJECT SITE

Site Name Address Distance and Direction from Permanent TMF Site	Additional information
GeoTracker	
California Shell 941 California St 2,250 feet south	Leaking Underground Storage Tank Gasoline release affected drinking water aquifer and soil; case closed 2008
Resource Conservation and Recovery Act Information (RCRAInfo)	
Kaiser Permanente Redlands medical Center 1301 California St Onsite	Large Quantity Generator of hazardous wastes (LGQ)
Splash Kingdom Waterpark 1101 California St 980 feet south	Other hazardous waste activities

Sources: SWRCB, 2023; NETROnline.com

4.8.4 Environmental Impact Analysis

4.8.4.1 Thresholds of Significance

In accordance with Appendix G of the State CEQA Guidelines, the project would have a significant impact regarding hazards and hazardous materials if it would:

- A. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?



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- 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; or
- C. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school; or
- D. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, would it create a significant hazard to the public or the environment; or
- E. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area; or
- F. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or
- G. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.

Thresholds of Significance from CEQA Appendix G were used to evaluate the potential level of initial impact and the potential level of impact after implementation of mitigation measures. The Initial Study, included as **Appendix A**, substantiates that impacts respecting **Significance Thresholds C, E, F, and G** would be no impact or less than significant. Under Threshold C, no schools are within 0.25 mile of the project site and no impact would occur. Regarding Threshold E, project development would not cause airport-related hazards, or excessive noise, to people occupying the project site thus no impacts would occur. Threshold F results determined compliance with City requirements for traffic management during construction in the public right-of-way would ensure that the project would have a less than significant impact with regards to implementation of an adopted emergency response plan or emergency evacuation plan. Threshold G analysis resulted in less than significant impacts regarding death and injury involving wildland fires because the project site is surrounded by built-out urban uses and project development would not exacerbate wildfire risks,

Therefore, this section focuses only on impacts related to hazardous materials (**Significance Thresholds A, B and D**).

4.8.4.2 Analysis of Project Impacts

Threshold A: Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less than Significant Impact

Construction

Project construction would involve use of hazardous materials such as fuels, oils and other lubricants, degreasers, paints, pesticides, and fertilizers. Use and disposal of hazardous materials would be in compliance with existing regulations of several agencies including the US Environmental Protection Agency, Department of Toxic Substances Control, US Department of Transportation, and San



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Bernardino County Environmental Health Services. Impacts arising from routine use of hazardous materials during project construction would be less than significant upon compliance with existing regulations.

Operation

Project operation would generate medical waste. The San Bernardino County Department of Public Health, Division of Environmental Health Services (EHS) regulates medical waste generators, transporters, transfer stations, and treatment facilities within the County under the authority of the Medical Waste Management Act (California Health and Safety Code §§ 117600 et seq.). Medical waste generators producing 200 pounds or more of medical waste per month are classified as Large Quantity Generators (LQGs), who must obtain a permit from EHS. It is expected that the proposed project would be an LQG by the time the medical office building proposed in Phase 1 (165,000 square feet) is completed and operating. The Medical Waste Management Act sets forth requirements governing containment and storage, transport, and treatment of medical wastes. LQGs, medical waste haulers, and treatment facilities are required to register or obtain permits from EHS (EHS, 2023). Eight medical waste transporters located in San Bernardino County are currently registered with the California Department of Public Health (CDPH, 2023a). The CDPH lists one medical waste transfer station, and one medical waste treatment facility, in San Bernardino County (CDPH, 2023b).

State regulations governing medical waste are also issued and enforced by the California Division of Occupational Safety and Health (DOSH) and Caltrans. Federal regulations governing medical waste are also issued and enforced by Occupational Safety and Health Administration and the Centers for Disease Control and Prevention. Operational impacts arising from routine transport, use, or disposal of hazardous materials would be less than significant after adherence to federal, state, and county regulations.

Threshold B: Would the project 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

Construction

Project construction would involve transport, storage, and use of chemical agents, solvents, paints, and other hazardous materials commonly associated with construction activities. Chemical transport, storage, and use would comply with Resource Conservation and Recovery Act (RCRA); Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); Occupational Safety and Health Administration (OSHA); California Hazardous Waste Control Law (California Health and Safety Code, Division 20, Chapter 6.5, Hazardous Waste Control); California Division of Safety and Health (DOSH); South Coast Air Quality Management District (SCAQMD); and San Bernardino County Fire Department (SBCFD) requirements.²⁵ The SBCFD provides emergency responses for hazardous materials releases. The construction contractor would maintain equipment and supplies onsite for containing and cleaning up small spills of hazardous materials, and in the event of a release of hazardous materials of quantity and/or toxicity that onsite workers could not

²⁵ San Bernardino County Fire Department (SBCFD) is the Certified Unified Program Agency (CUPA) for San Bernardino County; the Certified Unified Program coordinates and makes consistent enforcement of several state and federal regulations governing hazardous materials.



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safely contain and clean up, would notify the SBCFD immediately. Therefore, compliance with applicable laws and regulations during project construction would reduce the potential for accidental releases of hazardous materials, and construction hazards impacts would be less than significant.

Operation

Project operation would generate hazardous materials such as medical wastes. Medical waste would be stored, transported, treated, and disposed of in accordance with regulations enforced by the Occupational Safety and Health Administration; the Centers for Disease Control and Prevention; the San Bernardino County Division of Environmental Health Services (Medical Waste Management Act, California Health and Safety Code Sections 117600 et seq.); the California Division of Occupational Safety and Health (DOSH) and Caltrans. See Regulatory Framework, Section 4.8.2 above, for further discussion of regulatory requirements pertaining to medical wastes.

Project operation would also involve use of cleansers, disinfectants, paints, fertilizers, herbicides, and pesticides for cleaning and maintenance purposes. Hazardous materials used for such purposes would be stored, used, transported, and disposed of in compliance with the regulations identified in the discussion of construction impacts above. As with project construction, the managers and operators of the proposed hospital and medical office building would train staff on safe containment and cleanup of small spills of hazardous materials and would contact the SBCFD immediately in the event of a release of hazardous materials that onsite staff were unable to safely contain and clean up. Impacts would be less than significant.

Threshold D: Would the project 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?

Less than Significant Impact

Government Code § 65962.5 requires the Department of Toxic Substances Control (DTSC) to compile and update, at least annually, lists of the following:

- Hazardous waste and substances sites from the DTSC EnviroStor database.
- Leaking Underground Storage Tank (LUST) sites by county and fiscal year in the State Water Resources Control Board (SWRCB) GeoTracker database.
- Solid waste disposal sites identified by SWRCB with waste constituents above hazardous waste levels outside waste management units.
- SWRCB Cease and Desist Orders (CDOs), and Cleanup and Abatement Orders (CAOs).
- Hazardous waste facilities subject to corrective action pursuant to § 25187.5 of the Health and Safety Code, identified by DTSC.

These lists are collectively referred to as the “Cortese List.”

A radius search was conducted for the project site by National Environmental Title Research, Inc. (NETR) on December 20, 2023.



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The medical office building onsite is listed as a large-quantity generator of hazardous waste on the Resource Conservation and Recovery Act Information (RCRAInfo) database. California Shell, at 941 California Street about 2,250 feet south of the project site, is listed as a Leaking Underground Storage Tank site; the case was closed in 2008. The former Splash Kingdom Waterpark site at 1101 California Street, 980 feet south of the project site, is listed for other hazardous waste activities on the RCRAInfo database, which include the generation and storage of hazardous wastes requiring ongoing monitoring and compliance with DTSC and U.S. EPA requirements. No open cases requiring active remediation were identified for these sites.

None of the listed sites is an environmental concern for the project site, as only one of the sites is listed for a known release of hazardous materials, and that case (California Shell) was closed in 2008. All three sites are known to regulatory agencies and being managed by the appropriate regulatory agency. Impacts would, therefore, be less than significant and no mitigation is required.

As each phase is developed, construction impacts would remain the same as discussed under Threshold B. Compliance with applicable laws and regulations during project construction would reduce the potential for accidental releases of hazardous materials, and construction hazards impacts to less than significant. During operation of each new phase, the facility and staff would still be required to comply with regulations discussed under Threshold B. Impacts from each phase would remain less than significant and no mitigation is required.

4.8.5 Cumulative Impacts

Project construction would involve transport, storage, and use of chemical agents, solvents, paints, and other hazardous materials commonly associated with construction activities. Impacts relating to use, containment, transport and disposal of hazardous materials from routine use of hazardous materials during project construction would be less than significant after compliance with existing regulations.

Project operation would generate medical waste. Operational impacts respecting hazardous materials would be less than significant after adherence to federal, state, and county regulations. The managers and operators of the proposed hospital and medical office building would train staff on safe containment and cleanup of small spills of hazardous materials and would contact the SBCFD immediately in the event of a release of hazardous materials that onsite staff were unable to safely contain and clean up. Impacts would be less than significant.

Construction and operation of related projects would also be required to comply with laws and regulations governing the use, transport, storage, and disposal of hazardous materials; therefore, such use, transport, storage, and disposal would not cause substantial hazards to the public or the environment. Cumulative impacts respecting hazardous materials would be less than significant.

4.8.6 Mitigation Measures

Impacts would be less than significant, and no mitigation measures are required.

4.8.7 Level of Significance after Mitigation

Impacts would be less than significant without mitigation.



4.9 Hydrology and Water Quality

4.9.1 Introduction

Impacts to water quality, surface hydrology and drainage, and flooding hazards were determined to be less than significant in the Initial Study included as **Appendix A** to this PEIR. This determination was based on the fact that the project would comply with federal, state, and local water quality regulations, including the Clean Water Act, the Porter-Cologne Water Quality Control Act, and the City's MS4 Permit requirements. The project also incorporates a site-specific Water Quality Management Plan with low-impact development (LID) best management practices to capture, treat, and infiltrate stormwater onsite, thereby preventing significant erosion, siltation, or polluted runoff. In addition, the project site is not located within a flood hazard zone, nor would development alter local drainage patterns in a manner that would increase flooding risks. Because these issues were determined to be less than significant, this section focuses on the potential impacts to groundwater supply and groundwater recharge.

4.9.2 Regulatory Framework

Federal

Clean Water Act

The Clean Water Act (CWA) was first introduced in 1948 as the Water Pollution Control Act. The CWA authorizes federal, state, and local entities to cooperatively create comprehensive programs for eliminating or reducing the pollution of state waters and tributaries. The primary goals of the CWA are to restore and maintain the chemical, physical, and biological integrity of the nation's waters and to make all surface waters fishable and swimmable. The CWA forms the basic national framework for the management of water quality and the control of pollutant discharges. The CWA sets forth several objectives to achieve the above-mentioned goals. These objectives include: regulating pollutant and toxic pollutant discharges; providing for water quality that protects and fosters the propagation of fish, shellfish and wildlife; developing waste treatment management plans; and developing and implementing programs for the control of non-point sources of pollution. The State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards (RWQCBs) are the primary state agencies responsible for implementing the CWA and regulating the activities and factors that affect or have the potential to affect water quality in the state.

The CWA provides the legal framework for several water quality regulations including the National Pollutant Discharge Elimination System (NPDES), effluent limitations, water quality standards, pretreatment standards, anti-degradation policy, non-point source discharge programs, and wetlands protection. An NPDES permit is required for all discharges of pollutants to waters of the United States from any point source.

In addition to regulating non-stormwater discharges, the CWA sets forth water quality standards based on a water body's designated beneficial uses (e.g., wildlife habitat, domestic water supply, recreation, etc.), along with water quality criteria necessary to support those uses. Water quality criteria are either prescribed concentrations or levels of constituents such as lead, suspended sediment, and fecal coliform bacteria, or narrative statements which represent the quality of water that support a particular use.



Pursuant to Clean Water Act §§ 303(d) and 305(b) (33 U.S.C. §§ 1313[d], 1315[b]), each state is required to report to the USEPA on the overall quality of the waters within its boundaries. When designated beneficial uses of a particular receiving water body are being compromised by water quality, § 303(d) of the CWA requires identifying and listing that water body as *impaired*. Once a water body has been deemed impaired, a Total Maximum Daily Load (TMDL) must be established for the pollutant(s) or flows causing the impairment. A Total Maximum Daily Load is an estimate of the total load of pollutants from point, non-point, and natural sources that a water body may receive without exceeding applicable water quality standards. Those facilities and activities that are discharging into the water body, collectively, must not exceed the Total Maximum Daily Load. The USEPA developed guidance to states recommending that the 305(b) report and the 303(d) list be integrated into a single report. For California, this combined report is called the *California Integrated Report*, and it satisfies both the CWA § 305(b) and § 303(d) requirements. In California, the SWRCB oversees § 305(b) and § 303(d); Upon approval of the 303(d) list portion of the California Integrated Report by the SWRCB, the California Integrated Report is submitted to USEPA, which may make changes to the 303(d) list before it approves the final 303(d) list for California.

In addition to trash and debris, common pollutants of concern that have the potential to affect water quality generally fall into one of the following seven categories: sediments; nutrients; bacteria and viruses; oil and grease; metals; organic compounds; and pesticides.

Section 401 Clean Water Act

Although the Clean Water Act is a federal law, the Environmental Protection Agency (EPA) has authorized some states, including California, to have the primary authority and responsibility for setting surface- and groundwater water quality standards.

Section 401 is implemented through the Water Quality Certification (WQC) process. In the State of California, the State Water Quality Resources Board (SWRCB) has given the responsibility for issuing § 401 WQCs to its nine Regional Water Quality Control Boards (RWQCBs), unless a discharge of dredged or fill material is proposed within more than one region. In the event that a project proposes discharges of dredged or fill material in more than one region, responsibility for issuance of a § 401 WQC will lie either with the SWRCB, or, upon agreement of the RWQCBs for the affected regions, with the RWQCB chosen in the discretion of the RWQCBs (California Water Code, § 13160; California Code of Regulations, Title 23, § 3838). Certification must be based on a finding that the proposed discharge will comply with water quality standards, which include numeric and narrative water quality objectives applicable to identified surface waters in the Water Quality Control Plan for the region (Basin Plan) in which a discharge of fill is proposed.

If a project does not contain federal waters (i.e., waters of the U.S.), the project must still comply with water quality-related permits required by the SWRCB and the RWQCB. The project is within the jurisdiction of the Santa Ana RWQCB (Region 8).

State

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Porter-Cologne) (California Water Code, Division 7, §§ 13000–14958) defines water quality objectives as *the allowable limits or levels of water quality constituents or characteristics which are established for the reasonable protection of beneficial uses of water or the prevention of nuisances within a specific area*. Thus, water quality objectives are intended



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to protect the public health and welfare, and to maintain or enhance water quality in relation to the existing and/or potential beneficial uses of the water. Water quality objectives apply to both waters of the U.S. and waters of the State. In the State of California, the Porter-Cologne Water Quality Control Act is administered in concurrence with the § 401 CWA Water Quality Certification. As with § 401 CWA, the Santa Ana RWQCB would provide project review pursuant to Porter-Cologne.

Construction Stormwater Program

Stormwater is defined by USEPA as the runoff generated when precipitation from rain and snowmelt events flows over land or impervious surfaces without percolating into the ground. Stormwater is often considered a nuisance because it mobilizes pollutants such as motor oil and trash. In most cases, stormwater flows directly to water bodies through sewer systems, contributing a major source of pollution to rivers, lakes, and the ocean. Stormwater discharges in California are regulated by the SWRCB and RWQCBs through National Pollutant Discharge Elimination System (NPDES) permits. However, storm water may also act as a resource and recharge to groundwater when properly managed (SWRCB 2025a). The SWRCB regulates stormwater discharges from construction sites because of its potential to mobilize pollutants and discharge into waterbodies or watersheds (SWRCB 2025b).

Construction activity subject to this permit includes clearing, grading and disturbances to the ground such as stockpiling or excavation but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. Dischargers whose projects disturb one or more acres of soil or whose projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the NPDES *General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities* (Construction General Permit; NPDES No. CAS000002). The SWRCB and its nine RWQCBs also implement water quality regulations under the California Porter Cologne Water Quality Control Act; therefore, the NPDES was adopted by the SWRCB as Order No. 2022-0057-DWQ on September 8, 2022.

The Construction General Permit requires potential dischargers of pollutants into waters of the U.S. and State file a Notice of Intent (NOI) with the SWRCB through the SWRCBs Stormwater Multiple Application and Report Tracking System (SMARTS); the NOI requires the preparation and implementation of a site-specific Stormwater Pollution Prevention Plan (SWPPP), which establishes enforceable limits on discharges, requires effluent monitoring, designates reporting requirements, and requires construction best management practices (BMPs) to reduce or eliminate point and non-point source discharges of pollutants, including sediment resulting from wind or water erosion.

Basin Plans

The SWRCB requires its nine RWQCBs to develop water quality control plans (Basin Plans) designed to preserve and enhance water quality and protect the beneficial uses of all Regional waters. Specifically, Basin Plans designate beneficial uses for surface waters and groundwater, set narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and conform to the State antidegradation policy, and describe implementation programs to protect all waters in the Regions. In addition, Basin Plans incorporate by reference all applicable State and Regional Board plans and policies, and other pertinent water quality policies and regulations. This project is under the jurisdiction of the Santa Ana RWQCB (Region 8).



Regional and Local

Municipal Stormwater Program

The USEPA defines *municipal separate storm sewer systems* (MS4s, or storm drains) as a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains) owned or operated by a State (40 CFR 122.26[b][8]).

Pursuant to CWA § 402(p), storm water permits are required for discharges from an MS4 serving municipalities. Most of these permits are issued to a group of co-permittees encompassing an entire metropolitan area. Phase I MS4 permits require the discharger to develop and implement a Storm Water Management Plan or Program with the goal of reducing the discharge of pollutants to the maximum extent practicable. Through the Municipal Stormwater program, RWQCBs have adopted NPDES permits to regulate storm water for municipalities. Most of these permits are issued to a group of co-permittees encompassing an entire metropolitan area. These permits require the discharger to develop and implement a Storm Water Management Plan or Program with the goal of reducing the discharge of pollutants to the maximum extent practicable (SWRCB 2025c). In this context, the NPDES Permit is also referred to as an MS4 Permit.

The *National Pollutant Discharge Elimination System (NPDES) Permit and Waste Discharge Requirements for the San Bernardino County Flood Control District, the County of San Bernardino, and the Incorporated Cities of San Bernardino County within the Santa Ana Region, Area-Wide Urban Storm Water Runoff Management Program* regulates, through Order No. R8-2010-0036 and NPDES No. CAS618036, the discharge of pollutants into waters of the U.S. and State into MS4s, through which stormwater and urban runoff are discharged into waters of the U.S. and State located within the Santa Ana Region. Some of the natural channels, streambeds and other drainage facilities that are generally considered as waters of the U.S. and State have been converted to flood control facilities. In such cases, where a natural streambed is modified to convey storm water flows, the conveyance system becomes both a conveyance system and a water of the U.S. (RWQCB, 2010)

The *Santa Ana Region Area-Wide Urban Storm Water Runoff Management Program* regulates the discharge of pollutants in urban runoff from anthropogenic (generated from nonagricultural human activities) sources from MS4s that are either under the jurisdiction of the Permittees (the City of Redlands is a Co-Permittee), and/or where Permittees have MS4 maintenance responsibility, or have authority to approve modifications of the MS4s. Urban runoff includes those discharges from residential, commercial, industrial and construction areas within the permitted area but excludes discharges from feedlots, dairies, and farms or other agricultural activities. The Permittees have jurisdiction over and/or maintenance responsibility for storm water conveyance systems within San Bernardino County (RWQCB, 2010).

As new development and redevelopment occurs, it can significantly increase pollutant loads in stormwater and urban runoff, because increased population density results in proportionately higher levels of vehicle emissions, vehicle maintenance wastes, municipal sewage wastes, household hazardous wastes, fertilizers, pet waste, trash, and other anthropogenic pollutants. The MS4 Permit requires new development and significant redevelopment projects to incorporate post-construction low-impact development (LID) BMPs into project design to reduce or eliminate the quantity, and improve the quality of, stormwater being discharged from the project site.



To comply with the requirements of the MS4 Permit, project proponents must prepare a site-specific Water Quality Management Plan (WQMP) and submit it to the Permittee (i.e., the City of Redlands) for approval. The WQMP must include site design (including, where feasible, the CALGreen Code), source control and treatment control LID BMPs to reduce the quantity of rainfall runoff and improve the quality of water that leaves a site. LID is a leading stormwater management strategy that seeks to mitigate the impacts of runoff and stormwater pollution as close to its source as possible. LID comprises a set of site design approaches and BMPs. These LID practices can effectively remove nutrients, bacteria, and metals while reducing the volume and intensity of stormwater flows.

4.9.3 Existing Conditions

Groundwater

The project site is over the Upper Santa Ana Valley Groundwater Basin, Bunker Hill Subbasin (see **Figure 4.9-1**). In 1969, Bunker Hill Subbasin was included as part of the “San Bernardino Basin” (SBB) by the Western-San Bernardino Judgment (Western Judgment; WSC, 2021, p. 3-20). The Bunker Hill Subbasin spans a surface area of 120 square miles within the SBB, and consists of the alluvial materials that underlay the San Bernardino Valley. Recharge to the Bunker Hill Subbasin historically has resulted from infiltration of runoff from the San Gabriel and San Bernardino Mountains. The Santa Ana River, Mill Creek, and Lytle Creek contribute more than 60 percent of the total recharge to the groundwater system. Lesser contributors include Cajon Creek, San Timoteo Creek, and most of the creeks flowing southward out of the San Bernardino Mountains. The subbasin is also replenished by deep percolation of water from precipitation and resulting runoff, percolation from delivered water, and water spread in streambeds and spreading grounds (DWR, 2004).

Groundwater Supplies

Groundwater extractions from the SBB are regulated under a court judgment. The Western Judgement determined the natural safe yield for groundwater extractions from the SBB is 232,100 acre-feet per year²⁶ (afy), with 167,238 afy of that allocated to several water agencies in San Bernardino County and 64,862 afy allocated to a group of water purveyors in Riverside County (WSC, 2021, p. 3-20).

The City of Redlands Municipal Utilities & Engineering Department (MUED) provides water to the project site. MUED extracts groundwater from the Bunker Hill and the Yucaipa Subbasins. Between 2016 and 2020, MUED extracted between 11,442 af and 14,466 af from the Bunker Hill Subbasin, and between 16 af and 297 af from the Yucaipa Subbasin (WSC 2021, p. 4-13).

Groundwater Recharge

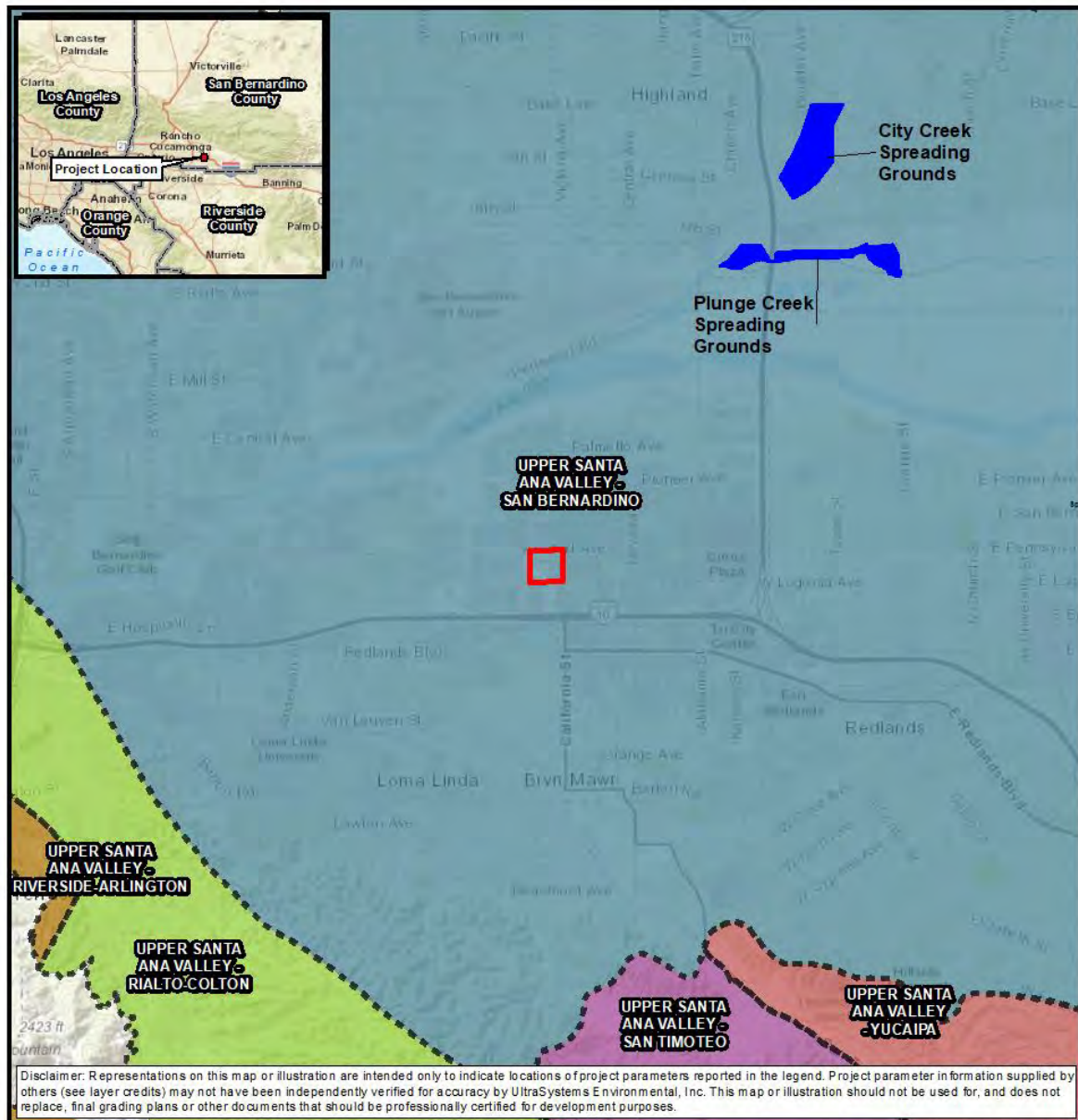
The SBB is intentionally recharged with stormwater; with water imported from northern California via the State Water Project (SWP); and recycled water. The San Bernardino Valley Municipal Water District, a SWP contractor, purchases SWP water for recharge into to the Upper Santa Ana Valley Groundwater Basin (WSC, 2021, p. 3-7). Total intentional groundwater recharge in the SBB in 2025 is forecast as 38,072 afy consisting of 9,112 afy imported water, 16,430 afy recycled water, and 12,530 afy local surface water (WSC, 2021, p. 4-7).

²⁶ One acre-foot is the volume of water required to cover 1 acre with 1 foot of water, or approximately 325,851 gallons.



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**Figure 4.9-1
GROUNDWATER BASINS, SUBBASINS AND RECHARGE AREAS**



Path: I:\GIS\Projects\7214_Redlands_Kaiser_MedCenter_EIR\MXDs\7230_Kaiser_4_10_Groundwater_Basins_Recharge_2023_11_17.mxd

November 17, 2023

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Sources: Esri, HERE, Garmin, Intermap, InCREMENT P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community; California Department of Water Resources 2021 (Bulletin 118, 2021); UltraSystems Environmental, Inc., 2023.

Legend

- Project Boundary
- Groundwater Recharge Basins
- CDWR Bulletin 118 Groundwater Basins (2021):**
- UPPER SANTA ANA VALLEY
- CDWR Bulletin 118 Groundwater Subbasins (2021):**
- RIALTO-COLTON
- RIVERSIDE-ARLINGTON
- SAN BERNARDINO
- UPPER SANTA ANA VALLEY - SAN TIMOTEO
- UPPER SANTA ANA VALLEY - YUCAIPA

Scale: 1:63,360

0 0.5 1 Miles

0 0.5 1 Kilometers

**Kaiser Permanente
Medical Center**
Groundwater Basins, Subbasins
and Recharge Basins





As of 2021, there were 10 active recharge projects along tributaries of the Santa Ana River and 10 proposed or additional recharge projects (WSC 2021, pp. 3-47 – 3-48).

MUED contributes to regional efforts to recharge the SBB with SWP water and local surface water in wet years when available, so that storage is available for use in dry years when other supplies may be limited (WSC 2021, p. 4-13).

4.9.4 Environmental Impact Analysis

Thresholds of Significance

In accordance with Appendix G of the State CEQA Guidelines, the project would have a significant impact regarding hydrology and water quality if it would:

- A. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality; or
- B. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin; or
- 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; or
- D. In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation; or
- E. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

The following provides a brief summary of the conclusions for each applicable CEQA threshold related to hydrology and water quality. These summaries highlight the significance determinations, the primary reasons for those determinations, and the regulatory or design features that ensure compliance. As documented in the Initial Study (**Appendix A**), impacts under Thresholds A, C.i, C.ii, C.iii, C.iv, D, and E were determined to be less than significant or to have no impact. Because these issues were adequately addressed at the Initial Study level and do not require further evaluation or mitigation, they are omitted from detailed analysis in this PEIR. Instead, this section focuses on



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groundwater supply and recharge (threshold B), which may result in potentially significant impacts and therefore warrants additional analysis.

Threshold 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 could generate pollutants during construction (e.g., sediment, fuels, solvents) and operation (e.g., urban runoff). However, compliance with the NPDES Construction General Permit, implementation of a project-specific SWPPP, and incorporation of LID BMPs under the WQMP would ensure runoff is captured, treated, and managed onsite. Therefore, the project would not violate water quality standards, and impacts would be less than significant.

Threshold C.i) Result in substantial erosion or siltation on- or off-site?

Less Than Significant Impact. Construction activities would disturb soils, but erosion would be minimized through SWPPP-required BMPs and incorporation of LID features into design. These measures would control runoff and stabilize soils, reducing erosion and siltation impacts to less than significant levels.

Threshold C.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. Project drainage improvements, including infiltration and bioretention basins, are designed to capture and infiltrate stormwater onsite. These BMPs would prevent increases in runoff that could cause on- or off-site flooding.

Threshold C.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?

Less Than Significant Impact. Onsite stormwater facilities are sized to retain and treat runoff before discharge. Compliance with NPDES and MS4 Permit requirements would prevent exceedance of drainage system capacity and minimize pollutant discharges.

Threshold C.iv) Impede or redirect flood flows?

No Impact. FEMA mapping identifies the site within Zone X, outside the 100-year and 500-year floodplains. The project would not impede or redirect flood flows.

Threshold D) In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?

No Impact. The site is not within mapped dam inundation zones, is more than 40 miles inland from the Pacific Ocean (thus not at risk from tsunamis) and is not adjacent to any waterbody capable of producing a seiche. Therefore, there would be no impact.

Threshold E) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?



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Less Than Significant Impact. The project would comply with the Santa Ana Basin Water Quality Control Plan by incorporating BMPs required under the SWPPP and WQMP. The Bunker Hill Subbasin has no adopted groundwater sustainability plan; therefore, no conflict would occur, and impacts would be less than significant.

Analysis of Project Impacts

Threshold B: Would the project 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

Groundwater Supplies

The proposed project is estimated to use approximately 107,594 gallons of water per day (0.33 af), as shown below in **Table 4.9-1**. MUED forecasts that it will have adequate water supplies to meet demands in its service area over the 2025-2045 period in normal, single-dry-year, and multiple-dry-year conditions (WSC 2021, pp. 4-19 – 4-23; MUED total water supplies and demands are discussed further in Section 4.19, *Utilities and Service Systems*). Water demand forecasts are based on population estimates from the Southern California Association of Governments (SCAG) and General Plan land use buildout projections. SCAG population projections are based in part on general plan buildout projections (WSC 2021, pp. 4-19 – 4-23).

Table 4.9-1
ESTIMATED PROJECT WATER DEMAND

Phase	Land Use	Square Feet/Beds	Water Demand, Gallons per Day	
			Per unit	Total
1	Medical Office/Ambulatory Surgery	165,000 sf	312.5 per 1,000 sf	51,563
2	Acute Care Hospital	213 beds	93.75 per bed	19,969
3	Medical Office	83,000 sf	312.5 per 1,000 sf	25,938
4	Hospital	108 beds	93.75 per bed	10,125
Total	Not applicable	Not applicable	Not applicable	107,594¹

1. 107,594 gallons = 0.33 acre-feet

Source: Michael Baker International, 2025: Water Supply Assessment for Kaiser Permanente Redlands Medical Center

MUED forecasts that its groundwater supplies will increase from approximately 13,973 afy in 2025 to 16,677 afy in 2045 (WSC 2021, p. 4-19). Groundwater would comprise between 45 percent and 48 percent of the city's projected water supply, with the remainder supplied by surface water, recycled water, and water purchased from the SWP (WSC 2021, p. 4-19). The proposed project would require an estimated annual water demand of 120.5 afy.

The General Plan designation for the project site is Commercial Industrial. The proposed project, therefore, is accounted for in MUED water demand forecasts. Thus, water use by project operation would not substantially decrease groundwater supplies, and impacts would be less than significant.



Groundwater Recharge

Runoff generated on the project site would be captured by existing and proposed inlets and conveyed via new storm drains (similar to the LID-BMPs of Phase I) to the existing infiltration basin and to new bioretention basins, which would replace those used during the construction phase. Runoff generated in the area that previously discharged directly to Almond Avenue would also be captured by proposed inlets and conveyed via new onsite storm drains and conveyed to a new bioretention basin. Filtered water from this bioretention basin would be discharged to the existing infiltration basin; only treated overflow would discharge into the public storm drain on Almond Avenue (MBI, 2024a, p. 3).

The project includes four LID BMPs that would infiltrate stormwater into the soil: an infiltration basin under the proposed parking lot in the northwest part of the site; and three bioretention basins—one in the north-central part of the site and two in the central part of the site. The infiltration basins and bioretention basins combined would have capacity to infiltrate or retain runoff from the site from a six-hour, 2-year storm; that is, 125,534 cubic feet, as shown below in **Table 4.9-2** (MBI, 2024b, sheet C5.03).

Table 4.9-2
INFILTRATION BASIN AND BIORETENTION BASINS CAPACITIES

BMP ID	Capacity (cubic feet)
Infiltration Basin	92,438
Bioretention Basin 1-C	9,300
Bioretention Basin 1-B	9,765
Bioretention Basin 2-A2	14,031
Total	125,534

Source: Michael Baker International. 2024

As currently designed, LID BMPs (e.g., infiltration basin and bioretention basins) would retain most stormwater generated on the project site, remove trash and other contaminants specified in the project-specific Water Quality Management Plan, and allow stormwater to infiltrate the soil and contribute to groundwater recharge. Project development would not interfere with groundwater recharge, and impacts would be less than significant.

4.9.5 Cumulative Impacts

The area considered for cumulative impacts to groundwater is the San Bernardino Basin of the Upper Santa Ana Valley Groundwater Basin. The SBB spans a surface area of 141 square miles in the northeast part of the Upper Santa Ana River Valley.

The SBB is an adjudicated basin, pumping of groundwater is restricted, and the MUED may not extract more than its allocated volume of groundwater. The MUED also draws upon local surface water and the State Water Project to provide water to its service area. The proposed project would not require MUED to extract more groundwater than is allowed by the Western Judgement, nor would the project significantly deplete the SBB.

Other projects in the area would increase impervious areas, which could reduce groundwater recharge and would increase water demands, which could increase groundwater use. However, other projects would also be required to install LID BMPs as part of project design, minimize impervious areas, retain and treat most stormwater generated onsite, and allow treated stormwater to either



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infiltrate or allow only treated stormwater into storm drains (and downstream infiltration basins) as required by the MS4 Permit. Implementation of LID BMPs pursuant to the requirements of the MS4 Permit would result in most stormwater runoff generated by new construction within the SBB area being treated and allowed to infiltrate into the Bunker Hill Subbasin. Impacts would be less than significant after compliance with the MS4 permit, and project impacts would not be cumulatively considerable.

4.9.6 Mitigation Measures

Impacts would be less than significant, and no mitigation measures are required.

4.9.7 Level of Significance after Mitigation

Impacts would be less than significant without mitigation.



4.10 Noise

This section analyzes the potential impacts from noise and vibration that would result from project construction and operation. It includes a discussion of the characteristics of sound and groundborne vibration. Regulations, standards, and plans for controlling noise exposures are then described. The section identifies sensitive noise receptors surrounding the project site and presents the results of noise exposure calculations during construction at the nearest sensitive receptor (the existing medical facility). Both short-term (construction) noise and vibration exposure estimates are quantified. Finally, cumulative noise impacts are discussed.

4.10.1 Noise and Vibration Fundamentals

Noise

Characteristics of Sound

Sound is a pressure wave transmitted through the air. It is described in terms of loudness or amplitude (measured in decibels), frequency or pitch (measured in hertz [Hz] or cycles per second), and duration (measured in seconds or minutes). The decibel (dB) scale is a logarithmic scale that describes the physical intensity of the pressure vibrations that make up any sound. The pitch of the sound is related to the frequency of the pressure vibration. Because the human ear is not equally sensitive to all frequencies, a special frequency dependent rating scale is used to relate noise to human sensitivity. The A weighted decibel scale (dBA) provides this compensation by discriminating against upper and lower frequencies in a manner approximating the sensitivity of the human ear. The scale is based on a reference pressure level of 20 micropascals (zero dBA). The scale ranges from zero (for the average least perceptible sound) to about 130 (for the average human pain level).

Noise Measurement Scales

Several rating scales have been developed to analyze adverse effects of community noise on people. Since environmental noise fluctuates over time, these scales consider that the effect of noise on people depends largely upon the total acoustical energy content of the noise, as well as the time of day when the noise occurs. Those that are applicable to this analysis are as follows:

- L_{eq} , the equivalent noise level, is an average of sound level over a defined time interval (such as one minute, 15 minutes, one hour, or 24 hours). 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_{90} is a noise level that is exceeded 90 percent of the time at a given location; it is often used as a measure of “background” noise.
- L_{max} is the root mean square (RMS) maximum noise level during the measurement interval. This measurement is calculated by taking the RMS of all peak noise levels within the sampling interval. L_{max} is distinct from the peak noise level, which only includes the single highest measurement within a measurement interval.
- CNEL, the Community Noise Equivalent Level, is a 24-hour average L_{eq} with a 4.77 A-weighted decibel (dBA) “penalty” added to noise during the hours of 7:00 p.m. to 10:00 p.m., and a 10---dBA penalty 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 (ICF Jones & Stokes, 2009). The logarithmic



effect of these additions is that a 60-dBA 24-hour L_{eq} would result in a calculation of 66.7 dBA CNEL.

- L_{dn} , the day-night average noise, is a 24-hour average L_{eq} with an additional 10-dBA “penalty” added to noise that occurs between 10:00 p.m. and 7:00 a.m. The L_{dn} metric yields values within 1 dBA of the CNEL metric. As a matter of practice, L_{dn} and CNEL values are considered to be equivalent and are treated as such in this assessment.

Ground-Borne Vibration

Vibration is sound radiated through the ground. Ground-borne noise is the rumbling sound caused by the vibration of building interior surfaces. The ground motion caused by vibration is measured in two ways: the peak particle velocity (PPV) and the root-mean-square (RMS) average, expressed as vibration decibels (VdB). The PPV, which is the maximum vibration in inches per second, is an indicator of the potential for damage to structures. The RMS average is the square root of the average of the squares of the measured particle velocities. It is an indicator of the potential for human annoyance. Typical outdoor sources of perceptible ground-borne vibration are construction equipment and traffic on rough roads.

4.10.2 Regulatory Framework

Federal

The United States Environmental Protection Agency, under the authority of the Noise Control Act of 1972, has established noise emission criteria, as detailed in Title 40 of the Code of Federal Regulations (CFR). Title 40 of the CFR, Parts 201 through 205 pertain to various transportation equipment (such as motor carries engaged in interstate commerce) and Part 204, which provides noise emission standards for construction equipment.

State

The California Department of Health Services (DHS) Office of Noise Control has studied the correlation of noise levels with effects on various land uses. (The Office of Noise Control no longer exists). The most current guidelines prepared by the state noise officer are contained in the “General Plan Guidelines” issued by the Governor’s Office of Planning and Research in 2017 (OPR, 2017) and are shown in **Table 4.10-1**.



Table 4.10-1
LAND USE COMPATIBILITY FOR COMMUNITY NOISE SOURCES

Land Use Category	Community Noise Exposure (L _{dn} or CNEL)						
	50	55	60	65	70	75	80
Residential							
Transient Lodging – Motel, Hotel							
Schools, Libraries, Churches, Hospitals, Nursing Homes							
Auditoriums, Concert Halls, Amphitheaters							
Sports Arena, Outdoor Spectator Sports							
Playgrounds, Parks							
Golf Courses, Riding Stables, Water Recreation, Cemeteries							
Office Buildings, Business Commercial and Professional							
Industrial, Manufacturing, Utilities, Agriculture							
	ZONE A - Normally Acceptable: Specified land use is satisfactory, based upon the assumption that any buildings involved meet conventional Title 24 construction standards. No special noise insulation requirements.						
	ZONE B - Conditionally Acceptable: New construction or development shall be undertaken only after a detailed noise analysis is made and noise reduction measures are identified and included in the project design.						
	ZONE C - Normally Unacceptable: New construction or development is discouraged. If new construction is proposed, a detailed analysis is required, noise reduction measures must be identified, and noise insulation features included in the design.						
	ZONE D - Clearly Unacceptable: New construction or development should not be undertaken.						

Source: OPR, 2017



The City of Redlands General Plan 2035

The City of Redlands General Plan Noise Element establishes policies to minimize noise impacts, ensure compatibility between land uses, and protect noise-sensitive receptors. The following goals and policies are applicable to the proposed project and will guide the assessment and mitigation of noise impacts:

Goal 7-P.40: Protect public health and welfare by eliminating existing noise problems where feasible and preventing significant degradation of the future acoustic environment.

Goal 7-P.41: Ensure that new development is compatible with the noise environment by continuing to use potential noise exposure as a criterion in land use planning.

To enforce these policies, the City has established specific implementation actions:

Action 7-A.136: Require a noise analysis for all development proposals located where projected noise exposure exceeds compatibility thresholds.

Action 7-A.137: For projects exceeding the noise exposure standards in Table 7-10, require site planning and architectural design to incorporate noise-attenuating features. Mitigation must ensure compliance with allowable outdoor and indoor noise exposure standards in Table 7-11.

These policies and actions provide the regulatory framework for noise assessment and mitigation within the City of Redlands. The proposed project will be evaluated in accordance with these guidelines to ensure compliance with local standards and minimize noise-related impacts on surrounding land uses.

East Valley Corridor Specific Plan EV.4.0225 (b) (1-2)

The East Valley Corridor Specific Plan regulates operational impacts by requiring that all land uses comply with performance standards for vibration and noise. Every use of land or building shall operate in conformity with the following performance standards:

(1) Vibrations: Every use shall be so operated that maximum ground vibration generated is not perceptible without instruments at any point in the boundary of the district in which the use is located.

(2) Noise: Every use shall be so operated that the maximum volume of sound or noise generated does not exceed sixty-five (65) decibels from 7:00 a.m. to 10:00 p.m. and forty-five (45) decibels from 10:00 p.m. to 7:00 a.m. in areas which abut residential land uses. Measurement of maximum sound or noise volume can be taken at any point on the lot line of the lot on which the use is located.

City of Redlands Municipal Code

The City of Redlands Municipal Code (City of Redlands, 2004) Title 8, Chapter 8.06 specifies the noise control provisions to be implemented in the City of Redlands. Sections that are applicable to the proposed project include the following:



8.06.070: EXTERIOR NOISE LIMITS

- “A. The noise standards for the categories of land uses identified in **Table 4.10-2** of this section shall, unless otherwise specifically indicated, apply to all such property within a designated zone.

Table 4.10-2
MAXIMUM PERMISSIBLE SOUND LEVELS BY RECEIVING LAND USE

Receiving Land Use Category	Time Period	Noise Level - dBA
Single-family residential districts	10:00 p.m. – 7:00 a.m.	50
	7:00 a.m. – 10:00 p.m.	60
Multi-family residential districts; public space; institutional	10:00 p.m. – 7:00 a.m.	50
	7:00 a.m. – 10:00 p.m.	60
Commercial	10:00 p.m. – 7:00 a.m.	60
	7:00 a.m. – 10:00 p.m.	65
Industrial	Any time	75

- B. No person shall operate, or cause to be operated, any source of sound at any location within the city or allow the creation of any noise on property owned, leased, occupied or otherwise controlled by such person which causes the noise level when measured on any other property to exceed:
1. The noise standard for that land use specified in table 1²⁷ of this section for a cumulative period of more than thirty (30) minutes in any hour; or
 2. The noise standard specified in table 1 of this section plus five (5) dB for a cumulative period of more than fifteen (15) minutes in any hour; or
 3. The noise standard specified in table 1 of this section plus ten (10) dB for a cumulative period of more than five (5) minutes in any hour; or
 4. The noise standard specified in table 1 of this section plus fifteen (15) dB for a cumulative period of more than one minute in any hour; or
 5. The noise standard specified in table 1 of this section plus twenty (20) dB or the maximum measured ambient level, for any period of time.”

8.06.090: NOISE DISTURBANCES PROHIBITED

The following acts, and the causing or permitting thereof, are declared to be in violation of this chapter:

- “F. Construction and/or Demolition: Operating or causing the operation of any tools or equipment used in construction, drilling, repair, alteration or demolition work between weekday hours of six o'clock (6:00) P.M. and seven o'clock (7:00) A.M., including Saturdays, or at any time on Sundays or holidays, such that the sound therefrom creates a noise disturbance across a residential or commercial real property line, except for emergency work by public service utilities, the city or another governmental entity. All mobile or stationary internal combustion engine powered equipment or machinery shall be equipped

²⁷ Table numbering here refers to the cited Municipal Code section. “Table 1” of the Municipal Code is shown as Table 4.10-2 in this section of the PEIR.



with exhaust and air intake silencers in proper working order, or suitable to meet the standards set forth herein.²⁸

- G. Vibration: Operating or permitting the operation of any device that creates a vibration which is above the vibration perception threshold of an individual at or beyond the property boundary of the source if on private property or at one hundred fifty feet (150') from the source if on a public space or public right of way.”

8.06.120: EXEMPTIONS

- “G. Construction Activity: This chapter shall not apply to noise sources associated with new construction, remodeling, rehabilitation or grading of any property provided such activities take place between the hours of seven o'clock (7:00) A.M. and six o'clock (6:00) P.M. on weekdays, including Saturdays, with no activities taking place at any time on Sundays or federal holidays. All motorized equipment used in such activity shall be equipped with functioning mufflers.”

4.10.3 Methodology

Noise impacts from construction activities are a function of the noise generated by the operation of construction equipment and onroad delivery and worker commuter vehicles, the location of equipment, and the timing and duration of the noise generating activities. For this analysis, it was estimated that project construction would start in early September 2027 and end in January 2050. The project will be constructed in four phases, with several years between the end of one phase and the start of the next. Construction noise analyses have been conducted separately for each phase to accurately assess noise impacts and develop phase-specific mitigation measures if required.

Using preliminary design and scheduling information, UltraSystems used the air pollutant emissions estimation model CalEEMod²⁹ to estimate the number of days to execute the following construction subphases:

- Demolition.
- Site preparation.
- Grading.
- New building construction.
- Paving.
- Architectural coating.
- Utilities and trenching.

The types and numbers of pieces of equipment anticipated in each phase of construction and development were estimated using CalEEMod and UltraSystems' experience with similar projects. **Table 4.10-3** through **Table 4.10-7** list the equipment expected to be used in each of the four phases. For each equipment type, the table shows a maximum noise emission level (in dBA at 50 feet, unless

²⁸ See the construction exemption in §8.06.120 below.

²⁹ Described in **Section 4.2**.



otherwise specified) and a “usage factor,” which is an estimated percentage of operating time that the equipment would be producing noise at the stated level.³⁰

Table 4.10-3
PHASE 1 CONSTRUCTION EQUIPMENT NOISE CHARACTERISTICS

Subphase	Equipment Type	No. of Pieces of Equipment	Horse-power	Usage Factor	dBA @ 50 Feet
Demolition	Concrete Saw	1	1	0.7	90
	Tractor/Loader/Backhoes	1	97	0.37	85
	Rubber Tired Loaders	1	225	0.20	74
Site Preparation	Rubber Tired Loaders	3	225	0.40	74
	Tractor/Loader/Backhoes	4	97	0.37	85
Grading	Excavators	1	158	0.14	88
	Tractor/Loader/Backhoes	3	97	0.37	85
	Rubber Tired Loaders	1	150	0.40	74
	Graders	1	148	0.41	85
Building Construction	Welders	1	80	0.10	74
	Generator Sets	1	14	0.50	73
	Cranes	1	231	0.29	83
	Tractor/Loader/Backhoes	3	97	0.37	85
	Forklift	3	0.20	0.40	82
Paving	Pavers	2	81	0.42	77
	Paving Equipment	2	132	0.5	85
	Rollers	2	80	0.10	74
Architectural Coating	Air Compressor	1	37	0.48	77
Utilities Trenching and Installation	Trenchers	1	231	0.27	83

30 Equipment noise emissions and usage factors are from Knauer, H. et al., 2006. FHWA Highway Construction Noise Handbook. U.S. Department of Transportation, Research and Innovative Technology, Administration, Cambridge, Massachusetts, FHWA-HEP-06-015 (August 2006), except where otherwise noted.



Table 4.10-4
PHASE 2 CONSTRUCTION EQUIPMENT NOISE CHARACTERISTICS

Subphase	Equipment Type	No. of Pieces of Equipment	Horse-power	Usage Factor	dBA @ 50 Feet
Site Preparation	Rubber Tired Loaders	3	225	0.40	74
	Tractor/Loader/Backhoes	4	97	0.37	85
Pad Grading	Excavators	2	158	0.14	88
	Tractor/Loader/Backhoes	2	97	0.37	85
	Rubber Tired Loaders	1	150	0.40	74
	Graders	1	148	0.41	85
Building Construction	Welders	1	80	0.10	74
	Generator Sets	1	14	0.50	73
	Cranes	1	231	0.29	83
	Tractor/Loader/Backhoes	3	97	0.37	85
	Forklift	3	0.20	0.40	82
Paving and Landscaping	Pavers	2	81	0.42	77
	Paving Equipment	2	132	0.5	85
	Rollers	2	80	0.10	74
Architectural Coating	Air Compressor	1	37	0.48	77
Utilities Trenching and Installation	Trenchers	1	231	0.27	83

Table 4.10-5
PHASE 3 CONSTRUCTION EQUIPMENT NOISE CHARACTERISTICS

Subphase	Equipment Type	No. of Pices of Equipment	Horse-power	Usage Factor	dBA @ 50 Feet
Site Preparation	Rubber Tired Loaders	3	225	0.40	74
	Tractor/Loader/Backhoes	4	97	0.37	85



Subphase	Equipment Type	No. of Pices of Equipment	Horse-power	Usage Factor	dBA @ 50 Feet
Fine Grading	Excavators	2	158	0.14	88
	Tractor/Loader/Backhoes	3	97	0.37	85
	Rubber Tired Loaders	1	150	0.40	74
	Graders	1	148	0.41	85
Building Construction	Welders	1	80	0.10	74
	Generator Sets	1	14	0.50	73
	Cranes	1	231	0.29	83
	Tractor/Loader/Backhoes	3	97	0.37	85
	Forklift	3	0.20	0.40	82
Paving and Landscaping	Pavers	1	81	0.42	77
	Paving Equipment	2	132	0.5	85
	Cement and Mortar Mixers	2	9	0.56	67
	Rollers	2	80	0.10	74
Architectural Coating	Air Compressor	1	37	0.48	77
Utilities Trenching and Installation	Trenchers	1	231	0.27	83

Table 4.10-6
PHASE 4 CONSTRUCTION EQUIPMENT NOISE CHARACTERISTICS

Subphase	Equipment Type	No. of Pices of Equipment	Horse-power	Usage Factor	dBA @ 50 Feet
Site Preparation	Scrapers	1	225	0.40	74
	Graders	1	148	0.41	85
	Tractor/Loader/Backhoes	1	97	0.37	85
Fine Grading	Scrapers	2	158	0.14	88
	Tractor/Loader/Backhoes	2	97	0.37	85
	Rubber Tired Loaders	1	150	0.40	74



Subphase	Equipment Type	No. of Pices of Equipment	Horse-power	Usage Factor	dBA @ 50 Feet
	Graders	1	148	0.41	85
Building Construction	Welders	1	80	0.10	74
	Generator Sets	1	14	0.50	73
	Cranes	1	231	0.29	83
	Tractor/Loader/Backhoes	1	97	0.37	85
	Forklift	2	0.20	0.40	82
Paving and Landscaping	Pavers	1	81	0.42	77
	Paving Equipment	2	132	0.5	85
	Cement and Mortar Mixers	1	9	0.56	67
	Graders	1	148	0.41	85
	Rollers	2	80	0.10	74
Architectural Coating	Air Compressor	1	37	0.48	77
Utilities Trenching and Installation	Trenchers	1	231	0.27	83

For the noise exposure calculations, the distances used were, for each subphase, the shortest distance between source and receiver. Because the construction equipment is used throughout the project site, the noise sources were assumed to be roughly in the middle of the construction activity.

4.10.4 Existing Conditions

The primary noise source in the City of Redlands is vehicular traffic along major arterials, including Interstate 10, State Route 210, and major city streets such as Redlands Boulevard and Orange Street. Typical urban noise contributors include commercial and industrial activities, construction operations, landscape maintenance equipment, and emergency vehicle sirens. Given the city's proximity to San Bernardino International Airport, aircraft overflights contribute to the ambient noise environment, particularly in areas closer to the airport.

Noise-Sensitive Receptors

The City of Redlands General Plan 2035 identifies the following land uses as noise-sensitive receptors:



- Residences
- Schools
- Hospitals
- Religious facilities
- Libraries
- Parks

For this analysis, medical office buildings (MOBs) such as the existing Kaiser facility east of the project, were considered to be short-term noise-sensitive receptors. The MOB is the nearest noise-sensitive receiver. **Table 4.10-7** shows the nearest receptors by category.

Table 4.10-7
NEAREST NOISE-SENSITIVE RECEPTORS

Category	Name	Address	Distance (feet) ^a
Medical Office Building	Kaiser Redlands Medical Offices	1301 California St Redlands, CA 92374	150
Residence	Rosewood Apartments	26232 Redlands Blvd, Redlands, CA 92373	2,371
School	Packinghouse Christian Academy	27165 San Bernardino Ave, Redlands, CA 92374	5,280
Hospital	Loma Linda University Children's Hospital	11234 Anderson St, Loma Linda, CA 92354	13,200
Religious Facility	Packinghouse Christian Academy	27165 San Bernardino Ave, Redlands, CA 92374	5,280
Library	Loma Linda Public Library	25581 Barton Rd, Loma Linda, CA 92354	9,504
Park	Heritage Park	1885 Orange Ave, Redlands, CA 92373	8,606

^aThis is not the distance used in construction emission calculations. See text.

Note: The sensitive receptors in the medical office building are the nearest during Phase 1 construction. Each subsequent phase was analyzed to determine the nearest sensitive receptor for each phase.

Ambient Noise

The proposed project site falls within the projected 60 dBA CNEL noise contours for the year 2035, as identified in the City of Redlands General Plan 2035. The 60 dBA CNEL contour represents a level of noise typically considered acceptable for most residential and commercial land uses with conventional construction practices. According to the Noise Element of the General Plan, this noise level is characterized as “quiet,” a noise level considered acceptable for commercial land uses without requiring mitigation measures. The General Plan emphasizes the importance of noise compatibility and specifies measures to ensure that development within these contours maintains compatibility with surrounding uses and complies with established noise standards.

4.10.5 Environmental Impact Analysis

4.10.5.1 Thresholds of Significance

In accordance with CEQA Guidelines Appendix G, the project would have a significant impact related to noise if it would result in the:



- A. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies; or
- B. Generation of excessive groundborne vibration or groundborne noise levels; or
- 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.

The Initial Study (refer to **Appendix A1**) determined that there would be no impact for **Threshold C**. Under Threshold C, project development would not cause airport-related hazards, or excessive noise, to persons at the project site and thus no impacts would occur. This analysis therefore evaluated impacts only for Appendix G **Thresholds A and B**.

Because Municipal Code § 8.06.120 exempts construction activities (within specified time-of-day limits) from the Code's quantitative exposure limits, the City, as Lead Agency, used the following criteria for determining the significance under CEQA for project-generated construction and operational noise:

The proposed project would have a significant noise impact if it would:

- Expose persons to or generate noise levels in excess of standards prescribed by the City of Redlands Municipal Code; or
- Include construction activities within the hours prohibited by the Municipal Code; or
- Result in noise exposures at sensitive receivers during construction **exceeding** 80 dBA L_{eq} (FTA, 2018, p. 179); or
- Contribute, with other local construction projects, to a significant cumulative noise impact; or
- Increase operational exposures at sensitive receivers (mainly because of an increase in traffic flow) by 5 dBA CNEL or more.

4.10.5.2 Analysis of Project Impacts

Threshold A: Would the project result in 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?

Less Than Significant Impact

Construction Impacts

Project construction would be temporary but could result in significant short-term increases in noise levels at the nearest sensitive receiver. Operational noise impacts, by contrast, would be long-term and would include both on-site stationary sources and off-site transportation-related sources.



Table 4.10-8 shows the maximum exposures for each construction phase's nearest sensitive receiver. During phase 1, the nearest sensitive receiver is the existing MOB. During phases 2 and 3, the nearest sensitive receiver would be the patients and users of the facilities built during phase 1. During phase 4, the nearest sensitive receiver would be the patients and users of the facilities built during phase 2. For all construction, the highest exposure would be 80.0 dBA L_{eq} . This corresponds to the fine grading subphase and is equivalent to the FTA significance threshold of 80 dBA L_{eq} . Construction noise during each phase would not exceed the FTA 80 dBA criteria (FTA Assessment Manual Page 179 Option B: Detailed Analysis).³¹ No mitigation measures would be required. However, since during fine grading for Phase 3, construction noise exposure may reach the FTA threshold of 80 dBA L_{eq} , Best Management Practices (BMPs) **BMP NOISE-1** would be implemented during construction of Phase 3 to ensure that noise levels during construction would not exceed the 80 dBA L_{eq} FTA threshold.

Table 4.10-8
MAXIMUM CONSTRUCTION NOISE EXPOSURES AT NEAREST SENSITIVE RECEIVER

Construction Phase and Subphase	Distance ^a (feet)	Construction Exposure (dBA L_{eq})
1 – Site Preparation	245	73.7
2 – Site Preparation	100	76.5
3 – Fine Grading	135	80.0
4 – Fine Grading	120	73.5

^a For construction phases 2-4, the nearest affected sensitive receiver includes those phases already in operation.

Operational Impacts

Onsite noise sources associated with the proposed project would include rooftop mechanical equipment such as HVAC systems, emergency generators, and ventilation units, as well as noise from trash collection, parking lot activity, and vehicle movements within the campus. Rooftop equipment typically generates 50 to 55 dBA at 50 feet, which is unlikely to be perceptible above ambient traffic noise levels in the surrounding area. Trash collection may generate brief, elevated noise events; however, given the short duration of these activities, they would not contribute significantly to overall hourly L_{eq} values. The existing site is within a commercial and medical office setting, where similar noise sources, including parking lot activity and mechanical systems, are already present. Given the existing ambient noise environment and the nature of the proposed project, on-site stationary noise sources would not result in a substantial increase in exposure, and impacts would be less than significant.

The project will generate new traffic in the project area, including staff commuting trips, patient and visitor trips, trips by delivery vehicles and sirens from ambulances induced by development of a new emergency room. The new traffic has the potential for generating noise throughout the day and night, which could have an adverse impact on sensitive noise receptors. The majority of the roadways surrounding the project site are in industrial or commercial areas, which lack these types of sensitive receptors. In the spirit of full disclosure, the following analysis of operational noise impacts was performed. To exceed the operational noise exposure threshold of an increase of 5 dBA CNEL, average daily traffic would have to be more than double. Therefore, projected traffic was compared

³¹ Transit Noise and Vibration Impact Assessment Manual (FTA, 2018). Office of Planning and Environment, Washington, DC. FTA Report No. 0123. September 2018. Available at https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf



with existing traffic on the same road segments.³²

The CalEEMod modeling predicted that project operations (after completion of Task 4 construction in 2050) would generate a total annual average daily traffic (ADT) of 16,368. (See Appendix D2). The traffic study (Fehr & Peers, 2025) derived the same value and estimated the percentages of this future traffic that would travel on most of the local roadways. This information was used to distribute project-generated traffic by road segment. Because the traffic distributions did not include every relevant street segment, only 15,059 ADT of the projected traffic was accounted for. However, this includes 92 percent of project-generated traffic. “Existing” traffic data for local road segments were obtained from a traffic inventory maintained by the City of Redlands and accessible online (City of Redlands, 2025). The data displayed by this online tool are from about two to 12 years old.

Table 4.10-9 shows the road segments for which both “existing” and distributed future traffic data were available. **Table 4.10-10** shows the percent increase in traffic after Phase 4 construction. In no case would traffic double. The maximum increase, by 52.4 percent, would be on Almond Avenue, west of the project site. Traffic noise would increase by about 1.8 dBA, which most people would not perceive. Onroad operational noise impacts would therefore be less than significant.

Table 4.10-9
EXISTING TRAFFIC ON ROAD SEGMENTS ANALYZED

Segment	Roadway	From	To	ADT
A	Mountain View Avenue	W. San Bernardino Ave	Redlands Boulevard	11,096
B	W. San Bernardino Avenue	Entire project area, west of project site		9,789
C	W. San Bernardino Avenue	Entire project area, east of project site		9,789
S	Almond Avenue	Entire project area, west of project site		2,500
E	Almond Avenue	Entire project area, east of project site		2,500
F	W. Lugonia Avenue	Mountain View Avenue	California Street	2,695
G	W. Lugonia Avenue	California Street	Alabama Street	7,400
H	Orange Tree Lane	California Street	Alabama Street	3,920
I	Redlands Boulevard	Entire project area, west of project site		7,427
O	Redlands Boulevard	Entire project area, east of project site		7,427
K	Interstate-10	East of California Street		170,500
L	Interstate-10	West of California Street		191,000

Table 4.10-10
ESTIMATED INCREASE IN LOCAL TRAFFIC AT FULL PROJECT BUILDOUT

Segment	Roadway	ADT	Pct of Projected	New	Pct Increase
		Existing			
A	Mountain View Avenue	11,096	2	327	2.95
B	W. San Bernardino Avenue	9,789	4	655	6.69
C	W. San Bernardino Avenue	9,789	6	1,309	13.4
S	Almond Avenue	2,500	6	1,309	52.4
E	Almond Avenue	2,500	2	327	13.1
F	W. Lugonia Avenue	2,695	4	655	24.3
G	W. Lugonia Avenue	7,400	4	655	8.85
H	Orange Tree Lane	3,920	4	655	16.7

³² This approach is highly conservative, because project traffic should be compared with traffic that would occur in the buildout year or later. At a modest annual growth rate of one percent, the “existing” ADT would be about 28 percent higher than current values.



I	Redlands Boulevard	7,427	12	1,964	26.5
O	Redlands Boulevard	7,427	12	1,964	26.5
K	Interstate-10	170,500	15	2,455	1.44
L	Interstate-10	191,000	17	2,783	1.46

Threshold B: Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

Less Than Significant Impact

Vibration is sound radiated through the ground. Vibration can result from a source (e.g., subway operations, vehicles, machinery equipment, etc.) causing the adjacent ground to move, thereby creating vibration waves that propagate through the soil to the foundations of nearby buildings. This effect is referred to as groundborne vibration. CEQA addresses two types of impacts of groundborne vibration: architectural vibration and human annoyance.

Construction Vibration

It is expected that ground-borne vibration from project construction activities would cause only intermittent, localized intrusion. The project's construction activities most likely to cause vibration impacts are:

- **Heavy Construction Equipment:** Although all heavy, mobile construction equipment has the potential of causing at least some perceptible vibration while operating close to buildings, the vibration is usually short term and is not of sufficient magnitude to cause building damage. For each construction phase, vibration exposures were calculated for the nearest building to the construction activity, whether it be the existing Kaiser facility or a building constructed in a previous phase of the proposed project. All vibration exposures in all construction phases would be less than significant. It is not expected that heavy equipment such as large bulldozers would operate closely enough to any sensitive receivers to cause vibration impact.
- **Trucks:** Trucks hauling building materials to construction sites can be sources of vibration intrusion if the haul routes pass through residential neighborhoods on streets with bumps or potholes. Repairing the bumps and potholes almost always eliminates the problem.

The FTA (2018) has published standard vibration levels for construction equipment operations, at a reference distance of 25 feet. The calculated vibration levels expressed in VdB and PPV for typical construction equipment at their distances during construction are listed in **Table 4.10-11**. The nearest sensitive receiver for onsite construction vibration would be the existing medical office building and the completed buildings after each phase. The distance shown in **Table 4.10-11** is from the center of construction activity in Phase 1 to the center of the MOB. For loaded trucks, the distance is from the center of the MOB to the centerline of the nearest traffic lane on California Street.

Table 4.10-11
VIBRATION LEVELS OF TYPICAL CONSTRUCTION EQUIPMENT

Equipment	PPV at 25 feet (in/sec)	Vibration Decibels at 25 feet (VdB)	PPV at 342 feet (in/sec)	Vibration Decibels at 342 feet (VdB)	PPV at 409 feet (in/sec)	Vibration Decibels at 409 feet (VdB)
Loaded trucks	0.076	86			0.004	50
Jack hammer	0.035	79	0.002	45		



Equipment	PPV at 25 feet (in/sec)	Vibration Decibels at 25 feet (VdB)	PPV at 342 feet (in/sec)	Vibration Decibels at 342 feet (VdB)	PPV at 409 feet (in/sec)	Vibration Decibels at 409 feet (VdB)
Small bulldozer	0.003	58	0.0002	26		
Large bulldozer	0.089	87	0.005	53		

As shown in **Table 4.10-9**, the PPV of construction equipment at the nearest sensitive receiver (342 feet) is at most 0.005 inch per second (and after each subsequent phase), which is less than the FTA damage threshold of 0.12 inch per second PPV for fragile historic buildings. The maximum VdB are 53 VdB, which are below the FTA threshold for human annoyance of 80 VdB. Unmitigated vibration impacts would therefore be less than significant.

4.10.6 Cumulative Impacts

Cumulative construction impacts could occur if other construction projects were active concurrently with development of the proposed project, and near enough so that noise from two or more projects were perceived by the same sensitive receivers. However, the area surrounding the project site is almost completely built out, and there is limited space for new development. Currently, there are no planned or reasonably foreseeable future projects that would be under construction at the same time as the proposed project and could generate additional construction noise in the immediate project vicinity. Therefore, cumulative construction noise impacts would be less than significant.

4.10.7 Mitigation Measures

Impacts would be less than significant for both noise and vibration. However, since during fine grading for Phase 3, construction noise exposure may reach the FTA threshold of 80 dBA L_{eq} , a supplemental noise study (**BMP NOISE-1**) would be undertaken during the Lead Agency's approval of Phase 3 to ensure that noise levels during construction would not exceed that threshold.

BMP NOISE-1 Noise Study for Phase 3. A new noise study shall be conducted after completion of Phase 2 construction and prior to the start of Phase 3 construction to determine potential noise impacts of Phase 3 construction activities. The information in this study will be used in support of the Lead Agency's approval of Phase 3 and potential preparation of a Noise Mitigation Plan for Phase 3 construction if necessary.

4.10.8 Level of Significance after Mitigation

Noise impacts are expected to be less than significant without mitigation. Implementation of **BMP NOISE-1** will reconfirm that noise levels during construction of Phase 3 would not exceed the 80 dBA L_{eq} FTA threshold and that reasonably foreseeable noise impacts would remain less than significant.



4.11 Public Services

4.11.1 Introduction

This section discusses the proposed project’s potential impact to public services. The Initial Study, included as **Appendix A** to this PEIR, determined that Threshold C (Schools), Threshold D (Parks) and Threshold E (Libraries/Hospitals) would be less than significant.³³ Therefore, those impacts are not addressed in this section.

4.11.2 Regulatory Framework

Fire Protection Services

Federal

Occupational Safety and Health Act

The Occupational Safety and Health Act of 1970 led to establishment of the Occupational Safety and Health Administration to assure safe and healthful working conditions for all workers by setting and enforcing standards and by providing training and education. The required safety and health regulations for construction sites are included in the Code of Federal Regulations, Title 29, Part 1926. Safety requirements related to fire protection and prevention for construction sites are provided in Part 1926, Subpart F, and generally include provision of fire suppression and fire-fighting equipment on construction sites, sufficient water supply, and requirement for keeping storage sites free from accumulation of unnecessary combustible materials. In California, the Division of Occupational Safety and Health, also known as Cal/OSHA, is responsible for administering these safety and health requirements.

State

California Code of Regulations, Title 24, Part 2, California Building Code

Current law states that every local agency enforcing building regulations, such as cities and counties, must adopt the provisions of the California Building Code (CBC) within 180 days of its publication date, which is established by the California Building Standards Commission. The most recent building standard adopted by the legislature and used throughout the state is the 2022 version of the CBC, often with local, more restrictive amendments that are based on local geographic, topographic, or climatic conditions. The CBC is updated on a three-year cycle, and the 2022 CBC took effect on January 1, 2023. The building standards in the California Building Code apply to all locations in California, except where more stringent standards have been adopted by state agencies and local governing bodies.

Requirements for structures in Fire Hazard Severity Zones are provided in Chapter 7A of the CBC, “Materials and Construction Methods for Exterior Wildfire Exposure,” and Chapter 49 of the California Fire Code, “Requirements for Wildland-Urban Interface Fire Areas.” Requirements in these

³³ Public service impacts related to schools, parks, libraries and hospitals were found to have no impact because the proposed project is not a land use that would increase the population in the area.



two chapters cover roofing, attic ventilation, exterior walls, exterior windows and glazing, exterior doors, decking, protection of underfloor, appendages and floor projections, and ancillary structures.

California Code of Regulations, Title 24, Part 9, California Fire Code

Requirements in the California Fire Code (CFC) are for: building and equipment design, such as fire-rated construction, alarm systems, sprinkler systems, and means of egress; requirements for specific land uses, including airports, dry cleaners, gas stations, and automotive service businesses; hazardous materials; fire flow requirements; and fire hydrant spacing. Other fire safety requirements of the CFC are related to the provision of fire resistance standards for doors, building materials, and particular types of construction, and clearance of debris within a prescribed distance from occupied structures within wildfire hazard areas. The CFC is updated on a three-year cycle, and the 2022 CFC took effect on January 1, 2023.

Local

Chapter 15.20, City of Redlands Fire Code

The Fire Code is Chapter 15.20 of the Redlands Municipal Code. It adopts an amended version of the California Fire Code. The Redlands Fire Code amends several provisions of the California Fire Code in order to address local needs pertaining to high fire hazard areas, water supplies, fire extinguishing and sprinkler systems, and flammable and combustible materials (City of Redlands Fire Prevention Bureau, 2012). Modifications to the California Fire Code include water supply and sprinkler requirements for areas without City water service; the delineation of a Local Responsibility Area for the city's wildland-urban interface area; vegetation management (fuel modification) requirements for buildings and structures in or adjoining hazardous fire areas; defensible space requirements for properties in the designated very high fire hazards severity zone; and requirements for a fire protection plan for new development in the wildland-urban interface area.

Police Protection Services

Local

City of Redlands Municipal Code § 2.14: Police Protection

The chief of police shall establish rules and regulations for the governance of the police department of the city. Such rules and regulations shall be reviewed annually by the chief of police, with the city attorney office's assistance, for compliance with applicable law. The chief of police, when establishing such rules and regulations, may utilize a service or agency that provides model rules and regulations for California police departments.

A police reserve force is established in the city as a voluntary organization, and which is excluded from the civil service or personnel system of the city; the members of which may receive compensation in the form of a stipend as established by resolution of the city council. The chief of police is empowered to deputize and appoint persons as reserve city police officers pursuant to Penal Code § 832.6. Those persons appointed by the chief of police who are qualified as "designated" level 1 reserve officers have the full powers and duties of a peace officer as provided in Penal Code § 830.1; the authority of "nondesignated" level 1 reserve officers extends only for the duration of assignment to specific police functions, as determined by the chief of police. All appointments of



persons to the police reserve force are made without regard to race, sex, creed, religion or political affiliation.

4.11.3 Existing Conditions

Fire Protection Services

Fire protection services are provided to the project site by Redlands Fire Department (City of Redlands, 2017b, p. 3.13-14). The nearest fire station to the project site is the Redlands Fire Station 264 at 1270 W Park Avenue, 2.3 miles southeast (Google Earth Pro, 2025).

Police Protection Services

Police protection services are provided to the project site by Redlands Police Department (City of Redlands, 2017b, p. 3.13-13). The nearest police station to the project site is the Redlands Police Department, at 1270 W Park Avenue, is 2.3 miles southeast (Google Earth Pro, 2025).

4.11.4 Environmental Impact Analysis

4.11.4.1 Thresholds of Significance

In accordance with CEQA Guidelines Appendix G, the project would have a significant impact related to public services if it would result in the:

A. substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the need for new or physically altered governmental facilities, 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 facilities?

In the Initial Study (refer to **Appendix A1**), it was determined that there would be no impact for **Thresholds A-c) schools, A-d) parks, and A-e).other public facilities**. Construction and operational workers are expected to reside in or near the project area and would not contribute to an increase in population. Therefore, there would be no impact to schools, parks, and other public facilities such as libraries. Regarding hospitals. the project would be a benefit to hospital service availability. This analysis therefore evaluated impacts only for Appendix G sub-**Thresholds a) and b).**



4.11.4.2 Analysis of Project Impacts

Threshold A: Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the need for new or physically altered governmental facilities, 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) and b) Fire Protection, and Police Protection.

Less than Significant Impact

The proposed project site is located in an existing fire and police service department area. Development of the proposed hospital could increase the demands for services from the City's fire and police departments. However, the project would adhere to City of Redlands Municipal Ordinance No. 2968, which authorizes Fire Protection Facilities Fees for industrial and healthcare uses of \$551 per 1,000 square feet; and Police Facilities Fee of \$636 per 1,000 square feet for the same land uses (City of Redlands, 2024). Payment of development fees would ensure that there would be adequate fire and police services to serve the project. Additionally, the project would be developed to the latest City standards, which would ensure adequate ingress and egress. Therefore, with adequate service fees and circulation for emergency personnel, there would be less than significant impacts related to fire and police services.

4.11.5 Cumulative Impacts

As discussed above, the proposed project would be adequately served by public services through development fees. As detailed in Section 3.0, there are related projects in the area that could potentially impact public services in the area. However, each project would be required to ensure there are adequate public services that can serve the project (i.e., development fees). Therefore, there would be no cumulative or cumulatively considerable impacts to public services.

4.11.6 Mitigation Measures

Upon compliance with regulatory requirements, impacts related to **Thresholds A** (fire protection) and B (police protection) would be less than significant. No mitigation measures are required.

4.11.7 Level of Significance after Mitigation

Impacts would be less than significant, and no mitigation measures are required.



4.12 Transportation

4.12.1 Introduction

This section evaluates the potential transportation impacts of the proposed project. The analysis relies on the *Kaiser Redlands Expansion Transportation Study* prepared by Fehr & Peers (February 2025), provided in **Appendix D13**. The traffic study examined both Vehicle Miles Traveled (VMT) impacts, in accordance with Senate Bill (SB) 743 and the City of Redlands VMT Analysis Guidelines (2020), and the operational performance of 10 existing intersections and five proposed project driveway intersections.

Under SB 743, VMT replaced the traditional Level of Service (LOS) approach as the primary metric for evaluating transportation impacts under CEQA. LOS measures intersection delay (for example, whether a road is congested), while VMT measures the total amount of driving a project generates, expressed as the number of miles driven by all vehicles associated with the project. The shift to VMT emphasizes reducing greenhouse gas emissions and promoting sustainable land use and transportation patterns. This transition became mandatory statewide on July 1, 2020.

For the proposed project, the Initial Study (**Appendix A1**) determined that transportation impacts related to circulation system policies, roadway design hazards, and emergency access would be less than significant. These issues are not carried forward for detailed analysis in this PEIR. Instead, this section focuses on VMT impacts, as VMT is the sole area where the project may result in a potentially significant effect with respect to transportation.

In other words, it has been demonstrated that the project would fit safely into the surrounding road network—with adequate driveways, sidewalks, and emergency access—but, under CEQA, the project requires further review to determine whether the project would result in increased vehicle usage greater than what state and local standards consider acceptable. The purpose of the following analysis is to determine whether the project would cause more driving than is consistent with Redlands' transportation and sustainability goals, and to identify any mitigation measures that may be needed to reduce VMT impacts.

4.12.2 Regulatory Framework

The regulatory framework applicable to the proposed project is addressed in **Appendix A1, Initial Study**.

4.12.3 Existing Conditions

Roadways

The project traffic study area consists of segments of California Street, Lugonia Avenue, Almond Avenue, and Mountain View Avenue, as well as Interstate 10 (I-10) and State Route 210 (SR-210) freeways.

- California Street is a four-to-six lane north-south roadway
- Lugonia Avenue is a three-to-four lane east-west roadway
- Almond Avenue is a four-to-six lane roadway
- Mountain View Avenue is a four-to-six lane east-west roadway
- I-10 in the study area is an eight-to-10 lane freeway



- SR-210 in the study area is a six-to-eight lane freeway (Fehr & Peers, 2025, p. 18).

Intersections

The project traffic study analyzed the operation of 10 intersections, all signalized and all in the jurisdiction of the city of Redlands:

- California Street and San Bernardino Avenue
- California Street and Almond Avenue
- California Street and Lugonia Avenue
- California Street and Orange Tree Lane
- California Street and I-10 WB Ramps
- California Street and I-10 EB Ramps
- California Street and Redlands Boulevard
- Mountain View Avenue and Almond Avenue
- Mountain View Avenue and I-10 WB Ramps
- Mountain View Avenue and I-10 EB Ramps (Fehr & Peers, 2025, p. 23).

Bicycle and Pedestrian Facilities

A Class 1 (off-road) bicycle path is present on California Avenue.

Within the study area, sidewalks are provided along California Street, Lugonia Avenue, and sections of Almond Avenue (though not Almond Avenue fronting the project site) (Fehr & Peers, 2025, p. 21).

Public Transit

Omnitrans operates public transit bus service in Redlands. Three Omnitrans routes operate in the study area:

- Route 8 extends east-west between Yucaipa and San Bernardino and operates on Redlands Boulevard in the study area.
- Route 15 extends east-west between Redlands and Fontana and operates on Alabama Street near the study area.
- Route 19 extends east-west between Yucaipa and Fontana and operates on Barton Road near the study area (Fehr & Peers, 2025, p. 22).

4.12.4 Environmental Impact Analysis

4.12.4.1 Thresholds of Significance

In accordance with the CEQA Guidelines Appendix G, the project would have a significant impact related to transportation if it would:

- A. Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities; or
- B. Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b); or



- C. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); or
- D. Result in inadequate emergency access.

The Initial Study (**Appendix A1**) determined that impacts would be less than significant for **Thresholds A, C and D**. This analysis therefore evaluates impacts only for Appendix G **Threshold B**. The proposed project would not conflict with applicable transportation plans or policies, as surrounding arterial roadways (Lugonia Avenue, California Street, Almond Avenue) provide adequate access and sidewalks, and Omnitrans Route 8 provides nearby transit service (Omnitrans, 2023a, 2023b). The project is not a transportation facility and would not conflict with the Statewide Transportation Improvement Program, the San Bernardino County Congestion Management Program, or the City of Redlands General Plan and mobility plans (Caltrans, 2023; SBAG, 2016; City of Redlands, 2014; 2017; 2021a). A Vehicle Miles Traveled (VMT) analysis is in preparation, and impacts are considered potentially significant pending its findings (CEQA Guidelines §15064.3, 2019). Driveways and access points would comply with City standards and Fire Code requirements (Amlegal.com, 2023; City of Redlands, 2021b), and encroachment permit requirements would ensure emergency access is maintained during construction (City of Redlands, 2021c). Therefore, impacts would be less than significant, except for VMT, which requires further analysis in this PEIR.

4.12.4.2 Analysis of Project Impacts

Threshold B: Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Significant and Unavoidable Impact

CEQA Guidelines § 15064.3(b) pertains to the use of Vehicle Miles Traveled (VMT) as a method of determining the significance of transportation impacts.

Section 15064.3, Determining the Significance of Transportation Impacts, of the CEQA Guidelines describes specific considerations for evaluating a project's transportation impacts. Section 15064.3, subdivision (b) includes criteria for analyzing transportation impacts. For land use projects, "Vehicle miles traveled exceeding an applicable threshold of significance may indicate a significant impact. Generally, projects within 0.5 miles of either an existing major transit stop or a stop along an existing high-quality transit corridor should be presumed to cause a less than significant transportation impact. Projects that decrease vehicle miles traveled in the project area compared to existing conditions should be presumed to have a less than significant transportation impact" (CEQA Guidelines § 15064.3).

Project Trip Generation

Project operation is estimated to generate 16,093 trips per day, as shown below in **Table 4.12-1**.



Table 4.12-1
ESTIMATED PROJECT TRIP GENERATION

Phase	Land Use			Trip Generation	
	Type	Quantity	Units	Per unit	Total
1	Medical Office Building	165	1,000 square feet	36	5,940
2	Hospital ¹	213	Beds	22.32	4,754
3	Medical Office Building	83	1,000 square feet	36	2,988
4	Hospital	108	Beds	22.32	2,411
Total	Not applicable	N/A	N/A	N/A	16,093

¹ Phase 2 also includes a Central Utility Plant that would house hospital equipment and devices but would not generate trips additional to those estimated for other project land uses (Fehr & Peers, 2025, Appendix A, p. 6).

Source: Fehr & Peers 2025, Appendix A, p. 6

Travel Demand Model

VMT in the study area was modeled using the latest version of the San Bernardino Transportation Analysis Model, SBTAM+. SBTAM+ is a regional travel demand model that uses land use (such as employment, households) and roadway network information (such as number of lanes, speed limits, congestion) to predict vehicle travel patterns. The model was used to estimate future projections of vehicle travel, including traffic forecasts on roadways and estimates of Vehicle Miles Traveled (VMT). The SBTAM+ Base Year model is validated to 2019 with a Future Year model of 2050 and is considered the most appropriate tool for testing changes in land use and roadway network in San Bernardino County. The project site was isolated into its own Traffic Analysis Zone (TAZ) so that the project VMT could be estimated while accounting for demographic characteristics consistent with the full buildout of the Kaiser expansion (Fehr & Peers, 2025, p. 29).

VMT Results

VMT was estimated in two scenarios: future year 2050 no project, and future year 2050 plus project. VMT was estimated using the home-based work method that focuses on commute trips. Home-based-work VMT is commute VMT, or home-to-work VMT. This is the travel between a person's home and workplace. This is used as it is consistent with the City's guidelines Project employment at Master Plan buildout is estimated at 1,900 (Fehr & Peers, 2025, p. 29). The City's threshold for project VMT impacts is per capita VMT greater than 15 percent below the San Bernardino County Baseline VMT. As shown below in **Table 4.12-2**, estimated project VMT per employee in 2050 is 22.7, that is, 12 percent higher than the City's threshold.

Table 4.12-2
PROJECT-GENERATED VMT ESTIMATES

VMT Metrics for Non-Residential Projects	Home-Based Work VMT per Employee
Project VMT Estimates (2050)	22.8
San Bernardino County Baseline VMT (2050)	23.8
Threshold: 15% Below San Bernardino County Baseline VMT	20.2
Percent Higher than VMT Threshold	12%
VMT Exceeds Threshold?	Yes

Source: Fehr & Peers, 2025



Trip Length Reductions

Kaiser provided information showing that trip lengths for most Kaiser patients and employees would be reduced by use of the proposed Redlands facilities compared to trips to existing Kaiser facilities in the cities of Fontana and Ontario. Trip lengths would be reduced for 164,156 Kaiser members and would be lengthened for 69,788 members. For employees and physicians, average trip lengths to the expanded Redlands Campus would be shorter than current distances traveled to Fontana and Ontario Kaiser facilities (Fehr & Peers, 2025, p. 31).

4.12.5 Cumulative Impacts

The VMT analysis summarized above applies to cumulative as well as direct impacts (Fehr & Peers, 2025, p. 16).

Intersections of Proposed Driveways with Existing Roadways

The Traffic Study also modeled the operation of intersections of proposed project site driveways with existing roadways. Intersection A, of the main project site entrance driveway with California Street, was modeled as being severely congested during both the a.m. and p.m. peak hours using cross-street stop control. **Figure 2.3-5 in Section 2, Project Description**, shows the main entrance driveway. The average delay per vehicle was modeled as over 100 seconds in each peak hour period. The Traffic Study recommends installation of a traffic signal; with a traffic signal, operation of that intersection would meet City of Redlands standards (Fehr & Peers, 2025, p. 41). The project includes installation of a traffic signal at that intersection. This content is informational, as intersection operation is no longer considered an impact under CEQA.

Project plans include a total of five access driveways into the project site, including two existing driveways; site access is described further in **Section 2, Project Description**.

4.12.6 Mitigation Measures

Impacts associated with significance threshold B would be potentially significant without mitigation. Therefore, the following mitigation measures would be required to minimize potential impacts related to traffic and transportation.

MM TRANS-1 Prior to issuance of a certificate of occupancy for each phase of the project, the project proponent will implement a commute trip reduction program consisting of information sharing and marketing to promote and educate employees about their travel choices to the project site beyond driving such as carpooling, taking transit, walking, and biking, thereby reducing VMT and GHG emissions.

MM TRANS-2 Prior to issuance of a certificate of occupancy for each phase of the project, the project proponent will implement a ridesharing program for employees with similar commutes with funding requirements for employers. Ridesharing encourages carpooled vehicle trips in place of single-occupied vehicle trips, thereby reducing the number of trips, VMT, and GHG emissions. Existing programs including IE Commuter can be leveraged for this measure.

MM TRANS-3 Prior to issuance of a certificate of occupancy for each phase of the project, the project proponent will install and maintain end-of-trip facilities for employee use. End-of-trip facilities include bike parking, bike lockers, showers, and personal lockers. The



provision and maintenance of secure bike parking and related facilities encourages commuting by bicycle, thereby reducing VMT and GHG emissions.

MM TRANS-4 Prior to issuance of a certificate of occupancy for each phase of the project, the project proponent will implement an employer-sponsored vanpool service. Vanpooling is a flexible form of public transportation that provides groups of 5 to 15 people with a cost-effective and convenient rideshare option for commuting. The mode shift from long-distance, single-occupied vehicles to shared vehicles reduces overall commute VMT, thereby reducing GHG emissions. It was assumed that up to 2% of employees would participate in the vanpool program.

Estimate of Effectiveness of Mitigation Measures

The effectiveness of the mitigation measures was estimated as part of the project transportation study and is summarized below in **Table 4.12-2**.

Table 4.12-3
ESTIMATE OF EFFECTIVENESS OF MITIGATION MEASURES

Mitigation Measure	Maximum VMT Reduction
TRANS-1: Commute Trip Reduction Marketing	4.0%
TRANS-2: Employee Rideshare Program	4.0%
TRANS-3: End-of-Trip Bicycle Facilities	0.3%
TRANS-4: Employer-Sponsored Vanpool	1.6%
<i>Multiplicative Dampening: Adjustment to overall VMT reduction to account for overlap between measures</i>	-0.6%
Total	9.9%

Source: Fehr & Peers, 2025

4.12.7 Level of Significance After Mitigation

Project VMT per employee is estimated to be 12 percent higher than the City of Redlands threshold. The four mitigation measures for the VMT impact combined are estimated to reduce project VMT by 9.9 percent. Therefore, impacts associated with significance threshold B would be significant and unavoidable after implementation of mitigation measures **TRANS-1** through **TRANS-4**. As a result, the City of Redlands will have to adopt a Statement of Overriding Considerations, pursuant to CEQA Guidelines Section 15093 prior to approving this project.



4.13 Tribal Cultural Resources

4.13.1 Introduction

This section addresses potential impacts to tribal cultural resources (TCRs). The evaluation of potential impacts to TCRs is based on both consultation and coordination with Native American tribes traditionally and culturally affiliated with the proposed project site as well as a Sacred Lands Files (SLF) records search conducted by the Native American Heritage Commission (NAHC). Information in this section is also based in part on the Phase I Cultural Resources Inventory for the Kaiser Permanente Medical Center Project, City of Redlands, San Bernardino County, California, prepared by UltraSystems Environmental Inc. (UltraSystems, 2024), included as **Appendix D1**.

Tribal cultural resources are defined by the Public Resources Code (PRC) § 21074 as sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either included or determined to be eligible for inclusion in the California Register of Historical Resources (CRHR) or included in a local register of historical resources, or a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant. A cultural landscape that meets these criteria is a TCR to the extent that the landscape is geographically defined in terms of the size and scope of the landscape. Historical resources, unique archaeological resources, or non-unique archaeological resources may also be TCRs if they meet these criteria.

4.13.2 Regulatory Framework

The treatment of TCRs is governed by state laws and guidelines. There are specific criteria for determining whether prehistoric sites or objects associated with TCRs are significant and thus protected by law. Some resources that do not meet archaeological cultural significance criteria may be considered significant by state criteria for TCRs. The laws and regulations seek to mitigate project impacts on significant TCRs.

Federal

National Native American Graves Protection and Repatriation Act

The Native American Graves Protection and Repatriation Act (NAGPRA) was passed in 1990 to provide for the protection of Native American graves. The act conveys to Native Americans of demonstrated lineal descent, the human remains, including the funerary or religious items, that are held by federal agencies and federally supported museums, or that have been recovered from federal lands. NAGPRA makes the sale or purchase of Native American remains illegal, whether or not they were derived from federal or Native American lands.

State

Unique Archaeological Resources under CEQA

CEQA requires the lead agency to consider whether the project will have a significant effect on unique archaeological resources and to avoid unique archaeological resources when feasible or mitigate any effects to less than significant levels per California Public Resources Code (PRC) § 21083.2. CEQA (PRC § 21083.2(g)) defines a unique archaeological resource as an archaeological artifact, object, or



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site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- 1) Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information;
- 2) Has a special and particular quality such as being the oldest of its type or the best available example of its type;
- 3) Is directly associated with a scientifically recognized important prehistoric or historic event or person.

California Senate Bill 18 (Traditional Tribal Cultural Places)

SB 18 requires local (city and county) governments to consult with California Native American tribes to aid in the protection of traditional tribal cultural places ("cultural places") through local land use planning. SB 18 requires local governments to consult with tribes prior to making certain planning decisions and to provide notice to tribes at certain key points in the planning process. These consultation and notice requirements apply to adoption and amendment of both general plans (defined in Government Code §65300 et seq.) and specific plans (defined in Government Code §65450 et seq.). If a lead agency determines that a project may cause a substantial adverse change to tribal cultural resources, the lead agency must consider measures to mitigate that impact. Pub. Res. Code § 20184.3 (b)(2) provides examples of mitigation measures that lead agencies may consider to avoid or minimize impacts to tribal cultural resources. These examples include avoidance and preservation of the resources in place, treating the resource with culturally appropriate dignity, or permanent conservation easements or other interests in real property.

Human Remains

Section 15064.5 of the State CEQA Guidelines specifies procedures to be used when Native American remains are discovered. These procedures are discussed within PRC § 5097, as well as in the California Health and Safety Code § 7050.5.

California Public Resources Code 5097.98

Public Resources Code § 5097.98 addresses the disposition of Native American burials in archaeological sites and protects such remains from disturbance, vandalism, or inadvertent destruction; establishes procedures to be implemented if Native American skeletal remains are discovered during construction of a project; and establishes the NAHC to resolve disputes regarding the disposition of such remains. It has been incorporated into § 15064.5(e) of the State CEQA Guidelines.

California Health and Safety Code

The California Health and Safety Code § 7050.5 states that if human remains are discovered during construction on a project site, no further disturbance shall occur until a county coroner makes a determination of origin and disposition of the remains. If the county coroner determines the remains are not subject to his or her authority and recognizes the remains to be those of Native American, the county coroner must contact the NAHC within 24 hours.



Local

There are no local regulations that pertain to the issue of Native American involvement.

4.13.3 Methodology

4.13.3.1 Ethnographic Record Review

This material presented below is the result of ethnographic research prepared for the Phase I Cultural Resources Inventory conducted for the proposed project (refer to **Appendix D1** to this PEIR).

Gabrielino/Tongva

Prior to European contact, the indigenous peoples who resided in modern-day San Bernardino County were the Tongva (Gabrielino), and Taaqtam (Serrano) peoples who lived in the San Bernardino Valley and the San Bernardino Mountains. Bean and Smith and Johnston indicate that “...the historic-era border between the Gabrielino and Serrano at San Bernardino [town]. It is likely that both groups used the territories within the project area during the sixteenth to nineteenth centuries....”

The project lies within the territory of the Gabrielino (Tongva) ethnolinguistic group (Bean and Smith, 1978a:538), who speak a language classified as a member of the Uto-Aztecan language family. This language is further affiliated as an element of the Northern Takic Branch of that linguistic group.

The Gabrielino, with the Chumash, were considered the most populous, wealthiest, and therefore most powerful ethnic nationalities in aboriginal Southern California. Unfortunately, most Gabrielino cultural practices had declined before systematic ethnographic studies were instituted. Today, the leading sources on Gabrielino culture are Bean and Smith, Johnston, and McCawley.

According to recent research, Takic groups were not the first inhabitants of the region. Archeologists suggest that a Takic in-migration may have occurred as early as 2,000 years ago, replacing or intermarrying with a more ancient indigenous people represented by speakers of a Hokan language. By the time of European contact, the Gabrielino territory included the southern Channel Islands and the entire Los Angeles Basin. Their territory reached to the west along the Pacific Coast to Malibu, north and east to the foothills of the San Gabriel Mountains, to the southeast into the present-day San Bernardino-Riverside area and south to the San Joaquin Hills in central Orange County.

Different groups of Gabrielino adopted several subsistence strategies, based on gathering, hunting, and fishing. Because of the similarities to other Southern California tribes in economic activities, inland Gabrielino groups' industrial arts, exemplified by basket weaving, exhibited an affinity with those of their neighbors. Coastal Gabrielino material culture, on the other hand, reflected an elaborately developed artisanship most recognized through the medium of steatite, which was rivaled by few other groups in Southern California.

The intricacies of Gabrielino social organization are not well known. There appeared to have been at least three hierarchically ordered social classes, topped with an elite consisting of the chiefs, their immediate families, and other ceremonial specialists. Clans owned land, and property boundaries were marked by the clan's personalized symbol. Villages were politically autonomous, composed of non-localized lineages, each with its own leader. The dominant lineage's leader was usually the



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village chief, whose office was generally hereditary through the male line. Occasionally several villages were allied under the leadership of a single chief. The villages frequently engaged in warfare against one another, resulting in what some consider to be a state of constant enmity between coastal and inland groups.

The City of Redlands is situated within the eastern periphery of the Tongva culture area. The central Tongva land was the Los Angeles Basin; however, it extended east to include portions of the San Bernardino Valley. In the San Bernardino Valley, the Tongva's neighbors were the Serrano on the north and the Cahuilla farther east. Away from the Santa Ana River this area was not well watered. Therefore, this portion of the territory was not as densely populated as the coastal territory.

The San Bernardino Valley contains the northeastern region of Gabrielino territory, with upwards of eight major communities located throughout. The village of *Wa'aachnga*, also spelled *Kaawchama*, was somewhat west of Redlands. It is also the site of the San Bernardino Asistencia of Mission San Gabriel built in 1820 in what was later called Old San Bernardino. Somewhat to the southwest of Redlands, southeast of Colton between the southerly bank of the Santa Ana River and the base of the foothills" was the native community of *Homhoa*. Both of these villages were located either along the Santa Ana River (*Wa'aachnga*) or a tributary to it (*Homhoa*). In the late Mission Period or just thereafter, much of the region was populated by the Serrano, who migrated into the area following the removal of the Gabrielino to Mission San Gabriel.

The first Franciscan establishment in Gabrielino territory and the broader region was Mission San Gabriel, founded in A.D. 1772. Priests from the mission proselytized the Tongva throughout the Los Angeles Basin. As early as 1542, however, the Gabrielino were in peripheral contact with the Spanish even during the historic expedition of Juan Rodríguez Cabrillo. However, it was not until 1769 that the Spaniards took steps to colonize the territory of aboriginal Californians. Within a few decades, most of the Gabrielino were incorporated into Mission San Gabriel and other missions in Southern California. Due to introduced diseases, dietary deficiencies, and forceful *reducción* (removal of non-agrarian Native populations to the mission compound), Gabrielino population dwindled rapidly from these impacts. By 1900, the Gabrielino community had almost ceased to exist as a culturally identifiable group. In the late 20th century, however, a renaissance of Native American activism and cultural revitalization of Gabrielino descendants took place. Among the results of this movement has been a return to a traditional name for the tribe, the Tongva, which is employed by several of the bands and organizations representing tribal members. Many of the Tongva bands focus on maintaining and teaching traditional knowledge, with special emphasis on language, place names and natural resources, and preservation of ancestral sites.

Serrano

The City of Redlands is situated within the southeastern periphery of the Serrano culture area. The Recent research by Earle, King, and Johnson and Lorenz have helped to clarify the ethnic identification of the San Gabriel/San Bernardino mountains and Mojave Desert Native American groups. Their work with the John Peabody Harrington notes, combined with analysis of the Franciscan sacramental registries, confirm ethnographic records that the inhabitants of the project area were speakers of a dialect of Serrano. It has been determined that Native groups occupying villages in the San Bernardino Mountains and adjacent Moreno Valley region maintained marriage ties to surrounding region and the foothills extending into the San Bernardino and San Jacinto Valleys inhabited by Cahuilla and Luiseno were also Serrano in ethnic and linguistic affiliation.



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Earle supports King's revisions of earlier territorial boundaries asserting that Serrano territory included the San Bernardino Mountains and the northern slopes of the San Gabriel Mountains, the Mojave River, and Antelope Valley. It also appears from their research that both the south and north slopes of the San Gabriel Mountains were "owned" and occupied by Serrano speakers.

Early 20th century ethnographic fieldwork among the Serrano was conducted by Kroeber, Gifford, Strong, Benedict, and Harrington. More recent research by Bean, Bean and Smith, and Bean, et al. has helped to focus attention on key research questions in an attempt to clarify the relationship of Serrano land use patterns, territorial attributions, subsistence-settlement patterns, and social, ceremonial, and political organization.

The economic resource base of the Serrano was determined in part by the seasonal availability of key animals and plants exploited for basic subsistence. Hunting activities supplemented a diet mainly emphasizing plants. Hunting excursions were usually an individual affair but also sometimes incorporated communal drives, and trap lines to snare small animals (e.g., rabbits, squirrels and rodents). Some desert hunting areas to the north in the Mojave Desert and in the vicinity of the Mojave River may have been shared with adjacent groups (e.g., Chemehuevi and/or Mojave).

Mule deer were available in the San Gabriel Mountains. Deer would migrate to lower elevations during the winter and would be available in the lower foothill region at that time. Pronghorn frequented the valley floors year-round but were not consistently abundant and were hunted only occasionally using communal surrounds and group drives. The latter communal drive technique was also used to ensnare large numbers of jackrabbits during the fall when the rabbits were especially abundant. Mountain sheep were available in the higher mountains but would only have been rarely procured. Waterfowl could be captured using bows and arrows and special nets. Ducks, quail, geese, and grebes would have been available in considerable numbers during their breeding seasons and in association with riparian settings.

Abundant stands of acorns, juniper, mesquite, and piñon were available to extended gathering expeditions into the mountains. These might involve several lineages collaborating under one leader's authority and would have entailed accessing the resource base of surrounding groups. Cattail / bulrush seeds (*Typha* spp. and *Scirpus* spp.), various roots, shoots, bulbs, and other hard seeds were all principal plant foods. The most likely plant resources that were of significant economic importance that have been identified paleobotanically or noted in the immediate vicinity of the Project were grasses (*Poa* spp.), chia (*Salvia columbariae*), and goosefoot (*Chenopodium* spp.).

Various groundstone tools, including manos and metates, mortars and pestles used for grinding food were made by grinding granite, quartzite and other suitable rocks. Flaked tools including knives, spear and arrow points, and scrapers were made from crystalline lithics. Bone and antler were used to fashion other tools. Baskets were woven for use in gathering, storing and preparing foods, as well as hats for women. Other plant material was woven into bags, storage pouches, mats, nets and sandals.

Serrano houses were circular domes made of brush that had a central fire pit. Ramadas and ceremonial enclosures were also built. Granaries were woven, often of willow. Houses of several families tended to be clustered in small communities and located near springs or creeks, and often were centrally located at the nexus of several environments.

Edward W. Gifford conducted a detailed study of the marriage practices and sociopolitical organization of native southern California Native Americans during from 1916 through 1917. Based



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on these studies, he developed a model of Serrano social organization. William Duncan Strong conducted additional extensive social organization studies among the Serrano, Cahuilla, Luiseño, and Cupeño in 1925. Strong indicated that the Serrano were an unusual California group in that they possessed true patrilineal clans. Patrilineal clans are patterned such that all males, their descendants, and their wives were part of a single group. Clans may be segmented into subclans or lineages. A woman retained her own lineage name but upon marriage was incorporated into the clan of her husband. The transfer of women from one ceremonial affiliation with one clan to another, upon marriage, was characteristic of all southern California Takic (a linguistic subfamily of Northern Uto-Aztecan) groups. The Serrano maintained an active moiety system -- their society was divided into two parts identified with either Coyote or Wildcat. The Coyote moiety had the most important political leaders. Moiety out-marriage excluded partners from half the neighboring Serrano settlements. Hence, only settlements of opposing moieties were interrelated through marriage.

Serrano villages in the mountain settings were generally less dispersed than in the desert. This nearer pattern resulted in marriages linking together very large areas. Many of the settlements had marriage ties with villages 10 - 20 miles away and counter intuitive was the fact that the closest relationships were not with the nearest villages – but rather with settlements affiliated with opposing moieties further distant.

King's study of the Franciscan mission registers indicates that there were numerous important hereditary positions among the Serrano. Each village contained a chief, a ceremonial manager, two messengers, as well as various shamans, diviners, and other ritual specialists. Each of these leaders oversaw different elements of Serrano life involving festivals, dances, and warfare.

Ethnographic data attests that a major native trade and travel corridor facilitated a long-distance exchange system. Recent research has supported the importance of long distance trade linking coastal southern Californian Tongva clans/villages with inland groups including the coastal Tongva and Luiseño/Acjachemen tribes in a route along the Santa Ana River. Shell bead trade was one of the mediums of exchange and was used as a kind of currency or money. This system was significant since it involved trade, travel, and exchange covering hundreds of miles and was a system of exchange of native goods that linked various ethnic groups politically and economically.

Their primary trading partners were the Mojaves to the east and the Tongva to the west, but they also traded with their close neighbors, the Cahuilla and Chemehuevi. The Serrano were, in fact, a major nexus in a trade and exchange network that brought goods from the Southwest to the coast. This trade and travel route ran from the American Southwest (principally the Hopi territory in Arizona), along the Colorado River to the Mojave River thence through the central Mojave Desert into the Antelope Valley and west to the Pacific Coast. These circuits of exchange cut across political and cultural boundaries. A number of researchers have argued that such an exchange system may have been an influential factor in facilitating semi-sedentary settlement and complex sociopolitical organization for the Serrano.

The Maringa (Mariña) Serrano, who occupied the south-easternmost area of their tribe's territory, were the most visible of Serrano groups in the later historical period after many Serrano who lived in the valleys were removed to Mission San Gabriel in 1811.

Nearby Serrano habitations in the foothills above the San Jacinto Valley, are recorded by Strong at yūhavetam, above Highland and upwards from there into the San Bernardino Mountains' foothills, wa'atcem, in the mountains foothills between the Santa Ana River and Mill Creek, yucaipaïem,



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Yucaipa Valley, and the Marina clan at yumisēval, along upper Mission Creek above the San Gorgonio Pass. These are all noted as occupied by members of Coyote moiety clans.

In 1770, the Gaspar de Portolá Expedition passed along the Southern California coast to the west through Luiseño territory, while the de Anza expeditions of 1774 and 1776 took a route through the San Jacinto Valley bordering Serrano territory. During the next two decades several missions were established in the region and made contact with the Serrano. Natives were recruited to these missions that included San Gabriel, San Luis Rey, and San Fernando. Kroeber estimated only 1,500 people for the total population; Bean and Smith, however, did not speculate on the population. Upon contact, European interactions and introduced diseases led to dramatic population declines.

Eventually, a reservation system was developed, and members of the Serrano tribe are currently enrolled in the San Manuel Band of Mission Indians (now the Yahaaviatam of San Manuel) located adjacent to the town of Highland; 5.5 miles to the northwest of the project, and with members of the Cahuilla tribe at Morongo Band of Mission Indians (adjacent to and east of Banning 28 miles to the east of the project). These two groups are federally recognized. There is also one non-federally recognized Serrano band, the Serrano Nation of Mission Indians.

Phase I Cultural Resources Inventory for Project

Information in this section is drawn from the Phase I Cultural Resources Inventory conducted for the proposed project (refer to **Appendix D1** to this Draft PEIR). The cultural resources survey and related archival research included a background archaeological records check (archival research) at the local California Historic Resources Information System (CHRIS) facility, the South Central Coastal Information Center (SCCIC) at California State University, Fullerton, a SLF search request to the NAHC, and the list of local Native American entities to contact from the NAHC. The field survey conducted for this project observed no prehistoric or historic artifacts or features. The potential for subsurface cultural and or historical deposits is minimal based on the findings from these sources.

Records Review

Sacred Lands File Review

The NAHC maintains a confidential SLF that contains sites of traditional, cultural, or religious value to the Native American community. On July 8, 2023, Megan Doukakis, Assistant Project Archaeologist, submitted a request to the NAHC via email for a SLF search within the 0.5-mile project buffer. The results of the search request were received July 13, 2024, at the office of UltraSystems from Ms. Cameron Vela, Cultural Resources Analyst. The NAHC letter stated that “A record search of the NAHC *Sacred Lands File* was completed for the area of potential effect (APE) referenced above with positive results [emphasis in the original].” None of the Tribal Outreach responding tribes noted this SLF site.

California Historical Resources Information System Review

The cultural resources records search was conducted on June 22, 2023 by Ms. Doukakis (refer to Attachment D in **Appendix D1**). The purpose of the records search was to identify previously recorded cultural resources (prehistoric and historic archaeological sites, historic buildings, structures, objects, or districts) within the project area and a half-mile radius. The records search included a review of previously recorded prehistoric and historic archaeological sites within the project area and a 0.5-mile buffer, and a review of prior cultural resource surveys and/or excavation reports within that same geographical area. (See Section 4.1.1 in **Appendix D1** for references.)



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The CHRIS record search indicated that there were no prehistoric archaeological sites identified within the project boundary or within the 0.5-mile buffer zone. Two historic era cultural resources have been previously recorded within the project site boundary. Within the 0.5-mile buffer zone there are an additional six recorded historic era cultural resources.

Previously Conducted Cultural Resources Studies

Seventeen previous cultural resources surveys identified in the CHRIS records search included a portion of the half-mile buffer zone. Two of these included the project boundary.

The current project parcel was originally surveyed by Michael K. Lerch & Associates in 1992 consisting of 35 acres for the approved Kaiser Medical Center, part of a larger planned development of the Barton Center of Redlands, a 306-acre subdivision (SB-2625). No prehistoric resources and a single historical resource were discovered during this investigation, being the Marigold Farms buildings. They recorded the Marigold Farms complex and its milking barn (CA-SBR-7139H). The report concluded that the site record produced mitigated potential impacts of development to the farm.

In 2006, W&S Consultants undertook an archaeological survey of the Kaiser Redlands medical office building project site that encompasses the same footprint as the current project (SB-4809). At that time, the archival research showed the prior presence of two historic sites related to the Marigold Farms that had been present in the northeast corner of the project parcel and that they had subsequently been demolished. These were the concrete milk barn (CA-SBR-6857) and a portion of the Marigold Farms complex (CA-SBR-7139H).

Marigold Farms (CA-SBR-7139H) and its associated barn (CA-SBR-6857H) were located adjacent to the current project site and possibly had features within the extreme northeast corner of the current project at the intersection of Almond Avenue and California Street. However, all related structures have been demolished through construction of commercial development and road construction.

Adjacent surveys consisted of the Inland Feeder project for the Metropolitan Water District of Southern California (SB-2853) that surveyed a water utility line along California Street; a cultural resources survey for a development (SB-4600) across the northeast corner from the project suite at California Street and Almond Avenue; SB-8038, a paleontological assessment of a parcel that would be developed for the Hillwood Commercial Center on the east side of California Street from the project area, and finally there is a report documenting monitoring during ground disturbing activities for the construction of the Redlands Commercial Center buildings (SB-8199) immediately south of the project site on the south side of Lugonia Avenue.

An archaeological investigation may have taken place at the project site as indicated by the notation of “SB-06633” on the *Redlands, California* USGS map at the SCCIC. The SCCIC staff indicated that this report was no longer in their system and was likely removed by staff. Its potential appearance between reports dating to 2007 and 2015 indicates it may be associated with the site record P-36-007139 recorded by P. Fulton in 2012 at this location.

Pedestrian Survey

On November 6, 2024, an intensive pedestrian cultural resources survey was undertaken by Stephen O’Neil, M.A., RPA, who qualifies as a Principal Prehistoric Archaeologist and Historic Archaeologist per United States Secretary of the Interior Standards, with Mr. Rodrigo Jacobo M.A.



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Survey transects were conducted by walking north/south transects at 15 meter intervals. The pedestrian survey observed no prehistoric or historic artifacts or features.

Native American Outreach

In relation to the Phase I Cultural Resources Inventory Report, June 8, 2023, Ms. Doukakis contacted the NAHC via email notifying them of the project, requesting a search of their SLF and asking for a list of local tribal organizations and individuals to contact for project outreach. The results of the search request were received July 13, 2023 from Mr. Cameron Vela, Cultural Resources Analyst with tribal contacts for outreach purposes (refer to **Attachment C in Appendix F**)

On October 3, 2023, UEI sent letters and emails to each of the 38 tribal contacts describing the project and a map showing the project's location, requesting a reply if they have knowledge of cultural resources in the area, and asking if they had any questions or concerns regarding the project.

Eight email responses were received:

- The Gabrieleno Band of Mission Indians – Kizh Nation Administration responded on behalf of Chairperson Andrew Salas and Christina Swindell Martinez, Secretary on October 3, 2023 requesting the lead agency's contact information. That information was provided by Ms. Doukakis on October 4, 2023.
- Christina Conley, Cultural Resource Administrator for the Gabrielino Tongva Indians of California Tribal Council on behalf of Chairperson Robert Dorame responded on October 3, 2023, indicating that the project would need to have a Native American monitor and suggested calling Sandonne Goad, Chairperson of the Gabrielino/Tongva Nation for this area.
- Chairperson Charles Alvarez of the Gabrielino-Tongva Tribe on behalf of San Dunlap, Cultural Resources Director, responded on October 4, 2023, stating that the tribe would look into this matter and respond accordingly. Consultation was concluded and no further tribal responses were received.
- Paul Macarro, Cultural Resources Coordinator for the Pechanga Band of Indians on behalf of Chairperson Mark Macarro responded on October 3, 2023 indicating that the project area is outside the ancestral lands of their tribe and the tribe will defer to the appropriate tribes.
- Xitaley Madrigal, Cultural Resources Analyst for the Agua Caliente Band of Cahuilla Indians (ACBCI) on behalf of Chairperson Reid Milanovich and Director Patricia Garcia-Plotkin responded on October 11, 2023 indicating that the project area is not located within the boundaries of the ACBCI reservation but it is within the Tribe's Traditional Use Area and recommends a cultural resources inventory of the project area, documentation of CHRIS cultural resources, a copy of the records received on the project, the presence of cultural resource monitors if any ground disturbance takes place, including a Secretary of the Interior-qualified archeologist. Mr. O'Neil responded to Ms. Madrigal, stating that a cultural resources inventory report would be completed and could be requested from the City of Redlands when completed. As for the other requests recommended, Mr. O'Neil stated that they are best made to the City of Redlands during AB 52 consultation.
- Ana Rios, Administrative Assistant for the Augustine Band of Cahuilla Mission Indians sent an email response on October 9, 2023 on behalf of Chairperson Amanda Vance; an attached



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letter from Tribal Secretary Geramy Martin indicated that the tribe is unaware of specific cultural resources that may be affected by the proposed project; however, in the event that resources are encountered during the development of this project the tribe asks to be contacted. Mr. O'Neil responded to Ms. Rios, stating that a cultural resources inventory report would be completed and could be requested from the City of Redlands when completed as part of the outreach process; Mr. O'Neil also stated that the City of Redlands, per AB 52, would conduct consultation and the tribe could make any recommendations then.

- Alexandra McCleary, Cultural Lands Manager for the San Manuel Band of Mission Indians responded on November 2, 2023 indicating that the proposed project site is considered sensitive by the Tribe, as it is close to the historic footprint of the Mill Creek Zanja, a historic waterway listed on the National Register which had been built using Serrano labor; there was no specific mention of a Sacred Lands File site. The tribe would like to engage in government-to-government consultation pursuant to AB 52 with the Lead Agency for the project; Mr. O'Neil indicated on the same day that the Lead Agency is the City of Redland's Planning Department and UEI will let them know that the tribe wishes to engage in AB 52 consultation.
- Laura Chatterton, Cultural Resource Specialist for the Morongo Band of Mission Indians on behalf of Chairperson Robert Martin and Tribal Historic Preservation Officer Ann Brierty provided a response on November 14, 2023 indicating that the tribe considers the project area to be highly sensitive for cultural resources and will be requesting government-to-government AB 52 consultation; Mr. O'Neil indicated on the same day that the Lead Agency is the City of Redlands and UEI will let them know that the Band wishes to participate in consultation.

Following up on the initial letter and email contacts, telephone calls were conducted by Ms. Doukakis on November 3, 2023 and November 6, 2023, to complete the outreach process. These calls were to the 20 tribal contacts (representing eight additional tribes) who had not already responded to UEI's mailings and emails. Nine telephone calls were placed with no answer and messages were left describing the project and requesting a response. These were to Doug Welmas, Chairperson of the Cabazon Band of Mission Indians; Sandonne Goad, Chairperson of the Gabrielino-Tongva Nation; Robert Martin, Chairperson of the Morongo Band of Mission Indians, to Ann Brierty, Tribal Historic Preservation Officer of the Morongo Band of Mission Indians; Shasta Gaughen, THPO of the Pala Band of Mission Indians, to Alexis Wallick, Assistant Tribal Historic Preservation Officer of the Pala Band of Mission Indians; Wayne Walker, Co-Chairperson of the Serrano Nation of Mission Indians; the Cultural Committee for the Torres-Martinez Desert Cahuilla Indians; and to BobbyRay Esparza, Cultural Director of the Cahuilla Band of Indians.

- In the call to Chairperson Daniel Salgado, and Tribal Historic Preservation Officer Anthony Madrigal, of the Cahuilla Band of Indians the tribal receptionist indicated that Chairperson Salgado and Mr. Madrigal were not in the office and to leave a message on Mr. Esparza's voicemail which was done.
- In the call to John Gomez, Environmental Coordinator for the Ramona Band of Cahuilla Indians on behalf of Chairperson Joseph Hamilton, the tribal receptionist indicated that Mr. Gomez was in the field and provided his cell phone number; that number was called -- there was no answer and a message was left.



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- In the call to Lovina Redner, Tribal Chair for the Santa Rosa Band of Cahuilla Indians, the tribal receptionist indicated that Ms. Redner was not in the office at the time and asked that UEI leave our call back number which was done.
- In the call to Mark Cochrane, Co-Chairperson of the Serrano Nation of Mission Indians, the phone line was disconnected, and no message could be left. There has been no response to date for any of these calls.
- During the call to Anthony Morales, Chairperson of the Gabrieleno-Tongva San Gabriel Band of Missions Indians, he indicated that he does not have any specific concerns but there are known archaeological sites in the area and freeways like the I-10 that would have been used for traditional transportation routes. Chairperson Morales recommended Native American and archaeological monitoring and would like his tribe to be involved.
- In the call to Manfred Scott, Acting Chairman for the Quechan Tribe of the Fort Yuma Reservation on behalf of President Jordan Joaquin, and Jill McCormick, Historic Preservation Officer indicated that the tribe will defer to more local tribes.
- In the call to Joseph Ontiveros, Cultural Resource Department for the Soboba Band of Luiseño Indians on behalf of Chairperson Isaiah Vivanco indicated that this area is of moderate concern for the tribe and further information will be provided to the lead agency during AB 52 consultation.
- In the call to Dorothy Willis with the EPA Department for the Los Coyotes Band of Cahuilla and Cupeño Indians on behalf of Chairperson Ray Chapparosa, indicated that she was on the other line and to email her our question. This email was sent November 6, 2023.
- In the call to Cheryl Madrigal, Tribal Historic Preservation Officer of the Rincon Band of Luiseño Indians representing Tribal Council Member Joseph Linton, Tribal Council Member Laurie Gonzalez, and Attorney General Denise Turner Walsh, Ms. Madrigal indicated that she will take a look at our email and get back to us with a response.

A phone call was received from Deneen Pelton, Cultural Resources Coordinator with the Rincon Band, on the same day indicating that they sent an email response for this project on October 27, 2023. Ms. Pelton provided the email response, and it indicated that the project location is not within the Band's specific Area of Historic Interest (AHI) and the tribe has no additional information to provide; Ms. Pelton recommended that we directly contact a Tribe that is closer to the project and may have pertinent information. (See **Attachment C.**) There have been no further responses from these tribes to date.

Tribal Consultation under SB 18

In compliance with SB 18, the City of Redlands (the lead agency) has initiated outreach to local tribes for the Kaiser Permanente Medical Center Project. Consultation invitations were sent to the participating tribes through email and certified mail informing them of the project on February 23, 2023 and March 8, 2023. In accordance with SB 18, the tribe has 90 days in which to respond and request opening consultation, unless a shorter timeframe has been agreed to by the tribe.

The tribes contacted on February 23, 2023 included:



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- Agua Caliente Band of Cahuilla
- Augustine Band of Cahuilla Mission Indians
- Cabazon Band of Mission Indians
- Cahuilla Band of Indians
- Gabrieleño Band of Mission Indians – Kizh Nation
- Los Coyotes Band of Cahuilla and Cupeño Indians
- Morongo Band of Mission
- Pala Band of Mission Indians
- Pechenga Band of Indians
- Quechan Tribe of Ft. Yuma Reservation
- Ramona Band of Cahuilla
- Rincon Band of Luiseño Indians
- Rincon Band of Luiseño Indians
- San Manuel Band of Mission
- Santa Rosa Band of Cahuilla
- Serrano Nation of Mission
- Soboba Band of Luiseño
- Torres Martinez Desert Cahuilla

The tribes contacted on March 8, 2023 included:

- Chemehuevi Indian Tribe
- Colorado River Indian Tribes
- Fernandeano Tataviam Band of Mission Indians
- Fort Mojave Indian Tribe
- Gabrielino/Tongva San Gabriel Band of Mission Indians
- Gabrielino/Tongva Nation
- Gabrielino Tongva Indians of California Tribal Council
- Gabrielino-Tongva Tribe
- Juaneno Band of Mission Indians
- Acjachemen Nation - Belardes
- Juaneno Band of Mission Indians
- Acjachemen Nation 84A
- Kern Valley Indian Community
- Pechanga Band of Indians
- Quechan Tribe of the Fort Yuma Reservation
- Ramona Band of Cahuilla
- Twenty-Nine Palms Band of Mission

Six responses have been received to date. Five of these responses indicated that the tribes were not concerned about the project and not interested in participating in consultation. These tribes included the Agua Caliente Band of Cahuilla Indians, Augustine Band of Cahuilla Indians, Fernandeano Tataviam Band of Mission Indians, Rincon Band of Luiseño Indians, and Yuhaaviatam of San Manuel Nation. The Yuhaaviatam of San Manuel Nation also provided a set of recommended Mitigation Measures. The first measure describes that the tribe would like to be contacted if any pre-contact and/or historic-era cultural resources are discovered during the project. The second requests that all archaeological/cultural documents be provided to the tribe. No formal consultation request was received from the Yuhaaviatam of San Manuel Nation, so no agreement was made to include their proposed Mitigation Measures.

Consultation with Gabrieleño Band of Mission Indians –Kizh Nation

In a response received from the Gabrieleño Band of Mission Indians – Kizh Nation, the tribe indicated that the proposed project location is within the tribe's Ancestral Tribal Territory and requests consultation with the lead agency. Consultation took place over the phone on June 15, 2023. A follow up email was sent



by Mr. Beery to Mr. Salas providing grading plans for the project. The Admin Specialist for the tribe indicated through email that the tribe will review the grading plan and get back to Mr. Beery. Brandy Salas, Admin Specialist indicated through email that the tribe would like to consult on the project and set up a meeting time. Mr. Beery responded with multiple meeting dates and times in which he is available. Ms. Salas responded that the Chairman's schedule is fully booked until December 12, 2023 at 1pm. (K. Beery to S. O'Neil, personal communication; November 7, 2023.) The Admin Specialist for the tribe provided an email response in lieu of an in person meeting on October 16, 2023. Six documents from William McCawley's *The First Angelinos* (1996) text involving descriptions of the area of Redlands and the Gabrieleno community of Kaawchama were provided. A passage from California's Gabrieleno Indians by Bernice Eastman Johnston (1962) was provided concerning villages in Redlands. Two maps were provided, one is a 1938 map with a current map overlayed showing the project area and Native American villages, travel routes and waterways. The village of Kaawchama is shown to be located a short distance to the north of the project area. The second map is a current map with Mexican Rancho boundaries outlined. The project area sits within the Rancho San Bernardino. Lastly, a set of Mitigation Measures were provided. Consultation with the Gabrieleño Band of Mission Indians – Kizh Nation was concluded on April 10, 2025 and the City agreed to recommend inclusion of their proposed mitigation measures in the Draft PEIR. These measures are included below.

4.13.4 Existing Conditions

Redlands is located in the southwest portion of the San Bernardino Valley. This is a broad inland valley defined by the San Gabriel and San Bernardino Mountain Ranges to the north and is ringed by a series of low rocky hills to the south. The region's environment is characterized by a temperate Mediterranean climate, with the average maximum temperature in July reaching 89 degrees Fahrenheit (°F) and the average minimum temperature in January at around 42°F. Rainfall is typically less than 15 inches annually, most of which occurs between November and March.

The project site boundary is underlain by Surficial Sediments (Qa) (Dibblee, 2004), consisting of Alluvial and clay in valley areas covered with grey soil, including alluvia pebbly sand adjacent to mountain terrain. These soils date to the Holocene (11,650 years before present [ybp]) (Dibblee, 2004). The project site is at an elevation ranging from approximately 1,145 to 1,160 feet above mean sea level (AMSL) with a gentle slope to the west.

The project area is specifically located at 1301 California Street at the northwest corner of California Street and Lugonia Avenue and 0.25 mile north of the I-10 Freeway in the city of Redlands. This may be seen on the *Redlands, Calif.*, USGS topographical quadrangle, Range 03 West, Township 01 South, in the SE ¼ of the NE ¼ of Section 19. The project area is surrounded by industrial uses to the east, north, and west, and by industrial and the former site of a water park, now under construction with a warehouse structure, to the south.

4.13.5 Environmental Impact Analysis

4.13.5.1 Thresholds of Significance

Pursuant to State CEQA Guidelines Appendix G, the project is assessed under the following significance thresholds:

- A. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 21074 as either a site, feature, place, cultural



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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:

- (iii) 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 § 5020.1(k); or
- (iv) 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 Resource Code § 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.

4.13.5.2 Analysis of Project Impacts

Threshold A: Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

- i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code § 5020.1(k); or***
- ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resource Code § 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

Previous cultural resources surveys within the 0.5-mile buffer zone resulted in two historic archaeological sites that have been previously recorded within the project site boundary and an additional eight archaeological sites within the surrounding 0.5-mile buffer. No prehistoric resources were recorded within the project boundary or the 0.5-mile buffer area. (refer to Sections 4.1 and 4.3 in **Appendix D1**). The NAHC's SLF search had a positive response for a traditional resource in the project area. A pedestrian survey conducted resulted in no prehistoric or historic features or isolate artifacts being observed, although given the extremely poor surface visibility it cannot be ruled out that cultural resources may be present.

A prior survey of the property resulted in negative findings for prehistoric resources. However given that the prior agricultural use within the project might have masked archaeological deposits, the close proximity of fresh water source (the Santa Ana River) which would have been attractive to Native American use, that one of the contacted tribes did recommend tribal and archaeological monitoring based on the historic presence of local indigenous people along the nearby Santa Ana River, the presence of an adjacent associated farm complex dating back to approximately 1915, and that the present vegetation coverage did not allow for full observation of the project area ground



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surface, there is the potential that buried archaeological deposits may be present within the project boundary. Therefore, it is recommended that an archaeological monitor be present during ground-disturbing activities as presented in **MM TCR-1**. If prehistoric and/or historic items are observed during subsurface activities, work should be stopped in that area and a qualified archaeologist and Native American monitor be retained to assess the finding(s) and retrieve the material. See **MMs TCR-2** and **TCR-3**.

Based on the Phase I Cultural Resources Inventory report (**Appendix D1**) which includes a records search at the SCCIC of survey reports and site records, the results of an SLF search by the NAHC, and outreach to locally affiliated bands suggested by the NAHC, it was determined that the probability for significant impacts to TCRs is high at the project site.

4.13.6 Cumulative Impacts

TCRs have not been identified within the project site and within the vicinity of the project site. However, each related project would be required to comply with the applicable laws and regulations regarding TCRs, as detailed in the Regulatory Framework in Section 4.4.2. Additionally, related projects would be required to comply with the consultation requirements of SB 18 and AB 52 to determine and mitigate any potential impacts to TCRs. Thus, cumulative impacts to tribal cultural resources would be less than significant and impacts of the proposed project would not be cumulatively considerable.

4.13.7 Mitigation Measures

Although no information or evidence has been presented to the City demonstrating any potentially significant impacts to any known or likely TCRs on the project site or in close proximity to the project site, the City has agreed to implement the following mitigation measures in the event of any inadvertent discoveries of TCRs.

MM-TCR-1: Retain a Native American Monitor Prior to Commencement of Ground-Disturbing Activities

1. The project applicant shall retain a Native American Monitor(s) from one or more Consulting Tribe(s). Monitors from more than one tribe may coordinate and utilize a rotating schedule at their discretion.. The monitor(s) shall be retained prior to the commencement of any “ground-disturbing activity” for the subject project at all project locations (i.e., both on-site and any off-site locations that are included in the project description/definition and/or required in connection with the project, such as public improvement work). “Ground-disturbing activity” shall include, but is not limited to, demolition, pavement removal, potholing, auguring, grubbing, tree removal, boring, grading, excavation, drilling, and trenching.
2. A copy of the executed monitoring agreement with each monitoring Consulting Tribe(s) shall be submitted to the lead agency prior to the earlier of the commencement of any ground-disturbing activity, or the issuance of any permit necessary to commence a ground-disturbing activity.
3. The monitor(s) will complete daily monitoring logs that will provide descriptions of the relevant ground-disturbing activities, the type of construction activities performed, locations of ground-disturbing activities, soil types, cultural-related materials, and any other facts, conditions, materials, or discoveries of significance to the Tribe. Monitor logs will identify and



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describe any discovered TCRs, including but not limited to, Native American cultural and historical artifacts, remains, places of significance, etc., (collectively, tribal cultural resources, or “TCR”), as well as any discovered Native American (ancestral) human remains and burial goods. Copies of monitor logs will be provided to the project applicant/lead agency upon written request to the Tribe.

4. On-site tribal monitoring shall conclude upon the latter of the following (1) written confirmation to the Consulting Tribe(s) from a designated point of contact for the project applicant that all ground-disturbing activities and phases that may involve ground-disturbing activities on the project site or in connection with the project are complete; or (2) a determination and written notification by the Consulting Tribe(s) to the project applicant and lead agency that no future, planned construction activity and/or development/construction phase at the project site possesses the potential to impact TCRs.

MM-TCR-2: Unanticipated Discovery of Tribal Cultural Resource Objects (Non-Funerary/Non-Ceremonial)

- A. Upon discovery of any TCRs, all construction activities in the immediate vicinity of the discovery shall cease (i.e. not less than the surrounding 50 feet) and shall not resume until the discovered TCR has been fully assessed by the Consulting Tribe(s)’ monitor(s) and/or archaeologist(s).

MM-TCR-3: Unanticipated Discovery of Human Remains and Associated Funerary or Ceremonial Objects

- A. Native American human remains are defined in PRC 5097.98 (d)(1) as an inhumation or cremation, and in any state of decomposition or skeletal completeness. Funerary objects, called associated grave goods in Public Resources Code Section 5097.98, are also to be treated according to this statute.
- B. If Native American human remains and/or grave goods are discovered or recognized on the project site, then Public Resource Code 5097.9 as well as Health and Safety Code Section 7050.5 shall be followed.
- C. Human remains and grave/burial goods shall be treated alike per California Public Resources Code section 5097.98(d)(1) and (2).
- D. Preservation in place (i.e., avoidance) is the preferred manner of treatment for discovered human remains and/or burial goods.
- E. Any discovery of human remains/burial goods shall be kept confidential to prevent further disturbance.

4.13.8 Level of Significance after Mitigation

Compliance with **MM-TCR-1**, **MM-TCR-2** and **MM-TCR-3** would ensure that previously unknown tribal cultural resources and archaeological or historical artifacts are protected, evaluated, and recovered as determined by the appropriately qualified Native American representative and cultural resources expert. Implementation of these mitigation measures, in addition to adherence with applicable federal, state, and county regulations would reduce potential project impacts on tribal cultural resources to less than significant level after mitigation.



4.14 Utilities and Service Systems

4.14.1 Introduction

This section of the PEIR is focused on water supplies, water infrastructure, and wastewater treatment facilities, because the Initial Study identified those issues (thresholds a and b under CEQA Guidelines Appendix G for Utilities and Service Systems) as having the potential for significant impacts requiring further analysis. In contrast, the Initial Study determined that impacts related to telecommunications, drainage, and solid waste disposal would be less than significant.

Regarding solid waste, the Initial Study mistakenly described all City of Redlands waste as disposed of at the California Street Landfill. Updated CalRecycle (2023) disposal data show that approximately 93 percent of the City's waste is disposed of at two facilities—the California Street Landfill and the San Timoteo Sanitary Landfill. This correction does not alter the Initial Study's conclusion that adequate landfill capacity exists and that project impacts on solid waste disposal would remain less than significant.

The existing setting for solid waste disposal is described in **Section 4.14.3, Existing Conditions**. The significance conclusion of the impact is not changed from the less than significant finding identified in the Initial Study. Therefore, this impact is not analyzed in this DEIR.

Because the Initial Study provided a sufficient evidentiary basis to conclude that impacts on telecommunications, drainage, and solid waste would be less than significant, these topics do not require further analysis in this PEIR. Instead, the PEIR appropriately focuses on water supply, water infrastructure, and wastewater treatment capacity, which warrants detailed study. The impacts on electricity and natural gas supplies and consumption are addressed in **Section 4.5** of this DEIR.

4.14.2 Regulatory Framework

Water Supplies

State

Senate Bill 610 (California Water Code §§ 10910 et seq.)

Senate Bill (SB) 610, codified in the California Water Code, §§ 10910 et seq., became effective January 1, 2002. SB 610 requires counties and cities to consider the availability of adequate water supplies for certain new large development projects as part of the California Environmental Quality Act (CEQA) process. Specifically, SB 610 requires that for certain projects subject to CEQA, the urban water supplier prepares a Water Supply Assessment (WSA) that determines whether the projected water demand associated with a project is included as part of the most recently adopted Urban Water Management Plan (UWMP).

Specifically, a WSA shall identify existing water supply entitlements, water rights, or water service contracts held by the public water system and prior years' water deliveries received by the public water system. In addition, it must address water supplies over a 20-year future period and consider average, single-dry, and multiple-dry years. In accordance with § 10912 of the California Water Code, projects subject to CEQA requiring submittal of a WSA include the following:

- Residential developments of more than 500 dwelling units;
- Shopping center or business establishment employing more than 1,000 persons or having



more than 500,000 square feet of floor space;

- Commercial office buildings employing more than 1,000 persons or having more than 250,000 square feet of floor space;
- Hotels and motels, or both, having more than 500 rooms;
- Industrial, manufacturing, or processing plant, or industrial park of more than 40 acres of land, more than 650,000 square feet of floor area, or employing more than 1,000 persons;
- Mixed-use projects that include one or more of the above-identified categories; or
- A project that would require an amount of water equivalent to or greater than the amount of water required by a 500-unit project.

The WSA must be approved by the public water system at a regular or special meeting and must be incorporated into the CEQA document. The lead agency must then make certain findings related to water supply based on the WSA. For this project, the City is both the water agency and the lead agency.

Senate Bill X7-7 (Water Conservation Act of 2009)

Senate Bill X7-7 (Water Conservation Act of 2009), codified in California Water Code §10608, requires all water suppliers to increase water use efficiency. Enacted in 2009, this legislation sets an overall goal of reducing per capita urban water use, compared to 2009 use, by 20 percent by December 31, 2020. The State was required to make incremental progress toward this goal by reducing per capita water use by at least 10 percent on or before December 31, 2015. Monthly domestic water savings in the state reached 14.9 percent in September 2017 compared to production in September 2013. Cumulative statewide savings from June 2015 to February 2017 resulted in a 22.5 percent decrease in per capita urban water use.

California Urban Water Management Plan Act (California Water Code §§ 10610-10656)

The California Urban Water Management Planning Act (California Water Code, §§ 10610-10656) addresses several State policies regarding water conservation and development of water management plans to ensure efficient use of available supplies. The California Urban Water Management Planning Act also requires water suppliers to develop water management plans every five years to identify short- and long-term demand management measures to meet growing water demand during normal, single-dry, and multiple-dry years. Specifically, municipal water suppliers serving more than 3,000 customers or providing more than 3,000 acres per year of water must adopt an UWMP.

Several recent requirements have been added to the Urban Water Management Planning Act. These additional requirements include: (i) a narrative description of water demand measures implemented over the past five years and future measures planned to meet 20 percent demand reduction targets by 2020; (ii) a standard methodology for calculating system water loss; (iii) voluntary reporting of passive conservation savings, energy intensity, and climate change; and (iv) an analysis of water features that are artificially supplied with water.

Sustainable Groundwater Management Act of 2014

The Sustainable Groundwater Management Act of 2014, passed in September 2014, is a comprehensive three-bill package that provides a framework for the sustainable management of groundwater supplies by local authorities. The Sustainable Groundwater Management Act requires the formation of local groundwater sustainability agencies to assess local water basin conditions and



adopt locally based management plans. Local groundwater sustainability agencies were required to be formed by June 30, 2017. The Sustainable Groundwater Management Act provides 20 years for groundwater sustainability agencies to implement plans and achieve long-term groundwater sustainability and protect existing surface water and groundwater rights. The Sustainable Groundwater Management Act provides local groundwater sustainability agencies with the authority to require the registration of groundwater wells, measure and manage extractions, require reports and assess fees, and request revisions of basin boundaries, including establishing new subbasins. As required by the Sustainable Groundwater Management Act, in December 2016, the California Department of Water Resources published on its website the best management practices (BMP):

- BMP 1. Monitoring Protocols, Standards, and Sites;
- BMP 2. Monitoring Networks and Identification of Data Gaps;
- BMP 3. Hydrogeologic Conceptual Model;
- BMP 4. Water Budget; and
- BMP 5. Modeling

In November 2017, BMP 6 for Sustainable Management Criteria was released for public comments to be received by January 8, 2018. Furthermore, under §10720.7 of the Sustainable Groundwater Management Act, groundwater sustainability agencies responsible for high- and medium-priority basins must adopt groundwater sustainability plans by January 31, 2020, or January 31, 2022, depending on whether the basin is in critical overdraft.

Article 22.5 - Drought Emergency Water Conservation, California Code of Regulations (Emergency Declaration and Executive Orders B-29-15, B 36-15, B-37-16, and B-40-17)

Due to improved hydrologic conditions throughout California, on April 7, 2017, Governor Brown issued Executive Order B-40-17 that lifted the drought emergency declared via previous executive orders in 2014 through 2016 in all but four California counties. Executive Order B-40-17 also rescinds the Drought Emergency Proclamations issued in January and April 2014 as well as four drought-related Executive Orders issued in 2014 and 2015. However, Executive Order B-40-17 also directs the State Water Resources Control Board to maintain urban water use reporting requirements and prohibitions on wasteful practices. Water agencies will continue to strengthen drought readiness and water use efficiency. The regulatory requirements resulting from existing Executive Orders have been codified in Article 22.5, Drought Emergency Water Conservation, of the California Code of Regulations.

California Water Plan 2023

Required by the California Water Code § 10005(a), the California Water Plan (Water Plan) is the State's strategic plan for managing and developing water resources statewide for current and future generations. The Water Plan provides a collaborative planning framework for elected officials, agencies, tribes, water and resource managers, businesses, academia, stakeholders, and the public to develop findings and recommendations and make informed decisions for California's water future.

The Water Plan, updated every five years, presents the status and trends of California's water-dependent natural resources, water supplies, and agricultural, urban, and environmental water demands for a range of plausible future scenarios. The Water Plan also evaluates different combinations of regional and statewide resource management strategies to reduce water demand, increase water supply, reduce flood risk, improve water quality, and improve environmental and resource stewardship. Evaluations and assessments performed for the Water Plan help identify effective actions and policies to meet



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California's resource management objectives in the near term and for several decades to come. Although the California Water Plan cannot mandate actions or authorize itemized spending, policymakers and lawmakers can authorize specific actions and appropriate necessary funding.

Regional

San Bernardino Valley Regional Urban Water Management Plan 2020 (UWMP)

The San Bernardino Valley Regional UWMP 2020 is a tool that provides a summary of anticipated supplies and demand for the years 2020-2045. It was prepared for the following agencies within the San Bernardino Valley Municipal Water District service area:

- City of Redlands
- San Bernardino Valley Municipal Water District (wholesale water agency)
- East Valley Water District
- City of Loma Linda
- City of San Bernardino Municipal Water Department
- West Valley Water District
- Yucaipa Valley Water District
- City of Colton
- City of Rialto
- Riverside Highland Water Company

The Plan was prepared in accordance with the Urban Water Management Plan Act, the 2009 Water Conservation Act (SB X7-7) and the DWR Guidebook for Urban Water Suppliers. The City of Redlands participated in the UWMP. The UWMP also serves as the Integrated Regional Water Management Plan for the San Bernardino Valley region.

City of Redlands Water Systems Master Plan (WSMP)

The 2022 WSMP includes the three water systems of the city: Non-Potable Water, Potable Water, and Recycled Water Systems. The most critical outcome of the 2022 WSMP is the development of comprehensive five-year and twenty-year capital improvement program recommendations to improve distribution efficiency, reduce nonrevenue water, and accommodate growth within the City water service areas.

Wastewater

State

The California Green Building Standards Code, commonly referred to as the CALGreen Code, is established in the California Code of Regulations, Title 24, Part 11, and establishes voluntary and mandatory standards pertaining to the planning and design of sustainable site development and water conservation, among other issues. According to the CALGreen Code, all water closets (i.e., flush toilets) are limited to 1.28 gallons per flush, and urinals are limited to 0.5 gallons per flush. In addition, maximum flow rates for faucets are established at 2.0 gallons per minute (gpm) at 80 pounds per square inch (psi) for showerheads; 1.2 gpm at 60 psi for residential lavatory faucets; and 1.8 gpm at 60 psi for kitchen faucets.

City of Redlands Water Efficient Landscape Requirements



Chapter 15.54 of the Redlands Municipal Code establishes the City's Water Efficient Landscape Requirements to promote the benefits provided by landscapes while recognizing the need to use water as efficiently as possible. The chapter requires that applicable landscaping projects submit a landscape documentation package that contains project information, hydrozone information table, water budget calculations, soil management report, and landscape, irrigation, and grading design plans. The chapter establishes requirements for irrigation scheduling, maintenance, and audits to ensure efficient use of water. The requirements also include provisions for recycled water irrigation systems and encourage best-strategy practices in stormwater to increase retention and infiltration on site.

California Plumbing Code (2022)

The City of Redlands has adopted the 2022 California Building Standards Code with July 2024 Supplement, including the California Plumbing Code (California Code of Regulations, Title 24, Part 5). The code includes provisions for the design, materials, and installation of water supply and distribution fixtures, sanitary drainage, indirect waste, storm drainage, and non-potable water sources for individual projects.

4.14.3 Existing Conditions

Water Supplies

The City of Redlands Municipal Utilities & Engineering Department (MUED) supplies water to nearly all of the city of Redlands, including the project site, and most of the unincorporated community of Mentone east of Redlands. Redlands receives its water from the following:

- Mill Creek Watershed: The water from the Mill Creek watershed is treated at the Henry Tate (Tate) Water Treatment Plant (WTP) located on Highway 38 east of Mentone.
- Santa Ana River Watershed: The water from the Santa Ana River watershed is treated at the Hinckley WTP located north of Mentone.
- Local Groundwater: Local groundwater is pumped from wells in Redlands, Mentone, and Yucaipa.
- California State Water Project (SWP) Water: SWP water is treated at Hinckley WTP and Tate WTP.

Metropolitan Water District of Southern California (MWD)

MWD wholesales water imported from northern California through the SWP, which is operated by the California Department of Water Resources, and from the Colorado River via the Colorado River Aqueduct.

Recycled Water

The City of Redlands Water Reclamation Plant (WRP) is a facility that treats raw wastewater, converting it into recycled water for various uses. Originally a secondary treatment facility, it has been expanded to include advanced wastewater treatment processes. The plant is operated by the City of Redlands. The City of Redlands produces its recycled water internally in its WRP, treating municipal wastewater to tertiary standards in accordance with California Title 22 regulations. Uses of recycled water include industrial cooling and landscape irrigation. The City's WRP treats approximately 5.9 mgd and has 9 mgd capacity including tertiary treatment capacity of 7.2 mgd.³⁴ In 2020, approximately 1.6

³⁴ Sanitary wastewater is treated in the following three phases: Primary Treatment: removal of solids using settling tanks; Secondary Treatment: reduction of organic matter using bacteria and oxygen; followed by further removal of solids;



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mgd were used as recycled water for customers, and 3.4 mgd were used for groundwater recharge in the Bunker Hill Basin (City of Redlands, 2024). The projected water supplies during the 2025–2045 planning period are summarized in **Table 4.14-1**, which include groundwater, surface water, recycled water, and imported sources.

Table 4.14-2 provides a supply and demand comparison for normal year conditions, demonstrating that available supplies meet projected demand. **Table 4.14-3** presents a single dry year comparison, showing that the city can continue to meet water needs during isolated drought years through increased reliance on groundwater and imported supplies. **Table 4.14-4** outlines the reliability of the water supply over multiple consecutive dry years, confirming a sustained supply-demand balance under stressed conditions.

Table 4.14-1
PROJECTED WATER SUPPLIES (2025–2045) (afy)

Water Supply	REASONABLY AVAILABLE VOLUME				
	2025	2030	2035	2040	2045
Groundwater: Bunker Hill Subbasin and Yucaipa Basin	13,973	14,922	15,861	16,677	17,484
Recycled Water	3,766	4,015	4,275	4,513	4,760
Surface Water: Santa Ana River and Mill Creek	10,500	10,500	10,500	10,500	10,500
Imported Water	700	700	700	700	700
Recycled Water: Direct non-potable reuse	2,100	2,100	2,100	2,100	2,100
Total	31,039	32,238	33,436	34,490	35,544

Note: afy (Acre Feet per Year): One acre foot = 325,851 gallons

Source: City of Redlands, 2021. *2020 Urban Water Management Plan*

Table 4.14-2
NORMAL YEAR SUPPLY AND DEMAND COMPARISON (2025–2045) (afy)

Supply/Demand Component	2025	2030	2035	2040	2045
Total Water Supply	31,039	32,238	33,436	34,490	35,544
Total Demand	26,991	28,033	29,075	29,991	30,908
Supply-Demand	4,049	4,205	4,361	4,499	4,636

Source: City of Redlands, 2021. *2020 Urban Water Management Plan*

Table 4.14-3
SINGLE DRY YEAR SUPPLY AND DEMAND COMPARISON (2025–2045) afy

Supply/Demand Component	2025	2030	2035	2040	2045
Total Water Supply	34,143	35,461	36,780	37,939	39,098
Total Demand	29,690	30,836	31,982	32,990	33,998
Supply-Demand	4,453	4,625	4,797	4,949	5,100

Source: City of Redlands, 2021. *2020 Urban Water Management Plan*

and Tertiary Treatment: filtration of wastewater to remove any solids remaining after the first two phases of treatment.

Most wastewater that undergoes tertiary treatment is subsequently disinfected, and much of it is reused (i.e., recycled) for landscape and agricultural irrigation, groundwater recharge, and industrial uses.



Table 4.14-4
MULTIPLE DRY YEAR SUPPLY AND DEMAND COMPARISON (2025-2045) afy

Scenario	2025	2030	2035	2040	2045
First Year					
Supply	34,143	35,461	36,780	37,939	39,098
Demand	29,690	30,836	31,982	32,990	33,998
Difference	4,453	4,625	4,797	4,949	5,100
Second Year					
Supply	34,143	35,461	36,780	37,939	39,098
Demand	29,690	30,836	31,982	32,990	33,998
Difference	4,453	4,625	4,797	4,949	5,100
Third Year					
Supply	34,143	35,461	36,780	37,939	39,098
Demand	29,690	30,836	31,982	32,990	33,998
Difference	4,453	4,625	4,797	4,949	5,100
Fourth Year					
Supply	34,143	35,461	36,780	37,939	39,098
Demand	29,690	30,836	31,982	32,990	33,998
Difference	4,453	4,625	4,797	4,949	5,100
Fifth Year					
Supply	34,143	35,461	36,780	37,939	39,098
Demand	29,690	30,836	31,982	32,990	33,998
Difference	4,453	4,625	4,797	4,949	5,100

Source: City of Redlands, 2021. 2020 Urban Water Management Plan

Domestic Water Conveyance

The project site is served by an existing 16-inch water main on California Street and a 12-inch main on West Lugonia Avenue, both of which are components of the City's Primary Pressure Zone distribution network.

The 2020 UWMP prepared by the City of Redlands confirms that the Primary Pressure Zone serving the project site has adequate hydraulic capacity to meet current and future demands under normal, single dry, and multiple dry year conditions until 2045 (Redlands 2020, **Table 7-6**). Fire flow in this area is consistent with the California Fire Code, which requires a minimum flow of 1,500 gallons per minute for low-density commercial and medical office uses with a duration of at least two hours and adequate hydrant spacing.

Wastewater Treatment and Conveyance

The City of Redlands WRP is owned and operated by the City and has a permitted capacity of 9.5 mgd, with an average daily flow of approximately 5.9 mgd as of 2020. The plant is regulated by the Waste Discharge Requirements (Order No. R8-2015-0012) issued by the Santa Ana Regional Water Quality Control Board (RWQCB). It treats wastewater to tertiary standards in accordance with the California Code of Regulations, Title 22, making it suitable for non-potable reuse, including landscape irrigation and aquifer recharge.

The 2020 UWMP and Sewer Master Plan of the City confirm that there is sufficient capacity within both the collection system and the WTP to accommodate the anticipated growth, including the future buildout of the East Valley Corridor Specific Plan.



Solid Waste Disposal and Diversion

The environmental setting for the disposal of solid waste in the Initial Study contained an error, stating that solid waste from the city of Redlands was disposed of at one landfill, California Street Landfill, in the city of Redlands. In 2023, the latest year for which data are available, about 93 percent of the solid waste landfilled from the city of Redlands was actually disposed of in two landfills—the California Street Landfill and the San Timoteo Sanitary Landfill south of the city of Redlands (CalRecycle, 2024a). The two landfills are described below in **Table 4.14-5**. The impact significance conclusion (*less than significant*) is not changed compared to that in the Initial Study; therefore, this topic is not addressed in **Section 4.14.4**.

Table 4.14-5
LANDFILLS SERVING REDLANDS

Facility and nearest city/community	Remaining Capacity	Daily Permitted Disposal Capacity	Actual Daily Disposal	Residual Daily Disposal Capacity	Estimated Closing Date
California Street Landfill	4,184,751 CY	829 tons	170 tons	659 tons	2042
San Timoteo Sanitary Landfill	12,360,396 CY	2,000 tons	1,234 tons	766 tons	2039
Total	16,545,147 CY	2,829 tons	1,404 tons	1,425 tons	N/A

Daily disposal calculated based on annual disposal tonnage assuming 300 operating days per year, that is, six days per week less certain holidays.

Sources: CalRecycle. 2020a. Jurisdiction Disposal by Facility; CalRecycle. 2020[b, and c]. Solid Waste Information System (SWIS): SWIS Facility/Site Search; CalRecycle. 2020d. 2019 Landfill Summary Tonnage Report.

4.14.4 Environmental Impact Analysis

4.14.4.1 Thresholds of Significance

For the purposes of this Environmental Impact Analysis, Significance Thresholds for evaluating potential impacts to Utilities and Service Systems are based on the criteria set forth in Appendix G of the 2025 State CEQA Guidelines. The project would have a significant impact related to Utilities and Service Systems if it would:

- Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?
- Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?
- Result in a determination by the waste water treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?
- Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?
- Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

The Initial Study (refer to **Appendix A1**) determined that impacts would be less than significant for **Thresholds D and E**. Under Threshold D, sufficient capacity is available at recycling and landfill facilities in the region for the demolition debris estimated to be generated by the project and solid waste generated by the project would be approximately 0.48 percent of the residual daily capacity of



the landfill, thus impacts would be less than significant. The project will comply with federal, state, and local management and reduction statutes and regulations related to solid waste and thus impacts under Threshold E would be less than significant. This analysis therefore evaluated impacts only for Appendix G **Thresholds A, B, and C.**

4.14.4.2 Analysis of Project Impacts

Threshold A: Would the project 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?

Less Than Significant Impact

Significance Threshold A focuses on the project's potential to require the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas or telecommunications facilities. Potential impacts related to electricity and natural gas supply, and consumption are comprehensively addressed in **Section 4.5** and potential impacts on stormwater drainage facilities are evaluated in **Section 4.10** of this DEIR and are therefore not analyzed further in this section. The impacts associated with the telecommunications infrastructure were determined to be less than significant in the Initial Study and are not analyzed further in this section. Accordingly, this analysis evaluates the potential impacts of the project solely in terms of water supply and wastewater treatment facilities, to determine if existing capacity is sufficient to meet the projected demand. The project proposes hospital and medical offices to be built in four phases.

Water Supplies and Project Water Demands

MUED provides water to the City of Redlands including the project site. Under CEQA Guidelines §15155 and Water Code §10910 et seq. (SB 610), the City of Redlands, as the public water purveyor, must verify that it has sufficient existing and future water supplies to meet the project's demands over a 20-year horizon.

A WSA was completed for the proposed project by Michael Baker International, dated April 22, 2025, which was included as **Appendix 4.9a** to this DEIR. The WSA utilized the highest Water Demand Factor (WDF) of 5,705 gallon per day(gpd)/acre to calculate the expected demands for the existing MOB 1 and the proposed MOB 2, CUP, and MOB 3. The hospital and hospital Tower WDF is 350 gpd/bed, with 213 and 108 beds, respectively. The Average Day Demand (ADD) for the project using this methodology is 114.7 gpm. The Maximum Day Demand (MDD) and Peak Hour Demand (PHD) were calculated using peaking factors of 1.7 and 2.75 respectively per the City of Redlands 2022 Water Master Plan. The MDD is 195 gpm and PHD is 315 gpm for the project as demonstrated in **Table 4.14-7** below (Michael Baker, 2025. p. 3).

Demands for MOB 2 and MOB 3 will be individually measured while demand for the hospital and the hospital tower will be routed through the CUP. **Table 4.14-8** breaks down the domestic water demands by phase (Michael Baker, 2025, p. 4).



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Table 4.14-7
PROPOSED PROJECT DOMESTIC WATER DEMANDS

Building	Area (x 1000 sf)	Acreage	WDF (gpd/acre)	ADD (gpm)	MDD (gpm)	PHD (gpm)
Existing MOB 1	120	2.75	5,705	10.91	18.55	30.01
ASC/MOB 2	165	3.79	5,705	15.01	15.51	41.27
CUP	35	0.80	5,705	3.18	5.41	8.75
MOB 3	83	1.9	5,705	7.55	12.83	20.76
Building	Beds	WDF (gpd/acre)	ADD (gpm)	ADD (gpm)	MDD (gpm)	PHD (gpm)
Hospital	213	350	74,550	51.77	88.01	142.37
Hospital Tower	108	350	37,800	26.25	44.63	72.19
Total				114.67	194.95	315.35

Source: Michael Baker, 2025. *Water Supply Assessment for Kaiser Permanente Redlands Medical Center*.

Table 4.14-8
PROPOSED PROJECT DOMESTIC WATER DEMANDS BY PHASE

Building	Phase	ADD (gpm)	ADD by Phase (gpm)	MDD (gpm)	PHD (gpm)
Existing MOB 1	1	10.9	25.92	44.07	71.28
ASC/MOB 2	1	15.01			
Hospital	2	51.77	54.95	93.42	151.12
CUP	2	3.18			
MOB 3	3	7.55	7.55	12.83	20.76
Hospital Tower	4	26.25	26.25	44.63	72.19

Source: Michael Baker, 2025. *Water Supply Assessment for Kaiser Permanente Redlands Medical Center*.

As shown in **Table 4.14-9**, the existing water infrastructure of the City of Redlands, managed by the MUED, is expected to adequately meet the demands of the proposed project. In addition, close coordination with MUED throughout the design and implementation process will ensure that all improvements in water infrastructure align with the objectives and supply planning outlined in the City's 2020 UWMP (City of Redlands, 2022).

Table 4.14-9
COMPARISON OF PROPOSED PROJECT DEMAND VS. AVAILABLE WATER SUPPLY

Parameter	Project Demand	Redlands Water Supply	Assessment
Average Daily Demand (ADD)	114.7 gpm (165,168 gpd or 185 afy)	16,317 afy (2045) (Normal Year)	1.2% of 2045 supply
Maximum Day Demand (MDD)	195 gpm (280,800 gpd or 314 afy)	Not reported daily, but within system hydraulic design	Expected to be within pressure zone capacity
Peak Hour Demand (PHD)	315 gpm	Managed through Primary Pressure Zone	Design accounts for diurnal peaks
Single-Dry Year Supply	No change in demand	13,133 afy	1.4% of supply
Multiple-Dry Year Supply	No change in demand	11,835 afy	1.6% of supply
Fire Flow Requirement	1,500 gpm, 2-hour duration	Met through looped network and hydrant capacity	Compliant with CA Fire Code

Source(s): Michael Baker, 2025. *Water Supply Assessment for Kaiser Permanente Redlands Medical Center*; City of Redlands, 2021. *2020 Urban Water Management Plan*.

Project buildout will occur over four distinct phases, each generating incremental increases in water demand. As a result, municipal water infrastructure upgrades will be required to maintain service reliability and compliance with water quality standards. Infrastructure upgrades and coordination with MUED will ensure system adequacy, pressure zone performance, and consistency with the City's



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2020 Urban Water Management Plan (UWMP). Therefore, the proposed project would have a less than significant impact in this regard.

Water Treatment

The proposed project includes approximately 983,000 square feet of new medical development, consisting of a hospital, medical office buildings (MOBs) and a CUP. Based on industry standard benchmarks from the DWR and the SBMWD, the estimated total water demand is approximately 847 afy. This includes demand factors of approximately 0.5 afy per 1,000 square feet for MOBs and 0.8 afy per 1,000 square feet for hospital uses as shown in **Table 4.14-10**.

Table 4.14-10
ESTIMATED PROJECT WATER DEMAND (AT BUILDOUT)

Proposed Use	Square Feet	Water Demand	
		Rate	afy
Hospital (high-intensity): ~0.8–1.2 afy per 1,000 sq. ft.	580,000	0.8	464
Medical Office (standard use): ~0.5 afy per 1,000 sq. ft.	368,000	1.0	368
Central Plant (mechanical loads)	35,000	.04	15
Total	983,000	N/A	847

Source(s): DWR UWMPs *Guidebook for Urban Water Suppliers*; LA Department of Water & Power *Land Use Budget*

Water Conveyance

The proposed domestic water service connections will support existing and new medical facilities on the Kaiser Permanente Redlands Medical Center campus, including a CUP and two hospital towers. According to the Water Supply Assessment (WSA), implementation of the proposed project will necessitate new domestic water service connections to meet increased demand associated with phased development. The project includes the following infrastructure upgrades:

- **California Street Connection:** A new 4-inch domestic water service connection will be established to the existing 16-inch diameter water main on California Street. This line will exclusively serve the existing Medical Office Building 1 (MOB 1).
- **Lugonia Avenue Connection:** A new 6-inch domestic water service connection will tie into the 12-inch diameter water main on Lugonia Avenue. This connection is designed to accommodate water supply needs for the new Medical Office Buildings 2 and 3 (MOB 2 and MOB 3), Central Utility Plant (CUP), the new Hospital facility, and the proposed Hospital Tower.

Domestic Water

The proposed project will require reliable and adequate water conveyance infrastructure to serve approximately 983,000 square feet of new healthcare facilities, including hospitals, medical office buildings, and a CUP. The project will connect to the existing municipal water distribution system operated by the City of Redlands and will be evaluated for capacity and pressure adequacy through utility coordination and hydraulic modeling. On-site conveyance improvements, including looped water mains, service laterals, and backflow prevention devices, will be designed in accordance with the California Plumbing Code, City design standards, and applicable American Water Works Association guidelines. All water infrastructure will also be coordinated with fire protection design to ensure dual purpose conveyance for both domestic and fire water supply. No significant impacts are anticipated, as the required infrastructure can be extended or upgraded within existing rights-



of-way and will be sized to meet the average daily and peak demand conditions identified in the project's Water Supply Assessment.

Fire Water

The project will require the installation or upgrade of the fire water conveyance infrastructure on site, including underground mains, hydrants, and fire department connections, to meet the minimum fire flow and pressure requirements. Pursuant to the California Fire Code (CFC), 2022 Edition, codified in Title 24, Part 9 of the California Code of Regulations, projects classified under Group I-2 (Hospitals) and Group B (Medical Offices) must provide fire flow and hydrant spacing according to Table B105.1(2) and §507, with typical required fire flows ranging from 3,000 to 4,500 gpm, subject to the type of fire-resistive construction and the presence of automatic sprinkler systems. The final design will ensure looped water lines, dual connection points, and appropriate backflow prevention. No significant impact related to fire water infrastructure is anticipated, as improvements will be constructed in coordination with the Redlands Fire Department and in compliance with California Fire Code.

Wastewater Treatment Facilities

Projected wastewater generation is approximately 86,075 gallons per day (gpd), consistent with standard discharge rates for healthcare facilities as shown in **Table 4.14-11**. All sewer improvements will comply with the California Plumbing Code, City Public Works standards, and best management practices to prevent inflow, infiltration, and system surcharges. Project-level coordination will confirm that sufficient treatment and conveyance capacity exists to support the proposed development without significant environmental impact.

Table 4.14-11
ESTIMATED PROJECT WASTEWATER GENERATION

Proposed Use	Project Phases	Quantity and units	Wastewater Generation (gpd)	
			Per unit	Total
Hospital	2 and 4	321 beds	75	24,075
Medical Office Building	1 and 3	248,000 square feet	0.25	62,000
Total				86,075

Source: Los Angeles County Sanitation District, 2025

In this estimate utility demands by the CUP are treated as ancillary to the primary uses and thus are not estimated separately.

The generation factors presented in **Table 4.14-11** references LACSD's *Will Serve Program* wastewater planning criteria. The estimated flows represent standard operational and occupancy-related wastewater discharges consistent with established planning methodologies.

Collection and Conveyance Infrastructure

The proposed project will increase wastewater generation through the phased development of medical office buildings, a 321-bed hospital, and associated infrastructure. Wastewater will be conveyed via new or upgraded on-site sewer laterals and gravity mains, which will connect to existing regional sewer lines on Lugonia Avenue and Almond Avenue, maintained by the City of Redlands. The existing lines are part of the City's gravity-based sewer collection network, which conveys flows to the Redlands WTP approximately 2.5 miles southeast of the site.



Conclusion

As previously noted, the project will connect to existing on-site laterals or construct new service laterals to tie into the adjacent sewer mains, and no off-site improvements or upgrades are required. Based on the City of Redlands' 2020 UWMP, the estimated annual water demand of the project of 847 afy, as shown in **Table 4.14-10** above, represents approximately 3.01 percent of the total available water supply of the City. Given this relatively small proportion of the overall supply, the existing water infrastructure has sufficient capacity to meet the project's demand of the project without requiring the relocation or construction of new or expanded water supply facilities that could have significant environmental effects. Similarly, the wastewater generated by the project would be within the capacity of existing wastewater treatment systems and no new or expanded treatment facilities would be required. Therefore, the impacts would be less than significant.

Threshold B: Would the project 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

MUED has sufficient forecast water supplies to meet project water demand during normal, dry and multiple dry years, as substantiated above, and impacts would be less than significant.

As analyzed above, MUED's 2020 UWMP projects reliable supplies of 31,000–35,500 AFY through 2045, with surpluses of about 4,000–5,100 AFY under normal, single-dry, and multiple-dry year scenarios. The project's demand of roughly 185 AFY represents less than 2 percent of available supplies and is already accounted for in UWMP forecasts. Because MUED's portfolio of groundwater, surface water, recycled water, and imports maintains adequate margins in all planning years, sufficient supplies exist to meet project demand under normal, dry, and multiple-dry conditions, and impacts would be less than significant.

Threshold C: Would the project 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

As previously examined, the City of Redlands has adequate wastewater treatment capacity to meet project wastewater generation; thus, impacts would be less than significant.

4.14.5 Cumulative Impacts

Water

The impact analysis for impacts on water supplies and facilities is cumulative, addressing systemwide water supplies and demands for the City of Redlands MUED. Future water demands were projections based on demographic forecasts from the Southern California Association of Governments, which in turn are based on General Plan buildout projections. MUED forecasts that it will have adequate water to meet water demands in its service area over the 2025-2045 period. Cumulative impacts would be less than significant.



Wastewater

The impact analysis for wastewater treatment above is cumulative, addressing City of Redlands systemwide wastewater generation and treatment. The City of Redlands WRP is owned and operated by the City and has a permitted capacity of 9.5 mgd, with an average daily flow of approximately 5.9 mgd as of 2020. The 2020 UWMP and Sewer Master Plan of the City confirm that there is sufficient capacity within both the collection system and the WTP to accommodate the anticipated growth, including the future buildout of the East Valley Corridor Specific Plan. Cumulative impacts would be less than significant.

4.14.6 Mitigation Measures

Project-level and cumulative impacts related to utilities and service systems have been determined to be less than significant. Therefore, no mitigation measures are required.

4.14.7 Level of Significance after Mitigation

Impacts related to utilities and service systems would be less than significant without mitigation.



5.0 ALTERNATIVES

5.1 Introduction

An essential aspect of the environmental review process under CEQA is the identification and analysis of alternatives to a proposed project. Specifically, Public Resources Code (PRC) § 21002 states that the environmental review process is intended to assist public agencies in systematically identifying both the significant effects of proposed projects and the feasible alternatives which will avoid or substantially lessen such significant effects. In addition, PRC § 21002.1 (a) states, in part, that the purpose of an environmental impact report is to identify the significant effects on the environment of a project, identify alternatives to the project, and to indicate the manner in which those significant effects can be mitigated or avoided.

Section 15126.6 of the CEQA Guidelines provides guidance regarding the consideration and discussion of project alternatives in an EIR. More specifically, CEQA Guidelines § 15126.6(a) states the following:

An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather, it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. An EIR is not required to consider alternatives which are infeasible.

Furthermore, the CEQA Guidelines advise that project alternatives be selected primarily based on the ability to avoid or substantially lessen significant impacts relative to those of the proposed project, even if the alternatives would impede, to some extent, the attainment of the project objectives, or would even be more costly. The CEQA Guidelines further instruct that the identification of alternatives be guided by a "rule of reason," so that only those alternatives necessary to permit a reasoned choice are addressed. In selecting project alternatives for analysis, potential alternatives must be feasible. CEQA Guidelines § 15126.6(f)(1) states that:

Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries [...], and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site [...]

In addition, CEQA Guidelines § 15126.6(e) requires analysis of a "no project" alternative and § 15126.6(f)(2) requires an evaluation, if feasible, of alternative location(s) for the project. Based on the alternatives analysis, an environmentally superior alternative is then designated. If the No project/No Build Alternative ends up as the "environmentally superior alternative," then the EIR shall identify an environmentally superior alternative among the other alternatives.

Under CEQA, the goal of identifying the environmentally superior alternative is to assist decision-makers in considering project approval. However, CEQA does not require an agency to select the environmentally superior alternative (CEQA Guidelines § 15042-15043). Specifically, CEQA Guidelines § 15043 states that a public agency may approve a project even though the project would



cause a significant effect on the environment if the agency makes a fully informed and publicly disclosed decision that:

- (a) There is no feasible way to lessen or avoid the significant effect (see CEQA Guidelines § 15091); and
- (b) Specifically identified expected benefits from the project outweigh the policy of reducing or avoiding significant environmental impacts of the project (see CEQA Guidelines §15093).

As stated in CEQA Guidelines § 15093(a):

CEQA requires the decision-making agency to balance, as applicable, the economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits, of a proposed project against its unavoidable environmental risks when determining whether to approve the project. If the specific economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits, of a proposed project outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered “acceptable.”

In accordance with CEQA Guidelines §15126.6, the following section discusses a reasonable range of alternatives that would “feasibly attain most of the basic objectives of the project but would avoid or substantially lessen potential significant impacts of the project and evaluate the comparative merits of the alternatives.”

5.2 Overview of Selected Alternatives

As discussed above, alternatives are identified to reduce the significant impacts of a proposed project on the environment. Based on the analyses provided in **Section 4.0**, Environmental Impact Analysis, of this Draft PEIR, implementation of the project would result in significant impacts that cannot be feasibly mitigated with respect to construction noise (**Section 4.11**).

After implementation of mitigation measures, the project would still have significant environmental effects, which would necessitate the adoption of a Statement of Overriding Considerations for impacts regarding GHG emissions and transportation (vehicle miles traveled).

Therefore, the alternatives to the project, listed below, were selected for evaluation based on the significant environmental impacts of the project, the basic objectives established for the project as presented in **Section 2.0** of this Draft PEIR, and the feasibility of the alternatives considered. Each of these alternatives is described in the following sections.

- **Alternative 1: No Project/No Development Alternative**
- **Alternative 2: No Project/General Plan Buildout Alternative**
- **Alternative 3: Reduced Intensity Alternative**
- **Alternative 4: Dispersed Facilities Alternative**

In addition, CEQA Guidelines § 15126.6(c) requires that an EIR identify any alternatives that were considered for analysis but rejected as infeasible. Such potential alternatives are described below.



Note that *project site* in this Section refers to just the 28.15 acres that are currently vacant and would be developed with hospital and medical office uses in the proposed project and omits the 9.35 acres developed with an existing medical office building that would not be substantially altered as a result of project activities.

5.3 Alternatives Considered and Rejected as Infeasible

According to CEQA Guidelines § 15126.6(c), an EIR should identify any alternatives that were considered for analysis but rejected as infeasible and briefly explain the reasons for their rejection. The factors that may be used to eliminate an alternative from detailed consideration may include the alternative's failure to meet most of the basic project objectives, the alternative's infeasibility, or the alternative's inability to avoid significant environmental impacts. Alternatives to the project that have been considered and rejected as infeasible include the following:

- **Alternative Project Site:** The proposed project is intended to serve Kaiser Permanente members in the San Bernardino-Riverside area. An alternative project site was considered and rejected during project planning because Kaiser Permanente does not own or control another site in the region with sufficient space and regional access for the proposed medical center.
- **Home Care:** In this alternative, as much care as is practicable would be provided in patients' homes, and care that could not be provided in a home setting would be provided at existing Kaiser Permanente facilities (for instance, hospitals in Fontana and Riverside). This alternative was rejected for the following reasons:
 - Travel to patients' homes by staff would have increased vehicle miles traveled, not decrease it, compared to the proposed project;
 - Many kinds of care (surgical, critical care, etc.) cannot be provided in home settings; and
 - This alternative would not have replaced the medical office uses proposed by the project (physicians and some other providers would not start making house calls).

5.4 Alternatives Analysis Format

Consistent with the CEQA Guidelines § 15126.6(d), each alternative was assessed at a level of detail necessary to determine if the overall environmental impacts would be less, similar, or greater than the corresponding impacts of the proposed project. Furthermore, each alternative was evaluated to determine whether the project's basic objectives, identified in **Section 2.0** of this Draft PEIR, would be significantly attained by the alternative. The evaluation of each of the alternatives follows the process described below:

1. An alternative's net environmental impact for each environmental issue area (analyzed in **Section 4.0** of this Draft PEIR) was determined assuming that the alternative would implement the same project design features and mitigation measures identified in **Section 4.0**.
2. The post-mitigation significant and non-significant environmental impacts of an alternative and the project were compared for each environmental issue area as follows:
 - Less: If the net impact of an alternative would be clearly less adverse or more beneficial than the impact of the project, the comparative impact was determined to be "less."



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- Greater: If the net impact of an alternative would clearly be more adverse or less beneficial than the project, the comparative impact was determined to be "greater."
 - Similar: Where the impact of an alternative and project would be roughly equivalent, the comparative impact was determined to be "similar."
3. The comparison of the impacts is followed by a general discussion of whether the underlying purpose and basic project objectives are feasibly and substantially attained by the alternative.

Table 5.4-1 on the following page provides a summary of the proposed project description and a narrative description of each alternative and its components, as compared with that of the proposed project. **Table 5.4-2** provides a summary comparison, by environmental topic, of the project impacts and the impacts of each of the alternatives. **Table 5.4-3** provides a summary comparison of each of the alternatives' ability to meet the goals and objectives of the project.

Table 5.4-1
SUMMARY OF ALTERNATIVES

Alternative	Brief Description	Number of Parking Spaces
Proposed Project	The proposed project includes the development of a 580,000-square-foot, 321-bed hospital in two phases (project phases 2 and 4); two medical office buildings, in phases 1 and 3, totaling 248,000 square feet; a central utilities plant; and a parking structure.	2,803 (600 existing plus net increase of 2,203)
Alternative 1: No Project Alternative	This alternative would involve the continuation of existing conditions (one medical office building and vacant land) on the site.	600 existing parking spaces will remain.
Alternative 2: No Project/General Plan Buildout	This alternative would involve development of the 28.15-acre site with approximately 552,000 square feet of commercial and/or industrial uses.	As required per City of Redlands Municipal Code
Alternative 3: Reduced Intensity Alternative	This alternative includes the development of a 435,000-square-foot, 213-bed hospital in one phase; one 165,000-square-foot ambulatory surgery/medical office building; a central utilities plant; and a parking structure.	2,231
Alternative 4: Dispersed Facilities Alternative	This alternative consists of development of about six small facilities totaling approximately 650,000 square feet in the San Bernardino-Redlands region.	As required per municipal/county codes of affected jurisdictions



Table 5.4-2
COMPARISON SUMMARY OF PROJECT IMPACTS AND ALTERNATIVES IMPACTS

Environmental Topic	Proposed project	Alternative 1: No project/ No Action Alternative	Alternative 2: No Project /General Plan Buildout Alternative	Alternative 3: Reduced Intensity Alternative	Alternative 4: Dispersed Facilities Alternative
Aesthetics					
<i>Construction</i>					
<i>Scenic Vistas</i>	LTS	Similar (no impact)	Similar (no impact)	Similar (no impact)	Similar (no impact)
<i>Visual Character</i>	LTS	Less (no impact)	Less	Similar	Less
<i>Shading</i>	LTS	Less (no impact)	Less	Similar	Less
<i>Light and Glare</i>	LTS	Less (no impact)	Less	Similar	Less
<i>Operation</i>					
<i>Scenic Vistas</i>	LTS	Similar (no impact)	Greater	Similar (no impact)	Similar (no impact)
<i>Visual Character</i>	LTS	Less (no impact)	Less (LTS)	Similar	Less
<i>Shading</i>	LTS	Less (no impact)	Greater	Similar	Less
<i>Light and Glare</i>	LTS	Less (no impact)	Less (LTS)	Similar	Less
Air Quality					
<i>Construction</i>					
<i>Regional Emissions</i>	LTS	Less (no impact)	Similar (no impact)	Similar (no impact)	Similar (no impact)
<i>Localized Emissions</i>	LTS	Less (no impact)	Similar (no impact)	Similar (no impact)	Similar (no impact)
<i>Toxic Air Contaminates</i>	LTS	Less (no impact)	Similar (no impact)	Similar (no impact)	Similar (no impact)
<i>Operation</i>					
<i>Regional Emissions</i>	LTS w/Mitigation	Less (no impact)	Similar	Less	Less
<i>Toxic Air Contaminates</i>	LTS	Less (no impact)	Similar	Less	Less
Biological Resources					
<i>Construction</i>	LTS w/Mitigation	Less (no impact)	Similar	Similar	Less
<i>Operation</i>	No Impact	Similar (no impact)	Similar	Similar	Similar
Cultural Resources					
<i>Archaeological Resources</i>	LTS w/Mitigation	Less (no impact)	Similar	Similar	Less
<i>Historic Resources</i>	No impact	Similar (no impact)	Similar (no impact)	Similar	Similar
Energy					
<i>Construction</i>	LTS	Less (no impact)	Less	Less	Less
<i>Operation</i>	LTS	Less (no impact)	Less	Less	Less



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Environmental Topic	Proposed project	Alternative 1: No project/ No Action Alternative	Alternative 2: No Project /General Plan Buildout Alternative	Alternative 3: Reduced Intensity Alternative	Alternative 4: Dispersed Facilities Alternative
Geology and Soils					
<i>Geology and Soils</i>	LTS	Less (no impact)	Similar	Similar	Similar
<i>Paleontological Resources</i>	LTS w/Mitigation	Less (no impact)	Similar	Similar	Less
Greenhouse Gas Emissions					
<i>Construction</i>	LTS w/Mitigation	Less (no impact)	Less	Similar	Less
<i>Operation</i>	S/U	Less (no impact)	Less (S/U)	Less (S/U)	Less (S/U)
Hazards and Hazardous Materials					
<i>Construction</i>	LTS	Less (no impact)	Similar	Less	Similar
<i>Operation</i>	LTS	Less (no impact)	Less	Similar	Similar
Hydrology and Water Quality					
<i>Construction</i>	LTS	Less (no impact)	Similar	Similar	Less
<i>Operation</i>	LTS	Less (no impact)	Similar	Less	Less
Noise					
<i>Construction</i>					
<i>Onsite Noise</i>	LTS	Less (no impact)	Less	Less	Less
<i>Offsite Noise</i>	LTS	Less (no impact)	Less	Less	Less
<i>Vibration</i>	LTS	Less (no impact)	Less	Less	Less
<i>Operation</i>					
<i>Onsite Noise</i>	LTS	Less	Less	Similar	Less
<i>Offsite Noise</i>	LTS	Less	Less	Similar	Less
Public Services					
<i>Fire Protection</i>	LTS	Less (no impact)	Similar	Similar	Similar
<i>Police Protection</i>	LTS	Less (no impact)	Similar	Similar	Similar
Transportation/Traffic					
<i>Construction</i>	LTS	Less (no impact)	Less	Similar	Less
<i>Operation</i>					
<i>Vehicle Miles Traveled</i>	S/U	Less (no impact)	Similar	Less (S/U)	Similar
<i>Bicycle, Pedestrian, and Vehicular Safety</i>	LTS	Less (no impact)	Similar	Similar	Similar
Tribal Cultural Resources					
<i>Construction</i>	LTS w/Mitigation	Less (no impact)	Similar	Similar	Less
<i>Operation</i>	No Impact	Less (no impact)	Similar	Similar	Similar
Utilities and Service Systems					



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Environmental Topic	Proposed project	Alternative 1: No project/ No Action Alternative	Alternative 2: No Project /General Plan Buildout Alternative	Alternative 3: Reduced Intensity Alternative	Alternative 4: Dispersed Facilities Alternative
Water Supply	LTS	Less (no impact)	Similar	Less	Less
Wastewater Treatment	LTS	Less (no impact)	Greater	Less	Less
Stormwater Drainage	LTS	Less (no impact)	Similar	Less	Similar
Electric Power	LTS	Less (no impact)	Less	Less	Similar
Natural Gas	LTS	Less (no impact)	Less	Less	Similar
Telecommunications	LTS	Less (no impact)	Less	Less	Less
Solid Waste	LTS	Less (no impact)	Similar	Less	Less

Source: UltraSystems, 2021.

Table Notes:

Similar= the alternative would have similar impacts as the project

Less= the alternative would have a lesser impact than the project

Greater= the alternative would have more of an impact than the project

SU= Significant and Unavoidable Impact

LTS= Less than significant

LTS w/ Mit= Less than significant with mitigation



Table 5.4-3
COMPARISON OF ALTERNATIVES AND THEIR ABILITY TO MEET PROJECT OBJECTIVES

Project Objective	Proposed Project	Alternative 1: No Project Alternative	Alternative 2: No Project/General Plan Buildout Alternative	Alternative 3: Reduced Intensity Alternative	Alternative 4: Dispersed Facilities Alternative
1. Provide health care capacity for Kaiser Permanente members in the San Bernardino-Redlands region.	Objective Fully Met	Objective Not Met	Objective Not Met	Objective Partially Met	Objective Fully Met
2. Incorporate numerous sustainability features such as vegetated swales, tree-based infiltration, and inert bioswales; high-performance building enclosure systems, external shading, energy efficient and carbon neutral building systems and equipment selections, and solar panels. The buildings will meet or exceed Leadership in Energy and Environmental Design (LEED) Gold certification.	Objective Fully Met	Objective Not Met	Objective Partially Met	Objective Fully Met	Objective Fully Met
3. Develop the project site in accordance with the Medical Facilities designation in Redlands Business Center Concept Plan No. 1.	Objective Fully Met	Objective Not Met	Objective Not Met	Objective Partially Met	Objective Not Met
4. Phase development over 25 years to keep pace with projected increase in Kaiser Permanente membership in the facility's service area over that period.	Objective Fully Met	Objective Not Met	Objective Partially Met	Objective Partially Met	Objective Partially Met

Source: UltraSystems, 2021.



5.5 Analysis of Alternative 1 – No Project/No Development Alternative

5.5.1 Description of the Alternative

In accordance with the CEQA Guidelines, the No Project Alternative for a development project on an identifiable property consists of the circumstances under which the project does not proceed. Section 15126.6(e)(3)(B) of the CEQA Guidelines states in part that, “in certain circumstances, the No project Alternative means ‘no build’ wherein the existing environmental setting is maintained.” Accordingly, for the purposes of this analysis, Alternative 1, the No Project Alternative, assumes that the proposed project would not proceed. The existing medical office building onsite would remain operational. The balance of the site would remain vacant as is currently the case. Kaiser Permanente members in the service area of the proposed facility would continue traveling to Kaiser Permanente facilities in the cities of Fontana and Ontario.

5.5.2 Environmental Impacts

5.5.2.1 Aesthetics

Scenic Vistas

Under Alternative 1, the existing building would remain on the project site, and the project would not be developed. Thus, Alternative 1 would not result in an increase in height or mass of onsite structures, and existing views of, and across, the project site would remain the same. Therefore, Alternative 1 would not obstruct a scenic vista, and no impacts to scenic vistas would occur. Thus, impacts related to scenic vistas would be similar to those of the project, which would have no impacts to scenic vistas.

Visual Character and Scenic Resources

Construction

Under the No Project Alternative, no construction activities would occur; therefore, no changes in the visual character of the project site would result. Therefore, there would be no potential for the construction activities to affect the visual character of the area on a short-term or long-term basis under Alternative 1. Impacts of the proposed project relative to zoning and other regulations governing scenic quality would be less than significant. Impacts to such regulations would be reduced under Alternative 1 compared to those of the proposed project.

Operation

The No Project Alternative would not involve development of the vacant part of the project site. Therefore, this alternative would have no impact on the existing visual character or quality of the site and its surroundings and impacts on visual character during operation would be less when compared to the less than significant impacts of the project.

Shading

The No Project Alternative would not create or cast new shadows on surrounding uses since new buildings would not be constructed on the project site. Existing shadows from the existing medical office building do not generate shadows on surrounding sensitive uses. Therefore, no shading



impacts would occur under Alternative 1. Thus, shading impacts under Alternative 1 would be less when compared to the less-than-significant impacts of the project.

Light and Glare

Construction

The No Project Alternative would not involve any demolition or construction activities. Therefore, Alternative 1 would not introduce light sources associated with construction equipment or construction-related equipment and materials that could cause glare. Artificial lighting is currently utilized onsite and in the surrounding area for security, parking, signage, architectural highlighting, and landscaping/decorative purposes. Streetlights and traffic on local streets also contribute to the ambient light levels in the area. No buildings with additional windows and lighting would be constructed under this alternative; therefore, no impacts to lighting and glare would occur under the No Project Alternative. Thus, light and glare impacts during construction would be less when compared to the less-than-significant impacts of the project.

Operation

The No Project Alternative would not alter the existing uses on the project site, introduce any new sources of light or glare on the project site, or otherwise increase the amount of activity occurring onsite. No operation-related light and glare impacts would occur under Alternative 1. Thus, impacts related to operational light and glare under Alternative 1 would be less in comparison to the less-than-significant impacts of the project.

5.5.2.2 Air Quality

Construction

Regional Emissions

The No Project Alternative would not involve demolition of existing surface parking or construction of the proposed structures and other improvements. Therefore, this alternative would not result in any construction emissions from construction worker and construction truck traffic, fugitive dust from demolition and excavation, or the use of heavy-duty construction equipment, and construction-related regional air quality impacts would not occur. Thus, the No Project Alternative would eliminate the less-than-significant regional emissions impact of the project. Therefore, no construction-related air quality impacts would occur under Alternative 1, and impacts would be less than the less-than-significant impacts of the project.

Localized Emissions

The No Project Alternative would not result in any construction emissions, and construction-related localized air quality impacts would not occur. Thus, the No Project Alternative would eliminate the less-than-significant impacts of the project associated with localized emissions. Impacts of Alternative 1 would be less than the less-than-significant impacts of the project.



Toxic Air Contaminants

Since construction activities would not occur on the project site, the No Project Alternative would not generate diesel particulate emissions during construction that could contain substantial toxic air contaminants (TACs). Therefore, no impacts associated with the release of TACs would occur under Alternative 1. Thus, TAC impacts under Alternative 1 would be less when compared to the less-than-significant impacts of the project.

Operation

Regional Emissions

The No Project Alternative would not result in new development or increased operations that could generate additional operational emissions related to vehicular traffic or the consumption of electricity and natural gas beyond what is currently generated by the existing medical office building on the project site. Therefore, no operational impacts on regional air quality emissions would occur under Alternative 1. The No Project Alternative would avoid the regional emissions impacts of the project, which would be less than significant after mitigation. Thus, such impacts under Alternative 1 would be less than those of the project.

Toxic Air Contaminants

As analyzed in Section 4.2, Air Quality, the project would result in some TAC emissions, primarily from mobile sources. Since Alternative 1 would not result in new development or increase the intensity of the existing uses on the project site, no new increase in mobile source emissions would occur. No operational TAC emissions impacts would occur under Alternative 1, and such impacts would be less when compared to the less-than-significant impacts of the project.

5.5.2.3 Biological Resources

The No Project Alternative would not remove any vegetation, including existing shrubs and trees, or existing buildings on the project site. No new buildings would be constructed that may impact plant and/or wildlife species. The No Project Alternative would not cause indirect impacts on nesting birds from increased noise, vibration, and dust during construction and would not impact migratory non-game breeding birds. Therefore, this alternative would have no impact on biological resources, and impacts would be less when compared to those of the project, which would be less-than-significant after mitigation.

5.5.2.4 Cultural Resources

Archaeological Resources

Under the No Project Alternative, no demolition, grading, or other earthwork activities that could potentially affect subsurface archaeological resources would occur. Therefore, impacts on archaeological resources would not occur under Alternative 1, and impacts would be less compared to impacts of the project, which would be less than significant with mitigation incorporated.



Historical Resources

Since this alternative would include no demolition or new construction and the medical office building would have no change in operations, there would be no impact on historical resources. Therefore, impacts would be reduced compared to those of the proposed project, which would be less than significant with mitigation incorporated.

5.5.2.5 Energy

Energy Use

Construction

Construction activities would not occur under the No Project Alternative. Therefore, Alternative 1 would not generate short-term energy demand during construction, and construction-related impacts on energy would not occur. Thus, short-term construction impacts under the No Project Alternative would be less when compared to the less-than-significant impacts of the project.

Operation

The No Project Alternative would not alter the existing land uses or operations on the project site. It would not develop a medical center onsite. Therefore, the No Project Alternative would not increase the long-term energy demand on the project site. Therefore, long-term operational impacts under the No Project Alternative would be less when compared to the less-than-significant impacts of the project.

5.5.2.6 Geology and Soils

Geology and Soils

The No Project Alternative would not involve soil disturbance or grading on the existing project site, and would not cause any degree of soil loss greater than under existing conditions. The potential for seismically-induced ground settlement, liquefaction, lateral spreading, expansive soils, and landslides would remain as they are described under Existing Conditions in **Section 4.6, *Geology and Soils***, and in the Geotechnical Investigation (**Appendix N**) because those are the baseline conditions of the proposed project site. Therefore, the No Project Alternative would not cause or accelerate geologic hazards related to fault rupture, strong seismic shaking, liquefaction, seismically induced settlement, soil stability, subsidence, or expansive soils, which would result in substantial damage to structures or infrastructure or expose people to substantial risk of injury. No impacts related to geology and soils would occur under Alternative 1, and thus impacts would be less when compared to the less-than-significant impacts of the project.

Paleontological Resources

The No Project Alternative would not involve demolition, construction or soil disturbance on the project site, and therefore it would not cause potential impacts on paleontological resources due to construction. Alternative 1 would have a lesser impact on paleontological resources than the project, which would have less-than-significant impacts after mitigation.



5.5.2.7 Greenhouse Gas Emissions

This alternative would include no construction or operation of land uses. Thus, no greenhouse gas (GHG) emissions would be generated by such construction or operation. However, in this alternative, Kaiser Permanente members in the service area of the proposed project would continue traveling to existing Kaiser Permanente facilities in the cities of Fontana and Ontario, slightly increasing use of motor fuels—and GHG emissions from such use—compared to the proposed project. Therefore, impacts associated with GHG emissions under the No project Alternative would be less when compared to the significant and unavoidable impacts of the project.

5.5.2.8 Hazards and Hazardous Materials

The No Project Alternative would not involve demolition, grading, or other construction activities. Therefore, this alternative would not have the potential to uncover subsurface hazards. This alternative would not use or release hazardous materials, or generate hazardous waste, during construction. Construction impacts of this alternative would be less than those of the proposed project.

This alternative would involve continuing operation of the existing medical office building involving use, storage, and disposal of hazardous materials and medical wastes. Since Alternative 1 would not result in any changes to the current operation or configuration of the project site, no impacts would occur to the current emergency response or evacuation plans for the site. Impacts under the No Project Alternative would be reduced compared to the less-than-significant impacts of the project.

5.5.2.9 Hydrology and Water Quality

The No Project alternative would not add impervious surfaces to the project site; would not increase the generation of pollutants that could contaminate stormwater; and would not involve changes to drainage or groundwater recharge onsite. Impacts of this alternative on hydrology and water quality would be reduced by this alternative compared to the less-than-significant impacts of the proposed project.

5.5.2.10 Land Use and Planning

With this alternative no medical center would be developed on site. This alternative would have no land use or planning impacts. Under the No Project Alternative, there would be no changes to the physical or operational characteristics of the existing medical office building. No land use approvals or permits would be required. Therefore, Alternative 1 would not cause any conflicts with existing land use plans and policies that govern the project site. Impacts would be less than the less-than-significant impacts of the project.

5.5.2.11 Noise

Construction

No new construction activities would occur under the No Project Alternative. Therefore, no construction-related noise or vibration would be generated onsite or offsite. Therefore, no onsite or offsite noise or vibration impacts would occur during construction under Alternative 1, and impacts would be less when compared to the less-than-significant impacts of the proposed project



Operation

The No Project Alternative would not develop new uses on the project site, and no changes to existing site operations would occur. Therefore, no new stationary or mobile noise sources would be introduced to the project site or the project vicinity. Therefore, no impacts associated with operational noise would occur under No Project Alternative, and long-term impacts would be less when compared to the less-than-significant impacts of the project.

5.5.2.12 Transportation

Construction

The No Project Alternative would not include demolition or the development of any new buildings onsite. Therefore, Alternative 1 would not generate vehicle trips associated with heavy-duty construction equipment, haul trucks, or construction worker vehicles. Thus, no construction-related traffic impacts would occur under the No Project Alternative, and the project's less-than-significant project-level construction traffic impacts would be eliminated. Construction impacts would be less when compared to those of the proposed project, which would be less than significant after mitigation.

Operation

Since the No Project Alternative would not develop new land uses on the project site, the operation of Alternative 1 would not generate any additional vehicle trips or alter existing access or circulation within the project site. Therefore, no impacts would occur with respect to operational traffic, including vehicle miles traveled; intersection levels of service; the regional transportation system; neighborhood intrusion; access and circulation; and bicycle, pedestrian, and vehicular safety. Therefore, the No Project Alternative would also avoid the project's significant and unavoidable VMT impact. Impacts under the No Project Alternative would be less when compared to those of the project.

5.5.2.13 Tribal Cultural Resources

Grading and other earthwork activities would not occur under the No Project Alternative. Therefore, there would be no potential for Alternative 1 to uncover subsurface tribal cultural resources. No impacts on tribal cultural resources would occur, and impacts would be less than those of the proposed project, which would have less than significant impacts with mitigation incorporated.

5.5.2.14 Utilities and Service Systems

Water Supply

The No Project Alternative would not alter the existing land uses or operations on the project site. It would not develop a medical center onsite, and, thus, would not increase water demand onsite. Therefore, impacts related to water supply under the No Project Alternative would be less when compared to the less-than-significant impacts of the project.



Wastewater

The No Project Alternative would not develop a medical center onsite and thus would not increase wastewater generation onsite. Therefore, impacts related to wastewater treatment under the No Project Alternative would be less when compared to the less-than-significant impacts of the project.

Stormwater Drainage

The project site is currently mostly vacant. This alternative would not involve the development of impervious areas on site as compared to the proposed project. Therefore, impacts related to stormwater drainage under the No Project Alternative would be reduced compared to the less-than-significant impacts of the project.

Telecommunications

The No Project Alternative would not develop a medical center onsite. Therefore, the No Project Alternative would not increase the demand for telecommunication services on the project site. Therefore, impacts related to telecommunications under the No Project Alternative would be less when compared to the less-than-significant impacts of the project.

Solid Waste Disposal

The No Project Alternative would not develop a medical center onsite. Therefore, the No Project Alternative would not increase solid waste generation onsite. Therefore, impacts related to solid waste disposal under the No Project Alternative would be less when compared to the less-than-significant impacts of the project.

5.5.3 Comparison of Impacts

The No Project Alternative would eliminate the project's significant and unavoidable construction transportation impact. The No Project Alternative would have similar impacts as the project for wildfire hazards. Impacts associated with the remaining environmental issues would be less than those of the proposed project. None of the impacts of this alternative would be considerably greater than those of the proposed project.

5.5.4 Relationship of the Alternative to Project Objectives

Under the Alternative 1 - No Project Alternative, no new development would occur. Therefore, this alternative would not meet any of the project's objectives. Specifically, this alternative would not:

- Provide health care capacity for Kaiser Permanente members in the San Bernardino-Redlands region (objective 1).
- Incorporate numerous sustainability features such as vegetated swales, tree-based infiltration, and inert bioswales; high-performance building enclosure systems, external shading, energy efficient and carbon neutral building systems and equipment selections, and solar panels. The buildings will meet or exceed Leadership in Energy and Environmental Design (LEED) Gold certification (objective 2).



- Develop the project site in accordance with the Medical Facilities designation in Redlands Business Center Concept Plan No. 1 (objective 3).
- Phase development over 25 years to keep pace with projected increase in Kaiser Permanente membership in the facility's service area over that period (objective 4).

Overall, the No Project Alternative would not meet the project's objectives of developing a medical center serving Kaiser Permanente members in the San Bernardino-Redlands region.

5.6 Analysis of Alternative 2 – No Project/General Plan Buildout Alternative

5.6.1 Description of the Alternative

In this alternative the proposed project is not developed. The existing medical office building remains present and in operation. This alternative assumes that the balance of the project site (28.15 acres) would be built out in accordance with the existing General Plan land use designation for the site, which is Commercial Industrial. The Commercial/Industrial land use category permits the development of certain types of commercial and light industrial uses. It includes flex commercial space as well as business parks. Uses permitted in this category include auto services, commercial retail and services, and manufacturing (City of Redlands, 2017, p. 4-11). The maximum floor area ratio in the Medical Facilities district is 0.6 (City of Redlands, 2017, p. 4-11). Thus, this alternative supposes development of the vacant part of the site with about 552,000 square feet of commercial and/or industrial uses.³⁵ The maximum building height would be 150 feet (Urban Environs, 2004). The EVCSP requires that at least 15 percent of Industrial land be used for landscaping (City of Redlands, 2017, p. D4-70). This alternative, if developed with industrial uses, would include at least 183,932 square feet of landscaping (28.15 acres x 43,560 square feet per acre x 15%). The proposed project, at buildout, would include 563,000 square feet of landscaping. Construction effort would be reduced in this alternative (552,000 square feet) compared to the proposed project (863,000 square feet plus six-level, 456,000-square-foot parking structure, or 1,319,000 square feet total).³⁶

5.6.2 Environmental Impacts

5.6.2.1 Aesthetics

Scenic Vistas

Under Alternative 2, the existing building would remain on the project site, and the balance of the site would be developed with commercial or industrial uses. The maximum building height under this alternative would be 150 feet, compared to 122 feet for the proposed project. Thus, Alternative 2 would have greater impacts on scenic vistas compared to the proposed project.

Visual Character and Scenic Resources

Construction

³⁵ In calculating potential land use intensity, the maximum intensity per the permitted floor area ratio, 735,728 square feet, was multiplied by 0.75; land is rarely built out to the maximum intensity permitted under General Plan and zoning policies.

³⁶ The estimate of 456,000 square feet for the parking structure is based on footprint of 76,000 square feet (380 feet x 200 feet) x 6 levels.



Under the No Project/General Plan Buildout Alternative, construction effort onsite would be substantially reduced compared to that of the proposed project: 552,000 square feet of commercial or industrial uses for this alternative compared to 1.319 million square feet of medical center use for the proposed project. Thus, impact of construction on the visual character of the area on a short-term or long-term basis under Alternative 2 would be less than that of the proposed project.

Operation

It is expected that the commercial and industrial land uses developed in this alternative would contain less landscaping than the medical center would (see explanation in **Section 5.6.1** above). While the proposed project and this alternative are both expected to have beneficial impacts on visual character, beneficial impacts of the proposed project would be greater.

Shading

Shade and shadow impacts of this alternative would be greater than those of the proposed project, as maximum building height in this alternative would be 150 feet compared to 122 feet for the proposed project (107 feet roof height plus 15 feet roof equipment screen). Existing shadows from the existing medical office building do not fall on surrounding sensitive uses. However, taller buildings would create more shade and shadow. Thus, shading impacts under Alternative 2 would be greater when compared to the less-than-significant impacts of the project.

Light and Glare

Construction

The No Project/General Plan Buildout Alternative would involve construction of commercial and/or industrial uses onsite. Most construction would occur during daylight, as construction would be limited to the hours construction and demolition work are permitted under City of Redlands Municipal Code Section 8.06.090 (Amlegal.com, 2025). No light sources are present in the vacant parts of the site. Construction effort in this alternative would be reduced compared to the proposed project. Thus, light and glare impacts during construction would be less when compared to the less-than-significant impacts of the project.

Operation

Operation of this alternative would include lighting for safety and security purposes. The operating schedules of future commercial or industrial occupants are unknown; however, most such uses do not operate 24 hours per day. Such uses may include lighting for operational purposes. Operation-related light and glare impacts would be reduced under Alternative 2 compared to the proposed project, a hospital that would operate 24 hours per day. Thus, impacts related to operational light and glare under Alternative 2 would be less in comparison to the less-than-significant impacts of the project.

5.6.2.2 Air Quality

Construction

Regional Emissions



The No Project/General Plan Buildout Alternative would involve a reduction in land use intensity of about 58 percent compared to the proposed project.³⁷ However, the daily level of construction activity would be similar to that of the proposed project. Therefore, this alternative would result in about the same construction emissions from construction worker and construction truck traffic, fugitive dust from demolition and excavation, and use of heavy-duty construction equipment. Since the SCAQMD's construction emission thresholds are in pounds per day, construction-related regional air quality impacts would be similar to those of the proposed project. Impacts would be less than significant in both scenarios.

Localized Emissions

This alternative would generate reduced construction emissions compared to the proposed project. Impacts would be less than significant for both scenarios.

Toxic Air Contaminants

The No Project/General Plan Buildout Alternative would generate reduced diesel particulate emissions during construction that could contain substantial toxic air contaminants (TACs). TAC emissions impacts would be reduced by this alternative and would be less than significant in both scenarios.

Operation

Regional Emissions

This Alternative would reduce trip generation compared to the proposed project. Two land use scenarios were used in estimating daily trip generation for this alternative, using trip generation rates from the San Diego Association of Governments (SANDAG, 2002). For office park use trip generation is estimated at 12 trips per 1,000 square feet, or 6,624 trips; for industrial/business park use (including commercial use) trip generation is estimated at 16 trips per 1,000 square feet, or 8,832 trips. The proposed project is estimated to generate 16,093 trips per day. Therefore, operational impacts on regional air quality emissions would be reduced under this alternative and would be less than significant after mitigation for the proposed project.

Toxic Air Contaminants

As analyzed in **Section 4.2**, the project would result in some TAC emissions, primarily from mobile sources. Since this alternative involves reduced development intensity, mobile source emissions would be decreased. Operational TAC emissions impacts would be reduced under Alternative 2 and would be less than significant for both scenarios.

5.6.2.3 Biological Resources

This alternative would involve the removal of existing vegetation from the entire project site, as would the proposed project. Impacts of this alternative on biological resources would be similar to those of the proposed project and would be less than significant after mitigation for both scenarios.

³⁷ The percent reduction in land use intensity compared to the proposed project includes the proposed parking structure (456,000 square feet) as part of the proposed project.



5.6.2.4 Cultural Resources

Archaeological Resources

Under the No Project/General Plan Buildout Alternative, the entire vacant part of the project site would be graded, as would occur with the proposed project. The depth of grading is expected to be more for this alternative compared to the proposed project due to the heights of buildings (122 feet proposed project, compared to 150 feet for this alternative); however, the difference in grading depth is expected to have little effect on impacts on archaeological resources. Impacts on archaeological resources of this alternative would be similar to those of the proposed project, and less than significant after mitigation for both scenarios.

Historical Resources

The analysis for archaeological resources also applies to historical resources. Therefore, the impacts would be similar to those resulting from the proposed project.

5.6.2.5 Energy

Energy Use

Construction

Construction effort would be reduced in this alternative compared to the proposed project (see explanation in **Section 5.6.1**). Therefore, Alternative 2 would generate less short-term energy demand during construction. Thus, short-term construction impacts under the No Project/Existing General Plan Alternative would be less when compared to the less-than-significant impacts of the project.

Operation

Operational energy demand by this alternative is expected to be less than that of the proposed project due to the reduced development intensity and because the commercial and/or industrial land uses in this alternative would most likely not operate 24 hours per day as the proposed hospital would. Therefore, long-term operational impacts under this alternative would be less when compared to the less-than-significant impacts of the project.

5.6.2.6 Geology and Soils

Geology and Soils

The No Project/General Plan Alternative would involve soil disturbance and grading on the entire vacant part of the project site, as would the proposed project. Geology and soils impact of this alternative would generally be similar to those of the proposed project.

Paleontological Resources

The analysis of geology and soils impacts applies to paleontological resources impacts as well. Impacts would be less than significant after mitigation for each of the two scenarios.



5.6.2.7 Greenhouse Gas Emissions

Greenhouse gas (GHG) emissions under the No Project/General Plan Buildout Alternative are reasonably expected to be less than those of the proposed project. While the specific type, intensity, and mix of land uses under this alternative are not known, and project-level construction details are not available, for the purposes of this alternatives analysis this alternative is anticipated to require less construction activities due to fewer square feet of construction compared to the proposed project.

Similarly, this alternative is assumed to result in less operational emissions due to reduced landscaping and building square footage compared to the proposed project. On this basis, it is reasonable to assume that overall GHG emissions would be reduced compared to the significant and unavoidable impacts of the proposed project. However, any reduction of GHG impacts in comparison to the proposed project is expected to be minor and GHG impacts from this alternative are expected to remain significant and unavoidable.

5.6.2.8 Hazards and Hazardous Materials

Construction

Construction effort would be reduced in this alternative. Construction of commercial/industrial uses in this alternative would involve generally the same types of hazardous materials as construction of the proposed project would. Each scenario would involve soil disturbance on the entire project site. Soils onsite could be contaminated with pesticide residues from historical agricultural use; impacts arising from such potential contamination would be similar for each scenario.

Operation

The specific land uses in this alternative, and the uses of hazardous materials by such land uses, are unknown. The commercial and/or industrial land uses in this alternative would not generate medical waste. Operational impacts are expected to be reduced by this alternative (if only because this alternative would not generate medical waste), and impacts would be less than significant for both scenarios.

5.6.2.9 Hydrology and Water Quality

This alternative may include less permeable area (landscaping) than the proposed project would, as explained above in **Section 5.6.2.1**. This analysis therefore assumes that impacts of this alternative on runoff and drainage would be greater for this alternative than for the proposed project. Each scenario would be required to comply with MS4 permit provisions mandating use of BMPs to infiltrate stormwater into soil (see **Section 4.9**). Thus, impacts of the two scenarios on groundwater recharge are expected to be similar and would be less than significant for both scenarios.

5.6.2.10 Land Use and Planning

Development of this alternative would conform with the existing General Plan land use designation for the project site, Commercial Industrial.. The proposed project also requires an amendment to Concept Plan 1 to modify the permitting procedure. Impacts of this alternative on land use and planning would be increased compared to those of the proposed project due to the change in land use; and would be less than significant for each of the two scenarios.



5.6.2.11 Noise

Construction

Construction effort would be reduced under this alternative; thus, construction noise and vibration impacts would be reduced by this alternative compared to those of the proposed project; impacts would be less than significant in both scenarios.

Operation

Land use intensity would be reduced in this alternative; and onsite facilities would probably not operate 24 hours per day as the proposed project would. Thus, operational noise impacts would be reduced in this alternative compared to the less-than-significant impacts of the proposed project.

5.6.2.12 Transportation

Construction

Construction transportation impacts of this alternative would be reduced, due to less construction effort, compared to the proposed project (see discussion in Section 5.6.1). Construction transportation impacts would be less than significant for each of the two scenarios.

Operation

VMT under the No Project/General Plan Buildout is expected to be approximately equivalent to that of the proposed project. A quantitative VMT analysis for the No Project/General Plan Buildout Alternative cannot be conducted because the specific type, intensity, and distribution of land uses under this scenario are unknown.

However, this alternatives analysis assumes that the significant and unavoidable VMT impact identified for the proposed project would also occur under the No Project/General Plan Buildout Alternative. This assumption is based on the understanding that buildout consistent with the General Plan would likely generate substantial vehicle trips and associated VMT similar in scale to those of the proposed project. Therefore, VMT impacts from this alternative are expected to remain significant and unavoidable.

5.6.2.13 Tribal Cultural Resources

Under the No Project/General Plan Buildout Alternative, the entire vacant part of the project site would be graded, as would occur with the proposed project. Impacts on tribal cultural resources of this alternative would be similar to those of the proposed project, and less than significant after mitigation for both scenarios.

5.6.2.14 Utilities and Service Systems

This alternative would reduce water demand; increase wastewater generation; and reduce solid waste generation, compared to the proposed project; see **Table 5.6-1** below. Impacts would be less than significant for both scenarios. Impacts on electricity and natural gas demands by this alternative are addressed above in **Section 5.6.2.5**. Impacts regarding telecommunications facilities are expected to be reduced by this alternative, as demands for telecommunications services by industrial



or commercial uses are expected to be substantially lower than those by the hospital and medical office uses in the proposed project. Impacts would be less than significant for each of the two scenarios.

Table 5.6-1

ESTIMATED UTILITIES DEMANDS, NO PROJECT/GENERAL PLAN BUILDOUT ALTERNATIVE

Scenario	Square Feet	Utility Demand	
		Per 1,000 sq. feet	Total
Water Demand			
No Project/General Plan Buildout Alternative	552,000	250 gallons per day	138,000 gallons per day
Proposed Project	See Section 4.15		165,168 gallons per day
Wastewater Generation			
No Project/General Plan Buildout Alternative	552,000	200 gallons per day	110,400 gallons per day
Proposed Project	See Section 4.15		86,075 gallons per day
Solid Waste Generation			
No Project/General Plan Buildout Alternative	552,000	6 pounds per day	3,312 pounds per day
Proposed Project	See Appendix A1, Initial Study		6,063 pounds per day

Source: Los Angeles County Sanitation Districts, 2025; UltraSystems, 2025

5.6.3 Comparison of Impacts

Evaluation of this alternative involves some uncertainty because the specific mix, intensity, and timing of land uses under full General Plan buildout are not known.

For greenhouse gas emissions, the No Project/General Plan Buildout Alternative is assumed to reduce emissions compared to the proposed project; however, impacts of this alternative are assumed to remain significant and unavoidable. This alternative is assumed to reduce impacts related to aesthetics, air quality, energy, hazards and hazardous materials, noise, and utilities.

Impacts under this alternative would generally be similar to those of the proposed project for biological resources, cultural resources, geology and soils, hydrology and water quality, transportation and tribal cultural resources. Impacts on land use and planning would likely be greater than those of the proposed project because General Plan buildout could allow more dispersed or incompatible development patterns compared against the proposed project. In summary, while the No Project/General Plan Buildout Alternative is anticipated to reduce certain environmental impacts, it would not avoid any of the proposed project's significant and unavoidable impacts. The remaining environmental effects would be generally similar to or greater than those of the proposed project.

5.6.4 Relationship of the Alternative to Project Objectives

Under the Alternative 2 - No Project/General Plan Buildout Alternative, the project site would be developed with 552,000 square feet of commercial and/or industrial uses rather than the proposed hospital and medical office uses. Therefore, this alternative would not meet any of the following project objectives (objectives 1 and 3) as shown on **Table 5.4-3**.

- Provide health care capacity for Kaiser Permanente members in the San Bernardino-Redlands region (objective 1).



- Develop the project site in accordance with the Medical Facilities designation in Redlands Business Center Concept Plan No. 1 (objective 3).

This alternative would only partially meet the following project objective (objectives 2 and 4):

- Incorporate numerous sustainability features such as vegetated swales, tree-based infiltration, and inert bioswales; high-performance building enclosure systems, external shading, energy efficient and carbon neutral building systems and equipment selections, and solar panels. The buildings will meet or exceed Leadership in Energy and Environmental Design (LEED) Gold certification (objective 2).
- Phase development over 25 years to keep pace with projected increase in Kaiser Permanente membership in the facility's service area over that period (objective 4).

This alternative would partially meet objective #2 through compliance with the 2025 CALGreen. This alternative does not assume that the commercial or industrial buildings to be developed under this alternative would be designed to obtain LEED certification.

Overall, the No Project/General Plan Buildout Alternative would not meet the project's objectives of providing health care capacity for Kaiser Permanente members in the San Bernardino-Redlands region.

5.7 Analysis of Alternative 3 – Reduced Intensity Alternative

5.7.1 Description of the Alternative

This alternative consists of reducing the intensity of the proposed project by deleting phases 3 and 4 from the project (see **Table 5.7-1** below); and reducing the capacity of the proposed parking structure by 572 spaces, and the number of spaces allocated to phases 3 and 4. Thus, the parking structure would be reduced by about half, from 1,288 to 716 spaces. This alternative is intended to reduce the significant and unavoidable vehicle miles traveled impact of the proposed project. This analysis assumes that the parking structure would be reduced from seven levels in the proposed project (including one basement level) to four levels in this alternative (one at-grade level and three above-ground levels). Total square footage onsite at completion of this alternative would be 720,000 square feet compared to 983,000 square feet for the proposed project. In this alternative project trip generation would be reduced to 10,694 from 16,093 for the proposed project (see **Table 5.7-2** below). In this alternative the footprints of phases 3 and 4 of the proposed project, which total 263,000 square feet, would be landscaped with native drought-tolerant vegetation.



Table 5.7-1
SUMMARY, PROPOSED PROJECT COMPARED TO REDUCED INTENSITY ALTERNATIVE
All areas in square feet

Phase	Description	Total Development Area	Building Area (per phase)	Total Building Coverage	Total Landscaping
Proposed Project					
Existing	MOB 1	407,000	120,000	42,600	N/A
1	ASC/MOB 2	1,194,000	165,000	76,000	411,000
2	Hospital and Utilities Plant	1,513,000	435,000	213,000	602,000
3	MOB 3	1,632,000	83,000	233,000	593,000
4	Hospital Addition	1,632,000	180,000	263,000	563,000
Total, hospital	N/A	321 beds/580,000 square feet			
Total, medical office	Not applicable	368,000 (248,000 SF proposed + 120,000 SF existing)			
Total	Not applicable	983,000 (863,000 proposed plus 120,000 existing)			
Reduced Intensity Alternative					
Existing	MOB 1 (medical office)	407,000	120,000	42,600	N/A
1	ASC/MOB 2	1,194,000	165,000	76,000	411,000
2	Hospital (213 beds) and Central Utilities	1,513,000	435,000	213,000	602,000
Total, medical office	N/A	285,000 (165,000 SF proposed + 120,000 SF existing)			
Total	N/A	720,000 (600,000 proposed + 120,000 existing)			

Source: Masterplan Development Permit Submittal, June 29, 2023

Table 5.7-2
ESTIMATED TRIP GENERATION

Phase	Land Use			Trip Generation	
	Type	Quantity	Units	Per unit	Total
Proposed Project					
1	Medical Office Building	165	1,000 square feet	36	5,940
2	Hospital ^a	213	Beds	22.32	4,754
3	Medical Office Building	83	1,000 square feet	36	2,988
4	Hospital	108	Beds	22.32	2,411
Total	Not applicable	Not applicable	Not applicable	Not applicable	16,093
Reduced Intensity Alternative					
1	Medical Office Building	165	1,000 square feet	36	5,940
2	Hospital ^a	213	Beds	22.32	4,754
Total	Not applicable	Not applicable	Not applicable	Not applicable	10,694

^a Phase 2 also includes a Central Utility Plant that would house hospital equipment and devices but would not generate trips additional to those estimated for other project land uses (Fehr & Peers, 2025, Appendix A, p. 6).

Source: Fehr & Peers 2025, Appendix A, p. 6



5.7.2 Environmental Impacts

5.7.2.1 Aesthetics

The Reduced Intensity Alternative would include the tallest building included in the proposed project: the hospital building included in Phase 2, 122 feet including a 15-foot rooftop equipment screen. Impacts of this alternative on the visual character of the site and surroundings would be beneficial, as would impacts of the proposed project. Impacts of this alternative on scenic vistas would be slightly reduced due to the deletion of the four-story medical office building in Phase 3 and the five-story hospital addition in Phase 4. Light and glare impacts of this alternative would be generally similar to those of the proposed project. Most aesthetics impacts of this alternative would be similar to those of the proposed project except for the slightly reduced impacts on scenic vistas in this alternative.

5.7.2.2 Air Quality

Construction

Regional Emissions

Alternative 3 would reduce total building area by 263,000 square feet, or about 30 percent, compared to the proposed project. However, the daily level of construction activity would be similar to that of the proposed project. Therefore, this alternative would result in about the same construction emissions from construction worker and construction truck traffic, fugitive dust from demolition and excavation, and use of heavy-duty construction equipment. Since the SCAQMD's construction emission thresholds are in pounds per day, construction-related regional air quality impacts would be similar to those of the proposed project. Impacts would be less than significant in both scenarios.

Localized Emissions

Daily localized construction emissions would be similar to those of the proposed project and would be less than significant for both scenarios.

Toxic Air Contaminants

The preceding analysis for localized emissions also applies to TAC emissions.

Operation

Regional Emissions

This alternative would reduce trip generation, and thus vehicle miles traveled (VMT), by about 34 percent compared to the proposed project (see **Table 5.7-2** above). The generation of onroad criteria pollutants with this alternative would also be reduced by roughly the same percentage. Air quality impacts would therefore also be less than significant and reduced when compared to the less-than-significant regional operational air quality impacts associated with the project.

Toxic Air Contaminants

The preceding analysis of regional operational emissions also applies to TAC emissions.



5.7.2.3 Biological Resources

The Reduced Intensity alternative would involve the same development footprint and thus would have the same impacts on biological resources as the proposed project. Impacts to biological resources would be less than significant after mitigation in both scenarios.

5.7.2.4 Cultural Resources

This alternative would involve the same development footprint and excavation depth as that for the proposed project, except that no excavation and grading for building pads would be conducted on the sites of phases 3 and 4 of the proposed project. Therefore, impacts of this alternative to historical and archaeological resources and human remains would be slightly reduced compared to impacts of the proposed project, and would be less than significant after mitigation in both scenarios.

5.7.2.5 Energy

Energy Use

Construction

Construction energy use by this alternative would be reduced compared to the proposed project due to the reduced construction effort.

Operation

Operation of this alternative with respect to building energy use and appliances would demand less electricity and natural gas than the proposed project; it is assumed here that energy use would be proportional to the land use intensity of the two scenarios, and intensity of this alternative is about 30 percent lower than that of the proposed project (see **Table 5.7-1**). This alternative would reduce operational trip generation by approximately 34% compared to the proposed project (see **Table 5.7-2**), thus reducing transportation fuel use compared to the proposed project. Overall, energy use impacts would be reduced by this alternative compared to the proposed project and would be less than significant in both scenarios.

Plans for Renewable Energy or Energy Efficiency

The Reduced Intensity Alternative and the proposed project would both comply with plans for renewable energy and/or energy efficiency, including the City of Redlands General Plan. Impacts respecting such plans would be similar, and less than significant, for both scenarios.

5.7.2.6 Geology and Soils

Geology and Soils

This alternative would involve a reduced development footprint compared to the proposed project. The Modified Land Use Alternative would also be subject to the same City of Redlands building code requirements as that of the proposed project. Therefore, the impacts of Alternative 3 related to geology and soils would be similar to those of the proposed project, that is, less than significant for both scenarios.



Paleontological Resources

Impacts of Alternative 3 on paleontological resources would be slightly reduced compared to those of the proposed project because of the reduced grading and excavation in the footprints of phases 3 and 4 of the proposed project. Impacts would be less than significant after mitigation for both scenarios.

5.7.2.7 Greenhouse Gas Emissions

Development of Alternative 3 would involve reduced construction effort as for the proposed project, and therefore would use less energy as would construction of the proposed project. The change in land use intensity would reduce VMT by approximately 34 percent during the operational phase. With the reduced VMT, the mobile source GHG emissions would also decrease, thereby leading to a decrease in total operational GHG emissions. However, GHG emissions by the proposed project are estimated to be 14,306 metric tons of CO₂e per year (see further discussion in **Section 4.7**). Supposing the reduction in operational GHG emissions by this alternative were proportional to the reduction in VMT compared to the proposed project, GHG emissions by this alternative would be about 9,442 metric tons annually, still over the 3,000-metric-ton threshold. Thus, GHG emissions impacts of this alternative would remain significant and unavoidable.

5.7.2.8 Hazards and Hazardous Materials

Construction of this alternative would use less hazardous materials due to the reduced construction effort. In each scenario hazardous materials would be used, stored, transported, and disposed of in accordance with existing regulations.

Operation of this alternative would generate less medical waste than would the proposed project due to the reduced development intensity. In both scenarios medical wastes would be stored, transported, and disposed of in accordance with federal, state, and county regulations. Hazardous materials impacts of this alternative would be slightly reduced compared to proposed project impacts and would be less than significant in both scenarios.

5.7.2.9 Hydrology and Water Quality

The amount of landscaping at project completion in this alternative would be increased to 723,000 square feet, 160,000 square feet greater than that for the proposed project. Thus, impacts related to runoff, drainage, and groundwater recharge would be reduced by this alternative. Impacts related to stormwater quality would also be reduced by this alternative because more space would be available for treatment and control BMPs. Impacts would be less than significant for both scenarios.

5.7.2.10 Land Use and Planning

The Reduced Intensity Alternative would conform with City of Redlands General Plan and zoning code, requirements for the project site, as would the proposed project. Impacts would be less than significant in each of the two scenarios.



5.7.2.11 Noise

Construction

This alternative would involve reduced construction effort by about 30 percent compared to the proposed project. Therefore, construction noise and vibration impacts under this alternative would be decreased compared to those of the proposed project, which would be less than significant.

Operation

This alternative would reduce trip generation by about 34 percent, that is, 5,399 trips per day, compared to the proposed project. Trip generation, for this alternative as well as the proposed project, would be distributed over several roadways so that project trip generation on any one roadway would be a rather small fraction of 5,399 trips (Fehr & Peers, 2025, Figure 4). Daily traffic volumes in 2015 on the segment of California Street fronting the project site were 10,136; and 2,695 on the segment of Lugonia Avenue fronting the site (City of Redlands, 2023). Traffic volumes would need to be reduced by 50 percent for the reduction in traffic noise to be noticeable. The reductions in traffic volumes would be less than 50 percent; thus, the decrease in traffic noise would not be noticeable.

Operational noise by mechanical equipment on the proposed buildings in this alternative would be reduced due to the reduced building area. Overall, operational noise impacts of this alternative would be very slightly reduced compared to those of the proposed project and would be less than significant in both scenarios.

5.7.2.12 Transportation

Operation of the Reduced Intensity Alternative would generate 34 percent fewer vehicle trips than the proposed project would. VMT is calculated from two components: the number of trips generated; and the average trip length. This alternative is not expected to change the average trip length compared to the proposed project. The threshold and project VMT are both measured in VMT per employee. Therefore, it is expected that project VMT would remain significant and unavoidable for this alternative, as it would be for the proposed project.

5.7.2.13 Tribal Cultural Resources

In this alternative the development footprint would be reduced by 263,000 square feet, that is, about 16 percent of the development area of the proposed project. The reduced area would be landscaped in this alternative, involving shallow ground disturbance with less potential to damage tribal cultural resources than excavations for buildings would. Thus, impacts on tribal cultural resources would be slightly reduced in this alternative and would be less than significant after implementation of mitigation for each of the two scenarios.

5.7.2.14 Utilities and Service Systems

Water Supply

Alternative 3 would involve reduced construction effort, and thus reduced construction water demand, compared to the proposed project. Operation of Alternative 3 would generate reduced water demand compared to the proposed project; the reduction is assumed to be proportional to the



reduction in building area (600,000 square feet for this alternative compared to 863,000 square feet for the proposed project, or about 30 percent). Water supply impacts would be less than significant for both scenarios.

Wastewater

The preceding water demand analysis also applies to wastewater generation.

Stormwater Drainage

Alternative 3 would have reduced impacts on runoff and drainage compared to the proposed project due to the increased landscaping area in this alternative; impacts would be less than significant for each scenario.

Electricity and Natural Gas

Electricity and natural gas demands by this alternative would be reduced due to the reduced building area; impacts would be less than significant for this alternative as well as for the proposed project.

Telecommunications

The preceding analysis also applies to impacts on telecommunications facilities.

Solid Waste Disposal

The analysis of water demand impacts above also applies to solid waste disposal.

5.7.3 Comparison of Alternative to the Proposed project

The Reduced Intensity Alternative, compared to the project, would reduce impacts on air quality, energy, greenhouse gas emissions, hydrology and water quality, noise, transportation, and utilities and service systems. Impacts on aesthetics, biological resources, cultural resources, geology and soils, land use and planning, and tribal cultural resources would be similar to those of the proposed project. No impacts would be increased by this alternative compared to the proposed project.

5.7.4 Relationship of the Alternative to Project Objectives

Under the Alternative 3 - Reduced Intensity Alternative, the following project objective (objective 2) would be fully met as shown on **Table 5.4-3**:

- Incorporate numerous sustainability features such as vegetated swales, tree-based infiltration, and inert bioswales; high-performance building enclosure systems, external shading, energy efficient and carbon neutral building systems and equipment selections, and solar panels. The buildings will meet or exceed Leadership in Energy and Environmental Design (LEED) Gold certification (objective 2).

The following objectives (objectives 1, 3, and 4) would be partially met:



- Provide health care capacity for Kaiser Permanente members in the San Bernardino-Redlands region (objective 1).
- Develop the project site in accordance with the Medical Facilities designation in Redlands Business Center Concept Plan No. 1 (objective 3).
- Phase development over 25 years to keep pace with projected increase in Kaiser Permanente membership in the facility's service area over that period (objective 4).

5.8 Analysis of Alternative 4 – Dispersed Facilities Alternative

5.8.1 Description of the Alternative

This alternative consists of development of approximately six small medical office facilities in the San Bernardino-Redlands region (the service area for the proposed project). The alternative was devised to reduce the significant and unavoidable transportation (vehicle miles traveled, or VMT) impact of the proposed project by distributing outpatient care across multiple locations. For comparison, existing Kaiser Permanente medical office facilities are located in Redlands (at the proposed project site), San Bernardino, and Colton. Additional small facilities under this alternative would be located within the region, including the cities of San Bernardino, Redlands, Highland, Colton, and Yucaipa, as well as surrounding unincorporated areas of San Bernardino County. In-patient care, including surgeries, intensive care, and critical care, would continue to be provided at existing Kaiser Permanente hospitals in Ontario and Fontana.

Although use of multiple smaller facilities could result in increased VMT for Kaiser Permanente staff traveling between sites, it is anticipated that overall VMT reductions would result from shorter average patient travel distances. Thus, reductions in patient travel are the principal means by which this alternative could reduce VMT compared to the proposed project.

The total building area of the six small facilities would be somewhat less than the approximately 1.32 million square feet of the proposed project (including a 456,000-square-foot parking structure). Excluding the parking structure, the proposed project would contain 863,000 square feet of building space. This alternative assumes the six small facilities would collectively total about 75 percent of that building area—approximately 650,000 square feet. Each small facility would therefore be expected to be about 100,000 to 125,000 square feet, not including any required parking.

It is assumed that most of the small facilities would involve redevelopment or reuse of existing buildings, and that no greenfield development (i.e., development on currently vacant land) would occur. Facility sites would likely be located in areas already developed with medical, medical office, and/or commercial uses.

5.8.2 Environmental Impacts

5.8.2.1 Aesthetics

In this alternative the medical center on 28.15 acres of the proposed project site would not be developed, and that site would remain vacant. This alternative assumes that the small facilities sites would probably be surrounded by existing medical, medical office, and/or commercial uses. Therefore, the small facilities would be visually compatible with surrounding land uses. Impacts of this alternative on scenic vistas would be reduced, as the facilities would be smaller than the



proposed medical center that includes buildings up to 122 feet high. While the facilities in this alternative would include outdoor lighting (exterior building lighting, signage, and parking lot lighting), the facilities would be sited within urban areas with substantial outdoor lighting; thus, development of these facilities would not cause substantial light and glare impacts. Aesthetics impacts of this alternative would be less than significant and would be reduced compared to impacts of the proposed project.

5.8.2.2 Air Quality

Construction

Regional Emissions

Although the total building area for this alternative would be about 650,000 square feet compared to 1.32 million square feet for the proposed project,³⁸ the amount of construction on a given day would be comparable to that of the proposed project. Therefore, short-term regional emissions would be similar to those of the proposed project. Construction impacts on air quality would be less than significant for both scenarios.

Localized Emissions

The amount of construction on a given day would be comparable to that of the proposed project. Therefore, localized emissions would be similar to those of the proposed project.. Localized construction impacts on sensitive receptors would be less than significant under both the proposed project and Alternative 4.

Toxic Air Contaminants

The amount of construction on a given day would be comparable to that of the proposed project. Therefore, TAC emissions would be similar to those of the proposed project.. TAC impacts on sensitive receptors would be less than significant under both the proposed project and Alternative 4.

Operation

Regional Emissions

VMT under this Alternative is expected to be approximately equivalent to that of the proposed project. Overall, this alternative could reduce VMT compared to the proposed project by potentially shortening average patient travel distances to medical facilities. However, the degree of reduction cannot be reliably quantified as the location of these facilities is unspecified. Further, because staff would need to travel between and among multiple smaller facilities (as compared to travelling to the one, centralized location in the proposed project), VMT associated with employee trips would be expected to increase.

For the purposes of this alternatives analysis, this Alternative is assumed to reduce VMT in comparison to the proposed project. However, any reduction of VMT in comparison to the proposed project is expected to be minor and VMT impacts from this alternative are expected to remain

³⁸ The square footage estimate for this alternative omits parking structures. Parking configurations for this alternative are unknown; therefore, any attempt to estimate building area of potential parking structures would be speculative.



significant and unavoidable. If reductions in VMT were to occur, corresponding decreases in on-road criteria pollutant emissions would also be expected, but the magnitude of such reductions is unknown. Given that air quality impacts of the proposed project are less than significant, they would remain less than significant under this alternative regardless of whether VMT is reduced.

Toxic Air Contaminants

In this alternative TAC emissions are expected to be reduced slightly. More importantly, TAC emissions would be distributed across the region due to the development of several small facilities. TAC emissions impacts would be reduced by this alternative and would be less than significant for both scenarios.

5.8.2.3 Biological Resources

Sites of the small facilities under this alternative were not identified. This alternative assumes that the small facilities would most likely be redeveloped; or existing buildings will be reused, and no greenfield development would occur. It is also assumed that most of the small facilities would be located next to existing medical, medical office, and/or commercial uses. Terrestrial impacts (that is, impacts on biological resources on the ground) are expected to be reduced by this alternative, as this alternative is expected to consist of redevelopment or reuse. Facilities sites in this alternative are expected to include trees and other vegetation that could be used by birds for nesting. Thus, this alternative is expected to require mitigation to reduce impacts on nesting birds to less than significant. Impacts would be less than significant after mitigation for both scenarios.

5.8.2.4 Cultural Resources

Development sites in this alternative are expected to be redeveloped or there would be reuse of sites where soil has been disturbed by previous development. Thus, impacts on resources that could be buried in site soils would be reduced by this alternative. Regarding impacts on built environment cultural resources, a phase 1 cultural resources inventory would be required for each site in this alternative; and mitigation would be required for any significant impacts identified. Impacts would be reduced by this alternative compared to impacts of the proposed project (due to reduction of impacts on resources potentially buried in soil); and would be less than significant after mitigation for both scenarios.

5.8.2.5 Energy

Energy Use

Construction

Development of this alternative would involve less construction effort than would the proposed project and therefore would use less energy than would construction of the proposed project.

Operation

The total building area of the small facilities under this alternative is expected to be less than that of the proposed project. As a result, overall electricity and natural gas demand for building operations (lighting, HVAC, appliances) would likely be lower. This alternative could also reduce operational trip generation due to shorter patient travel distances; however, as discussed in the transportation analysis, the extent of any VMT reduction is uncertain. Increased staff travel between multiple



facilities is anticipated to offset some patient travel reductions. For the purposes of this alternatives analysis, the overall VMT—and the associated transportation energy use—is assumed to be less for this Alternative than the proposed project.

This alternative is assumed to result in somewhat reduced building-related energy use and levels of transportation-related energy demand. Therefore, overall energy consumption under this alternative is assumed to be modestly less than that of the proposed project. In either this Alternative or the proposed project, however, energy impacts would remain less than significant.

The small facilities in this alternative are expected to include solar arrays, as would the proposed project. This alternative and the proposed project would both comply with plans for renewable energy and/or energy efficiency. Impacts respecting such plans would be similar, and less than significant, for both scenarios.

5.8.2.6 Geology and Soils

Geology and Soils

This alternative consists of the development of several small facilities on redevelopment sites or through reuse of existing buildings. The locations of the facilities are unknown; thus, geologic conditions on the sites are unknown and cannot be compared to those of the proposed project. As with the proposed project, the design and construction of facilities in this alternative would be mandated to comply with requirements of the California Department of Health Care Access and Information, and of the California building standards codes. Impacts of this alternative regarding geologic and seismic hazards would be similar to those of the proposed project and less than significant for both construction and operation.

Paleontological Resources

It is assumed that the small facilities in this alternative would be developed on sites where soils would already have been disturbed by previous development; thus, impacts of this alternative on paleontological resources would be reduced compared to those of the proposed project and less than significant after implementation of project design features and mitigation for both scenarios.

5.8.2.7 Greenhouse Gas Emissions

Development of this alternative would involve less construction effort than the proposed project and therefore would use less energy than would construction of the proposed project. Operation of this alternative would generate less GHG emissions than the proposed project due to both decreased building area and decreased trip generation. This alternative would reduce GHG emissions impacts compared to the significant-and-unavoidable impacts of the proposed project. This analysis assumes that GHG emissions by this alternative would remain above the 3,000-metric-ton CO₂e threshold and would therefore be significant and unavoidable.

5.8.2.8 Hazards and Hazardous Materials

Existing conditions on and near the sites of the small facilities in this alternative are unknown. Thus, impacts regarding existing hazardous materials on and near the sites of the facilities cannot be compared to those of the proposed project.



As with the proposed project, medical wastes generated by this alternative would be stored, transported, and disposed of in accordance with federal, state, and county regulations. Hazardous materials impacts of this alternative would be slightly reduced compared to proposed project impacts and would be less than significant in both scenarios.

5.8.2.9 Hydrology and Water Quality

Existing hydrology and water quality conditions at facilities sites for this alternative are unknown and thus cannot be compared to those of the proposed project site. The design, construction, and operation of facilities in this alternative would be mandated to meet the same regulatory requirements as would the proposed project.:preparation and implementation of a SWPPP for project construction, and preparation and implementation of a WQMP for project design and project operation. Construction and operational impacts of this alternative are expected to be slightly reduced compared to those of the proposed project due to the slightly reduced building area in this alternative. Impacts of this alternative on hydrology and water quality would be less than significant, as would impacts of the proposed project.

5.8.2.10 Land Use and Planning

The General Plan and zoning designations for facilities sites in this alternative are unknown. However, it is expected that this alternative would involve choices of sites where the general plan and zoning designations permitted medical office and outpatient health care uses, and, therefore, general plan amendments and zone changes would not be required. Impacts are expected to be less than significant for this alternative and similar to the less-than-significant impacts of the proposed project.

5.8.2.11 Noise

Construction

This alternative would involve reduced construction effort on dispersed sites compared to the proposed project. Therefore, construction noise and vibration impacts under this alternative would be less than those of the proposed project and would be less than significant for both scenarios.

Operation

Operational noise impacts of this alternative would be reduced due to the reduction in building area and would be less than significant in both scenarios. While the project sites in this alternative have not been chosen and thus the distances from each site to the nearest sensitive receptors cannot be determined, this analysis assumes that operational noise impacts would be less than significant.

5.8.2.12 Transportation

Construction

Construction transportation impacts of this alternative would be reduced compared to those of the proposed project both due to the overall slight reduction in building area in this alternative; and because construction trips in this alternative would be to and from six dispersed sites instead of one large project site.



Operation

A VMT analysis for this alternative is not possible because the locations of the small facilities have not been identified, and therefore trip distribution patterns and travel behaviors cannot be reliably estimated. While it is reasonable to assume that patient trip lengths could decrease with facilities dispersed throughout the region, VMT associated with Kaiser Permanente staff is anticipated to increase due to travel between and among multiple facilities. The overall magnitude of change is unknown and not anticipated to be substantial when compared to the proposed project.

For the purposes of this alternatives analysis, this Alternative is assumed to reduce VMT in comparison to the proposed project. However, any reduction of VMT in comparison to the proposed project is expected to be minor and VMT impacts from this alternative are expected to remain significant and unavoidable, as with the proposed project.

5.8.2.13 Tribal Cultural Resources

This alternative would involve development of six small sites in the eastern Upper Santa Ana River Valley that are expected to have been previously disturbed. By comparison, the proposed project would involve development of 28.15 acres of vacant land. Thus, impacts of this alternative on tribal cultural resources would be reduced compared to those of the proposed project and would be less than significant after mitigation for both scenarios.

5.8.2.14 Utilities and Service Systems

Utilities demand by this alternative is expected to be somewhat reduced (see the discussion of building area for this alternative compared to the proposed project above in **Section 5.8.1**). This alternative would not involve installation of utilities, laterals and mains on the 28.15-acre proposed project site. This alternative assumes that the dispersed facilities would be developed on already-developed sites served by utilities. Thus, regarding installation of infrastructure, this alternative at most would involve installation of laterals from existing mains next to the sites; or upsizing of existing laterals with laterals accommodating proposed facilities utility demands. Impacts would be less than significant for this alternative as well as for the proposed project. This analysis applies to water supplies, wastewater conveyance and treatment, electric power, natural gas, telecommunications, and solid waste disposal.

Stormwater Drainage

This alternative would not involve development of the proposed project site and instead would develop several small facilities on redevelopment or reuse sites. Development of each site in this alternative would be required to comply with the MS4 Permit, through implementation of LID BMPs, as the proposed project would. Overall storm drainage impacts would be similar in this alternative to those of the proposed project, just spread over several smaller sites in this alternative.

Wildfire

In this alternative it is expected that the small facilities would be developed in urbanized portions of the cities of San Bernardino, Redlands, Highland, Colton, and Yucaipa. Most of those areas are outside of fire hazard severity zones. Thus, it is expected that facilities in this alternative would be developed outside of fire hazard severity zones. No significant impact respecting wildfire risk is expected to occur in either scenario.



5.8.3 Comparison of Alternative to the Proposed project

The Dispersed Facilities Alternative, compared to the proposed project, would generally be expected to reduce impacts related to aesthetics, air quality, biological resources, cultural resources, energy, noise, utilities and service systems, and wildfire. Impacts on geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, and land use and planning would likely be similar to those of the proposed project. With respect to transportation, and specifically vehicle miles traveled (VMT), evaluation of this alternative involves some uncertainty because the locations of the small facilities have not been identified, and therefore trip distribution patterns and travel behaviors cannot be reliably estimated. As discussed in the VMT section, while it is reasonable to assume that patient trip lengths could decrease with facilities dispersed throughout the region, VMT associated with Kaiser Permanente staff is anticipated to increase. For the purposes of this alternatives analysis, this Alternative is assumed to result in some reduction in VMT in comparison to the proposed project, but VMT impacts are expected to remain significant and unavoidable.

In summary, while the Dispersed Facilities Alternative is anticipated to reduce certain environmental impacts, it would not avoid any of the proposed project's significant and unavoidable impacts. The remaining environmental effects would be generally similar to those of the proposed project.

5.8.4 Relationship of the Alternative to Project Objectives

Under the Alternative 4 - Dispersed Facilities Alternative, the following project objective (objectives 1 and 2) would be fully met as shown on **Table 5.4-3**:

- Provide health care capacity for Kaiser Permanente members in the San Bernardino-Redlands region (objective 1).
- Incorporate numerous sustainability features such as vegetated swales, tree-based infiltration, and inert bioswales; high-performance building enclosure systems, external shading, energy efficient and carbon neutral building systems and equipment selections, and solar panels. The buildings will meet or exceed Leadership in Energy and Environmental Design (LEED) Gold certification (objective 2).

The following objective (objective 4) would be partially met:

- Phase development over 25 years to keep pace with projected increase in Kaiser Permanente membership in the facility's service area over that period (objective 4).

The following objective (objective 3) would not be met:

- Develop the project site in accordance with the Medical Facilities designation in Redlands Business Center Concept Plan No. 1 (objective 3).

5.9 Environmentally Superior Alternative

Section 15126.6(e)(2) of the CEQA Guidelines indicates that an analysis of alternatives to a project shall identify an Environmentally Superior Alternative among the alternatives evaluated in an EIR. The CEQA Guidelines also state that should it be determined that the No Project/No Build Alternative



is the Environmentally Superior Alternative, the EIR shall identify another Environmentally Superior Alternative among the remaining alternatives.

With respect to identifying an Environmentally Superior Alternative among those analyzed in this Draft PEIR, the range of feasible alternatives includes the No Project Alternative; the No Project/General Plan Buildout Alternative; the Reduced Intensity Alternative; and the Dispersed Facilities Alternative. **Table 5.4-1** above provides a summary of the description of alternatives and a comparison of the different project components with the alternatives. **Table 5.4-2** provides a summary comparison, by environmental topic, of the project impacts and the impacts of each of the alternatives. **Table 5.4-3** provides a summary comparison of each of the alternatives' ability to meet the objectives of the project. A more detailed description of the potential impacts associated with each alternative is provided above. Pursuant to § 15126.6(c) of the CEQA Guidelines, the analysis below addresses the ability of the alternatives to "avoid or substantially lessen one or more of the significant effects" of the project.

As shown in the analysis above, of the alternatives analyzed in this Draft PEIR, Alternative 1, the No Project Alternative would avoid all the project's significant environmental impacts, including the project's significant and unavoidable GHG and construction noise impacts. Although Alternative 1 would reduce most of the project's less-than-significant and less-than-significant-with-mitigation impacts, it would not meet any of the project's objectives.

In accordance with the CEQA Guidelines requirement to identify an Environmentally Superior Alternative other than the No Project/No Build Alternative, a comparative evaluation of the remaining alternatives as shown in the analysis above indicates that Alternative 3, the Reduced Intensity Alternative, would be the Environmentally Superior Alternative. The Reduced Intensity Alternative would reduce impacts of the project related to construction and operational toxic air contaminants; operational regional air pollutant emissions; construction noise and vibration; and operational noise impacts. All other impacts of this alternative would be similar to those of the proposed project. Alternative 3 would comparatively reduce the significant and unavoidable impacts of the proposed project (GHG emissions and VMT). However, Alternative 3's GHG and VMT impacts would remain significant and unavoidable. No impacts of Alternative 3 would be greater than those of the proposed project.

Alternative 3 would fully meet one of the four objectives for the project. It would fully meet objective 2 as shown in **Table 5.4-3** and below.

- Incorporate numerous sustainability features such as vegetated swales, tree-based infiltration, and inert bioswales; high-performance building enclosure systems, external shading, energy efficient and carbon neutral building systems and equipment selections, and solar panels. The buildings will meet or exceed Leadership in Energy and Environmental Design (LEED) Gold certification (objective 2).

Alternative 3 would partially meet three of the four objectives for the project. The following objectives (objectives 1, 3, and 4) would be partially met:

- Provide health care capacity for Kaiser Permanente members in the San Bernardino-Redlands region (objective 1).
- Develop the project site in accordance with the Medical Facilities designation in Redlands Business Center Concept Plan No. 1 (objective 3).
- Phase development over 25 years to keep pace with projected increase in Kaiser Permanente membership in the facility's service area over that period (objective 4).



6.0 OTHER CEQA CONSIDERATIONS

6.1 Significant Unavoidable Impacts

This section includes a description of the significant and unavoidable impacts of the proposed project. Section 15126.2(b) of the State CEQA Guidelines requires that the EIR describe any significant impacts, including those that can be mitigated but not reduced to less-than-significant levels. Section 15126.2(b) of the State CEQA Guidelines is written as follows:

Significant Environmental Effects Which Cannot Be Avoided if the Proposed Project is Implemented. Describe any significant impacts, including those which can be mitigated but not reduced to a level of insignificance. Where there are impacts that cannot be alleviated without imposing an alternative design, their implications and the reasons why the project is being proposed, notwithstanding their effect, should be described.

Potential environmental effects of the proposed project and proposed mitigation measures are discussed in **Sections 4.1** through **4.15**. This PEIR determined that there would be unavoidable significant adverse impacts related to greenhouse gas emissions (**Section 4.7**) due to exceeding SCAQMD emission thresholds and transportation (**Section 4.12**) due to an increase of vehicle miles traveled (VMT) above the City's thresholds. After implementation of mitigation measures, the proposed project would still have significant GHG thresholds and VMT impacts, which would necessitate the adoption of a Statement of Overriding Considerations.

6.1.1 Greenhouse Gas Emissions

As discussed in **Section 4.7** of this Draft PEIR, the proposed project would generate an estimated 3,492.8 metric tons per year and 14,306 metric tons per year during construction and operational phases, respectively, which would exceed the SCAQMD threshold of 3,000 MTCO₂e per year. The project includes **MM GHG-1**, which must be implemented during both the construction and operational phases of the project. During construction, the project shall incorporate a variety of GHG-reducing practices as recommended by the California Air Pollution Control Officers Association (CAPCOA). These measures include the use of alternative fuels and electric or hybrid construction equipment, which may reduce emissions by up to 22 percent and 80 percent, respectively, if used consistently. Additional practices include limiting equipment idling, instituting a heavy-duty offroad vehicle plan, and implementing a vehicle inventory tracking system to ensure compliance. During project operation, GHG emissions are expected to primarily result from mobile sources, such as employee and visitor trips. To mitigate these emissions, the project will implement vehicle miles traveled (VMT) reduction strategies based on the accompanying traffic study. These include commute trip reduction marketing (4 percent Home-Base Work (HBW) VMT reduction), employee rideshare programs (4 percent HBW VMT), installation of end-of-trip bicycle facilities (0.3 percent HBW VMT), employer-sponsored vanpool services (1.6 percent HBW VMT), and a multiplicative dampening adjustment (0.6 percent). However, with implementation of mitigation measures, the project would still exceed SCAQMD thresholds, resulting in significant and unavoidable impacts.

6.1.2 Transportation

As discussed in **Section 4.12** of this Draft PEIR, the proposed project would generate approximately 16,093 trips per day. The Transportation Study prepared for the project determined that the proposed project's VMT per employee ratio is 12 percent higher than the City's VMT threshold (Fehr & Peers, 2025). The proposed project would implement **MM TRANS-1** to **MM TRANS-4**, which would



incorporate VMT reducing programs such as a commute trip reduction program, a ridesharing program for employees, installation and maintenance of end-of-trip facilities for employee use, and implement an employer-sponsored vanpool service. The four mitigation measures for VMT combined are estimated to reduce project VMT by 9.9 percent. Therefore, impacts associated with VMT would still remain significant and unavoidable.

6.2 Reasons Why the Project is Being Proposed, Notwithstanding Significant Unavoidable Impacts

In addition to identification of a project's significant unavoidable impacts, Section 15126.2(c) of the CEQA Guidelines requires that an EIR describe the reasons why a project is being proposed, notwithstanding the effects of the identified significant and unavoidable impacts. The reasons why the proposed project has been proposed are included in **Section 2.0**, of this Draft PEIR and are summarized below.

The underlying purpose and objectives of the project are closely linked to the City's need to provide additional hospital services to better serve residents in the project vicinity. The nearest Kaiser Permanente acute care hospital is located in the city of Fontana, approximately 12 miles west of the project site. Additionally, beyond the existing medical office building, the remainder of the project site is undeveloped. The proposed project would improve the underutilized project site to provide additional hospital and other medical services for the City and surrounding area. Therefore, the benefits of the proposed project would outweigh significant and unavoidable impacts of the project. Additionally, as discussed in the Alternatives section, the No Project/No Action Alternative would not achieve any of the project's objectives of providing additional hospital services. The Reduced Intensity Alternative would partially achieve the project objectives but would not fully utilize the undeveloped and disturbed areas of the project site, which would not be beneficial if they were not developed.

6.3 Significant Irreversible Environmental Changes

Section 15126.2(d) of the State CEQA Guidelines requires that an EIR discuss "any significant irreversible environmental changes which would be involved in the proposed project should it be implemented." It defines an irreversible impact as an impact that uses nonrenewable resources during the initial and continued phases of the proposed project. Irreversible impacts can also result from damage caused by environmental accidents associated with the proposed project. Irretrievable commitments of resources should be evaluated to ensure that such consumption is justified. Section 15126.2(d) of the State CEQA Guidelines is written as follows:

Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts, and particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

Construction and implementation of the proposed project would involve the commitment of building materials, human resources (labor) and energy, commensurate with that of other projects of similar



nature and magnitude. Construction of the proposed project would require the use of water, timber, steel, sand, gravel and other minerals and natural resources. Although this is not an unusual demand for these resources, it nonetheless is an incremental increase in demand for nonrenewable resources. Labor would also be committed to the construction of the proposed structures with associated underground parking and landscaping. Nonrenewable energy resources would be used during construction and subsequent operation of the proposed project. This commitment of energy resources would be a long-term obligation, as, once the project site has been developed, it is highly unlikely that the land could be returned to its original condition. However, as discussed in **Section 4.5** regarding energy conservation, impacts resulting from increased energy usage would be less than significant.

6.3.1 Building Materials and Solid Waste

Construction of the proposed project would require the use of resources that may be considered non-renewable or not quickly replenished. These resources would include lumber and other forest products, aggregate materials used in concrete and asphalt (e.g., sand, gravel and stone), metals (e.g., steel, copper and lead), and petrochemical construction materials (e.g., plastics). As discussed in **Section 4.10** of this PEIR, the proposed project would use a variety of common building materials such as lumber and concrete. However, as discussed in **Section 2.0** of this PEIR, the proposed project would utilize sustainable planning and building strategies installation of photovoltaic (PV) panels and the buildings will meet or exceed Leadership in Energy and Environmental Design (LEED) Gold certification. This is achieved through the combinations of high-performance building enclosure systems, external shading, energy efficient and carbon neutral building systems and equipment selections, solar panels and other energy efficiency measures. Thus, although the consumption of non-renewable building materials and resources would occur due to the proposed project, the proposed building would be developed to be energy efficient.

As discussed in Section 4.19 of the IS, solid waste landfilled from the City of Redlands was disposed of at two landfills—the California Street Landfill and the San Timoteo Sanitary Landfill south of the City of Redlands, and the impacts of the project on the disposal of solid waste would be less than significant in the IS. Therefore, this impact is not analyzed in this PEIR. During operation, the proposed project would generate only a small portion of the city's available solid waste capacity. The proposed project would have a less than significant impact to landfills because it would be required to comply with all applicable solid waste regulations including AB 939 and Section 5.408 of the 2019 CALGreen.

6.3.2 Water

Construction of the proposed project would require the typical use of water for activities such as dust control. Water for construction activities would be conveyed using the existing water infrastructure at the project site, and no major offsite infrastructure improvements would be needed for construction activities. Use of water during construction would be temporary and amounts needed for dust control would be negligible.

Additionally, as concluded in the City's 2025-2045 Urban Water Management Plan (UWMP), projected water demand for the city would be met by the available supplies during an average year, single-dry year, and multiple-dry year in each year from 2025 through 2045. Therefore, the project's temporary and intermittent demand for water during construction could be met by the city's available supplies during project construction.



❖ SECTION 6.0 – OTHER CEQA CONSIDERATIONS ❖

Consumption of water during operation of the project is addressed in **Section 4.15** of this DPEIR. The projected increase in water use from the proposed project would result in a negligible increase of the city's future available water supplies.

6.3.3 Energy Consumption

During construction of the project, non-renewable fossil fuels would represent the primary energy source, and thus the existing finite supplies of these resources would be incrementally reduced. Fossil fuels, such as diesel, gasoline, and oil, would also be consumed in the use of construction vehicles and equipment. Project consumption of non-renewable fossil fuels for energy use during construction and operation of the project is addressed in **Section 4.5** of this DPEIR. As discussed therein, construction activities for the project would not require the consumption of natural gas, but would require the use of electricity and fossil fuels. As the consumption of fossil fuels would occur on a temporary basis during construction, impacts related to the consumption of fossil fuels during construction of the project would be less than significant.

Project operation would use electricity for medical-serving needs, street lighting, and conveyance and treatment of water; and gasoline for on-road motor vehicles. The project would comply with all applicable regulations and codes that require achievement of various levels of energy efficiency in building operation. These include: (1) CCR Title 24, Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings (Title 24); and (2) the 202219 CalGreen. The project would comply with all applicable regulations and codes that require achievement of various levels of energy efficiency in building operation. These include (1) CCR Title 24, Part 6: California's Energy Efficiency Standards for Nonresidential Buildings (Title 24); (2) the 2022 California Green Building Standards Code (CalGreen; California Code of Regulations Title 24 Part 11); and (3) City of Redlands Municipal Code Chapter 15.18, California Energy Code (CENC).

Project impacts would be less than significant regarding wasteful, inefficient, or unnecessary energy use after compliance with energy efficiency plans.

6.3.4 Environmental Hazards

The proposed project's potential use of hazardous materials is evaluated in **Section 4.8** of this DPEIR. As discussed therein, construction and operation of the proposed project would involve the transport, storage, and use of chemical agents, solvents, paints, and other hazardous materials. Chemical transport, storage, and use would comply with Resource Conservation and Recovery Act (RCRA), Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Occupational Safety and Health Administration (OSHA), California hazardous waste control law,³⁹ Division of OSHA, and South Coast Air Quality Management District (SCAQMD) requirements. Construction, onsite maintenance, and operation of the project would involve storage and use of small amounts of commercially available janitorial and landscaping supplies, typical of those materials used in commercial developments. The use, handling, and storage of these materials could increase the potential for hazardous materials releases and, subsequently, the exposure of people and the environment to hazardous materials. However, all potentially hazardous materials would be used and stored in accordance with manufacturers' specifications and instructions, thereby reducing the risk of hazardous materials use. In addition, the proposed project would be in full compliance with all applicable federal, state, and local requirements concerning the use, storage, and management of hazardous materials. Therefore, the proposed project would not cause irreversible

³⁹ Codified in California Health and Safety Code, Division 20, Chapter 6.5, Hazardous Waste Control.



damage from environmental accidents associated with the use of typical, potentially hazardous materials.

6.3.5 Conclusion

Based on **Sections 6.3.1** through **6.3.4** above, construction and operation of the project would require an irretrievable commitment of resources that are limited, slowly renewable, or non-renewable, and consequently limit the availability of these resources, including the project site, for other uses or for future generations. However, the consumption of these resources for the project would not be considered substantial and would be consistent with regional and local growth forecasts and development goals for the area. These resources would not be used in a wasteful manner and would not be depleted much quicker than existing conditions. Therefore, although the project would result in irreversible environmental changes, those changes would be less than significant. Considering that the project would consume an inconsequential amount of natural resources, the limited use of nonrenewable resources is considered justified.

6.4 Growth-Inducing Impacts

In compliance with CEQA regulations, this section discusses the growth inducing impacts of a project. CEQA Guidelines § 15126.2(e) requires a discussion of potential growth-inducing impacts of a project. Growth-inducing impacts are defined by CEQA as the ways in which a project could directly or indirectly foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth. In addition, as discussed in the CEQA Guidelines, increases in the population may tax existing community service facilities, thus requiring construction of new facilities that could cause significant environmental effects. It must not be assumed that growth in an area is necessarily beneficial, detrimental, or of little significance to the environment.

6.4.1 Population and Housing

The proposed project would develop a medical campus. As discussed in **Section 4.14 of the Initial Study (refer to Appendix A1)**, the proposed project would not directly create housing or increase the population of the city and therefore would not increase the city's population or housing availability.

6.4.2 Employment

The proposed project would have the potential to generate indirect population growth as a result of the temporary construction employment opportunities and employment opportunities associated with project operation.

The proposed project would create temporary construction-related jobs. Due to the specialized nature and expertise of their work, construction workers may remain at a job site for the time during which their specific skills are utilized to complete a particular phase of project construction. Construction workers are not anticipated to relocate to the project vicinity due to the temporary nature of construction work. Therefore, construction of the project would not be considered growth inducing from a short-term employment perspective.

As detailed in Section 4.14 of the Initial Study (refer to **Appendix A1**), it is anticipated that employees from the local workforce would be hired during the operational phase of the project and that the



project would not require workers from outside the region. The project is not of the scope or scale to induce people to move from out of the project area to work on the proposed project. Therefore, the proposed project would be unlikely to create an indirect demand for additional housing or households in the area, and impacts would be less than significant.

6.4.3 Utility Infrastructure Improvements

As detailed in **Section 4.14** of this DEIR, the project site is located in an urban area and within the existing service area for most utilities. where existing utility infrastructure would be able to connect to and adequately serve the project site. Therefore, the proposed project would not require utility infrastructure improvements that would induce growth within the city, and impacts would be less than significant.

6.4.4 Conclusion

The proposed project would not cause population growth directly because the project does not create any housing within the city. Additionally, the project's scale and uses would not create regional draw for job opportunities. Additionally, the project would not result in major roadway improvements as it is located on an infill site surrounded by existing roadways. It involves infill development that makes use of existing land to create a campus within an urbanized area. Therefore, direct and indirect growth-inducing impacts of the project would be less than significant.

6.5 Potential Secondary Effects of Mitigation Measures

Section 15126.4(a)(1)(D) of the CEQA Guidelines states that "if a mitigation measure would cause one or more significant effects in addition to those that would be caused by the project as proposed, the effects of the mitigation measure shall be discussed, but in less detail, than the significant effects of the project as proposed." The following provides a discussion of the potential secondary impacts that could occur as a result of the implementation of proposed mitigation measures for each environmental issue area included in this DPEIR. Environmental issue areas with no impacts or with impacts less than significant and requiring no mitigation would have no potential secondary impacts associated with implementation of mitigation measures and therefore, are not discussed further in this section. The areas in this PEIR requiring mitigation are:

- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils (Paleontological Resources)
- Greenhouse Gas Emissions
- Tribal Cultural resources
- Transportation

The mitigation measures will be implemented by the project applicant in coordination with the City of Redlands, as required during different phases of the project.

6.5.1 Air Quality

Mitigation measures **MM AQ-1**, **MM AQ-2** and **MM TRANS-1** through **MM TRANS-4** are included in **Section 4.2** of this PEIR to reduce the project's potential impacts on air quality during construction. **MM AQ-1** would replace gas powered landscaping equipment with zero-emission landscape



equipment. **MM AQ-2** would provide electric vehicle charging infrastructure. **MM TRANS-1** would implement a commute trip reduction marketing. **MM TRANS-2** would provide an employee rideshare program. **MM TRANS-3** would provide end-of-trip bicycle facilities. **MM TRANS-4** would provide an employer-sponsored vanpool. Implementation of these mitigation measures would ensure that impacts regarding air quality emissions are less than significant during construction and operation phases of the project. Therefore, implementation of these mitigation measures would not result in adverse secondary impacts.

6.5.2 Biological Resources

Mitigation measures **MM BIO-1** through **MM BIO-5** are included in **Section 4.3** of this DEIR PEIR to reduce the project's potential impacts to biological resources during construction. Specifically, **MM BIO-1** would require focused presence/absence surveys for Crotch's bumble bee following CDFW guidelines, with survey results informing whether further conservation actions or an ITP are required if the species is detected onsite. **MM BIO-2** would require both focused and preconstruction surveys for burrowing owl during the breeding and non-breeding seasons, with protective buffers, monitoring, and a relocation plan developed in consultation with the City of Redlands, CDFW, and USFWS if burrowing owls are observed. **MM BIO-3** would ensure compliance with the Migratory Bird Treaty Act and California Fish and Game Code by requiring pre-construction surveys for active nests, with appropriate avoidance buffers and monitoring to prevent take or disturbance of nesting birds. **MM BIO-4** would require preconstruction surveys for bat roosts within and adjacent to the project site, with preparation and implementation of a Bat Management Plan if special-status bats or significant roosts are detected. **MM BIO-5** would require a formal jurisdictional delineation to assess potential impacts to waters of the U.S. and State, and, if necessary, secure all applicable permits from USACE, CDFW, and RWQCB prior to construction. Implementation of these mitigation measures would ensure that impacts to sensitive species, nesting birds, bats, and jurisdictional aquatic resources are avoided or minimized to the extent feasible.

Surveys required by the mitigation measures would result in additional foot traffic within the project site and potential soil disturbance if soil pits are dug during the jurisdictional delineation. If required, based on the results of the surveys, protection measures may include passive and active relocation and exclusion of disturbances. Also, if required, habitat restoration and/or replacement, and active relocation sites, would be offsite. However, the result of the mitigation would be beneficial to sensitive species or jurisdictional waters and thus would not cause a net adverse impact. Many of the other mitigation actions would also involve some disturbance to habitats; direct disturbance to special status species; and disturbances to trees. Mitigation measures would be implemented, and have been designed, by qualified biologists with the intention of reducing adverse impacts on biological resources. Therefore, net adverse impacts on biological resources from implementation of mitigation measures for minimizing impacts on biological resources are not anticipated, and thus any potential secondary impacts from the mitigation measures would be less than significant. Therefore, implementation of these mitigation measures would not result in adverse secondary impacts.

6.5.3 Cultural Resources

Mitigation measures **CUL-1** through **CUL-3** are included in **Section 4.4** of this DPEIR to reduce the project's potential impacts to cultural resources during construction. **MM CUL-1** would require the project applicant to retain a qualified archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards to monitor ground-disturbing activities and re-survey the ground surface once vegetation is cleared. If unanticipated cultural resources are discovered, the archaeologist would be given adequate time to recover, analyze, and curate the find(s), and



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determine whether additional monitoring is needed to protect any remaining resources. **MM CUL-2** would require a 50-foot buffer and halt of construction in the vicinity of any discovered historical or unique archaeological resources, with a qualified Principal Archaeologist overseeing evaluation and recovery, and potentially preparing an Archaeological Resources Treatment Plan (ARTP) to guide further monitoring and management. **MM CUL-3** would ensure proper protocols are followed in the event that human remains are encountered during excavation, including immediate work stoppage within 30 feet of the discovery, notification of the County Coroner, and coordination with the Native American Heritage Commission to identify a Most Likely Descendant (MLD) to determine appropriate disposition of the remains. Implementation of these mitigation measures would ensure that potential impacts to cultural and archaeological resources, including human remains, are minimized or avoided entirely. Therefore, implementation of these mitigation measures would not result in adverse secondary impacts.

6.5.4 Geology and Soils

MM GEO-1 is included in **Section 4.6** of this DEIR PEIR to reduce potential impacts to paleontological resources during excavation and grading activities. This measure would require the project applicant to retain a qualified paleontologist, approved by both the City of Redlands and the Western Science Center, prior to the commencement of any ground-disturbing activities. The retained paleontologist would prepare and implement a site-specific Paleontological Resources Impact Mitigation Program (PRIMP) consistent with guidelines developed by the Society for Vertebrate Paleontology. The PRIMP would include monitoring of ground disturbance in fossil-bearing sediments, specimen recovery, screen washing, fossil identification and preparation, curation of any recovered specimens at an accredited repository, and submission of a final monitoring report. In addition, the paleontologist would coordinate with construction personnel prior to excavation to ensure proper procedures are followed if fossil materials are uncovered during unmonitored periods. The paleontologist would also conduct periodic inspections during excavation and have the authority to temporarily halt work if paleontological resources are discovered. Fossils recovered during mitigation would be curated at a scientific institution for long-term preservation and study. Implementation of this measure would ensure that potential impacts to paleontological resources are minimized and appropriately mitigated. Therefore, implementation of this mitigation measure would not result in adverse secondary impacts.

6.5.5 Greenhouse Gas Emissions

To reduce potential impacts associated with greenhouse gas (GHG) emissions, **Section 4.7** of this DEIR PEIR includes Mitigation Measure GHG-1, which must be implemented during both the construction and operational phases of the project. During construction, the project shall incorporate a variety of GHG-reducing practices as recommended by the California Air Pollution Control Officers Association (CAPCOA). These measures include the use of alternative fuels and electric or hybrid construction equipment, which may reduce emissions by up to 22 percent and 80 percent, respectively, if used consistently. Additional practices include limiting equipment idling, instituting a heavy-duty offroad vehicle plan, and implementing a vehicle inventory tracking system to ensure compliance. During project operation, GHG emissions are expected to primarily result from mobile sources, such as employee and visitor trips. To mitigate these emissions, the project will implement vehicle miles traveled (VMT) reduction strategies based on the accompanying traffic study. These include commute trip reduction marketing (4 percent HBW VMT reduction), employee rideshare programs (4 percent HBW VMT), installation of end-of-trip bicycle facilities (0.3 percent HBW VMT), employer-sponsored vanpool services (1.6 percent HBW VMT), and a multiplicative dampening



adjustment (0.6 percent). Implementation of these measures would reduce the project's GHG emissions but would still exceed emission thresholds. Therefore, the project would have secondary effects regarding greenhouse gas emissions.

6.5.6 Transportation

To reduce potential transportation impacts and associated greenhouse gas emissions, **Section 4.12** of this DEIR PEIR includes four transportation-related mitigation measures that must be implemented prior to the issuance of a Certificate of Occupancy for each phase of the project. Mitigation Measure **TRANS-1** requires the project proponent to implement a commuter trip reduction program that provides employees with information and marketing to promote alternatives to single-occupancy vehicle use, such as transit, carpooling, walking, and biking. Mitigation Measure **TRANS-2** requires a formal ridesharing program for employees with similar commutes, with funding commitments by employers and the use of regional programs such as IE Commuter. Mitigation Measure **TRANS-3** mandates the installation and maintenance of end-of-trip bicycle facilities—including secure bike parking, lockers, and showers—to encourage bike commuting. Finally, Mitigation Measure **TRANS-4** requires implementation of an employer-sponsored vanpool service to provide shared commute options for employees, targeting up to two percent participation. Collectively, these measures are designed to reduce vehicle miles traveled (VMT), mitigate transportation-related impacts, and contribute to the project's overall GHG emissions reduction strategy. However, the mitigation measures would not reduce the project's VMT under the City's threshold and would cause secondary impacts regarding transportation.

6.5.7 Tribal Cultural Resources

Mitigation measures **TCR-1** through **TCR-3** are included in **Section 4.14** of this DEIR PEIR to reduce potential impacts to tribal cultural resources associated with ground-disturbing activities. MM Mitigation Measure **TCR-1** would require the project applicant to retain a Native American monitor(s) from one or more Consulting Tribe(s). The monitor(s) shall be retained prior to the commencement of any "ground-disturbing activity" for the subject project at all project locations (i.e., both on-site and any off-site locations that are included in the project description/definition and/or required in connection with the project, such as public improvement work). The monitor(s) will complete daily monitoring logs. On-site tribal monitoring shall conclude upon the latter of the following (1) written confirmation to the Consulting Tribe(s) from a designated point of contact for the project applicant that all ground-disturbing activities and phases that may involve ground-disturbing activities on the project site or in connection with the project are complete; or (2) a determination and written notification by the Consulting Tribe(s) to the project applicant and lead agency that no future, planned construction activity and/or development/construction phase at the project site possesses the potential to impact TCRs. **MM TCR-2** would require construction to cease (i.e. not less than the surrounding 50 feet) and shall not resume until the discovered TCR has been fully assessed by the Consulting Tribe(s)' monitor(s) and/or archaeologist(s). **MM TCR-3** outlines the procedures to be followed in the event of a discovery of human remains or associated funerary items, requiring adherence to California Public Resources Code § 5097.98 and Health and Safety Code § 7050.5. Preservation in place is the preferred treatment, and all such discoveries must remain confidential to protect the integrity of the site. Implementation of these measures would ensure that tribal cultural resources are protected and respectfully managed during construction. Therefore, implementation of these mitigation measures would not result in adverse secondary impacts.



6.6 Effects Not Found to be Significant

Section 15128 of the State CEQA Guidelines requires that EIRs “contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR.” An Initial Study was prepared for the proposed project (refer to **Appendix A1**). Based on the findings of the Initial Study prepared for the project, the following topics were found to have either no impact or a less than significant impact on the environment and therefore did not warrant further analysis in the PEIR and thus do not warrant mitigation: agriculture and forestry resources; mineral resources; population and housing, recreation, and wildfire. Refer to the text below for a brief discussion of each of these environmental topics, which were eliminated from further analysis in the PEIR, as detailed in the Initial Study (refer to **Appendix A1**).

6.6.1 Agriculture and Forestry Resources

As discussed in Section 4.2 of the Initial Study (**Appendix A1**), a portion of the project site contains important farmland. However, a Land Evaluation and Site Assessment (LESA) was conducted for the project site determining that the land is no longer viable for agriculture. Additionally, the project site is surrounded by urban development, not part of the Williamson Act, does not contain forest lands and is not zoned for agriculture. Therefore, there would be less than significant impacts to agriculture and forestry resources.

6.6.2 Mineral Resources

As discussed in Section 4.12 of the Initial Study (**Appendix A1**), the project site is within Mineral Resource Zone (MRZ)-3, which is an area containing mineral deposits, the significance of which cannot be evaluated from available data. The project site and surrounding developments are within a fully developed portion of the city, and no mining or mineral extraction activities would occur on the project site. Therefore, no impacts are anticipated to: (1) the availability of known mineral resources of value to the region or state residents, ; or (2) a locally important mineral resource recovery site delineated on a local general, specific, or other land use plan. Therefore, there would be no impacts on mineral resources.

6.6.3 Population and Housing

As discussed in Section 4.14 of the Initial Study (**Appendix A1**), the proposed project would develop a medical building campus on undeveloped land, which would not develop housing that would increase the population of the city or displace any housing. Therefore, the project would have less than significant impacts in regard to population growth and housing.

6.6.4 Recreation

As discussed in Section 4.16 of the Initial Study (**Appendix A1**), recreation impacts would occur if the proposed project would cause population growth within the city. The proposed project would not create housing and therefore there would be no increase the population within the city. Therefore, there would be no impacts in this regard.



6.6.5 Wildfire

As discussed in Section 4.20 of the Initial Study (**Appendix A1**), the project site is not located in an State Responsibility Area (SRA) (i.e., where the State is responsible for the costs of wildfire prevention and suppression), nor is it located in a Very High Fire Hazard Severity Zone (VHFHSZ) within an Local Responsibility Area (LRA). Therefore, there would be no wildfire impacts.



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8.0 ACRONYMS AND ABBREVIATIONS

Acronym / Abbreviation	Term
AAQS	Ambient Air Quality Standards
AB	Assembly Bill
ADD	Average Daily Demand
AFY	Acre Feet per Year
AMSL	Above Mean Sea Level
APE	Area Of Potential Effect
APN	Assessor's Parcel Number
ARB	Air Resources Board
ARTP	Archaeological Resources Treatment Plan
ASC	Ambulatory Services Center
BAU	Business As Usual
BMPs	Best Management Practices
BRTR	Biological Resources Technical Report
BSA	Biological Survey Area
BUOW	Burrowing Owl
CAAQS	California Ambient Air Quality Standards
CAFE	Corporate Average Fuel Economy
CAISO	California Independent System Operator
CalEEMod	California Emissions Estimator Model
CAL FIRE	California Department Of Forestry And Fire Protection
Caltrans	California Department Of Transportation
CAO(s)	Cleanup and Abatement Order(s)
CAP	Climate Action Plan
CARB	California Air Resources Board
CBC	California Building Code
CCAA	California Clean Air Act
CCR	California Code of Regulations
CDO(s)	Cease and Desist Order(s)
CDFW	California Department of Fish and Wildlife
CDPH	California Department of Public Health
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CESA	California Endangered Species Act
CFC	California Fire Code
CGS	California Geological Survey
CH ₄	Methane
CHRIS	California Historic Resources Inventory System
CI	Carbon Intensity
CIP	Capital Improvements Project
City	City Of Redlands
CMP	Congestion Management Program
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level



❖ SECTION 8.0 – ACRONYMS AND ABBREVIATIONS ❖

Acronym / Abbreviation	Term
CNPPA	California Native Plant Protection Act
CNPS	California Native Plant Society
CO	Carbon Monoxide
CO ₂	Carbon Dioxide
CP-1	Concept Plan 1
CPUC	California
CRC	California Residential Code
CRHR	California Register Of Historical Resources
CUP	Conditional Use Permit
CWA	Clean Water Act
cy	Cubic Yards
dB	Decibel
dBA	A-Weighted Decibel Scale
DERs	Distributed Energy Resources
DEIR	Draft EIR
DOC	California Department Of Conservation
DOGGR	Division of Oil, Gas, and Geothermal Resources
DOSH	California Division Of Safety And Health
DPM	Diesel Particulate Matter
DTSC	Department of Toxic Substance Control
DWR	Department of Water Resources
EHS	Environmental Health Services
EISA	Energy Independence and Security Act
EIR	Environmental Impact Report
EMS	Emergency Medical Service
EPCA	Energy Policy and Conservation Act
EPCRA	Emergency Planning and Community Right-to-Know Act
ERP	San Bernardino County Operational Area Emergency Response Plan
ESA	Endangered Species Act
EV	Electric Vehicle
EVCS	East Valley Corridor Specific Plan
FEIR	Final Environmental Impact Report
FHSZ	Fire Hazard Severity Zone
FMCSA	Federal Motor Carrier Safety Administration
FMMP	Farmland Mapping and Monitoring Program
GHG	Greenhouse Gas
GIS	Geographic Information System
GPEIR	General Plan EIR
HCD	Department of Housing and Community Development
HCP	Habitat Conservation Plan
HDPVs	Heavy-duty pickup trucks and vans
HFCs	Hydrofluorocarbons
HMTA	Hazardous Materials Transportation Act
HMR	Hazardous Materials Regulations
HSWA	Hazardous and Solid Waste Act
HVAC	Heating, Ventilation, and Air Conditioning



❖ SECTION 8.0 – ACRONYMS AND ABBREVIATIONS ❖

Acronym / Abbreviation	Term
IEPR	Integrated Energy Policy Report
IOU	Investor-Owned Utility
IRWMP	Integrated Regional Water Management Plan
ISA	International Society of Arboriculture
KOPs	Key Observation Points
L ₉₀	Noise Level That Is Exceeded 90 percent Of The Time
L _{eq}	Equivalent Noise Level
LACCEO	Los Angeles County Chief Executive Office
LCC	Land Capacity Classification
LCFS	Low Carbon Fuel Standard
LE	Land Evaluation
LESA	Land Evaluation and Site Assessment
LEV	Low-Emission Vehicle
LHMP	Local Hazard Mitigation Plan
LID	Low Impact Development
L _{max}	Root Mean Square Maximum Noise Level
LOS	Level Of Service
LQGs	Large Quantity Generators
LRA	Local Responsibility Area
LSAA	Lake or Streambed Alteration Agreement
LUST	Leaking Underground Storage Tank
MBTA	Migratory Bird Treaty Act
MDD	Maximum Day Demand
MGD	Million Gallons Per Day
MJHMP	County of San Bernardino Multi-Jurisdictional Hazard Mitigation Plan
MLD	Most Likely Descendant
MM	Mitigation Measure
MOB	Medical Office Building
MRZ	Mineral Resource Zone
MUED	Municipal Utilities and Engineering Department
MWD	Metropolitan Water District of Southern California
N ₂ O	Nitrous Oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NCCP	Natural Communities Conservation Plan
NCP	National Contingency Plan
ND	Negative Declaration
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NHTSA	National Transportation Safety Administration
NMFS	National Marine Fisheries Service
NRCS	Natural Resources Conservation Service
NO _x	Nitrogen Oxides
NOP	Notice of Preparation
NPDES	National Pollutant Discharge Elimination System
NPW	Non-Potable Water



❖ SECTION 8.0 – ACRONYMS AND ABBREVIATIONS ❖

Acronym / Abbreviation	Term
NRMP	Natural Resource Management Plan
O ₃	Ozone
OES	Governor's Office of Emergency Services
OIR	Order Instituting Rulemaking
OSHA	Occupational Safety And Health Administration
OWOW	One-Water, One-Watershed Plan
PEIR	Program Environmental Impact Report
PHD	Peak Hour Demand
PFCs	Perfluorocarbons
PHMSA	Pipeline and Hazardous Materials Safety Administration
PPB	Parts Per Billion
PPM	Parts Per Million
PM	Particulate Matter
PM _{2.5}	Fine Particulate Matter
PM ₁₀	Respirable Particulate Matter
PPV	Peak Particle Velocity
PRC	Public Resource Code
PRIMP	Paleontological Resources Impact Mitigation Program
PV	Photovoltaic
PW	Potable Water
R-GPCD	Residential Gallon Per Capita Per Day
RCRA	Resource Conservation And Recovery Act
RMS	Root Mean Square
ROG	Reactive Organic Gases
ROW	Right-of-way
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
RW	Recycled Water
RWQCB	Regional Water Quality Control Board
SAWPA	Santa Ana Watershed Project Authority
SAR	Santa Ana River
SARA	Superfund Amendments and Reauthorization Act
SB	Senate Bill
SBB	San Bernardino Basin
SBCFD	San Bernardino County Fire Department
SBCTA	San Bernardino County Transportation Authority
SBIA	San Bernardino International Airport
SBMWD	San Bernardino Municipal Water Department
SBTAM+	San Bernardino Transportation Analysis Model
SBVT	San Bernardino Valley Traction
SBVWCD	San Bernardino Valley Water Conservation District
SBVMWD	San Bernardino Valley Municipal Water District
SCAB	South Coast Air Basin
SCAG	Southern California Association Of Governments
SCAQMD	South Coast Air Quality Management District
SCCIC	South Central Coastal Information Center
SCE	Southern California Edison



❖ SECTION 8.0 – ACRONYMS AND ABBREVIATIONS ❖

Acronym / Abbreviation	Term
SCG	Southern California Gas Company
SF ₆	Sulfur Hexafluoride
SIP	State Implementation Plan
SLF	Sacred Lands File
SMARTS	Stormwater Multiple Application and Report Tracking System
SoCalGas	Southern California Gas Company
SRA	State Responsibility Area
SRAs	Source Receptor Areas
STIP	Statewide Transportation Improvement Program
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TACs	Toxic Air Contaminants
TAZ	Traffic Analysis Zone
TCPs	Traditional Cultural Properties
TCRs	Tribal Cultural Resources
TDM	Transportation Demand Management
U.S.	United States
USACE	U.S. Army Corps of Engineers
U.S.C.	United States Code
USDA	United States Department Of Agriculture
USDOT	United States Department of Transportation
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USARW	Upper Santa Ana River Watershed
USGS	United States Geological Survey
UWMP	Urban Water Management Plan
VdB	Vibration Decibels
VHFHSZs	Very High Fire Hazard Severity Zones
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compound
WDRs	Water Discharge Requirements
WQC	Water Quality Certification
WQMP	Water Quality Management Plan
WRP	Water Reclamation Plant
WSA	Water Supply Assessment
WSMP	Water Systems Master Plan
WWTP	Wastewater Treatment Plant
ZEV	Zero-Emission Vehicle



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9.3 UltraSystems Environmental Inc.

9.3.1 Environmental Planning Team

Betsy Lindsay, ENV SP, Project Director
M.A., Urban and Regional Planning, California State Polytechnic University, Pomona, CA
Public Policy and Administration, California State University, Long Beach, CA
Business Administration, Pepperdine University, Irvine, CA
B.A., Geography, California State University, Long Beach, CA
Years of Experience: 35+

Robert Manford, President
DPPD, Policy, Planning, and Development, University of Southern California, Los Angeles, CA,
MPL, Urban and Regional Planning, University of Southern California, Los Angeles, CA
B.A., Geography and Resource Development, University of Ghana, Accra, Ghana
Years of Experience: 30+

Robert Reicher, ENV SP, Senior Project Manager
MBA, Marketing, University of Southern California, Los Angeles, CA
B.S., Marketing, University of California Los Angeles Los Angeles, CA
Years of Experience, 40+
Project Management and QA/QC

Billye Breckenridge, Deputy Project Manager
B.A., Environmental Studies/ Biology Minor, University of Nevada Las Vegas, Nevada
Years of Experience: 27
GIS Data Processing and Mapping

9.3.2 Technical Team

Allison Carver, Senior Biologist



B.S., Biology, California State University, San Bernardino, CA
B.A., Environmental Studies, California State University, San Bernardino, CA
Years of Experience: 20
Biological Resources, Hydrology and Water Quality

Amir Ayati, Staff Scientist
B.S., Earth System Science, University of California, Irvine, CA
Years of Experience: 4
Air Quality, Greenhouse Gas Emissions, Energy, and Noise

Andrew Soto, Word Processor
B.A., Communications, California State University Fullerton, Fullerton, CA
Years of Experience: 5
Word Processing/Technical Editing

Erik Segura, Associate Planner
B.S., Environmental Planning and Policy, California State University Humboldt, Arcata, CA
Years of Experience: 6
Noise, and Water Quality

Isha Shah, Staff Engineer/Scientist
M.S., Environmental and Water Resources Engineering, University of California, Los Angeles, CA
Years of Experience: 5
Air Quality, Greenhouse Gas Emissions, Energy, and Noise

Marissa Kassisieh, Associate Planner
MURP, Master of Urban and Regional Planning, University of California, Irvine, CA
B.A., Urban Studies, University of California, Irvine, CA
Years of Experience: 2
Environmental Research, Introduction, Project Description, Executive Summary, Agriculture and Forestry Resources, Population and Housing, Mineral Resources, Recreation, List of Preparers

Megan Black Doukakis, Assistant Project Archaeologist
M.A., Public Archaeology, California State University, Northridge, CA
B.A., Anthropology, California State University, Long Beach, CA
Years of Experience: 13
Cultural Resources, and Tribal Cultural Resources

Michael Milroy, Project Manager
M.S., Interdisciplinary Studies / Neuroscience, California State University Long Beach, CA
B.S., Biological Sciences, California State University Long Beach, CA
Years of Experience: 15
Aesthetics, Energy, Geology and Soils, Hazardous Materials, Hydrology and Water Quality, Utilities, and Alternatives Analysis



Michael Rogozen, Senior Principal Engineer

D.Env., Environmental Science and Engineering, University of California, Los Angeles, CA

M.S., Systems Engineering, University of California, Los Angeles, CA

B.S., Engineering, University of California, Los Angeles, CA

Years of Experience: 48

Health Risk Assessment, Air Quality, Greenhouse Gas Emissions, Energy, and Noise

Patricia Haigh, Staff Scientist

B.S., Earth Systems Science, University of California, Irvine, CA

B.A., Environmental Science and Policy, University of California, Irvine, CA

Years of Experience: 4

Health Risk Assessment, Air Quality, Greenhouse Gas Emissions, Energy, and Noise

Stephen O'Neil, Cultural Resources Manager

M.A., Anthropology, California State University, Fullerton, CA

B.A., Anthropology, California State University, Long Beach, CA

Registered Professional Archaeologist

Years of Experience: 42

Cultural Resources, and Tribal Cultural Resources

Steven Borjeson, Senior Planner

B.A., Geography, Emphasis in Urban Studies, University of Colorado, Denver, CO

California Environmental Quality Act (CEQA) Studies, University of San Diego, San Diego CA

Years of Experience: 8

Land Use, Transportation, Utilities and Services, Other CEQA Considerations, Environmental Impact Analysis, Public Services and Aesthetics

9.4 Other Firms

Fehr & Peers – Traffic Study

Michael Baker Internation – Water Supply Assessment

Cadre Environmental – Biological Resources Assessment

Dudek – Visual Impacts Study, Drainage Study, WQMP

Twining – Geotechnical Investigation Report



10.0 CONSULTATION AND COORDINATION

This section provides a list of federal, state, and local agencies and organizations contacted during preparation of the PEIR.

Agency	Contact Person	Address
Federal Agencies		
U.S. Fish & Wildlife Services Carlsbad Field Office	N/A	2177 Salk Avenue, Suite 250, Carlsbad, CA 92008
U.S. Army Corps of Engineers	N/A	915 Wilshire Boulevard, Suite 930, Los Angeles, CA 90017
State Agencies		
N/A		
Regional Agencies		
San Bernardino Valley Municipal Water District	N/A	380 East Vanderbilt Way, San Bernardino, CA 92408
South Coast Air Quality Management District, Planning and Environmental Review	N/A	21865 Copley Drive, Diamond Bar, CA 91765
OmniTrans	Anna Jaiswal, Development Planning Manager	1700 West Fifth Street, San Bernardino, CA 92411
Santa Ana Regional Water Quality Control Board (Region 8)	N/A	3737 Main Street, Suite 500, Riverside, CA 92501
Southern California Association of Governments (SCAG) Regional Office	Arnold San Miguel	1170 West 3 rd Street, Suite 140, San Bernardino CA 92410
Local Agencies		
San Bernardino County		
San Bernardino County Clerk of the Board of Supervisors	N/A	385 North Arrowhead Avenue, San Bernardino, CA 92401
San Bernardino County Land Use Services Department	K. Watkins, Planning Manager	385 North Arrowhead Avenue, 1 st Floor, San Bernardino, CA 92415
County of San Bernardino Public Works Department – Traffic Division	N/A	825 East 3 rd Street, Room 115
San Bernardino County Flood Control District	N/A	825 East 3 rd Street, Room 115
San Bernardino County Transportation Authority	Steve Smith, Planning Director	1170 West 3 rd Street, 2 nd Floor, San Bernardino, CA 92410
San Bernardino Valley Water Conservation District	N/A	1630 West Redlands Boulevard, Suite A, Redlands, CA 92373
Riverside County Planning Department	N/A	P.O. Box 1409, Riverside, CA 92502
Redlands Unified School District		
RUSD – Facilities Planning Department	K. Morse, Facilities Planning	20 West Lugonia Avenue, Redlands, CA 92373
City of Redlands		
Redlands Airport Association	N/A	1745 Sessums Drive, Suite 1, Redlands, CA 92374
Redlands Chamber of Commerce	Evan Sanford, President	47 North 1 st , Redlands, CA 92373



❖ SECTION 10.0 – CONSULTATION AND COORDINATION ❖

Agency	Contact Person	Address
City of Calimesa		
City of Calimesa Community Development Department	Kelly Lucia, Planning Manager	908 Park Avenue, Calimesa, CA 92373
City of San Bernardino		
City of San Bernardino Community and Economic Development Department	N/A	290 North D Street, San Bernardino, CA 92401
City of Yucaipa		
City of Yucaipa Community Development Department	Fermin Preciado, Director	34272 Yucalpa Boulevard, Yucalpa CA 92399
City of Highland		
City of Highland Community Development Department	N/A	27215 Baseline Avenue, Highland, CA 92346
City of Loma Linda		
City of Loma Linda Community Development Department	N/A	25541 Barton Road, Loma Linda, CA 92354
Utility Companies		
Southern California Edison Service Planning Department	N/A	287 Tennessee Street, Redlands, CA 92373
Southern California Gas Company Planning Department	N/A	155 South G Street, San Bernardino, CA 92410
Western Heights Water Company	N/A	32352 Avenue D, Yucaipa, CA 92399
Native American Tribal Organizations		
Agua Caliente Band of Cahuilla	Patricia Garcia-Plotkin, THPO and Jeff Grubbe, Chairperson	5401 Dinah Shore Drive, Palm Springs CA 92264
Gabrieleno Band of Mission Indians – Kizh Nation	Andrew Salas, Chairman	P.O Box 393, Covina CA, 91723
Morongo Band of Mission Indians	Ann Brierty, THPO and Charles Martin, Chairperson, and Robert Martin, Chairman	12700 Pumarra Road, Banning, CA 92220
Soboba Band of Luiseno Indians	Joseph Ontiveros, THPO and Isaiah Vivanco, Chairperson	P.O Box 487, San Jacinto, CA 95281
Torres Martinez Desert Cahuilla Indians	Michael Mirelez, Cultural Resources Coordinator and Thomas Torez Jr., Chairperson	P.O. Box 1160, Thermal CA 92274
Yuhaaviatam of San Manuel Nation	Alexandra McCleary, Ph.D	26569 Community Center Drive, Highland CA 92346
San Manuel Band of Mission Indians Resources Management Department	Jessica Mauck, Cultural	26569 Community Center, Highland, CA 92346

N/A: Not Available or Not Applicable



11.0 MITIGATION MONITORING AND REPORTING PROGRAM

Section 21081.6 of the *Public Resources Code* requires all state and local agencies to establish monitoring or reporting programs whenever approval of a project relies upon a mitigated negative declaration or an environmental impact report (EIR). The monitoring or reporting program must ensure implementation of the measures being imposed to mitigate or avoid the significant adverse environmental impacts identified in the mitigated negative declaration or EIR.

The mitigation measures will be implemented by the project applicant, the City of Redlands or other agencies at different times during the implementation of the project. Some mitigation will require implementation prior to the issuance of any building permits, while others will be implemented during construction, and others throughout all the phases. The following table lists the potentially significant environmental impacts, the mitigation measures, the level of significance after mitigation, the responsible parties and monitoring parties, and the phase in which mitigation is to be implemented.

The environmental areas requiring mitigation are:

- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils/Paleontological Resources
- Greenhouse Gas Emissions
- Transportation
- Tribal and Cultural Resources

Those environmental topics for which there would be less than significant impacts without mitigation are discussed in their respective sections in this document but are not included in the table below because no mitigation is warranted. Those environmental topics include:

- Aesthetics
- Energy
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Noise
- Public Services
- Utilities and Service Systems



❖ SECTION 11.0 – MITIGATION MONITORING AND REPORTING PROGRAM ❖

Table 11.0-1
MITIGATION MONITORING AND REPORTING PROGRAM

Issue Area	Mitigation Measures (MMs)	Level of Significance After Mitigation	Responsible Party/ Monitoring Party	Implementation Stage
4.2 Air Quality				
Threshold A: Would the project 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?	MM AQ-1 Replace Gas Powered Landscape Equipment with Zero-Emission Landscape Equipment (listed at A-1 in the aforementioned CAPCOA Handbook, and LL-1 in CalEEMod).	Less than Significant	Project Applicant/City of Redlands	During Project Operation
	MM AQ-2 Provide Electric Vehicle Charging Infrastructure (listed as T-14 in CalEEMod).	Less than Significant	Project Applicant/City of Redlands	Include in Building Plans; and During Project Construction
	MM TRANS-3 Provide End-of-Trip Bicycle Facilities including bike parking, bike lockers, showers, and personal lockers. The provision and maintenance of secure bike parking and related facilities encourages commuting by bicycle, thereby reducing VMT and GHG emissions.	Less than Significant	Project Applicant/City of Redlands	Include in Building Plans; and During Project Construction
	MM TRANS-4 Provide Employer-Sponsored Vanpool. Vanpooling is a flexible form of public transportation that provides groups of 5 to 15 people with a cost-effective and convenient rideshare option for commuting.	Less than Significant	Project Applicant/City of Redlands	During Project Operation
4.3 Biological Resources				



❖ SECTION 11.0 – MITIGATION MONITORING AND REPORTING PROGRAM ❖

Issue Area	Mitigation Measures (MMs)	Level of Significance After Mitigation	Responsible Party/ Monitoring Party	Implementation Stage
Threshold A: Would the Project 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?	MM BIO-1: Crotch's Bumble Bee Surveys To ensure the proposed project does not result in direct or indirect impacts to the Crotch's bumble bee, focused presence/absence surveys shall be conducted based on the CDFW Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species Guidelines (June 6th, 2023), (CDFW, 2023). Focused surveys shall be started during the colony active period and when floral resources are present for the species by a qualified entomologist. Specifically, three surveys shall be conducted with at least two weeks between surveys from April to June. All regions within the project site where suitable floral resources are present shall be surveyed by walking meandering transects at least one hour after sunrise and/or at least two hours before sunset (ideally between 9am and 1pm) on warm sunny days with winds below eight miles per hour. Focused surveys shall be conducted for a minimum of one person-hour of searching per three acres of suitable habitat. Bumble bees shall be captured with a net from blooms, avoiding destruction of the flower when possible. Each bee shall be carefully transferred into a sterile vial and moved to a cooler with only one bee per vial to avoid disease spread. The bee shall be kept in the vial for no more than 10 minutes in ambient temperature before being placed in a cooler as they have a tendency to over-heat (the amount of time will be decreased on hotter days). The vial shall be placed in a cooler at a temperature above 25 degrees Fahrenheit, as lower temperatures could freeze and kill the bee. The results of the focused surveys shall be summarized in a letter report including graphics and recommendations. At a minimum, the survey letter report shall provide the following:	Less than Significant	Qualified biologist/Applicant/City of Redlands	Before beginning of ground disturbance; three surveys shall be conducted with at least two weeks between surveys from April to June.



❖ SECTION 11.0 – MITIGATION MONITORING AND REPORTING PROGRAM ❖

Issue Area	Mitigation Measures (MMs)	Level of Significance After Mitigation	Responsible Party/ Monitoring Party	Implementation Stage
	1. A description and map of the survey area, focusing on areas that could provide suitable habitat for Crotch's bumble bee. 2. Field survey conditions that shall include name(s) of qualified entomologist(s) and brief qualifications; date and time of survey; survey duration; general weather conditions; survey goals, and species searched. 3. Map(s) showing the location of nests/colonies; and, 4. A description of physical (e.g., soil, moisture, slope) and biological (e.g., plant composition) conditions where each nest/colony is found. A sufficient description of biological conditions, primarily impacted habitat, shall include native plant composition (e.g., density, cover, and abundance) within impacted habitat (e.g., species list separated by vegetation class; density, cover, and abundance of each species). If the species is detected onsite, the CDFW shall be contacted to determine appropriate conservation measures to prevent direct/indirect impacts to the species, or acquisition of an Incidental Take Permit (ITP). To initiate the ITP process, the applicant or representative shall contact the appropriate CDFW Regional Office and submit a completed ITP application.			
	MM BIO-2: Focused and Preconstruction Burrowing Owl Surveys To ensure the proposed project does not result in direct or indirect impacts to the burrowing owl, focused surveys shall be conducted in accordance with the March 7, 2012, Staff Report on Burrowing Owl Mitigation (CDFG, 2012) which	Less than Significant	Qualified biologist/Applicant/City of Redlands	A total of four surveys shall be conducted by a qualified avian biologist during the breeding season: 1) at least one site visit



❖ SECTION 11.0 – MITIGATION MONITORING AND REPORTING PROGRAM ❖

Issue Area	Mitigation Measures (MMs)	Level of Significance After Mitigation	Responsible Party/ Monitoring Party	Implementation Stage
	recommends both a breeding and non-breeding season survey. Specifically, a total of four surveys shall be conducted by a qualified avian biologist during the breeding season: 1) at least one site visit between February 15 and April 15, and 2) a minimum of three surveys, at least three weeks apart, between April 15 and July 15, with at least one visit after June 15. Non-breeding season surveys shall include four surveys spread out evenly from July 15 to February 15. A report of the findings prepared by a qualified biologist shall be submitted to the City of Redlands prior to any permit or approval for ground disturbing activities. Regardless of the findings of the focused surveys, a burrowing owl preconstruction survey shall be conducted no less than 14 days prior to the initiation of ground-disturbing activities to ensure protection for this species including a survey conducted with 24 hours of start of work. The preconstruction surveys shall be conducted in compliance with CDFW guidelines (CDFG, 2012). A report of the findings prepared by a qualified biologist shall be submitted to the City of Redlands prior to any permit or approval for ground disturbing activities. If burrowing owls are not detected onsite, the proposed project may proceed. However, if project initiation is delayed more than 14 days, updated preconstruction surveys may be required. If burrowing owls are detected onsite during the focused or preconstruction surveys, a burrowing owl monitoring and/or relocation plan shall be developed and approved by the City of Redlands, CDFW and USFWS prior to any permit or approval for ground disturbing activities. At a minimum, the plan shall include the following: 1. Burrowing owl status, distribution and habitat utilization within and adjacent to the project site.			between February 15 and April 15, and 2) a minimum of three surveys, at least three weeks apart, between April 15 and July 15, with at least one visit after June 15. Non-breeding season surveys shall include four surveys spread out evenly from July 15 to February 15. Regardless of the findings of the focused surveys, a burrowing owl preconstruction survey shall be conducted no less than 14 days prior to the initiation of ground-disturbing activities to ensure protection for this species including a survey conducted with 24 hours of start of work.



❖ SECTION 11.0 – MITIGATION MONITORING AND REPORTING PROGRAM ❖

Issue Area	Mitigation Measures (MMs)	Level of Significance After Mitigation	Responsible Party/ Monitoring Party	Implementation Stage
	2. Conservation objectives and goals developed in cooperation with CDFW and USFWS. 3. Results of burrowing owl monitoring activities. a. 350-foot minimum protective (no work) zone shall be designated around each of the occupied burrow sites and delineated by orange silt fencing. The installation of the fencing shall be monitored by a qualified biologist to ensure owls are not directly or indirectly impacted as a result of fence installation. The monitoring biologist will also be responsible for directing where the fencing shall be installed. b. A qualified monitoring biologist shall monitor the owls weekly during the non-breeding season to determine if the 350-foot protective zone is adequate for their protection. The weekly monitoring events will also provide critical information regarding the status of the species onsite for purposes of developing a relocation plan. c. A qualified monitoring biologist shall conduct an initial environmental briefing with any contractors which will be working onsite. The briefing shall include a discussion of burrowing owl natural history, identification of burrowing owl non-breeding season protection zones, and summary of penalties for directly and/or indirectly impacting the species. d. A qualified monitoring biologist shall be authorized to stop all work activities in the event potential direct and/or indirect impacts to burrowing owl may occur as a result of			



❖ SECTION 11.0 – MITIGATION MONITORING AND REPORTING PROGRAM ❖

Issue Area	Mitigation Measures (MMs)	Level of Significance After Mitigation	Responsible Party/ Monitoring Party	Implementation Stage
	proposed staging activities. e. Monthly updates on the monitoring efforts including recommendations, as warranted, shall be submitted to the City of Redlands, CDFW and USFWS. 4. Passive and/or active relocation activities. 5. Burrowing owl management activities for active relocation sites. Based on the candidacy or listing status of the species at the time of surveys, if detected, acquisition of an Incidental Take Permit may also be required.			
	MM BIO-3: Pre-Construction Breeding Bird Survey To maintain compliance with the MBTA and California Fish and Game Code §§ 3503, 3503.5, and 3513, and to avoid impacts or take of migratory non-game breeding birds and other native birds, their nests, young, and eggs, the following measures shall be implemented. Site preparation activities (ground disturbance, construction activities, staging equipment, and/or removal of trees and vegetation) for the project shall be avoided, to the greatest extent possible, during the nesting season of potentially occurring native and migratory bird species (generally September 15 to February 15 for songbirds; September 1 to January 14 for raptors, although the nesting season may be extended due to weather and drought conditions). If site preparation activities are proposed during the nesting/breeding season, the project proponent shall retain a qualified avian biologist to conduct a pre-activity field survey prior to the issuance of grading permits for the project to determine if active nests of species protected by	Less than Significant	Qualified biologist/Applicant/City of Redlands	Prior to the issuance of grading permits for the project. Pre-activity field surveys shall be conducted at the appropriate time of day/night, during appropriate weather conditions, no more than three days prior to the initiation of project activities.



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Issue Area	Mitigation Measures (MMs)	Level of Significance After Mitigation	Responsible Party/ Monitoring Party	Implementation Stage
	the MBTA or the California Fish and Game Codes are present in the construction zone. The nest surveys shall include the project site where project activities have the potential to cause nest failure. The survey results shall be provided to the City of Redlands for review and approval. The project applicant shall adhere to the following: 1. The project applicant shall retain a qualified biologist experienced in: identifying local and migratory bird species of special concern; conducting bird surveys using appropriate survey methodology; nesting surveying techniques, recognizing breeding and nesting behaviors, locating nests and breeding territories, and identifying nesting stages and nest success; determining/establishing appropriate avoidance and minimization measures; and monitoring the efficacy of implemented avoidance and minimization measures. 2. Pre-activity field surveys shall be conducted at the appropriate time of day/night, during appropriate weather conditions, no more than three days prior to the initiation of project activities. Surveys shall encompass all suitable areas including trees, shrubs, bare ground, burrows, cavities, and structures. Survey duration shall take into consideration the size of the property; density, and complexity of the habitat; number of survey participants; survey techniques employed; and shall be sufficient to ensure the data collected is complete and accurate. If no nesting birds are observed during the survey, site preparation and construction activities may begin. However, if active nests (including nesting raptors) are located, then avoidance or minimization measures shall be undertaken in consultation with the City of Redlands, CDFW and USFW, as warranted. Measures shall include immediate establishment			



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Issue Area	Mitigation Measures (MMs)	Level of Significance After Mitigation	Responsible Party/ Monitoring Party	Implementation Stage
	of an appropriate buffer zone to be established by a qualified biologist based on their best professional judgement and experience. The buffer around the nest shall be delineated and flagged, and no construction activity shall occur within the buffer area until a qualified biologist determines nesting species have fledged and the nest is no longer active, or the nest has failed. The biologist shall monitor the nest at the onset of project activities and at the onset of any changes in such project activities (e.g., increase in number or type of equipment, change in equipment usage, etc.) to determine the efficacy of the buffer. If the biologist determines that such project activities may be causing an adverse reaction, the biologist shall adjust the buffer accordingly or implement alternative avoidance and minimization measures, such as redirecting or rescheduling construction or erecting sound barriers. All work within these buffers will be halted until the nesting effort is finished (i.e., the juveniles are surviving independent from the nest). The onsite biologist shall review and verify compliance with these nesting avoidance buffers and shall verify the nesting effort has finished. Work can resume within these avoidance areas when no other active nests are found. Birds or their active nests will not be disturbed, captured, handled or moved. Active nests cannot be removed or disturbed; however, nests can be removed or disturbed if determined inactive by a qualified biologist. If listed bird species are observed within a project site during the preconstruction survey, the biologist will immediately map the area and notify the appropriate resource agency to determine suitable protection measures and/or mitigation measures and to determine if additional mitigation is necessary. Project activities may begin within the area only when concurrence is received from the appropriate resource			



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Issue Area	Mitigation Measures (MMs)	Level of Significance After Mitigation	Responsible Party/ Monitoring Party	Implementation Stage
	agency. Upon completion of the survey and nesting bird monitoring, a report shall be prepared and submitted to City of Redlands for review and approval prior to initiation of construction activities.			
	MM BIO-4: Preconstruction Bat Survey Prior to implementation of project activities, a qualified bat biologist shall be retained to determine whether potential roosting sites for yellow bats may be affected. For large ornamental trees and palms suitable for bat roosting/nursery, exit counts and acoustic surveys shall be performed prior to initial ground disturbance, vegetation or structure removal to determine whether the project site and a 300-foot buffer supports a nursery or roost. This work will occur between late -spring and late summer and/or in the fall (generally mid-March through late October). If the results of the bat survey find a total of a single roosting individual of a special status bat species or 25 or more individuals of a non-special status bat species with potential to be present in the project site, a Bat Management Plan shall be developed by a qualified bat biologist to ensure mortality to bats does not occur. For each location confirmed to be occupied by bats, the Bat Management Plan must provide details both in text and graphically where exclusion devices/and or staged tree/palm removal will need to occur, the timing for exclusion work and the timeline and methodology needed to exclude the bats. The plan will need to be reviewed and approved by the City of Redlands and CDFW prior to disturbance of the roosts. The Bat Management Plan shall include:	Less than Significant	Qualified biologist/Applicant/City of Redlands	Prior to implementation of project activities



❖ SECTION 11.0 – MITIGATION MONITORING AND REPORTING PROGRAM ❖

Issue Area	Mitigation Measures (MMs)	Level of Significance After Mitigation	Responsible Party/ Monitoring Party	Implementation Stage
	1. Bat status, distribution and habitat information within and adjacent to the project site. 2. Results of the bat surveys. 3. Project-specific measures for noise attenuation devices, acoustic and visual monitoring during high-vibration and sound activities (such as saw cutting, jackhammering, and pile driving), visual disturbance buffers, and the installation of bat exclusion devices to safely and humanely evict bats outside of the maternity season, in the event they are needed. 4. Exclusion methods may include use of one-way doors at roost entrances (bats may leave, but not re enter), or sealing roost entrances when the site can be confirmed to contain no bats. Exclusion efforts may be restricted during periods of sensitive activity (e.g., during hibernation or while females in maternity colonies are nursing young). 5. If roosts cannot be avoided or it is determined that construction activities may cause roost abandonment, such activities may not commence until permanent, elevated bat houses have been installed outside of, but near the construction area. Placement and height will be determined by a qualified wildlife biologist, but the height of bat house will be at least 15 feet. Bat houses will be multi-chambered and be purchased or constructed in accordance with CDFW standards. The number of bat houses required will be dependent upon the size and number of colonies found, but at least one bat house will be installed for each pair of bats (if			



❖ SECTION 11.0 – MITIGATION MONITORING AND REPORTING PROGRAM ❖

Issue Area	Mitigation Measures (MMs)	Level of Significance After Mitigation	Responsible Party/ Monitoring Party	Implementation Stage
	occurring individually), or of sufficient number to accommodate each colony of bats to be relocated. 6. Consultation with the California Department of Fish and Wildlife would occur to finalize preparation of the Bat Management Plan for inclusion in other permits that are required from the CDFW, such as a Lake or Streambed Alteration Agreement (LSAA) under Section 1600-1616 of the Fish and Game Code. Each LSAA usually contains a section titled Measures to Protect Fish and Wildlife Resources, for which this plan would be incorporated. 7. A description of incidental monitoring and reporting that will take place during construction. 8. Details for post-construction monitoring. 9. Note that the Bat Management Plan is triggered only if the project requires high-vibration and sound activities causing shaking or vibration, generally resulting from saw cutting, jackhammering, pile driving, or similar activities (within 150 feet of a bat colony).			
	MM BIO-5: Jurisdictional Delineation and Permitting Prior to approval of grading permits and initiation of project activities, a qualified biologist shall conduct a formal jurisdictional delineation on the project site to determine the presence/absence of jurisdictional resources, extent of jurisdictional areas, and impacts to resources regulated by the USACE, RWQCB, and CDFW. The delineation shall be conducted using the current USACE methods and definition of “waters of the U.S.” (most current as of this writing is March 2025 notice and data sheets) and the methods and wetland definitions specified in the <i>California State Wetland Definition and Procedures for Discharges of Dredged or Fill</i>	Less than Significant	Qualified biologist/Applicant/City of Redlands	Prior to approval of grading permits and initiation of project activities



❖ SECTION 11.0 – MITIGATION MONITORING AND REPORTING PROGRAM ❖

Issue Area	Mitigation Measures (MMs)	Level of Significance After Mitigation	Responsible Party/ Monitoring Party	Implementation Stage
	<i>Material to Waters of the State</i> (Procedures) (SWRCB, 2019) to delineate waters of the state. Upon completion of the jurisdictional delineation survey, a jurisdictional delineation report shall be prepared according to the <i>Minimum Standards for Acceptance of Aquatic Resources Delineation Reports for the USACE, Los Angeles Regulatory District</i> (USACE-LA, 2017). This report shall be submitted to City of Redlands for review and approval. If jurisdictional areas are present on the project site, the project applicant shall obtain a Clean Water Act Section 404 permit, California Fish and Game Code Section 1602 Lake or Streambed Alteration Agreement from CDFW and a CWA 401 or WDR permit issued by the RWQCB (Santa Ana RWQCB-Region 8) pursuant to the California Water Code § 13260, as warranted. If required, these permits shall be obtained prior to issuance of a grading permit. Construction activities (including but not limited to fencing, staging, and clearing) will not commence unless all requirements of the USACE, CDFW, RWQCB have been met and the RWQCB has issued a WDR permit, letter of permission, or other project-specific approval. All conditions of these permits shall be adhered to during project development.			
4.4 Cultural Resources				
Threshold A: Would the Project cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?	MM CUL-1 The project applicant shall retain an archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards for Archaeology to conduct monitoring of subsurface ground disturbance during construction activities. The archaeologist shall also take the opportunity to re-survey the parcel's ground surface as the vegetation is cleared for construction work. If unanticipated	Less than Significant	Qualified archaeologist; project applicant; and City of Redlands	Before beginning of ground-disturbing work; and during site clearance



❖ SECTION 11.0 – MITIGATION MONITORING AND REPORTING PROGRAM ❖

Issue Area	Mitigation Measures (MMs)	Level of Significance After Mitigation	Responsible Party/ Monitoring Party	Implementation Stage
And Threshold B: Would the Project cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	cultural resource discoveries are made the archaeologist will be afforded the necessary time to recover, analyze, and curate the find(s). The qualified archaeologist will recommend the extent of archaeological monitoring necessary to ensure the protection of any other resources that may be in the area. Any identified cultural resources shall be recorded on the appropriate DPR 523 (A-L) form and filed with the Eastern Information Center.			
	MM CUL-2 If historical or unique archaeological resources are discovered during construction activities, the contractor shall halt construction activities in a 50-foot radius and notify the project proponent and the City of Redlands. A Secretary of the Interior qualified archaeologist (Principal Archaeologist) shall be notified and afforded the necessary time to recover, analyze, and curate the find(s). The Principal Archaeologist shall recommend the extent of archaeological monitoring necessary to ensure the protection of any other resources that may be in the area. Construction activities may continue on other parts of the project site while evaluation and treatment of historical or unique archaeological resources takes place. The Principal Archaeologist, depending on the type and extent of the finds, may prepare an Archaeological Resources Treatment Plan (ARTP) to guide future monitoring, the recovery of cultural resources, analysis and reporting of the finds, and curation of the finds. The ARTP shall be submitted to the City and the project proponent for approval. The ARTP shall include the following: 1. Results of the Cultural Resources Inventory: archaeological resources and their condition and threats on the project site.	Less than Significant	Qualified archaeologist; project applicant; and City of Redlands	During construction activities



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Issue Area	Mitigation Measures (MMs)	Level of Significance After Mitigation	Responsible Party/ Monitoring Party	Implementation Stage
	2. Impact assessment. 3. Mitigation strategies, which may include: a. Potential avoidance measures. b. Data recovery steps such as excavation and analysis of an archaeological site to collect information before it is destroyed. c. Conservation measures such as cleaning, conserving, studying, cataloging, and storing recovered archaeological materials and associated records. 4. Procedures for archaeological monitoring during construction to record exposed resources. 5. Protocols for unanticipated discoveries: what construction workers should do if they find cultural resources unexpectedly, including ceasing work and contacting a qualified archaeologist. 6. Consultation with relevant groups, such as Native American tribes, historians, and regulatory agencies, to determine the value of resources and appropriate treatment measures. 7. Documenting and reporting format and procedures.			



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Issue Area	Mitigation Measures (MMs)	Level of Significance After Mitigation	Responsible Party/ Monitoring Party	Implementation Stage
Threshold C: Would the Project disturb human remains, including those interred outside of dedicated cemeteries?	MM CUL-3 If human remains are encountered during excavations associated with this project, all work shall stop within a 30-foot radius of the discovery, and the San Bernardino County Coroner will be notified (§ 5097.98 of the Public Resources Code). The Coroner will determine whether the remains are recent human origin or older Native American ancestry. If the coroner, with the aid of the supervising archaeologist, determines that the remains are prehistoric, they will contact the Native American Heritage Commission (NAHC). The NAHC will be responsible for designating the Most Likely Descendant (MLD). The MLDS (either an individual or sometimes a committee) will be responsible for the ultimate disposition of the remains, as required by § 7050.5 of the California Health and Safety Code. The MLD will make recommendations within 24 hours of their notification by the NAHC. These recommendations may include scientific removal and nondestructive analysis of human remains and items associated with Native American burials (§ 7050.5 of the Health and Safety Code).	Less than Significant	Qualified archaeologist; project applicant; and City of Redlands	During excavations associated with this project
4.5 Geology and Soils				
	MM-GEO-1 A qualified paleontologist, approved by the City of Redlands and the Western Science Center, must be retained prior to excavation and grading activities at the project site. 4. Prior to the earth-moving activities, the paleontologist shall develop a site-specific Paleontological Resources Impact Mitigation Program (PRIMP) to be implemented in support of	Less than Significant	Qualified paleontologist/project applicant; City of Redlands	Prior to excavation and grading activities at the project site; and during excavation and grading activities



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Issue Area	Mitigation Measures (MMs)	Level of Significance After Mitigation	Responsible Party/ Monitoring Party	Implementation Stage
	the Project in order to mitigate potential adverse impacts to paleontological resources. The PRIMP shall follow guidelines developed by the Society for Vertebrate Paleontology and include monitoring of ground disturbance activities in sediments that are likely to include paleontological resources, specimen recovery, and screen washing; preparation of any collected specimens to the point of identification; curation of any collected specimens to a museum repository with permanent, retrievable storage; and preparation of a final paleontological survey report that would provide details of monitoring, fossil identification, and repository arrangements. The Project Applicant shall then comply with the recommendations of the Project Paleontologist and requirements of the PRIMP. At a minimum, the PRIMP shall include the following: 1. Project and location 2. Regulatory setting 3. Geology of the site 4. Paleontological resources and survey results 5. Paleontological sensitivity of the site 6. Paleontological resources mitigation and monitoring measures such as: a. Coordination with construction personnel and training b. Details of training and materials c. Frequency and location of inspections			



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Issue Area	Mitigation Measures (MMs)	Level of Significance After Mitigation	Responsible Party/ Monitoring Party	Implementation Stage
	d. When and how grading/excavation activities will be diverted e. Procedures of fossil recovery, removal, treatment, transport, and deposition facility f. Recording, documentation, and reporting procedures 5. Before the mitigation program begins, the paleontologist or monitor must coordinate with the appropriate construction contractor personnel to provide information regarding the requirements of the City or Redlands, as applicable, for the protection of paleontological resources. Contractor personnel shall be briefed on the procedures to follow in the event that fossil remains, and a previously unrecorded fossil site are encountered by earth-moving activities, particularly when the monitor is not on site. 6. The qualified paleontologist shall perform periodic inspections of excavation and grading activities at the project site to determine the presence of fossiliferous soils. The frequency and location of inspections shall be specified in the PRIMP and will depend on the depth of excavation and grading activities and the materials being excavated. If paleontological materials are encountered, the paleontologist must temporarily divert or redirect the grading and excavation activities in the area of the exposed material to facilitate evaluation and, if necessary, salvage. The authority of the paleontologist to temporarily halt construction in part of the project site must be included in the			



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Issue Area	Mitigation Measures (MMs)	Level of Significance After Mitigation	Responsible Party/ Monitoring Party	Implementation Stage
	project grading and construction plans. A copy of the report of the paleontological survey is submitted to the Western Science Center. Any fossils recovered during mitigation shall be deposited in an accredited and permanent scientific institution for the benefit of current and future generations.			
4.7 Greenhouse Gas Emissions				
Threshold A: Would the Project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	MM GHG-1 Using alternative fuels for construction equipment (0 to 22 percent). MM GHG-2 Using electric or hybrid construction equipment (2.5 to 80 percent of GHG emissions from equipment that is electric or hybrid if used 100 percent of the time). MM GHG-3 Limiting construction equipment idling beyond regulation requirements (varies with the amount of project idling occurring and the amount reduced). MM GHG-4 Instituting a heavy-duty offroad vehicle plan (range of effectiveness is not applicable because it only ensures compliances with other mitigation measures). At a minimum, the heavy-duty offroad vehicle plan shall include the following: 6. Fleet reporting and labeling: diesel-fueled vehicles operating in California, with engines 25 horsepower or greater, must be reported to CARB through the online DOORS system and labeled appropriately.	Significant and Unavoidable	Project applicant and project construction contractor	Include in project building plans; and during project construction



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Issue Area	Mitigation Measures (MMs)	Level of Significance After Mitigation	Responsible Party/ Monitoring Party	Implementation Stage
	7. Emission reduction strategies: how you will meet emission reduction requirements by: a. Retiring/Replacing Vehicles: Phase out older, dirtier engines by replacing them with new, cleaner ones or equipment that meets the latest emission standards. b. Engine repowering: plan/schedule to replace older off-road diesel engines with newer, cleaner ones. c. Verified Diesel Emission Control Strategies (VDECS): Install verified diesel emission control strategies (e.g., exhaust retrofits) on existing engines. 8. Fuel acquisition: fleets must begin (2024) using renewable diesel (R99 or R100). 9. Idling restrictions: limit idling to five minutes and apply a written idling policy. 10. Fleet average goals: fleet average emission level standards/balancing emissions from vehicles. MM GHG-5 Implementing a construction vehicle inventory tracking system (range of effectiveness does not reduce GHG emissions in and of itself; it only ensures compliance with other mitigation measures).			
4.12 Transportation				
Threshold B: Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	MM TRANS-1 Prior to issuance of a certificate of occupancy for each phase of the project, the project proponent will implement a commute trip reduction program consisting of information sharing and marketing to promote and educate employees about their travel choices to the project site beyond driving such as carpooling, taking transit, walking,	Significant and Unavoidable	Project applicant/City of Redlands	Prior to issuance of a certificate of occupancy for each phase of the project



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	and biking, thereby reducing VMT and GHG emissions.			
	MM TRANS-2 Prior to issuance of a certificate of occupancy for each phase of the project, the project proponent will implement a ridesharing program for employees with similar commutes with funding requirements for employers. Ridesharing encourages carpooled vehicle trips in place of single-occupied vehicle trips, thereby reducing the number of trips, VMT, and GHG emissions. Existing programs including IE Commuter can be leveraged for this measure.	Significant and Unavoidable	Project applicant/City of Redlands	Prior to issuance of a certificate of occupancy for each phase of the project
	MM TRANS-3 Prior to issuance of a certificate of occupancy for each phase of the project, the project proponent will install and maintain end-of-trip facilities for employee use. End-of-trip facilities include bike parking, bike lockers, showers, and personal lockers. The provision and maintenance of secure bike parking and related facilities encourages commuting by bicycle, thereby reducing VMT and GHG emissions.	Significant and Unavoidable	Project applicant/City of Redlands	Prior to issuance of a certificate of occupancy for each phase of the project
	MM TRANS-4 Prior to issuance of a certificate of occupancy for each phase of the project, the project proponent will implement an employer-sponsored vanpool service. Vanpooling is a flexible form of public transportation that provides groups of 5 to 15 people with a cost-effective and convenient rideshare option for commuting. The mode shift from long-distance, single-occupied vehicles to shared vehicles reduces overall commute VMT, thereby reducing GHG emissions. It was assumed that up to 2% of employees would participate in the vanpool program.	Significant and Unavoidable	Project applicant/City of Redlands	Prior to issuance of a certificate of occupancy for each phase of the project



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Issue Area	Mitigation Measures (MMs)	Level of Significance After Mitigation	Responsible Party/ Monitoring Party	Implementation Stage
4.13 Tribal Cultural Resources				
Threshold A: Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as	MM-TCR-1: Retain a Native American Monitor Prior to Commencement of Ground-Disturbing Activities A. The project applicant shall retain a Native American Monitor(s) from one or more Consulting Tribe(s). Monitors from more than one tribe may coordinate and utilize a rotating schedule at their discretion.. The monitor(s) shall be retained prior to the commencement of any “ground-disturbing activity” for the subject project at all project locations (i.e., both on-site and any off-site locations that are included in the project description/definition and/or required in connection with the project, such as public improvement work). “Ground-disturbing activity” shall include, but is not limited to, demolition, pavement removal, potholing, auguring, grubbing, tree removal, boring, grading, excavation, drilling, and trenching. B. A copy of the executed monitoring agreement with each monitoring Consulting Tribe(s) shall be submitted to the lead agency prior to the earlier of the commencement of any ground-disturbing activity, or the issuance of any permit necessary to commence a ground-disturbing activity. C. The monitor(s) will complete daily monitoring logs that will provide descriptions of the relevant ground-disturbing activities, the type of construction activities performed, locations of ground-disturbing activities, soil types, cultural-related materials, and	Less than Significant	Native American Monitor/Project Applicant/City of Redlands	Prior to Commencement of Ground-Disturbing Activities; and during ground-disturbing activities



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Issue Area	Mitigation Measures (MMs)	Level of Significance After Mitigation	Responsible Party/ Monitoring Party	Implementation Stage
defined in Public Resources Code § 5020.1(k); or A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resource Code § 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.	any other facts, conditions, materials, or discoveries of significance to the Tribe. Monitor logs will identify and describe any discovered TCRs, including but not limited to, Native American cultural and historical artifacts, remains, places of significance, etc., (collectively, tribal cultural resources, or “TCR”), as well as any discovered Native American (ancestral) human remains and burial goods. Copies of monitor logs will be provided to the project applicant/lead agency upon written request to the Tribe. On-site tribal monitoring shall conclude upon the latter of the following (1) written confirmation to the Consulting Tribe(s) from a designated point of contact for the project applicant that all ground-disturbing activities and phases that may involve ground-disturbing activities on the project site or in connection with the project are complete; or (2) a determination and written notification by the Consulting Tribe(s) to the project applicant and lead agency that no future, planned construction activity and/or development/construction phase at the project site possesses the potential to impact TCRs.			
	MM-TCR-2: Unanticipated Discovery of Tribal Cultural Resource Objects (Non-Funerary/Non-Ceremonial) A. Upon discovery of any TCRs, all construction activities in the immediate vicinity of the discovery shall cease (i.e. not less than the surrounding 50 feet) and shall not resume until the discovered TCR has been fully assessed by the Consulting Tribe(s)’ monitor(s) and/or archaeologist(s)..	Less than Significant	Native American Monitor/Project Applicant/City of Redlands	Prior to Commencement of Ground-Disturbing Activities; and during ground-disturbing activities
	MM-TCR-3: Unanticipated Discovery of Human Remains and	Less than	Native American Monitor/Project	Prior to Commencement of



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	Associated Funerary or Ceremonial Objects A. Native American human remains are defined in PRC 5097.98 (d)(1) as an inhumation or cremation, and in any state of decomposition or skeletal completeness. Funerary objects, called associated grave goods in Public Resources Code Section 5097.98, are also to be treated according to this statute. B. If Native American human remains and/or grave goods are discovered or recognized on the project site, then Public Resource Code 5097.9 as well as Health and Safety Code Section 7050.5 shall be followed. C. Human remains and grave/burial goods shall be treated alike per California Public Resources Code section 5097.98(d)(1) and (2). D. Preservation in place (i.e., avoidance) is the preferred manner of treatment for discovered human remains and/or burial goods. E. Any discovery of human remains/burial goods shall be kept confidential to prevent further disturbance.	Significant	Applicant/City of Redlands	Ground-Disturbing Activities; and during ground-disturbing activities



12.0 RECIPIENTS OF THE DRAFT PEIR

This section includes a list of agencies, organizations, and individuals to whom notification of preparation (NOP) of the Draft EIR was sent. A copy of the NOP and agency distribution list is provided in **Appendix A4** to this PEIR.

12.1 Agencies and Organizations

- Patricia Garcia-Plotkin, THPO, Agua Caliente Band of Cahuilla
- Jeff Grubbe, Chairperson, Agua Caliente Band of Cahuilla
- Andrew Salas, Chairman, Gabrieleno Band of Mission Indians – Kizh Nation
- Ann Brierty, THPO, Morongo Band of Mission Indians
- Charles Martin, Chairperson, Morongo Band of Mission Indians
- Joseph Ontiveros, THPO, Soboba Band of Luiseno Indians
- Isaiah Vivanco, Chairperson, Soboba Band of Luiseno Indians
- Michael Mirelez, Cultural Resources Coordinator, Torres Martinez Desert Cahuilla Indians
- Thomas Torez Jr., Chairperson, Torres Martinez Desert Cahuilla Indians
- Alexandra McCleary, Ph.D., Yuhaaviatam of San Manuel Nation
- Clerk of the Board of Supervisors, San Bernardino County
- San Bernardino Valley Municipal Water District
- K. Watkins, Planning Manager, San Bernardino County Land Use Services Department
- County of San Bernardino Public Works Department – Traffic Division
- Supervising Planner, San Bernardino County Flood Control District
- Steve Smith, Planning Director, San Bernardino County Transport Authority
- South Coast Air Quality Management District
- K. Morse, Facilities Planning, Redlands Unified School District
- Anna Jaiswal, Development Planning Manager, Omnitrans
- Water Quality Control Board
- Kelly Lucia, Planning Manager, City of Calimesa Community Development Department
- City of San Bernardino, Community and Economic Development Department
- Western Heights Water Company
- Redlands Airport Association
- Evan Sanford, President, Redlands Chamber of Commerce
- Fermin Preciado, Director, City of Yucaipa, Community Development Department
- San Bernardino Valley Water Conservation District



- Southern California Edison Service Planning Department
- City of Loma Linda Community Development Department
- Riverside County Planning Department
- Arnold San Miguel, SCAG Regional Office
- Jessica Mauck, San Manuel Band of Mission Indians
- Southern California Gas Co. Planning Department
- Verizon Communications Planning and Construction Department
- Kaiser Foundation Hospitals
- Lit Industrial Limited Partnership
- CLPF- Redlands Business Center
- Watson Land Company
- Ashley Furniture Industries Inc.
- BCI-OEF Redlands DC LP
- Teachers Insurance and Annuity Association
- CRP/NPP Redlands Industrial Owner, LLC
- Andrew Green, Cultural Resource Analyst, Native American Heritage Commission
- Sam Wang, Program Supervisor, CEQA IGR Planning
- Nancy J. Sansonetti, Supervising Planner, Environmental Management Division, San Bernardino County Department of Public Works

12.2 Individuals (Owners)

There were no known individuals who were interested in the development of the proposed project and would be notified of any project documents that are circulated to the public.



12.3 Commenters Who Commented During the Initial Study Public Review Period and Provided Their Contact Information

The following are individuals who commented during Initial Study public review period. These individuals will be notified of any project documents that are circulated to the public.

Appendix A4 includes a comment matrix identifying environmental issues addressed in each comment letter.

No.	Commenters	Designation	Organization/ Company	Contact Info
				Email/Phone Number
1	Andrew Green	Cultural Resource Analyst	Native American Heritage Commission	Andrew.Green@NAHC.CA.gov
2	Sam Wang	Program Supervisor	South Coast Air Quality Management District	swang@aqmd.gov
3	Michael Fam	Engineering Manager	San Bernardino County Department of Public Works	(909) 387-8120
4	Anthony Fam, P.E.	Engineering Manager	San Bernardino County Department of Public Works	(909) 387-8186